VOLUME II

West Pasco County Class I Landfill Cell A-4 Construction

Certification of Construction Completion and Quality Assurance Documentation

Pasco County

December 2010

www.cdm.com

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Southwest District
DEC 22 2010
Protection
Dept. of Environmental

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 37,887 sf.

PANEL NUMBERS: S177 to S199 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA & ASSOCIATES

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, Heriberto Martinez, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 07-08-10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	07-08-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPER	7/8/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	7-8-10

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 26,741 SF

PANEL NUMBERS: S.159 TO S.176 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA & ASSOCIATES

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, ARNULFO MARTINEZ, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 05-13-10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	05-13-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPT	5/13/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
John C. McGill III	RPR	5-13-10

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 38 763 s/

PANEL NUMBERS: S145-TO-S158 GRADE ACCEPTANCE: INSPECTOR:

GENERAL CONTRACTOR: BIPA & ASSOCIATES

OWNER:

AUTHORIZED REPRESENTATIVE:

The undersigned, ARNULFO MARTINEZ, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 05-12-2010 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	05-12-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPER	5/12/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	5-12-10

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 102 269 sf

PANEL NUMBERS: S-129 TO S-144 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA & ASSOCIATES

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, [illegible], certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 05-11-2010 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	05-11-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	Foreman	5/11/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	5-11-10

COMANCO

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

OJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

CATION: Spring Hill, FL 34610

EA ACCEPTED: 93,581 S.F.

NEL NUMBERS: S-112 TO S-128 GRADE ACCEPTANCE: INSPECTOR:

NERAL CONTRACTOR: BIBA & ASSOCIATES

NER:

THORIZED REPRESENTATIVE:

undersigned, ARNULFO MORTAR certifies the he/she is a representative of COMANCO Corporation authourized to execute this ificate, that he/she has visually inspected the subgrade surface above on 05-04-2010 and found the surface to be acceptable for installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist on the surface of the subgrade.

THORIZED REPRESENTATIVE OF COMANCO CORPORATION:

NATURE	TITLE	DATE
	SUP.	05-04-2010

THORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

NATURE	TITLE	DATE
	Sup	5/4/2010

NER'S REPRESENTATIVE:

NATURE	TITLE	DATE
	R.P.R	5/4/2010

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 58779 sf.

PANEL NUMBERS: S-102 - S111 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned Reuben Martinez, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04.16.10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP+	4.16.10

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	Super	4/16/10

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-16-10

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 109,992

PANEL NUMBERS: S87 - S102 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, HERNANDO HERNANDEZ certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04.15.10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	04.15.10

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPT	4/15/10

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-15-10

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CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 102, 308 sf.

PANEL NUMBERS: S-71 TO S-86 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, ARNULFO MARTINEZ, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04-14-10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	04-14-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPT	4/14/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-14-10

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 97,784 S/.

PANEL NUMBERS: S-57 to S-70 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, ARNULFO MARTINEZ certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04.12.10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	04.13.2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPER	4/13/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-13-10

COMANCO

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 102,360 s.f.

PANEL NUMBERS: S-39 TO S-56 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: Rilla

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, Ronald Martin certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04-12-10 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	04-12-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	Supt	4/12/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-12-10

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CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 28589

PANEL NUMBERS: S35 - S.38 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA & ASSOCIATES

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, Heriberto Martinez certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 4.09.2010 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	SUP.	04.09.2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	Super	4/9/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-9-2010

CERTIFICATE OF SUBGRADE SURFACE ACCEPTANCE

INSTALLER: COMANCO CORPORATION

PROJECT NAME: West Pasco County Class I Landfill Ash Cell A-4 PROJECT NO.: 03083171

LOCATION: Spring Hill, FL 34610

AREA ACCEPTED: 49 489 sf

PANEL NUMBERS: 1 - 534 GRADE ACCEPTANCE: INSPECTOR: _____

GENERAL CONTRACTOR: RIPA & ASSOCIATES

OWNER: _____

AUTHORIZED REPRESENTATIVE: _____

The undersigned, ARNULFO MARTINEZ, certifies the he/she is a representative of COMANCO Corporation authourized to execute this certificate, that he/she has visually inspected the subgrade surface above on 04-08-2010 and found the surface to be acceptable for the installation of the membrane. This certification is based on observation of the surface of the subgrade only. No subsurface inspections or tests have been performed and COMANCO Corporation makes no representations or warranties regarding conditions which may exist below the surface of the subgrade.

AUTHORIZED REPRESENTATIVE OF COMANCO CORPORATION:

SIGNATURE	TITLE	DATE
	S.R.	04-08-2010

AUTHORIZED REPRESENTATIVE OF EARTHWORK CONTRACTOR:

SIGNATURE	TITLE	DATE
	SUPT	4/5/2010

OWNER'S REPRESENTATIVE:

SIGNATURE	TITLE	DATE
	RPR	4-8-2010

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-8-10		Area: East Berm		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	324 326	150	15	Start NE Corner ± 75' Pull s
	353 419			work South
	342 391			
	494 343			
	296 292			
	310 293			
	300 289			
	333 547			
	295 344			
	320 415			
	352 361			
	405 370			Finish South Berm
	396 387			all Rolls start with 00000
Total SQ. FT. placed today:		52,831		
Total SQ. FT. placed to date:		52,831		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-9-10		Area: EAST FLOOR 70'-120'		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	297	150		Start SE Corner and work
	384			North / 70' W
	437			
	323			
	~~389~~			
	481			SE CORNER / ~ 85' W
	312			
	449			
	484			
	481			
	317			SE CORNER / ~ 100' W
	426			
	480			
	476			
	285			
Total SQ. FT. placed today:		~~36,000~~ 30,016		
Total SQ. FT. placed to date:		~~94,500~~ 82,847		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-12-10 | Area: EAST FLOOR | Material: GCL

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	537	150	15 ~~1357~~	START SE CORNER ~ 120' W
*	485			AND WORK NORTH
	498			
	410			
	501			
	452			SE CORNER / ~ 135' W
	492			
	503			
	508			
	540			
	434			SE CORNER / ~ 150' W
	376			
	542			
	440			
	474			
	284			SE CORNER / ~ 165' W
	541			
	313			
	502			
	351			
	479			SE CORNER / ~ 180' W
	279			
	359			
	366			
	341			
	518			S. END / ~ 195' W
	338			
	382			
	334			
	478			
	395			S. END / ~ 200' W
	280			
	457			
	531			
	436			

Total SQ. FT. placed today: _____

Total SQ. FT. placed to date: _____

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-12-10		Area: ~~Liner~~ EAST FLOOR		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	475	180	15~~7~~	SOUTH ANCHOR TRENCH
	327			~ 215' W
	311			
	318			
	329			
	378			S. END / ~ 230' W
	328			
	373			
	375			
	287			
	303			S. END. / ~ 245' W
	287			
	303			
	287			
	350			
	304			S. END / ~ 260' W
	371			
	380			
	283			END N. BERM / ~ 275' W
Total SQ. FT. placed today:		108,665		
Total SQ. FT. placed to date:		191,512		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-13-2010 | Area: EAST FLOOR (275'W - 455'W) | Material: GCL

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	456	150	15	SOUTH ANCHOR TRENCH / ~~275'W~~
	424			
	464			
	407			
	331			
	406			
	676			
	534			
	432			
	286			
	271			
	337			SECOND ROW / SOUTHERN HALF
	544			~~[illegible]~~
	308			
	649			
	633			
	505			
	659			
	472			
	422			
	545			
	340			
	363			CENTER ROW
	317			
	315			
	302			
	634			
	662			
	408			
	675			
	264			
	268			
	263			
	528			SECOND ROW / NORTHERN HALF
	525			
	650			
	358			
Total SQ. FT. placed today:				
Total SQ. FT. placed to date:				

83,750

5 of 14

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-13-2010 | Area: EAST FLOOR | Material: GCL

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	364			SECOND ROW / NORTHERN HALF
	282			
	274			
	322			
	265			
	428			
	354			
	278			NORTH ANCHOR TRENCH
	335			~~PANEL~~
	~~358~~ 363			~~PANEL~~
	259			
	314			

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-14-10		Area: Floor 420'-580' West		Material: GCL
				all Panels Run N-S
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	661 600			Working West on S. Berm
	616 438			
	603 621			
	639 617			
	635 590			
	667 663			
	631 682			Floor Working West N. of S. Panels
	549 561			
	552 660			
	560 629			
	644 580			
	530 646			
	595 613			Middle Floor working west
	572 592			
	630 571			
	551 548			
	615 601			
	523 533			
	357 291			North Floor working West
	301 355			
	336 421			
	257 306			
	444 569			
	554 490			
	602 612			North Berm cut + fit East to West
	567 625			
	608 599			
	637			
				Fold back excess at the end of the day
Total SQ. FT. placed today:			104,422	
Total SQ. FT. placed to date:			396,113	

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-15-10 | Area: Floor 580'-730' West | Material: GCL

all Panels Run N-S

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	546 627			Working West on S. Berm
	596 587			
	643 524			
	558 488			
	557 588			
	526			
	529 666			Floor working West N. of S. Panels
	636 686			
	687 655			
	585 641			
	577 607			
	610			
	570 305			Middle Floor working West
	515 539			
	500 512			
	262 477			
	483 566			
	573			
	568 495			North Floor working West
	482 491			
	450 463			
	499 509			
	462 597			
	614			
	275 307			North Berm cut + fit
	467 447			East to West
	316 563			
	298			

Total SQ. FT. placed today: 99,027

Total SQ. FT. placed to date: 495,140

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-16-2010 | Area: (738' WEST) - 825' W CENTRAL/WEST FLOOR | Material: GCL

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	497 586	150'	15'	S. BERM
	648 679			"
	678 583			"
	582 575			SOUTHERN FLOOR
	611 606			
	589 605			
	632 593			CENTER FLOOR
	636 673			
	565 591			
	506 556			NORTHERN FLOOR
	475 507			
	604 671			
	626 576			N. BERM .. PARTIAL ROLLS
	579			USED TO COMPLETE ROW.

Total SQ. FT. placed today: 61,880

Total SQ. FT. placed to date: 557,020

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 5-4-2010		Area: (825'W - 980'W) WEST FLOOR		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	466 469			SOUTH ANCHOR TRENCH
	390 587			
	562 496			
	439 532			
	416 493			
	459 460			FLOOR-SOUTH
	553 461			
	427 398			
	332 454			
	443 510			
	397 453			FLOOR-CENTER
	514 347			
	290 418			
	346 356			
	448 319			
	325 423			
	516 320			FLOOR-NORTH
	294 385			
	309 288			
	348 455			
	383 386			
	451 330			NORTH ANCHOR TRENCH
	260 (1/2) 521			825'W - 980'W
	519 555			
	436 261			
Total SQ. FT. placed today: 104,423				
Total SQ. FT. placed to date: 661,443				

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 5-11-2010 | Area: (943'W - 1095'W) WEST FLOOR | Material: GCL

Panel No.	Factory Roll No.		Length	Width	Comments/Location
	465	412			SOUTH ANCHOR TRENCH
	470	514			
	594	513			
	543	574			
	559	578			
	645	674			SOUTH FLOOR
	665	520			
	647	622			
	653	640			
	664	667			
	668	683			
	652	669-654			CENTER FLOOR
	651	425			
	522	681			
	624	688			
	642	584			NORTH FLOOR
	281	530			
	527	277			
	628	657			
	536	658			
	431	656			NORTH ANCHOR TRENCH
	670	609			
	433	623			
	619	685			
	435				Partial

Total SQ. FT. placed today: 104,423

Total SQ. FT. placed to date: 765,886

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 5-12-2010 | Area: 1097'N - SOUTHWEST CORNER | Material: GCL

Panel No.	Factory Roll No.		Length	Width	Comments/Location
	489	429			SOUTH WEST CORNER
	535	299			1097'N FLOOR / SOUTH ANCHOR TRENCH
	684	538			SOUTH ANCHOR TRENCH
	442	411			SOUTH ANCHOR TRENCH
	400	369			FLOOR 470' - 620'N
	393	379			"
	445	441			"
	417	420			FLOOR 320'N - 470'N
	620	458			"
	388	360			"
	404	377			FLOOR 320'N - 470'N

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 5-13-10		Area: WEST SIDE		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	394			SW CORNER - WEST ANCHOR TRENCH
	345			WEST ANCHOR TRENCH
	381			WEST ANCHOR TRENCH
	392			WEST ANCHOR TRENCH
	401			WEST ANCHOR TRENCH
	399			WEST ANCHOR TRENCH
	374			WEST ANCHOR TRENCH
	365			WEST ANCHOR TRENCH
	362			WEST FLOOR
	349			WEST FLOOR
	403			WEST FLOOR
	372			WEST FLOOR
	442			WEST FLOOR
				"

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 7-8-10		Area: NW corner		Material: GCL
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	367	Vary 2	14'	100' - 155'E / 337' SOUTH
	402	pieces		
	736	each roll		Center of West slope deploy
	727			panels E-W and work
	740			NORTH to N. Berm,
	742			then pull panels N-S
	743			to the east until
	732			cell floor is covered.
	733			
	728			
	735			
	726			
	741			
	739			
	730			
	738			
	737			
	729			
	731			
	045	Multiple		
	043	pieces		
Total SQ. FT. placed today: 42,968				
Total SQ. FT. placed to date: 876,173 Includes				overlaps and overcalculations.

Total in-place with anchor should be 854,476 SF.

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 4-8-10 | Area: NE Corner | Material: 60M.I HDPE Text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S1	108150743	72'	18' + anchor	North Panel on East Slope
S2	743	72'	22.3	South of S1
S3	743	72'		South of S2
S4	743	71'		"
S5	743	71'		"
S6	743	71'		"
S7	743	67'		Partial Slope area
S8	0752	4'		Partial Toe area
S9	752	71'		
S10	752	72'		
S11	752	73'		
S12	752	76'		
S13	752	76'		
S14	752	77'		
S15	752	77'		Partial Floor area
S16	0755	76'		Partial Slope area
S17	755	76'		
S18	755	76'		
S19	755	75'		
S20	755	75'		
S21	755	75'		
S22	755	74'		
S23	0763	74'		
S24	763	73'		
S25	763	73'		
S26	763	73'		
S27	763	73'		
S28	763	72'		
S29	763	56'		Partial East
S30	0750	16'		Partial West
S31	750	72'		
S32	750	73'		
S33	750	73'-89'	22.3	Around old Corner A-3
S34	750	89'-101'		

47,117

Total SQ. FT. placed today: 52,831.

Total SQ. FT. placed to date: 52,831

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 4-9-10		Area: East + Floor 70-120' west		Material: 60 Mil HDPE Text
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
535	108150732	517'	22.3'	South 2/3 of Floor W. of E. Slope Panels
536	0751	156'	"	±70' to 120' West
537	0751	338'	"	S Half
538	0749	335'	"	N Half

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 4-12-10 | Area: East Floor 120' west | Material: 60Mil HDPE Text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S39	0745	523' ~~523~~ 528'	22.1'	START 9:50 / SOUTH ANCHOR TRENCH
S41				
S40	~~0750~~	113'		N. POST
S43	50747	478'		South
S45	0748	29'		↓
S44	507	39'		↓
S42	0749	129'		North
S46	0748	490'		Floor + South
S47	0746	185'		N. end
S48	0746	350' ~~350~~ 350'		South half
S49	0761	325'		North half
S50	0761	167'		SOUTHERN ~~HALF~~ end
S51	0766	508'		NORTHERN ~~HALF~~
S52	0764	521'		SOUTHERN ~~HALF~~
S54	0735	154'		NORTHERN ~~HALF~~
S53	0754	515'		SOUTHERN HALF
S55	0735	160'		NORTHERN HALF
S56	0735	192'		NORTHERN HALF
S41	0749	39'		Between S39 + S40

Total SQ. FT. placed today: 108,665

Total SQ. FT. placed to date: 191,512

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 4-13-2010 | Area: EAST (275'W - 420'W) FLOOR | Material:

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S-57	0733	483'	22.1'	Floor + South from S 56
S-58	0762	519'		Floor + South
S-59	0753	156'		N. End
S-60	0753	359'		S Half
S-61	0739	316'		N. Half
S-62	0739	198		S. End
S-63	0756	477'		North + Floor
S-64	0756	33'		N. Toe/Berm
S-65	0742	120'		N. Floor
S-66	0759	522'		Floor + South
S-67	0742	402'		S. 2/3
S-68	0740	273'		N. 1/3
S-70	0740	232'		S.
S-69	0731	443'		N.

Total SQ. FT. placed today: 100,179

Total SQ. FT. placed to date: 291,691

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 4-14-10 | Area: Central 420'W x 580' Floor | Material: 60M.I HDPE Text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S71	0741	521'	22.1'	South Berm + Floor
S72	0975	154'		N. End
S73	0975	162'		N. End
S74	0757	513'		S. Berm + Floor
S75	0736	522'		S. Berm + Floor
S76	0975	153'		N. End
S77	0975	33'		S. Berm
S78	0737	525'		Floor
S79	0946	117'		N. End
S80	0946	155'		N. End
S81	0774	520'		S. Berm + Floor
S82	0773	436'		S. Berm + Floor
S83	0946	239'		N. section
S84	0731	73'		N. end
S85	0970	527'		Floor
S86	0773	75'		S. End

Total SQ. FT. placed today: 104,422

Total SQ. FT. placed to date: 396,113

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 4-15-10 | Area: Central Floor | Material: 60 Mil HDPE Text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S-87	0967	517'	22.1'	S. Berm + Floor
S-88	0568	158'		N. End
S-89	0568	168'		N. End
S-90	0973	507'		S. Berm + Floor
S 91	0964	518'		S. Berm + Floor
S 92	0568	157'		N. End
S 93	0568	25'		N. Berm
S 94	0744	145'		N. Floor
S 95	0775	505'		S Berm + Floor
S 96	0977	301'		S Berm + ½ Floor
S 97	0744	374'		½ Floor + N Berm
S 98	0974	456		~~S Berm~~ + Floor to N. END
S 99	0977	210'		~~S~~ S. END
S 100	0971	518'		~~S~~ S. END + FLOOR
S 101	0769	110'		FLOOR
S 102	0974	48'		N. END.

Total SQ. FT. placed today: 104,245

Total SQ. FT. placed to date: 500,358

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log SECONDARY

Date: 4-16-2010		Area: (738' WEST) - 825' W CENTRAL		Material: 60 MIL HDPE TEXT
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
S103	0772	268'	22.1	N. Berm + Floor
S104	0769	407'		S. Berm + Floor
S105	0972	349'		S. Berm
S106	0976	426'		Floor + N. Berm
S107	0772	130'		N. Berm
S108	0765	460'		Floor
S109	0976	85'		S. Berm
S110	0771	522'		S. Berm + Floor
S111	0772	153'		N. Berm

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 5-4-2010 | Area: (825'W - 980'W) WEST FLOOR | Material: 60 MIL HDPE TEXT

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S-112	0758	489'	22.1	SOUTH ANCHOR TRENCH 825'W / 186'-675'S
S-113	0980	186		NORTH ANCHOR TRENCH/186'S-0'S
S-114	1030	522'		SOUTH ANCHOR TRENCH 847'W / 153'-675'S
S-115	0980	153		NORTH ANCHOR TRENCH/0'-153'S/847'W
S-116	0758	25'		SOUTH ANCHOR TRENCH 869'W / 650'-675'S
S-117	1021	523'		FLOOR 127'-650'S
S-118	0980	127		NORTH ANCHOR TRENCH 0'-127'S
S-119	1029	520'		SOUTH ANCHOR TRENCH 155'-675'S
S-120	0979	155'		NORTH ANCHOR TRENCH 0'-155'S
S-121	0980	44'		SOUTH ANCHOR TRENCH 631-675'S
S-122	0941	523'		FLOOR 108'S-631'S
S-123	0979~~0965~~	108'		NORTH ANCHOR TRENCH 0'-108'
S-124	0965	523'		SOUTH ANCHOR TRENCH 152'-675'
S-125	0979	152		NORTH ANCHOR TRENCH 0'-152'
S-126	0979	76'		SOUTH ANCHOR TRENCH 599'-675'
S-127	0966	523'		FLOOR 76' - 599'S
S-128	0990	76'		NORTH ANCHOR TRENCH 0'-76'S

Total SQ. FT. placed today: 104,423

Total SQ. FT. placed to date: 666,661

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 5-11-2010		Area: (943'W - WEST FLOOR		Material: 60 MIL HDPE TEXT
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
S-129	0959	510'	22.1'	SOUTH END 165'-675's
S-130	0953	520'		SOUTH END 155'-675's
S-131	0950	511'		SOUTH END 164'-675's
S-132	0957	522'		SOUTH END 153'-675's
S-133	0955	482'		SOUTH END 193'-675's
S-134	0955	44'		SOUTH END 631'-675's
S-135	0565	516'		FLOOR 115'-631's
S-136	0958	526'		SOUTH END 149'-675's
S-137	0586	165'		NORTH END 0'-165's
S-138	0586	155'		NORTH END 0'-155's
S-139	0601	164'		NORTH END 0'-164's
S-140	0601	153'		NORTH END 0'-153's
S-141	0601	193'		NORTH END 0'-193's
S-142	0601	111'		NORTH END 0'-111's
S-143	0990	4'		FLOOR 111'-115's
S-144	0990	149'		NORTH END 0'-149's
Total SQ. FT. placed today: 104,423				
Total SQ. FT. placed to date: 771,084				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 5-12-2010 | Area: 1097'W - SOUTHWEST | Material: 60 MIL HDPE TEXT

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S-145	0588	364'	22.1	SOUTH END /1097'W/ 311' - 675's
S-146	0588	155'		SOUTH END 520's - 675's
S-147	0592	209'		FLOOR 311' - 520's
S-148	0592	304'		SOUTH END 371' - 675's
S-149	0569	57'		FLOOR 314' - 371'
S-150	0569	359'		SOUTH END 316' - 675's
S-151	0569	64'		SOUTH END 611's - 675's
S-152	0567	64'		SOUTH END 611' - 675's
S-153	0567	64'		SOUTH END 611' - 675's
S-154	0567	64'		SOUTH END 611' - 675's
S-155	0567	39'		SOUTHWEST CORNER 636' - 675
S-156	0569	147 SQ. FT.		SOUTHWEST CORNER 18 ☑ 16
S-157	0567	16'-44'	22.1	SOUTHWEST CORNER 0' - (16'-44') EAST
S-158	0567	44-58'	22.1	WEST END 0' - (44'-58') EAST

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log SECONDARY

Date: 5-13-2010		Area: WEST		Material: 60 MIL HDPE TEXT
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
S-159	0567	198'	22.1-18'	WEST FLOOR 413's -- 611's
S-160	0951	87'	0'-18'	(PARTIAL) WEST FLOOR 326's - 413's
S-161	0951	175'	0'-22.1	(PARTIAL) WEST FLOOR 436' - 611'
S-162	0590	56'	0'-11'	(PARTIAL) WEST FLOOR 555' - 611'
S-163	0951	304	22.1	WEST FLOOR 321' - (Diagonal) -
S-164	0566	46'	22.1	WEST ANCHOR TRENCH / 610's / 0'-46'E
S-165	0566	46'	22.1	WEST ANCHOR TRENCH 0'-46'E
S-166	0566	46'	22.1	"
S-167	0566	46'	22.1	"
S-168	0566	46'	22.1	"
S-169	0566	46'	22.1	"
S-170	0566	46'	22.1	"
S-171	0566	45'	22.1	WEST ANCHOR TRENCH 0'-45'E
S-172	0566	45'	22.1	"
S-173	0566	45'	22.1	"
S-174	0590	45'	22.1	"
S-175	0590	45'	22.1	"
S-176	0590	45'	22.1	WEST ANCHOR TRENCH / 320's / 0'-45'E
Total SQ. FT. placed today:		26,885		
Total SQ. FT. placed to date:		838,423		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 7-8-2010 | Area: 0'-320's NW Corner | Material: 60 mil HDPE text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
S-177	1031505774	70'-90'	5'-22'	0'E-90'E / 320's-298's
S-178	50574	155'	22'	0'E - 155'E
S-179	50574	153'	22'	0'E - 153'E
S-180	50574	22'	0'-5'	90'E - 112'E
S-181	50574	104'	22'	0'E - 104'E
S-182	50562	40'	22'	104'E - 144'E
S-183	50562	142'	22'	0'E - 142'E
S-184	50562	137'	22'	0' - 137'E
S-185	50562	133'	22'	0'-133'E
S-186	50562	64'	22'	0'- 64'E
S-187	50577	66'	22'	64'- 130'E
S-188	50577	124'	22'	0'- 124'E
S-189	50577	121'	22'	0'- 121'E
S-190	50577	118'	22'	0'- 118'E
S-191	50577	82'	22'	0'- 82'E
S-192	50570	31'	22'	82'- 113'E
S-193	50570	109'	22'	0'- 109'E
S-194	50570	99'	22'	0'- 99'E
S-195	50570	12-32'	22'	NW CORNER
S-196	50570	12'	5'	NW CORNER
S-197	50570	29'	22'	Northside / 0-29's / 32'-54'E
S-198	50570	30'	22'	0-30's / 54'-76'E
S-199	50570	30'	22'	0-30's / 76'-98'E

Total SQ. FT. placed today: 41,223

Total SQ. FT. placed to date: 879,646

actual total area per survey is approximately 853,542 SF.

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log Primary

Date: 4-28-2010 Area: COW EAST FLOOR/SLOPE Material: 60 MIL HDPE TEXT

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P-1	10815 0772	~~73'~~ 72'	22.1'	START NE CORNER ON
P-2	0772	72'		SLOPE / EAST-WEST RUNS
P-3	0772	66'		WORKING SOUTH. 41's
P-4	0555	6'		41's
P-5	0555	72'		~~41's~~ 62's
P-6	0555	72'		84's
P-7	0555	72'		106's
P-8	0555	72'		128's
P-9	0555	72'		150's
P-10	0555	72'		
P-11	0555	72'		
P-12	0986	72'		
P-13	0986	79'		
P-14	0986	79'		
P-15	0986	77'		
P-16	0986	77'		
P-17	0986	76'		
P-18	0986	49'		
P-19	~~0978~~	26'		
P-20	0978	75'		
P-21	0978	74'		
P-22	0978	74'		
P-23	0978	74'		
P-24	0978	74'		
P-25	0978	74'		
P-26	0982	74'		
P-27	0982	74'		
P-28	0982	74'		
P-29	0982	72'		
P-30	0982	72'		
P-31	0982	76'		
P-32	0982	54'-66'		
P-33	1032	72'		
P-34	1032	88'-106'		END AT SOUTH ANCHOR TRENCH
P-35	1033	520'		106' W / SOUTH ANCHOR TRENCH
P-36	0554	155'		N. END / 72' W / 0'-155's
P-37	0554	356'		N. END / 94' W / 0'-356's
Total SQ. FT. placed today:		—		
Total SQ. FT. placed to date:		—		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 4-28-10		Area: EAST FLOOR		Material: 60 mil HDPE TEXT
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
P38	1032	319'	22.1	Floor to S. Anchor Trench 358's - 675's
P-39	1032	48'		South end / 150'w / 627'-675's
P-40	1031	525'		Floor - / 150'w / 102'-627's
P-41	0983	520'		South end / 172'w / 155'-675's
P-42	0985	102'		North end / 150'w / 0'-102's
P-43	0985	155'		North end / 172'w / 0'-155's
P-44	0985	164'		North end / 194'w / 0'-164's
P-45	1018	511'		South end / 194'w / 164'-675's

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 04/29/10 | Area: East Floor 190' WEST | Material: 60Mil HDPE text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P-46	0985	75	22.1'	South Berm, West of P-45
P-47	0969	520		North of P-46
P48	1024	82		N. of P47
P50	0968	519		South Berm, West of P47
P49	1021	158		North of P-50
P51	1021	190		West of P49
P52	0981	487		South Berm, West of P-50
P55	1022	512		South Berm, West of P-52
P54	1021	~~1676~~		North of P55
P-53	0992	95		North of P54
P57	1017	523		North of P-58
P-56	0992	133		North of P-57
P-59	0987	423		South Berm, West of P58/P57
P-60	0992	153		North of P59
P-58	0981	17		South Berm, West of P-55
P-61	0992	131		North of P62
P-62	0952	61		North of P63
P-63	1019	484		South Berm, West of P54
P-64	1020	423		South Berm, West of P63
P-65	0952	153		North of P64
P66	1019	33		South Berm, West of P64
P67	1027	521		North of P66
P68	0952	122		North of P67
P69	0952	153		North of P-70
P70	0770	522		South Berm, West of P-66
P71	0557	~~160~~ 516		South Berm, West of P70
P72	0951	160		North of P71
P73	0959	152		North of P74
P74	0948	524		South Berm, West of P-71
P75	0995	479		South Berm, West of P74
P76	0951	193		North of P75
		8580		
Total SQ. FT. placed today:		189,618		
Total SQ. FT. placed to date:		~~314,930~~ 315,522		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 4-30-10 | Area: CENTER (465'-640'W) | Material: 60 mil HDPE text

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P-77	0956	151'	22.1'	North Anchor Trench 0'-151's
P-78	1028	524'		South Anchor Trench 151'-675's
P-79	0995	21'		South Anchor Trench 654's-675's
P-80	0989	526'		Floor 128's-654's
P-81	0956	128'		North Anchor Trench 0'-128's
P-82	1023	521'		South Anchor Trench 154's-675's
P-83	0956	154'		North Anchor Trench 0'-154's
P-84	1034	514'		South Anchor Trench 161'-675's
P-85	0956	61'		Floor 100's-161's
P-86	1025	100'		North Anchor Trench 0'-100's
P-87	1025	158'		North Anchor Trench 0'-158's
P-88	1035	517'		South Anchor Trench 158's-675's
P-89	0994	493'		Floor to S. Anchor Trench 182'-675's
P-90	1025	182'		North Anchor Trench 0'-182's
P-91	0981	88'		North Anchor Trench 0'-88's
P-92	1025	69'		Floor 88's-157's
P-93	0768	518'		South Anchor Trench 157'-675's
P-94	0994	28'		South Anchor Trench 647'-675's
P-95	0760	511'		Floor 136's-647's
P-96	0981	136'		North Anchor Trench 0'-136's

Total SQ. FT. placed today: 119,340

Total SQ. FT. placed to date: 434,862

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log PRIMARY

Date: 5-10-2010 Area: (640'W-901'W) WEST FLOOR Material: 60 MIL HDPE TEXT

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P-97	10815 -1026	519'	22.1	SOUTH END 156'-675' / 640'W
P-98	0981	156'		NORTH END 0'-156's
P-99	0991	484'		SOUTH END 191'-675'
P-100	0734	86'		FLOOR 105's-191's
P-101	0556	105'		NORTH END 0'-105's / 662'W
P-102	0734	154		NORTH END 0'-154's 684'W
P-103	0556	521'		SOUTH END 154's-675's
P-104	0734	127'		NORTH END 0'-127's
P-105	0767	520'		FLOOR 127'-647's
P-106	0991	28'		SOUTH END 647'-675's
P-107	0993	520'		SOUTH END 155'-675's
P-108	0963	17		FLOOR 138'-155's
P-109	0734	138'		NORTH END 0'-138's
P-110	0963	165'		NORTH END 0'-165's
P-111	0960	510'		SOUTH END 165's-675's
P-112	0962	524'		SOUTH END 151'-675's
P-113	0963	151'		NORTH END 0'-151's
P-114	0963	143'		NORTH END 0'-143's
P-115	0942	43'		FLOOR 143'-186'
P-116	0947	489'		SOUTH END 186'-675's
P-117	0942	478'		SOUTH END 197'-675's
P-118	0961	197'		NORTH END 0'-197's
P-119	0961	153'		NORTH END 0'-153's
P-120	0996	522'		SOUTH END 153'-675's
P-121	0942	29'	9	SOUTH END 646'-675's
P-122	0738	521'		FLOOR 125'-646's
P-123	0961	125'		NORTH END 0'-125's
P-124	0949	524'		SOUTH END 151'-675'
P-125	0990	151'		NORTH END 0'-151'
Total SQ. FT. placed today: 179,010				
Total SQ. FT. placed to date: ~~601,927~~ 613,872				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log PRIMARY

Date: 5-18-10 | Area: (901'W – 1055'W) WEST FLOOR | Material: 60 MIL HDPE TEXT

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P-126	0944	511'	22.1	~901'W/ South End / 164's - 675's
P-127	0940	516'	22.1	South End / 923'W / 159' - 675's
P-128	0585	479'		South End / 945'W / 196' - 675's
P-129	0602	518'		South End / 967'W / 157' - 675's
P-130	0585	39'		South End / 989'W / 636' - 675's
P-131	0607	520'		Floor / 989'W / 116' - 636's
P-132	0945	164'		North End / 901'W / 0' - 164's
P-133	0945	159'		North End / 923'W / 0' - 159's
P-134	0601	39'		North End / 945'W 10' - 39's
P-135	0945	157'		Floor / 945'W / 39's - 196'
P-136	0988	157'		North End / 967'W / 5' - 157's
P-137	0988	116'		North End / 989'W / 0' - 116'
P-138	0988	235'		North End / 1011'W / 0' - 235'
P-139	0604	440'		South End / 1011'W / 235' - 675's
P-140	0604	78'		South End / 1033'W / 597' - 675's
P-141	0589	522'		Floor / 1033'W / 75' - 597's
P-142	0590	75		North End / 1033'W / 0' - 75's

Total SQ. FT. placed today: 104,423

Total SQ. FT. placed to date: ~~706,344~~ 718,294

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 6-11-10 | Area: West Berm South | Material: primary 60 Mil Text HDPE

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P160	108150580	45'	22'3'	I 0800 280' North of S. end
P161	580	45'		S. of P160
P162	580	44'		S. of P161
P163	580	44'		"
P164	580	44'		"
P165	580	44'		"
P166	580	44'		"
P167	580	44'		"
P168	580	44'		"
P169	560	44'		"
P170	560	43'		"
P171	560	43'	↓	"
P172	560	43'-16'	22'-3'	" start Pie cut
P173	560	16'-14'	14'	
P175	560	39'-20'	22'-0'	
P174	560	10'	6'-0'	Cap

Total SQ. FT. placed today: 12,552

Total SQ. FT. placed to date: 813,413

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log PRIMARY

Date: 7-14-10 | Area: NW CORNER | Material: 60 MIL HDPE LINER

Panel No.	Factory Roll No.	Length	Width	Comments/Location
P176	50561	50'	22.1	West side / 0'-50'E / 373's
P-177	50561	64'	22.1	0'-64'E
P-178	50571	70'	22.1	0'-70'E
P-179	50571	8-10'	22.1	64-75'E
P-180	50571	2-3'	22'	351's / 50-72'E
P-181	50571	64'	22.1'	0'-64'E
P-182	50571	59'		0'-59'E
P-183	50571	55'		0'-55'E
P-184	50571	48'		0'-48'E
P-185	50571	46'		0'-46'E
P-186	50571	45'		0'-45'E
P-187	50571	45'		0'-45'E
P-188	50553	149'		0'-149'E
P-189	50553	147'		0'-147'E
P-190	50553	139'		0'-139'E
P-191	50572	65'		0'-65'E
P-192	50553	70'		65'-135'E
P-193	50572	130'		0'-130'E
P-194	50572	124'		0'-124'E
P-195	50572	0'-12'	0-15'	NW CORNER
P-196	50572	15'-29'	15-22.1'	0'-29's /
P-197	50572	30'		0'-30's
P-198	50572	30'		0'-30's
P-199	50572	32'		0'-32's
P-200	50572	32'		0'-32's
P-148	50591	175'	22.1	Unrolled / 164's-339's
P-149	50606	180'		" / 163's-343's
P-150	50603	194'		" / 155's-349's
P-151	50583	195'		" / 156's-351's
P-152	50558	198'	14'-22.1	" / 153's-351's
Total SQ. FT. placed today:		53,819		
Total SQ. FT. placed to date:		867,232		

Existing panels

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Secondary

Date: 4-8-10		Area: NE Corner + South		Material: 60 M.I HDPE Textured
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
S1-S2	DC A075	71'	10:00	800°/13
S2-S3	DC A075	71'	10:15	
S3-S4	SM A052	71'	10:08	800°/8
S4-S5	SM A052	71'	10:17	
S5-S6	SM A052	71'	10:32	
S6-S7/8	SM A052	71'	10:47	
S7-S8 Butt	DC A075	22' Butt	10:35	
S7/8-S9	DC A075	71'	10:38	
S9-S10	DC A075	72'	10:45	
S10-S11	DC A075	74'	10:55	
S11-S12	DC A075	75'	11:05	
S12-S13	RO A047	76'	10:57	750°/8
S13-S14	RO A047	77'	11:10	
S14-S15/16	RO A047	77'	10:38	S15-S16 Butt 22' A052 S.M. 11:10
S15/16-S17	SM A052	77'	11:15	
S17-S18	SM A052	76'	11:30	
S18-S19	DC A075	76'	11:20	
S19-S20	DC A075	76'	11:33	
S20-S21	DC A075	76'	11:45	
S21-S22	DC A075	75'	1:36	
S22-S23	DC A075	75'	1:50	
S23-S24	DC A075	74'	2:00	
S24-S25	DC A075	74'	2:08	
S25-S26	RO A047	74'	1:55	
S26-S27	RO A047	74'	2:11	
S27-S28	RO A047	74'	2:28	
S29-S30 Butt	SM A057	22' Butt	2:16	
S28-S29/S30	SM A057	73'	2:20	
S29/S30-S31	SM A057	73'	2:32	
S31-S32	DC A075	73'	2:30	
S32-S33	DC A075	75'	2:37	
S33-S34	DC A075	89'	2:53	
Total linear FT. welded today: 2,298				Extruded:
Total linear FT. welded to date: 2,298				

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Secondary

Date: 4-9-10 | Area: East Floor 70'-120' west | Material: 60 Mil HDPE text

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
534-523 S35 East Panels	SM A052	237'	11:00	673'—436' Cap 800°/8
521-514 S35 East Panels	SM A052	131'	12:55	413'—282' " "
513-52 S35/536 East Panels	DL A075	282'	1:05	282'—0' 800°/13
S35 S36	DL A075	22' Butt	10:55	" "
S35 S37	DL A075	338'	10:00	673'-335' " "
S38 S36 S35	DL A075	335'	10:40	335'-0' " "
S37 S38	DL A075	22' Butt	10:35	
S21/19 to Exist	CM E061	376'		Ext Tie In 0'-376
S19/34 to Exist	JP E040	304		Ext Tie In 376'-680

Total linear FT. welded today: 2,047 | Extruded: 680'

Total linear FT. welded to date: 4,345

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Secondary

Date: 4-12-10		Area: EAST FLOOR		Material: 60 MIL HDPE text.
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
S37-S39 40	S.M. / WE A052	~~523'~~	10:00	800 / 8
S39 40 - S 43	D.L. / WE A075	478'	10:30	800 / 15
S43 - S 46	R.O. / WE A047	478'	11:05	800 / 8
S39 41 - S 45 44	D.L. / WE A075	68'	11:35	800 / 15
S 41 40 - S42	D.L. / WE A075	129'	11:47	800 / 15
S 45 44 - S 46 47	R.O. / WE A047	187'	12:45	800 / 8
S46 47 S 49	S.M. / WE A052	325'	12:40	800 / 8
S46 - S48	S.M. / WE A052	350'	1:50	800 / 8
S49 48 - S 50	D.L. / WE A045	675'	2:00	800 / 15
S50 51 S 52 54	R.O. / WE A047	675'	2:35	800 / 8
S53 - S 52 54	S.M. / WE A052	515	3:00	800 / 8
S54 - S55	S.M. / WE A052	160	4:18	800 / 8
S38 - S 40	S.M. / WE A052	39'	11:21	800 / 8
S39 - S41	S.M. / WE A052	22'	11:16	"BUTT" 800 / 8
S38 - S40	S.M. / WE A052	113'	11:32	800 / 8
S41 - S40	S.M. / WE A052	22'	11:27	"BUTT" 800 / 8
S44 - S42	D.L. / WE A075	22'	11:42	"BUTT" 800 / 15
S45 - S44	D.L. / WE A075	22'	11:30	"BUTT" 800 / 15
S43 - S45	D.L. / WE A075	22'	11:25	"BUTT" 800 / 15
S46 - S47	S.M. / WE A052	22'	11:58	"BUTT" 800 / 8
S49 - S48	S.M. / WE A052	22'	1:49	"BUTT" 800 / 8
S50 - S51	R.O. / WE A047	22'	2:15	"BUTT" 800 / 8
S52 - S54	D.L. / WE A075	22'	3:22	"BUTT" 800 / 15
S53 - S55	D.L. / WE A075	22'	3:40	"BUTT" 800 / 15
S 53 55 S56	D.L. / WE A075	32' ~~14'~~	3:47	800 / 15
S55 S56	D.L. / WE A075	160'	3:49	800 / 15
Total linear FT. welded today: 5,137				Extruded:
Total linear FT. welded to date: 9,482				

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Secondary

Date: 4-13-2010 | Area: EAST 275'-420' West FLOOR | Material: 60 M.l text HDPE

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
S53-S57	D.L. / WE A091	483'	11:00	800/15
S57-S56	D.L. / WE A091	22'	11:43	"BUTT" 800/15
S57-S58	R.O. / WE A047	483'	11:26	800/9
S56-S58/59	D.L. / WE A091	192'	11:54	800/15
S58-S59	D.L. / WE A091	22'	11:50	"BUTT" 800/15
S58/59 S60/61	S.M. / WE A075	675'	12:56	800/11
S60-S61	R.O. / WE A047	22'	1:10	"BUTT" 800/9
S60/61 S62/63	D.L. / WE A091	675'	1:05	800/15
S62-S63	R.O. / WE A047	22'	1:23	"BUTT" 800/9
S62/63 S66	R.O. / WE A047	522'	1:46	850/9
S63-S65	R.O. / WE A047	120'	3:13	850/9
S66-S67	SM / WE A075	402'	2:16	800/16
S63-S64	R.O. / WE A047	33'	3:30	850/9
S66-S65	R.O. / WE A047	22'	3:06	"BUTT" 850/9
S65-S64	S.M. / WE A075	22'	3:19	"BUTT" 800/16
S64/65-S68	S.M. / WE A075	273'	2:56	800/16
S67-S68	S.M. / WE A075	22'	2:53	"BUTT" 800/16
S67/68-S70	D.L. / WE A091	232'	2:47	800/15
S70-S69	D.L. / WE A091	22'	3:10	"BUTT" 800/15
S67/68-S69	D.L. / WE A091	443'	3:15	800/15

Total linear FT. welded today: 4,709 | Extruded:

Total linear FT. welded to date: 14,191

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Secondary

Date: 4-14-10 | Area: 720'W to Central Floor | Material: 60 Mil HDPE

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
S69 S70 S71	S.M. W075	521'	11:17	start 800° /15
S71 S74	D.L W091	513'	11:45	
S69 S72	S.M. W075	154'	11:10	800° /15
S71 S72	S.M. W075	22' "BUTT"	1:03	22' BUTT 800° /15
S73 S74	S.M. W075	22' "BUTT"	1:37	22' BUTT 800° x15
S71 S72 S73	S.M. W075	162'	1:41	800° x15
S74 S73 S75	R.O. W047	522'	12:48	850° x8
S75 S76	R.O. W047	22' "BUTT"	2:01	22' BUTT 850° x8
S73 S76	R.O. W047	153'	2:06	850° x8
S75 S76 S77 S78	D.L. W091	558'	1:55	800° x15
S77 S78	D.L. W091	22' "BUTT"	1:30	22' BUTT 800° x15
S78 S79	D.L. W091	22' "BUTT"	2:24	22' BUTT 800° x15
S76 S79	D.L. W091	117'	2:28	800° x15
S78 S77 S81	SM W075	520'	2:10	800° x15
S80 S81	R.O. W047	22' "BUTT"	2:28	22' BUTT 850° x 8
S78 S79 S80	R.O. W047	155'	2:31	850° x8
S81 S82	D.L. W091	436'	2:55	800° x 15
S82 S83	R.O. W047	22' "BUTT"	3:10	22' BUTT 850° x8
S80/80 S83	R.O. W047	239'	3:16	850° x 8
S82 S86	F.M. W075	75'	3:20	800° x 12
S85 S86	F.M. W075	22' "BUTT"	3:34	22' BUTT 800° x 12
S84 S85	R.O. W047	22' "BUTT"	4:13	22' BUTT 850° x 8
S82 S85	F.M. W075	361'	3:38	800° x 12
S83 - S84	D.L. W091	239'	3:44	800° x 15

Total linear FT. welded today: 4,923

Total linear FT. welded to date: 19,114

Extruded:

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

SECONDARY

Date: 4-15-2010		Area: CENTRAL FLOOR - 735'W		Material: 60 MIL HDPE
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
S_{85}^{84} 86 S_{89}^{87}	D.L. W091	675'	11:35	800° x 15
S87 S88	S.M. W075	22' "BUTT"	1:28	800° x 15
S87 S90	S.M. W075	507	11:35	800° x 15
S90 S89	S.M. W075	22' "BUTT"	1:50	800° x 15
S_{88}^{87} S89	S.M. W075	168'	1:57	800° x 15
S90 S91	R.O. W047	507'	12:45	850° x 8
S91 S92	R.O. W047	22' "BUTT"	2:00	850° x 8
S89 S_{92}^{91}	R.O. W047	168'	2:15	850° x 8
S91 S95	D.L. W091	505'	1:15	800° x 15
S94 S95	D.L. W091	22' "BUTT"	2:05	800° x 15
S_{92}^{91} S_{93}^{94}	D.L. W091	170'	2:13	800° x 15
S94 S93	D.L. W091	22' "BUTT"	2:30	800° x 15
S95 S96	S.M. W075	301'	2:36	800° x 15
S96 S97	R.O. W047	22' "BUTT"	2:45	850° x 8
S_{94}^{93} 95 S97	R.O. W047	374'	3:55	850° x 8
S_{97}^{96} S_{98}^{99}	D.L. W091	675'	2:53	800° x 15
S98 S99	S.M. W075	22' "BUTT"	3:20	800° x 15
S_{98}^{97} - S100	S.M. W075	520'	3:27	800° x 15
S100 - S101	R.O. W047	22' "BUTT"	4:05	850° x 8
S98 - S_{102}^{101}	D.L. W091	155'	3:57	800° x 15
S101 - S102	R.O. W047	22' "BUTT"	3:52	850° x 8
Total linear FT. welded today: 4,923				Extruded:
Total linear FT. welded to date: 24,037				

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

SECONDARY

Date: 4-16-2010		Area: (735' WEST) - 875' CENTRAL		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
$S^{100}-S^{104}$	SM W075	407'	9:30	800° x 15
$S^{100}-S^{103}$	SM W075	268'	10:20	800° x 15
S103 - S104	SM WE-A075	22' "BUTT"	10:16	800° x 15
S104 - S105	R.O. WE-A047	349'	10:10	850° x 8
S105 - S106	R.O. W047	22' "BUTT"	10:45	850° x 8
$S^{104}_{103}-S^{106}$	R.O. W047	426'	10:49	850° x 8
$S^{105}-S^{109}$	D.L. W091	85'	10:35	800° x 15
S108 - S109	D.L. W091	22' "BUTT"	10:45	800° x 15
$S^{105/106}-S^{108}$	D.L W091	460'	10:50	800° x 15
S108 - S107	D.L. WE A091	22' "BUTT"	11:59	800° x 15
S106 - S107	D.L. WE - A091	130'	1:05	800° x 15
S^{109}_{108} - S110	S.M. WE-A075	522'	11:35	800° x 15
S^{108}_{107} - S111	S.M. WE - A075	153'	12:15	800° x 15
S110 - S111	D.L. WE - A091	22' "BUTT"	1:00	800° x 15

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log SECONDARY

Date: 5-4-10			Area: WEST		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**		**Length**	**Time**	**Comments/Temp/Speed**
S110-S111 S112 S113	RO	WE-A040	675'	10:01	850 x8 0-675'
S112-S113	SM	WE-A068	22' BUTT	10:40	800 x16 @ 186'S
S112 S113 -S114	SM	WE-A068	522'	10:00	800x16 153-675'S
S114-S115	RO	WE-A040	22' BUTT	1:11	850x8 @153'S
S113-S115	SM	WE-A068	153'	10:54	800x16 0'-153'
S114-S116	DL	WE-A091	25'	10:23	800x15 650'-675'S
S116-S117	DL	WE-A091	22' BUTT	10:25	800x15 @ 650'S
S114-S117	DL	WE-A091	497'	10:33	800x15 153-650'S
S115-S117 S118	RO	WE-A040	153'	11:47	850x8 0'-153'S
S117-S118	RO	WE-A040	22' BUTT	11:36	850x8 @ 127'S
S116-S119	SM	WE-A068	520'	11:15	800x16 155'-675'S
S119-S120	RO	WE-A040	22' BUTT	1:23	850x8 @ 155'S
S117 S118-S120	RO	WE-A040	155'	1:30	850x8 0'-155'
S119-S121 S122	DL	WE-A091	520'	11:40	800x15 155-675'S
S121-S122	DL	WE-A091	22' BUTT	11:39	800x15 @ 631'S
S120-S122 S123	RO	WE-A040	155'	2:05	850x8 0'-155'
S122-S123	RO	WE-A040	22' BUTT	1:55	850x8 @ 108'S
S121 S122-S124 S123	SM	WE-A068	675'	1:04	800x16 0'-675'
S124-S125	SM	WE-A068	22' BUTT	2:00	800x16 @ 152'S
S124-S126	DL	WE-A091	523'	1:56	800x15 152'-675'
S126-S127	DL	WE-A091	22' BUTT	1:30	800x15 @ 599'S
S125-S127	SM	WE A068	~~76~~ 76'	2:05	800x16 76'-152'
S127-S128	SM	WE A068	22' BUTT	2:25	800x16 @ 76'
S125-S128	SM	WE A068	76'	2:27	800x16 0'-76'S
Total linear FT. welded today: 4,945					Extruded:
Total linear FT. welded to date: 31,892					

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

SECONDARY

Date: 5-11-2010			Area: WEST FLOOR		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**		**Length**	**Time**	**Comments/Temp/Speed**
S^{126}_{127}-S^{129}	SM	WE A068	510'	11:13	800 x 16 165' - 675's
S^{129}-S^{130}	DL	WE A091	510'	11:25	800 x 15 165' - 675's
S^{130}-S^{131}	SM	WE A068	511'	11:55	800 x 16 164' - 675's
S^{131}-S^{132}	RO	WE A040	511'	1:00	850 x 8 164' - 675's
S^{132}-S^{133}	DL	WE A091	482'	1:00	800 x 15 193' - 675's
S^{133}_{134}-S^{134}_{135}	SM	WE A068	482'	1:16	800 x 16 193' - 675's
S134-S135	SM	WE A068	22' BUTT	1:12	800 x 16 @ 631's
S^{134}_{135}-S^{136}	DL	WE A091	526'	1:50	800 x 15 149' - 675's
S129-S137	RO	WE-A040	22' BUTT	2:03	850 x 8 @ 165's
S^{127}_{128}-S137	SM	WE A068	165'	2:00	800 x 16 0' - 165's
S137-S^{130}_{138}	SM	WE A068	165'	2:13	800 x 16 0' - 165's
S130-S138	RO	WE A040	22' BUTT	2:15	850 x 8 @ 155's
S131-S139	RO	WE A040	22' BUTT	2:23	850 x 8 @ 164's
S^{130}_{138}-S139	SM	WE A068	164'	2:34	800 x 16 0' - 164's
S139-S^{132}_{140}	DL	WE A091	164'	2:35	800 x 15 0' - 164's
S132-S140	RO	WE A040	22' BUTT	2:40	850 x 8 @ 153's
S133-S141	RO	WE A040	22' BUTT	2:59	850 x 8 @ 193's
S^{132}_{140}-S141	DL	WE A091	893'	2:55	800 x 15 100' - 193'
* S140-S141	DL	WE A091	31[redacted]	3:10	800 x 15 69' - 100'
S140-S141	SM	WE A068	69'	3:13	800 x 16 0' - 69'
S141-S^{135}_{142}	SM	WE A068	193	2:57	800 x 16 0 - 193'
S135-S143	RO	WE A040	22' BUTT	3:15	850 x 8 @ 115's
S143-S142	RO	WE A040	22' BUTT	3:23	850 x 8 @ 111's
S136-S144	RO	WE A040	22' BUTT	3:30	850 x 8 @ 149's
S^{134}_{143}-S144	SM	WE A068	38'	3:38	800 x 16 111' - 149'
S142-S144	SM	WE A068	111'	3:27	800 x 16 0' - 111'
Total linear FT. welded today: 4,923					Extruded:
Total linear FT. welded to date: 36,815					

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Date: 5-12-10 | Area: SOUTHWEST | Material: ~~SECONDARY~~ 60 MIL HDPE TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
S136-S145	RO WEA040	28'	10:38	850x8 647-675'
S136-S145	RO WEA040	336'	10:45	850x8 311-647'
S145-S146/147	SM WEA068	364'	10:38	800x16 311-675'
S146-S147	SM WEA068	22' BUTT	11:07	800x16 @ 520's
S146/147-S148	DL WEA096	304'	10:58	800x15 371'-675'
S148-S149	DL WEA096	22' BUTT	11:25	800x15 @ 371's
S147-S149	DL WEA096	57'	11:28	800x15 314'-371's
S148/149-S150	SM WEA068	359'	11:18	800x16 316-675's
S150-S151	RO WEA040	64'	11:35	850x8 611'-675's
S151-S152	RO WEA040	64'	11:47	850x8 611'-675's
S152-S153	RO WEA040	64'	11:58	850x8 611'-675's
S153-S154	DL WEA096	64'	11:50	800x15 611'-675's
S154-S155	DL WEA096	39'	12:05	800x15 636'-675' ~~EAST~~ SOUTH
S155-S156	RO WEA040	18'	12:23	850x8 DIAGONAL SEAM / SW CORNER
S155/154-S157/158	DL WEA096	55'	12:18	800x15 DIAGONAL SEAM / SW CORNER
S156-S157	RO WEA040	16'	12:15	850x8 0'-16' EAST OF W. ANCHOR SW CORNER ANCHOR TRENCH
S157-S158	DL WEA096	44'	12:10	800x15 0'-44' EAST OF WEST TRENCH

Total linear FT. welded today: 1,980 | Extruded:

Total linear FT. welded to date: 38,795

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

SECONDARY

Date: 5-13-2016			Area: WEST FLOOR		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
S150-S159	SM WEA068	198'	9:35	800 x 16 413's - 611's
S159-S160	SM WEA068	18' BUTT	9:54	800 x 16 @ 413's
S150-S160	SM WEA068	87'	10:01	800 x 16 326' - 413's
S139-S161	DL WEA096	175'	9:50	800 x 15 436' - 611's
S161-S162	SM WEA068	56'	11:18	800 x 16 555' - 611's
S162-S163	SM WEA068	56'	11:26	800 x 16 CROSS SEAM
S159/162-S163	DL WEA096	238'	10:15	800 x 15 CROSS SEAM
S158 152 S153 151-S163 161 162 159	SM WEA068	77'	11:36	800 x 16 CROSS/BUTT SEAM @ 611's 46' E - 23' E
S163-S164-166	SM WEA068	68'	11:47	800 x 16 CROSS SEAM
S163-S167-170	DL WEA096	891'	12:03	800 x 15 CROSS SEAM
S163-S171-176	DL WEA096	134'	11:45	800 x 15 CROSS SEAM
S158-S164	SM WEA068	46'	10:14	800 x 16 0'-46' EAST OF W. ANCHOR TRENCH
S164-S165	SM WEA068	46'	10:20	800 x 16 0'-46' E
S165-S166	SM WEA068	46'	10:27	800 x 16 0'-46' E
S166-S167	SM WEA068	46'	10:34	800 x 16 0'-46' E
S167-S168	SM WEA068	46'	10:45	800 x 16 0'-46' E
S168-S169	SM WEA068	46'	11:01	800 x 16 0'-46' E
S169-S170	DL WEA096	46'	10:49	800 x 15 0'-46' E
S170-S171	DL WEA096	45'	11:00	800 x 15 0'-45' E
S171-S172	DL WEA096	45'	11:05	800 x 15 0'-45' E
S172-S173	DL WEA096	45'	11:15	800 x 15 0'-45' E
S173-S174	DL WEA096	45'	11:26	800 x 15 0'-45' E
S174-S175	DL WEA096	45'	11:27	800 x 15 0'-45' E
S175-S176	DL WEA096	45'	11:35	800 x 15 0'-45' E
Total linear FT. welded today: 1,792				Extruded:
Total linear FT. welded to date: 40,587				

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

SECONDARY

Date: 7-8-2010		Area: NW CORNER		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
S176-S177	SM WEA076	70'	9:10	800x16 0'E-70'E
S177-S178	RO WEA040	90'	9:10	850x10 0'E-90'E
S150-S177	SM WEA076	24' CROSS	9:17	800x16 CROSS-SEAM
S199-S180	SM WEA076	21' CROSS	9:20	800x16 CROSS-SEAM
S177-S180	—	5' BUTT	—	Patched
S180 S145 S141-S178	SM WEA076	65'	9:40	800x16 CROSS-SEAM 90'-155'E
S178-S179	RO WE A040	153'	9:27	850x10 0'-153'E
S179-S181	RO WE A040	27'	1:20	850x10 0'-27'E
S179-S181	—	—	—	Bootless Skirt 27'E-42'E
S179-S181	RO WE A040	62'	1:35	850x10 42'E-104'E
S181-S182	RO WE A040	22' "BUTT"	1:10	850x10 Butt seam @ 104'E
S179-S182	RO WE A040	40'	1:40	850x10 104'E-144'E
S181 S182-S183	RO WE A040	142'	1:55	850x10 0'E-142'E
S183-S184	DL WEA096	137'E	1:20	800x15 0'E-137'E
S184-S185	DL WEA096	133'	1:39	800x15 0'E-133'E
S185-S186 S187	DL WEA096	130'	2:12	800x15 0'E-130'E
S186-S187	DL WEA096	22' BUTT	2:05	800x15 @ 84'E
S186 S187-S188	DL WEA096	124'	2:27	800x15 0'-124'E
S188-S189	RO WEA040	121'	2:15	850x10 0'-121'E
S189-S190	RO WE A040	118'	2:40	850x10 0'-118'E
S190-S191/192	DL WEA096	113'	3:05	800x15 0'-113'E
S191-S192	DL WEA096	22' BUTT	2:50	800x15 @ 82'E
S191 S192-S193	DL WEA096	109'	3:15	800x15 0'-109'E
S193-S194	DL WEA096	105'	3:30	800x15 0'-105'E
S194-S195 S149	SM WEA076	99'	4:17	800x16 0'-99'E CROSS-SEAM
S195-S196	SM WEA076	12'	3:40	800x16 0'-12'E
S195 S196-S197	SM WEA076	29'	3:32	800x16 0'-29'S
S197-S198	SM WEA076	30'	3:26	800x16 0'-30'S
S198-S199	SM WEA076	30'	3:20	800x16 0'-30'S
S144-S199 S194-	SM WEA076	48'	3:10	800x16 0'-48'S CROSS-SEAM
S141-S195 S194-S188	SM WEA076	107'	3:00	800x16 48'S-155'S CROSS-SEAM
S136-S188 S178	SM WEA076	162'	2:13	800x16 155'S-317'S CROSS-SEAM
Total linear FT. welded today: 2,367				Extruded:
Total linear FT. welded to date: 42,954				

40,587

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Primary

Date: 4-28-10 | Area: EAST FLOOR/SLOPE | Material: 60 MIL HDPE TEX

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P1 - P2	SM / WEA075	~~79'~~	7:30	800 x 17
P2 - P3/4	D.L. / WEA091	~~72'~~	7:42	800 x 15
P3 - P4	D.L. / WEA091	22' BUTT	7:30	800 x 15
P4 - P5	D.L. / WEA091	~~72'~~	7:50	800 x 15
P5 - P6	D.L. / WEA091	72'	8:00	800 x 15
P6 - P7	R.O. / WEA047	72'	7:20	850 x 7
P7 - P8	R.O. / WEA047	72'	7:49	850 x 7
P8 - P9	R.O. / WEA047	72'	8:05	850 x 7
P9 - P10	R.O. / WEA047	72'	8:20	850 x 7
P10 - P11	S.M. / WEA075	72'	7:43	800 x 14
P11 - P12	S.M. / WEA075	72'	7:54	800 x 14
P12 - P13	S.M. / WEA075	79'	8:05	800 x 14
P13 - P14	S.M. / WEA075	79'	8:12	800 x 14
P14 - P15	S.M. / WEA075	77'	8:20	800 x 14
P15 - P16	S.M. / WEA075	77'	8:28	800 x 14
P16 - P17	D.L. / WEA091	76'	8:10	800 x 15
P17 - P18	D.L. / WEA091	75'	8:23	800 x 15
P18 - P19	DL / WEA091	22' BUTT	8:21	800 x 15
P19 - P20	D.L. / WEA091	75'	8:31	800 x 15
P20 - P21	D.L. / WEA091	76'	8:43	800 x 15
P21 - P22	DL / WEA091	74'	8:54	800 x 15
P22 - P23	D.L. / WEA091	74'	9:05	800 x 15
P23 - P24	D.L. / WEA091	74'	9:11	800 x 15
P24 - P25	R.O. / WEA047	74'	8:38	850 x 7
P25 - P26	R.O. / WEA047	74'	8:52	850 x 7
P26 - P27	R.O. / WEA047	74'	9:05	850 x 7
P27 - P28	S.M. / WEA075	74'	8:39	800 x 14
P28 - P29	S.M. / WEA075	74'	8:46	800 x 14
P29 - P30	S.M. / WEA075	72'	8:54	800 x 14
P30 - P31	S.M. / WEA075	72'	9:04	800 x 14
P31 - P32/33	S.M. / WEA075	~~77'~~	9:20	800 x 14
P32 - P33	S.M. / WEA075	22' BUTT	9:17	800 x 14
P32/33 - P34	S.M. / WEA075	88'	9:28	800 x 14
P34 P34/35	D.L. / WEA091	414'	10:10	800 x 15 CROSS-SEAM (675's - 261's)
P34/35 P35	D.L. / WEA091	106'	11:45	800 x 15 CROSS-SEAM (261's - 155'S)
P9 P36	D.L. / WEA091	155'	12:50	800 x 15 CROSS-SEAM (155's - 0')
P35 P36	R.O. / WEA047	22' BUTT	11:30	850 x 7 @ 155' S
Total linear FT. welded today:				Extruded:
Total linear FT. welded to date:				

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY

Date: 4-28-10 | Area: EAST FLOOR | Material: 60 MIL HDPE TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P35 - P38	R.O. / WEA047	318'	10:10	850 x 7 (35'S - 675's)
P38 - P37	R.O. / WEA047	22' BUTT	10:55	850 x 7
P35 - P37	R.O. / WE A047	202'	11:04	850 x 7 / 155's - 357's
P36 - P37	R.O. / WE A047	155'	11:37	850 x 7 / 155's to N. Anchor Trench
P37 - P42	R.O. / WE A047	102'	12:55	850 x 7 / N. BERM TO 101'S
P40 - P42	R.O. / WE A047	22' BUTT	12:49	850 x 7
P38 - P40	S.M. / WE A075	525'	10:35	800 x 14 (102'-627's)
P39 - P40	S.M. / WE A075	22' BUTT	10:39	800 x 14 @ 627's
P38 - P39	S.M. / WE A075	48'	10:23	800 x 14 (627's - 675's)
P39 - P41	S.M. / WE A075	520'	11:30	800 x 14 (155' - 675's)
P41 - P43	R.O. / WE A047	22' BUTT	1:20	850 x 7 @ 155's
P42 - P43	R.O. / WE A047	155'	1:25	850 x 7 (0' - 155')
P41 - P45	S.M. / WE A075	380'	1:00	800 x 14 (295' - 675's)
P43 - P44	D.L. / WEA091	295'	1:40	800 x 15 (0' - 295's)
P45 - P44	D.L. / WEA091	22' BUTT	1:32	800 x 15 @ 164's
P41 - P44	CM / ET A061	9'	10:20	Extruded (155' - 164')
P17 - EXISTING	CM ET A061	340'	8:20	Extruded 0's - 340's
P39 - EXISTING	~~ET~~ JP ET A040	360'	9:20	Extruded 340's - 700'

Total linear FT. welded today: 6,515 | Extruded: 709'

Total linear FT. welded to date: 6,515

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Primary

Date: 04/29/10 | Area: East Floor 190' West to | Material: 60 Mil HDPE

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P-A6 P-A7	R.O W047	595'	8:05	850/7
P-A6 P-A7	S.M W68	22'	8:15	800/16
P46 P50	S.M W68	519'	8:22	800/16 (Roll # 968)
P-A4 P48	R.O WA7	82'	9:36	850/7
P-A8 P47	R.O WA7	22' BUTT	9:30	850/7 BUTT
P49 P49	R.O WA7	158'	10:03	850/7
P48 P47	RO			
P49 P50	R.O WA7	22' BUTT	9:55	850/7 BUTT
P50 P51	R.O WA7	27'	10:37	850/7
P51 P52	RO WA7	22' BUTT	10:30	850/7 BUTT
P53 P54	S.M W68	22' BUTT	10:00	800/16 BUTT
P54 P55	S.M W68	22' BUTT	9:50	800/16 BUTT
P51 P55	S.M W68	25'	10:04	800/16
P52 P55	DL W91	487'	8:55	800/15
P55 P58	S.M W68	17'	9:07	800/16
P55 P57	S.M W68	512'	9:10	800/16
P56 P57	R.O WA7	133'	11:20	850/7
P56 P57	R.O WA7	22' BUTT	11:17	850/7 BUTT
P57 P60	DL W91	16'	10:34	800/15
P58 P59	DL W91	171'	9:55	800/15
P57 P59	DL W91	461'	9:55	800/15
P59 P63	S.M W68	484'	10:27	800/10
P62 P63	RO WA7	22' BUTT	11:43	850/7 BUTT
P60 P59	DL W91	22' BUTT	10:31	800/15 BUTT
P60 P62	RO WA7	61'	11:48	850/7
P62 P59	S.M W68	40'	10:27	800/10
P60 P61	DL W91	131'	9:55	800/15
P67 P68	S.M W68	22' BUTT	1:10 pm	800/10 BUTT
P65 P67	S.M W68	311'	12:50pm	800/16
P65 P64	D.L W91	22' BUTT	12:53pm	800/15 BUTT
P64 P66	SM W68	331'	11:25	800/16
P63 P64	D.L W91	484'	11:10	800/15
P62 P64	D.L W91	61'	11:10	800/15
P61 P64	D.L W91	391'	11:10	800/15
P61 P65	D.L W91	131'	11:10	800/15
P66 P70	D.L W91	33'	1:20pm	800/15
P67 P70	DL W91	490'	1:40pm	800/15

Total linear FT. welded today: _____ | Extruded: _____

Total linear FT. welded to date: _____

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY HDPE

Date: 04/29/10 | Area: Middle of Cell A4 | Material: 60 mil TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
~~P68 P69~~	D.L W91	153	1:20pm	800/15
P70 P71	S.M W68	516	1:25pm	800/16
P66 P67	S.M W68	22' BUTT	11:15	800/16 BUTT
P69 P70	D.L W91	22 BUTT	2:53pm	800/15 BUTT
P71 P74	S.M W68	516	2:30pm	800/16
P76 P73	D.L W91	193	3:48pm	800/15
P74 P77	D.L W91	22 BUTT	3:18pm	800/15 BUTT
P73 P72	DL W91	152	3:20pm	800/15
P72 P71	DL W91	22 BUTT	3:40pm	800/15 BUTT
P76 P75	DL W91	22 BUTT	3:45pm	800/15 BUTT
P75 P74	S.M W68	479	3:20pm	800/16
P69 P72	S.M W68	153	2:01pm	800/16
P68 P69	D.L W91	153	2:55pm	800/15
P67 P68	S.M W68	521	12:50pm	800/16
P65 P68	SM W68	122	12:53	800/16
P57 P60	DL W91	153	10:34	800/15
P49 P51	RO W47	158	10:37	850/17
P50 P52	DL W91	487	8:10	800/15
~~P27 P28~~				

Total linear FT. welded today: 9,224

Total linear FT. welded to date: 15,739

Extruded:

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY

Date: 4-30-2010 | Area: CENTER FLOOR | Material: 60 MIL HDPE TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P78-P79/80	DL WE-A091	524'		800x15 159'-675'
P79-P80	R.O. WE-A040	22' BUTT	8:18	850x9 @654's
P77-P78	R.O. WE-A040	22' BUTT	11:30	850x9 @151's
P77-P80/81	S.M. WE-A068	151'	11:22	800x16 0-151's
P80-P81	R.O. WE-A040	22' BUTT	11:43	850x9 @128's
P79/80-P82	R.O. WE-A040	521'	8:35	850x9 154'-675'
P80/81-P83	S.M. WE-A068	154'	11:36	800x16 0'-154'
P82-P83	R.O. WE-A040	22' BUTT	11:53	850x9 @154'
P82-P84/85	S.M. WE-A068	521'	9:00	800x16 154'-675'
P84-P85	D.L. WE-A091	22' BUTT	11:37	800x15 @161's
P83-P85/86	D.L. WE-A091	154'	11:41	800x15 0'-154'
P85-P86	R.O. WE-A040	22' BUTT	12:00	850x9 @100's
P84/85-P88	D.L. WE-A091	517'	9:35	800x15 158'-675'
P88-P87	R.O. WE-A040	22' BUTT	12:10	850x9 @158's
P85/86-P87	S.M. W.E-A068	158's	11:55	800x16 0'-158's
P87/88-P90	D.L. WE-A091	182'	12:05	800x15 0'-182's
P89-P90	R.O. WE-A040	22' BUTT	12:20	850x9 @182's
P88-P89	S.M. WE-A068	493'	9:53	800x16 182'-675's
P89-P93	R.O. WE-A040	493'	10:15	850x9 182'-675's
P90-P92/91	S.M. WE-A068	182'	12:10	800x16 0'-182's
P93-P92	R.O. WE-A040	22' BUTT	12:25	850x9 @157's
P92-P91	S.M. WE-A068	22' BUTT	12:30	800x16 @88's
P93-P94/95	D.L. WE-A091	518'	10:45	800x15 157'-675'
P94-P95	D.L. WE-A091	22' BUTT	10:43	800x15 @647's
P92/91-P95/96	D.L. WE-A091	157'	12:29	800x15 0'-157'
P95-P96	R.O. WE-A040	22' BUTT	12:26	850x9 @136's
P76-P77	S.M. WE-A068	151'	11:08	800x16 0'-151's
P75/76-P78	S.M. WE-A068	524'	8:48	800x16 151'-675's

Total linear FT. welded today: 5,664

Total linear FT. welded to date: 21,403

Extruded:

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY

Date: 5-10-2010		Area: (640'W - 901'W) WEST FLOOR		Material: 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
$P^{94}-P^{97}$	S.M. WEA068	519'	7:42	800×16 156'-675'
P97-P98	D.L. WEA091	22' BUTT	9:40	800×15 @156'S
$P^{95}_{96}-P^{98}$	D.L. WEA091	156'	9:45	800×15 0'-156'S
$P^{97}-P^{99}$	R.O. WEA040	484'	7:52	850×8 191'-675'
P99-P100	D.L. WEA091	22' BUTT	10:18	800×15 @191'S
$P^{99}_{98}-P^{100}_{101}$	DL WEA091	191'	10:22	800×15 0-191'S
P100-P101	DL WEA091	22' BUTT	10:08	800×15 @ 105'S
$P^{99}-P^{103}$	D.L. WEA091	484'	8:00	800×15 191'-675'S
$P^{100}_{101}-P^{103}_{102}$	D.L. WEA091	191'	10:50	800×15 0'-191'
P103-P102	DL WEA091	22' BUTT	10:40	800×15 @ 154'S
$P103-P^{106}_{105}$	S.M. WEA068	521'	8:36	800×16 154'-675'S
P106-P105	S.M. WEA068	22' BUTT	8:33	800×16 @647'S
$P102-P^{102}_{104}$	D.L. WEA091	154'	11:10	800×15 0'-154'S
P104-P105	R.O. WEA040	22' BUTT	11:00	850×8 @ 127'S
$P^{106}_{105}-P^{107}$	D.L. WE A091	520'	8:45	800×15 155-675'S
P107-P108	R.O. WE A040	22' BUTT	10:32	850×8 @ 155'S
$P^{106}_{104}-P^{108}_{109}$	R.O. WE A040	155'	11:10	850×8 0'-155'S
$P^{107}-P^{111}_{110}$	R.O. WE A040	520'	9:10	850×8 155'-675'S
P111-P110	S.M. WE A068	22' BUTT	10:21	800×16 @165'S
$P^{108}_{109}-P110$	R.O. WE A040	155'	11:30	850×8 0'-155'S
P108-P109	R.O. WE A040	22' BUTT	10:40	850×8 @ 138'S
$P^{111}-P^{112}$	S.M. WE A068	510'	9:29	800×16 165'-675'S
$P110-P^{112}_{113}$	SM WE A068	165'	10:30	800×16 0'-165'
P112-P113	SM WE A068	22' BUTT	10:26	800×16 @ 151'
P112-P116	SM WE A068	489'	10:58	800×16 186'-675'
P116-P115	SM WE A068	22' BUTT	11:35	800×16 @186'
$P^{112}_{113}-P^{115}_{114}$	SM WE A068	186'	11:39	800×16 0'-186'
P115-P114	RO WE A040	22' BUTT	1:00	850×8 @ 143'S
P116-P117	DL WE A091	478'	11:34	800×15 197'-675'S
P117-P118	SM WE A068	22' BUTT	2:05	800×16 @ 197'S
P^{116}_{115} ~~^{114}~~ P118	SM WEA068	197'	1:48	800×16 0'-197'
P118-P^{119}_{120}	SM WEA068	197'	2:09	800×16 0'-197'
P119-P120	DL WE A091	22' BUTT	2:03	800×15 @ 153'
P117-P120	S.M. WEA068	478'	1:00	800×16 197'-675'S
P120-P121	DL WE A091	522'	1:10	800×15 153'-675'S
P121-P122	DL WE A091	22' BUTT	1:05	800×15 @646'S
P119-P^{122}_{123}	DL WE A091	153'	2:10	800×15 0'-153'
Total linear FT. welded today:				Extruded:
Total linear FT. welded to date:				

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Date: 5-10-2010		Area: (6401-9011W) WEST FLOOR		Material: PRIMARY 60 MIL HDPE TEXT
Panels	**Seamer ID & Mach No.**	**Length**	**Time**	**Comments/Temp/Speed**
P122-P123	DL WEA091	22' BUTT	2:35	800 x 15 @ 125's
P123-P125	DL WEA091	125'	2:40	800 x 15 0'- 125's
P124-P125	SM WEA068	22' BUTT	2:40	800 x 16 @ 151's
P^{121}_{122}-P^{124}_{123}	RO WE A040	550'	1:25	850 x 8 125'-675's

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY

Date: 5-18-10 | Area: (@01-1055'N) WEST FLOOR | Material: 60 MIL HDPE TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P124-P126	SM WEA068	511'	8:58	800x16 164-675's
P126-P132	DL WEA096	22' BUTT	11:15	800x15 @ 164's
P124/125-P132	DL WEA096	164'	11:17	800x15 0-164'
P132-P133	DL WEA096	159'	11:45	800x15 0'-159'
P133-P127	DL WEA096	22' BUTT	11:40	800x15 @ 159's
P125-P127	DL WEA096	511'	9:30	800x15 164'-675's
P127-P128	SM WEA068	479'	9:51	800x16 196'-675's
P128-P135	DL WEA096	22' BUTT	1:08	800x15 @ 196's
P127/133-P135/134	DL WEA096	196'	1:21	800x15 0'-196's
P135-P134	SM WEA068	22' BUTT	11:30	800x16 @ 39's
P134/135-P136	SM WEA068	157'	11:15	800x16 0'-157'
P136-P129	SM WEA068	22' BUTT	11:27	800x16 @ 157'
P128/135-P129	DL WEA096	518'	10:25	800x15 157-675
P129-P130/131	SM WEA068	518	10:35	800x16 157-675's
P130-P131	SM WEA068	22' BUTT	10:30	800x16 @ 636's
P136-P131/132	SM WEA068	157'	11:35	800x16 0-157'
P131-P137	SM WEA068	22' BUTT	11:46	800x16 @ 116's
P137-P138	SM WEA068	116'	11:50	800x16 0'-116'
P138-P139	DL WEA096	22' BUTT	1:13	800x15 @ 235's
P130/131-P137/138	SM WEA068	559'	12:58	800x16 116'-675'
P139-P140	SM WEA068	78'	1:48	800x16 597-675'
P139-P141	SM WEA068	362'	1:57	800x16 235-597'
P140-P141	SM WEA068	22' BUTT	1:55	800x16 @ 597's
P138-P141/142	DL WEA096	235	1:55	800x15 0'-235'
P141-P142	DL WEA096	22' BUTT	2:20	800x15 @ 75's

Total linear FT. welded today: 4945 | Extruded:

Total linear FT. welded to date: 34,822

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

PRIMARY

Date: 5-20-10 | Area: WEST FLOOR | Material: 60 MIL HDPE TEXT

Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
P140 P141 - P143 P145	SM WEA068	675'	7:34	800 x 15 0' - 675's
P143 - P145	SM WEA068	22' BUTT	8:30	800 x 15 @ 157's
P146 - P147	DL WEA096	22' BUTT	8:40	800 x 15 @ 106's
P147 - P144	DL WEA096	22' BUTT	8:45	800 x 15 @ 166's
P143 P145 - P144 P146 147	DL WEA096	675'	7:48	800 x 15 0' - 675's
P144 - P148	SM WEA068	336'	8:35	800 x 15 339' - 675's
P148 - P149	DL WEA096	332'	8:55	800 x 15 343' - 675's
P149 - P150	SM WEA068	326'	9:04	800 x 15 349' - 675's
P150 - P151	DL WEA096	324'	9:30	800 x 15 351' - 675's
P151 - P152	SM WEA068	324'	9:33	800 x 15 351' - 675's
P152 - P153	DL WEA096	323'		800 x 15 352' - 675's
P155 - P154 P155	DL WEA096	129'	10:35	800 x 15 546' - 675's
P153 - P157	DL WEA096	59'	10:51	800 x 15 487' - 546's
P153 - P158	DL WEA096	48'	11:05	800 x 15 439' - 487's
P153 - P159	SM WEA068	CROSS 87'	10:17	800 x 15 CROSS-SEAM 355' - 439'
P154 - P156	SM WEA068	25'	10:40	800 x 15 650' - 675's
P154 P155 - P157	SM WEA068	104' CROSS	10:48	800 x 15 CROSS-SEAM ~~650'~~ 546' - 650's
P154 - P155	SM WEA068	15' BUTT	10:33	800 x 15 @ 615's
P156 - P157	SM WEA068	25' CROSS	10:45	800 x 15 CROSS-SEAM 650' - 675's
P157 - P159	SM WEA068	192' CROSS	10:00	800 x 15 CROSS-SEAM 487' - 675's
P158 - P159	SM WEA068	48' CROSS	10:12	800 x 15 CROSS-SEAM 439's - 487's
P157 - P158	DL WEA096	10' BUTT	11:13	800 x 15 @ 487's

Total linear FT. welded today: 4,123 | Extruded:

Total linear FT. welded to date: 38,945

West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Primary

Date: 6-11-10 | Area: W. Berm South | Material: 60 Mil Text

Panels	Seamer ID & Mach No.		Length	Time	Comments/Temp/Speed
P160 P161	DL	W096	45'	08:35	800°/12
P161 P162	DL	W096	45'	08:40	" "
P162 P163	DL	W096	44'	08:48	" "
P163 P164	DL	W096	44'	08:55	" "
P164 P165	SM	W068	44'	08:35	820°/13
P165 P166	SM	W068	44'	08:41	" "
P166 P167	SM	W068	44'	08:47	" "
P167 P168	SM	W068	44'	08:52	" "
P168 P169	SM	W068	44'	08:57	" "
P169 P170	SM	W068	~~43~~ 44'	09:02	" "
P170 P171	SM	W068	43'	09:09	" "
P171 P172	SM	W068	43'	09:17	" "
P172 P173	SM	W068	16'	09:48	Pie " "
P172 P175	SM	W068	22'	09:50	Pie " "
P173 P175	SM	W068	12'	09:30	Pie " "
P159 P175→P172 P171	SM	W068	~~63'~~ Plan	10:03	Long Seam Cross Seams Front
P159 P170→P160	DL	W096	~~245'~~ ~~26'~~ Plan	09:23	Cross Seam 800°/12 ~~44'~~ 64' = 308'
6-11-10 P174	CM	ET061	18'	12:52	EXTrude Panel into outside corner

Total linear FT. welded today: 903' | Extruded: 18'

Total linear FT. welded to date: 39,848

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West Pasco Class I
Cells A - 4 Construction
Panel Seaming Log

Primary

Date: 7-14-10 | Area: NW corner | Material: 60 mil HDPE text

	Panels	Seamer ID & Mach No.	Length	Time	Comments/Temp/Speed
*	P144 - P148	JP WEA076	175'	11:30	800x15 164' - 339's
	P148 - P149	DL WEA 096	180'	11:25	800x15 163' - 343's
	P149 - P150	DL WEA096	194'	11:45	800x15 155' - 349's
	P150 - P151	JP WE-A076	195'	11:45	800x15 156' - 351's
	P151 - P152	JP WE-A076	198'	2:10	800x15 153' - 351's
	P152 - P180 P179	DL WE-A096	200'	2:50	800x15 "Cross Seam" 152' - 352's
	P160 - P176	JP WE-A076	50'	1:30	800x15 0' - 50' E
*	P153 - P176	JP WE-A076	22'	1:45	800x15 Cross-Seam 352' - 373's
*	P153 - P180	JP WE-A076	22'	2:05	800x15 "Butt" 50'E - 72'E
	P180 - P177 P179	JP WE A076	25'	1:56	800x15 "Cross" 50'E - 75'E
	P176 - P177	DL WE096	50'	1:20	800x15 0'E - 50'E
	P177 - P179	JP WE A076	22' Butt	1:40	800x15 @ 64'E
	P177 - P178	DL WE A096	62'	1:30	800x15 0'E - 62'E
	P178 - P181	DL WE A096	64'	1:45	800x15 0'E - 64'E
	P181 - P182	DL WE A096	63'	2:00	800x15 0'E - 63'E
	P182 - P183	DL WE A096	59'	2:10	800x15 0'E - 59'E
	P183 - P184	DL WE A096	55'	2:16	800x15 0'E - 55'E
	P184 - P185	DL WE A096	48'	2:23	800x15 0'E - 48'E
	P185 - P186	DL WE A096	46'	2:30	800x15 0'E - 46'E
	P186 - P187	JP WE A076	43'	2:30	800x15 0'E - 45'E
	P187 P152 - P188	JP WE A076	149'	2:45	800x15 0'E - 149'E Cross Seam
	P188 P189	JP W A076	141'	3:05	" "
	P189 P190	JP 076	137'	3:20	" "
	P190 P191	JP 076	132'	3:46	" "
P192	P191 P192	DL 096	128'	3:23	800x15
	P191 P192	JP 076	22' Butt	3:38	" "
	~~P192~~ P193 P194	DL 096	124'	3:35	" " 0'E - 130' Crossseam
	P194 P195 P200	DL 096	120'	4:29	" " Crossseam E-W
7-15-10	P195 P196	CM EXT 061	20'	± 10:00	475/490 Extrude Seam By Boot
	P196 P197	DL 096	29'	4:23	800x15 N-S
	P197 P198	DL 096	30'	4:17	" " "
	P198 P199	DL 096	31'	4:12	" " "
	P199 P200	DL 096	32'	4:08	" " "
	P P188 P200	JP 076	162'	4:10	" " " Cross Seam N-S

Total linear FT. welded today: 3,026 | Extruded: 20'

Total linear FT. welded to date: 42,874

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Date: 4-8-10 | Area: NE Corner + South | Material: 60 Mil HDPE Text + Secondary

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S1-S2	10:45	10:50	30	30	72'	E to E
S2-S3	10:46	10:51	30	30	72'	E to E
S3-S4	10:48	10:53	30	30	72'	"
S4-S5	10:50	10:55	30	30	29'	0'-29'
S4-S5	10:50	10:55	30	30	43'	29'→E
S5-S6	11:29	11:34	30	28	71'	E to E
S6-S7	11:30	11:35	30	30	45'	0'-45'
S6-S7	11:09	11:14	30	30	19'	45'-64'
S6-S8	11:09	11:14	30	29	4'	64'-E
S7-S8	11:09	11:14	30	29	22' Butt	
S7-S9	11:31	11:36	30	30	64'	0'-64'
S8-S9	11:10	11:15	30	30	3'	64'-E
S9-S10	11:32	11:37	30	30	72'	0' E to E
S10-S11	11:33	11:38	30	30	74'	E to E
S11-S12	11:51	11:56	30	30	75'	E to E
S12-S13	11:52	11:57	30	30	76'	E to E
S13-S14	11:53	11:58	30	30	77'	E to E
S14 S16	12:55	1:00	30	30	47'	0-47'
S14 S15	12:55	1:00	30	30	30'	47-E
S15 S16	12:55	1:00	30	30	22' Butt	
S16-S17	12:56	1:01	30	30	47'	0-47'
S15-S17	1256	1:01	30	30	30'	47-E
S17-S18	1:10	1:15	30	30	76'	E to E
S18-S19	1:11	1:16	30	29	76'	E to E
S19-S20	1:12	1:17	30	30	76'	
S20-S21	1:13	1:18	30	30	76'	E to E
S21-S22	2:08	2:13	30	30	75'	E to E Patch
S22-S23	2:09	2:14	30	28	75'	E to E Patch
S23-S24	2:10	2:15	30	29	74'	E to E
S24-S25	2:22	2:27	30	28	74'	E to E
S25-S26	2:23	2:28	30	29	74'	E to E
S26-S27	2:25	2:30	30	30	74'	E to E
S27-S28	2:41	2:46	30	28	74'	E to E
S28-S29	2:42	2:47	30	30	66'	0 to Patch
S28-S30	2:42	2:47	30	30	16'	Patch to End
S29-S30	2:42	2:47	30	30	22' Butt	
S29-S31	2:52	2:57	30	30	66'	0' to Patch
S30-S31	2:52	2:57	30	28	16'	Patch to End
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Secondary

Date: 4-12-10 | Area: SE Corner | Material: 60 mil HDPE text

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S31-S32	2:55	3:00	30	30	72'	E to E
S32-S33	2:56	3:01	30	30	75'	
S33-S34	3:00	3:05	30	30	40'	40' to E 89' total
S33-S34	3:19	3:24	30	28	49'	0' to 40'
S34-S35	1:38	1:43	30	28	18'	674'-656' S
S33-S35	1:35	1:40	30	29	21'	656'-635' S
S32-S35	1:35	1:40	30	30	22'	635-613' S
S31-S35	1:24	1:29	30	28	23'	613'-590' S
S30-S35	1:20	1:25	30	28	10'	590'-580' S
S30-S35	1:20	1:25	30	30	12'	580'-568' S
S28-S35	1:12	1:17	30	28	23'	568'-545' S
S27-S35	1:10	1:15	30	30	22'	545'-523' S
S26-S35	1:07	1:12	30	30	23'	523'-500' S
S25-S35	1:05	1:10	30	30	21'	500'-~~457'~~ 479' S
S24-S35	12:50	12:55	30	29	22'	479'-457' S
S23-S35	12:50	12:55	30	30	21'	457'-436' CAP S
S21-S35	1:00	1:05	30	30	22'	413'-391' S
S20-S35	1:50	1:55	30	30	22'	391'-369' S
S19-S35	1:50	1:55	30	30	22'	369'-347' S
S18-S35	2:00	2:05	30	28	22'	347-325' S
S17-S35	2:00	2:05	30	29	21'	325'-304' S
S15-S35	2:16	2:21	30	30	22'	304'-282' S
S14-S35	2:22	2:27	30	30	22'	282'-260' S
S13-S35	2:25	2:30	30	30	22'	260'-238' S
S12-S35	2:27	2:32	30	29	22'	238'-216' S
S11-S35	2:30	2:35	30	30	22'	216'-194' S
S10-S35	2:31	2:36	30	28	23'	194'-171' S
S9-S35	2:41	2:46	30	30	28'	171'-157' S
S9-S36	2:43	2:48	30	30	7'	157'-150' S
S7-S36	2:45	2:50	30	30	24'	150'-126' S
S6-S36	2:46	2:51	30	28	20'	126'-106' S
S5-S36	2:55	3:00	30	30	24'	106'-82' S
S4-S36	2:59	3:04	30	29	21'	82'-61' S
S3-S36	3:00	3:05	30	30	22'	61'-39' S
S2-S36	3:08	3:13	30	29	22'	39'-17' S
S1-S36	3:07	3:12	30	30	17'	17'-0' S

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Secondary

Date: 4-12-10 | Area: East Floor 90' West 420' | Material: 60 M.I HDPE Text

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
535-537	11:10	11:15	30	28	204'	673'-469'
535-537	11:25	11:30	30	30	134'	469-335'
535-538	11:30	11:35	30	30	178'	335'-157'
535-536	11:30	11:35	30	29	22 Butt	
536-538	11:40	11:45	30	30	127'	157'-30'
536-538	11:40	11:45	30	30	30	30'-0'
538-540	1:44	1:49	30	30	56'	0'-56'
538-540	1:34	1:39	30	30	57'	56'-113'
538 541	1:34	1:39	30	29	39'	113'-152'
538 539	11:35	11:40	30	30	183'	152'-335
537 539	11:35	11:40	30	29	340'	335 - 675'
539 543	11:53	11:58	30	30	340'	335 - 675
~~543 546~~	~~1:03~~	~~1:08~~	~~30~~	~~30~~		185 - 675
539 543	1158	11:58	30	30	138'	197 - 335
543 545	100	105	30	30	22' Butt	
539 545	100	105	30	30	29'	168 - 197
545 544	1:09	1:14	30	30	22' Butt	
539 544	1:09	1:14	30	30	16'	152 - 168
541 544	1:14	1:19	30	30	23'	129 - 152
539-541	1:14	1:19	30	28	22' Butt	
541-542	1:23	1:28	30	30	16'	113 - 129
541-540	1:35	1:40	30	30	22' Butt	
540-542	1:38	1:43	30	30	113'	0 - 113
542-547	1:36	1:41	30	30	129'	0 - 129
542-549	1:20	1:25	30	30	22' Butt	
544-547	1:20	1:25	30	30	39'	129' - 168'
545-547	1:05	1:10	30	30	17'	168' - 185'
547-546	1:03	1:08	30	30	22' Butt	
545-546	1:03	1:08	30	30	12'	185' - 197'
543-546	12:45	12:56	30	30	478'	197' - 675'
546-549	1:58	2:03	30	30	349'	326' - 675'
548-549	1:58	2:03	30	30	22' Butt	~~326'~~
546-548	2:13	2:18	30	30	241'	185' - 326
547-548	2:57	3:02	30		185'	0' - 185'
549-550	2:20	2:25	30	30	165'	510' - 675'
550-551	2:20	2:25	30	30	22' Butt	~~455'~~
549-551	2:47	2:52	30	30	55'	455' - 510'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Secondary

Date: 4-12-10 | Area: East Floor | Material: 60 mil HDPE text

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S49-S51	2:48	2:53	30	30	129	326'-455'
S48-S51	3:00	3:05	30	29	326'	0'-326'
S51-S54	4:12	4:17	30	30	150'	0'-150'
S52-S54	3:44	3:49	30	30	22'	Butt Seam
S51-S52	3:50	3:55	30	30	358'	150'-508'
S50-S52	3:11	3:16	30	30	167'	508'-675'
S52-S53	4:31	4:36	30	30	465'	210'-675'
S53-S55	3:45	3:50	30	30	22'	Butt Seam
S52-S53	4:30	4:35	30	30	55'	155'-210'
4-13-10 S54-S55	7:40	7:45	30	30	150'	0'-150' Cap 150'-160'
S53-S56	4:17	4:22	30	30	25'	160'-185' Ext to 192'
S55-S56	4:14	4:19	30	30	160'	0'-160'
S53-S57	1:10	1:15	30	30	483'	192'-675'
S56-S57	1:10	1:15	30	28	22'	Butt-Seam @ 192'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

SECONDARY

Date: ~~4-13~~ | Area: CENTRAL | Material: 60 MIL HDPE TEXT.

	Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
(4-13-10)	S57-S58	1:11	1:16	30	30	483'	192' - 675'
	S56-S58	1:11	1:16	30	30	36'	156' - 192'
	S56-S59	1:29	1:34	30	30	156'	0' - 156'
	S58-S59	1:29	1:34	30	30	22' "BUTT"	
	S59-S61	1:45	1:50	30	30	156'	0' - 156'
	S58-S61	1:38	1:43	30	30	160'	156' - 316'
	S58-S60	1:38	1:43	30	30	359'	316' - 675'
	S60-S61	1:38	1:43	30	30	22' "BUTT"	
	S60-S62	1:53	1:58	30	30	198'	477' - 675'
	S60-S63	1:53	1:58	30	30	161'	316' - 477'
	S62-S63	1:53	1:58	30	30	22' "BUTT"	
	S61-S63	2:05	2:10	30	28	316'	0' - 316'
	S63-S64	3:50	3:55	30	30	33'	0' - 33'
	S64-S65	3:49	3:54	30	29	22' "BUTT"	
	S63-S65	3:40	3:45	30	30	120'	33' - 153'
	S63-S66	3:07	3:12	30	30	324'	153' - 477'
	S62-S66	2:21	2:26	30	30	198'	477' - 675'
	S66-S67	2:50	2:55	30	30	402'	273' - 675'
	S67-S68	3:00	3:05	30	30	22' "BUTT"	
	S66-S68	3:10	3:15	30	30	120'	153' - 273'
	S65-S68	3:40	3:45	30	30	120'	33' - 153'
	S66-S65	3:10	3:15	30	30	22' "BUTT"	
	S64-S68	3:52	3:57	30	30	33'	0' - 33'
	S68-S69	3:53	3:58	30	30	273'	0' - 273'
	S67-S69	3:30	3:35	30	30	170'	273' - 443'
	S67-S70	3:30	3:35	30	30	232'	443' - 675'
	S69-S70	3:30	3:35	30	30	22' "BUTT"	
(4-14-10)	S70-S71	2:33	2:38	30	30	232'	443' - 675'
	S69-S71	2:33	2:38	30	30	289'	154' - 443'
	S69-S72	2:11	2:16	30	30	154'	0' - 154'
	S71-S72	2:10	2:15	30	30	22' "BUTT"	
	S72-S73	2:10	2:15	30	30	154'	0' - 154'
	S71-S73	2:10	2:15	30	28	8'	154' - 162'
	S71-S74	2:37	2:42	30	30	513'	162' - 675'
	S73-S74	2:14	2:19	30	30	22' "BUTT" @ 162'	
	S74-S75	2:35	2:40	30	30	513'	162' - 675'
	S73-S75	3:10	3:15	30	30	9'	153' - 162'
	S73-S76	3:10	3:15	30	30	153'	0' - 153'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log SECONDARY

Date: _____ Area: CENTRAL Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S75-S76	3:12	3:17	30	30	22' "BUTT" @ 153' S	
S76-S79	3:13	3:18	30	30	117'	0' - 117'
S78-S79	3:17	3:22	30	30	22' "BUTT" @ 117'	
S76-S78	3:12	3:17	30	30	36'	117' - 153'
S75-S78	2:40	2:45	30	30	489'	153' - 642'
S75-S77	3:32	3:37	30	30	33'	642' - 675'
S77-S78	3:30	3:35	30	28	22' "BUTT" @ 642' S	
S77-S81	3:30	3:35	30	30	33'	642' - 675'
S78-S81	3:30	3:35	30	30	487'	155' - 642'
S78-S80	3:23	3:28	30	30	38'	117' - 155'
S79-S80	3:17	3:22	30	30	117'	0' - 117'
S80-S81	3:23	3:28	30	30	22' "BUTT" @ 155' S	
S80-S83	4:00	4:05	30	28	155'	0' - 155'
S81-S83	3:58	4:03	30	30	84'	155' - 239'
S81-S82	3:58	4:03	30	30	436	239' - 675'
S82-S83	3:58	4:03	30	30	22' "BUTT" @ 239'	
S82-S86	3:40	3:45	30	30	75'	600' - 675'
S85-S86	3:40	3:45	30	30	22' "BUTT" @ 600' S	
S82-S85	4:10	4:15	30	30	361'	239' - 600'
S83-S85	4:10	4:15	30	30	166'	73' - 239'
S83-S84	4:20	4:25	30	30	73'	0' - 73'
S84-S85	4:20	4:25	30	30	22' "BUTT" @ 78' SOUTH	
(4-15-10) S84-S88	3:26	3:31	30	30	73'	0' - 73'
S85-S88	3:20	3:25	30	30	85'	73' - 158'
S88-S87	3:20	3:25	30	30	22' "BUTT" @ 158' S	
S85-S87	2:21	2:26	30	30	442'	158' - 600'
S86-S87	2:17	2:22	30	30	75'	600' - 675'
S87-S90	2:23	2:28	30	30	490'	185' - 675'
S87-S90	3:22	3:27	30	30	17'	168' - 185'
S87-S89	3:22	3:27	30	28	10'	158' - 168'
S88-S89	3:22	3:27	30	30	158'	0' - 158'
S89-S90	3:28	3:33	30	29	22' "BUTT" @ 168'	
S89-S92	3:30	3:35	30	30	156'	0' - 156'
S89-S91	3:30	3:35	30	28	12'	156' - 168'
S90-S91	2:26	2:31	30	30	507	168' - 675'
S91-S92	3:30	3:35	30	30	22' "BUTT" @ 156'	
S91-S95	4:00	4:05	30	30	246'	429' - 675'
391-S95	4:00	4:05	30	30	260'	169' - 429'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

SECONDARY

Date: _____ Area: CENTRAL Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S91-S94	3:48	3:53	30	30	13'	156'-169'
S92-S94	3:46	3:45	30	30	129'	27'-156'
S92-S93	3:40	3:45	30	30	27'	0'-27'
S93-S94	3:33	3:38	30	30	22' "BUTT" @ 27'S
S94-S95	3:48	3:53	30	30	22' "BUTT" @ 169'S
S93-S97	3:45	3:50	30	28	27'	0'-27'
S94-S97	3:50	3:55	30	30	142'	27'-169'
S95-S97	3:55	4:00	30	30	202'	169'-371'
S95-S96	4:20	4:25	30	30	49'	371'-420'
S96-S97	4:21	4:26	30	30	22' "BUTT" @ 371'
S95-S96	4:20	4:25	30	30	255'	420'-675'
S96-S99	4:22	4:27	30	30	211'	464'-675'
S96-S98	4:22	4:27	30	30	93'	371'-464'
S97-S98	3:56	4:01	30	30	371'	0'-371'
S98-S99	8:30	8:35	30	30	22' "BUTT" @ 464'S
(4-16-10) S98-S102	8:45	8:50	30	30	44'	0'-44'
S98-S101	8:33	8:38	30	30	111'	44'-155'
S98-S100	8:30	8:35	30	30	309'	155'-464'
S99-S100	8:30	8:35	30	30	211'	464'-675'
S101-S102	8:45	8:50	30	30	22' "BUTT" @ 44'S
S100-S101	8:33	8:38	30	30	22' "BUTT" @ 151'S
S100-S104	11:27	11:32	30	30	407'	268'-675'
S100-S103	11:27	11:32	30	30	113'	155'-268'
S101-S103	11:05	11:10	30	30	111'	44'-155'
S102-S103	11:05	11:10	30	30	44'	0'-44'
S104-S105	11:35	11:40	30	30	22' "BUTT" @ 426'S
S103-S104	11:27	11:32	30	30	22' "BUTT" @ 268'S
S103-S106	1:07	1:12	30	30	268'	0'-268'
S104-S106	11:33	11:38	30	30	158'	268'-426'
~~S100~~ S104-S105	11:33	11:38	30	30	249'	426'-675'
S105-S109	11:52	11:57	30	30	85'	590'-675'
S108-S109	11:52	11:57	30	28	22' "BUTT" @ 590'
S105-S108	11:35	11:40	30	30	164'	426'-590'
S106-S108	12:50	12:55	30	30	296'	130'-426'
S106-S107	1:16	1:22	30	30	130'	0'-130'
S107-S108	12:51	12:56	30	30	22' "BUTT" @ 130'S
S107-S110	1:00	1:05	30	30	130'	0'-130'
S108-S110	12:51	12:56	30	30	23'	130'-153'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log SECONDARY

Date:		Area: CENTRAL		Material: 60 MIL HDPE TEXT		
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**	**Length**	**Comments to/from**
S108-S110	12:48	12:53	30	30	437'	153' - 590'
S109 - S110	11:55	12:00	30	30	85'	590' - 675'
S110 - S111	1:05	1:10	30	28	22' "BUTT"	@ 153' SOUTH
5-4-10 S110 - S112	1:10	1:15	30	29	489'	186'S - 675'S
S112 - S113	1:10	1:15	30	30	22' BUTT	@186'S
S112 - S114	1:11	1:16	30	30	489'	186' - 675'S
S113 - S114	1:39	1:44	30	30	33'	153' - 186'
S114 - S115	1:39	1:44	30	30	22' BUTT	@153'S
S113 - S115	1:39	1:44	30	30	153'	0' - 153'S
S114 - S116	11:40	11:45	30	30	25'	650' - 675'S
S116 - S117	11:40	11:45	30	30	22' BUTT	@ 650'S
S114 - S117	—	—	—	—	11'	Extrude 639 - 650
S114 - S117	11:42	11:47	30	30	89'	550' - 639'S
S114 - S117	1:13	1:18	30	30	397'	153 - 550'S
S115 - S117	1:54	1:59	30	30	26'	127' - 153'
S117 - S118	1:54	1:59	30	30	22' BUTT	@ 127'S
S115 - S118	1:54	1:59	30	30	127'	0' - 127'S
S116 - S119	11:43	11:48	30	30	25'	650 - 675'S
S117 - S119	1:14	1:19	30	30	495'	155 - 650
S119 - S120	2:01	2:06	30	30	22' BUTT	@ 155'S
S117 - S120	2:00	2:05	30	30	28'	127' - 155'S
S118 - S120	2:00	2:05	30	30	127'	0' - 127'S
S119 - S121	11:51	11:56	30	30	44'	631' - 675'
S121 - S122	11:51	11:56	30	30	22' BUTT	@ 631'S
S119 - S122	1:15	1:20	30	30	476'	155 - 631'
S120 - S122	2:45	2:50	30	30	47'	108 - 155
S122 - S123	2:45	2:50	30	30	22' BUTT	@ 108'S
S120 - S123	2:45	2:50	30	30	108'	0 - 108'S
S121 - S124	2:10	2:15	30	30	44'	631 - 675'
S122 - S124	2:30	2:35	30	30	479'	152 - 631
S124 - S125	2:34	2:39	30	30	22' BUTT	@ 152'
S122 - S125	2:50	2:55	30	30	44	108' - 152'
S123 - S125	2:50	2:55	30	30	108'	0 - 108'S
S124 - S126	2:24	2:29	30	30	76'	599' - 675'
S126 - S127	2:24	2:29	30	30	22' BUTT	@ 599'S
S124 - S127	2:26	2:31	30	30	214'	385 - 599'S
S124 - S127	2:34	2:39	30	30	233'	152' - 385'
S125 - S127	2:55	3:00	30	30	76'	76' - 152'
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log SECONDARY

Date: _____ Area: WEST Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S127-S128	2:55	3:00	30	30	22' BUTT	@ 76's
S125-S128	2:55	3:00	30	30	76'	0'-76's
S128-S137	4:32	4:37	30	30	78'	0'-78' South
S127 S137	4:32	4:37	30	30	87'	78'-165'
S137 S129	3:55	4:00	30	30	22'	Butt @ 165' South
S127 S129	3:55	4:00	30	30	433'	165'-598'
S126 S129	3:40	3:45	30	30	75'	598'-EOS 673'±
S129 S130	3:58	4:03	30	28	508'	EOS-165' Butt
S137 S130	4:30	4:35	30	30	10'	165 Butt-155' Butt
S137 S138	4:35	4:40	30	30	7'	155'-148'
S137 S138	4:35	4:40	30	30	148'	148'-0'
S138 S139	4:36	4:41	30	30	155'	0'-155' Butt
S130 S139	4:44	4:49	30	30	9'	155'-164' Butt
S131 S139	4:44	4:49	30	30	22'	Butt @ 164'
S130 S138	4:30	4:35	30	30	22'	Butt @ 155'
S130 S131	4:00	4:05	30	30	510'	164'-EOS
S131 S132	4:20	4:25	30	30	506'	670' EOS-164' Butt
S132 S139	4:45	4:50	30	30	9'	164' Butt to 153' Butt
S139 S140	4:38	4:43	30	30	153'	153'-0'
S132 S140	4:45	4:50	30	30	22'	Butt @ 153' South
S140 S141	07:22	07:27	30	28	69'	0'-69'
S140 S141	07:22	07:27	30	30	31'	69'-100'
S140 S141	4:48	4:53	30	30	53'	100'-153'
S132 S141	4:48	4:53	30	30	40'	153'-193'
S132 S133	4:21	4:26	30	30	480'	193'-EOS 673'
S133 S134	3:41	3:46	30	30	43'	631' to EOS
S134 S135	3:41	3:46	30	30	22'	Butt @ 631' South
S133 S135	4:22	4:27	30	30	438'	631'-193'
S135 S141	4:55	5:00	30	30	33'	193'-160'
S135 S141	07:25	07:30	30	30	45'	160'-115'
S135 S143	07:25	07:30	30	30	22'	Butt @ 115'
S143 S142	07:25	07:30	30	29	22'	Butt @ 111' South
S141 S142	07:25	07:30	30	30	111'	111'-0'
S142 S144	07:30	07:35	30	30	103'	8'-111' 0'-8' VT
S144 S135	07:30	07:35	30	30	34'	115'-149' 111' to 115' VT
S144 S136	07:33	07:38	30	30	22'	Butt @ 149' South
S135 S136	4:23	4:28	30	30	482'	149'-631'
S134 S136	3:42	3:47	30	30	42'	631'-EOS 673'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

SECONDARY

Date:		Area: SOUTHWEST		Material: 60 MIL HDPE TEXT		
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**	**Length**	**Comments to/from**
S136-S145	10:52	10:57	30	29	21'	647 -668 CAP-675
S136-S145	11:27	11:32	30	30	336'	311' - 647's
S145-S146	10:57	11:02	30	30	155'	520' - 675's
S146-S147	11:23	11:28	30	30	22' BUTT	@ 520's
S145-S147	11:11	11:16	30	30	60'	460' - 520's
S145-S147	11:11	11:16	30	30	149'	311 - 460's
S146-S148	11:23	11:28	30	30	155'	520' - 675's
S147-S148	11:23	11:28	30	30	149'	371' - 520's
S148-S149	11:47	11:52	30	29	22' BUTT	@ 371's
S147-S149	11:47	11:52	30	30	57'	314' - 371'
S148-S150	11:48	11:53	30	29	304'	371' - 675'
S149-S150	11:48	11:53	30	30	55'	316' - 371'
S150-S151	1:10	1:15	30	30	64'	611' - 675's
S151-S152	1:11	1:16	30	30	64'	611' - 675's
S152-S153	1:12	1:17	30	29	64'	611' - 675's
S153-S154	1:13	1:18	30	30	64'	611' - 675's
S154-S155	1:16	1:21	30	30	39'	636' - 675's
S154-S158	1:13	1:18	30	30	27'	SW CORNER DIAGONAL
S154-S157	1:15	1:20	30	30	7'	SW CORNER DIAGONAL
S155-S157	1:25	1:30	30	30	28'	SW CORNER DIAGONAL
S155-S156	1:25	1:30	30	30	18'	SW CORNER SEAM
S156-S157	1:25	1:30	30	30	16'	SW CORNER SEAM
S157-S158	1:15	1:20	30	30	42'	WEST SIDE
S150-S159	10:25	10:30	30	30	198'	413's - 611's
S159-S160	10:25	10:30	30	30	18' BUTT	@ 413's
S150-S160	10:25	10:30	30	30	87'	326' - 413's
S159-S161	10:33	10:38	30	30	175'	436' - 611's
S159-S163	10:34	10:39	30	30	23'	413' - 436's CROSS-SEAM
S160-S163	10:45	10:50	30	30	87'	326' - 413's CROSS-SEAM
S161-S162	11:56	12:01	30	30	56'	555' - 611's
S161-S163	10:34	10:39	30	30	128'	CROSS-SEAM
S162-S163	11:57	12:02	30	30	56'	CROSS-SEAM 555'-611's
S151-S159	11:55	12:00	30	30	22' BUTT	@ 611's
S152-S161	11:55	12:00	30	30	22' BUTT	@ 611's
S153-S162	11:56	12:01	30	30	11' BUTT	@ 611's
S153-S163	11:57	12:02	30	29	11' BUTT	@ 611's
S158-S163	11:58	12:03	30	30	11' BUTT	BUTT / CROSS SEAM @ 611's
S158-S164	11:14	11:19	30	30	46'	0' - 46' EAST
Any failing seam not retested to be noted in Comments column						

5/13/10

West Pasco Class I
Cell A - 4 Construction
Air Test Log SECONDARY

Date:		Area: WEST FLOOR		Material: 60 MIL HDPE TEXT		
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**	**Length**	**Comments to/from**
S163-S164	12:00	12:05	30	30	22'	22' CROSS-SEAM / 46' E
S164-S165	11:15	11:20	30	30	46'	0'-46' EAST OF W. ANCHOR
S163-S165	12:00	12:05	30	30	22'	22' CROSS-SEAM / 46' E
S165-S166	11:16	11:21	30	30	46'	0'-46' E
S163-S166	1:05	1:10	30	30	22'	22' CROSS-SEAM / 46'E
S166-S167	11:17	11:22	30	30	46'	0'-46' E
S163-S167	1:05	1:10	30	30	22'	22' CROSS-SEAM / 46'E
S167-S168	11:18	11:23	30	30	46'	0'-46' E
S163-S168	1:08	1:13	30	30	22'	22' CROSS-SEAM / 46'E
S168-S169	11:23	11:28	30	30	46'	0'-46'E
S163-S169	1:08	1:13	30	30	22'	22' CROSS-SEAM / 46'E
S169-S170	11:24	11:29	30	30	46'	0'-46'E
S163-S170	1:09	1:14	30	28	22'	22' CROSS-SEAM / 46'E
S170-S171	11:25	11:30	30	30	45'	0'-45'E
S163-S171	1:09	1:14	30	30	22'	22' CROSS-SEAM / 45'E
S171-S172	11:40	11:45	30	30	45'	0'-45'E
S163-S172	1:10	1:15	30	30	22'	22' CROSS-SEAM / 45'E
S172-S173	11:41	11:46	30	30	45'	0'-45'E
S163-S173	1:10	1:15	30	30	22'	22' CROSS-SEAM / 45'E
S173-S174	11:43	11:48	30	30	45'	0'-45'E
S163-S174	1:20	1:25	30	30	22'	22' CROSS-SEAM / 45'E
S174-S175	11:44	11:49	30	30	46'	0'-45'E
S163-S175	1:20	1:25	30	30	22'	22' CROSS-SEAM / 45'E
S175-S176	11:45	11:50	30	29	45'	0'-45'E
S163-S176	1:21	1:26	30	30	22'	22' CROSS-SEAM / 45'E
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log SECONDARY

Date: 7-8-10 Area: NW CORNER Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
S176-S177	1:20	1:25	30	30	28'	0'-28'E
S176-S177	1:12	1:17	30	28	18'	28'-46'E
S163-S177	1:12	1:17	30	30	21'	46'E-67'E
S150-S177	1:13	1:18	30	30	26'	67'E-90'E/CROSS-SEAM
S149-S180	1:14	1:19	30	28	22'	90'E-112'E
S147-S178	1:49	1:54	30	30	21'	112'E-133'E
S145-S178	1:49	1:54	30	30	22'	133'E-155'E
S180-S178	1:14	1:19	30	30	22'	90'E-112'E
S177-S178	1:13	1:18	30	30	90'	0'-90'E
S136-S178	2:23	2:28	30	30	22'	CROSS-SEAM @ 155'
S178-S179	2:23	2:28	30	30	153'	0'-153'E
S136-S179	2:23	2:28	30	30	22'	CROSS-SEAM @ 153'
S179-S181	2:32	2:37	30	30	27'	0'-27'E
S179-S181						Bootleg skirt 27'-42'
S179-S181	2:25	2:30	30	30	62'	42'-104'E
S181-S182	2:25	2:30	30	30	22' BUTT	BUTT SEAM @ 104'E
S179-S182	2:25	2:30	30	30	40'	104'E-144'E
S136-S182	2:29	2:34	30	28	22'	CROSS-SEAM @ 144'
S181-S183	2:36	2:41	30	30	104'	0'-104'E
S182-S183	2:36	2:41	30	30	38'	104'-142'E
S136-S183	2:29	2:34	30	29	22'	CROSS-SEAM @ 142'
S183-S184	2:48	2:53	30	29	137'	0'-137'E
S136-S184	2:49	2:54	30	30	22'	CROSS-SEAM @ 133'E
S184-S185	2:49	2:54	30	30	133'	0'-133'E
S136-S185	2:49	2:54	30	30	22'	CROSS-SEAM @ 130'E
S185-S186	3:20	3:25	30	28	64'	0'-64'E
S185-S187	3:20	3:25	30	30	66'	64'-130'E
S186-S187	3:22	3:27	30	30	22' BUTT	@ 64'E
S186-S188	3:22	3:27	30	30	64'	0'-64'E
S187-S188	3:22	3:27	30	28	60'	64'-124'
S144-S188	3:41	3:46	30	30	22'	CROSS-SEAM @ 124'E
S188-S189	3:41	3:46	30	30	121'	0'-121'E
S144-S189	3:41	3:46	30	30	22'	CROSS-SEAM @ 121'E
S189-S190	3:42	3:47	30	30	118'	0'-118'E
S144-S190	4:03	4:08	30	28	22'	CROSS-SEAM @ 118'E
S190-S191	4:04	4:09	30	30	82'	0'-82'E
S190-S192	4:03	4:08	30	30	31'	82'E-113'E
S144-S192	409	4:14	30	30	22'	CROSS-SEAM @ 109'E

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

SECONDARY

Date: 7-8-10 | Area: NW CORNER | Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
SP91-S193	4:05	4:10	30	28	82'	0'-82'E
S191-SP92	4:05	4:10	30	30	22' BUTT	@ 82'E
S192-S193	4:09	4:14	30	30	27'	82'-109'E
S144-S193	4:40	4:45	30	30	22'	CROSS-SEAM @ 105'E
S193-S194	4:26	4:31	30	28	105'	0'-105'E
S144-S194	4:57	5:02	30	29	22'	CROSS-SEAM @ 99'E
S194-SP95	5:01	5:06	30	30	32'	0'-32'E
S195-S196	5:06	5:11	30	30	12'	0'-12'E
S196-S197	5:06	5:11	30	27	5'	0'-5'S
S195-S197	5:06	5:11	30	30	24'	5'-29'S
S194-S197	5:00	5:05	30	30	22'	CROSS-SEAM @ 29'S
S197-S198	5:00	5:05	30	28	30'	0'-30'S
S194-S198	5:00	5:05	30	30	22'	CROSS-SEAM @ 30'S
S198-S199	4:58	5:03	30	30	30'	0'-30'S
S194-S199	4:57	5:02	30	28	22'	CROSS-SEAM @ 30'S
S199-S144	4:57	5:02	30	30	30'	0'-30'S

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date: 4-28-10 | Area: EAST FLOOR/SLOPE | Material: 60 MIL HDPE TEX

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P1 - P2	8:05	8:10	30	29	72'	O'W / NORTH END
P2 - P3	8:08	8:13	30	30	66'	
P3 - P4	8:08	8:13	30	30	22' BUTT	
P2 - P4	8:08	8:13	30	30	6'	
P4 - P5	8:12	8:17	30	30	6'	
P3 - P5	8:10	8:15	30	30	66'	
P5 - P6	8:25	8:30	30	29	72'	
P6 - P7	8:26	8:31	30	30	72'	
P7 - P8	8:27	8:32	30	30	72'	
P8 - P9	8:28	8:33	30	30	72'	
P9 - P10	8:50	8:55	30	30	72'	
P10 - P11	8:51	8:56	30	30	72'	
P11 - P12	8:52	8:57	30	30	72	
P12 - P13	8:53	8:58	30	29	79'	
P13 - P14	8:54	8:59	30	30	79'	
P14 - P15	9:00	9:05	30	30	77'	
P15 - P16	9:01	9:06	30	30	77'	
P16 - P17	9:02	9:07	30	29	76'	
P17 - P18	9:14	9:19	30	30	49'	
P18 - P19	9:14	9:19	30	30	22' BUTT	
P17 - P19	9:14	9:19	30	30	26'	
P18 - P20	9:15	9:20	30	30	49'	
P19 - P20	9:15	9:20	30	30	26'	
P20 - P21	9:30	9:35	30	30	75'	
P21 - P22	9:31	9:36	30	30	74'	
P22 - P23	9:32	9:37	30	30	74'	
P23 - P24	9:33	9:38	30	30	11'	
P23 - P24	9:33	9:38	30	30	63'	
P24 - P25	10:00	10:05	30	30	74'	
P25 - P26	10:01	10:06	30	30	74'	
P26 - P27	10:02	10:07	30	30	74'	
P27 - P28	10:03	10:08	30	30	74'	
P28 - P29	10:05	10:10	30	29	74'	
P29 - P30	10:06	10:11	30	30	72'	
P30 - P31	10:07	10:12	30	30	72'	
P31 - P32	10:28	10:33	30	30	54'	
P31 - P33	10:28	10:33	30	30	23'	
P32 - P33	10:28	10:33	30	30	22' BUTT	
Any failing ~~seam not retested to be noted~~ in Comments column						

West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date: 4-28-10 | Area: EAST FLOOR | Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P32-P34	10:29	10:34	30	30	66'	
P33-P34	10:29	10:34	30	29	22'	S. ANCHOR TRENCH
P34-P35	10:43	10:48	30	30	22'	CROSS SEAM @ 657's
P33-P35	10:44	10:49	30	30		" @ 635's
P31-P35	10:45	10:50	30	30		" @ 614's
P30-P35	10:46	10:51	30	29		" @ 592's
P29-P35	10:50	10:55	30	30		" @ 569's
P28-P35	10:51	10:56	30	30		" @ 548's
P27-P35	10:52	10:57	30	30		" @ 525's
P26-P35	10:53	10:58	30	30		" @ 503's
P25-P35	11:00	11:05	30	30		" @ 482's
P24-P35	11:01	11:06	30	30		" @ 459's
P23-P35	11:02	11:07	30	29		" @ 438's
P22-P35	11:03	11:08	30	30		" @ 416's
P21-P35	11:13	11:18	30	30		" @ 394's
P20-P35	11:15	11:20	30	30		" @ 372's
P19-P35	11:16	11:21	30	30		" @ 350's
P17-P35	11:17	11:22	30	30		" @ 327's
P16-P35	11:26	11:31	30	30		" @ 306's
P15-P35	11:27	11:32	30	30		" @ 284's
P14-P35	11:28	11:33	30	30		" @ 261's
P13-P35	1:04	1:09	30	30		" @ 239's
P12-P35	1:04	1:09	30	30		" @ 217's
P11-P35	1:06	1:11	30	30		" @ 194's
P10-P35	1:06	1:11	30	30		" @ 172's
P9-P35	1:07	1:12	30	30	17'	" @ 155'-172's
P35-P36	1:07	1:12	30	30	22' BUTT	
EX P9-P36	—	—	—	—	5'	EXTRUDE
P8-P36	1:20	1:25	30	30	22'	CROSS SEAM @ 128's
P7-P36	1:20	1:25	30	30		" @ 107's
P6-P36	1:21	1:26	30	30		" @ 86's
P5-P36	1:21	1:26	30	30		" @ 64's
P4-P36	1:22	1:27	30	28		" @ 42's
P2-P36	1:22	1:27	30	30		" @ 20's
P1-P36	1:23	1:28	30	30		" @ 0'-20's
P35-P38	11:48	11:53	30	30	318'	(357's-673's)
P38-P37	11:48	11:53	30	30	22' BUTT	
P35-P37	11:48	11:53	30	30	202'	(155'-357')
Any failing seam not retested to be noted in Comments column						

West Pasco ~~Class I~~
Cell A - 4 Construction
Air Test Log

Primary

Date: 4-28-10 | Area: EAST FLOOR | Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P36-P37	1:25	1:30	30	30	155'	
P37-P42	1:33	1:38	30	30	102'	
P40-P42	1:45	1:50	30	30	22' BUTT	@ 102's
P37-P40	11:49	11:54	30	30	255'	102-357'
P38-P40	12:50	12:55	30	30	270'	357'-627'
P38-P39	12:50	12:55	30	30	48'	627'-675'
P39-P41	?12:51	12:56	30	30	48'	627'-675'
P39-P40	12:50	12:55	30	30	22' BUTT	@627'
P40-P41	1:00	1:05	30	30	320'	(307'-627'
P40-P41	1:03	1:08	30	30	152'	(155'-307')
P41-P43	1:46	1:51	30	30	22' BUTT	@155's
P40-P43	1:45	1:50	30	30	53'	(102'-155')
P42-P43	1:58	2:03	30	30	102'	(0-102')
P41-P45	1:54	1:59	30	30	354'	(321-675's)
P41-P45	1:55	2:00	30	30	26'	(295'-321's)
P41-P45	1:56	2:01	30	29	131'	(164'-295')
P45-P44	1:47	1:52	30	29	22' BUTT	@ 164's
4-29-10 P43-P44	9:08	9:13	30	30	155'	0'-155' (9' EXTR DED)
P44-P48	10:30	10:35	30	30	84'	0'-84'
P47-P48	10:30	10:35	30	30	22' BUTT	@ 84'
P44-P47	10:30	10:35	30	30	80'	84'-164'
P45-P47	10:00	10:05	30	30	438'	164'-602'
P46-P47	9:33	9:38	30	30	22' BUTT	@ 602's
P45-P46	9:33	9:38	30	30	73'	602'-675'
P46-P50	9:34	9:39	30	30	73'	602'-675'
P47-P50	10:01	10:06	30	30	444'	158'-602'
P50-P49	11:05	11:10	30	30	22' BUTT	@ 158's
P47-P49	10:31	10:36	30	30	74'	84'-158'
P48-P49	10:31	10:36	30	30	84'	0'-84's
P49-P51	11:05	11:10	30	30	158'	0'-158's
P50-P51	10:50	10:55	30	30	321	158'-190's
P51-P52	10:50	10:55	30	30	22' BUTT	@ 190's
P50-P52	10:02	10:07	30	29	485'	190'-675'
P52-P55	10:03	10:08	30	30	485'	190'-675'
P51-P55	10:58	10:56	30	30	29'	161'-190'
P55-P54	10:51	10:56	30	30	22' BUTT	@ 161's
P51-P54	11:06	11:11	30	30	76'	85'-161'
P54-P53	11:06	11:11	30	30	22' BUTT	@ 85'

Any failing seam not retested to be noted in Comments column

West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date: _____ Area: CENTER Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P51-P53	11:06	11:11	30	30	85'	0'-85's
P53-P56	1:15	1:20	30	30	85'	0'-85's
P54-P56	1:15	1:20	30	30	48'	85's - 133's
P56-P57	11:36	11:41	30	30	22' BUTT	@ 133's
P54-P57	10:55	11:00	30	30	28'	133's - 161's
P55-P57	10:04	10:09	30	30	495'	161's - 656's
P57-P58	9:35	9:40	30	30	22' BUTT	@ 656's
P58-P58	9:35	9:40	30	30	19'	656's - 675's
P58-P59	1:35	1:38	30	30	19	656's - 675's
P57-P59	1:25	1:30	30	30	503'	153's - 656's
P59-P60	1:25	1:30	30	30	22' BUTT	@ 153's
P57-P60	1:25	1:30	30	30	20'	133' - 153'
P56-P60	11:49	11:54	30	30	58'	75' - 133'
P56-P60	1:11	1:16	30	30	8'	67' - 75'
P56-P60	1:05	1:10	30	29	10'	57' - 67'
P56-P60	1:04	1:09	30	30	24'	33' - 57'
P56-P60	12:58	1:03	30	30	15'	18' - 33'
P56-P60	12:55	1:06	30	30	13'	5' - 18'
P56-P60	—	—	—	—	5'	0'-5' EXTRUDED
P60-P61	3:20	3:25	30	30	22'	0' - 22'
P60-P61	3:20	3:25	30	30	102'	22' - 124'
P60-P61	2:36	2:41	30	30	8'	124' - 132'
P61-P62	2:37	2:42	30	30	22' BUTT	@ 132'
P60-P62	2:35	2:40	30	30	18'	132' - 150'
P59-P62	2:35	2:40	30	30	42'	150' - 192'
P62-P63	2:06	2:11	30	30	22' BUTT	@ 192'
P59-P63	2:05	2:10	30	30	483'	192' - 675'
P63-P64	1:48	1:53	30	30	65'	610' - 675'
P63-P64	2:06	2:11	30	30	418'	192' - 610'
P62-P64	2:06	2:11	30	30	38'	154 - 192'
P64-P65	2:07	2:12	30	30	22' BUTT	@ 154's
P62-P65	2:37	2:42	30	30	22'	132' - 154'
P61-P65	2:45	2:48	30	30	132'	0' - 132'
P65-P68	2:50	2:55	30	30	122'	0' - 122'
P67-P68	2:50	2:55	30	30	22' BUTT	@ 122'
P65-P67	2:50	2:55	30	30	22'	122' - 154'
P64-P67	2:07	2:12	30	30	494'	154' - 648'
P66-P67	1:49	1:54	30	30	22' BUTT	@ 648's

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date: _____ Area: CENTER Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P64-P66	1:49	1:54	30	30	27'	648'-675'
P66-P70	1:50	1:55	30	30	27'	648-675'
P67-P70	3:37	3:42	30	30	302'	346'-648'
P67-P70	3:37	3:42	30	30	193'	153'-346'
P70-P69	3:15	3:20	30	30	22' BUTT	@ 153's
P69-P67	3:18	3:18	30	30	31'	122'-153'
P68-P69	3:13	3:18	30	28	122'	0-122'
P69-P72	3:15	3:20	30	30	153'	0'-153'
P70-P72	3:15	3:20	30	36	7'	153'-160'
4-30 P72-P71	7:50	7:55	30	30	22' BUTT	@ 160's
P70-P71	3:29	3:34	30	30	515'	160'-675'
P71-P74	4:03	4:08	30	30	515'	160'-675'
P72-P74	4:14	4:19	30	30	8'	152'-160'
P74-P73	4:13	4:18	30	30	22' BUTT	@ 152'
P72-P73	4:14	4:19	30	30	152'	0-152's
P74-P75	4:02	4:07	30	30	481'	194'-675's
P75-P76	4:02	4:07	30	29	22' BUTT	@ 194's
P74-P76	4:13	4:18	30	30	42'	152'-194'
P73-P76	4:13	4:18	30	30	152'	0'-152's
4-30 P76-P77	12:15	12:20	30	30	151'	0'-151's
P77-P78	12:15	12:20	30	30	22' BUTT	@ 151's
P76-P78	10:07	10:12	30	30	43'	151's-194's
P75-P78	10:07	10:12	30	30	481'	194'-675'
P78-P79	9:47	9:52	30	28	21'	654-675'
P79-P80	9:46	9:51	30	30	22' BUTT	@ 654'
P78-P80	10:08	10:13	30	30	503'	151'-654'
P77-P80	12:17	12:22	30	30	23'	128'-151'
P80-P81	12:17	12:22	30	30	22' BUTT	@ 128's
P77-P81	12:17	12:22	30	30	128'	0'-128's
P81-P83	12:18	12:23	30	30	128'	0'-128's
P80-P83	12:20	12:25	30	30	26'	128'-154'
P83-P82	12:20	12:25	30	30	22' BUTT	@ 154's
P80-P82	10:09	10:14	30	30	500'	154'-654'
P79-P82	9:46	9:51	30	30	21'	654'-675'
P82-P84	10:10	10:15	30	30	514'	161'-675'
P84-P85	12:26	12:31	30	30	22' BUTT	@ 161's
P82-P85	12:26	12:31	30	30	27'	154'-161'
P83-P85	12:28	12:33	30	30	54'	100'-154'

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date:		Area: WEST		Material: 60 Mil HDPE TEXT		
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**	**Length**	**Comments to/from**
P85-P86	12:28	12:33	30	30	22' BUTT	@ 100's
P83-P86	12:28	12:33	30	30	100'	0'-100's
P86-P87	12:29	12:34	30	30	100'	0'-100's
P85-P87	12:29	12:34	30	30	58'	100'-158's
P87-P88	1:08	1:13	30	30	22' BUTT	@ 158's
P85-P88	—	—	—	—	3'	158-161 EXTRUDE
P84-P88	10:11	10:16	30	30	514'	161'-675'
P87-P90	1:27	1:32	30	30	158'	0'-158' (Ex. 151-158)
P88-P90	12:30	12:35	30	30	24'	158'-182'
P90-P89	1:29	1:34	30	30	22' BUTT	@ 182's
P88-P89	10:30	10:35	30	30	493'	182'-675's
P90-P91	1:34	1:39	30	30	88'	0'-88'
P91-P92	1:35	1:40	30	30	22' BUTT	@ 88's
P90-P92	1:30	1:35	30	30	77'	80'-157's
P92-P93	1:30	1:35	30	30	22' BUTT	@ 157's
P90-P93	1:29	1:34	30	28	25'	157'-182'
P89-P93	11:30	11:35	30	29	493'	182'-675's
P91-P96	1:35	1:40	30	30	88'	0'-88'
P92-P96	1:35	1:40	30	30	48'	88'-136'
P95-P96	1:31	1:36	30	30	22' BUTT	@ 136's
P92-P95	1:31	1:36	30	30	21'	136'-157's
P93-P95	11:31	11:36	30	30	400'	157'-557'
P93-P95	11:00	11:05	30	30	90'	557-647'
P95-P94	11:00	11:05	30	30	22' BUTT	@ 647's
P93-P94	11:00	11:05	30	30	28'	647-675's
Any failing seam not retested to be noted in Comments column						

NEXT PAGE

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West Pasco Class I
Cell A - 4 Construction
Air Test Log PRIMARY

Date:		Area: (640'W WEST FLOOR		Material: 60 MIL HDPE TEXT			
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**		**Length**	**Comments to/from**
5/10/10 P94 - P97	8:52	8:57	30	30		28'	647'-675'S /640'W
P95 - P97	9:14	9:19	30	30		491'	156'-647's
P97 - P98	10:10	10:15	30	30		22' BUTT	@156's
P95 - P98	10:11	10:16	30	30		20'	136-156'
P96 - P98	10:11	10:16	30	30		136'	0'-136's
P97 - P99	9:15	9:20	30	30		484'	191's-675's
P99 - P100	10:34	10:39	30	30		22' BUTT	@191's
P97 - P100	10:34	10:39	30	30		35'	156'-191's
P98 - P100	10:40	10:45	30	30		51'	105-156'
P100 - P101	10:17	10:22	30	30		22' BUTT	@105's
~~P98~~ P98 - P101	10:40	10:45	30	30		105'	0'-105's
P99 - P103	9:30	9:35	30	30		319'	356'-675's
P99 - P103	9:30	9:35	30	30		165'	191'-356'
P100 - P103	11:38	11:43	30	30		37'	154'-191'
P103 - P102	11:38	11:43	30	30		22' BUTT	@154's
P100 - P102	11:38	11:43	30	30		49'	105'-154's
P101 - P102	11:40	11:45	30	30		105'	0'-105's
P103 - P106	9:00	9:05	30	29		28'	647-675's
P106 - P105	9:00	9:05	30	30		22' BUTT	@647's
P103 - P105	9:40	9:45	30	30		493'	154'-647's
P102 - P105	11:39	11:44	30	30		27'	127-154'
P105 - P104	11:39	11:44	30	30		22' BUTT	@127's
P102 - P104	11:39	11:44	30	30		127'	0'-127's
P106 - P107	9:00	9:05	30	30		28'	647'-675'
P105 - P107	9:39	9:44	30	30		492'	155'-647'
P107 - P108	1:00	1:05	30	30		22' BUTT	@ 155's
P105 - P108	11:46	11:51	30	30		17'	138'-155's
P108 - P109	11:46	11:51	30	30		22' BUTT	@ 138's
P105 - P109	11:47	11:52	30	30		11'	127'-138's
P104 - P109	11:47	11:52	30	30		127'	0'-127'S
P107 - P111	10:53	10:58	30	30		510'	165'-675'S
P111 - P110	1:01	1:06	30	30		22' BUTT	@ 165'S
P107 - P110	1:01	1:06	30	30		10'	155'- 165'S
P108 - P110	1:00	1:05	30	30		17'	138' - 155'S
P109 - P110	1:19	1:24	30	30		138'	0'-138's
P111 - P112	9:55	10:00	30	30		221'	454'-675'
P111 - P112	10:55	11:00	30	30		289'	165-484's
P110 - P112	1:20	1:25	30	30		14'	151'-165's
Any failing seam not retested to be noted in Comments column							

West Pasco Class I
Cell A - 4 Construction
Air Test Log

Date: _____ Area: WEST FLOOR Material: 60 MIL HDPE TEXT PRIMARY

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P112-P113	1:20	1:25	30	29	22' BUTT	@ 151's
P110-P113	1:20	1:25	30	30	151'	0'-151's
P113-P114	1:22	1:27	30	30	126'	0'-126's
P113-P114	1:22	1:27	30	30	17'	126'-143'
P115-P114	1:21	1:26	30	28	22' BUTT	@ 143's
P113-P115	1:21	1:26	30	30	8'	143'-151'
P112-P115	1:38	1:43	30	30	35'	151'-186's
P115-P116	1:38	1:43	30	28	22' BUTT	@ 186's
P112-P116	2:29	2:34	30	30	489'	186'-675's
P116-P117	2:29	2:34	30	30	478'	197'-675'
P117-P118	2:55	3:00	30	30	22' BUTT	@ 197's
P116-P118	2:55	3:00	30	30	11'	186'-197'
P115-P118	2:56	3:01	30	30	43'	143'-186'
P114-P118	2:56	3:01	30	30	143'	0'-143'
P118-P119	3:00	3:05	30	30	153'	0'-153'
P119-P120	3:00	3:05	30	30	22' BUTT	@ 153'
P118-P120	2:58	3:03	30	30	33'	153'-186'
P118-P120	2:58	3:03	30	30	11'	186'-197'
P117-P120	2:27	2:32	30	30	271'	197'-468'
P117-P120	2:14	2:19	30	30	207'	468'-675'
P120-P121	2:16	2:21	30	30	29'	646'-675'
P121-P122	2:16	2:21	30	30	22' BUTT	@ 646's
P120-P122	3:20	3:25	30	30	417'	229'-646'
P120-P122	3:17	3:22	30	30	76'	153'-229'
P119-P122	3:10	3:15	30	30	28'	125'-153'
P122-P123	3:10	3:15	30	30	22' BUTT	@ 125's
P119-P123	3:10	3:15	30	30	125'	0'-125's
P123-P125	3:15	3:20	30	30	125'	0'-125's
P122-P125	3:15	3:20	30	30	26'	125'-151'
P124-P125	3:14	3:19	30	30	22' BUTT	@ 151's
P122-P124	3:16	3:21	30	30	185'	151'-336'
P122-P124	3:23	3:28	30	30	194'	336'-530's
P122-P124	3:23	3:28	30	30	116'	530'-646'
P121-P124	2:17	2:22	30	30	29'	646'-675's
~~P124-P126~~	~~11:54~~	~~11:59~~	~~30~~	~~29~~	~~54'~~	~~646'-675's~~
~~P125-P127~~	~~11:55~~	~~12:00~~	~~30~~	~~28~~	~~54'~~	~~621'-675's~~
~~P127-P128~~	~~11:30~~	~~11:35~~	~~30~~	~~30~~	~~125'~~	~~550'-675's~~
~~P127-P128~~	~~10:37~~	~~10:43~~	~~30~~	~~30~~	~~356'~~	~~196'-552'~~
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

PRIMARY

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P124-P126	11:54	11:59	30	29	511'	164-675'
P126-P132	1:10	1:15	30	29	22' Butt	@164's
P124-P132	1:10	1:15	30	30	13'	151'-164'
P125-P132	1:11	1:16	30	30	37'	114'-151'
P125-P132	1:12	1:17	30	30	21'	93'-114'
P125-P132	1:12	1:17	30	30	93'	0-93'
P132-P133	1:13	1:18	30	28	68	0'-68'
P132-P133	1:13	1:18	30	30	91'	68'-159'
P133-P127	1:15	1:20	30	30	22' Butt	@159'
P132-P127	—	—	—	—	5'	5' ~~Extrude~~ Patch
P126-P127	11:55	12:00	30	28	511'	164-675'
P127-P128	11:30	11:35	30	30	123'	552'-675'
P127-P128	12:37	12:43	30	30	356	196'-552'
P128-P135	1:44	1:49	30	30	22' Butt	@196's
P127-P135	1:44	1:49	30	30	37'	159'-196'
P133-P135	2:20	2:25	30	30	120'	39'-159's
P134-P135	2:20	2:25	30	30	22' Butt	@39's
P133-P134	2:20	2:25	30	28	39'	0'-39'
P134-P136	2:21	2:26	30	30	39'	0'-39'
P135-P136	2:21	2:26	30	30	118'	39'-157'
P136-P129	1:45	1:50	30	30	22' Butt	@157's
P135-P129	1:45	1:50	30	30	39'	157'-196'
P128-P129	12:43	12:48	30	30	479'	196'-675'
P129-P130	11:31	11:36	30	30	39'	636'-675'
P130-P131	11:31	11:36	30	28	22' Butt	@636's
P129-P131	12:45	12:50	30	30	479'	157-636's
P136-P131	2:40	2:45	30	30	41	116'-157'
P131-P137	2:41	2:46	30	30	22' Butt	@116'
P136-P137	2:40	2:45	30	30	116'	0'-116'
P137-P138	2:41	2:46	30	30	116	0'-116'
P131-P138	2:41	2:46	30	30	119'	116'-235'
P138-P139	2:54	2:59	30	30	22' Butt	@235's
P131-P139	2:54	2:59	30	30	401'	235'-636'
P130-P139	2:04	2:09	30	30	39'	636'-675
P139-P140	2:05	2:10	30	30	78'	597'-675'
P140-P141	2:05	2:10	30	30	22' Butt	@597's
P139-P141	2:55	3:00	30	30	362'	235'-597'
P138-P141	2:42	2:47	30	30	160'	75'-235'
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

PRIMARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P141-P142	2:42	2:47	30	30	22' BUTT	@ 75's
P138-P142	2:42	2:47	30	30	75'	0'-75's
P140-P143	9:03	9:08	30	30	78'	597'-675's
P141-P143	9:00	9:05	30	30	440'	157'-597'
P143-P145	9:28	9:33	30	30	22' BUTT	@157's
P141-P145	9:31	9:36	30	30	82'	75'-157's
P142-P145	9:31	9:36	30	30	75'	0'-75's
P145-P146	9:30	9:35	30	30	106'	0'-106's
P146-P147	9:30	9:35	30	29	22' BUTT	@106's
P145-P147	9:28	9:33	30	30	51'	106'-157'
P143-P147	9:27	9:32	30	30	9'	157'-166'
P147-P146	9:27	9:32	30	30	22' BUTT	@ 166's
P143-P144	8:59	9:04	30	30	509'	166'-675's
P144-P148	9:55	10:00	30	28	336'	339'-675's
P148-P149	9:56	10:01	30	30	332'	343'-675's
P149-P150	9:58	10:03	30	30	326'	349'-675's
P150-P151	10:00	10:05	30	30	324'	351'-675's
P151-P152	10:01	10:06	30	30	324'	351'-675's
P152-P153	10:35	10:40	30	29	323'	352'-675's
P153-P154	11:05	11:10	30	30	60'	615'-675's
P154-P155	11:05	11:10	30	28	15' BUTT	@615's
P153-P155	11:05	11:10	30	30	69'	546'-615's
P153-P157	11:12	11:17	30	30	59'	487'-546's
P157-P158	11:20	11:25	30	30	10' BUTT	@ 487's
P153-P158	11:20	11:25	30	30	48'	439'-487'
P153-P159	10:36	10:41	30	30	87'	CROSS-SEAM
P154-P156	11:08	11:13	30	30	25'	650-675's
P156-P157	11:08	11:13	30	30	25'	CROSS-SEAM 650'-675'
P154-P157	11:10	11:15	30	30	35'	CROSS-SEAM 615'-650'
P155-P157	11:11	11:16	30	30	69'	CROSS-SEAM 546'-615's
P157-P159	10:37	10:42	30	30	192'	CROSS-SEAM 487'-675'
P158-P159	10:37	10:42	30	30	48'	CROSS-SEAM 439'-487's

Any failing seam not retested to be noted in Comments column

5/20/10

West Pasco Class I
Cell A - 4 Construction
Air Test Log

Date: _____ Area: West Berm South Material: 60 Mil Text HDPE Primary

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P160 P161	09:10	09:15	30	30	45'	E to E.
P161 P162	09:11	09:16	30	30	42'	End to anchor Repair
P162 P163	09:12	09:17	30	30	44'	E to E.
P163 P164	09:13	09:18	30	30	43'	E to anchor Repair
P164 P165	09:14	09:19	30	28	44'	E to E.
P165 P166	09:15	09:20	30	30	44'	E to E.
P166 P167	09:16	09:21	30	30	44'	E to E.
P167 P168	09:17	09:22	30	30	44'	E to E.
P168 P169	09:19	09:24	30	30	44'	E to E.
P169 P170	09:21	09:26	30	30	44'	E to E.
P170 P171	10:44	10:49	30	30	44'	E to E.
P171 P172	10:45	10:50	30	30	43'	E to E
P172 P173	10:48	10:53	30	30	16'	E to Patch
P173 P175	10:48	10:53	30	30	10	Patch to Patch P174 Ext
P172 P175	10:47	10:52	30	30	13'	Patch to Patch in place
P175 P159	10:46	10:51	30	30	30'	Patch to anchor 0'-30'
P171 P159	10:44	10:49	30	30	22'	42'-64' cap 30'-42'
P170 P159	10:00	10:05	30	30	22'	64'-86'
P169 P159	10:00	10:05	30	30	22'	86'-109'
P168 P159	10:01	10:06	30	30	22'	109'-131'
P167 P159	10:01	10:06	30	28	22'	131'-153'
P166 P159	10:03	10:08	30	28	22'	153'-175'
P165 P159	10:03	10:08	30	30	22'	175'-197'
P164 P159	10:05	10:10	30	30	22'	197'-219'
P163 P159	10:05	10:10	30	30	22'	219'-242'
P162 P159	10:07	10:12	30	30	22'	242'-264'
P161 P159	10:07	10:12	30	30	22'	264'-286'
P160 P159	10:08	10:13	30	30	22'	286'-308'
* P144 - P148	1:15	1:20	30	29	102's	237's-339's
* P144 - P148	1:15	1:20	30	29	170'	167's - 237's
* P144 - P148	1:16	1:21	30	28	3'	164's - 167's
P148 - P149	1:13	1:18	30	30	180'	163's - 343's
P149 - P150	1:12	1:17	30	30	194'	155's - 349's
P150 - P151	1:10	1:15	30	28	195'	156's - 351's
P151 - P152	2:36	2:41	30	30	198'	153's 351's
P160 - P176	1:48	1:53	30	30	50'	0'-50'E
* P153 - P176	1:48	1:53	30	30	22'	Cross-SEAM 351'-373'S
* P153 - P180	2:15	2:20	30	28	22'	Butt-SEAM 50'-72'E
Any failing seam not retested to be noted in Comments column						

Cross seam W. Toe Area

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date:		Area: NW CORNER		Material: 60 mil HDPE text		
Panels	**Start Time**	**End Time**	**Start Pres**	**End Pres**	**Length**	**Comments to/from**
P176-P177	1:49	1:54	30	30	50'	0'-50'E
P180-P177	2:16	2:21	30	30	14'	50'E-64'E
P180-P179	2:16	2:21	30	30	11'	64'E-75'E
P177-P179	2:12	2:17	30	30	22'	Butt Seam @ 64'E
P177-P178	2:12	2:17	30	30	62'	0'-62'E
P178-P181	3:06	3:11	30	28	64'	0'-64'E
P152-P179	3:05	3:10	30	30	22'	Cross-seam @ 70'E
P152-P178	3:05	3:10	30	30	22'	Cross-seam @ 70'E
P152-P181	3:25	3:30	30	30	22'	Cross-seam @ 64'E
P181-P182	3:25	3:30	30	30	63'	0'-63'E
P152-P182	3:25	3:30	30	28	22'	Cross-seam @ 63'E
P182-P183	3:26	3:31	30	29	59'	0'-59'E
P152-P183	3:27	3:32	30	29	22'	Cross-seam @ 59'E
P183-P184	3:27	3:32	30	30	55'	0'-55'E
P152-P184	3:27	3:32	30	29	22'	Cross-seam @ 55'E
P184-P185	3:28	3:33	30	29	48'	0'-48'E
P152-P185	3:41	3:46	30	30	22'	Cross-seam @ 48'E
P185-P186	3:41	3:46	30	30	46'	0'-46'E
P152-P186	3:41	3:46	30	30	22'	Cross-seam @ 46'E
P186-P187	3:43	3:48	30	30	45'	0'-45'E
P152-P187	3:45	3:50	30	30	22'	Cross-seam @ 45'E
P187-P188	3:45	3:50	30	30	45'	0'-45'E
P152-P188	3:45	3:50	30	30	14'	45'E-59'E cross
P151-P188	3:57	4:02	30	30	22'	59'E-81'E cross
P150-P188	3:57	4:02	30	30	24'	81'E-105'E cross
P149-P188	3:59	4:04	30	28	22'	105'E-127'E cross
P148-P188	3:59	4:04	30	30	22'	127'E-149'E cross
P188-P189	07:46	07:51	30	30	144'	0'-144'
P188-P144	07:46	07:51	30	30	22'	Cross seam
P189 P144	07:46	07:51	30	28	22'	"
P189 P190	07:47	07:52	30	30	141'	0'-141'
P190 P144	07:53	07:58	30	30	10'	Cross Seam P to P
P190 P146	07:53	07:58	30	30	10'	Cross Seam P to P
P192 P146	08:00	08:05	30	28	22'	Cross Seam
P190 P192	08:05	08:10	30	30	73'	138+65' Butt
P190 P191	08:05	08:10	30	30	65'	0'-65' Butt
P191 P192	08:06	08:11	30	30	22' Butt	
P191 P193	08:06	08:11	30	30	63'	0'-Butt Near 65'
Any failing seam not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Air Test Log

Primary

Date: 7-15-10 | Area: NW Corner | Material: 60 mil HDPE Textured

Panels	Start Time	End Time	Start Pres	End Pres	Length	Comments to/from
P192 P193	08:06	08:11	30	30	70'	I63 to end EOS 133'
P193 P146	0800	08:05	30	30	22'	cross seam
P194 P146	08:15	08:20	30	30	22'	" "
P193 P194	08:10	08:15	30	30	130	0'—130' cross seam
P146 P200	08:28	08:33	30	30	26'	0'—cross seam E-W
P194 P200	08:29	08:34	30	30	22'	cross seam
P194 P199	08:29	08:34	30	30	22'	" "
P199 P200	08:29	08:34	30	30	30'	0'—30 cross
P198 P199	08:29	08:34	30	28	30'	" " "
P194 P198	08:39	08:44	30	30	22'	cross seam
P194 P197	08:39	08:44	30	30	22'	cross seam
P198 P197	08:39	08:44	30	30	30'	0'—cross
P194 P196	08:51	08:56	30	30	22'	cross seam
P194 P195	08:51	08:56	30	30	12'	cross seam in Corner
[redacted]						
P196 P197	08:45	08:50	30	30	32'	0'—cross
P146 P195	EXT Seam VTOK 7-15-10					25' into corner Trench + Pipe Boot/Skirt

Any failing seam not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Secondary

Date: _____ Area: East Berm Material: 60 M.T HDPE text

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S1-Exist-S7	Tie In	4-12-10	P			0'-137'
S7-Exist 137' South	Patch on Tie In	4-12-10	P			137'-152'
S7/S9 Exist	EXT "T"	4-12-10	F	4-13-10	P	152' South
S17/S18 Exist+332' South	Patch on Tie In	4-12-10	P			152'-332' South
S19 Exist 360' South	DS-7	4-12-10	P			332'-360' South
S22/S23 Exist 443' South	Patch "T" on Tie In	4-12-10	P			360-443' South
S31/S32 Exist+619' South	" " " "	4-12-10	P			443'-619' South to 625' South
S33/S34 35'-45' West	Cap over whl Burns	4-12-10	P			
S33/S34 55' W	DS 5	4-12-10	P			
S31/S29 S31 55' W	Patch at Butt Seam	4-12-10	P			
S29 S30/S28 55' W	" " " "	4-12-10	P			
S24/S25 40' W	DS 4	4-12-10	P			
S17/S15 S16 47' W	Patch at Butt Seam	4-12-10	P			
S15 S16/S14 47' W	" " " "	4-12-10	P			
S14 S15 60' W	DS 3	4-12-10	P			
S11/S12 25' W	DS 2	4-12-10	P			
S6/S7 25' W	DS 1	4-12-10	P			
S6/S7 45' W	whl Burn Patch	4-12-10	P			
S9/S7 S8 67' W	Patch at Butt Seam	4-12-10	P			
S7 S8/S6 67' W	" " " "	4-12-10	P			
S4/S5 29' W	whl Burn Patch	4-12-10	P			
S36 S1 0' South	AT Patch	4-12-10	P			East Cross Seam
S36 S1 S2 17' South	" "	4-12-10	P			
S36 S2 S3 39' S	" "	4-12-10	P			
S36 S3 S4 61' S	" "	4-12-10	P			
S36 S4 S5 82' S	" "	4-12-10	P			
S36 S5 S6 106' S	" "	4-12-10	P			
S36 S6 S8 126' S	" "	4-12-10	P			
S36 S8 S9 149' S	" "	4-12-10	P			
S9 S35 S36 157' S	AT Patch @ Butt Seam	4-12-10	P			
S35 S9 S10 171' S	AT Patch	4-12-10	P			
S35 S10 S11 194' S	" "	4-12-10	P			
S35 S11 S12 216' S	" "	4-12-10	P			
S35 S12 S13 238' S	" "	4-12-10	P			
S35 S13 S14 260' S	" "	4-12-10	P			
S35 S14 S15 282' S	" "	4-12-10	P			
S35 S15 S17 304' S	" "	4-12-10	P			
S35 S17 S18 325' S	" "	4-12-10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Secondary

Date: _____ Area: East Floor Material: 60 Mil Text HDPE

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
535 518 519 347' South	A.T. Patch	4-12-10	P			East Cross Seam
535 519 520 369' South	" "	4-12-10	P			
535 520 521 391's	" "	4-12-10	P			
535 521 523 Cap 413's to 436's	Cap Short Panel	4-12-10	P			
535 Cap 425's	DS 8	4-12-10	P			
535 523 524 457's	AT Patch	4-12-10	P			
535 524 525 479's	" "	4-12-10	P			
535 525 526 500's	" "	4-12-10	P			
535 526 527 523's	" "	4-12-10	P			
535 527 528 545's	" "	4-12-10	P			
535 528 530 568's	" "	4-12-10	P			
535 530 580's	Wh'l Burn Patch	4-12-10	P			
535 530 531 590's	AT Patch	4-12-10	P			
535 531 532 613's	" "	4-12-10	P			
Attached 535 532 626's	DS 6	4-12-10	P			
535 532 533 635's	AT Patch	4-12-10	P			
535 533 534 656's	" "	4-12-10	P			
535 534 674's	" "	4-12-10	P			End Cross Seam
535 537 674's	AT Patch	4-14-10	P			
537 539 500's	DS 10	4-14-10	P			
537 539 480's	Patch Liner Dent	4-14-10	P			
535 537 465'	Patch wh'l Burn	4-12-10	P			
537 420's 14W	Patch Liner Dent Gen Dip	4-14-10	P			
535 537 538 335'	AT Patch at Butt Seam	4-12-10	P			
539 537 538 335's	" " " "	4-13-10	P			
535 538 300's	DS 9	4-19-10	P			4-16-10 Ibut Pugging
538 535 536 157's	AT Patch at Butt Seam	4-12-10	P			
538 539 541 152's	" " " "	4-13-10	P			
538 541 540 113's	" " " "	4-13-10	P			
538 540 56's	wh'l Burn AT Patch	4-13-10	P			
536 538 30's	" " " "	4-12-10	P			
541 540 542 113's	AT Patch at Butt Seam	4-13-10	P			
540 541 113's @ Butt	DS 13	4-13-10	P			
541 542 544 129's	AT Patch at Butt Seam	4-13-10	P			
542 544 547 129's	" " " "	4-13-10	P			
539 541 544 152's	" " " "	4-13-10	P			
544 547 150's	DS 12	4-13-10	P			
539 544 545 168's	AT Patch at Butt Seam	4-13-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

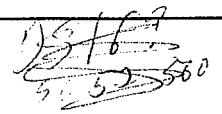
Secondary

Date: _____ Area: East Floor Material: 60 Mil HDPE Textured

S. Not P.

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
B47 B44 B45 168's	AT Patch @ Butt Seam	4-13-10	P			
B45 B47 B46 185's	" " " "	4-13-10	P			
B48 B47 B46 185's	" " " "	4-13-10	P			
B46 B45 B48 197's	" " " "	4-13-10	P			
B45 B48 B39 197's	" " " "	4-13-10	P			
B43 B39 338's	Whl Burn AT Patch	4-13-10	P			
B43 B39 350's	DS 11	4-13-10	P			
B43 B39 675's	Whl Burn Patch @ Anchor	4-14-10	P			
B43 B46 675's	" " " "	4-14-10	P			
S49 672 5'E	Patch liner dent	4-14-10	P			
S49 S50 674's	whl Burn Patch @ Anchor	4-14-10	P			
S49 S50 650's	DS 15	4-14-10	P			
S49 S50 S51 508's	AT Patch @ Butt Seam	4-14-10	P			
S49 S51 455's	" " @ whl Burn	4-14-10	P			
S46 S49 450's	DS 14	4-14-10	P			
S49 S51 397's	BD lost Lap	4-19-10	P			4-16 Not welded
S46 S49 S48 326's	AT Patch @ Butt Seam	4-13-10	P			
S49 S48 S51 326's	" " " "	4-13-10	P			
S48 S51 0's	AT Patch @ Anchor	4-13-10	P			
S51 S54 21'S	2'x3' Patch over seam	4-13-10	P			? why Patch
S51 S54 100's	DS 17	4-14-10	P			
S51 S54 S52 154's	AT Patch @ Butt Seam	4-13-10	P			
S52 S54 S55 145'-154'S	" " " " + Cap whl Burn	4-14-10	P			15' Cap 2 Butt Seams + whl Burn
S52 S53 S55 160's	" " " "	4-13-10	P			
S53 S55 S56 160'	" " " "	4-14-10	P			
S52 S53 203'-212's	AT Patch CAP lost Lap	4-14-10	P			
S52 S53 250's	DS 18	4-14-10	P			
S52 3'E 275'S	Patch Dent	4-14-10	P			
S50 S52 560's	DS 16	4-14-10	P			
S50 S52 672's	AT Patch text to Anchor	4-14-10	P			
S53 2'W 640's	Patch liner Dent	4-14-10	P			
S53 S57 450's	DS 19	4-14-10	P			
S53 S57 S56 192'S	AT Patch @ Butt Seam	4-14-10	P			
S56 S57 S58 192'S	" " " "	4-14-10	P			
S53 S56 182'-193'S	AT Patch + Ext to Butt	4-14-10	P			± 10' VT on Seam
S56 S59 100's	DS 21	4-14-10	P			
S56 2'E 36' S	Liner Dent Patch	4-14-10	P			
S61 S63 0'-12'S	AT Patch + EXT Lap?	4-14-10	P			
Any failing repair not retested to be noted in Comments column						

S53



West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Date:		Area:		Material:		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
S56 S58/S59 156's.	AT Patch @ Butt Seam	4-14-10	P			
S58/S59 S61 156's.	" " " "	4-14-10	P			
S61 S63 150's.	Patch on Liner Dent	4-14-10	P			
S61 S63 235's.	" " " "	4-19-10	P			4-16 Not welded
S58 S61 300's.	DS 22	4-14-10	P			
S58 S60/S61 316's.	AT Patch @ Butt Seam	4-14-10	P			
S60/S61 S63 316's.	" " " "	4-14-10	P			
S60 S63 450's.	DS 23	4-14-10	P			
S60 S62/S63 477's	AT Patch @ Butt Seam	4-14-10	P			
S62/S63 S66 477's	" " " "	4-14-10	P			
S57 S58 550's	DS 20	4-14-10	P			
S57 S58 675's	AT Patch @ Anchor	4-14-10	P			
S58 S60 675's	" " "	4-14-10	P			
S60 S62 670's	" " " " EKT into Trench	4-14-10	P			
S62 S66 672's.	" " " " "	4-14-10	P			
S62 S66 550's.	DS 24	4-14-10	P			
S66 S67/S68 273's.	AT Patch @ Butt Seam	4-14-10	P			
S67/S68 S69 273's	" " " "	4-14-10	P			
S63 S65/S66 153's.	" " " "	4-14-10	P			
S65/S66 S68 153's.	" " " "	4-14-10	P			
S65 S66 153's.	DS 26 on Butt Seam	4-19-10	P			
S65 S64 33' s.	DS 25 on Butt Seam	4-21-10	P			
S63 S65/S64 33' s.	AT Patch @ Butt Seam	4-14-10	P			
S65/S64 S68 33' s.	" " " "	4-14-10	P			
S69 S71/S72 154's	AT Patch @ Butt Seam	4-16-10	P			
S71/S72 S73 154's	"	4-16-10	P			
S71 S73/S74 162's	"	4-16-10	P			
S71 226'-234's	~8'x6' Patch Middle of panel	4-16-10	P			
S71 245'-249's	Patch @ Middle of panel	4-16-10	P			
S71 275'S	Patch	4-16-10	P			
S71 278'-288's	Patch	4-16-10	P			
S69 375's	Patch on liner Dent	4-16-10	P			
S69/S70 S71 443's	AT Patch @ Butt Seam	4-16-10	P			
S74 S75 500's	DS 30	4-16-10	P			
S71 S74 550's	DS 29	4-16-10	P			
S70 S71 600's	DS 28	4-16-10	P			
S69 S69 400's	DS 27	4-16-10	P			
S67 S70/S69 443's	AT Patch @ Butt Seam	4-14-10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date:		Area:		Material: 60 MIL HD		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
S70 S71 625's	2'x1' Patch over seam	4-16-10	P			
S67 S70 675's	whl burn Patch @ Anchor	4-21-10	P			
S70 S71 675's	"	4-21-10	P			
S71 S74 675's	"	4-21-10	P			
S74 S75 675's	"	4-16-10	P			
S75 S77 675's	"	4-16-10	P			
S75 S77/S78 642's	AT Patch @ Butt Seam	4-16-10	P			
S73 S74 162's	DS 31	4-16-10	P			
S73/S74 S75 162's	[redacted] AT PATCH @ BUTT SEAM	4-16-10	P			
S73 S75/S76 153's	"	4-16-10	P			
S75/S76 S78 153's	"	4-16-10	P			
S76 S78/S79 117's	"	4-16-10	P			
S76 S79 100's	DS 32	4-16-10	P			
S76 S79 1's	BD	4-22-10	P			
S78/S79 S80 117's	AT Patch @ Butt Seam	4-16-10	P			
S78 S80 140's	5'x2' Patch over seam	4-16-10	P			DS33
S78 S80/S81 155's	AT Patch @ Butt Seam	4-16-10	P			
S80/S81 S83 155's	"	4-16-10	P			
S81 S82/S83 239's	"	4-16-10	P			
S78 S81 600's	DS 34	4-16-10	P			
S81 S82 600's	DS 35	4-16-10	P			
S77/S78 S81 642's	AT Patch @ Butt Seam	4-16-10	P			
S77 S81 660's	2'x2' Patch over seam	4-16-10	P			
S77 S81 670's	whl burn patch @ Anchor	4-16-10	P			
S81 S82 669's	2'x2' Patch over seam	4-16-10	P			
S81 S82 675's	whl burn Patch @ Anchor	4-21-10	P			
S82 S86 675's	"	4-21-10	P			
S86 S87 675's	"	4-21-10	P			
S82 S86 625's	DS 36	4-16-10	P			
S85/S86 S87 600's	AT Patch @ Butt Seam	4-21-10	P			
S82 S85/S86 600's	"	4-21-10	P			
S86 S87 550's	DS 37	4-21-10	P			
S82/S83 S85 239's	AT Patch @ Butt Seam	4-16-10	P			
S85 S87/S88 158's	"	4-21-10	P			
S85 S84/S85 73's	"	4-16-10	P			
S84/S85 S88 73's	"	4-16-10	P			
S84-S88 3's	whl burn Patch @ anchor	4-16-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S 87/89 S89 158'S	AT PATCH @ BUTT SEAM	4-16-10	P			
S89 S 91/92 156'S	"	4-16-10	P			
S87 S 90/89 168'S	"	4-16-10	P			
S 90/89 S91 168'S	"	4-16-10	P			
S87 S90 181'S	2'x10' Patch over seam	4-16-10	P			
S87 S90 245'S	2'x2' Patch over seam	4-16-10	P			
S90 S91 450'S	DS 39	4-21-10	P			
S87 S90 600'S	DS 38	4-21-10	P			
S87 S90 675'S	whl Burn Patch @ Anchor	4-16-10	P			
S90 S91 675'S	"	4-21-10	P			
S91 S95 675'S	"	4-16-10	P			
S91 S95 429'S	2'x3' Patch over seam	4-16-10	P			
S95 S96 420'S	2'x7' Patch over seam	4-16-10	P			
S95 S96 400'S	DS 42	4-21-10	P			
S95 S 96/97 371'S	AT Patch @ Butt Seam	4-16-10	P			
S91 S95 350'S	DS 40	4-21-10	P			
S 93/94 S97 169'S	AT Patch @ BUTT SEAM	4-16-10	P			
S91 S 93/94 169'S	"	4-16-10	P			
S 91/92 S94 156'S	"	4-16-10	P			
S92 S 94/93 27'S	"	4-16-10	P			
S 94/93 S97 27'S	"	4-16-10	P			
S93 S97 0'S	whl Burn Patch @ Anchor	4-16-10	P			
S91 S92 156'S	DS 41	4-16-10	P			
S97 S98 0'S	whl Burn Patch @ Anchor	4-16-10	P			
S98 4'S	2'x2' @ EAST SIDE OF PANEL	4-16-10	P			
S98 12'S	3'x4' Patch @ CENTER PANEL	4-16-10	P			
S98 18'S	2'x2' Patch @ Center PANEL	4-16-10	P			
S98 27'S	3'x4' Patch @ Center panel	4-16-10	P			
S98 32'S	2'x2' Patch @ Center	4-16-10	P			
S98 40'S	"	4-16-10	P			
S98 S 101/102 44'S	AT Patch @ Butt Seam	4-16-10	P			
S98 S 100/101 155'S	"	4-16-10	P			
S 96/97 S98 371'S	"	4-16-10	P			
S96 S98 450'S	DS 43	4-21-10	P			
S96 S 99/98 464'S	AT Patch @ Butt Seam	4-21-10	P			
S 99/98 S100 464'S	"	4-21-10	P			
S99 S100 500'S	DS 44	4-21-10	P			

Any failing repair not retested to be noted in Comments column

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S104 S105/106 426'S	AT Patch@Butt seam	4-21-10	P			
S100 S104/103 268'S	"	4-21-10	P			
S104/103 S105 268'S	"	4-21-10	P			
S100/101 S103 155'S	"	4-21-10	P			
S101/102 S103 44'S	"	4-21-10	P			
S102 S103 0'S	whl burn Patch	4-21-10	P			
S100 S104 673'S	whl burn Patch	4-21-10	P			
S104 S106 400'S	DS47	4-21-10	P			
S100 S103 250'S	DS 46	4-21-10	P			
S100 S101 155'S	DS 45	4-21-10	P			
S106 S107/S108 130'S	AT Patch@Butt Seam	4-21-10	P			
S107/108 S111 130'S	"	4-21-10	P			
S108 S110/111 153'S	"	4-21-10	P			
S108 S110 350'S	DS 50	4-21-10	P			
S103/106 S108 426'S	AT Patch@Butt Seam	4-21-10	P			
S105 S107 500'S	DS 48	4-21-10	P			
* S105 S107/108 590'S	AT Patch@Butt Seam	4-21-10	P			
S108 S109 590'S	DS 49	4-21-10	P			
S107/109 S110 590'S	AT Patch@Butt Seam	4-21-10	P			
* S39 650'S	Scratch/Patch	4-21-10	P			Scratched during geocon. installation.
* S106 S107 BD 700'S	BD	5-5-10	P			Cap
S113 79'S	Patch/GCL wrinkle	5-5-10	P			
S110/111 S113 153'S	AT Patch@Butt Seam	5-4-10	P			
S113 S114/115 153'S	"	5-4-10	P			
S114 S115 153'S	DS 55	5-4-10	P			
S110 S112/113 186'S	AT Patch@Butt Seam	5-4-10	P			
S112 S113 186'S	DS 53	5-4-10	P			
S112/113 S114 186'S	AT Patch@Butt Seam	5-4-10	P			
S110 S112 250'S	DS 52	5-5-10	P			
S112 S114 600'S	DS 54	5-5-10	P			
S110 S112 675'S	whl Burn Patch	5-4-10	P			
S112 S114 675'S	"	5-4-10	P			
S114 S116 658-675'S	BD/Extrude/Patch	5-4-10	P			
S114 S116 657'S	whl Burn Patch	5-4-10	P			
S114 S116 651-655	BD/Extrude	5-4-10	P			
S114 S116/117 650'S	AT Patch@Butt Seam	5-4-10	P			
S114 S117 640-649	BD/Extrude	5-4-10	P			
S114 S117 639'S	whl Burn Patch	5-4-10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log SECONDARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
S116 672's	Patch / Impact	5-4-10	P			1'x1' Patch
S116 S119 675's	Whl Burn Patch	5-4-10	P			
S116 664's	Patch / Impact	5-4-10	P			1'x1' Patch
S116/S117 S119 650's	AT Patch @ Butt Seam	5-4-10	P			
S114 S117 550's	Whl Burn Patch	5-5-10	P			
S117 S119 300's	DS 58	5-5-10	P			
S114 S117 250's	DS 56	5-5-10	P			
S114/S115 S117 153's	AT Patch @ Butt Seam	5-5-10	P			
S117 S119/S120 155's	"	5-5-10	P			
S115 S117/S118 127's	"	5-5-10	P			
S117 S118 127's	DS 57	5-5-10	P			
S117/S118 S120 127's	AT Patch @ Butt Seam	5-5-10	P			
S120 S123 50's	DS 60	5-5-10	P			
S120 S122/123 108's	AT Patch @ Butt Seam	5-5-10	P			
S122/123 S125 108's	AT Patch @ Butt Seam	5-5-10	P			
S119/120 S122 155's	"	5-5-10	P			
S122 S124/125 152's	"	5-5-10	P			
S124 S125 152's	DS 62	5-5-10	P			
S119 S122 200's	DS 59	5-5-10	P			
S119 S122 234's	Patch - Panel damage	5-5-10	P			2'x2'
S122 S124 550's	DS 61	5-5-10	P			
S119 S122 578's	BD 577'-579's	5-5-10	P			
S119 S121/122 631's	AT Patch @ Butt Seam	5-5-10	P			
S121/122 S124 631's	"	5-5-10	P			
S119 S121 675's	Whl Burn Patch	5-4-10	P			South Anchor Trench
S121 S124 675's	"	5-4-10	P			667' to South Anchor Trench
S124 671's	Panel Patch	5-4-10	P			2'x3'
S124 S126 675'	Whl Burn Patch	5-4-10	P			South Anchor Trench
S124 S126/127 599'	AT Patch @ Butt Seam	5-5-10	P			
S124 S127 500's	DS 63	5-5-10	P			
* S104 S105 675's	Whl Burn Patch	5-5-10	P			South Anchor Trench
* S96 S99 675's	"	5-5-10	P			South Anchor Trench
S124 S127 385'	Whl Burn Patch	5-5-10	P			381's - 389's
S124 S127 266'	BD	5-5-10	P			~2'
S124 S127 232'	BD	5-5-10	P			~1'
S124 S127 219'	BD	5-5-10	P			~2'
S124 S127 200'	BD	5-5-10	P			~1'
S124/125 S127 152'	AT Patch @ Butt Seam	5-5-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S125 S127 S128 76'	AT Patch @ Butt Seam	5-5-10	P			
S125 S128 4'	Whl Burn Patch	5-5-10	P			
S165 S109 275's	Whl Burn Patch	5-5-10	P			South Anchor Trench
S137 S127 S128 76'	AT Patch @ Butt Seam	5-12-10	P			
S127 S129 S137 165'	" " " " "	5-12-10	P			
S129 S137 S130 165's	" " " " "	5-12-10	P			
S129 S137 165'	DS 65	5-12-10	P			
S127 S129 300's	DS 64	5-12-10	P			
S126 S127 S129 598's	AT Patch @ Butt Seam	5-12-10	P			
S126 S129 670'	Patch over whl wrinkles	5-12-10	P			
S129 677' South 5' West	Patch Liner dents	5-12-10	P			
S129 S130 400's	DS 66	5-12-10	P			
S137 S136 S138 155'	Patch @ Butt Seam	5-12-10	P			
S130 S138 S139 155's	" " " "	5-12-10	P			
S137 S138 147's	Patch AT Hole	5-12-10	P			
S128 18' South 5' East	Patch over dent	5-12-10	P			
S138 S139 100's	DS 67	5-12-10	P			
S130 S131 S139 164's	Patch @ Butt Seam	5-12-10	P			
S131 S139 S132 164's	" " "	5-12-10	P			
S131 S132 250'	DS 68	5-12-10	P			
S131 S132 670'	Patch AT Hole into trench	5-12-10	P			
S132 S133 673'	" " "	5-12-10	P			
S139 S132 S140 153' South	Patch @ Butt Seam	5-12-10	P			
S132 S140 S141 153' South	" " "	5-12-10	P			
S132 S141 170's	DS 69	5-12-10	P			
S132 S133 S141 193's	Patch @ Butt Seam	5-12-10	P			
S133 S141 S135 193's	" " "	5-12-10	P			
S133 S141 @ 193' Butt	DS 70	5-12-10	P			
S133 S134 S135 631' South	Patch @ Butt Seam	5-12-10	P			
S134 S135 S136 631' South	" " "	5-12-10	P	5-12-10	P	S135 628' South 10' Patch East
S133 S135 450's	DS 71	5-12-10	P			
S135 S141 160's	patch A.T. Hole	5-12-10	P			
S141 S135 S142 111' to 115' South	Patch @ Double Butt	5-12-10	P			
S133 S142 S144 111' to 115' South	" " "	5-12-10	P			
S142 S144 Anchor to 8' East	Patch EXT Lost Lap	5-12-10	P			
S142 S144 50' South	DS 73	5-12-10	P			
S135 S136 S144 149' South	Patch @ Butt Seam	5-12-10	P			
S135 S136 400' South	DS 72	5-12-10	P			
Any failing repair not retested to be noted in Comments column						
S134 S136 670' South	Patch into anchor trench	5-12-10	P			

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Secondary

Date:		Area: West Floor		Material: 60 Mil HDPE Text		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
S135 S136 32'±	Lost Lap	5-14-10	P			~~Need to be tested.~~ ✓
* S132 S133 437'±	Lost Lap	5-14-10	P			~~Need to be tested.~~ ✓
S140 S141 72'±	Patch AT Hole	5-12-10	P			Stop/start
S140 S141 98'±	" " "	5-12-10	P			Stop/start
S136 S145 670's	Patch into Anchor AT	5-12-10	P			
S136 S145 647's	Patch AT Hole	5-12-10	P			
S136 S145 350's	DS 74	5-12-10	P			
S145 S147 460's	Patch AT Hole	5-12-10	P			Stop Start
S147 3' West 479's	Patch leister burn	5-13-10	P			
S145 S147 500's	DS 75	5-12-10	P			
S145 S146 S147 520's	Patch @ Butt Seam	5-12-10	P			
S146 S147 S148 520's	" " "	5-12-10	P			
S146 S147 520's ±	DS 76	5-12-10	P			
S146 S148 600's	DS 77	5-12-10	P			
S148 S150 670's	Patch on Wrinkle	5-12-10	P			
S148 6' East 496's	Patch on Vent	5-12-10	P			
S148 S150 400's	DS 78	5-12-10	P			
S147 S148 S149 371's	Patch @ Butt Seam	5-12-10	P			
S148 S149 S150 371's	" " "	5-12-10	P			
S150 S151 S159 611's	AT Patch @ Butt Seam	5-13-10	P			
S150 S159 500's	DS 80	5-13-10	P			
S150 S159 473's	BD / Lost Lap	5-13-10	P			
S150 S159 S160 413's	AT Patch @ Butt Sem	5-13-10	P			
S159 S160 S163 413's	AT Patch @ Butt Sem	5-13-10	P			
S159/S161/S163 436'S	AT Patch @ 3 Panel Cross SEAM	5-13-10	P			
S159 S161 550's	DS 81	5-13-10	P			
S161/S162/S163 555's	AT Patch @ 3 Panel Cross SEAM	5-13-10	P			
S151 S152 S159 S161 611's	AT Patch @ Double Butt SEAM	5-13-10	P			
S152 S153 S161 S162 611's	AT Patch @ Double Butt SEAM	5-13-10	P			
S153 S163 S162 611's	AT Patch @ Butt SEAM	5-13-10	P			153 162 163
S151 S152 620's	DS 79	5-12-10	P			
S151 S152 670's	Patch into Anchor	5-12-10	P			
S152 S153 670's	Patch into Anchor	5-12-10	P			
S153 S154 670's	Patch into Anchor	5-12-10	P			
S153 S154 S158 S163 611's	AT Patch @ Butt Seam	5-13-10	P			153 154 158 163
S154 S155 670's	Patch into Anchor	5-12-10	P			
S154 S155 S157 636's	AT Patch @ SW CORNER CROSS SEAM	5-12-10	P			
S154 S157 S158 631's	AT Patch @ CROSS SEAM	5-12-10	P			SW CORNER SEAM / 44'E
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date:		Area: SW CORNER / WEST END		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
S155/S156/S157 16'E	AT Patch @ SW Corner Cross Seam	5-12-10	P			155 / 156 / 157 / 16'E / 653's
S157 S158 2'E	Patch in Anchor	5-12-10	P			2'E OF WEST ANCHOR TRENCH
S158 S164 8'E	Patch into Anchor	5-13-10	P			
S158 S164/S163 46'E	AT Patch @ West End Cross Seam	5-13-10	P			
S164 S165 5'E	whl burn Patch	5-13-10	P			
S164 S165 0-5'E	Extrude into Anchor	5-14-10	P			
S165/S163 46'E	AT Patch @ Cross Seam	5-13-10	P			
S165 S166 2'E	Patch into W. Anchor	5-13-10	P			
S166/S163 S163 46'E	AT Patch @ Cross Seam	5-13-10	P			
S166 S163 46'E	DS 82	5-13-10	P			CROSS-SEAM
S166 S167 8'E	Patch into W. Anchor	5-13-10	P			
S166/S167 S163 46'E	AT Patch @ Cross Seam	5-13-10	P			
S167/S168 S163 46'E	"	5-13-10	P			
S168/S169 S163 46'E	"	5-13-10	P			
S169 S163 46'E	DS 83	5-13-10	P			CROSS-SEAM
S169 S170 2'E	Patch into W. Anchor	5-13-10	P			
S169 S170 14'E	Lost Lap / BD	5-14-10	P			
S167/S170 S163 46'E	AT Patch @ Cross Seam	5-13-10	P			
S170/S171 S163 46'E	AT Patch @ Cross Seam	5-13-10	P			
S170-S171 2'E	Patch into W. Anchor	5-13-10	P			
S171/S172 S163 45'E	AT Patch @ Cross Seam	5-13-10	P			
S172/S173 S163 45'E	AT Patch @ Cross Seam	5-13-10	P			
S173/S174 S163 45'E	AT Patch @ Cross Seam	5-13-10	P			
S174/S175 S163 45'E	AT Patch @ Cross Seam	5-13-10	P			
S175/S176 S163 45'E	AT Patch @ Cross Seam	5-13-10	P			
? S175 S176 2'E	~~Patch~~ BD / Wrinkle	5-14-10	P			
S158 S161 590-537's	CAP STRIP	5-17-10	P			590's - 537's
S163 343's	Dent Repair	5-25-10	P			4" Extrude
* S149 321's	Dent Repair	6-5-10	P			4" Extrude
S176 S177 8'E	Patch into W. Anchor	7-9-10	P			
S176 S177 28'E	Patch on seam	7-9-10	P			
S176 30'E	BD on dent	7-9-10	P			
S176/S163 S177 46'E	AT Patch @ Cross Seam	7-9-10	P			
* S163/S160 150 S177 67'E	Large Patch @ Cross Seams	7-9-10	P			67'E - 70'E
S178 S177/S180 S179/S150 90'E	Patch on Butt Seam	7-9-10	P			178 / 179 / 177 / 150
S177 S178 4'E	Patch into W. Anchor	7-9-10	P			
* S180/S178 S149 112'E	AT Patch @ Cross-Seam	7-9-10	P			
S178 S145/S147 133'E	AT Patch @ Cross-Seam	7-9-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date: _____ Area: NW CORNER Material: 60 mil HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S178 S145 140'E	DS 84	7-9-10	P			
S178/S145 S136 155'E	Large AT Patch @ CROSS SEAM	7-9-10	P			19' Long
S178 S179 4'E	Patch into W. Anchor	7-9-10	P			
S178/S179 S136 153'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S179/S182 S136 144'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S179 S181/S182 104'E	AT Patch @ BUTT SEAM	7-9-10	P			
* S179 S181 27'-42'E	Bootless skirt	7-9-10	P			
S179 S181 8'E	Patch on seam	7-9-10	P			
S179 S181 0'-8'E	Extrude into W. Anchor	7-12-10	P			
S181 S183 0'-4'E	Patch into W. Anchor	7-9-10	P			4" BD ON DENT 24'E
~~S181 24'E~~	~~BD ON DENT Extrude at Bootless skirt~~	~~7-9-10~~	~~P~~			
S181 S183 80'E	DS 85	7-9-10	P			
S181/S182 S183 104'E	AT Patch @ BUTT SEAM	7-9-10	P			
S182/S183 S136 142'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S183 S136 142'E	DS 86	7-9-10	P			
S183/S184 S136 137'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S184/S185 S136 133'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S185/S187 S136 130'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S185 S187 100'E	DS 87	7-9-10	P			
S185 S186/S187 64'E	AT Patch @ BUTT-SEAM	7-9-10	P			
S186/S187 S188 64'E	AT Patch @ BUTT-SEAM	7-9-10	P			
S186/S188 S136 124'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S188 S136 124'E	Extrude at seam (4')	7-9-10	P			
S144/S136 S188 124'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S188/S189 S144 121'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S189 S190 75'E	DS 88	7-9-10	P			
S189/S190 S144 118'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S190/S192 S144 113'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S190 S191/S192 82'E	AT Patch @ BUTT SEAM	7-9-10	P			6' Length on Butt-Seam 7' Length on Long Seam 81-88'E
S191/S192 S193 82'E	AT Patch @ BUTT SEAM	7-9-10	P			
S192/S193 S144 109'E	AT Patch @ CROSS-SEAM	7-9-10	P			
S173/S194 S144 94'-105'E	Large Patch @ CROSS-SEAM	7-9-10	P			
S144 48'S	Large Patch on Panel	7-9-10	P			105'E - 124'E
S193 S194 60'E	DS 89	7-9-10	P			
S194 30'E	2' circular Patch on Panel	7-9-10	P			
S194 30'E	Extrude on Cut (13')	7-9-10	P			
* S195 S196 1'E/1'S	Patch in NW Anchor	7-9-10	VI-OK			NW Corner
S195/S196 S197 4'S	AT Patch @ CROSS-SEAM	7-9-10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

SECONDARY

Date: _____ Area: NW Corner Material: 60 mil HDPE text

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
S195/197 S194 32'E	AT Patch @ CROSS-SEAM	7-9-10	P			29's
S197/198 S194 54'E	AT Patch @ CROSS-SEAM	7-9-10	P			30's
S198/199 S194 76'E	AT Patch @ CROSS-SEAM	7-9-10	P			30's
S194/199 S144 99'E	AT Patch @ CROSS-SEAM	7-9-10	P			30's
S181 27'-42'E	Primary Bootless Penetration	7-22-10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Primary

Date: _____ Area: East Slope Material: 60 mil HDPE Textured

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
Exist P-24' South	Patch to Existing Liner	04/29/10	P			0' South → Extruded Tie In
Exist P-5 82' South	" " " "	04/29/10	P			to existing Cells
Exist P-7 112' South	" " " "	04/29/0	P			A 2
" P-7 122' South	" " " "	04/29/10	P			
" P-8 136' South	" " " "	04/29/10	P			
" P-8 140' South	" " " "	04/29/10	P			
" P-9 156' South	" " " "	04/29/10	P			
" P-9 164' South	" " " "	04/29/10	P			
" P-10 181 South	" " " "	04/29/10	P			
Exist 196' South	Three beads exist scratcher	04/29/10	P			
Exist P-11 212' South	Patch to existing liner	04/29/10	P			
" P-12 225' South	" " " "	04/29/10	P			
" P12 P13 240-248' S	" " " "	04/29/10	P			A2 - A3 Tie In
" P13 P14 267' South	" " " "	04/29/10	P			
" P16 P17 330-340' South	Patches @ old swale outfall	04/30/10	P			0'-340' C.M. E061
" P20 400' South	Patch to exist Liner	04/30/10	P			340'- T.P. E040
" P22 438' South	" " " "	04/30/10	P			
Exist 467' South	" " " "	04/30/10	P			East of P-23
" P28 569' South	" " " "	4/30/10	P			2.
" P37 P34 672' South	" " " "	04/30/10	P			
" P34 700' South	Patch @ Tie to End Liner	4-30-10	P			end into anchor 2.
P34 P32 P33 66' West	Patch @ Butt Seam	04/30/10	P			
P31 P32 P33 54' West	" "	04/30/10	P			
~~P23 P24 70' W~~	DP6	04/30/10	P			P27/P28
	DP5	04/29/10	P			P16/P17 20' W
	DP4	04/29/10	P			P9/P10
	DP3	04/29/10	P			
	DP2	04/29/10	P			
EXIST-P17	DP1	04/30/10	P			
P23 P24 10' West	Patch over Wh/Burn AT	04/30/10	P			
P20 P18 P19 49' West	Patch @ Butt Seam	04/30/10	P			
P18 P19 P17 49' West	" "	04/29/10	P			
P15 P16 21' W	Patch Wh/Burn	04/29/10	P			AT through
P5 P6 22' W	Patch Wh/Burn AT hole	04/29/10	P			
P5 P3 P4 67' W	Patch @ Butt Seam	04/29/10	P			
P3 P4 P2 67' W	" " " "	04/29/10	P			
P36 P1 P2 20' South	Patch @ "T"	04/29/10	P			Cross Seam
P36 P2 P4 42' South	" " "	04/29/10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Primary

Date: 05/04/10 | Area: East Toe + Floor | Material: 60 Mil HDPE Textured

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P36 P4 P5 64' South	Patch @ "T"	04/29/10	P			Cross Seam
P36 P5 P6 86' S.	" " "	04/29/10	P			
P36 P6 P7 107' S.	" " "	04/29/10	P			
P36 P7 P8 128' S.	" " "	04/29/10	P			
P36 P8 P35 P9 150'-158' S.	+ Butt	04/29/10	P			
P35 P9 P10 172' S.	" " "	04/29/10	P			
P35 P10 P11 194' S.	" " " Up Seam	04/29/10	P			Up P10 P11 Cost Cap
P35 P11 P12 217' S.	" " "	04/29/10	P			
P35 P12 P13 239' S.	" " "	04/29/10	P			
P35 P13 P14 261' S.	" " "	04/29/10	P			
P35 P14 P15 284' S.	" " "	04/29/10	P			
P35 P15 P16 306' S.	" " "	04/29/10	P			
P35 P16 P17 327' S.	" " "	04/29/10	P			
P35 P17 P19 350' S.	" " "	04/29/10	P			
P35 P19 P20 372' S	" " "	04/30/10	P			
P35 P20 P21 394' S	" " "	04/30/10	P			
P35 P21 P22 416 S	" " "	04/30/10	P			
P35 P22 P23 438' S	" " "	04/30/10	P			
P35 P23 P24 459' S	" " "	04/30/10	P			
P35 P24 P25 482' S	" " "	04/30/10	P			
P35 P25 P26 503' S.	" " "	04/30/10	P			
P35 P26 P27 525' S.	" " "	04/30/10	P			
P35 P27 P28 548' S.	" " "	04/30/10	P			
P35 P28 P29 569' S	" " "	04/30/10	P			
P35 P29 P30 592' S.	" " "	04/30/10	P			
P35 P30 P31 614' S	" " "	04/30/10	P			
P35 P31 P33 635' S	" " "	04/30/10	P			
P35 P33 P34 657' S	" " "	04/30/10	P			
P35 P38 675' S.	w/ Runn @ Anchor Patch	04/30/10	P			
P35 P37 P38 357' S.	Patch @ Butt Seam	04/30/10	P			
P37 P38 P40 357' S	" " "	04/30/10	P			
P37 P40 P42 102' S	" " "	04/30/10	P			
P40 P42 P43 102' S	" " "	04/30/10	P			
P40 P41 P43 155' S	" " "	04/30/10	P			
P41 P43 P44 155'	" " "	04/30/10	P			
P41 P45 P44 164'	" " "	04/30/10	P			
P45 P44 P47 164'	" " "	04/30/10	P			
P47 P48 P49 84' S	Patch ET & BUTT	04/30/10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

HDPE Primary

Date: 04/29/10 | Area: | Material: 60 mil TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P47 P48 84'S	Patch T	04/30/10	P			
P46 P45 602'S	Patch T & BUTT	04/30/10	P			
P46 P47 P50 602'S	Patch T & BUTT	04/30/10	P			
P47 P45 550'S	Patch DP-13	04/30/10	P			For Destruct
P47 P50 400'S	Patch DP-15	04/30/10	P			
P39 P50 P47 158'S	Patch T & BUTT	4/30/10	P			
P45 P47	Patch T & BUTT	04/30/10	P			
~~P44 P48 P47 84'S~~	~~Patch T & BUTT~~					
P47 P48	Patch BUTT	04/30/10	P			For DP 14
P42 P40	DP-10 & BUTT	04/30/10	P			
P41 P40 250'S	DP-11	04/30/10	P			
P37 P40 300'S	DP-9	04/30/10	P			
P35 P38 450'S	DP-8	04/30/10	P			
P30 P35 600'S	DP-7	04/30/10	P			@ Cross Seam
P27 P28 40'W	DP-6	04/30/10	P			near S toe of A-3
P16 P17 50'W	DP-5					4-29-10
P10 P9 35'W	DP-4					4-29-10
P1 P2 45'W	DP-3					(@ 15'S & 45'W)
P17 OLD LINER	DP-2					
P17 OLD LINER	DP-1					Cell A-3 OLD LINER
EXIST P41	2 #3" welds	04/30/10	P			
P15 P16 18'W	Patch @ Seam	04/29/10	P			
P23 P24 10'W	Patch @ Seam	04/30/10	P			
P43 P44 100'S	DP-12	04/30/10	P			
P41 P40 300'S	Patch A.T. hole	04/30/10	P			
P46 P37 P36 35'W	Patch T & BUTT	04/30/10	P			
P38 P40 627'S	Patch @ Seam	04/30/10	P			@ 600'S P39 P40 & P41 @ Patch Bottom
~~P35 P36 675'S~~	~~Patch @ Seal~~	~~04/30/10~~	~~P~~			
P38 P39 675'S	Patch @ Seal	04/30/10	P			
P39 P41 675'S	Patch @ Seal	04/30/10	P			
P41 P45 675'S	Patch @ Seal	04/30/10	P			
P39 P41 627'S	Patch @ Seam	04/30/10	P			
P45 P47	DP-13	04/30/10	P			
P50 P52	DP-16	04/30/10	P			550'S
P43 P44	DP-15	04/30/10	P			@ 400'S
	DP-12	04/30/10	P			
P47 P48	DP-14	04/30/10	P			
P50 P41 P50 158'S	Patch BUTT	04/30/10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

HDPE Primary

Date: 05/05/10 | Area: | Material: TEXT 60 mil

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P50 P46 60'S	Patch @ T & BUTT	04/30/10	P			
P46 P50 67'S	Patch @ S end	4-30-10	P			
P51 P52	DP-17	04/30/10	P			BUTT
P51 P53 85'S	Patch @ T & BUTT	04/30/10	P			
P56 P54 85'S	Patch @ T	04/30/10	P			
P53 P54	Patch @ BUTT	04/30/10	P			
P54 P56 100'S	DP 19	04/30/10	P			
P56 P58 0'S	@ W end	04/30/10	P			
P56 P58 18'S	Patch AT Holes Leg	04/30/10	P			
P56 P58 33'S	" " " "	04/30/10	P			
P56 P58 57'S	" " " "	04/30/10	P			
P56 P58 67'S	" " " "	04/30/10	P			
P56 P58 70'S	" " " "	04/30/10	P			
P60 P61 74'S 79'S	Patch Leg EXT to 124'	04/30/10	P	5-3-10	P	VT ext seam 79' to 124' Patch
P60 P61 22'S	Patch AT Hole	04/30/10	P			
P60 P61 0'S	@ W end AT Hole	04/30/10	P			
P60 P61 124'S	Patch AT Hole	05/03/10	P			
P60 P62 13'S	Patch @ T & BUTT	05/03/10	P			
P60 P57 130'S	Patch @ T & BUTT	04/30/10	P			
P54 P59 133'S	Patch @ T & BUTT	04/30/10	P			
P57 100'S	on W side	04/30/10	P			
P54 P56 100'S	DP-19	04/30/10	P			
P56 P53 P55	Patch @ T	04/30/10	P			
P57 P54 158'S	Patch @ T & BUTT	04/30/10	P			
P51 P54 150'S	DP-18	04/30/10	P			
P51 P55 P54 161'S	Patch @ Butt	04/30/10	P	4-30-10	P	P55 P57 Patch @ Butt 161'S.
P48 P49 P50 158'S	Patch @ Butt	04/30/10	P	4-30-10	P	P49 P50 P51 Patch @ Butt 158'S.
P50 P52 196'S	Patch @ T & BUTT	04/30/10	P			
P48 P44 168'S	Patch @ T & BUTT	04/30/10	P			
P41 P45 29'S	Patch AT Hole w/ Span	04/30/10	P			
P41 P45 32'S	" " " "	04/30/10	P			
P41 P40	Patch @ T & BUTT	04/30/10	P			
P45 67'S	on S side	04/30/10	P			
P46 P50 67'S	Patch AT Hole	04/30/10	P			
P50 67'S	2 patches on S side	04/30/10	P			
P50 P52 67'S	on S side.	05/03/10	P			
P50 P50 66'S	1' East Patch on Dent	05/03/10	P			
P52 P55	on S Side	05/03/10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY GCML

Date: 05/05/10 | Area: | Material: HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P55 G7 S	on S side	05/03/10	P			
P55 G7 S	on S side	05/03/10	P			
11 G6 7S	Patch on	05/03/10	P			
11 G5 6S	Roll Dent	05/03/10	P			
P55 G7 S	In bench	05/03/10	P			
P55 P57 G5 S	Patch @ T & BUTT	05/03/10	P			656'
P58 P59 G7 S	Anchor Trench	05/03/10	P			S side.
P59 P57 G5 S	Patch @ T & BUTT	05/03/10	P			656'
P59 P63 G8 S	Anchor Trench	05/03/10	P			
P63 P64 G7 S	Seam end	05/03/10	P			
P63 P64 G0 S	along Seam	05/03/10	P			
P59 P63 G00 S	DP-21	05/03/10	P			
P63 P64 S6 S	DP-23	05/03/10	P			
P57 P59 20 S	DP-20	04/30/10	P			
P62 P63	DP-22	05/03/10	P			BUTT
P57 P59 P56 15 3 S	Patch @ T & BUTT	04/30/10	P			
P62 P59 P60 K3 K	Patch @ T & BUTT	05/03/10	P			
P60 P61 P62 12 4 S	Patch @ T & Seam	05/03/10	P			Two Patches
P65 P64 P67 12 4 S	Patch @ T & BUTT	05/03/10	P			
P65 P68 100 S	DP24	05/04/10	P			
P65 P67 P68 122 S	Patch @ T & BUTT	05/03/10	P			
P67 P67 P68 122 S	Patch @ T & BUTT	05/03/10	P			
P67 P69 P76 15 1 S	Patch @ T & BUTT	05/03/10	P			
P67 P65 P66 15 4 S	Patch @ T & BUTT	05/03/10	P			
P62 P65 P66 15 4 S	Patch @ T & BUTT	05/03/10	P			
P64 P62 P63 192 S	Patch @ T & BUTT	05/03/10	P			
P59 P63 P63 192 S	Patch @ T & BUTT	05/03/10	P			
P72 P69 P70 15 3 S	Patch @ T & BUTT	05/03/10	P			
P72 P69 P70 160 S	Patch @ T & BUTT	05/03/10	P			
P72 P73 100 S	DP-27	05/04/10	P			
P70 P67 250 S	DP 25	05/03/10	P	5-4-10	P	
P70 P71 350 S	DP 26	05/04/10	P			
P72 P73 K2 S	Seam Repair	05/03/10	P	5-4-10	P	P72P73 1' South Patch lab Marker
P72 P73 P74 K2 S	Patch @ T & BUTT	05/03/10	P			
11 160 S	Patch @ T & BUTT	05/03/10	P			
P76 P73 P74 K2 S	Patch @ T & BUTT	05/03/10	P			
P71 P74 600 S	DP 28	05/03/10	P			
P74 P76	DP 29	05/04/10	P			1701 S

Seam - Butt

122'

Any failing repair not retested to be noted in Comments column

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY 60mil

Date: 05/05/16 | Area: | Material: HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P74 P76 1945	Patch@T&BUTT	05/03/10	P	5-3-10	P	6" Bds on Butt Seam, 8' west
P67 P70 3445	Seam A.T. Patch	05/03/10	P			
P76 P77 1605	DP-30	05/04/10	P			
P64 P66 P67 6485	Patch@T&BUTT	05/03/10	P			
P70 P66 P67 6485	Patch@T&BUTT	05/03/10	P			
P66 6755	2 Patches on Seam	05/03/10	P			
P67 P70 6755	S Side	05/03/10	P			
P70 P71 6755	S Side	05/03/10	P			
P77 P80 P81 1285	Patch@T&BUTT	05/03/10	P			R157 ✓
P83 P80 P81 1285	Patch@T&BUTT	05/04/10	P			R155 ✓
P80 P77 1505	Patch@T&BUTT	05/03/10	P			R160 ✓
P78 P77 1515	DP31	05/04/10	P			@BUTT ✓
P76 P77 1515	Patch@T&BUTT	05/03/10	P			R161 ✓
P78 P76 1945	Patch@T&BUTT	05/03/10	P			R162 ✓
—	DP31					
P78 P80 6445	DP32	05/03/10	P			✓
P80 P82 555	DP33	05/03/10	P			550' South ✓
P78 P79 P80 6545	Patch@T&BUTT	05/03/10	P			R163 ✓
P82 P79 P80 6545	Patch@T&BUTT	05/03/10	P			R165 ✓
P78 P79	on S Side	05/03/10	P			R164 670' South ✓
P79 P82	on S Side	05/03/10	P			R167 ✓
P82 P84	Anchor Trench	05/03/10	P			R168, 675'S ✓
P84 P88	Anchor Trench	05/03/10	P			R169, 675'S ✓
P88 P89	Anchor Trench	05/03/10	P			R170, 675'S ✓
P89 P93	Anchor Trench	05/03/10	P			R188, 675'S ✓
P93 P94	Anchor Trench	05/03/10	P			R187, 675'S ✓
P94 6755	10' West Patch Sandbag	05/03/10	P			R206 ✓
P93 P95 6455	Patch@T&BUTT	05/03/10	P			R185 ✓
P95 6455 7'E	Patch Liner dent	05/03/10	P			R186, 645'S ✓
P95 6355 7'E	" " "	05/03/10	P			R210, 640'S ✓
P93 P95 5515	Seam Patch	05/03/10	P			R84 ✓
P82 P84 4505	DP34	05/03/10	P	5-4-10	P	Two Bds on Seam 340' + 350' South
P84 P85 1605	DP35	05/04/10	P	5-4-10	P	6" Bd on Seam 250' South 3" Bd 200' South
P88 P90 1605	DP36	05/03/10	P	5-4-10	P	
P88 P89 6605	DP37	05/03/10	P			✓
P85 P87 1385	DP38	05/04/10	P			
P89 P93 4605	DP39	05/04/10	P			
P93 P95 2505	DP40	05/04/10	P			R208

Any failing repair not retested to be noted in Comments column

Same Butt

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Primary

Date: _____ Area: West Middle Material: 60 Mil HDPE Text.

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
P93 P89 P90 1825	Patch @ T & Butt	05/04/10	P			R183 ✓
P88 P89 P90 1825	Patch @ T & Butt	05/04/10	P			R171 ✓
P90 P88 1585	Patch @ T & Butt	05/04/10	P			R172 ✓
P88 P85 P87 1585	Patch & 2 Tees	05/04/10	P			R173, 1585 ✓
P82 P86 1615	Patch @ T & Butt	05/04/10	P			R174, 1615 ✓
P85 P82	Patch @ T & Butt	05/04/10	P			R175, 1555 ✓
P80 P83 1545	Patch @ T & Butt	05/04/10	P			R159 ✓
P83 P86 1005	Patch @ T & Butt	05/04/10	P			R176 ✓
P87 P83 P86 1005	Patch @ T & Butt	05/04/10	P			R177 ✓
P90 P92 P93 1995	Patch @ T & Butt	05/04/10	P			R182 ✓
P95 P93 1575	Patch @ T & Butt	05/04/10	P			R181 ✓
P92 P96 1385	Patch @ T & Butt	05/04/10	P			R180 ✓
P96 P91 885	Patch @ T & Butt	05/04/10	P			R179 ✓
P90 P91 885	Patch @ T & Butt	05/04/10	P			R178 ✓
~~P88 P93 P93 1545~~	~~Patch @ Butt~~	~~5-4-10~~	~~P~~			~~R159~~
P94 P97 674's	Patch into Anchor	5-19-10	P			R211
P97 4' West 650's	Add on Detail	5-19-10	P			R212
P97 P94 P95 647's	Patch @ Butt	5-19-10	P			
P97 P99 674's	Patch into Anchor	5-19-10	P			
P97 P95 400's	DP 41	5-19-10	P			
P97 P99 300's	DP 43	5-19-10	P			
P97 P99 P100 191's	Patch @ Butt	5-19-10	P			R220
P99 P100 P103 191's	" " "	5-19-10	P			R221
P95 P97 P98 156's	" " "	5-19-10	P			
P97 P98 P100 156's	" " "	5-19-10	P			R219
P97 P98 Butt 156's	DP 42	5-19-10	P			
P95 P96 P98 136' Seam	Patch @ Butt	5-19-10	P			R217
P98 P100 P101 105' Seam	Patch @ Butt	5-19-10	P			R218 R223
P100 P101 P102 105' Seam	" " "	5-19-10	P			
P102 P105 P104 127' Seam	" " "	5-19-10	P			
P104 P105 P104 127's	" " "	5-19-10	P			
P104 P105 Butt 127's	DP 46	5-19-10	P			
P100 P102 P103 154's	Patch @ Butt	5-19-10	P			
P102 P103 P105 154's	" " "	5-19-10	P			R225
P99 P103 356's	Patch on AT hole	5-19-10	P			R215
P99 P103 500's	DP 44	5-19-10	P			
P99 P103 672's	Patch on Seam	5-19-10	P			AT or VT end of Seam
P99 P103 675's	Extrude into anchor	5-19-10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
P106 - P107 675's	Extrude into Anchor	5-19-10	P			
P103 P105 647's	AT Patch @ Butt	5-19-10	P			
P106 P107 647's	"	5-19-10	P			
P103 P105 550's	DP 45	5-19-10	P			
P105 P107 450's	DP 47	5-19-10	P			
P105 P108 155's	AT Patch @ Butt	5-19-10	P			
P105 P108 138's	"	5-19-10	P			
P110 P113 100's	DP 50	5-19-10	P			
P108 P110 138's	AT Patch @ Butt	5-19-10	P			
P107 P110 155's	"	5-19-10	P			
P110 150's	Patch center of P110	5-19-10	P			
P110 153's	"	5-19-10	P			
P110 P112 151's	AT Patch @ Butt	5-19-10	P			
P113 P115 151's	"	5-19-10	P			
P107 P111 165's	AT Patch @ Butt	5-19-10	P			
P111 P112 165's	"	5-19-10	P			
P111 P110 Butt 165's	DP 49	5-19-10	P			
P107 P111 400's	DP 48	5-19-10	P			
P111 P112 454's	AT Hole Patch	5-19-10	P			
P111 P112 590's	Extrude (~2') (BD)	5-19-10	P			
P107 P111 675's	Extrude into Anchor	5-19-10	P			
P116 P117 670's	Patch into Anchor	5-20-10	P			
P116 P117 306's	Crease through (Patch) Seam	5-19-10	P			
P116 P117 300's	DP 53	5-19-10	P			
P112 P116 200's	DP 51	5-19-10	P			
P112 P115 186's	AT Patch @ Butt	5-19-10	P			
P115 P118 186's	"	5-19-10	P			
P113 P115 143's	AT Patch @ Butt	5-19-10	P			
P114 P118 143's	"	5-19-10	P			
P115 P114 Butt 143's	DP 52	5-19-10	P			
P113 P114 126's	AT Patch	5-19-10	P			
P116 P117 197's	AT Patch @ Butt	5-19-10	P			
P118 188's	Patch - Center of Panel	5-19-10	P			
P118 P119 Butt 154's	AT Patch @ Butt	5-17-10	P			
P119 P120 Butt 154's	CAP STRIP (8'w)	5-17-10	P			
P119 P120 Butt 154's	DP 55	5-17-10	P			
P119 P120 Butt 154's	CAP STRIP (7')	5-17-10	P			
P117 P120 197'	AT Patch @ Butt	5-19-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
P118 P120 186'	AT Patch	5-19-10	P			
P117 P120 400's	DP 54	5-20-10	P			
P117 P120 468's	AT Patch	5-20-10	P			
P117 P120 553'	Repair Patch	5-20-10	P			
P120 P121 666'	Patch into Anchor	5-20-10	P			
P120 P121/122 646's	AT Patch @ Butt	5-20-10	P			
P120 P122 457's	Crease through weld	5-24-10	P			Patched
P120 P122 250's	DP 56	5-19-10	P			
P120 P122 221's	AT Patch	5-19-10	P			
P120 P122 154'-175's	DP55B + Cap Strip	5-17-10	P			
P119/P120 P122 154'	AT Patch @ Butt	5-24-10	P			
P119 P122 141'-134's	DP55A + Cap Strip	5-17-10	P			
P119 P122/123 125's	AT Patch @ Butt	5-19-10	P			
P119 P123 18's	Lost lap. / BD	5-24-10	P			Extruded (1")
P122/123 P123 125's	AT Patch @ Butt	5-19-10	P			
P122 P123/124 151's	AT Patch @ Butt	5-19-10	P			
P124/125 P132 151's	AT Patch @ Butt	5-19-10	P			
P125 P124 Butt 151's	DP 58	5-19-10	P			
P125 P124 Butt 151's	5' Extrude @ Butt	5-19-10	P			
P122 P124 330's	CREASE THROUGH WELD	5-24-10	P			Patched (330'-334's)
P122 P124 336's	Patch on seam	5-20-10	P			
P122 P124 530's	AT Patch	5-20-10	P			
P122 P124 600's	DP 57	5-20-10	P			
P121/122 P124 646's	AT Patch @ Butt	5-20-10	P			
P121 P124 672's	WH burn Patch	5-20-10	P			
P124 P126 674's	Extrude into Anchor	5-20-10	P			
P124 P126 200's	DP 59	5-19-10	P			
P124 P124/132 164's	AT Patch @ Butt	5-19-10	P			
P125 P132 114's	Patch on seam	5-19-10	P			
P125 P132 110's	Lost lap / Extrude (BD)	5-19-10	P			
P125 P132 101's	Extruded (4")	5-24-10	P			
P125 P132 98's	Extruded / Lost lap	5-19-10	P			
P125 P132 93's	AT Patch	5-19-10	P			
P125/P132 74's	BD for dent	5-19-10	P			
P125 P132 50's	DP 60	5-19-10	P			
P132 P133 68's	AT Patch	5-20-10	P			
P132 P133 100's	DP 61	5-20-10	P			
P126/P132 P127/P133 159'-161'	AT Patch @ 2 Butt Seam	5-20-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
P133 P135 154'	AT Patch @ Butt	5-20-10	P			
P126 P127 312's	CREASE AT SEAM	5-24-10	P			Patched
P127 439'	Patch / Center of Panel	5-20-10	P			
P126 P127 439'-450'	Crease through Weld	5-24-10	P			Patched 439'-450's
P126 P127 667's	Patch into Anchor	5-20-10	P			
P127 P128 552's	AT Patch	5-20-10	P			
P127 P128 250's	DP62	5-20-10	P			
P127 P128 241's	3' BD (Extrudate)	5-24-10	P			
P127 P128 196's	AT Patch @ Butt	5-20-10	P			
P128 P129 196's	"	5-20-10	P			
P133 P135 100's	DP63	5-20-10	P			
P133 P135 39's	AT Patch @ Butt	5-20-10	P			
P134 P136 39's	"	5-20-10	P			
P134 32's	Patch / Buried sand bag	5-20-10	P			
P135 P136 50's	DP64	5-20-10	P			
P135 P136 157's	AT Patch @ Butt	5-20-10	P			
P136 P137 157's	"	5-20-10	P			
P128 P129 450's	DP65	5-20-10	P			
P128 P129 662's	BD (Extrudate) 9' Lost Cap	5-24-10	P			
P129 P130 636's	AT Patch @ Butt	5-20-10	P			
P130 P139 636's	"	5-20-10	P			
P129 P131 400's	DP66	5-20-10	P			
P136 P137 116's	AT Patch @ Butt	5-20-10	P			
P137 P138 116's	"	5-20-10	P			
P132 P138 100's	DP67	5-20-10	P			
P131 P139 235's	AT Patch @ Butt	5-20-10	P			
P139 P141 235's	"	5-20-10	P			
P139 P140 597's	AT Patch @ Butt	5-20-10	P			
P140 P143 597's	"	5-20-10	P			
P139 P141 294's	Crease through Weld	5-25-10	P			Patched
P139 P141 250's	DP69	5-20-10	P			
P138 P141 75's	AT Patch @ Butt	5-20-10	P			
P141 P145 75's	"	5-20-10	P			
P138 P142 50's	DP68	5-20-10	P			
P142 P143 71's	BD - Repair	5-20-10	P			
P141 P143 157's	AT Patch @ Butt	5-20-10	P			
P143 P147 157's	"	5-20-10	P			
P141 P143 350's	DP70	5-24-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log PRIMARY

Date:		Area:		Material: 60 MIL HDPE TEXT		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
P143 P144 672's	Patch into Anchor	5-20-10	P			
P143 P144 400's	DP71	5-20-10	P			
P143 P144 330's	Patch on seam	5-20-10	P			
P143 P144 312's	Patch on seam	5-20-10	P			
P143 P144/147 166's	AT Patch@Butt	5-20-10	P			
P145 P147/146 106's	AT Patch@Butt	5-20-10	P			
P144 P148 450's	DP72	5-20-10	P			
P148 498's	BD - Repair Dent	5-25-10	P			
P148 P149 550's	DP73	5-20-10	P			
P148 670's	Patch over input	5-20-10	P			
P148 671's	Patch over input	5-20-10	P			
P149 667's	Patch over input	5-20-10	P			
P149 659's	Patch over input	5-20-10	P			
P149 P150 600's	DP74	5-20-10	P			
P150 P151 450's	DP75	5-20-10	P			
P151 P152 500's	DP76	5-24-10	P			
P152 P153 550's	DP77	5-20-10	P			
P152 P153 675's	Extrude into Anchor	5-24-10	P			
P153 P154 675's	Extrude into Anchor	5-24-10	P			
P153 P154/153 615's	AT Patch@Butt	5-20-10	P			
P154/153 P157 615's	"	5-24-10	P			
P153 P154 P157 546's	AT Patch@Cross SEAM	5-20-10	P			
P153 P157 531's	BD/Lost Lap (2')	5-20-10	P			
P153 P157/158 487's	AT Patch@Butt	5-20-10	P			
P157/158 P159 487's	"	5-20-10	P			
P153 P158 P159 431's	AT Patch@ cross SEAM	5-20-10	P			
P153 P159 400's	DP79	5-20-10	P			
P155 P157 600's	DP78	5-20-10	P			
P154 P156 P157 650's	AT Patch@ cross SEAM	5-20-10	P			
P154 P156 P157 675'	Patch into Anchor	5-20-10	P			
P157 P159 669's	Patch on seam	5-20-10	P			
* P76 98's	BD on dent	5-26-10	P			
P59 486's	BD on dent	5-26-10	P			
P59 489's	BD on dent	5-26-10	P			
P67 P70 167's	BD/Lost Lap	5-26-10	P			
P67 P70 177's	BD/Lost Lap	5-26-10	P			
P55 P57 409's	Crease@seam/Patch	6-1-10	P			Patched.
P41 595's	BD on DENT	5-26-10	P			
Any failing repair not retested to be noted in Comments column						

West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

PRIMARY

Date: ~~5-5~~ Area: Floor then W Berm South Material: 60 MIL HDPE TEXT

Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
* P50 P52@ 607's	Lost Lap / BD	6-1-10	P			Extruded 606'-609's
P161 P162 2'E	Lost Lap AT hole Patch	7-9-10	P			@ anchor
P163 P164 1'E	whlburn AT hole Patch	7-9-10	P			@ anchor
P172 P173 P175 16'E	Patch at Seams	7-9-10	P			Pie Corner
P174 SW Corner	Extrude Corner Panel	7-9-10	P			Extrude in place Corner
P175 25'N	Patch+Ext to seam cutwrinkle	7-9-10	P			
P175 P172 35'N	Patch Lost Lap	7-9-10	P			
P175 P159 30-41	Cap lost Lap Seams	7-9-10	P			Cross Seam
P159 P171 P170 64'N	Patch Cross Seam	7-9-10	P			
P159 P170 P169 86'N	" " "	7-9-10	P			
P159 P169 P168 109'N	" " "	7-9-10	P			
P159 P168 P167 131'N	" " "	7-9-10	P			
P159 P167 P166 153'N	" " "	7-9-10	P			
P159 P166 P165 175'N	" " "	7-9-10	P			
P159 P165 P164 197'N	" " "	7-9-10	P			
P159 P164 P163 219'N	" " "	7-9-10	P			
P159 P163 P162 242'N	" " "	7-9-10	P			
P159 P162 P161 264'N	" " "	7-9-10	P			
P159 P161 P160 286'N	" " "	7-9-10	P			
P131 P131 5'East 350'N	Bd on cut	7-7-10	P			
P171 P159 50'N	DP 80	7-9-10	P			
P164 P159 200'N	DP 81	7-9-10	P			
P159 129'6"E	Bd on Cut	7-13-10	P			
P160 P176 0-5'E	EXT Anchor to Patch	7-22-10	P			
P159 P160 P176 46'E	4'x7' Patch cut+Fold Plug	7-15-10	P			Was water Stop for Sump Work
P177 P180 P176 P159 50'E	Four corner Patch	7-15-10	P			
P177 P179 P180 64'E	Patch AT "T"	7-15-10	P			
P177 P179 64E	DP 84 on Butt Seam	7-15-10	P			
P179 152 153 P159 P180 73'E	5 corner Patch	7-15-10	P			
P152 P151 351'N	start stop Patch	7-15-10	P			
P151 P150 351'N	" " "	7-15-10	P			
P150 P149 349'N	" " "	7-15-10	P			
P149 P148 343'N	" " "	7-15-10	P			
P149 P148 339'N	" " "	7-15-10	P			
P149 P148 300'N	DP 82	7-15-10	P			
P148 P149 300'N	DP 83	7-15-10	P			
P149 P148 237'N	whlburn AT Patch	7-15-10	P			
P177 P178 20'E	DP 85	7-15-10	P			
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Primary

Date:		Area: NW Corner		Material: 60 Mil textured liner		
Location	**Type Damage**	**Test Date**	**P/F**	**Retest Date**	**P/F**	**Comments**
P178 P179 64'-70'E	Patch Four Panel Corners	7-15-10	P			
P178 P181 0'E	0'-5' Patch into Anchor	7-22-10	P			
P152 P178 64'E	Patch "T"	7-15-10	P			
P152 P181 63'E	" "	7-15-10	P			
P152 P182 59'E	" "	7-15-10	P			
P152 P183 55'E	" "	7-15-10	P			
P152 P184 48'E	" "	7-15-10	P			
P152 P185 46'E	" "	7-15-10	P			
P152 P186 45'E	" "	7-15-10	P			
P152 P187 45'E	" "	7-15-10	P			
P187 P188 13'-15'E	EXT BD Lost Lap	7-15-10	P			
P188 P151 59'E	Patch "T"	7-15-10	P			
P188 P150 80'E	" "	7-15-10	P			
P188 P149 102'E	" "	7-15-10	P			
P188 P148 123'E	" "	7-15-10	P			
P188 P147 145'E	161'N " "	7-15-10	P			
P147 P189 138'N	" "	7-15-10	P			
P147 P190 116'N	" "	7-15-10	F	7-15-10	P	Lk on "T" repaired
P146 P147 P190 104'N	" "	7-15-10	P			
P146 P191 94'N	90 also " "	7-15-10	P			
P146 P193 72'N	" "	7-15-10	P			
P146 P194 50'N	" "	7-15-10	P			
P146 P200 28'N	120'E " "	7-15-10	P			
P194 P200 98'E	[redacted]' " "	7-15-10	P			
P194 P198 76'E	" "	7-15-10	F	7-15-10	P	Lk on "T" repaired
P194 P197 54'E	" "	7-15-10	P			
P194 P196 32'E	" "	7-15-10	P			
P194 P195 12'E	" "	7-15-10	P			
P195 P196 0'-20'	EXT Seam through Boot to Skirt	7-15-10	P			
P195 P196 Pipe	Boot to Skirt VI	7-15-10 Jan	VIOK			
P177 P179 Exit	DP 84	7-15-10	P			
P191 P192 Exit	DP 86	7-19-10	P			
P199 P200 20' Exit	DP 87	7-19-10	P			
P178 P181 0'-4'E	Patch into anchor Lost Lap at Tide	7-22-10	P			duplicate
P182 P183 23'-48'E	Cap strip over Bootless Liner	7-22-10	P			Cap on slope 23'E caps not sealed folded to East
Any failing repair not retested to be noted in Comments column						

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West Pasco Class I
Cell A - 4 Construction
Vacuum Test Log

Primary

Date: September 14-17 | Area: Electronic Leak Test | Material: 60 Mil HDPE Textured

	Location	Type Damage	Test Date	P/F	Retest Date	P/F	Comments
①	225'N P138 or 139 P131	hole in "T" on Patch	9-14-10	P			
②	340'N P99 P103	Leak on Extruded Patch	9-15-10	P			
③	160'N 3W P112	Staple holes	9-16-10	P			
④	370'N P84 P88	.2" tear on Wrinkle	9-16-10	P			
⑤	255'N 5W P80	Slit in Liner	9-16-10	P			
⑥	95'N P86 P83	Leak on Extruded Patch	9-16-10	P			
⑦	145'N P73 P72	Leak on Extruded Patch	9-17-10	P			

Any failing repair not retested to be noted in Comments column

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

SECONDARY

Date: _____ Area: _____ Material: 60 Mil HDPE Text

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
DS-1	S6/S7 25'W	A052	SM.	800°/8			4-12-10
DS-2	S11/S12 25'W	A075	DL	800°/13			
DS-3	S14/S15 60'W	A047	RO	750°/8			
DS-4	S24/S25 50'W	A075	DL	800°/13			
DS-5	S33/S34 55'W	A075	DL	800°/13			
DS-6	S35'S32 625'South	A052	SM	800°/7			
DS-7	S19/Exist 360'South	E061	CM				
DS-8	S22 S35 Cap 425'South	E040	JP				
DS-9	S35/S38 300'South	A075	DC	800°/13			4-13-10
DS-10	S37/S39 [illegible]'South	A052	SM	800°/8			
DS11	S39/S43 350'South	A075	DL	800°/15			
DS12	S44/S47 150'South	A047	RO	800°/8			
DS13	S40S41 113'South	A052	SM	800°/8			
DS14	S41/S49 450'South	A052	SM	800/8			
DS15	S49/S50 650'South	A075	DL	800°/15			
DS16	S50/S52 [illegible]'South	A047	RO	800/8			
DS17	S51/S54 100'S.	A047	RO				
DS18	S52/S53 250'S	A052	SM.	800/8			4-14-10
DS19	S53/S57 450'S	A091	D.L.	800/15			
DS20	S57/S58 550'S	A047	R.O.	800/9			
DS21	S56/S59 100'S	A091	D.L.	800/15			
DS22	S58/S61 300'S	A075	S.M.	800/11			
DS23	S60/S63 450'S	A091	D.L.	800/15			
DS24	S62/S66 550'S	A047	R.O.	850/9			
DS25	S64/S65 Butt Seam 33'South	A075	SM	800/16			4-15-10
DS26	S65/S66 Butt Seam 33'South	A047	RO	850/9			
DS27	S61/S69 400'S.	A091	DL	800/15			
DS28	S70 S71 600'S.	075	SM	800/15			
DS29	S71 S74 550'S.	091	DL	860/15			
DS30	S74 S75 500'S.	047	RO	850/8			
DS31	S74 S73 Butt Seam 140'S.	075	SM	800/15			
DS32	S76 S79 100'S.	091	DL	800/15			
DS33	S78 S80 140'S	047	RO	850/8			
DS34	S78 S81 600'S.	075	SM	800/15			
DS35	S81 S82 600'S.	091	DL	800/15			
DS36	S82 S86 625'S	075	FM	800/12			
DS37	S85 S87 550'S	091	DL	800/15			4-16-10
DS38	S87 S90 600'S	075	SM	800/15			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

Date: _____ Area: Cell West ½ Material: 60M.I HDPE Secondary Text

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
DS 39	S90 S91 450's.	W047	RO	850/8			4-16-10
DS 40	S91 S95 350's.	W091	DL	800/15			
DS 41	S91 S92 Butt 156's.	W047	RO	850/8			
DS 42	S95 S96 400's	W075		800/15			
DS 43	S96 S98 450's.	W091	DL	800/15			
DS 44	S99 S100 500's.	W075	S.M	800/15			
DS 45	S100 S101 Butt 155's	W047	RO	850/8			4-21-10
DS 46	S100 S103 250's	W075	S.M.	800/15			
DS 47	S104 S106 400's	W047	R.O.	850/8			
DS 48	S105 S108 500's	W091	D.L.	800/15			
DS49	S109 S108 Butt 590's	W091	D.L.	800/15			
DS50	S108 S110 350's	W075	S.M.	800/15			
DS51	S110 S111 Butt @153	WE-091	DL	800x15			5-5-10
DS52	S110 S112 250's	WE-040	RO	850x8			
DS53	S112 S113 Butt 186's	WE-068	SM	800x16			
DS54	S112 S114 600's	WE-068	SM	800x16			
DS55	S114 S115 Butt 153's	WE-040	RO	850x8			
DS56	S114 S117 250's	WE-091	DL	800x15			
DS57	S117 S118 Butt 127'	WE-040	RO	850x8			
DS58	S117 S119 300's	WE-068	SM	800x16			
DS59	S119 -S122 200's	WE-091	DL	800x15			
DS60	S120 S123 50's	WE-040	RO	850x8			
DS61	S122 S124 550's	WE-068	SM	800x16			
DS62	S124 S125 Butt 152	WE-068	SM	800x16			
DS63	S124 S127 500's	WE-091	DL	800x15			*
5/11/10 DS64	S127 S129 @ 300's	WE-068	SM	800x16			5/12/10
DS65	S129 S137 Butt 163	WE-040	RO	850x8			
DS66	S129 S130 @ 400's	WE 091	DL	800x15			
DS67	S138 S139 @ 100's	WE 068	SM	800x16			
DS68	S131 S132 @ 250's	WE-040	RO	850x8			
DS69	S132 S141 @ 170's	WE 091	DL	800x15			
DS70	S133 S141 Butt 193	WE040	RO	850x8			
DS71	S133 S135 @ 450's	WE068	SM	800x16			
DS72	S135 S136 @ 400's	WE091	DL	800x15			
DS73	S142 S144 @ 50's	WE068	SM	800x16			
5/12/10 DS74	S136 S145 @ 350's	WEA040	RO	850x8			
DS75	S145 S147 @ 500's	WEA068	SM	800x16			
DS76	S146 S142 Butt 520's	WEA068	SM	800x16			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

SECONDARY

Date: _____ Area: SOUTH/WEST END Material: 60 MIL HDPE TEXT

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
5/12/10 DS77	S146 S148 @600'S	WE096	DL	800 x 15			5/12/10
DS78	S148 S150 @400'S	WE068	SM	800 x 16			
DS79	S151 S152 @620'S	WE040	RO	850 x 8			5/12/10
5/13/10 DS80	S150 S159 @500'S	WE068	SM	800 x 16			5/13/10
DS81	S159 S161 @550'S	WE096	DL	800 x 15			
DS82	S163 S166 @ Cross 46'E	WE068	SM	800 x 16			
DS83	S163 S169 @ Cross 41'E	WE096	DL	800 x 15			
DS81B	S159 S161 @ 562	WE096	DL	800 x 15			
DS81A	S159 S161 @ 537'S	WE096	DL	800 x 15			5/17/10
DS81B2	S159 S161 @ 590'S	WE096	DL	800 x 15			5/17/10
DS84	S145 S178 @ 140'E	WE076	SM	800 x 16			7/9/10
DS85	S181 S183 @ 80'E	WE040	RO	850 x 10			
DS86	S136 S183 @ 142'E, 80'	WE076	SM	800 x 16			
DS87	S185 S187 @ 100'E	WE096	DL	800 x 15			
DS88	S189 S190 @ 75'E	WE040	RO	850 x 10			
DS89	S193 S194 @ 60'E	WE096	DL	800 x 15			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

Primary

Date: _____ Area: EAST FLOOR Material: 60 MIL HDPE TEXT

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
DP-1	P-17-Existing@350'	ET-1040	JP				4-30-10
DP-2	P5-EXISTING@70'	ET-061	CM				
DP-3	P1-P2@60'W/20's	WE-075	SM	800 x 14			
DP-4	P9-P10@60'W/122's	WE-047	R.O.	850 x 7			
DP-5	P16-P17@50'W/324's	WE-091	D.L.	800 x 15			
DP-6	P27-P28@40'W	WE-075	S.M.	800 x 14			
DP-7	P30-P35@400's	WE-091	D.L.	800 x 15			
DP-8	P35-P38@450's	WE-047	R.O.	850 x 7			
DP-9	P37-P40@300's	WE-075	S.M.	800 x 14			
DP-10	P40-P42@BUTT 102's	WE-047	R.O.	850 x 7			
DP-11	P40-P41@250's	WE-075	S.M.	800 x 14			
DP-12	P43-P44@100's	WE-091	D.L.	800 x 15			
4-29-10 DP-13	P45-P47@550's	WE-047	R.O.	850 x 7			
DP-14	P47-P48@BUTT 84's	WE-047	R.O.	850 x 7			
DP-15	P47-P50@400'S	WE-068	S.M.	800 x 16			
DP-16	P50-P52@550's	WE-091	D.L.	800 x 15			
DP-17	P52-P51@BUTT 190's	WE-047	R.O.	850 x 7			
DP-18	P51-P54@150's	WE-068	S.M.	800 x 16			
9 DP-19	P54-P56@100's	WE-047	RO	850 x 7			*
DP-20	P57-P59@200's	WE-091	D.L.	800 x 15			
DP-21	P59-P62@100's	WE-068	SM	800 x 16			5-3-10
DP-22	P62-P63@BUTT 194's	WE-047	R.O.	850 x 7			
DP-23	P63-P64@550's	WE-091	DL	800 x 15			
DP-24	P65-P68@100's	WE-068	SM	800 x 16			
DP-25	P67-P70@250'	WE-091	DL	800 x 15			
DP-26	P70-P71@350's	WE-068	SM	800 x 16			
DP-27	P72-P73@@100's	WE-091	DL	800 x 15			
DP-28	P71-P74@600's	WE-068	SM	800 x 16			
DP-29	P74-P76@175's	WE-091	DL	800 x 15			
DP-30	P76-P77@100's	WE-068	SM	800 x 16			
DP-31	P77-P78@BUTT 151's	WE-040	RO	850 x 9			
DP-32	P78-P80@640's	WE-091	D.L.	800 x 15			
DP-33	P80-P82@550's	WE-040	RO	850 x 9			
DP-34	P82-P84@450	WE-068	SM	800 x 16			
DP-35	P84-P85@BUTT 66'	WE-091	DL	800 x 15			
~~DP-36~~	~~P84-P86~~						
DP-36	P86-P90@160's	WE-091	DL	800 x 15			
DP-37	P88-P89@600's	WE-068	SM	800 x 16			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

Primary

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
DP 38	P85-P87@ RS's	WE 068	SM	800 X16			5-3-10
DP 39	P89-P93 @ 400's	WE 040	RO	850 X9			5-5-10
DP 40	P93-P95@ 250's	WE091	DL	800X15			5-5-10
DP 41	P94-P97@400's	WE 068	SM	800 X16			5-11-10
DP 42	P97-P98 BUTT 156's	WE091	DL	800X15			
DP 43	P97-P99@ 300's	WE 040	RO	850 X 8			
DP 44	P99-P103@ 500's	WE091	DL	800X15			
DP 45	P103-P105@550's	WE068	SM	800 X16			
DP 46	P105-P104 BUTT 127's	WE040	RO	850 X 8			
DP 47	P105-P107@450's	WE 091	DL	800 X15			
DP 48	P107-P111@ 400's	WE040	RO	850 X8			
DP 49	P111-P110 BUTT 165's	WE 068	SM	800 X16			
DP 50	P110-P113@100's	WE068	SM	800 X16			
DP 51	P112-P116@200's	WE068	SM	800 X16			
DP 52	P115-P114 BUTT 143's	WE040	RO	850 X8			
DP 53	P116-P117 @300's	WE 091	DL	800X15			
DP 54	P117-P120@400's	WE 068	SM	800X16			
DP 55	P120-P119 BUTT 153's	WE 091	DL	800 X15			
DP 56	P120-P122@250's	WE 091	DL	800X15			
DP 57	P122-P124@600's	WE 040	RO	850 X8			
DP 58	P124-P125 BUTT 151's	WE 068	SM	800X16			
DP 55B	P120-P122@ 178's	WE091	DL	800 X15			5-17-10
DP 55A	P119-P122@ 149's	WE091	DL	800 X15			5-17-10
DP 59	P124-P126@200's	WE 068	SM	800X16			5-19-10
DP 60	P125-P132@50's	WE 096	DL	800X15			
DP 61	P132-P133@100's	WE096	DL	800X15			
DP 62	P127-P128@250's	WE068	SM	800X16			
DP 63	P133-P135@100's	WE096	DL	800 X15			
DP 64	P135 P136@ 50's	WE068	SM	800X16			
DP 65	P128 P129@450's	WE096	DL	800 X15			
DP 66	P129 P131@400's	WE068	SM	800X16			
DP 67	P137 P138@100's	WE068	SM	800X16			
DP 68	P138 P142@50's	WE096	DL	800 X15			
DP 69	P139 P141@250's	WE068	SM	800X16			
DP 70	P141 P143@350's	WE068	SM	800 X15			5-21-10
DP 71	P143 P144@400's	WE096	DL	800 X15			
DP 72	P144 P148@450's	WE068	SM	800 X15			
DP 73	P148 P149@550's	WE096	DL	800 X15			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cell A - 4 Construction
Destruct Sample Log

PRIMARY

Date: _____ Area: _____ Material: 60 MIL HDPE TEXT

CAP _____

Sample #	Location	Machine Number	Seamer I.D.	Mach. Temp. and Setting	Peel PPI	Shear PPI	Sent to Lab
DP 74	P149 P150 @ 600's	WE068	SM	800 x 15			5-21-10
DP 75	P150 P151 @ 450's	WE096	DL	800 x 15			
DP 76	P151 P152 @ 500's	WE068	SM	800 x 15			
DP 77	P152 P153 @ 550's	WE096	DL	800 x 15			
DP 78	P155 P157 @ 600' S Cross	WE068	SM	800 x 15			
DP 79	P153 P154 @ Cross 400's	WE068	SM	800 x 15			
DP 80	P159 P171 50' North	WE068	SM	820° - 13			6-28-10
DP 81	P159 P164 200 N	WE096	DL	800° - 12			
DP 82	P144 P148 300' N	W 076	JP	800° - 15			
DP 83	P148 P149 300' N	W 096	DL	800° - 15			
DP 84	P177 P179 @ Buff 6" E	W 076	JP	800° - 15			
DP 85	P177 P178 25' E	W 096	DL	800° - 15			
DP 86	P191 P192 @ Buff 5' E	W 076	JP	800° - 15			
DP 87	P199 P200 20' South	W 096	DL	800° - 15			

Tracking Destruct Samples will be marked "B" for before, and "A" for after.

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 4-19-10 | Area: (0'W - 170'W) EAST FLOOR | Material: GEOCOMPOSITE

Panel No.	Factory Roll No.		Length	Width	Comments/Location
	5826	5848	169	14	START AT NORTH ANCHOR TRENCH
	5780	5827			0'W TO 170'W
	2881	3823			
	2773	5911			
	5885	5836			
	5768	5815			
	5775	5809			
	5822	5889			
	5816	5855			
	5838	5859			
	5867	5829			
	5896	5876			
	5912	5830			
	5828	5817			
	5875	5909			
	5753	5878			
	5791	5854			
	5749	5751			
	5792	5762			
	5739	5897			565' – 580' S OF N. ANCHOR TRENCH
	40				

Total SQ. FT. placed today: 94,640

Total SQ. FT. placed to date: 94,640

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 4-20-2010 | Area: EAST FLOOR (170'W - 340'W) | Material: Geocomposite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	5787 5810	169'	14'	580'S - 640'S OF N. ANCHOR TRENCH
	5716 5840			610'S - ~640'S OF N. ANCHOR TRENCH
	5726 5818			Adjacent to S. Anchor Trench
	5852 5796			Adj. to N. Anchor trench / 170'W
	5715 5776			
	5754 6036			
	5772 5786			
	5717 5750			
	5824 5804			
	5777 5841			
	5842 5793			
	5888 5696			
	5853 5771			
	6019 5808			
	5785 6026			ENDED 350'S OF N. Anchor Trench
	30			

Total SQ. FT. placed today: 70,980

Total SQ. FT. placed to date: 165,620

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 4-21-2010 | Area: EAST FLOOR (170'W - 350'W) | Material: Geocomposite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	6040 5794	169'	14'	170'W / 350'S OF N. ANCHOR TRENCH
	6039 6026			
	6021 6022			
	6035 5727			
	6041 6034			
	5769 6025			
	5746 6014			
	5774 6023			
	5778 5904			
	5903 5831			
	6024 6037			
	6027 5832			645 - 675'S
	1313 6030			330'W / 0'S OF N. ANCHOR TRENCH
	6016 5909			330'W - 500'W
	6032 5986			
	5910 6028			
	5758 5970			
	5745 5900			
	5899 5985			
	5736 6018			
	5902 5725			255'S OF N. ANCHOR TRENCH

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log SECONDARY

Date: 4-22-10		Area:		Material: GEOCOMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	5901 6033	169	14	~330'W / 255'S OF N. TRENCH
	5907 5923			
	5984 5983			
	5795 5905			
	6007 6029			
	5982 5995			
	5856 5814			
	6038 6001			
	6031 5987			
	5906 5994			
	5789 5737			
	5743 5731			
	5732 5719			
	5712 6005			
	5976 5990			START AT N. ANCHOR TRENCH
	5788 5974			470'W
	5747 5801			
	5798 5740			
	5805 5800			
	5802 5799			
	5806 5704			210'S OF N. ANCHOR TRENCH
	42			
Total SQ. FT. placed today: 99,372				
Total SQ. FT. placed to date: 364,364				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log SECONDARY

Date: 4-23-2010		Area: 470'W - 520'W CENTRAL		Material: GEOCOMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	5734 5752	169'	14'	START 210' S OF N. ANCHOR TRENCH
	5797 5728			470' WEST
	5724 5748			
	5730 5733			
	5742 5721			
	5722 5718			
	5757 5720			
	5723 5761			
	5702 5725			
	5738 5698			
	5703 5741			
	5760 5763			
	5699 5696			
	5693 5979			
	5706 6808			
	5992 5989			
	6008 5707			FINISH ROW AT 675' S
	34			
Total SQ. FT. placed today: 80,444				
Total SQ. FT. placed to date: 444,808				

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(6)

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

SECONDARY

Date: 5-5-2010		Area: 640'W - 850'W WEST FLOOR		Material: GEO COMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	5835 5807	169'	14'	NORTH ANCHOR TRENCH
	5812 5998			
	5700 6017			
	5711 5924			
	5714 5811			
	5847 5833			
	5790 5999			
	6013 5863			
	5779 5759			
	√5834 √5744			
	5813 5729			
	5959 √5973			
	~~5713~~ 5961			
	5975 5710			
	5993 5978			
	5991 5697			
	5701 5691			
	5705 5692			
	5874 5958			~~SOUTH ANCHOR TRENCH~~
	6009 5695			
	6006 √5898			
	5708 5709			
	5960 5977			
	√5992			SOUTH ANCHOR TRENCH
	41			
Total SQ. FT. placed today:		111,202		
Total SQ. FT. placed to date:		556,010		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log SECONDARY

Date: 5-6-2010		Area: 850'W - 944'W WEST FLOOR		Material: GEOCOMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	6814 6804	169'	14'	NORTH ANCHOR TRENCH
	7004 6807			
	7007 6959			
	6909 6929			
	6928 6812			
	7010 6925			
	6956 6813			
	6926 7009			
	7008 6991			
	6960 7005			
	6808 6816			
	6810 6908			
	6830 6835			
	6869 6839			
	6811 6829			
	6888 6819			
	6821 6868			
	6801 6806			
	6834 6809			
	6803 6851			
	6853 6840			
	6825 6824			
	44			
Total SQ. FT. placed today:		104,104		
Total SQ. FT. placed to date:		660,114		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 5-14-2010		Area: (944'W - 1,095'W) West Floor		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	6910 6980	169'	14'	North Floor 944'W - 1,095'W
	5873 5845			
	6979 6983			
	5877 5844			
	6010 6967			
	5893 5988			
	6912 6911			
	5963 5894			
	5996 6854			
	5863 5819			
	6965 6996			
	6012 5882			
	6855 6011			
	5980 5981			
	6984 6004			
	5872 5820			
	5886 5865			
	6966 5962			
	5821 5883			
	5895 5837			
	5955 5938			South Floor 944'W - 1,095
Total SQ. FT. placed today: 99,372				
Total SQ. FT. placed to date: 759,486				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 5-18-10		Area: (961'W - 1,315'W) North end		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	5944	169'	14'	South Anchor Trench
	5843			"
	5965			North Anchor Trench
	6910			"
	5943			Southwest corner
	5887			"
	5864			"
	5945			"
	5964			"
	5937			"
	5966			"
	7061			"
Total SQ. FT. placed today: 28,392				
Total SQ. FT. placed to date: 787,878				

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Secondary

Date: 5-19-10		Area: West End		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	5770	169'	141'	West Anchor Trench
	5825			"
	7087			"
	7112			"
	7110			"
	7063			"
	7062			"
	7130			"
	7078			"
	7128			"
	7059			"
	7111			
	7040			
	~~7110~~			
Total SQ. FT. placed today: 30,758				
Total SQ. FT. placed to date: 818,636				

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 7-12-10 | Area: NW Corner | Material: Secondary Composite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
		~~30-40'~~		Remaining Roll lengths from 5-11 and ~ 10 Deployments
	131335936	Multiple pieces		Working North, panels pulled from West to East to meet existing partial rolls rolled out this Morning
	5866			
	5914			
	5971			
	5953			
	5967			
	5954			
	5918			
	5952			
	5941			
	5919			
	5916			
	5913			
	5972			
	6000			

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

PRIMARY

Date: 5-26-10		Area: EAST FLOOR 71'- 590'W		Material: GEOCOMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	36901	169	14	NORTH END / 0-170's / 71'W
	36883			"
	36881			"
	36961			"
	36902			"
	36861			"
	36841			"
	36893			"
	36970			"
	37601			"
	36987			"
	36957			"
	36978			"
	37006			" / 258' - 273'W
	36993			"
	36988			"
	36990			"
	36969			"
	36927			"
	36977			"
	36859			"
	36976			"
	37703			"
	36973			"
	36956			"
	36947			"
	36955			"
	36971			"
	36843			"
	36968			"
	36878			"
	36989			"
	36844			"
	36951			"
	36930			"
	36958			" / 575' - 590'W
Total SQ. FT. placed today:		85,176		
Total SQ. FT. placed to date:		85,176		

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 5-27-2010		Area: 71'w - 590'w North Floor		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	36884			North Floor / 170's - 340's / 71'w
	36986			"
	36856			"
	36922			"
	36880			"
	36870			"
	36896			"
	36860			"
	36897			"
	36845			"
	36900			"
	36846			"
	37132			"
	36895			"
	36857			"
	36892			"
	36882			"
	36866			"
	36842			"
	36975			"
	37002			"
	36961			"
	36992			"
	36851			"
	36891			"
	36903			"
	36954			"
	36879			"
	36848			"
	36858			"
	36919			"
	36873			"
	36972			"
	36953			"
	36985			"
	36997			North Floor / 575' - 590'w
	36865/36838/36921			NE Floor to Eastern Limit / 71'w
Total SQ. FT. placed today: 92,274				
Total SQ. FT. placed to date: 177,450				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 5-28-2010		Area: North End		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	13/336914	169	14	From N. End to ~50'S / 170'-339'S
	6920	"	"	"
	6849	"	"	"
Total SQ. FT. placed today:		7,098		
Total SQ. FT. placed to date:		184,548		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 6-1-2010 | Area: (0'-169'w) SE Floor | Material: Geocomposite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	6826	169	14	SE Floor / 0'w-15'w / 505's - 675's
	6871			"
	6827			"
	6890			"
	6836			"
	6994			"
	6937			"
	7144			"
	6924			"
	6935			"
	6864			SE Floor / 140'-155'w / 505'-675's

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 6-2-2016		Area: SE FLOOR		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	6874	169	14	SE FLOOR / 505'-675'S / 155'-170'W
	7015			"
	7074			"
	6805			"
	7023			"
	7064			"
	7101			"
	6832			"
	7100			"
	6822			"
	6837			"
	6885			"
	6872			"
	6940			"
	6889			"
	7103			"
	7135			"
	7134			"
	7133			"
	7146			"
	7152			"
	7079			"
	7036			"
	7037			"
	7149			"
	7084			"
	7011			"
	7153			"
	7109			SE FLOOR / 505'-675'S / ~547'-561'W
Total SQ. FT. placed today: 68,614				
Total SQ. FT. placed to date: 279,188				

C:\Liner Forms\PasPanel\PlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

PRIMARY

Date: 6-3-10		Area: SE FLOOR (6'-378'W)		Material: GEOCOMPOSITE
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	36982	169'	141	0'-15'W / 340'-510'S
	36962			
	36918			
	36904			
	36999			
	37158			
	36995			
	37026			
	37184			
	37129			
	37198			
	36823			
	37025			
	36963			
	36938			
	36939			
	36853			
	36931			
	36998			
	36905			
	36936			
	36917			
	36906			
	36923			
	37012			
	36981			
	36952			
Total SQ. FT. placed today: 63,882				
Total SQ. FT. placed to date: 343,070				

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log Primary

Date: 6-7-10		Area:		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	6887	169	14	@ central east/west berm
	6798	169	14	@ central east/west berm

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

PRIMARY

Date: 6-9-10		Area: (378-0574'W) SE FLOOR		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	7077 7148	169	14	340's-510's
	7131 7188	"	"	"
	7151 7115	"	"	"
	7114 7171	"	"	"
	7168 7102	"	"	"
	7060 6815	"	"	"
	6817 7104	"	"	"
Total SQ. FT. placed today: 33,124				
Total SQ. FT. placed to date: 380,926				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 6-11-10		Area: 590'w - 758'w N-Central Floor		Material: Geocomposite
Panel No.	Factory Roll No.	Length	Width	Comments/Location
	7140	169'	14'	0'-170's / 590'w - 604'w
	6867			"
	7030			"
	7016			"
	7119			"
	7127			"
	7116			"
	7139			"
	7122			"
	7143			"
	6862			"
	6964			0'-170's / 744' - 758'w
Total SQ. FT. placed today: 28,392				
Total SQ. FT. placed to date: 409,318				

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 6-14-10 | Area: North/Central Floor | Material: Geocomposite

Panel No.	Factory Roll No.		Length	Width	Comments/Location
	7034	7602	169	14	0'-170's / 758'w - 786'w
	7599	7033			"
	7027	7142			"
	7118	7141			"
	7136	7595			"
	7593	7596			"
	6877	7058			"
	7600	7597			"
	6863	7145			0'-170's / [illegible]-1010'w
	7604	7594			170'-340's / 590'w-618'w
	6915	6850			"
	6894	7126			"
	7120	7121			"
	7124	7123			"
	7125	6886			170'-340's / 730' - 758'w
	~~7216~~				

Total SQ. FT. placed today: 70,980

Total SQ. FT. placed to date: 480, 298

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 6-15-10 | Area: NORTH/CENTRAL | Material: Geocomposite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	7014	169	14	170's - 340's / 758'w - 772'w
	6800			"
	6852			"
	7028			"
	6974			"
	7029			"
	6899			"
	7032			"
	6933			"
	7031			"
	7183			"
	7137			"
	7164			"
	7117			"
	7039			"
	7159			"
	7167			"
	7216			170's - 340's / 996' - 1010'w

Total SQ. FT. placed today: 42,588

Total SQ. FT. placed to date: 522,886

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 7-1-10 | Area: A4, Bay 4 E&W of 2nd Cell | Material: Composite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	131337166	±168'	±145	South Berm working West
	7213			±580' West to 900'±
	7603			
	7592			
	7218			
	7185			
	7161			
	7217			
	7174			
	7219			
	7169			
	7212			
	7211			
	7172			
	7200			
	7601			
	7193			
	6802			
	7196			
	7191			
	7190			
	7194			
	5926			
	7178			
	7590			
	7181			
	7189			
	7187			
	7195			
	7081			
	7591			
	7199			
				6-15-10 Roll 7088 center under pipe

Total SQ. FT. placed today: 77,952

Total SQ. FT. placed to date: 600,838

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 7-2-2010		Area: 599'W 907'W Center Floor		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	13133 7086	169	14	340'S - 510'S
	7147			
	7209			
	7150			
	7208			
	7035			
	7013			
	7097			
	7041			
	7206			
	7598			
	7085			
	7024			
	7205			
	7215			
	7089			
	7197			
	7099			
	7082			
	7210			
	7201			
	7207			
Total SQ. FT. placed today: 52,052				
Total SQ. FT. placed to date: 652,890				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 7-6-16		Area: WEST FLOOR		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	131337075	169	14	880' w/ 330's
	7045			
	7214			
	7170			
	7182			
	7044			
	7173			
	7098			
	7188			
	7080			
Total SQ. FT. placed today:		~~14,196~~ 23,660		
Total SQ. FT. placed to date:		~~667,086~~ 676,550		

C:\Liner Forms\PasPanelPlaceL.xls

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 7-13-10 | Area: N. Berm + South Berm + Floor | Material: Primary Geocomposite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	13133 5948	± 169'	14'	
	7113			Bay 1
	5951			N. Berm to Ramp
	7042			
	5934			
	5935 5869			Start South Berm work West
	7057 5947			
	5846 5968			
	5956 7204			Bay 4
	7174 7176			
	5890 5850			
	5839 7165			
	7203 7083			
	5925 5880			Bay 3 work west
	7160 7163			
	7157 7177			
	7175 7076			
	7162 7090			
	5857 5915			
	5946 5940			
	6015			Bay 2
	5858			
	5922			
	5917			
	7046			

Total SQ. FT. placed today: 94,640

Total SQ. FT. placed to date: 771,190

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 7/14/10		Area:		Material: Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
	35969	169	14	
	37043	"	"	
	35939	"	"	
	35942	"	"	
	37202	"	"	
	35957	"	"	
Total SQ. FT. placed today: 14,196				
Total SQ. FT. placed to date: 785,386				

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Primary

Date: 7-19-10 | Area: NW Corner | Material: Composite Doubleside

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	13133589 1	169'	14	Panels N-S Bay 1 ↓ west
	5851			
	5920			
	5950			
	5879			
	5862			
	5871			Bay 3 N-S panel
	5921			West corner then work
	5892			E-W ↓ South
	5884			Bay 4
	5949			↓ start Bay 3 W. side
	5868			Bay 3 N-S floor @ Toe
	5860			cont W. Berm
	5870			
Last Rolls other than pipe base	5861			

Total SQ. FT. placed today: 35,490

Total SQ. FT. placed to date: 820,876

West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 8-13-10		Area: West Floor Gap		Material: Primary Geocomposite
Panel No.	**Factory Roll No.**	**Length**	**Width**	**Comments/Location**
oldroll	131335861	139'	14'	Bay 2 west Floor
	131347463			
	47470			
	47469			
	47463			
Total SQ. FT. placed today:		11,830		
Total SQ. FT. placed to date:		832,706		

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West Pasco Class I
Cells A - 4 Construction
Panel Placement Log

Date: 8-16-10 | Area: W. Berm | Material: Primary Composite

Panel No.	Factory Roll No.	Length	Width	Comments/Location
	131347465	169'	14	N. end W. Berm Gap
	47471			
	47464			
	47468			

Total SQ. FT. placed today: 9,464

Total SQ. FT. placed to date: 842,170

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Date: 3/9/2010
Purchase Order: 000150130
ORDER NUMBER: 000259286

Steve Harrison
Pasco County Purchasing Dept
8919 Government Drive
New Port Richey, FL 34654
sharrison@comanco.com

To Whom it May Concern:

Please find enclosed the MQA/MQC test data package for Geosynthetic Clay Liner shipments to Pasco County Purchasing Dept.

The enclosed data package includes results of all the MQC tests required by ASTM D5889, with the exception of index flux/hydraulic conductivity. This test, which is run according to ASTM D5887, is normally performed once per production lot (once per week), unless a higher frequency is required by the project specifications. Because of the GCL's low permeability, this test can take several weeks to complete. The index flux/hydraulic conductivity results associated with this lot of material will be provided under separate cover as soon as they are available.

Although the index flux/hydraulic conductivity test results are not yet available, CETCO accepts responsibility for our GCL should the index flux/hydraulic conductivity tests produce unacceptable results. If, upon delivery and prior to installation, individual rolls of GCL are found to be nonconforming to accepted project specifications, CETCO will replace the nonconforming material at no charge.

Questions regarding this information should be directed to Chris Athanassopoulos, Technical Support Engineer, at (847) 851-1831.

Sincerely,

Melanie King

Melanie King
Quality Assurance Coordinator
CETCO Cartersville Plant

GEOSYNTHETIC CLAY LINER
MANUFACTURING QUALITY ASSURANCE DATA PACKAGE

PROJECT NAME: Pasco County Ash Monofil Cell A-4
CUSTOMER P.O.: 000150130
ORDER NUMBER: 000259286
PREPARED FOR: Pasco County Purchasing Dept

CONTENTS:

- Product Certifications
- GCL Order packing list and MQA tracking form
- GCL manufacturing quality control test data
- Bentonite clay certification
- Raw material test results

PREPARED BY: Melanie King
Quality Assurance Coordinator
CETCO
218 Industrial Park

Cartersville, GA 30121
Telephone: (770) 387-7773
E-Mail: melanie.king@cetco.com

PRODUCT CERTIFICATIONS

PROJECT NAME: Pasco County Ash Monofil Cell A-4
CUSTOMER P.O.: 000150130
ORDER NUMBERS: 000259286
PREPARED FOR: Pasco County Purchasing Dept

The GCL manufactured for the above-referenced order number(s) is certified to meet the values listed in the tables below:

GCL PROPERTY SPECIFICATIONS FOR BENTOMAT ST

Test Method	Test Method Property	Test Frequency	Certified Value
ASTM D 5891	Bentonite Fluid Loss	1 per 50 Tons	18 ml Max
ASTM D 5993	Bentonite Mass/Area	40,000 sq ft (4000 sq m)	0.75 lb /sq ft Min
ASTM D 5890	Bentonite Swell Index	1 per 50 Tons	24 ml/2g Min
ASTM D 6768	GCL Grab Strength	200,000 sq ft (20,000 sq m)	30 lbs/in MARV
ASTM D 6243	GCL Hydrated Internal Shear Strength	Periodic	500 psf typ @ 200 psf normal load
ASTM D 5887	GCL Hydraulic Conductivity	Weekly	5.0E-9 cm/s Max
ASTM D 5887	GCL Index Flux	Weekly	1.0E-8 m3/m2/s Max
ASTM D 6496	GCL Peel Strength	40,000 sq ft (4000 sq m)	3.5 lbs/in Min

SPECIALLY REQUESTED CERTIFIED PROPERTIES FOR THIS ORDER OF BENTOMAT ST

Test Method	Test Method Property	Requested Frequency	Requested Value	Requested Conditions
ASTM D4632*	Grab Strength*modified with 4-inch grips	1/200,000sf	90lbs	Standard
ASTM D 4643	GCL Moisture	1/40,000sf	30% max	Standard
ASTM D4632*	Peel Strength*modified with 4-inch grips	1/40,000sf	15lbs	Standard

Bentonite property tests are performed at a bentonite processing facility before shipment to CETCO's production facility.
All tensile testing is in the machine direction using ASTM D 6768. All peel strength testing is performed using
ASTM D 6496. Upon request tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

NEEDLE DETECTION AND REMOVAL PROCEDURE

CETCO hereby affirms that all Bentomat® geosynthetic clay liner material manufactured for this project is continually passed under a magnet for needle removal and then screened with a metal detection device. CETCO certifies Bentomat® to be essentially free of broken needles and fragments of needles that would negatively effect the performance of the final product.

Melanie King
Quality Assurance Coordinator

CETCO®

GCL PACKING LIST AND MQA TRACKING FORM

Listing of finished and raw materials used to produce certification package number 000259286

GCL								Geotextiles				Clay
CV-BENTOMAT ST								N/W-WHITE			WOVEN	CV-CG 50
Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	257	150	15	2672	2250	257	201007CV	00000595	00000593	WEA013363-16	947750B
000259286	201009CV	258	150	15	2694	2250	257	201007CV	00000595	00000593	WEA013363-16	947750B
000259286	201009CV	259	150	15	2654	2250	257	201007CV	00000595	00000593	WEA013363-16	947750B
000259286	201009CV	260	150	15	2684	2250	257	201007CV	00000595	00000593	WEA013363-16	947749A
000259286	201009CV	261	150	15	2698	2250	257	201007CV	00000595	00000593	WEA013363-16	947749A
000259286	201009CV	262	150	15	2676	2250	257	201007CV	00000595	00000593	WEA013363-16	947749A
000259286	201009CV	263	150	15	2670	2250	257	201007CV	00000595	00000593	WEA013363-16	947749A
000259286	201009CV	264	150	15	2674	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	265	150	15	2678	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	266	150	15	2692	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	267	150	15	2686	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	268	150	15	2676	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	269	150	15	2672	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	270	150	15	2670	2250	257	201009CV	00000693	00000684	WEA013363-16	947749A
000259286	201009CV	271	150	15	2667	2250	257	201009CV	00000694	00000694	WEA013363-16	947749A
000259286	201009CV	272	150	15	2654	2250	257	201009CV	00000694	00000694	WEA013363-16	947749A
000259286	201009CV	273	150	15	2660	2250	257	201009CV	00000694	00000694	WEA013363-16	947749A
000259286	201009CV	274	150	15	2736	2250	274	201009CV	00000694	00000694	WEA013363-16	947749A
000259286	201009CV	275	150	15	2648	2250	274	201009CV	00000694	00000694	WEA013363-2	947749A
000259286	201009CV	276	150	15	2680	2250	274	201009CV	00000694	00000694	WEA013363-2	947749A
000259286	201009CV	277	150	15	2648	2250	274	201009CV	00000694	00000694	WEA013363-2	947749A
000259286	201009CV	278	150	15	2660	2250	274	201009CV	00000694	00000694	WEA013363-2	947749A
000259286	201009CV	279	150	15	2674	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	280	150	15	2660	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	281	150	15	2660	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	282	150	15	2648	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	283	150	15	2650	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	284	150	15	2662	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	285	150	15	2656	2250	274	201009CV	00000689	00000684	WEA013363-2	947749A
000259286	201009CV	286	150	15	2630	2250	274	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	287	150	15	2646	2250	274	201009CV	00000695	00000694	WEA013363-2	947749A

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	288	150	15	2650	2250	274	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	289	150	15	2606	2250	274	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	290	150	15	2596	2250	274	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	291	150	15	2634	2250	291	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	292	150	15	2598	2250	291	201009CV	00000695	00000694	WEA013363-2	947749A
000259286	201009CV	293	150	15	2586	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	294	150	15	2592	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	295	150	15	2588	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	296	150	15	2580	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	297	150	15	2586	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	298	150	15	2588	2250	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	299	141	15	2423	2115	291	201009CV	00000684	00000684	WEA013363-2	947749A
000259286	201009CV	300	150	15	2574	2250	291	201009CV	00000696	00000694	WEA013363-2	947749A
000259286	201009CV	301	150	15	2580	2250	291	201009CV	00000696	00000694	WEA013363-2	947749A
000259286	201009CV	302	150	15	2576	2250	291	201009CV	00000696	00000694	WEA013363-2	947749A
000259286	201009CV	303	150	15	2582	2250	291	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	304	150	15	2586	2250	291	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	305	150	15	2592	2250	291	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	306	150	15	2592	2250	291	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	307	150	15	2581	2250	291	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	308	150	15	2611	2250	308	201009CV	00000696	00000694	WEA013363-11	947749A
000259286	201009CV	309	150	15	2613	2250	308	201009CV	00000696	00000694	WEA013363-11	947749B
000259286	201009CV	310	150	15	2596	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	311	150	15	2602	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	312	150	15	2608	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	313	150	15	2588	2250	308	201009CV	00000696	00000694	WEA013363-11	947749B
000259286	201009CV	314	150	15	2576	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	315	150	15	2622	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	316	150	15	2606	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	317	150	15	2612	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	318	150	15	2602	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	319	150	15	2612	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	320	150	15	2588	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	321	150	15	2596	2250	308	201009CV	00000697	00000694	WEA013363-11	947749B
000259286	201009CV	322	150	15	2598	2250	308	201009CV	00000699	00000694	WEA013363-11	947749B
000259286	201009CV	323	150	15	2600	2250	308	201009CV	00000699	00000694	WEA013363-11	947749B
000259286	201009CV	324	150	15	2606	2250	308	201009CV	00000699	00000694	WEA013363-11	947749B
000259286	201009CV	325	150	15	2652	2250	325	201009CV	00000699	00000694	WEA013363-11	947749B
000259286	201009CV	326	150	15	2596	2250	325	201009CV	00000699	00000694	WEA013363-11	947749B

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	327	150	15	2600	2250	325	201009CV	00000699	00000694	WEA013363-11	947749B
000259286	201009CV	328	150	15	2592	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	329	150	15	2594	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	330	150	15	2592	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	331	150	15	2588	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	332	150	15	2594	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	333	150	15	2596	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	334	150	15	2592	2250	325	201009CV	00000700	00000694	WEA013351-8	947749B
000259286	201009CV	335	150	15	2596	2250	325	201009CV	00000682	00000682	WEA013351-8	947749B
000259286	201009CV	336	150	15	2596	2250	325	201009CV	00000682	00000682	WEA013351-8	947749B
000259286	201009CV	337	150	15	2616	2250	325	201009CV	00000682	00000682	WEA013351-8	947749B
000259286	201009CV	338	150	15	2618	2250	325	201009CV	00000682	00000682	WEA013351-8	947749B
000259286	201009CV	340	150	15	2580	2250	325	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	341	150	15	2590	2250	325	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	342	150	15	2578	2250	325	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	343	150	15	2606	2250	343	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	344	150	15	2586	2250	343	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	345	150	15	2586	2250	343	201009CV	00000701	00000694	WEA013351-8	947749B
000259286	201009CV	346	150	15	2582	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	347	150	15	2584	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	348	150	15	2572	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	349	150	15	2580	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	350	150	15	2580	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	351	150	15	2578	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	352	150	15	2576	2250	343	201009CV	00000702	00000694	WEA013351-8	947749B
000259286	201009CV	353	150	15	2576	2250	343	201008CV	00000625	00000619	WEA013351-6	947749B
000259286	201009CV	354	150	15	2588	2250	343	201008CV	00000625	00000619	WEA013351-6	947749B
000259286	201009CV	355	150	15	2576	2250	343	201008CV	00000625	00000619	WEA013351-6	947749B
000259286	201009CV	356	150	15	2582	2250	343	201008CV	00000625	00000619	WEA013351-6	947749B
000259286	201009CV	357	150	15	2598	2250	343	201008CV	00000625	00000619	WEA013351-6	947749B
000259286	201009CV	358	150	15	2590	2250	343	201008CV	00000625	00000619	WEA013351-6	947748A
000259286	201009CV	359	150	15	2590	2250	343	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	360	150	15	2632	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	361	150	15	2616	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	362	150	15	2610	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	363	150	15	2622	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	364	150	15	2634	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	365	150	15	2620	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A
000259286	201009CV	366	150	15	2608	2250	360	201009CV	00000703	00000694	WEA013351-6	947748A

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	367	150	15	2414	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	369	150	15	2580	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	370	150	15	2588	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	371	150	15	2576	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	372	150	15	2594	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	373	150	15	2594	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	374	150	15	2588	2250	360	201008CV	00000644	00000644	WEA013351-6	947748A
000259286	201009CV	375	150	15	2588	2250	360	201009CV	00000712	00000708	WEA013351-6	947748A
000259286	201009CV	376	150	15	2584	2250	360	201009CV	00000712	00000708	WEA013351-6	947748A
000259286	201009CV	377	150	15	2540	2250	360	201009CV	00000712	00000708	WEA013351-6	947748A
000259286	201009CV	378	150	15	2620	2250	378	201009CV	00000712	00000708	WEA013351-6	947748A
000259286	201009CV	379	150	15	2592	2250	378	201009CV	00000712	00000708	WEA013351-6	947748A
000259286	201009CV	380	150	15	2584	2250	378	201009CV	00000712	00000708	WEA013351-15	947748A
000259286	201009CV	381	150	15	2574	2250	378	201009CV	00000712	00000708	WEA013351-15	947748A
000259286	201009CV	382	150	15	2568	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	383	150	15	2630	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	384	150	15	2578	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	385	150	15	2596	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	386	150	15	2576	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	387	150	15	2580	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	388	150	15	2576	2250	378	201009CV	00000704	00000704	WEA013351-15	947748A
000259286	201009CV	389	150	15	2560	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	390	150	15	2574	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	391	150	15	2580	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	392	150	15	2578	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	393	150	15	2566	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	394	150	15	2568	2250	378	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	395	150	15	2558	2250	395	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	396	150	15	2558	2250	395	201009CV	00000719	00000719	WEA013351-15	947748A
000259286	201009CV	397	150	15	2560	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	398	150	15	2572	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	399	150	15	2566	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	400	150	15	2582	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	401	150	15	2572	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	402	150	15	2572	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	403	150	15	2572	2250	395	201009CV	00000720	00000719	WEA013351-15	947748A
000259286	201009CV	404	150	15	2566	2250	395	201009CV	00000721	00000719	WEA013351-15	947748A
000259286	201009CV	405	150	15	2568	2250	395	201009CV	00000721	00000719	WEA013351-15	947748A
000259286	201009CV	406	150	15	2570	2250	395	201009CV	00000721	00000719	WEA013363-13	947748A

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	407	150	15	2570	2250	395	201009CV	00000721	00000719	WEA013363-13	947748B
000259286	201009CV	408	150	15	2572	2250	395	201009CV	00000721	00000719	WEA013363-13	947748B
000259286	201009CV	409	150	15	2576	2250	395	201009CV	00000721	00000719	WEA013363-13	947748B
000259286	201009CV	410	150	15	2578	2250	395	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	411	150	15	2574	2250	395	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	412	150	15	2620	2250	412	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	415	150	15	2582	2250	412	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	416	150	15	2612	2250	412	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	417	150	15	2620	2250	412	201008CV	00000654	00000654	WEA013363-13	947748B
000259286	201009CV	418	150	15	2628	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	419	150	15	2606	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	420	150	15	2612	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	421	150	15	2602	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	422	150	15	2616	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	423	150	15	2606	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	424	150	15	2616	2250	412	201009CV	00000722	00000719	WEA013363-13	947748B
000259286	201009CV	425	150	15	2608	2250	412	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	426	150	15	2598	2250	412	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	427	150	15	2596	2250	412	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	428	150	15	2596	2250	412	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	429	150	15	2626	2250	412	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	430	150	15	2596	2250	430	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	431	150	15	2616	2250	430	201009CV	00000723	00000719	WEA013363-13	947748B
000259286	201009CV	432	150	15	2594	2250	430	201009CV	00000724	00000719	WEA013363-13	947748B
000259286	201009CV	433	150	15	2600	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	434	150	15	2608	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	435	150	15	2606	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	436	150	15	2594	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	437	150	15	2616	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	438	150	15	2578	2250	430	201009CV	00000724	00000719	WEA013363-12	947748B
000259286	201009CV	439	150	15	2610	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	440	150	15	2614	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	441	150	15	2610	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	442	150	15	2616	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	443	150	15	2598	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	444	150	15	2606	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	445	150	15	2594	2250	430	201009CV	00000707	00000704	WEA013363-12	947748B
000259286	201009CV	447	150	15	2535	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	448	150	15	2630	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201009CV	449	150	15	2592	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	450	150	15	2600	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	451	150	15	2596	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	452	150	15	2590	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	453	150	15	2598	2250	447	201009CV	00000726	00000719	WEA013363-12	947748B
000259286	201009CV	454	150	15	2600	2250	447	201009CV	00000727	00000719	WEA013363-12	947748B
000259286	201009CV	455	150	15	2604	2250	447	201009CV	00000727	00000719	WEA013363-12	947748B
000259286	201009CV	456	150	15	2596	2250	447	201009CV	00000727	00000719	WEA013363-12	947752A
000259286	201009CV	457	150	15	2614	2250	447	201009CV	00000727	00000719	WEA013363-12	947752A
000259286	201009CV	458	150	15	2600	2250	447	201009CV	00000727	00000719	WEA013363-12	947752A
000259286	201009CV	459	150	15	2606	2250	447	201009CV	00000727	00000719	WEA013363-12	947752A
000259286	201009CV	460	150	15	2602	2250	447	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	461	150	15	2606	2250	447	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	462	150	15	2612	2250	447	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	463	150	15	2606	2250	447	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	464	150	15	2632	2250	447	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	465	150	15	2662	2250	465	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	466	150	15	2612	2250	465	201009CV	00000728	00000719	WEA013351-18	947752A
000259286	201009CV	467	150	15	2620	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	468	150	15	2624	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	469	150	15	2632	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	470	150	15	2616	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	471	150	15	2624	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	472	150	15	2644	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	473	148	15	2552	2220	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	474	150	15	2600	2250	465	201009CV	00000705	00000704	WEA013351-18	947752A
000259286	201009CV	475	150	15	2608	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	476	150	15	2590	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	477	150	15	2604	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	478	150	15	2604	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	479	150	15	2618	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	480	150	15	2610	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	481	150	15	2614	2250	465	201009CV	00000729	00000729	WEA013351-18	947752A
000259286	201009CV	482	150	15	2646	2250	482	201009CV	00000730	00000729	WEA013351-18	947752A
000259286	201009CV	483	150	15	2628	2250	482	201009CV	00000730	00000729	WEA013351-18	947752A
000259286	201009CV	484	150	15	2610	2250	482	201009CV	00000730	00000729	WEA013351-18	947752A
000259286	201009CV	485	150	15	2626	2250	482	201009CV	00000730	00000729	WEA013351-18	947752A
000259286	201010CV	488	150	15	2620	2250	488	201009CV	00000730	00000729	WEA013363-14	947752A
000259286	201010CV	489	124	15	2181	1860	488	201009CV	00000730	00000729	WEA013363-14	947752A

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201010CV	490	150	15	2616	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	491	150	15	2616	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	492	150	15	2598	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	493	150	15	2620	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	494	150	15	2612	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	495	150	15	2622	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	496	150	15	2622	2250	488	201009CV	00000706	00000704	WEA013363-14	947752A
000259286	201010CV	497	150	15	2622	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	498	150	15	2626	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	499	150	15	2624	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	500	150	15	2616	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	501	150	15	2615	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	502	150	15	2648	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	503	150	15	2662	2250	488	201010CV	00000756	00000756	WEA013363-14	947752A
000259286	201010CV	505	150	15	2636	2250	488	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	506	150	15	2684	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	507	150	15	2648	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	508	150	15	2646	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	509	150	15	2652	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	510	150	15	2648	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	511	150	15	2646	2250	506	201010CV	00000758	00000756	WEA013363-14	947752B
000259286	201010CV	512	150	15	2640	2250	506	201010CV	00000759	00000756	WEA013363-14	947752B
000259286	201010CV	513	150	15	2626	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	514	150	15	2642	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	515	150	15	2628	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	516	150	15	2632	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	517	150	15	2628	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	518	150	15	2624	2250	506	201010CV	00000759	00000756	WEA013363-6	947752B
000259286	201010CV	519	150	15	2638	2250	506	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	520	150	15	2622	2250	506	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	521	150	15	2602	2250	506	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	522	150	15	2518	2250	506	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	523	150	15	2356	2250	523	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	524	137	15	2352	2055	523	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	525	150	15	2606	2250	523	201010CV	00000760	00000756	WEA013363-6	947752B
000259286	201010CV	526	150	15	2540	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	527	150	15	2562	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	528	150	15	2550	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	529	150	15	2572	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201010CV	530	150	15	2568	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	531	150	15	2566	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	532	150	15	2584	2250	523	201010CV	00000761	00000756	WEA013363-6	947752B
000259286	201010CV	533	150	15	2570	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	534	150	15	2586	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	535	150	15	2592	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	536	150	15	2622	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	537	150	15	2626	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	538	150	15	2636	2250	523	201010CV	00000768	00000766	WEA013363-6	947752B
000259286	201010CV	539	150	15	2644	2250	523	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	540	150	15	2670	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	541	150	15	2642	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	542	150	15	2656	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	543	150	15	2636	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	544	150	15	2648	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	545	150	15	2650	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	546	150	15	2644	2250	540	201010CV	00000763	00000756	WEA013363-15	947752B
000259286	201010CV	547	150	15	2650	2250	540	201010CV	00000763	00000756	WEA013363-15	947752B
000259286	201010CV	548	150	15	2638	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	549	150	15	2650	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	550	150	15	2640	2250	540	201010CV	00000774	00000774	WEA013363-15	947752B
000259286	201010CV	551	150	15	2654	2250	540	201010CV	00000776	00000774	WEA013363-15	947752B
000259286	201010CV	552	150	15	2660	2250	540	201010CV	00000776	00000774	WEA013363-15	947752B
000259286	201010CV	553	150	15	2652	2250	540	201010CV	00000776	00000774	WEA013363-15	947752B
000259286	201010CV	554	150	15	2660	2250	540	201010CV	00000776	00000774	WEA013363-15	948488A
000259286	201010CV	555	150	15	2650	2250	540	201010CV	00000776	00000774	WEA013363-15	948488A
000259286	201010CV	556	150	15	2650	2250	540	201010CV	00000776	00000774	WEA013363-15	948488A
000259286	201010CV	557	150	15	2674	2250	557	201010CV	00000776	00000774	WEA013363-15	948488A
000259286	201010CV	558	150	15	2646	2250	557	201010CV	00000776	00000774	WEA013363-15	948488A
000259286	201010CV	559	150	15	2648	2250	557	201010CV	00000762	00000756	WEA013363-15	948488A
000259286	201010CV	560	150	15	2652	2250	557	201010CV	00000762	00000756	WEA013363-15	948488A
000259286	201010CV	561	150	15	2642	2250	557	201010CV	00000762	00000756	WEA013363-15	948488A
000259286	201010CV	562	150	15	2638	2250	557	201010CV	00000762	00000756	WEA013363-15	948488A
000259286	201010CV	563	150	15	2652	2250	557	201010CV	00000762	00000756	WEA013363-15	948488A
000259286	201010CV	565	150	15	2642	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	566	150	15	2636	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	567	150	15	2632	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	568	150	15	2644	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	569	150	15	2642	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201010CV	570	150	15	2642	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	571	150	15	2628	2250	557	201010CV	00000777	00000774	WEA013363-5	948488A
000259286	201010CV	572	150	15	2632	2250	557	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	573	150	15	2646	2250	557	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	574	150	15	2662	2250	574	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	575	150	15	2646	2250	574	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	576	150	15	2632	2250	574	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	577	150	15	2634	2250	574	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	578	150	15	2644	2250	574	201010CV	00000778	00000774	WEA013363-5	948488A
000259286	201010CV	579	150	15	2624	2250	574	201010CV	00000732	00000732	WEA013363-5	948488A
000259286	201010CV	580	150	15	2634	2250	574	201010CV	00000732	00000732	WEA013363-5	948488A
000259286	201010CV	581	150	15	2630	2250	574	201010CV	00000732	00000732	WEA013363-5	948488A
000259286	201010CV	582	150	15	2636	2250	574	201010CV	00000732	00000732	WEA013363-5	948488A
000259286	201010CV	583	150	15	2628	2250	574	201010CV	00000732	00000732	WEA013363-5	948488A
000259286	201010CV	584	150	15	2648	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	585	150	15	2640	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	586	150	15	2648	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	587	150	15	2640	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	588	150	15	2640	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	589	150	15	2658	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	590	150	15	2640	2250	574	201010CV	00000779	00000774	WEA013363-5	948488A
000259286	201010CV	591	150	15	2690	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	592	150	15	2640	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	593	150	15	2664	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	594	150	15	2662	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	595	150	15	2656	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	596	150	15	2668	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	597	150	15	2668	2250	591	201010CV	00000780	00000774	2020593003	948488A
000259286	201010CV	599	150	15	2664	2250	591	201010CV	00000781	00000774	2020593003	948488A
000259286	201010CV	600	150	15	2667	2250	591	201010CV	00000781	00000774	2020593003	948488A
000259286	201010CV	601	150	15	2676	2250	591	201010CV	00000781	00000774	2020593003	948488A
000259286	201010CV	602	150	15	2678	2250	591	201010CV	00000781	00000774	2020593003	948488A
000259286	201010CV	603	150	15	2698	2250	591	201010CV	00000781	00000774	2020593003	948488B
000259286	201010CV	604	150	15	2696	2250	591	201010CV	00000781	00000774	2020593003	948488B
000259286	201010CV	605	150	15	2724	2250	591	201010CV	00000781	00000774	2020593003	948488B
000259286	201010CV	606	150	15	2702	2250	591	201010CV	00000781	00000774	2020593003	948488B
000259286	201010CV	607	150	15	2690	2250	591	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	608	150	15	2682	2250	608	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	609	150	15	2650	2250	608	201008CV	00000653	00000644	2020593003	948488B

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201010CV	610	150	15	2632	2250	608	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	611	150	15	2656	2250	608	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	612	150	15	2652	2250	608	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	613	150	15	2636	2250	608	201008CV	00000653	00000644	2020593003	948488B
000259286	201010CV	614	150	15	2646	2250	608	201008CV	00000782	00000669	2020593003	948488B
000259286	201010CV	615	150	15	2644	2250	608	201008CV	00000782	00000669	2020593003	948488B
000259286	201010CV	616	150	15	2643	2250	608	201008CV	00000782	00000669	2020593003	948488B
000259286	201010CV	617	150	15	2604	2250	608	201008CV	00000782	00000669	2020593003	948488B
000259286	201010CV	619	150	15	2746	2250	608	201008CV	00000782	00000669	2020593010	948488B
000259286	201010CV	620	150	15	2606	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	621	150	15	2632	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	622	150	15	2630	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	623	150	15	2628	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	624	150	15	2622	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	625	150	15	2620	2250	608	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	626	150	15	2662	2250	626	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	627	150	15	2628	2250	626	201008CV	00000639	00000633	2020593010	948488B
000259286	201010CV	628	150	15	2624	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	629	150	15	2620	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	630	150	15	2634	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	631	150	15	2618	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	632	150	15	2622	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	633	150	15	2616	2250	626	201010CV	00000788	00000784	2020593010	948488B
000259286	201010CV	634	150	15	2690	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	635	150	15	2618	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	636	150	15	2604	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	637	150	15	2618	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	638	150	15	2617	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	639	150	15	2614	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	640	150	15	2620	2250	626	201010CV	00000804	00000804	2020593010	948488B
000259286	201010CV	641	150	15	2600	2250	626	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	642	150	15	2616	2250	626	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	643	150	15	2644	2250	643	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	644	150	15	2612	2250	643	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	645	150	15	2614	2250	643	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	646	150	15	2606	2250	643	201010CV	00000787	00000784	2020593010	948488B
000259286	201010CV	647	150	15	2610	2250	643	201010CV	00000787	00000784	2020518112	948488B
000259286	201010CV	648	150	15	2596	2250	643	201010CV	00000784	00000784	2020518112	948488B
000259286	201010CV	649	150	15	2618	2250	643	201010CV	00000784	00000784	2020518112	948488B

Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000259286	201010CV	650	150	15	2594	2250	643	201010CV	00000784	00000784	2020518112	948488B
000259286	201010CV	651	150	15	2604	2250	643	201010CV	00000784	00000784	2020518112	948480A
000259286	201010CV	652	150	15	2624	2250	643	201010CV	00000784	00000784	2020518112	948480A
000259286	201010CV	653	150	15	2630	2250	643	201010CV	00000784	00000784	2020518112	948480A
000259286	201010CV	654	150	15	2634	2250	643	201010CV	00000784	00000784	2020518112	948480A
000259286	201010CV	655	150	15	2600	2250	643	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	656	150	15	2616	2250	643	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	657	150	15	2612	2250	643	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	658	150	15	2596	2250	643	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	659	150	15	2628	2250	643	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	660	150	15	2668	2250	660	201010CV	00000786	00000784	2020518112	948480A
000259286	201010CV	661	150	15	2634	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	662	150	15	2636	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	663	150	15	2634	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	664	150	15	2626	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	665	150	15	2632	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	666	150	15	2642	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	667	150	15	2624	2250	660	201010CV	00000783	00000774	2020518112	948480A
000259286	201010CV	668	150	15	2640	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	669	150	15	2610	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	670	150	15	2632	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	671	150	15	2622	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	673	150	15	2624	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	674	150	15	2636	2250	660	201010CV	00000808	00000804	2020518112	948480A
000259286	201010CV	675	150	15	2618	2250	660	201010CV	00000809	00000804	2020518112	948480A
000259286	201010CV	676	150	15	2642	2250	660	201010CV	00000809	00000804	2020518112	948480A
000259286	201010CV	677	150	15	2668	2250	677	201010CV	00000809	00000804	2020596292	948480A
000259286	201010CV	678	150	15	2634	2250	677	201010CV	00000809	00000804	2020596292	948480A
000259286	201010CV	679	150	15	2640	2250	677	201010CV	00000809	00000804	2020596292	948480A
000259286	201010CV	680	150	15	2642	2250	677	201010CV	00000809	00000804	2020596292	948480A
000259286	201010CV	681	150	15	2644	2250	677	201010CV	00000809	00000804	2020596292	948480A
000259286	201010CV	682	150	15	2640	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201010CV	683	150	15	2638	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201010CV	684	150	15	2646	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201010CV	685	150	15	2644	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201010CV	686	150	15	2638	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201010CV	687	150	15	2640	2250	677	201010CV	00000811	00000804	2020596292	948480A
000259286	201011CV	688	150	15	2300	2250	688	201010CV	00000811	00000804	2020596292	948480A
Total sq ft: **944250**							Total Number of Rolls Certified: **420**					

CETCO®

GCL MANUFACTURING QUALITY CONTROL TEST DATA

The following rolls in GCL certification package number 000259286 have been tested in our production facility lab.

Product	Lot # Tested	Roll # Tested	Mass Area	Grab Strength	Peel Strength 6496	Grab 4632 Modified	Moisture	Peel 4632 Modified
		ASTM Test Method:	D 5993	D 6768	D 6496	D4632*	D 4643	D4632*
		Required Value:	0.75 lb /sq ft Min	30 lbs/in MARV	3.5 lbs/in Min	90lbs	30% max	15lbs
CV-BENTOMAT ST	201009CV	257	0.87	65.8	12.9	263.1	29.9	61.1
CV-BENTOMAT ST	201009CV	274	0.83	65.8	8.1	263.1	29.9	39.2
CV-BENTOMAT ST	201009CV	291	0.89	65.8	5.6	263.1	29.0	32.8
CV-BENTOMAT ST	201009CV	308	0.83	65.8	10.8	263.1	29.2	54.8
CV-BENTOMAT ST	201009CV	325	0.85	65.8	7.3	263.1	30.0	37.9
CV-BENTOMAT ST	201009CV	343	0.80	68.7	6.0	275.0	26.7	30.1
CV-BENTOMAT ST	201009CV	360	0.85	68.7	3.9	275.0	26.1	19.6
CV-BENTOMAT ST	201009CV	378	0.89	68.7	4.1	275.0	25.1	19.9
CV-BENTOMAT ST	201009CV	395	0.83	68.7	4.8	275.0	26.1	23.1
CV-BENTOMAT ST	201009CV	412	0.84	68.7	3.6	275.0	25.4	20.8
CV-BENTOMAT ST	201009CV	430	0.83	55.6	8.0	222.4	28.4	38.7
CV-BENTOMAT ST	201009CV	447	0.84	55.6	5.7	222.4	26.8	27.5
CV-BENTOMAT ST	201009CV	465	0.84	55.6	3.8	222.4	28.2	19.2
CV-BENTOMAT ST	201009CV	482	0.89	55.6	3.7	222.4	27.9	17.9
CV-BENTOMAT ST	201010CV	488	0.91	87.5	3.7	349.8	26.8	20.9
CV-BENTOMAT ST	201010CV	506	0.87	87.5	3.6	349.8	26.7	17.4
CV-BENTOMAT ST	201010CV	523	0.80	87.5	7.8	349.8	29.9	49.9
CV-BENTOMAT ST	201010CV	540	0.84	87.5	7.1	349.8	29.9	33.0
CV-BENTOMAT ST	201010CV	557	0.85	87.5	6.4	349.8	28.0	35.6
CV-BENTOMAT ST	201010CV	574	0.88	86.7	3.8	346.7	29.0	19.2
CV-BENTOMAT ST	201010CV	591	0.90	86.7	3.9	346.7	28.0	20.5
CV-BENTOMAT ST	201010CV	608	0.87	86.7	3.6	346.7	27.6	19.2
CV-BENTOMAT ST	201010CV	626	0.80	86.7	9.2	346.7	28.0	44.6
CV-BENTOMAT ST	201010CV	643	0.83	54.6	6.2	218.3	28.2	31.2
CV-BENTOMAT ST	201010CV	660	0.86	54.6	4.5	218.3	28.9	23.5
CV-BENTOMAT ST	201010CV	677	0.84	54.6	5.3	218.3	28.6	25.4
CV-BENTOMAT ST	201011CV	688	0.80	71.6	4.0	286.3	7.2	20.2

modified ASTM D 4632 using 4 inch grips.

BENTONITE CLAY CERTIFICATION

The Bentonite Clay used to produce package 000259286

has been tested by American Colloid Company and yielded the following test results.

Clay Lot #	Moist	Swell	Fluid Loss
ASTM Test Method:	D 2216	D 5890	D 5891
Required Value:	12% Max	24 ml/2g Min	18 ml Max
947748A	12.00	24.00	16.00
947748B	11.60	26.00	15.80
947752A	11.60	25.00	14.80
947752B	12.00	26.00	15.00
947750B	12.00	24.00	16.20
947749A	12.00	25.00	16.40
947749B	12.00	27.00	16.00
948480A	12.00	29.00	14.80
948488A	11.20	26.00	16.20
948488B	12.00	25.00	15.40

GEOTEXTILE TEST RESULTS FROM MATERIAL SUPPLIERS

The GCL in certification package number 000259286 was manufactured with geotextiles which were tested with the following results.

BASE GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
PPX 82TEX	2020518112	3.5	171.4
PPX 82TEX	2020593003	3.3	157.5
PPX 82TEX	2020593010	3.5	200.8
PPX 82TEX	2020596292	3.4	151.9
MTX 1213	WEA013351-15	3.5	176.3
MTX 1213	WEA013351-18	3.6	175.1
MTX 1213	WEA013351-6	3.5	179.4
MTX 1213	WEA013351-8	3.5	179.0
MTX 1213	WEA013363-11	3.6	176.6
MTX 1213	WEA013363-12	3.6	176.6
MTX 1213	WEA013363-13	3.6	186.4
MTX 1213	WEA013363-14	3.6	186.4
MTX 1213	WEA013363-15	3.6	186.4
MTX 1213	WEA013363-16	3.5	178.8
MTX 1213	WEA013363-2	3.5	179.8
MTX 1213	WEA013363-5	3.5	175.3
MTX 1213	WEA013363-6	3.5	175.3

COVER GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
CV-NON-WOVEN	00000593	7.4	44.7
CV-NON-WOVEN	00000619	6.7	37.6
CV-NON-WOVEN	00000633	6.5	37.9
CV-NON-WOVEN	00000644	6.6	40.6
CV-NON-WOVEN	00000654	6.8	44.7
CV-NON-WOVEN	00000669	6.5	33.1
CV-NON-WOVEN	00000682	6.7	38.8
CV-NON-WOVEN	00000684	6.6	41.3
CV-NON-WOVEN	00000694	6.9	45.1
CV-NON-WOVEN	00000704	6.4	27.6
CV-NON-WOVEN	00000708	6.8	33.8
CV-NON-WOVEN	00000719	6.7	35.8
CV-NON-WOVEN	00000729	6.4	51.9
CV-NON-WOVEN	00000732	6.4	30.4
CV-NON-WOVEN	00000756	6.5	41.3
CV-NON-WOVEN	00000766	6.7	34.4
CV-NON-WOVEN	00000774	6.7	32.5
CV-NON-WOVEN	00000784	6.6	38.7
CV-NON-WOVEN	00000804	6.4	30.8

Certifications from our suppliers are on file at our production facility.

An '*' or 'PT' indicates supplier certifications were unavailable prior to shipping so testing was performed at a CETCO lab.

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **08-Jan-10**
in **BNSF420725**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.3
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.8
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	24
FLUID LOSS	ASTM D 5891	18.0 MAX.	16
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE010810A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947748A**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **08-Jan-10**
in **BNSF420725**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.4
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	11.6
FREE SWELL	ASTM D 5890	24 MIN.	26
FLUID LOSS	ASTM D 5891	18.0 MAX.	15.8
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE010810B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947748B**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **11-Jan-10**
in **ATSF314683**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.4
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	11.6
FREE SWELL	ASTM D 5890	24 MIN.	25
FLUID LOSS	ASTM D 5891	18.0 MAX.	14.8
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE011110A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947752A**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: **09-Mar-10**

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **11-Jan-10**
in **ATSF314683**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.3
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.9
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	26
FLUID LOSS	ASTM D 5891	18.0 MAX.	15
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE011110B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947752B**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **08-Jan-10**
in **BNSF420638**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.9
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.9
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	24
FLUID LOSS	ASTM D 5891	18.0 MAX.	16.2
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE010810B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947750B**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: **09-Mar-10**

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **08-Jan-10**
in **BNSF422181**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.4
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	25
FLUID LOSS	ASTM D 5891	18.0 MAX.	16.4
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE010810A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947749A**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **08-Jan-10**
in **BNSF422181**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.5
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	27
FLUID LOSS	ASTM D 5891	18.0 MAX.	16
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE010810B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **947749B**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: **09-Mar-10**

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **15-Jan-10**
in **ATSF315068**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.2
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.4
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	29
FLUID LOSS	ASTM D 5891	18.0 MAX.	14.8
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **LN011510A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **948480A**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **19-Jan-10**
in **BNSF421019**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.8
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	11.2
FREE SWELL	ASTM D 5890	24 MIN.	26
FLUID LOSS	ASTM D 5891	18.0 MAX.	16.2
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE011910A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **948488A**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 09-Mar-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **19-Jan-10**
in **BNSF421019**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.7
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.9
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	25
FLUID LOSS	ASTM D 5891	18.0 MAX.	15.4
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **TE011910B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **948488B**

CETCO **218 Industrial Park Dr Cartersville, GA 30121** **Computation Sheet: GRI Accredited ASTM D-5887, Index Flux**

Sample: ST
Lot #: 201010CV
Roll#: 488
Project # : CETCO QC

Permeability equation : ((0.879*Thickness)/(2*Pi*r^2*Time))*ln(Change in Head)

Flux equation : ((Inflow+Outflow)/200)/Pi*r^2/Time

Initial Thickness: 0.71 cm. **Hydration :** 48 hrs **Permeant :** De-aired Water

Test Position: 3 **Initial Head :** 2 psi 140.6 cm. **Analyst :** MM **Date:** 3/10/10

Cell Size: 4 in. **Max. Effective Stress:** 5 psi 34.5 kPa **Requested by :** **Date Started:** 3/2/10

Final Thickness: 0.75 cm. *** indicates value meets Flux Ratio ASTM termination criteria**

Conversions : 1 psi = 2.307 feet of head 1 foot of head = 30.48 cm 1 psi = 70.32 cm Flux (English) = Flux * 9.2366E+10

Date	Time (min)	Reading In	X	Reading Out	Y	X-Y	Head (cm)	H (cm)	Initial K (cm/sec)	Initial Flux ($m^3/m^2/sec$)		Avg Flux ($m^3/m^2/sec$)	Final K (cm/sec)	Final Flux (Gal/Acre /Day)	Inflow to Outflow Ratio
3/9/10	0	1.0	23.0	24.0	0.0	23.0	140.63	163.63							
	379	2.5	21.5	23.0	1.0	20.5	140.63	161.13	2.61E-09	6.78E-09			2.75E-9		1.50
3/10/10	1320	5.3	18.7	20.5	3.5	15.2	140.63	155.83	2.28E-09	5.79E-09	*		2.41E-9		1.12
	1491	5.7	18.3	20.1	3.9	14.4	140.63	155.03	1.93E-09	4.81E-09	*		2.04E-9		1.00
	1611	6.0	18.0	19.8	4.2	13.8	140.63	154.43	2.07E-09	5.14E-09	*		2.19E-9		1.00
	1950	6.9	17.1	19.0	5.0	12.1	140.63	152.73	2.09E-09	5.15E-09	*	**5.03E-09**	2.21E-9	465	1.13

Final Flux 5.0E-9 $m^3/m^2/sec$ #

Final Hydraulic Conductivity 2.1E-9 cm/s

CETCO **218 Industrial Park Dr Cartersville, GA 30121** **Computation Sheet: GRI Accredited ASTM D-5887, Index Flux**

Sample: ST
Lot #: 1011CV
Roll#: 688
Project # : CETCO QC

Permeability equation : ((0.879*Thickness)/(2*Pi*r^2*Time))*ln(Change in Head)

Flux equation : ((Inflow+Outflow)/200)/Pi*r^2/Time

Initial Thickness: 0.83 cm. **Hydration :** 48 hrs **Permeant :** De-aired Water

Test Position: 1 **Initial Head :** 2 psi 140.6 cm. **Analyst :** MM **Date:** 3/16/10

Cell Size: 4 in. **Max. Effective Stress:** 5 psi 34.5 kPa **Requested by :** **Date Started:** 3/8/10

Final Thickness: 0.86 cm. *** indicates value meets Flux Ratio ASTM termination criteria**

Conversions : 1 psi = 2.307 feet of head 1 foot of head = 30.48 cm 1 psi = 70.32 cm Flux (English) = Flux * 9.2366E+10

Date	Time (min)	Reading In	X	Reading Out	Y	X-Y	Head (cm)	H (cm)	Initial K (cm/sec)	Initial Flux ($m^3/m^2/sec$)		Avg Flux ($m^3/m^2/sec$)	Final K (cm/sec)	Final Flux (Gal/Acre /Day)	Inflow to Outflow Ratio
3/15/10	0	1.0	23.0	24.0	0.0	23.0	140.63	163.63							
	107	1.5	22.5	23.8	0.2	22.3	140.63	162.93	3.00E-09	6.72E-09			3.11E-9		2.50
	260	1.8	22.2	23.6	0.4	21.8	140.63	162.43	1.51E-09	3.36E-09			1.56E-9		1.50
	399	2.1	21.9	23.3	0.7	21.2	140.63	161.83	2.00E-09	4.44E-09			2.07E-9		1.00
3/16/10	1285	4.0	20.0	21.7	2.3	17.7	140.63	158.33	1.85E-09	4.06E-09	*		1.92E-9		1.19
	1487	4.3	19.7	21.4	2.6	17.1	140.63	157.73	1.41E-09	3.05E-09	*		1.46E-9		1.00
	1768	4.8	19.2	21.0	3.0	16.2	140.63	156.83	1.53E-09	3.29E-09	*	**3.47E-09**	1.58E-9	320	1.25

Final Flux 3.5E-9 $m^3/m^2/sec$ #

Final Hydraulic Conductivity 1.7E-9 cm/s

Date: 4/21/2010
Purchase Order: 6289
ORDER NUMBER: 000261338

Steve Harrison
Comanco

Plant City, FL 33566
sharrison@comanco.com

To Whom it May Concern:

Please find enclosed the MQA/MQC test data package for Geosynthetic Clay Liner shipments to Comanco.

The enclosed data package includes results of all the MQC tests required by ASTM D5889, with the exception of index flux/hydraulic conductivity. This test, which is run according to ASTM D5887, is normally performed once per production lot (once per week), unless a higher frequency is required by the project specifications. Because of the GCL's low permeability, this test can take several weeks to complete. The index flux/hydraulic conductivity results associated with this lot of material will be provided under separate cover as soon as they are available.

Although the index flux/hydraulic conductivity test results are not yet available, CETCO accepts responsibility for our GCL should the index flux/hydraulic conductivity tests produce unacceptable results. If, upon delivery and prior to installation, individual rolls of GCL are found to be nonconforming to accepted project specifications, CETCO will replace the nonconforming material at no charge.

Questions regarding this information should be directed to Chris Athanassopoulos, Technical Support Engineer, at (847) 851-1831.

Sincerely,

Melanie King

Melanie King
Quality Assurance Coordinator
CETCO Cartersville Plant

GEOSYNTHETIC CLAY LINER
MANUFACTURING QUALITY ASSURANCE DATA PACKAGE

PROJECT NAME: West Pasco Class LF
CUSTOMER P.O.: 6289
ORDER NUMBER: 000261338
PREPARED FOR: Comanco

CONTENTS:

- Product Certifications
- GCL Order packing list and MQA tracking form
- GCL manufacturing quality control test data
- Bentonite clay certification
- Raw material test results

PREPARED BY: Melanie King
Quality Assurance Coordinator
CETCO
218 Industrial Park

Cartersville, GA 30121
Telephone: (770) 387-7773
E-Mail: melanie.king@cetco.com

PRODUCT CERTIFICATIONS

PROJECT NAME: West Pasco Class LF
CUSTOMER P.O.: 6289
ORDER NUMBERS: 000261338
PREPARED FOR: Comanco

The GCL manufactured for the above-referenced order number(s) is certified to meet the values listed in the tables below:

GCL PROPERTY SPECIFICATIONS FOR BENTOMAT ST

Test Method	Test Method Property	Test Frequency	Certified Value
ASTM D 5891	Bentonite Fluid Loss	1 per 50 Tons	18 ml Max
ASTM D 5993	Bentonite Mass/Area	40,000 sq ft (4000 sq m)	0.75 lb /sq ft Min
ASTM D 5890	Bentonite Swell Index	1 per 50 Tons	24 ml/2g Min
ASTM D 6768	GCL Grab Strength	200,000 sq ft (20,000 sq m)	30 lbs/in MARV
ASTM D 6243	GCL Hydrated Internal Shear Strength	Periodic	500 psf typ @ 200 psf normal load
ASTM D 5887	GCL Hydraulic Conductivity	Weekly	5.0E-9 cm/s Max
ASTM D 5887	GCL Index Flux	Weekly	1.0E-8 m3/m2/s Max
ASTM D 6496	GCL Peel Strength	40,000 sq ft (4000 sq m)	3.5 lbs/in Min

SPECIALLY REQUESTED CERTIFIED PROPERTIES FOR THIS ORDER OF BENTOMAT ST

Test Method	Test Method Property	Requested Frequency	Requested Value	Requested Conditions
ASTM D4632*	Grab Strength*modified with 4-inch grips	1/200,000sf	90lbs	Standard
ASTM D 4643	GCL Moisture	1/40,000sf	30%max	Standard
ASTM D4632*	Peel Strength*modified with 4-inch grips	1/40,000sf	15lbs	Standard

Bentonite property tests are performed at a bentonite processing facility before shipment to CETCO's production facility.
All tensile testing is in the machine direction using ASTM D 6768. All peel strength testing is performed using
ASTM D 6496. Upon request tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

NEEDLE DETECTION AND REMOVAL PROCEDURE

CETCO hereby affirms that all Bentomat® geosynthetic clay liner material manufactured for this project is continually passed under a magnet for needle removal and then screened with a metal detection device. CETCO certifies Bentomat® to be essentially free of broken needles and fragments of needles that would negatively effect the performance of the final product.

Melanie King
Quality Assurance Coordinator

GCL PACKING LIST AND MQA TRACKING FORM

Listing of finished and raw materials used to produce certification package number 000261338

GCL								Geotextiles				Clay
CV-BENTOMAT ST								N/W-WHITE			WOVEN	CV-CG 50
Order	**GCL Lot #**	**GCL Roll #**	**Length**	**Width**	**weight**	**sq ft**	**Roll # Tested**	**Cap Lot #**	**Cap Roll #**	**Roll # Tested**	**Base Roll #**	**Clay Lot #**
000261338	201011CV	726	150	15	2648	2250	726	201011CV	00000831	00000831	2020593016	948479B
000261338	201011CV	727	150	15	2610	2250	726	201011CV	00000831	00000831	2020593016	948479B
000261338	201011CV	728	150	15	2604	2250	726	201011CV	00000831	00000831	2020593016	948479B
000261338	201011CV	729	150	15	2608	2250	726	201011CV	00000816	00000816	2020593016	948479B
000261338	201011CV	730	150	15	2600	2250	726	201011CV	00000816	00000816	2020593016	948479B
000261338	201011CV	731	150	15	2610	2250	726	201011CV	00000816	00000816	2020593016	948479B
000261338	201011CV	732	150	15	2612	2250	726	201011CV	00000816	00000816	2020593016	948477A
000261338	201011CV	733	150	15	2608	2250	726	201011CV	00000816	00000816	2020593016	948477A
000261338	201011CV	735	150	15	2592	2250	726	201011CV	00000816	00000816	2020590597	948477A
000261338	201011CV	736	150	15	2560	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	737	150	15	2592	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	738	150	15	2604	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	739	150	15	2594	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	740	150	15	2608	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	741	150	15	2608	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	742	150	15	2582	2250	726	201011CV	00000832	00000831	2020590597	948477A
000261338	201011CV	743	150	15	2608	2250	726	201011CV	00000832	00000831	2020590597	948477A
						Total sq ft:	**38250**				Total Number of Rolls Certified: **17**	

GCL MANUFACTURING QUALITY CONTROL TEST DATA

The following rolls in GCL certification package number 000261338 have been tested in our production facility lab.

Product	Lot # Tested	Roll # Tested	Mass Area	Grab Strength	Peel Strength 6496	Grab 4632 Modified	Moisture	Peel 4632 Modified
		ASTM Test Method:	D 5993	D 6768	D 6496	D4632*	D 4643	D4632*
		Required Value:	0.75 lb /sq ft Min	30 lbs/in MARV	3.5 lbs/in Min	90lbs	30%max	15lbs
CV-BENTOMAT ST	201011CV	726	0.85	61.1	6.5	244.5	28.8	29.6

modified ASTM D 4632 using 4 inch grips.

BENTONITE CLAY CERTIFICATION

The Bentonite Clay used to produce package 000261338

has been tested by American Colloid Company and yielded the following test results.

Clay Lot #	Moist	Swell	Fluid Loss
ASTM Test Method:	D 2216	D 5890	D 5891
Required Value:	12% Max	24 ml/2g Min	18 ml Max
948479B	12.00	29.00	15.00
948477A	11.20	28.00	15.00

GEOTEXTILE TEST RESULTS FROM MATERIAL SUPPLIERS

The GCL in certification package number 000261338 was manufactured with geotextiles which were tested with the following results.

BASE GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
PPX 82TEX	2020590597	3.5	174.6
PPX 82TEX	2020593016	3.5	200.8

COVER GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
CV-NON-WOVEN	00000816	6.4	35.9
CV-NON-WOVEN	00000831	6.6	31.0

Certifications from our suppliers are on file at our production facility.

An '*' or 'PT' indicates supplier certifications were unavailable prior to shipping so testing was performed at a CETCO lab.

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 21-Apr-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **15-Jan-10**
in **BNSF422168**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.8
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.7
MOISTURE	ASTM D 2216	12.0% MAX.	12
FREE SWELL	ASTM D 5890	24 MIN.	29
FLUID LOSS	ASTM D 5891	18.0 MAX.	15
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **LN011510B**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **948479B**

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 21-Apr-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **15-Jan-10**
in **ATSF314123**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.5
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.8
MOISTURE	ASTM D 2216	12.0% MAX.	11.2
FREE SWELL	ASTM D 5890	24 MIN.	28
FLUID LOSS	ASTM D 5891	18.0 MAX.	15
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **LN011510A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **948477A**

Date: 5/14/2010
Purchase Order: 6396
ORDER NUMBER: 000262137

Steve Harrison
Comanco

Plant City, FL 33566
sharrison@comanco.com

To Whom it May Concern:

Please find enclosed the MQA/MQC test data package for Geosynthetic Clay Liner shipments to Comanco.

The enclosed data package includes results of all the MQC tests required by ASTM D5889, with the exception of index flux/hydraulic conductivity. This test, which is run according to ASTM D5887, is normally performed once per production lot (once per week), unless a higher frequency is required by the project specifications. Because of the GCL's low permeability, this test can take several weeks to complete. The index flux/hydraulic conductivity results associated with this lot of material will be provided under separate cover as soon as they are available.

Although the index flux/hydraulic conductivity test results are not yet available, CETCO accepts responsibility for our GCL should the index flux/hydraulic conductivity tests produce unacceptable results. If, upon delivery and prior to installation, individual rolls of GCL are found to be nonconforming to accepted project specifications, CETCO will replace the nonconforming material at no charge.

Questions regarding this information should be directed to Chris Athanassopoulos, Technical Support Engineer, at (847) 851-1831.

Sincerely,

Melanie King

Melanie King
Quality Assurance Coordinator
CETCO Cartersville Plant

GEOSYNTHETIC CLAY LINER
MANUFACTURING QUALITY ASSURANCE DATA PACKAGE

PROJECT NAME: West Pasco Class LF
CUSTOMER P.O.: 6396
ORDER NUMBER: 000262137
PREPARED FOR: Comanco

CONTENTS:

- Product Certifications
- GCL Order packing list and MQA tracking form
- GCL manufacturing quality control test data
- Bentonite clay certification
- Raw material test results

PREPARED BY: Melanie King
Quality Assurance Coordinator
CETCO
218 Industrial Park

Cartersville, GA 30121
Telephone: (770) 387-7773
E-Mail: melanie.king@cetco.com

PRODUCT CERTIFICATIONS

PROJECT NAME: West Pasco Class LF
CUSTOMER P.O.: 6396
ORDER NUMBERS: 000262137
PREPARED FOR: Comanco

The GCL manufactured for the above-referenced order number(s) is certified to meet the values listed in the tables below:

GCL PROPERTY SPECIFICATIONS FOR BENTOMAT ST

Test Method	Test Method Property	Test Frequency	Certified Value
ASTM D 5891	Bentonite Fluid Loss	1 per 50 Tons	18 ml Max
ASTM D 5993	Bentonite Mass/Area	40,000 sq ft (4000 sq m)	0.75 lb /sq ft Min
ASTM D 5890	Bentonite Swell Index	1 per 50 Tons	24 ml/2g Min
ASTM D 6768	GCL Grab Strength	200,000 sq ft (20,000 sq m)	30 lbs/in MARV
ASTM D 6243	GCL Hydrated Internal Shear Strength	Periodic	500 psf typ @ 200 psf normal load
ASTM D 5887	GCL Hydraulic Conductivity	Weekly	5.0E-9 cm/s Max
ASTM D 5887	GCL Index Flux	Weekly	1.0E-8 m3/m2/s Max
ASTM D 6496	GCL Peel Strength	40,000 sq ft (4000 sq m)	3.5 lbs/in Min

SPECIALLY REQUESTED CERTIFIED PROPERTIES FOR THIS ORDER OF BENTOMAT ST

Test Method	Test Method Property	Requested Frequency	Requested Value	Requested Conditions
ASTM D4632*	Grab Strength*modified with 4-inch grips	1/200,000sf	90lbs	Standard
ASTM D 4643	GCL Moisture	1/40,000sf	30% max	Standard
ASTM D4632*	Peel Strength*modified with 4-inch grips	1/40,000sf	15lbs	Standard

Bentonite property tests are performed at a bentonite processing facility before shipment to CETCO's production facility.
All tensile testing is in the machine direction using ASTM D 6768. All peel strength testing is performed using
ASTM D 6496. Upon request tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

NEEDLE DETECTION AND REMOVAL PROCEDURE

CETCO hereby affirms that all Bentomat® geosynthetic clay liner material manufactured for this project is continually passed under a magnet for needle removal and then screened with a metal detection device. CETCO certifies Bentomat® to be essentially free of broken needles and fragments of needles that would negatively effect the performance of the final product.

Melanie King
Quality Assurance Coordinator

GCL PACKING LIST AND MQA TRACKING FORM

Listing of finished and raw materials used to produce certification package number 000262137

GCL								Geotextiles				Clay
CV-BENTOMAT ST								N/W-WHITE			WOVEN	CV-CG 50
Order	**GCL Lot #**	**GCL Roll #**	**Length**	**Width**	**weight**	**sq ft**	**Roll # Tested**	**Cap Lot #**	**Cap Roll #**	**Roll # Tested**	**Base Roll #**	**Clay Lot #**
000262137	201019CV	2042	150	15	2868	2250	2040	201018CV	00001624	00001617	WEA014538-7	958068A
000262137	201019CV	2043	150	15	2872	2250	2040	201018CV	00001624	00001617	WEA014538-7	958068A
000262137	201019CV	2045	150	15	2882	2250	2040	201018CV	00001624	00001617	WEA014538-7	958068A
000262137	201019CV	2047	150	15	2868	2250	2040	201018CV	00001624	00001617	WEA014538-7	958068A
						Total sq ft:	**9000**				Total Number of Rolls Certified: **4**	

GCL MANUFACTURING QUALITY CONTROL TEST DATA

The following rolls in GCL certification package number 000262137 have been tested in our production facility lab.

Product	Lot # Tested	Roll # Tested	Mass Area	Grab Strength	Peel Strength 6496	Grab 4632 Modified	Moisture	Peel 4632 Modified
		ASTM Test Method:	D 5993	D 6768	D 6496	D4632*	D 4643	D4632*
		Required Value:	0.75 lb /sq ft Min	30 lbs/in MARV	3.5 lbs/in Min	90lbs	30% max	15lbs
CV-BENTOMAT ST	201019CV	2040	0.97	61.3	5.3	245.1	28.1	25.9

modified ASTM D 4632 using 4 inch grips.

BENTONITE CLAY CERTIFICATION

The Bentonite Clay used to produce package 000262137

has been tested by American Colloid Company and yielded the following test results.

Clay Lot #	Moist	Swell	Fluid Loss
ASTM Test Method:	D 2216	D 5890	D 5891
Required Value:	12% Max	24 ml/2g Min	18 ml Max
958068A	11.20	25.00	16.20

GEOTEXTILE TEST RESULTS FROM MATERIAL SUPPLIERS

The GCL in certification package number 000262137 was manufactured with geotextiles which were tested with the following results.

BASE GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
MTX 1213	WEA014538-7	3.5	189.6

COVER GEOTEXTILE

Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs
CV-NON-WOVEN	00001617	7.5	33.9

Certifications from our suppliers are on file at our production facility.

An '*' or 'PT' indicates supplier certifications were unavailable prior to shipping so testing was performed at a CETCO lab.

BENTONITE
CERTIFICATE OF ANALYSIS

AMERICAN COLLOID
92 HWY 37
LOVELL, WYO. 82431

DATE: 14-May-10

TO: **CETCO - CARTERSVILLE**

218 INDUSTRIAL PARK DRIVE
CARTERSVILLE, GA 30121

ATTN:

Dear Sirs:

A shipment of **CG 50**
left our Lovell, WY plant on **26-Mar-10**
in **BNSF424553**
as requested on your order no.

A sample from this shipment was tested, and gave the following results:

TEST	METHOD	REQ. SPECIFICATION	ACTUAL RESULTS
RET. 8 MESH	ASTM C 136	4% MAX	0.6
PASSING 200 MESH	ASTM C 136	1.0 % MAX	0.5
MOISTURE	ASTM D 2216	12.0% MAX.	11.2
FREE SWELL	ASTM D 5890	24 MIN.	25
FLUID LOSS	ASTM D 5891	18.0 MAX.	16.2
TOTAL HARDNESS		30-40 meq/100g	35

We hereby certify that the results shown above represent this shipment.
Tests were conducted using American Colloid Test Methods and/or customer approved laboratory procedures.
Product made in the U.S.A.

Tests Conducted By: **GP032610A**

Approved By: **NICK WAMBEKE**

ACC

In any correspondence regarding this shipment, please refer to our
Order Number **958068A**

GSE Roll Allocation

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
108150553	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150554	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150555	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150556	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150557	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150558	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/5/2010	520
108150559	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150560	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150561	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150562	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150563	8200164	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150564	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150565	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150566	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150567	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150568	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150569	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150570	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150571	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150572	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150573	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150574	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/6/2010	520
108150575	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150576	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150577	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150578	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150579	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150580	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150581	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150582	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150583	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150584	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150585	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150586	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
108150587	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150588	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150589	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150590	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150591	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/7/2010	520
108150592	8200160	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150601	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150602	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150603	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150604	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150605	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150606	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150607	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150608	8200159	HDT-060AE-BBB-B-W0	HDT060AW00	3/8/2010	520
108150731	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150732	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150733	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150734	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150735	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150736	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150737	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150738	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150739	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150740	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150741	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150742	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150743	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150744	8200169	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150745	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150746	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150747	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/16/2010	520
108150748	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150749	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150750	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150751	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150752	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
108150753	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150754	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150755	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150756	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150757	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150758	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150759	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150760	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150761	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150762	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150763	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150764	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/17/2010	520
108150766	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150767	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150768	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150769	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150770	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150771	10B1201	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150772	10B1200	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150773	10B1200	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150774	10B1200	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150775	10B1200	HDT-060AE-BBB-B-W0	HDT060AW00	3/18/2010	520
108150940	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/28/2010	520
108150941	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/28/2010	520
108150942	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150943	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150944	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150945	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150946	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150947	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150948	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150949	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150950	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150951	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150952	10C1034	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150953	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
108150954	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150955	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150956	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150957	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150958	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/29/2010	520
108150959	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150960	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150961	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150962	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150963	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150964	10C1148	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150965	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150966	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150967	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150968	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150969	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150970	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150971	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150972	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150973	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150974	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/30/2010	520
108150975	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150976	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150977	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150978	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150979	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150980	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150981	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150982	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150983	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150984	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150985	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150986	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150987	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150988	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150989	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
108150990	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150991	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	3/31/2010	520
108150992	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	4/1/2010	520
108150993	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	4/1/2010	520
108150994	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	4/1/2010	520
108150995	10C1151	HDT-060AE-BBB-B-W0	HDT060AW00	4/1/2010	520
108150996	10C1149	HDT-060AE-BBB-B-W0	HDT060AW00	4/1/2010	520
108151017	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151018	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151019	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151020	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151021	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151022	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151023	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/2/2010	520
108151024	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151025	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151026	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151027	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151028	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151029	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151030	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151031	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151032	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151033	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151034	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520
108151035	10C1214	HDT-060AE-BBB-B-W0	HDT060AW00	4/3/2010	520

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

GSE QC APPROVED

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108150553	62	58	172	175	159	196	17	17	314	465	59	61	155	0.944	2.31	10	24	25
108150554	60	56	172	175	159	196	17	17	314	465	59	61	155	0.944	2.31	10	23	23
108150555	62	59	172	175	159	196	17	17	314	465	59	61	155	0.944	2.31	10	23	23
108150556	61	57	172	175	159	196	17	17	314	465	59	61	155	0.944	2.31	10	23	23
108150557	61	57	177	177	168	181	16	16	383	439	62	60	163	0.944	2.34	10	23	23
108150558	62	55	177	177	168	181	16	16	383	439	62	60	163	0.944	2.34	10	23	22
108150559	61	56	177	177	168	181	16	16	383	439	62	60	163	0.944	2.34	10	23	22
108150560	61	57	177	177	168	181	16	16	383	439	62	60	163	0.944	2.34	10	25	27
108150561	62	57	178	173	178	207	17	17	472	527	61	66	158	0.946	2.39	10	25	27
108150562	61	57	178	173	178	207	17	17	472	527	61	66	158	0.946	2.39	10	25	26
108150563	61	56	178	173	178	207	17	17	472	527	61	66	158	0.946	2.39	10	25	26
108150564	61	57	178	173	178	207	17	17	472	527	61	66	158	0.946	2.39	10	24	26
108150565	61	56	184	182	179	201	15	15	421	471	62	64	158	0.946	2.35	10	24	26
108150566	62	56	184	182	179	201	15	15	421	471	62	64	158	0.946	2.35	10	21	24
108150567	61	56	184	182	179	201	15	15	421	471	62	64	158	0.946	2.35	10	21	24
108150568	61	57	184	182	179	201	15	15	421	471	62	64	158	0.946	2.35	10	22	23
108150569	61	58	174	171	179	200	17	17	490	520	58	60	159	0.945	2.35	10	22	23
108150570	61	58	174	171	179	200	17	17	490	520	58	60	159	0.945	2.35	10	22	23
108150571	61	57	174	171	179	200	17	17	490	520	58	60	159	0.945	2.35	10	22	23
108150572	61	56	174	171	179	200	17	17	490	520	58	60	159	0.945	2.35	10	22	23
108150573	60	57	179	177	185	195	17	17	436	499	59	61	156	0.945	2.35	10	22	23
108150574	61	58	179	177	185	195	17	17	436	499	59	61	156	0.945	2.35	10	22	23
108150575	60	56	179	177	185	195	17	17	436	499	59	61	156	0.945	2.35	10	22	23
108150576	61	57	179	177	185	195	17	17	436	499	59	61	156	0.945	2.35	10	22	24
108150577	60	54	180	173	191	189	15	16	494	457	61	62	157	0.945	2.31	10	22	24
108150578	61	57	180	173	191	189	15	16	494	457	61	62	157	0.945	2.31	10	25	26
108150579	62	57	180	173	191	189	15	16	494	457	61	62	157	0.945	2.31	10	25	26
108150580	62	56	180	173	191	189	15	16	494	457	61	62	157	0.945	2.31	10	24	26
108150581	61	57	175	167	194	201	17	17	514	527	61	62	154	0.945	2.36	10	24	26
108150582	61	56	175	167	194	201	17	17	514	527	61	62	154	0.945	2.36	10	23	23
108150583	61	56	175	167	194	201	17	17	514	527	61	62	154	0.945	2.36	10	23	23
108150584	62	57	175	167	194	201	17	17	514	527	61	62	154	0.945	2.36	10	23	22
108150585	61	56	174	172	194	202	17	17	527	517	58	62	155	0.945	2.41	10	23	22

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

GSE QC APPROVED

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108150586	61	58	174	172	194	202	17	17	527	517	58	62	155	0.945	2.41	10	23	22
108150587	61	56	174	172	194	202	17	17	527	517	58	62	155	0.945	2.41	10	23	22
108150588	60	58	174	172	194	202	17	17	527	517	58	62	155	0.945	2.41	10	22	21
108150589	61	56	183	186	206	220	17	17	480	528	62	65	162	0.944	2.22	10	22	21
108150590	61	57	183	186	206	220	17	17	480	528	62	65	162	0.944	2.22	10	22	21
108150591	60	56	183	186	206	220	17	17	480	528	62	65	162	0.944	2.22	10	22	22
108150592	61	57	183	186	206	220	17	17	480	528	62	65	162	0.944	2.22	10	23	22
108150601	63	59	180	179	184	318	17	17	473	481	61	63	160	0.944	2.37	10	23	23
108150602	61	54	174	176	172	206	17	17	454	512	59	61	152	0.945	2.42	10	22	22
108150603	61	58	174	176	172	206	17	17	454	512	59	61	152	0.945	2.42	10	22	22
108150604	61	58	174	176	172	206	17	17	454	512	59	61	152	0.945	2.42	10	22	22
108150605	61	59	174	176	172	206	17	17	454	512	59	61	152	0.945	2.42	10	22	22
108150606	61	58	182	182	201	217	17	17	523	488	62	65	161	0.944	2.26	10	22	22
108150607	61	56	182	182	201	217	17	17	523	488	62	65	161	0.944	2.26	10	22	22
108150608	61	56	182	182	201	217	17	17	523	488	62	65	161	0.944	2.26	10	22	22
108150731	62	57	182	183	177	183	17	17	434	462	58	61	157	0.947	2.23	10	22	23
108150732	62	57	182	183	177	183	17	17	434	462	58	61	157	0.947	2.23	10	22	23
108150733	61	58	182	183	177	183	17	17	434	462	58	61	157	0.947	2.23	10	22	23
108150734	61	56	178	186	164	194	15	15	388	441	61	63	158	0.946	2.39	10	24	24
108150735	61	58	178	186	164	194	15	15	388	441	61	63	158	0.946	2.39	10	24	24
108150736	61	58	178	186	164	194	15	15	388	441	61	63	158	0.946	2.39	10	22	23
108150737	60	55	178	186	164	194	15	15	388	441	61	63	158	0.946	2.39	10	22	23
108150738	60	56	185	184	166	201	17	17	412	509	61	62	157	0.946	2.36	10	23	22
108150739	60	57	185	184	166	201	17	17	412	509	61	62	157	0.946	2.36	10	23	22
108150740	61	56	185	184	166	201	17	17	412	509	61	62	157	0.946	2.36	10	25	24
108150741	61	57	185	184	166	201	17	17	412	509	61	62	157	0.946	2.36	10	25	24
108150742	62	58	180	178	153	196	15	16	386	475	59	61	152	0.945	2.26	10	25	24
108150743	63	58	180	178	153	196	15	16	386	475	59	61	152	0.945	2.26	10	25	24
108150744	63	57	180	178	153	196	15	16	386	475	59	61	152	0.945	2.26	10	24	24
108150745	62	58	180	178	153	196	15	16	386	475	59	61	152	0.945	2.26	10	24	24
108150746	62	58	179	180	167	192	16	17	351	430	61	61	157	0.946	2.46	10	24	24
108150747	62	56	179	180	167	192	16	17	351	430	61	61	157	0.946	2.46	10	24	24
108150748	62	58	179	180	167	192	16	17	351	430	61	61	157	0.946	2.46	10	25	24

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

GSE QC APPROVED

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108150749	62	57	179	180	167	192	16	17	351	430	61	61	157	0.946	2.46	10	25	24
108150750	63	58	181	174	148	188	15	15	216	383	60	59	158	0.946	2.47	10	22	21
108150751	60	57	181	174	148	188	15	15	216	383	60	59	158	0.946	2.47	10	22	21
108150752	60	55	181	174	148	188	15	15	216	383	60	59	158	0.946	2.47	10	22	22
108150753	61	56	181	174	148	188	15	15	216	383	60	59	158	0.946	2.47	10	22	22
108150754	60	56	183	191	150	173	15	15	328	332	63	66	152	0.946	2.33	10	22	23
108150755	61	55	183	191	150	173	15	15	328	332	63	66	152	0.946	2.33	10	22	23
108150756	61	56	183	191	150	173	15	15	328	332	63	66	152	0.946	2.33	10	23	23
108150757	61	56	183	191	150	173	15	15	328	332	63	66	152	0.946	2.33	10	23	23
108150758	61	58	173	179	150	177	17	17	303	415	62	60	156	0.946	2.34	10	23	23
108150759	61	56	173	179	150	177	17	17	303	415	62	60	156	0.946	2.34	10	23	23
108150760	62	56	173	179	150	177	17	17	303	415	62	60	156	0.946	2.34	10	23	24
108150761	61	56	173	179	150	177	17	17	303	415	62	60	156	0.946	2.34	10	23	24
108150762	63	57	179	175	154	168	16	17	286	386	60	61	157	0.946	2.37	10	22	22
108150763	61	56	179	175	154	168	16	17	286	386	60	61	157	0.946	2.37	10	22	22
108150764	62	56	179	175	154	168	16	17	286	386	60	61	157	0.946	2.37	10	22	22
108150766	61	56	181	181	158	191	17	17	394	473	63	62	155	0.946	2.41	10	22	21
108150767	62	56	181	181	158	191	17	17	394	473	63	62	155	0.946	2.41	10	22	21
108150768	61	56	181	181	158	191	17	17	394	473	63	62	155	0.946	2.41	10	23	23
108150769	62	57	181	181	158	191	17	17	394	473	63	62	155	0.946	2.41	10	23	23
108150770	61	57	188	178	165	178	15	16	264	367	62	61	156	0.946	2.49	10	22	23
108150771	61	57	188	178	165	178	15	16	264	367	62	61	156	0.946	2.49	10	22	23
108150772	60	56	188	178	165	178	15	16	264	367	62	61	156	0.946	2.49	10	19	20
108150773	60	54	188	178	165	178	15	16	264	367	62	61	156	0.946	2.49	10	19	20
108150774	61	55	177	179	164	165	17	16	400	244	64	60	155	0.946	2.45	10	20	22
108150775	61	56	177	179	164	165	17	16	400	244	64	60	155	0.946	2.45	10	20	22
108150940	61	55	174	171	178	200	16	17	481	538	60	61	153	0.945	2.10	10	20	21
108150941	61	56	174	171	178	200	16	17	481	538	60	61	153	0.945	2.10	10	22	21
108150942	61	56	174	171	178	200	16	17	481	538	60	61	153	0.945	2.10	10	22	21
108150943	61	56	165	167	200	190	15	17	516	519	57	60	148	0.943	2.23	10	22	21
108150944	61	55	165	167	200	190	15	17	516	519	57	60	148	0.943	2.23	10	22	21
108150945	61	55	165	167	200	190	15	17	516	519	57	60	148	0.943	2.23	10	19	21
108150946	61	57	165	167	200	190	15	17	516	519	57	60	148	0.943	2.23	10	19	21

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

GSE QC APPROVED

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108150947	61	57	184	177	197	204	15	16	506	483	61	64	154	0.944	2.27	10	20	19
108150948	61	56	184	177	197	204	15	16	506	483	61	64	154	0.944	2.27	10	20	19
108150949	61	57	184	177	197	204	15	16	506	483	61	64	154	0.944	2.27	10	20	21
108150950	60	54	184	177	197	204	15	16	506	483	61	64	154	0.944	2.27	10	20	21
108150951	61	55	178	173	180	212	17	17	478	549	60	60	153	0.944	2.36	10	21	20
108150952	62	56	178	173	180	212	17	17	478	549	60	60	153	0.944	2.36	10	21	20
108150953	61	57	178	173	180	212	17	17	478	549	60	60	153	0.944	2.36	10	20	21
108150954	61	57	178	173	180	212	17	17	478	549	60	60	153	0.944	2.36	10	20	21
108150955	61	54	170	166	194	192	16	16	536	499	59	59	151	0.944	2.51	10	20	21
108150956	61	55	170	166	194	192	16	16	536	499	59	59	151	0.944	2.51	10	20	21
108150957	61	56	170	166	194	192	16	16	536	499	59	59	151	0.944	2.51	10	20	21
108150958	61	54	170	166	194	192	16	16	536	499	59	59	151	0.944	2.51	10	20	21
108150959	61	55	168	170	174	207	16	16	475	551	59	60	144	0.945	2.32	10	21	21
108150960	61	56	168	170	174	207	16	16	475	551	59	60	144	0.945	2.32	10	21	21
108150961	60	57	168	170	174	207	16	16	475	551	59	60	144	0.945	2.32	10	20	20
108150962	60	56	168	170	174	207	16	16	475	551	59	60	144	0.945	2.32	10	20	20
108150963	60	55	168	168	199	199	16	16	521	494	60	60	151	0.946	2.23	10	22	21
108150964	60	55	168	168	199	199	16	16	521	494	60	60	151	0.946	2.23	10	22	21
108150965	60	55	168	168	199	199	16	16	521	494	60	60	151	0.946	2.23	10	21	20
108150966	60	56	168	168	199	199	16	16	521	494	60	60	151	0.946	2.23	10	21	20
108150967	61	57	175	172	182	180	16	17	476	368	59	62	156	0.946	2.45	10	21	22
108150968	60	57	175	172	182	180	16	17	476	368	59	62	156	0.946	2.45	10	21	22
108150969	60	56	175	172	182	180	16	17	476	368	59	62	156	0.946	2.45	10	20	21
108150970	61	59	175	172	182	180	16	17	476	368	59	62	156	0.946	2.45	10	20	21
108150971	61	55	177	170	177	187	16	18	455	474	59	59	152	0.946	2.33	10	21	20
108150972	60	55	177	170	177	187	16	18	455	474	59	59	152	0.946	2.33	10	21	20
108150973	61	58	177	170	177	187	16	18	455	474	59	59	152	0.946	2.33	10	20	20
108150974	61	58	177	170	177	187	16	18	455	474	59	59	152	0.946	2.33	10	20	20
108150975	61	58	175	176	184	184	16	17	506	419	58	60	148	0.946	2.33	10	21	22
108150976	60	57	175	176	184	184	16	17	506	419	58	60	148	0.946	2.33	10	21	22
108150977	61	58	175	176	184	184	16	17	506	419	58	60	148	0.946	2.33	10	21	22
108150978	60	56	175	176	184	184	16	17	506	419	58	60	148	0.946	2.33	10	21	22
108150979	60	56	176	170	200	188	17	17	563	487	60	61	157	0.946	2.31	10	21	22

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

GSE QC APPROVED

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108150980	60	55	176	170	200	188	17	17	563	487	60	61	157	0.946	2.31	10	21	22
108150981	60	56	176	170	200	188	17	17	563	487	60	61	157	0.946	2.31	10	21	21
108150982	60	56	176	170	200	188	17	17	563	487	60	61	157	0.946	2.31	10	21	21
108150983	60	58	184	174	159	206	15	17	294	497	58	61	154	0.946	2.26	10	21	21
108150984	60	55	184	174	159	206	15	17	294	497	58	61	154	0.946	2.26	10	21	21
108150985	61	56	184	174	159	206	15	17	294	497	58	61	154	0.946	2.26	10	21	21
108150986	60	58	184	174	159	206	15	17	294	497	58	61	154	0.946	2.26	10	21	21
108150987	61	55	178	169	167	177	17	17	435	411	57	62	154	0.945	2.42	10	21	21
108150988	60	55	178	169	167	177	17	17	435	411	57	62	154	0.945	2.42	10	21	21
108150989	61	56	178	169	167	177	17	17	435	411	57	62	154	0.945	2.42	10	20	21
108150990	61	58	178	169	167	177	17	17	435	411	57	62	154	0.945	2.42	10	20	21
108150991	60	56	176	172	184	188	15	16	496	468	60	61	154	0.945	2.25	10	21	21
108150992	60	56	176	172	184	188	15	16	496	468	60	61	154	0.945	2.25	10	21	21
108150993	60	54	176	172	184	188	15	16	496	468	60	61	154	0.945	2.25	10	21	21
108150994	60	56	176	172	184	188	15	16	496	468	60	61	154	0.945	2.25	10	21	21
108150995	60	55	188	180	166	185	15	17	355	416	61	62	157	0.946	2.36	10	21	21
108150996	61	56	188	180	166	185	15	17	355	416	61	62	157	0.946	2.36	10	21	21
108151017	63	56	178	174	129	141	17	17	356	489	60	63	153	0.945	2.50	10	20	20
108151018	61	54	174	177	124	138	15	16	333	456	60	62	154	0.945	2.30	10	19	20
108151019	61	55	174	177	124	138	15	16	333	456	60	62	154	0.945	2.30	10	19	20
108151020	61	55	174	177	124	138	15	16	333	456	60	62	154	0.945	2.30	10	20	20
108151021	61	55	174	177	124	138	15	16	333	456	60	62	154	0.945	2.30	10	20	20
108151022	61	55	177	174	127	139	15	17	350	458	57	60	155	0.945	2.26	10	21	20
108151023	61	54	177	174	127	139	15	17	350	458	57	60	155	0.945	2.26	10	21	20
108151024	61	55	177	174	127	139	15	17	350	458	57	60	155	0.945	2.26	10	21	20
108151025	61	55	177	174	127	139	15	17	350	458	57	60	155	0.945	2.26	10	21	20
108151026	61	55	187	182	136	138	15	16	434	464	62	64	156	0.947	2.41	9	20	20
108151027	60	56	187	182	136	138	15	16	434	464	62	64	156	0.947	2.41	9	20	20
108151028	60	54	187	182	136	138	15	16	434	464	62	64	156	0.947	2.41	9	21	19
108151029	60	55	187	182	136	138	15	16	434	464	62	64	156	0.947	2.41	9	21	19
108151030	60	55	184	184	134	142	15	16	399	456	61	62	153	0.947	2.34	10	19	20
108151031	60	55	184	184	134	142	15	16	399	456	61	62	153	0.947	2.34	10	19	20
108151032	60	55	184	184	134	142	15	16	399	456	61	62	153	0.947	2.34	10	19	21

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	HDT-060AE-BBB-B-W0	4/5/2010

	ASTM D 5994		ASTM D638,Type IV / D6693								ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218/1603	ASTM D 5596	GRI GM 12	
	Average Thickness (mils)	Minimum Thickness (mils)	TD Strength @ Yield (ppi)	MD Strength @ Yield (ppi)	TD Strength @ Break (ppi)	MD Strength @ Break (ppi)	TD Elongation @ Yield (%)	MD Elongation @ Yield (%)	TD Elongation @ Break (%)	MD Elongation @ Break (%)	TD Tear Resistance (lbs)	MD Tear Resistance (lbs)	Puncture Resistance (lbs)	Density (g/cc)	Carbon Black Content (%)	Carbon Black Dispersion Views in Cat1 - Cat2	Asperity Height Side A (mils)	Asperity Height Side B (mils)
Roll No.	every roll		every 4th								every 4th		every 4th	every 4th	every 4th	every 4th	every 2nd	
108151033	60	56	184	184	134	142	15	16	399	456	61	62	153	0.947	2.34	10	19	21
108151034	60	56	173	170	162	168	17	17	380	309	59	60	155	0.945	2.51	10	20	20
108151035	60	56	173	170	162	168	17	17	380	309	59	60	155	0.945	2.51	10	20	20

Laboratory Manager:

GSE-8.2.4-029 Rev -- 03/05

This test report shall not be reproduced, except in full, without written approval of the laboratory.

19103 Gundle Road - Houston, Texas 77073

Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
SO Number: 61162

The table below summarizes additive performance of GSE Houston products as perceived by OIT retention after Oven and UV Aging per GRI Test Method GM13:

		Oven Aging @ 85° C (ASTM D 5721)				UV Resistance per GRI GM11			
		90 days per ASTM D 5885				1600 hours UV Aging per ASTM D 5885			
Product Type	**Formulation**	Initial HP OIT (min)	Final HP OIT (min)	Retained (%)	GRI Criteria (%)	Initial HP OIT (min)	Final HP OIT (min)	Retained (%)	GRI Criteria (%)
HDPE Geomembrane	Formosa DF3812A	744	674	90	80	744	700	95	50

Approved By: Debra Gortemiller
Date: March 19, 2010

The above stated data shall not be reproduced except in full, without the written approval of the laboratory.

Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
SO Number: 61162

The table below summarizes additive performance of GSE Houston products as perceived by OIT retention after Oven and UV Aging per GRI Test Method GM13:

		Oven Aging @ 85° C (ASTM D 5721)				UV Resistance per GRI GM11			
		90 days per ASTM D 5885				1600 hours UV Aging per ASTM D 5885			
Product Type	**Formulation**	Initial HP OIT (min)	Final HP OIT (min)	Retained (%)	GRI Criteria (%)	Initial HP OIT (min)	Final HP OIT (min)	Retained (%)	GRI Criteria (%)
HDPE Geomembrane	Chevron Phillips Marlex® K306 + Carbon Black	697	661	94	80	697	565	81	50

Approved By: Debra Gortemiller
Date: March 8, 2010

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Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
Sales Order: 61162

Required Testing: ASTM D 5397 - Standard Test Method for Evaluation of Stress Crack Resistance of Polyolefin Geomembranes Using Notched Constant Tensile Load Test

Custom Frequency: Certify

Custom Criteria: 1000 hours

Product Code	Resin Lot Number	Test Results
HDT-060AE-BBB-B-W0	8200164	PASS
HDT-060AE-BBB-B-W0	8200160	PASS
HDT-060AE-BBB-B-W0	8200159	PASS
HDT-060AE-BBB-B-W0	8200169	PASS
HDT-060AE-BBB-B-W0	10B1201	PASS
HDT-060AE-BBB-B-W0	10B1200	PASS
HDT-060AE-BBB-B-W0	10C1034	PASS
HDT-060AE-BBB-B-W0	10C1148	PASS
HDT-060AE-BBB-B-W0	10C1151	PASS
HDT-060AE-BBB-B-W0	10C1149	PASS
HDT-060AE-BBB-B-W0	10C1214	PASS

Approved By:	Debra Gortemiller
Date Approved:	April 5, 2010

The above stated data shall not be reproduced except in full, without the written approval of the laboratory.

Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
Sales Order: 61162

Required Testing: ASTM D 3895 -- Standard Test Method for Oxidative Induction Time of Polyolefins by Differential Scanning Calorimetry

Custom Frequency: 1/200,000 lbs.

Custom Criteria: 140 Minutes

Product Code	Resin Lot Number	Test Results
HDT-060AE-BBB-B-W0	8200164	PASS
HDT-060AE-BBB-B-W0	8200160	PASS
HDT-060AE-BBB-B-W0	8200159	PASS
HDT-060AE-BBB-B-W0	8200169	PASS
HDT-060AE-BBB-B-W0	10B1201	PASS
HDT-060AE-BBB-B-W0	10B1200	PASS
HDT-060AE-BBB-B-W0	10C1034	PASS
HDT-060AE-BBB-B-W0	10C1148	PASS
HDT-060AE-BBB-B-W0	10C1151	PASS
HDT-060AE-BBB-B-W0	10C1149	PASS
HDT-060AE-BBB-B-W0	10C1214	PASS

Approved By:	Debra Gortemiller
Date Approved:	April 5, 2010

The above stated data shall not be reproduced except in full, without the written approval of the laboratory.

CoA Date: 02/15/2010

Certificate of Analysis

Shipped To: GSE LINING TECHNOLOGY INC.
19103 GUNDLE ROAD
WESTFIELD TX 77090
USA

Recipient: Phouangsavanh
Fax:

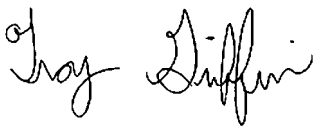
CPC Delivery #: 88005136
PO #: 03-061535
Weight: 194700 LB
Ship Date: 02/15/2010
Package: BULK
Mode: Hopper Car
Car #: CHVX896922
Seal No: 274514

Product:
MARLEX POLYETHYLENE K306 BULK

Lot Number: 8200164

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.1	g/10mi
HLMI Flow Rate	ASTM D1238	11.6	g/10mi
Density	D1505 or D4883	0.938	g/cm3
Production Date		02/12/2010	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP.
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.



Troy Griffin
Quality Systems Coordinator

For CoA questions contact Customer Service Representative at 800-231-1212

CoA Date: 02/15/2010

Certificate of Analysis

Shipped To: GSE LINING TECHNOLOGY INC.
19103 GUNDLE ROAD
WESTFIELD TX 77090
USA

Recipient: Phouangsavanh
Fax:

CPC Delivery #: 88005135
PO #: 03-061535
Weight: 190100 LB
Ship Date: 02/15/2010
Package: BULK
Mode: Hopper Car
Car #: NAHX610275
Seal No: 274522

Product:
MARLEX POLYETHYLENE K306 BULK

Lot Number: 8200160

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.1	g/10mi
HLMI Flow Rate	ASTM D1238	11.5	g/10mi
Density	D1505 or D4883	0.937	g/cm3
Production Date		02/11/2010	

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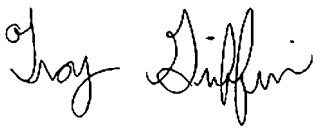

Troy Griffin
Quality Systems Coordinator

For CoA questions contact Customer Service Representative at 800-231-1212

Chevron Phillips Chemical Company LP

CoA Date: 02/15/2010

Certificate of Analysis

Shipped To: GSE LINING TECHNOLOGY INC.
19103 GUNDLE ROAD
WESTFIELD TX 77090
USA

Recipient: Phouangsavanh
Fax:

CPC Delivery #: 88005134
PO #: 03-061535
Weight: 189000 LB
Ship Date: 02/15/2010
Package: BULK
Mode: Hopper Car
Car #: CHVX889492
Seal No: 274519

Product:
MARLEX POLYETHYLENE K306 BULK

Lot Number: 8200159

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.1	g/10mi
MI Flow Rate	ASTM D1238	11.2	g/10mi
ensity	D1505 or D4883	0.937	g/cm3
Production Date		02/11/2010	

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Troy Griffin
Quality Systems Coordinator

For CoA questions contact Customer Service Representative at 800-231-1212

CoA Date: 02/27/2010

Certificate of Analysis

Shipped To: GSE LINING TECHNOLOGY INC.
19103 GUNDLE ROAD
WESTFIELD TX 77090
USA

Recipient: Phouangsavanh
Fax:

CPC Delivery #: 88012577
PO #: 03-061560
Weight: 185500 LB
Ship Date: 02/27/2010
Package: BULK
Mode: Hopper Car
Car #: GOCX058344
Seal No: 274161

Product:
MARLEX POLYETHYLENE K306 BULK

Lot Number: 8200169

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.1	g/10mi
HLMI Flow Rate	ASTM D1238	10.2	g/10mi
Density	D1505 or D4883	0.939	g/cm3
Production Date		02/12/2010	

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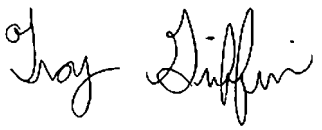

Troy Griffin
Quality Systems Coordinator

For CoA questions contact Customer Service Representative at 800-231-1212

Formosa Plastics®

FORMOSA PLASTICS CORPORATION, TEXAS
201 FORMOSA DRIVE PHONE:(888)FPCUSA3
PO BOX 700
POINT COMFORT TX 77978

Certificate of Analysis

CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR FPAX200752

S/O NO : EK2A320
CUSTOMER PO : 03-061317
DATE SHIPPED: 2/24/10
LOT NO : 10B1201
WEIGHT : 195,250.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.090
HLMI, g/10 min.	ASTM D1238	12.7
Density, g/cm3	ASTM D1505	.9384

QC SUPERVISOR: JESSE CHANG

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Certificate of Analysis

CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR FPAX201473

S/O NO : EK2A319
CUSTOMER PO : 03-061317
DATE SHIPPED: 2/24/10
LOT NO : 10B1200
WEIGHT : 195,700.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.090
HLMI, g/10 min.	ASTM D1238	11.6
Density, g/cm3	ASTM D1505	.9384

QC SUPERVISOR: JESSE CHANG

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CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR FPAX201418

S/O NO : EK3A005
CUSTOMER PO : 03-061557
DATE SHIPPED: 3/05/10
LOT NO : 10C1034
WEIGHT : 197,200.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.080
HLMI, g/10 min.	ASTM D1238	12.2
Density, g/cm3	ASTM D1505	.9377

QC SUPERVISOR: JESSE CHANG

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UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR FPAX950229

S/O NO : EK3A011
CUSTOMER PO : 03-061557
DATE SHIPPED: 3/19/10
LOT NO : 10C1148
WEIGHT : 181,950.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.080
HLMI, g/10 min.	ASTM D1238	11.2
Density, g/cm3	ASTM D1505	.9376

QC SUPERVISOR: JESSE CHANG

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Certificate of Analysis

CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR CEFX050674

S/O NO : EK3A013
CUSTOMER PO : 03-061557
DATE SHIPPED: 3/19/10
LOT NO : 10C1151
WEIGHT : 191,950.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.080
HLMI, g/10 min.	ASTM D1238	12.4
Density, g/cm3	ASTM D1505	.9387

QC SUPERVISOR: JESSE CHANG

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Certificate of Analysis

CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
RAILCAR CEFX050609

S/O NO : EK3A012
CUSTOMER PO : 03-061557
DATE SHIPPED: 3/19/10
LOT NO : 10C1149
WEIGHT : 191,550.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.080
HLMI, g/10 min.	ASTM D1238	10.7
Density, g/cm3	ASTM D1505	.9380

QC SUPERVISOR: JESSE CHANG

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Certificate of Analysis

CUSTOMER:GSE LINING TECHNOLOGY, INC.
UP TRACK 14732 WESTFIELD
HOUSTON TX 77070
PRODUCT :DF3812A
TRUCK 8949817

S/O NO : EK3A756
CUSTOMER PO : 03-061621
DATE SHIPPED: 4/01/10
LOT NO : 10C1214
WEIGHT : 46,320.00
CUSTID:FT03112 SPIDM4

TEST ITEM	REFERENCE METHOD	TEST VALUE
Melt Index,g/10min	ASTM D1238	.070
HLMI, g/10 min.	ASTM D1238	10.2
Density, g/cm3	ASTM D1505	.9379

QC SUPERVISOR: JESSE CHANG

GSE Roll Allocation

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131335690	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335691	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335692	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335693	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335694	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335695	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335696	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335697	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335698	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335699	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335700	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335701	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335702	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335703	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335704	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335705	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335706	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335707	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335708	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335709	C100110A02	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335710	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335711	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335712	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335713	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335714	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335715	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335716	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335717	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335718	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335719	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335720	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335721	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335722	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335723	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131335724	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335725	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335726	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335727	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335728	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335729	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335730	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335731	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335732	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335733	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335734	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335735	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335736	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335737	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335738	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335739	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335740	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335741	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335742	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335743	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335744	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335745	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335746	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335747	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335748	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335749	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335750	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335751	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	2/28/2010	170
131335752	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335753	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335754	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335757	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335758	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335759	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335760	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335761	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170

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131335762	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335763	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335768	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335769	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335770	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335771	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335772	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335773	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335774	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335775	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335776	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335777	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335778	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335779	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335780	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335785	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335786	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335787	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335788	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335789	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335790	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335791	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335792	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335793	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335794	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335795	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335796	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335797	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335798	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335799	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335800	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335801	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335802	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335803	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335804	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335805	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170

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131335806	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335807	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335808	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335809	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335810	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335811	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335812	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335813	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335814	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335815	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335816	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335817	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335818	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335819	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335820	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335821	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335822	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335823	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335824	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335825	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/1/2010	170
131335826	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335827	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335828	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335829	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335830	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335831	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335832	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335833	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335834	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335835	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335836	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335837	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335838	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335839	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335840	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335841	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170

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131335842	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335843	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335844	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335845	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335846	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335847	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335848	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335849	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335850	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335851	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335852	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335853	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335854	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335855	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	186
131335856	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335857	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335858	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335859	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335860	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335861	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335862	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335863	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335864	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335865	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335866	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335867	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335868	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335869	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335870	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335871	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335872	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335873	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335874	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335875	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335876	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335877	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170

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131335878	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335879	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335880	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335881	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335882	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335883	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335884	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335885	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335886	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335887	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335888	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335889	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335890	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335891	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335892	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335893	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335894	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335895	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335896	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335897	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335898	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335899	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335900	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335901	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335902	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335903	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335904	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335905	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335906	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335907	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335908	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335909	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335910	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335911	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335912	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335913	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170

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131335914	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335915	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335916	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335917	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335918	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335919	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335920	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335921	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335922	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335923	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335924	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335925	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335926	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335934	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/2/2010	170
131335935	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335936	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335937	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335938	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335939	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335940	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335941	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335942	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335943	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335944	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335945	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335946	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335947	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335948	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335949	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335950	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335951	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335952	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335953	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335954	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335955	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	140
131335956	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170

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131335957	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335958	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335959	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335960	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335961	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335962	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335963	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335964	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335965	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335966	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335967	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335968	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335969	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335970	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335971	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335972	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335973	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335974	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335975	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335976	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335977	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335978	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335979	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335980	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335981	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335982	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335983	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335984	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335985	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335986	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335987	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335988	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335989	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335990	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335991	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335992	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170

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131335993	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335994	CB20011504	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335995	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335996	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335997	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335998	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131335999	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336000	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336001	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336004	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336005	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336006	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336007	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336008	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336009	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336010	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336011	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336012	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336013	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336014	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336015	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336016	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336017	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336018	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336019	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336020	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336021	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336022	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336023	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336024	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336025	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336026	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336027	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336028	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336029	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336030	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170

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131336031	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336032	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336033	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336034	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336035	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336036	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336037	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336038	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336039	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336040	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336041	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336042	CB20011501	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/3/2010	170
131336798	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336799	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336800	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336801	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336802	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336803	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336804	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336805	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336806	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336807	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336808	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336809	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336810	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336811	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336812	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336813	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336814	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336815	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336816	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336817	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336818	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336819	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336820	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336821	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170

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131336822	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336823	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336824	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/12/2010	170
131336825	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336826	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336827	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336828	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336829	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336830	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336831	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336832	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336833	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336834	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336835	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336836	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336837	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336838	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336839	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336840	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336841	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336842	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336843	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336844	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336845	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336846	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336847	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336848	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336849	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336850	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336851	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336852	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336853	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336854	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336855	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336856	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336857	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170

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131336858	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336859	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336860	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336861	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336862	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336863	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336864	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336865	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336866	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336867	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336868	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336869	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336870	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336871	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336872	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336873	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336874	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336875	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336876	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336877	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336878	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336879	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336880	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336881	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336882	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336883	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336884	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336885	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336886	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336887	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336888	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336889	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336890	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336891	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336892	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336893	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170

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131336894	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336895	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336896	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336897	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336898	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336899	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336900	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336901	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336902	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336903	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336904	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336905	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336906	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336907	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336908	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336909	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336910	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336911	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336912	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336913	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/13/2010	170
131336914	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336915	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336916	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336917	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336918	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336919	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336920	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336921	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336922	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336923	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336924	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336925	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336926	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336927	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336928	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336929	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170

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131336930	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336931	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336932	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336933	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336934	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336935	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336936	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336937	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336938	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336939	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336940	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336949	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336950	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336951	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336952	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336953	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336954	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336955	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336956	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336957	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336958	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336959	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336960	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336961	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336962	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336963	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336964	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336965	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336966	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336967	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336968	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336969	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336970	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336971	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336972	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336973	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170

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131336974	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336975	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336976	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336977	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336978	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336979	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336980	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336981	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336982	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336983	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336984	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336985	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336986	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336987	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336988	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336989	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336990	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336991	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336992	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336993	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336994	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336995	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336996	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336997	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336998	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131336999	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/14/2010	170
131337001	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337002	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337003	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337004	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337005	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337006	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337007	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337008	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337009	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337010	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170

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Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131337011	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337012	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337013	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337014	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337015	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337016	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337023	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337024	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337025	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337026	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337027	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337028	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337029	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337030	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337031	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337032	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337033	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337034	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337035	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337036	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337037	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337038	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337039	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337040	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337041	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337042	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337043	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337044	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337045	CAA610252	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337046	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337047	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337057	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337058	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337059	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337060	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337061	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170

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Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131337062	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337063	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337064	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337074	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337075	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337076	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337077	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337078	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337079	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337080	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337081	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337082	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337083	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337084	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337085	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337086	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337087	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337088	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337089	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337090	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337097	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337098	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337099	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337100	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337101	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337102	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337103	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337104	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337105	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337109	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337110	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337111	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337112	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337113	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337114	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337115	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170

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131337116	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337117	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337118	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337119	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337120	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337121	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337122	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337123	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337124	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337125	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337126	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337127	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337128	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337129	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337130	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337131	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337132	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337133	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337134	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337135	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337136	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337137	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337138	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337139	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337140	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337141	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337142	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337143	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337144	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337145	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337146	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337147	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337148	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337149	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337150	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337151	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170

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131337152	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/15/2010	170
131337153	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	158
131337157	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337158	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337159	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337160	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337161	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337162	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337163	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337164	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337165	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337166	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337167	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337168	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337169	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337170	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337171	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337172	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337173	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337174	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337175	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337176	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337177	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337178	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337179	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337180	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337181	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337182	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337183	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337184	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337185	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337187	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337188	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337189	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337190	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337191	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170

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131337192	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337193	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337194	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337195	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337196	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337197	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337198	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337199	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337200	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337201	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337202	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337203	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337204	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337205	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337206	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337207	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337208	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337209	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337210	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337211	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337212	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337213	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337214	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337215	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337216	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337217	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337218	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337219	CAA610251	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/16/2010	170
131337590	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337591	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337592	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337593	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337594	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337595	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337596	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337597	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131337598	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337599	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337600	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337601	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337602	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337603	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170
131337604	CAB610840	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	3/21/2010	170

GSE Roll Allocation

Order 62151
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Resin Lot*	*Product Code*	*Description*	*Mfg. Date*	*Length*
131347460	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347461	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347462	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347463	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347464	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347465	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347466	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347467	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347468	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347469	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347470	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180
131347471	CB10061602	FS2-300E-06-08-E-00	FS2-300E-06-08-E-00	7/24/2010	180

GSE

Geocomposite Traceability

Customer West Pasco County
Location Springhill, FL

Job Name West Pasco County Ash
Order 61162

Roll_No	*Product*	*Resin Lot*	*Top Geo*	*Bottom Geo*
131335690	FS2-300E-06-08-E-00	C100110A02	130357335	130357171
131335691	FS2-300E-06-08-E-00	C100110A02	130357335	130357171
131335692	FS2-300E-06-08-E-00	C100110A02	130357335	130357171
131335693	FS2-300E-06-08-E-00	C100110A02	130357335	130357171
131335694	FS2-300E-06-08-E-00	C100110A02	130357335	130357171
131335695	FS2-300E-06-08-E-00	C100110A02	130357335	130357168
131335696	FS2-300E-06-08-E-00	C100110A02	130357335	130357168
131335697	FS2-300E-06-08-E-00	C100110A02	130357335	130357168
131335698	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335699	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335700	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335701	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335702	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335703	FS2-300E-06-08-E-00	C100110A02	130357324	130357168
131335704	FS2-300E-06-08-E-00	C100110A02	130357324	130357170
131335705	FS2-300E-06-08-E-00	C100110A02	130357324	130357170
131335706	FS2-300E-06-08-E-00	C100110A02	130357324	130357170
131335707	FS2-300E-06-08-E-00	C100110A02	130357336	130357170
131335708	FS2-300E-06-08-E-00	C100110A02	130357336	130357170
131335709	FS2-300E-06-08-E-00	C100110A02	130357336	130357170
131335710	FS2-300E-06-08-E-00	CB20011504	130357336	130357170
131335711	FS2-300E-06-08-E-00	CB20011504	130357336	130357170
131335712	FS2-300E-06-08-E-00	CB20011504	130357336	130357148
131335713	FS2-300E-06-08-E-00	CB20011504	130357336	130357148
131335714	FS2-300E-06-08-E-00	CB20011504	130357336	130357148
131335715	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335716	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335717	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335718	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335719	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335720	FS2-300E-06-08-E-00	CB20011504	130357339	130357148
131335721	FS2-300E-06-08-E-00	CB20011504	130357339	130357159
131335722	FS2-300E-06-08-E-00	CB20011504	130357339	130357159
131335723	FS2-300E-06-08-E-00	CB20011504	130357339	130357159

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335724	FS2-300E-06-08-E-00	CB20011504	130357340	130357159
131335725	FS2-300E-06-08-E-00	CB20011504	130357340	130357159
131335726	FS2-300E-06-08-E-00	CB20011504	130357340	130357159
131335727	FS2-300E-06-08-E-00	CB20011504	130357340	130357159
131335728	FS2-300E-06-08-E-00	CB20011504	130357340	130357159
131335729	FS2-300E-06-08-E-00	CB20011504	130357340	130357138
131335730	FS2-300E-06-08-E-00	CB20011504	130357340	130357138
131335731	FS2-300E-06-08-E-00	CB20011504	130357340	130357138
131335732	FS2-300E-06-08-E-00	CB20011504	130357492	130357138
131335733	FS2-300E-06-08-E-00	CB20011504	130357492	130357138
131335734	FS2-300E-06-08-E-00	CB20011504	130357492	130357138
131335735	FS2-300E-06-08-E-00	CB20011504	130357492	130357138
131335736	FS2-300E-06-08-E-00	CB20011504	130357492	130357138
131335737	FS2-300E-06-08-E-00	CB20011504	130357492	130357139
131335738	FS2-300E-06-08-E-00	CB20011504	130357492	130357139
131335739	FS2-300E-06-08-E-00	CB20011504	130357492	130357139
131335740	FS2-300E-06-08-E-00	CB20011504	130357492	130357139
131335741	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335742	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335743	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335744	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335745	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335746	FS2-300E-06-08-E-00	CB20011504	130357441	130357139
131335747	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335748	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335749	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335750	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335751	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335752	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335753	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335754	FS2-300E-06-08-E-00	CB20011504	130357487	130357137
131335757	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335758	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335759	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335760	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335761	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335762	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335763	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335768	FS2-300E-06-08-E-00	CB20011504	130357325	130357158
131335769	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335770	FS2-300E-06-08-E-00	CB20011504	130357486	130357135

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335771	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335772	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335773	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335774	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335775	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335776	FS2-300E-06-08-E-00	CB20011504	130357486	130357135
131335777	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335778	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335779	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335780	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335785	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335786	FS2-300E-06-08-E-00	CB20011504	130357462	130357186
131335787	FS2-300E-06-08-E-00	CB20011504	130357488	130357186
131335788	FS2-300E-06-08-E-00	CB20011504	130357488	130357186
131335789	FS2-300E-06-08-E-00	CB20011504	130357488	130357186
131335790	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335791	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335792	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335793	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335794	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335795	FS2-300E-06-08-E-00	CB20011504	130357488	130357129
131335796	FS2-300E-06-08-E-00	CB20011504	130357483	130357129
131335797	FS2-300E-06-08-E-00	CB20011504	130357483	130357129
131335798	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335799	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335800	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335801	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335802	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335803	FS2-300E-06-08-E-00	CB20011504	130357483	130357136
131335804	FS2-300E-06-08-E-00	CB20011504	130357391	130357136
131335805	FS2-300E-06-08-E-00	CB20011504	130357391	130357136
131335806	FS2-300E-06-08-E-00	CB20011504	130357391	130357136
131335807	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335808	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335809	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335810	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335811	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335812	FS2-300E-06-08-E-00	CB20011504	130357391	130359087
131335813	FS2-300E-06-08-E-00	CB20011504	130357466	130359087
131335814	FS2-300E-06-08-E-00	CB20011504	130357466	130359087
131335815	FS2-300E-06-08-E-00	CB20011504	130357466	130359089

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335816	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335817	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335818	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335819	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335820	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335821	FS2-300E-06-08-E-00	CB20011504	130357466	130359089
131335822	FS2-300E-06-08-E-00	CB20011504	130357473	130359089
131335823	FS2-300E-06-08-E-00	CB20011504	130357473	130359089
131335824	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335825	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335826	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335827	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335828	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335829	FS2-300E-06-08-E-00	CB20011504	130357473	130359088
131335830	FS2-300E-06-08-E-00	CB20011504	130357472	130359088
131335831	FS2-300E-06-08-E-00	CB20011504	130357472	130359088
131335832	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335833	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335834	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335835	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335836	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335837	FS2-300E-06-08-E-00	CB20011504	130357472	130357235
131335838	FS2-300E-06-08-E-00	CB20011504	130357460	130357235
131335839	FS2-300E-06-08-E-00	CB20011504	130357460	130357235
131335840	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335841	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335842	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335843	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335844	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335845	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335846	FS2-300E-06-08-E-00	CB20011504	130357460	130357237
131335847	FS2-300E-06-08-E-00	CB20011504	130355324	130357237
131335848	FS2-300E-06-08-E-00	CB20011504	130355324	130357237
131335849	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335850	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335851	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335852	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335853	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335854	FS2-300E-06-08-E-00	CB20011504	130355324	130358906
131335855	FS2-300E-06-08-E-00	CB20011504	130357463	130358906
131335856	FS2-300E-06-08-E-00	CB20011504	130357463	130358906

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335857	FS2-300E-06-08-E-00	CB20011504	130357463	130357228
131335858	FS2-300E-06-08-E-00	CB20011504	130357463	130357228
131335859	FS2-300E-06-08-E-00	CB20011504	130357463	130357228
131335860	FS2-300E-06-08-E-00	CB20011504	130357463	130357228
131335861	FS2-300E-06-08-E-00	CB20011504	130357463	130357228
131335862	FS2-300E-06-08-E-00	CB20011504	130357443	130357228
131335863	FS2-300E-06-08-E-00	CB20011504	130357443	130357228
131335864	FS2-300E-06-08-E-00	CB20011504	130357443	130357228
131335865	FS2-300E-06-08-E-00	CB20011504	130357443	130357228
131335866	FS2-300E-06-08-E-00	CB20011504	130357443	130357231
131335867	FS2-300E-06-08-E-00	CB20011504	130357443	130357231
131335868	FS2-300E-06-08-E-00	CB20011504	130357443	130357231
131335869	FS2-300E-06-08-E-00	CB20011504	130357443	130357231
131335870	FS2-300E-06-08-E-00	CB20011504	130357443	130357231
131335871	FS2-300E-06-08-E-00	CB20011504	130355321	130357231
131335872	FS2-300E-06-08-E-00	CB20011504	130355321	130357231
131335873	FS2-300E-06-08-E-00	CB20011504	130355321	130357231
131335874	FS2-300E-06-08-E-00	CB20011504	130355321	130357231
131335875	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335876	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335877	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335878	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335879	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335880	FS2-300E-06-08-E-00	CB20011504	130355321	130357232
131335881	FS2-300E-06-08-E-00	CB20011504	130335325	130357232
131335882	FS2-300E-06-08-E-00	CB20011504	130335325	130357232
131335883	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335884	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335885	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335886	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335887	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335888	FS2-300E-06-08-E-00	CB20011504	130335325	130357230
131335889	FS2-300E-06-08-E-00	CB20011504	130335322	130357230
131335890	FS2-300E-06-08-E-00	CB20011504	130335322	130357230
131335891	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335892	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335893	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335894	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335895	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335896	FS2-300E-06-08-E-00	CB20011504	130335322	130357233
131335897	FS2-300E-06-08-E-00	CB20011504	130357442	130357233

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335898	FS2-300E-06-08-E-00	CB20011504	130357442	130357233
131335899	FS2-300E-06-08-E-00	CB20011504	130357442	130357233
131335900	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335901	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335902	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335903	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335904	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335905	FS2-300E-06-08-E-00	CB20011504	130357442	130357132
131335906	FS2-300E-06-08-E-00	CB20011504	130357489	130357132
131335907	FS2-300E-06-08-E-00	CB20011504	130357489	130357132
131335908	FS2-300E-06-08-E-00	CB20011504	130357489	130357132
131335909	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335910	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335911	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335912	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335913	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335914	FS2-300E-06-08-E-00	CB20011504	130357489	130359091
131335915	FS2-300E-06-08-E-00	CB20011504	130357490	130359091
131335916	FS2-300E-06-08-E-00	CB20011504	130357490	130359091
131335917	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335918	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335919	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335920	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335921	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335922	FS2-300E-06-08-E-00	CB20011504	130357490	130357257
131335923	FS2-300E-06-08-E-00	CB20011504	130357459	130357257
131335924	FS2-300E-06-08-E-00	CB20011504	130357459	130357257
131335925	FS2-300E-06-08-E-00	CB20011504	130357459	130357257
131335926	FS2-300E-06-08-E-00	CB20011504	130357459	130359092
131335934	FS2-300E-06-08-E-00	CB20011504	130357459	130359092
131335935	FS2-300E-06-08-E-00	CB20011504	130357459	130359092
131335936	FS2-300E-06-08-E-00	CB20011504	130355320	130359092
131335937	FS2-300E-06-08-E-00	CB20011504	130355320	130359092
131335938	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335939	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335940	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335941	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335942	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335943	FS2-300E-06-08-E-00	CB20011504	130355320	130357133
131335944	FS2-300E-06-08-E-00	CB20011504	130355315	130357133
131335945	FS2-300E-06-08-E-00	CB20011504	130355315	130357133

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335946	FS2-300E-06-08-E-00	CB20011504	130355315	130357133
131335947	FS2-300E-06-08-E-00	CB20011504	130355315	130357241
131335948	FS2-300E-06-08-E-00	CB20011504	130355315	130357241
131335949	FS2-300E-06-08-E-00	CB20011504	130355315	130357241
131335950	FS2-300E-06-08-E-00	CB20011504	130355315	130357241
131335951	FS2-300E-06-08-E-00	CB20011504	130355315	130357241
131335952	FS2-300E-06-08-E-00	CB20011504	130357455	130357241
131335953	FS2-300E-06-08-E-00	CB20011504	130357455	130357241
131335954	FS2-300E-06-08-E-00	CB20011504	130357455	130357241
131335955	FS2-300E-06-08-E-00	CB20011504	130357455	130357229
131335956	FS2-300E-06-08-E-00	CB20011504	130357455	130357229
131335957	FS2-300E-06-08-E-00	CB20011504	130357455	130357229
131335958	FS2-300E-06-08-E-00	CB20011504	130357455	130357229
131335959	FS2-300E-06-08-E-00	CB20011504	130357455	130357229
131335960	FS2-300E-06-08-E-00	CB20011504	130355319	130357229
131335961	FS2-300E-06-08-E-00	CB20011504	130355319	130357229
131335962	FS2-300E-06-08-E-00	CB20011504	130355319	130357229
131335963	FS2-300E-06-08-E-00	CB20011504	130355319	130357229
131335964	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335965	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335966	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335967	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335968	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335969	FS2-300E-06-08-E-00	CB20011504	130355319	130359076
131335970	FS2-300E-06-08-E-00	CB20011504	130355316	130359076
131335971	FS2-300E-06-08-E-00	CB20011504	130355316	130359076
131335972	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335973	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335974	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335975	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335976	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335977	FS2-300E-06-08-E-00	CB20011504	130355316	130358915
131335978	FS2-300E-06-08-E-00	CB20011504	130357458	130358915
131335979	FS2-300E-06-08-E-00	CB20011504	130357458	130358915
131335980	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335981	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335982	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335983	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335984	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335985	FS2-300E-06-08-E-00	CB20011504	130357458	130359090
131335986	FS2-300E-06-08-E-00	CB20011504	130357458	130359090

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131335987	FS2-300E-06-08-E-00	CB20011504	130357479	130359090
131335988	FS2-300E-06-08-E-00	CB20011504	130357479	130359090
131335989	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335990	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335991	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335992	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335993	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335994	FS2-300E-06-08-E-00	CB20011504	130357479	130358916
131335995	FS2-300E-06-08-E-00	CB20011501	130357457	130358916
131335996	FS2-300E-06-08-E-00	CB20011501	130357457	130358916
131335997	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131335998	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131335999	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131336000	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131336001	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131336004	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131336005	FS2-300E-06-08-E-00	CB20011501	130357457	130359075
131336006	FS2-300E-06-08-E-00	CB20011501	130357485	130359075
131336007	FS2-300E-06-08-E-00	CB20011501	130357485	130359075
131336008	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336009	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336010	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336011	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336012	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336013	FS2-300E-06-08-E-00	CB20011501	130357485	130357262
131336014	FS2-300E-06-08-E-00	CB20011501	130357484	130357262
131336015	FS2-300E-06-08-E-00	CB20011501	130357484	130357262
131336016	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336017	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336018	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336019	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336020	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336021	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336022	FS2-300E-06-08-E-00	CB20011501	130357484	130357253
131336023	FS2-300E-06-08-E-00	CB20011501	130357456	130357253
131336024	FS2-300E-06-08-E-00	CB20011501	130357456	130357253
131336025	FS2-300E-06-08-E-00	CB20011501	130357456	130357260
131336026	FS2-300E-06-08-E-00	CB20011501	130357456	130357260
131336027	FS2-300E-06-08-E-00	CB20011501	130357456	130357260
131336028	FS2-300E-06-08-E-00	CB20011501	130357456	130357260
131336029	FS2-300E-06-08-E-00	CB20011501	130357456	130357260

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336030	FS2-300E-06-08-E-00	CB20011501	130357456	130357260
131336031	FS2-300E-06-08-E-00	CB20011501	130357461	130357260
131336032	FS2-300E-06-08-E-00	CB20011501	130357461	130357260
131336033	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336034	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336035	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336036	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336037	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336038	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336039	FS2-300E-06-08-E-00	CB20011501	130357461	130357247
131336040	FS2-300E-06-08-E-00	CB20011501	130357444	130357247
131336041	FS2-300E-06-08-E-00	CB20011501	130357444	130357247
131336042	FS2-300E-06-08-E-00	CB20011501	130357444	130359073
131336798	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336799	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336800	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336801	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336802	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336803	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336804	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336805	FS2-300E-06-08-E-00	CAA610252	130357331	130354379
131336806	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336807	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336808	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336809	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336810	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336811	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336812	FS2-300E-06-08-E-00	CAA610252	130357330	130357254
131336813	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336814	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336815	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336816	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336817	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336818	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336819	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336820	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336821	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336822	FS2-300E-06-08-E-00	CAA610252	130357338	130357263
131336823	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336824	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336825	FS2-300E-06-08-E-00	CAA610252	130357354	130357275

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336826	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336827	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336828	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336829	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336830	FS2-300E-06-08-E-00	CAA610252	130357354	130357275
131336831	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336832	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336833	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336834	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336835	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336836	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336837	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336838	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336839	FS2-300E-06-08-E-00	CAA610252	130357334	130357261
131336840	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336841	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336842	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336843	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336844	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336845	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336846	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336847	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336848	FS2-300E-06-08-E-00	CAA610252	130357318	130357274
131336849	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336850	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336851	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336852	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336853	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336854	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336855	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336856	FS2-300E-06-08-E-00	CAA610252	130357326	130357227
131336857	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336858	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336859	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336860	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336861	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336862	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336863	FS2-300E-06-08-E-00	CAA610252	130355310	130357239
131336864	FS2-300E-06-08-E-00	CAA610252	130355310	130357226
131336865	FS2-300E-06-08-E-00	CAA610252	130355310	130357226
131336866	FS2-300E-06-08-E-00	CAA610252	130357446	130357226

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336867	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336868	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336869	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336870	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336871	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336872	FS2-300E-06-08-E-00	CAA610252	130357446	130357226
131336873	FS2-300E-06-08-E-00	CAA610252	130357446	130357240
131336874	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336875	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336876	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336877	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336878	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336879	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336880	FS2-300E-06-08-E-00	CAA610252	130357355	130357240
131336881	FS2-300E-06-08-E-00	CAA610252	130357355	130357272
131336882	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336883	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336884	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336885	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336886	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336887	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336888	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336889	FS2-300E-06-08-E-00	CAA610252	130357453	130357272
131336890	FS2-300E-06-08-E-00	CAA610252	130357453	130357256
131336891	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336892	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336893	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336894	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336895	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336896	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336897	FS2-300E-06-08-E-00	CAA610252	130357447	130357256
131336898	FS2-300E-06-08-E-00	CAA610252	130357447	130357242
131336899	FS2-300E-06-08-E-00	CAA610252	130357447	130357242
131336900	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336901	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336902	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336903	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336904	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336905	FS2-300E-06-08-E-00	CAA610252	130357480	130357242
131336906	FS2-300E-06-08-E-00	CAA610252	130357480	130357218
131336907	FS2-300E-06-08-E-00	CAA610252	130357480	130357218

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336908	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336909	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336910	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336911	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336912	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336913	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336914	FS2-300E-06-08-E-00	CAA610252	130357481	130357218
131336915	FS2-300E-06-08-E-00	CAA610252	130357481	130357273
131336916	FS2-300E-06-08-E-00	CAA610252	130357481	130357273
131336917	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336918	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336919	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336920	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336921	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336922	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336923	FS2-300E-06-08-E-00	CAA610252	130357347	130357273
131336924	FS2-300E-06-08-E-00	CAA610252	130357347	130357243
131336925	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336926	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336927	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336928	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336929	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336930	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336931	FS2-300E-06-08-E-00	CAA610252	130357470	130357243
131336932	FS2-300E-06-08-E-00	CAA610252	130357470	130354398
131336933	FS2-300E-06-08-E-00	CAA610252	130357470	130354398
131336934	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336935	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336936	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336937	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336938	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336939	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336940	FS2-300E-06-08-E-00	CAA610252	130357476	130354398
131336949	FS2-300E-06-08-E-00	CAA610252	130355308	130357244
131336950	FS2-300E-06-08-E-00	CAA610252	130355308	130357244
131336951	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336952	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336953	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336954	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336955	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336956	FS2-300E-06-08-E-00	CAA610252	130355323	130357244

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336957	FS2-300E-06-08-E-00	CAA610252	130355323	130357244
131336958	FS2-300E-06-08-E-00	CAA610252	130355323	130357252
131336959	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336960	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336961	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336962	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336963	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336964	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336965	FS2-300E-06-08-E-00	CAA610252	130355307	130357252
131336966	FS2-300E-06-08-E-00	CAA610252	130355307	130354491
131336967	FS2-300E-06-08-E-00	CAA610252	130355307	130354491
131336968	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336969	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336970	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336971	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336972	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336973	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336974	FS2-300E-06-08-E-00	CAA610252	130355309	130354491
131336975	FS2-300E-06-08-E-00	CAA610252	130355309	130354396
131336976	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336977	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336978	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336979	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336980	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336981	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336982	FS2-300E-06-08-E-00	CAA610252	130357448	130354396
131336983	FS2-300E-06-08-E-00	CAA610252	130357448	130354476
131336984	FS2-300E-06-08-E-00	CAA610252	130357448	130354476
131336985	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336986	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336987	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336988	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336989	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336990	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336991	FS2-300E-06-08-E-00	CAA610252	130357475	130354476
131336992	FS2-300E-06-08-E-00	CAA610252	130357475	130357225
131336993	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131336994	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131336995	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131336996	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131336997	FS2-300E-06-08-E-00	CAA610252	130357348	130357225

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131336998	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131336999	FS2-300E-06-08-E-00	CAA610252	130357348	130357225
131337001	FS2-300E-06-08-E-00	CAA610252	130357348	130357258
131337002	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337003	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337004	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337005	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337006	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337007	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337008	FS2-300E-06-08-E-00	CAA610252	130357474	130357258
131337009	FS2-300E-06-08-E-00	CAA610252	130357474	130354486
131337010	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337011	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337012	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337013	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337014	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337015	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337016	FS2-300E-06-08-E-00	CAA610252	130357471	130354486
131337023	FS2-300E-06-08-E-00	CAA610252	130357471	130354397
131337024	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337025	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337026	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337027	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337028	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337029	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337030	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337031	FS2-300E-06-08-E-00	CAA610252	130357451	130354397
131337032	FS2-300E-06-08-E-00	CAA610252	130357451	130354376
131337033	FS2-300E-06-08-E-00	CAA610252	130357451	130354376
131337034	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337035	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337036	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337037	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337038	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337039	FS2-300E-06-08-E-00	CAA610252	130357454	130354376
131337040	FS2-300E-06-08-E-00	CAA610252	130357454	130354381
131337041	FS2-300E-06-08-E-00	CAA610252	130357454	130354381
131337042	FS2-300E-06-08-E-00	CAA610252	130357468	130354381
131337043	FS2-300E-06-08-E-00	CAA610252	130357468	130354381
131337044	FS2-300E-06-08-E-00	CAA610252	130357468	130354381
131337045	FS2-300E-06-08-E-00	CAA610252	130357468	130354381

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131337046	FS2-300E-06-08-E-00	CAA610251	130357468	130354381
131337047	FS2-300E-06-08-E-00	CAA610251	130357468	130354381
131337057	FS2-300E-06-08-E-00	CAA610251	130357452	130354374
131337058	FS2-300E-06-08-E-00	CAA610251	130357452	130354374
131337059	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337060	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337061	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337062	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337063	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337064	FS2-300E-06-08-E-00	CAA610251	130357478	130354374
131337074	FS2-300E-06-08-E-00	CAA610251	130357449	130354375
131337075	FS2-300E-06-08-E-00	CAA610251	130357449	130354375
131337076	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337077	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337078	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337079	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337080	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337081	FS2-300E-06-08-E-00	CAA610251	130357430	130354375
131337082	FS2-300E-06-08-E-00	CAA610251	130357430	130357245
131337083	FS2-300E-06-08-E-00	CAA610251	130357430	130357245
131337084	FS2-300E-06-08-E-00	CAA610251	130357430	130357245
131337085	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337086	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337087	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337088	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337089	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337090	FS2-300E-06-08-E-00	CAA610251	130357469	130357245
131337097	FS2-300E-06-08-E-00	CAA610251	130357467	130357246
131337098	FS2-300E-06-08-E-00	CAA610251	130357467	130357246
131337099	FS2-300E-06-08-E-00	CAA610251	130357467	130357246
131337100	FS2-300E-06-08-E-00	CAA610251	130357467	130357246
131337101	FS2-300E-06-08-E-00	CAA610251	130357467	130357246
131337102	FS2-300E-06-08-E-00	CAA610251	130357465	130357246
131337103	FS2-300E-06-08-E-00	CAA610251	130357465	130357246
131337104	FS2-300E-06-08-E-00	CAA610251	130357465	130357246
131337105	FS2-300E-06-08-E-00	CAA610251	130357465	130357246
131337109	FS2-300E-06-08-E-00	CAA610251	130357465	130357246
131337110	FS2-300E-06-08-E-00	CAA610251	130357465	130354391
131337111	FS2-300E-06-08-E-00	CAA610251	130357465	130354391
131337112	FS2-300E-06-08-E-00	CAA610251	130357465	130354391
131337113	FS2-300E-06-08-E-00	CAA610251	130357465	130354391

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131337114	FS2-300E-06-08-E-00	CAA610251	130357356	130354391
131337115	FS2-300E-06-08-E-00	CAA610251	130357356	130354391
131337116	FS2-300E-06-08-E-00	CAA610251	130357356	130354391
131337117	FS2-300E-06-08-E-00	CAA610251	130357356	130354391
131337118	FS2-300E-06-08-E-00	CAA610251	130357356	130354391
131337119	FS2-300E-06-08-E-00	CAA610251	130357356	130354377
131337120	FS2-300E-06-08-E-00	CAA610251	130357356	130354377
131337121	FS2-300E-06-08-E-00	CAA610251	130357356	130354377
131337122	FS2-300E-06-08-E-00	CAA610251	130357328	130354377
131337123	FS2-300E-06-08-E-00	CAA610251	130357328	130354377
131337124	FS2-300E-06-08-E-00	CAA610251	130357328	130354377
131337125	FS2-300E-06-08-E-00	CAA610251	130357328	130354377
131337126	FS2-300E-06-08-E-00	CAA610251	130357328	130354377
131337127	FS2-300E-06-08-E-00	CAA610251	130357328	130354390
131337128	FS2-300E-06-08-E-00	CAA610251	130357328	130354390
131337129	FS2-300E-06-08-E-00	CAA610251	130357328	130354390
131337130	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337131	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337132	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337133	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337134	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337135	FS2-300E-06-08-E-00	CAA610251	130357464	130354390
131337136	FS2-300E-06-08-E-00	CAA610251	130357464	130359078
131337137	FS2-300E-06-08-E-00	CAA610251	130357464	130359078
131337138	FS2-300E-06-08-E-00	CAA610251	130357464	130359078
131337139	FS2-300E-06-08-E-00	CAA610251	130357333	130359078
131337140	FS2-300E-06-08-E-00	CAA610251	130357333	130359078
131337141	FS2-300E-06-08-E-00	CAA610251	130357333	130359078
131337142	FS2-300E-06-08-E-00	CAA610251	130357333	130359078
131337143	FS2-300E-06-08-E-00	CAA610251	130357333	130359078
131337144	FS2-300E-06-08-E-00	CAA610251	130357333	130358896
131337145	FS2-300E-06-08-E-00	CAA610251	130357333	130358896
131337146	FS2-300E-06-08-E-00	CAA610251	130357333	130358896
131337147	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337148	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337149	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337150	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337151	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337152	FS2-300E-06-08-E-00	CAA610251	130357344	130358896
131337153	FS2-300E-06-08-E-00	CAA610251	130357344	130358914
131337157	FS2-300E-06-08-E-00	CAA610251	130357344	130358914

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131337158	FS2-300E-06-08-E-00	CAA610251	130357344	130358914
131337159	FS2-300E-06-08-E-00	CAA610251	130357357	130358914
131337160	FS2-300E-06-08-E-00	CAA610251	130357357	130358914
131337161	FS2-300E-06-08-E-00	CAA610251	130357357	130358914
131337162	FS2-300E-06-08-E-00	CAA610251	130357357	130358899
131337163	FS2-300E-06-08-E-00	CAA610251	130357357	130358899
131337164	FS2-300E-06-08-E-00	CAA610251	130357357	130358899
131337165	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337166	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337167	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337168	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337169	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337170	FS2-300E-06-08-E-00	CAA610251	130357337	130358899
131337171	FS2-300E-06-08-E-00	CAA610251	130357337	130359093
131337172	FS2-300E-06-08-E-00	CAA610251	130357337	130359093
131337173	FS2-300E-06-08-E-00	CAA610251	130357337	130359093
131337174	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337175	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337176	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337177	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337178	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337179	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337180	FS2-300E-06-08-E-00	CAA610251	130357332	130359093
131337181	FS2-300E-06-08-E-00	CAA610251	130357332	130358913
131337182	FS2-300E-06-08-E-00	CAA610251	130357332	130358913
131337183	FS2-300E-06-08-E-00	CAA610251	130357353	130358913
131337184	FS2-300E-06-08-E-00	CAA610251	130357353	130358913
131337185	FS2-300E-06-08-E-00	CAA610251	130357353	130358913
131337187	FS2-300E-06-08-E-00	CAA610251	130357353	130358913
131337188	FS2-300E-06-08-E-00	CAA610251	130357353	130358907
131337189	FS2-300E-06-08-E-00	CAA610251	130357353	130358907
131337190	FS2-300E-06-08-E-00	CAA610251	130357353	130358907
131337191	FS2-300E-06-08-E-00	CAA610251	130357346	130358907
131337192	FS2-300E-06-08-E-00	CAA610251	130357346	130358907
131337193	FS2-300E-06-08-E-00	CAA610251	130357346	130358907
131337194	FS2-300E-06-08-E-00	CAA610251	130357346	130358907
131337195	FS2-300E-06-08-E-00	CAA610251	130357346	130358890
131337196	FS2-300E-06-08-E-00	CAA610251	130357346	130358890
131337197	FS2-300E-06-08-E-00	CAA610251	130357346	130358890
131337198	FS2-300E-06-08-E-00	CAA610251	130357346	130358890
131337199	FS2-300E-06-08-E-00	CAA610251	130357346	130358890

Roll_No	Product	Resin Lot	Top Geo	Bottom Geo
131337200	FS2-300E-06-08-E-00	CAA610251	130357346	130358890
131337201	FS2-300E-06-08-E-00	CAA610251	130357329	130358890
131337202	FS2-300E-06-08-E-00	CAA610251	130357329	130358890
131337203	FS2-300E-06-08-E-00	CAA610251	130357329	130358890
131337204	FS2-300E-06-08-E-00	CAA610251	130357329	130358890
131337205	FS2-300E-06-08-E-00	CAA610251	130357329	130358895
131337206	FS2-300E-06-08-E-00	CAA610251	130357329	130358895
131337207	FS2-300E-06-08-E-00	CAA610251	130357329	130358895
131337208	FS2-300E-06-08-E-00	CAA610251	130357329	130358895
131337209	FS2-300E-06-08-E-00	CAA610251	130357342	130358895
131337210	FS2-300E-06-08-E-00	CAA610251	130357342	130358895
131337211	FS2-300E-06-08-E-00	CAA610251	130357342	130358895
131337212	FS2-300E-06-08-E-00	CAA610251	130357342	130358895
131337213	FS2-300E-06-08-E-00	CAA610251	130357342	130358895
131337214	FS2-300E-06-08-E-00	CAA610251	130357342	130358893
131337215	FS2-300E-06-08-E-00	CAA610251	130357342	130358893
131337216	FS2-300E-06-08-E-00	CAA610251	130357342	130358893
131337217	FS2-300E-06-08-E-00	CAA610251	130357358	130358893
131337218	FS2-300E-06-08-E-00	CAA610251	130357358	130358893
131337219	FS2-300E-06-08-E-00	CAA610251	130357358	130358893
131337590	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337591	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337592	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337593	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337594	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337595	FS2-300E-06-08-E-00	CAB610840	130355318	130359073
131337596	FS2-300E-06-08-E-00	CAB610840	130355318	130354389
131337597	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337598	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337599	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337600	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337601	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337602	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337603	FS2-300E-06-08-E-00	CAB610840	130355317	130354389
131337604	FS2-300E-06-08-E-00	CAB610840	130355317	130354389

GSE

Geocomposite Traceability

Customer West Pasco County
Location Springhill, FL

Job Name West Pasco County Ash
Order 62151

Roll_No	*Product*	*Resin Lot*	*Top Geo*	*Bottom Geo*
131347460	FS2-300E-06-08-E-00	CB10061602	130355248	130364498
131347461	FS2-300E-06-08-E-00	CB10061602	130355248	130364498
131347462	FS2-300E-06-08-E-00	CB10061602	130355248	130364498
131347463	FS2-300E-06-08-E-00	CB10061602	130355248	130364498
131347464	FS2-300E-06-08-E-00	CB10061602	130355289	130364498
131347465	FS2-300E-06-08-E-00	CB10061602	130355289	130364498
131347466	FS2-300E-06-08-E-00	CB10061602	130355289	130364498
131347467	FS2-300E-06-08-E-00	CB10061602	130355287	130364517
131347468	FS2-300E-06-08-E-00	CB10061602	130355287	130364517
131347469	FS2-300E-06-08-E-00	CB10061602	130355287	130364517
131347470	FS2-300E-06-08-E-00	CB10061602	130355287	130364517
131347471	FS2-300E-06-08-E-00	CB10061602	130355287	130364517

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335690	313	117	2.2	0.963	3.13	2.26
131335691	313	117	2.2	0.963	3.13	2.26
131335692	313	117	2.2	0.963	3.13	2.26
131335693	313	117	2.2	0.963	3.13	2.26
131335694	313	117	2.2	0.963	3.13	2.26
131335695	313	117	2.2	0.963	3.13	2.26
131335696	313	117	2.2	0.963	3.13	2.26
131335697	313	117	2.2	0.963	3.13	2.26
131335698	313	117	2.2	0.963	3.13	2.26
131335699	313	117	2.2	0.963	2.66	2.26
131335700	313	117	2.2	0.963	3.13	2.26
131335701	313	117	2.2	0.963	3.14	2.26
131335702	306	98	2.2	0.963	2.79	2.21
131335703	306	98	2.2	0.963	2.79	2.21
131335704	306	98	2.2	0.963	2.79	2.21
131335705	306	98	2.2	0.963	2.79	2.21
131335706	306	98	2.2	0.963	2.79	2.21
131335707	306	98	2.2	0.963	2.79	2.21
131335708	306	98	2.2	0.963	2.79	2.21
131335709	306	98	2.2	0.963	2.79	2.21
131335710	306	98	2.2	0.963	2.79	2.21
131335711	306	98	2.2	0.963	2.79	2.21
131335712	306	98	2.2	0.963	2.79	2.21
131335713	306	98	2.2	0.963	2.79	2.21
131335714	306	98	2.2	0.963	2.79	2.21
131335715	306	98	2.2	0.963	2.79	2.21
131335716	306	98	2.2	0.963	2.80	2.21
131335717	311	89	2.4	0.964	4.34	4.36
131335718	311	89	2.4	0.964	4.34	4.36
131335719	311	89	2.4	0.964	4.34	4.36
131335720	311	89	2.4	0.964	4.34	4.36
131335721	311	89	2.4	0.964	4.34	4.36
131335722	311	89	2.4	0.964	4.34	4.36
131335723	311	89	2.4	0.964	4.34	4.36
131335724	311	89	2.4	0.964	4.34	4.36
131335725	311	89	2.4	0.964	4.34	4.36
131335726	311	89	2.4	0.964	4.34	4.36
131335727	311	89	2.4	0.964	4.34	4.36
131335728	311	89	2.4	0.964	4.34	4.36

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335729	311	89	2.4	0.964	4.34	4.36
131335730	311	89	2.4	0.964	4.34	4.36
131335731	311	89	2.4	0.964	4.34	4.36
131335732	310	93	2.2	0.963	3.32	3.12
131335733	310	93	2.2	0.963	3.32	3.12
131335734	310	93	2.2	0.963	3.32	3.12
131335735	310	93	2.2	0.963	3.32	3.12
131335736	310	93	2.2	0.963	3.32	3.12
131335737	310	93	2.2	0.963	3.32	3.12
131335738	310	93	2.2	0.963	3.32	3.12
131335739	310	93	2.2	0.963	3.32	3.12
131335740	310	93	2.2	0.963	3.32	3.12
131335741	310	93	2.2	0.963	3.32	3.12
131335742	310	93	2.2	0.963	3.32	3.12
131335743	310	93	2.2	0.963	3.32	3.12
131335744	310	93	2.2	0.963	3.32	3.12
131335745	310	93	2.2	0.963	3.32	3.12
131335746	310	93	2.2	0.963	3.32	3.12
131335747	310	93	2.4	0.963	3.32	3.12
131335748	314	108	2.4	0.963	2.84	2.34
131335749	314	108	2.4	0.963	2.84	2.34
131335750	314	108	2.4	0.963	2.84	2.34
131335751	314	108	2.4	0.963	2.84	2.34
131335752	314	108	2.4	0.963	2.84	2.34
131335753	314	108	2.4	0.963	2.84	2.34
131335754	314	108	2.4	0.963	2.84	2.34
131335757	314	108	2.4	0.963	2.84	2.34
131335758	314	108	2.4	0.963	2.84	2.34
131335759	314	108	2.4	0.963	2.84	2.34
131335760	314	108	2.4	0.963	2.84	2.34
131335761	314	108	2.4	0.963	2.83	2.34
131335762	310	100	2.3	0.964	1.78	1.59
131335763	310	100	2.3	0.964	1.59	1.78
131335768	315	85	2.5	0.964	1.53	3.23
131335769	330	100	2.6	0.963	2.71	2.98
131335770	330	100	2.6	0.963	2.71	2.98
131335771	330	100	2.6	0.963	2.71	2.98
131335772	330	100	2.6	0.963	2.71	2.98
131335773	330	100	2.6	0.963	2.71	2.98

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335774	330	100	2.6	0.963	2.71	2.98
131335775	330	100	2.6	0.963	2.71	2.98
131335776	330	100	2.6	0.963	2.71	2.98
131335777	330	100	2.6	0.963	2.71	2.98
131335778	330	100	2.6	0.963	2.71	2.98
131335779	330	100	2.6	0.963	2.71	2.98
131335780	330	100	2.6	0.963	2.71	2.98
131335785	313	90	2.4	0.963	1.98	2.04
131335786	319	109	2.3	0.962	2.25	2.49
131335787	319	109	2.3	0.962	2.25	2.49
131335788	319	109	2.3	0.962	2.25	2.49
131335789	319	109	2.3	0.962	2.25	2.49
131335790	319	109	2.3	0.962	2.25	2.49
131335791	319	109	2.3	0.962	2.25	2.49
131335792	319	109	2.3	0.962	2.25	2.49
131335793	319	109	2.3	0.962	2.25	2.49
131335794	319	109	2.3	0.962	2.25	2.49
131335795	319	109	2.3	0.962	2.25	2.49
131335796	319	109	2.3	0.962	2.25	2.49
131335797	319	109	2.3	0.962	2.25	2.49
131335798	319	109	2.3	0.962	2.25	2.49
131335799	319	109	2.3	0.962	2.25	2.49
131335800	319	109	2.3	0.962	2.25	2.49
131335801	316	104	2.3	0.962	1.82	2.91
131335802	316	104	2.3	0.962	1.82	2.91
131335803	316	104	2.3	0.962	1.82	2.91
131335804	316	104	2.3	0.962	1.82	2.91
131335805	316	104	2.3	0.962	1.82	2.91
131335806	316	104	2.3	0.962	1.82	2.91
131335807	316	104	2.3	0.962	1.82	2.91
131335808	316	104	2.3	0.962	1.82	2.91
131335809	316	104	2.3	0.962	1.82	2.91
131335810	316	104	2.3	0.962	1.82	2.91
131335811	316	104	2.3	0.962	1.82	2.91
131335812	316	104	2.3	0.962	1.82	2.91
131335813	316	104	2.3	0.962	1.82	2.91
131335814	316	104	2.3	0.962	1.82	2.91
131335815	316	104	2.3	0.962	1.82	2.91
131335816	310	116	2.6	0.964	2.15	1.38

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335817	310	116	2.6	0.964	2.15	1.38
131335818	310	116	2.6	0.964	2.15	1.38
131335819	310	116	2.6	0.964	2.15	1.38
131335820	310	116	2.6	0.964	2.15	1.38
131335821	310	116	2.6	0.964	2.15	1.38
131335822	310	116	2.6	0.964	2.15	1.38
131335823	310	116	2.6	0.964	2.15	1.38
131335824	310	116	2.6	0.964	2.15	1.38
131335825	310	116	2.6	0.964	2.15	1.38
131335826	310	116	2.6	0.964	2.15	1.38
131335827	318	104	2.6	0.964	2.15	1.38
131335828	310	116	2.6	0.964	2.15	1.38
131335829	310	116	2.6	0.964	2.15	1.38
131335830	310	116	2.6	0.964	2.15	1.38
131335831	319	95	2.3	0.964	2.81	2.02
131335832	319	95	2.3	0.964	2.81	2.02
131335833	319	95	2.3	0.964	2.81	2.02
131335834	319	95	2.3	0.964	2.81	2.02
131335835	319	95	2.3	0.964	2.81	2.02
131335836	319	95	2.3	0.964	2.81	2.02
131335837	319	95	2.3	0.964	2.81	2.02
131335838	319	95	2.3	0.964	2.81	2.02
131335839	319	95	2.3	0.964	2.81	2.02
131335840	319	95	2.3	0.964	2.81	2.02
131335841	319	95	2.3	0.964	2.81	2.02
131335842	319	95	2.3	0.964	2.81	2.02
131335843	319	95	2.3	0.964	2.81	2.02
131335844	319	95	2.3	0.964	2.81	2.02
131335845	319	95	2.3	0.964	2.81	2.02
131335846	318	113	2.6	0.964	3.63	2.52
131335847	318	113	2.6	0.964	3.63	2.52
131335848	318	113	2.6	0.964	2.98	2.52
131335849	318	113	2.6	0.964	3.63	2.52
131335850	318	113	2.6	0.964	3.63	2.52
131335851	318	113	2.6	0.964	3.63	2.52
131335852	318	113	2.6	0.964	3.63	2.52
131335853	318	113	2.6	0.964	3.63	2.52
131335854	318	113	2.6	0.964	3.63	2.52
131335855	318	113	2.6	0.964	3.63	2.52

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335856	318	113	2.6	0.964	3.63	2.52
131335857	318	113	2.6	0.964	3.63	2.52
131335858	318	113	2.6	0.964	3.63	2.52
131335859	318	113	2.6	0.964	3.63	2.52
131335860	318	113	2.6	0.964	3.63	2.52
131335861	318	104	2.5	0.965	2.99	1.83
131335862	318	104	2.5	0.965	2.99	1.83
131335863	318	104	2.5	0.965	2.99	1.83
131335864	318	104	2.5	0.965	2.99	1.83
131335865	318	104	2.5	0.965	2.99	1.83
131335866	318	104	2.5	0.965	2.99	1.83
131335867	318	104	2.5	0.965	2.99	1.83
131335868	318	104	2.5	0.965	2.99	1.83
131335869	318	104	2.5	0.965	2.99	1.83
131335870	318	104	2.5	0.965	2.99	1.83
131335871	318	104	2.5	0.965	2.99	1.83
131335872	318	104	2.5	0.965	2.99	1.83
131335873	318	104	2.5	0.965	2.99	1.83
131335874	318	104	2.5	0.965	2.99	1.83
131335875	318	104	2.5	0.965	2.99	1.83
131335876	318	102	2.5	0.964	1.77	2.01
131335877	318	102	2.5	0.964	1.77	2.01
131335878	318	102	2.5	0.964	1.77	2.01
131335879	318	102	2.5	0.964	1.77	2.01
131335880	318	102	2.5	0.964	1.77	2.01
131335881	318	102	2.5	0.964	1.77	2.01
131335882	318	102	2.5	0.964	1.77	2.01
131335883	318	102	2.5	0.964	1.77	2.01
131335884	318	102	2.5	0.964	1.77	2.01
131335885	318	102	2.5	0.964	1.77	2.01
131335886	318	102	2.5	0.964	1.77	2.01
131335887	318	102	2.5	0.964	1.77	2.01
131335888	318	102	2.5	0.964	1.77	2.01
131335889	318	102	2.5	0.964	1.77	2.01
131335890	318	102	2.5	0.964	1.77	2.01
131335891	327	104	2.5	0.964	2.74	2.78
131335892	327	104	2.5	0.964	2.74	2.78
131335893	327	104	2.5	0.964	2.74	2.78
131335894	327	104	2.5	0.964	2.74	2.78

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335895	327	104	2.5	0.964	2.74	2.78
131335896	327	104	2.5	0.964	2.74	2.78
131335897	327	104	2.5	0.964	2.74	2.78
131335898	327	104	2.5	0.964	2.74	2.78
131335899	327	104	2.5	0.964	2.74	2.78
131335900	327	104	2.5	0.964	2.74	2.78
131335901	327	104	2.5	0.964	2.74	2.78
131335902	327	104	2.5	0.964	2.74	2.78
131335903	327	104	2.5	0.964	2.74	2.78
131335904	327	104	2.5	0.964	2.74	2.78
131335905	327	104	2.5	0.964	2.74	2.78
131335906	325	101	2.6	0.964	1.43	2.32
131335907	325	101	2.6	0.964	1.43	2.32
131335908	325	101	2.6	0.964	1.43	2.32
131335909	325	101	2.6	0.964	1.43	2.32
131335910	325	101	2.6	0.964	1.43	2.32
131335911	325	101	2.6	0.964	1.43	2.33
131335912	325	101	2.6	0.964	1.43	2.33
131335913	325	101	2.6	0.964	1.43	2.33
131335914	325	101	2.6	0.964	1.43	2.33
131335915	325	101	2.6	0.964	1.43	2.33
131335916	325	101	2.6	0.964	1.43	2.33
131335917	325	101	2.6	0.964	1.43	2.33
131335918	325	101	2.6	0.964	1.43	2.33
131335919	325	101	2.6	0.964	1.43	2.33
131335920	325	101	2.6	0.964	1.43	2.33
131335921	316	107	2.6	0.965	4.85	4.51
131335922	316	107	2.6	0.965	4.85	4.51
131335923	316	107	2.6	0.965	4.85	4.51
131335924	316	107	2.6	0.965	4.85	4.51
131335925	316	107	2.6	0.965	4.85	4.51
131335926	316	107	2.6	0.965	4.85	4.51
131335934	316	107	2.6	0.965	4.85	4.51
131335935	320	99	2.4	0.963	1.60	1.56
131335936	320	99	2.4	0.963	1.60	1.56
131335937	320	99	2.4	0.963	1.60	1.56
131335938	320	99	2.4	0.963	1.60	1.56
131335939	320	99	2.4	0.963	1.60	1.56
131335940	320	99	2.4	0.963	1.60	1.56

Roll Test Data Report

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi) every 15th
131335941	320	99	2.4	0.963	1.60	1.56
131335942	320	99	2.4	0.963	1.60	1.56
131335943	320	99	2.4	0.963	1.60	1.56
131335944	320	99	2.4	0.963	1.60	1.56
131335945	320	99	2.4	0.963	1.60	1.56
131335946	320	99	2.4	0.963	1.60	1.56
131335947	320	99	2.4	0.963	1.60	1.56
131335948	320	99	2.4	0.963	1.60	1.56
131335949	320	99	2.4	0.963	1.60	1.56
131335950	314	98	2.3	0.963	1.70	1.84
131335951	314	98	2.3	0.963	1.70	1.84
131335952	314	98	2.3	0.963	1.70	1.84
131335953	314	98	2.3	0.963	1.70	1.84
131335954	314	98	2.3	0.963	1.70	1.84
131335955	314	98	2.3	0.963	1.70	1.84
131335956	314	98	2.3	0.963	1.70	1.84
131335957	314	98	2.3	0.963	1.70	1.84
131335958	314	98	2.3	0.963	1.70	1.84
131335959	314	98	2.3	0.963	1.70	1.84
131335960	314	98	2.3	0.963	1.70	1.84
131335961	314	98	2.3	0.963	1.70	1.84
131335962	314	98	2.3	0.963	1.70	1.84
131335963	314	98	2.3	0.963	1.70	1.84
131335964	314	98	2.3	0.963	1.70	1.84
131335965	317	91	2.5	0.962	2.47	1.93
131335966	317	91	2.5	0.962	2.47	1.93
131335967	317	91	2.5	0.962	2.47	1.93
131335968	317	91	2.5	0.962	2.47	1.93
131335969	317	91	2.5	0.962	2.47	1.93
131335970	317	91	2.5	0.962	2.47	1.93
131335971	317	91	2.5	0.962	2.47	1.93
131335972	317	91	2.5	0.962	2.47	1.93
131335973	317	91	2.5	0.962	2.47	1.93
131335974	317	91	2.5	0.962	2.47	1.93
131335975	317	91	2.5	0.962	2.47	1.93
131335976	317	91	2.5	0.962	2.47	1.93
131335977	317	91	2.5	0.962	2.47	1.93
131335978	317	91	2.5	0.962	2.47	1.93
131335979	317	91	2.5	0.962	2.47	1.93

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131335980	322	108	2.6	0.964	1.53	1.05
131335981	322	108	2.6	0.964	1.53	1.05
131335982	322	108	2.6	0.964	1.53	1.05
131335983	322	108	2.6	0.964	1.53	1.05
131335984	322	108	2.6	0.964	1.53	1.05
131335985	322	108	2.6	0.964	1.53	1.05
131335986	322	108	2.6	0.964	1.53	1.05
131335987	322	108	2.6	0.964	1.53	1.05
131335988	322	108	2.6	0.964	1.53	1.05
131335989	322	108	2.6	0.964	1.53	1.05
131335990	322	108	2.6	0.964	1.53	1.05
131335991	322	108	2.6	0.964	1.53	1.05
131335992	322	108	2.6	0.964	1.53	1.05
131335993	322	108	2.6	0.964	1.53	1.05
131335994	322	108	2.6	0.964	1.53	1.05
131335995	312	99	2.6	0.963	4.25	4.01
131335996	312	99	2.6	0.963	4.25	4.01
131335997	312	99	2.6	0.963	4.25	4.01
131335998	312	99	2.6	0.963	4.25	4.01
131335999	312	99	2.6	0.963	4.25	4.01
131336000	312	99	2.6	0.963	4.25	4.01
131336001	312	99	2.6	0.963	4.25	4.01
131336004	323	99	2.3	0.963	4.25	4.01
131336005	326	112	2.4	0.962	1.89	1.61
131336006	326	112	2.4	0.962	1.89	1.61
131336007	326	112	2.4	0.962	1.89	1.61
131336008	326	112	2.4	0.962	1.89	1.61
131336009	326	112	2.4	0.962	1.89	1.61
131336010	326	112	2.4	0.962	1.89	1.61
131336011	326	112	2.4	0.962	1.89	1.61
131336012	326	112	2.4	0.962	1.89	1.61
131336013	326	112	2.4	0.962	1.89	1.61
131336014	326	112	2.4	0.962	1.89	1.61
131336015	326	112	2.4	0.962	1.89	1.61
131336016	326	112	2.4	0.962	1.89	1.61
131336017	326	112	2.4	0.962	1.89	1.61
131336018	326	112	2.4	0.962	1.89	1.61
131336019	326	112	2.4	0.962	1.89	1.61
131336020	322	110	2.3	0.963	1.87	1.46

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131336021	322	110	2.3	0.963	1.87	1.46
131336022	322	110	2.3	0.963	1.87	1.46
131336023	322	110	2.3	0.963	1.87	1.46
131336024	322	110	2.3	0.963	1.87	1.46
131336025	322	110	2.3	0.963	1.87	1.46
131336026	322	110	2.3	0.963	1.87	1.46
131336027	322	110	2.3	0.963	1.87	1.46
131336028	322	110	2.3	0.963	1.87	1.46
131336029	322	110	2.3	0.963	1.87	1.46
131336030	322	110	2.3	0.963	1.87	1.46
131336031	322	110	2.3	0.963	1.87	1.46
131336032	322	110	2.3	0.963	1.87	1.46
131336033	322	110	2.3	0.963	1.87	1.46
131336034	322	110	2.3	0.963	1.87	1.46
131336035	325	110	2.2	0.962	1.46	1.38
131336036	325	110	2.2	0.962	1.46	1.38
131336037	325	110	2.2	0.962	1.46	1.38
131336038	325	110	2.2	0.962	1.46	1.38
131336039	325	110	2.2	0.962	1.46	1.38
131336040	325	110	2.2	0.962	1.46	1.38
131336041	325	110	2.2	0.962	1.46	1.38
131336042	325	110	2.2	0.962	1.46	1.38
131336798	325	118	2.4	0.963	2.94	2.41
131336799	327	114	2.3	0.964	1.74	2.46
131336800	327	114	2.3	0.964	1.74	2.46
131336801	327	114	2.3	0.964	1.74	2.46
131336802	327	114	2.3	0.964	1.74	2.46
131336803	327	114	2.3	0.964	1.74	2.46
131336804	327	114	2.3	0.964	1.74	2.46
131336805	327	114	2.3	0.964	1.74	2.46
131336806	327	114	2.3	0.964	1.74	2.46
131336807	327	114	2.3	0.964	1.74	2.46
131336808	327	114	2.3	0.964	1.74	2.46
131336809	327	114	2.3	0.964	1.74	2.46
131336810	327	114	2.3	0.964	1.74	2.46
131336811	327	114	2.3	0.964	1.74	2.46
131336812	327	114	2.3	0.964	1.74	2.46
131336813	327	114	2.3	0.964	1.74	2.46
131336814	322	116	2.4	0.964	2.56	2.68

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131336815	322	116	2.4	0.964	2.56	2.68
131336816	322	116	2.4	0.964	2.56	2.68
131336817	322	116	2.4	0.964	2.56	2.68
131336818	322	116	2.4	0.964	2.56	2.68
131336819	322	116	2.4	0.964	2.56	2.68
131336820	322	116	2.4	0.964	2.56	2.68
131336821	322	116	2.4	0.964	2.56	2.68
131336822	322	116	2.4	0.964	2.56	2.68
131336823	322	116	2.4	0.964	2.56	2.68
131336824	322	116	2.4	0.964	2.56	2.68
131336825	322	116	2.4	0.964	2.56	2.68
131336826	322	116	2.4	0.964	2.56	2.68
131336827	322	116	2.4	0.964	2.56	2.68
131336828	322	116	2.4	0.964	2.56	2.68
131336829	321	137	2.5	0.963	2.26	2.63
131336830	321	137	2.5	0.963	2.26	2.63
131336831	321	137	2.5	0.963	2.26	2.63
131336832	321	137	2.5	0.963	2.26	2.63
131336833	321	137	2.5	0.963	2.26	2.63
131336834	321	137	2.5	0.963	2.26	2.63
131336835	321	137	2.5	0.963	2.26	2.63
131336836	321	137	2.5	0.963	2.26	2.63
131336837	321	137	2.5	0.963	2.26	2.63
131336838	321	137	2.5	0.963	2.26	2.63
131336839	321	137	2.5	0.963	2.26	2.63
131336840	321	137	2.5	0.963	2.26	2.63
131336841	321	137	2.5	0.963	2.26	2.63
131336842	321	137	2.5	0.963	2.26	2.63
131336843	321	137	2.5	0.963	2.26	2.63
131336844	319	119	2.4	0.964	2.78	2.93
131336845	319	119	2.4	0.964	2.78	2.93
131336846	319	119	2.4	0.964	2.78	2.93
131336847	319	119	2.4	0.964	2.78	2.93
131336848	319	119	2.4	0.964	2.78	2.93
131336849	319	119	2.4	0.964	2.78	2.93
131336850	319	119	2.4	0.964	2.78	2.93
131336851	319	119	2.4	0.964	2.78	2.93
131336852	319	119	2.4	0.964	2.78	2.93
131336853	319	119	2.4	0.964	2.78	2.93

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

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Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131336854	319	119	2.4	0.964	2.78	2.93
131336855	319	119	2.4	0.964	2.78	2.93
131336856	319	119	2.4	0.964	2.78	2.93
131336857	319	119	2.4	0.964	2.78	2.93
131336858	319	119	2.4	0.964	2.78	2.93
131336859	325	119	2.6	0.963	2.79	2.09
131336860	325	119	2.6	0.963	2.79	2.09
131336861	325	119	2.6	0.963	2.79	2.09
131336862	325	119	2.6	0.963	2.79	2.09
131336863	325	119	2.6	0.963	2.79	2.09
131336864	325	119	2.6	0.963	2.79	2.09
131336865	325	119	2.6	0.963	2.79	2.09
131336866	325	119	2.6	0.963	2.79	2.09
131336867	325	119	2.6	0.963	2.79	2.09
131336868	325	119	2.6	0.963	2.79	2.09
131336869	325	119	2.6	0.963	2.79	2.09
131336870	325	119	2.6	0.963	2.79	2.09
131336871	325	119	2.6	0.963	2.79	2.09
131336872	325	119	2.6	0.963	2.79	2.09
131336873	325	119	2.6	0.963	2.79	2.09
131336874	321	90	2.2	0.963	2.59	2.58
131336875	321	90	2.2	0.963	2.59	2.58
131336876	321	90	2.2	0.963	2.59	2.58
131336877	321	90	2.2	0.963	2.59	2.58
131336878	321	90	2.2	0.963	2.59	2.58
131336879	321	90	2.2	0.963	2.59	2.58
131336880	321	90	2.2	0.963	2.59	2.58
131336881	321	90	2.2	0.963	2.59	2.58
131336882	321	90	2.2	0.963	2.59	2.58
131336883	321	90	2.2	0.963	2.59	2.58
131336884	321	90	2.2	0.963	2.59	2.58
131336885	321	90	2.2	0.963	2.59	2.58
131336886	321	90	2.2	0.963	2.59	2.58
131336887	321	90	2.2	0.963	2.59	2.58
131336888	321	90	2.2	0.963	2.59	2.58
131336889	313	114	2.2	0.963	2.21	2.50
131336890	313	114	2.2	0.963	2.21	2.50
131336891	313	114	2.2	0.963	2.21	2.50
131336892	313	114	2.2	0.963	2.21	2.50

Roll Test Data Report

Sales Order No.	Project Number	Customer Name	Project Location	Product Name		Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	GSE QC APPROVED	3/25/2010

	ASTM D 5199	ASTM D 7179	ASTM D 4218 / D 1603*	ASTM D 1505	GRI GC7* / ASTM D7005	
	Average Thickness (mils)	Geonet Tensile Strength (ppi)	Carbon Black Content (%)	Density (g/cc)	Peel Strength Side A - Average (ppi)	Peel Strength Side B - Average (ppi)
Roll No.	every 15th	every 15th	every 15th	every 15th	every 15th	
131336893	313	114	2.2	0.963	2.21	2.50
131336894	313	114	2.2	0.963	2.21	2.50
131336895	313	114	2.2	0.963	2.21	2.50
131336896	313	114	2.2	0.963	2.21	2.50
131336897	313	114	2.2	0.963	2.21	2.50
131336898	313	114	2.2	0.963	2.21	2.50
131336899	313	114	2.2	0.963	2.21	2.50
131336900	313	114	2.2	0.963	2.21	2.50
131336901	313	114	2.2	0.963	2.21	2.50
131336902	313	114	2.2	0.963	2.21	2.50
131336903	313	114	2.2	0.963	2.21	2.50
131336904	313	112	2.4	0.963	2.71	2.34
131336905	313	112	2.4	0.963	2.71	2.34
131336906	313	112	2.4	0.963	2.71	2.34
131336907	313	112	2.4	0.963	2.71	2.34
131336908	313	112	2.4	0.963	2.71	2.34
131336909	313	112	2.4	0.963	2.71	2.34
131336910	313	112	2.4	0.963	2.71	2.34
131336911	313	112	2.4	0.963	2.71	2.34
131336912	313	112	2.4	0.963	2.71	2.34
131336913	313	112	2.4	0.963	2.71	2.34
131336914	313	112	2.4	0.963	2.71	2.34
131336915	313	112	2.4	0.963	2.71	2.34
131336916	313	112	2.4	0.963	2.71	2.34
131336917	313	112	2.4	0.963	2.71	2.34
131336918	313	112	2.4	0.963	2.71	2.34
131336919	315	114	2.3	0.963	1.97	2.42
131336920	315	114	2.3	0.963	1.97	2.42
131336921	315	114	2.3	0.963	1.97	2.42
131336922	315	114	2.3	0.963	1.97	2.42
131336923	315	114	2.3	0.963	1.97	2.42
131336924	315	114	2.3	0.963	1.97	2.42
131336925	315	114	2.3	0.963	1.97	2.42
131336926	315	114	2.3	0.963	1.97	2.42
131336927	315	114	2.3	0.963	1.97	2.42
131336928	315	114	2.3	0.963	1.97	2.42
131336929	315	114	2.3	0.963	1.97	2.42
131336930	315	114	2.3	0.963	1.97	2.42
131336931	315	114	2.3	0.963	1.97	2.42

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131336932	315	114	2.3	0.963	1.97	2.42
131336933	315	114	2.3	0.963	1.97	2.42
131336934	315	115	2.3	0.964	2.28	2.85
131336935	315	115	2.3	0.964	2.28	2.85
131336936	315	115	2.3	0.964	2.28	2.85
131336937	315	115	2.3	0.964	2.28	2.85
131336938	315	115	2.3	0.964	2.28	2.85
131336939	315	115	2.3	0.964	2.28	2.85
131336940	315	115	2.3	0.964	2.28	2.85
131336949	320	119	2.7	0.964	2.36	2.83
131336950	320	119	2.7	0.964	2.36	2.83
131336951	320	119	2.7	0.964	2.36	2.83
131336952	320	119	2.7	0.964	2.36	2.83
131336953	320	119	2.7	0.964	2.36	2.83
131336954	320	119	2.7	0.964	2.36	2.83
131336955	320	119	2.7	0.964	2.36	2.83
131336956	320	119	2.7	0.964	2.36	2.83
131336957	320	119	2.7	0.964	2.36	2.83
131336958	320	119	2.7	0.964	2.36	2.83
131336959	320	119	2.7	0.964	2.36	2.83
131336960	320	119	2.7	0.964	2.36	2.83
131336961	320	119	2.7	0.964	2.36	2.83
131336962	320	119	2.7	0.964	2.36	2.83
131336963	320	119	2.7	0.964	2.36	2.83
131336964	316	104	2.2	0.963	1.99	2.76
131336965	316	104	2.2	0.963	1.99	2.76
131336966	316	104	2.2	0.963	1.99	2.76
131336967	316	104	2.2	0.963	1.99	2.76
131336968	316	104	2.2	0.963	1.99	2.76
131336969	316	104	2.2	0.963	1.99	2.76
131336970	316	104	2.2	0.963	1.99	2.76
131336971	316	104	2.2	0.963	1.99	2.76
131336972	316	104	2.2	0.963	1.99	2.76
131336973	316	104	2.2	0.963	1.99	2.76
131336974	316	104	2.2	0.963	1.99	2.76
131336975	316	104	2.2	0.963	1.99	2.76
131336976	316	104	2.2	0.963	1.99	2.76
131336977	316	104	2.2	0.963	1.99	2.76
131336978	316	104	2.2	0.963	1.99	2.76

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

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Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi) every 15th
131336979	312	118	2.5	0.965	4.86	3.75
131336980	312	118	2.5	0.965	4.86	3.75
131336981	312	118	2.5	0.965	4.86	3.75
131336982	312	118	2.5	0.965	4.86	3.75
131336983	312	118	2.5	0.965	4.86	3.75
131336984	312	118	2.5	0.965	4.86	3.75
131336985	312	118	2.5	0.965	4.86	3.75
131336986	312	118	2.5	0.965	4.86	3.75
131336987	312	118	2.5	0.965	4.86	3.75
131336988	312	118	2.5	0.965	4.86	3.75
131336989	312	118	2.5	0.965	4.86	3.75
131336990	312	118	2.5	0.965	4.86	3.75
131336991	312	118	2.5	0.965	4.86	3.75
131336992	312	118	2.5	0.965	4.86	3.75
131336993	312	118	2.5	0.965	4.86	3.75
131336994	314	122	2.4	0.967	3.74	2.26
131336995	314	122	2.4	0.967	3.74	2.26
131336996	314	122	2.4	0.967	3.74	2.26
131336997	314	122	2.4	0.967	3.74	2.26
131336998	314	122	2.4	0.967	3.74	2.26
131336999	314	122	2.4	0.967	3.74	2.26
131337001	314	118	2.8	0.967	3.98	1.97
131337002	311	120	2.5	0.965	4.04	3.35
131337003	311	120	2.5	0.965	4.04	3.35
131337004	311	120	2.5	0.965	4.04	3.35
131337005	311	120	2.5	0.965	4.04	3.35
131337006	311	120	2.5	0.965	4.04	3.35
131337007	311	120	2.5	0.965	4.04	3.35
131337008	311	120	2.5	0.965	4.04	3.35
131337009	311	120	2.5	0.965	4.04	3.35
131337010	311	120	2.5	0.965	4.04	3.35
131337011	311	120	2.5	0.965	4.04	3.35
131337012	311	120	2.5	0.965	4.04	3.35
131337013	311	120	2.5	0.965	4.04	3.35
131337014	311	120	2.5	0.965	4.04	3.35
131337015	311	120	2.5	0.965	4.04	3.35
131337016	311	120	2.5	0.965	4.04	3.35
131337023	312	123	2.4	0.964	1.90	1.90
131337024	311	110	2.9	0.965	4.35	3.92

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

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Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131337025	311	110	2.9	0.965	4.35	3.92
131337026	311	110	2.9	0.965	4.35	3.92
131337027	311	110	2.9	0.965	4.35	3.92
131337028	311	110	2.9	0.965	4.35	3.92
131337029	311	110	2.9	0.965	4.35	3.92
131337030	311	110	2.9	0.965	4.35	3.92
131337031	311	110	2.9	0.965	4.35	3.92
131337032	311	110	2.9	0.965	4.35	3.92
131337033	311	110	2.9	0.965	4.35	3.92
131337034	311	110	2.9	0.965	4.35	3.92
131337035	311	110	2.9	0.965	4.35	3.92
131337036	311	110	2.9	0.965	4.35	3.92
131337037	311	110	2.9	0.965	4.35	3.92
131337038	311	110	2.9	0.965	4.35	3.92
131337039	317	114	2.4	0.964	3.79	3.14
131337040	317	114	2.4	0.964	3.79	3.14
131337041	317	114	2.4	0.964	3.79	3.14
131337042	317	114	2.4	0.964	3.79	3.14
131337043	317	114	2.4	0.964	3.79	3.14
131337044	317	114	2.4	0.964	3.79	3.14
131337045	317	114	2.4	0.964	3.79	3.14
131337046	317	114	2.4	0.964	3.79	3.14
131337047	317	114	2.4	0.964	3.79	3.14
131337057	313	119	2.7	0.964	2.32	2.33
131337058	313	119	2.7	0.964	2.32	2.33
131337059	313	119	2.7	0.964	2.32	2.33
131337060	313	119	2.7	0.964	2.32	2.33
131337061	313	119	2.7	0.964	2.32	2.33
131337062	313	119	2.7	0.964	2.32	2.33
131337063	313	119	2.7	0.964	2.32	2.33
131337064	313	119	2.7	0.964	2.32	2.33
131337074	313	111	2.4	0.965	2.30	2.77
131337075	313	111	2.4	0.965	2.30	2.77
131337076	313	111	2.4	0.965	2.30	2.77
131337077	313	111	2.4	0.965	2.30	2.77
131337078	313	111	2.4	0.965	2.30	2.77
131337079	313	111	2.4	0.965	2.30	2.77
131337080	313	111	2.4	0.965	2.30	2.77
131337081	313	111	2.4	0.965	2.30	2.77

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131337082	313	111	2.4	0.965	2.30	2.77
131337083	313	111	2.4	0.965	2.30	2.77
131337084	319	103	2.8	0.964	2.85	2.98
131337085	319	103	2.8	0.964	2.85	2.98
131337086	319	103	2.8	0.964	2.85	2.98
131337087	319	103	2.8	0.964	2.85	2.98
131337088	319	103	2.8	0.964	2.85	2.98
131337089	319	103	2.8	0.964	2.85	2.98
131337090	319	103	2.8	0.964	2.85	2.98
131337097	319	103	2.8	0.964	2.85	2.98
131337098	319	103	2.8	0.964	2.85	2.98
131337099	314	113	2.5	0.965	4.84	4.77
131337100	314	113	2.5	0.965	4.84	4.77
131337101	314	113	2.5	0.965	4.84	4.77
131337102	314	113	2.5	0.965	4.84	4.77
131337103	314	113	2.5	0.965	4.84	4.77
131337104	314	113	2.5	0.965	4.84	4.77
131337105	314	113	2.5	0.965	4.84	4.77
131337109	310	112	2.5	0.964	1.97	2.35
131337110	311	112	2.5	0.966	4.25	2.93
131337111	311	112	2.5	0.966	4.25	2.93
131337112	311	112	2.5	0.966	4.25	2.93
131337113	311	112	2.5	0.966	4.25	2.93
131337114	311	112	2.5	0.966	4.25	2.93
131337115	311	112	2.5	0.966	4.25	2.93
131337116	311	112	2.5	0.966	4.25	2.93
131337117	311	112	2.5	0.966	4.25	2.93
131337118	311	112	2.5	0.966	4.25	2.93
131337119	311	112	2.5	0.966	4.25	2.93
131337120	311	112	2.5	0.966	4.25	2.93
131337121	311	112	2.5	0.966	4.25	2.93
131337122	311	112	2.5	0.966	4.25	2.93
131337123	311	112	2.5	0.966	4.25	2.93
131337124	311	112	2.5	0.966	4.25	2.93
131337125	311	107	2.4	0.964	4.16	3.24
131337126	311	107	2.4	0.964	4.16	3.24
131337127	311	107	2.4	0.964	4.16	3.24
131337128	311	107	2.4	0.964	4.16	3.24
131337129	311	107	2.4	0.964	4.16	3.24

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Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131337130	311	107	2.4	0.964	4.16	3.24
131337131	311	107	2.4	0.964	4.16	3.24
131337132	311	107	2.4	0.964	4.16	3.24
131337133	311	107	2.4	0.964	4.16	3.24
131337134	311	107	2.4	0.964	4.16	3.24
131337135	311	107	2.4	0.964	4.16	3.24
131337136	311	107	2.4	0.964	4.16	3.24
131337137	311	107	2.4	0.964	4.16	3.24
131337138	311	107	2.4	0.964	4.16	3.24
131337139	311	107	2.4	0.964	4.16	3.24
131337140	328	123	2.7	0.965	5.49	5.86
131337141	328	123	2.7	0.965	5.49	5.86
131337142	328	123	2.7	0.965	5.49	5.86
131337143	328	123	2.7	0.965	5.49	5.86
131337144	328	123	2.7	0.965	5.49	5.86
131337145	328	123	2.7	0.965	5.49	5.86
131337146	328	123	2.7	0.965	5.49	5.86
131337147	328	123	2.7	0.965	5.49	5.86
131337148	328	123	2.7	0.965	5.49	5.86
131337149	328	123	2.7	0.965	5.49	5.86
131337150	328	123	2.7	0.965	5.49	5.86
131337151	328	123	2.7	0.965	5.49	5.86
131337152	328	123	2.7	0.965	5.49	5.86
131337153	328	123	2.7	0.965	5.49	5.86
131337157	322	120	2.2	0.963	4.65	4.50
131337158	315	104	2.5	0.963	3.11	2.66
131337159	315	104	2.5	0.963	3.11	2.66
131337160	315	104	2.5	0.963	3.11	2.66
131337161	315	104	2.5	0.963	3.11	2.66
131337162	315	104	2.5	0.963	3.11	2.66
131337163	315	104	2.5	0.963	3.11	2.66
131337164	315	104	2.5	0.963	3.11	2.66
131337165	315	104	2.5	0.963	3.11	2.66
131337166	315	104	2.5	0.963	3.11	2.66
131337167	315	104	2.5	0.963	3.11	2.66
131337168	315	104	2.5	0.963	3.11	2.66
131337169	315	104	2.5	0.963	3.11	2.66
131337170	315	104	2.5	0.963	3.11	2.66
131337171	315	104	2.5	0.963	3.11	2.66

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

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Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131337172	315	104	2.5	0.963	3.11	2.66
131337173	318	112	2.3	0.963	2.44	3.04
131337174	318	112	2.3	0.963	2.44	3.04
131337175	318	112	2.3	0.963	2.44	3.04
131337176	318	112	2.3	0.963	2.44	3.04
131337177	318	112	2.3	0.963	2.44	3.04
131337178	318	112	2.3	0.963	2.44	3.04
131337179	318	112	2.3	0.963	2.44	3.04
131337180	318	112	2.3	0.963	2.44	3.04
131337181	318	112	2.3	0.963	2.44	3.04
131337182	318	112	2.3	0.963	2.44	3.04
131337183	318	112	2.3	0.963	2.44	3.04
131337184	318	112	2.3	0.963	2.44	3.04
131337185	318	112	2.3	0.963	2.44	3.04
131337187	318	112	2.3	0.963	2.44	3.04
131337188	319	128	2.7	0.963	2.98	2.89
131337189	319	128	2.7	0.963	2.98	2.89
131337190	319	128	2.7	0.963	2.98	2.89
131337191	319	128	2.7	0.963	2.98	2.89
131337192	319	128	2.7	0.963	2.98	2.89
131337193	319	128	2.7	0.963	2.98	2.89
131337194	319	128	2.7	0.963	2.98	2.89
131337195	319	128	2.7	0.963	2.98	2.89
131337196	319	128	2.7	0.963	2.98	2.89
131337197	319	128	2.7	0.963	2.98	2.89
131337198	319	128	2.7	0.963	2.98	2.89
131337199	319	128	2.7	0.963	2.98	2.89
131337200	319	128	2.7	0.963	2.98	2.89
131337201	319	128	2.7	0.963	2.98	2.89
131337202	319	128	2.7	0.963	2.98	2.89
131337203	322	119	2.5	0.963	3.85	3.21
131337204	322	119	2.5	0.963	3.85	3.21
131337205	322	119	2.5	0.963	3.85	3.21
131337206	322	119	2.5	0.963	3.85	3.21
131337207	322	119	2.5	0.963	3.85	3.21
131337208	322	119	2.5	0.963	3.85	3.21
131337209	322	119	2.5	0.963	3.85	3.21
131337210	322	119	2.5	0.963	3.85	3.21
131337211	322	119	2.5	0.963	3.85	3.21

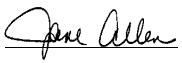
Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	3/25/2010

GSE QC APPROVED

Roll No.	ASTM D 5199 Average Thickness (mils) every 15th	ASTM D 7179 Geonet Tensile Strength (ppi) every 15th	ASTM D 4218 / D 1603* Carbon Black Content (%) every 15th	ASTM D 1505 Density (g/cc) every 15th	GRI GC7* / ASTM D7005 Peel Strength Side A - Average (ppi) every 15th	Peel Strength Side B - Average (ppi)
131337212	322	119	2.5	0.963	3.85	3.21
131337213	322	119	2.5	0.963	3.85	3.21
131337214	322	119	2.5	0.963	3.85	3.21
131337215	322	119	2.5	0.963	3.85	3.21
131337216	322	119	2.5	0.963	3.85	3.21
131337217	322	119	2.5	0.963	3.85	3.21
131337218	320	131	2.5	0.962	2.83	2.94
131337219	320	131	2.5	0.962	2.83	2.94
131337590	318	106	2.4	0.964	5.92	4.55
131337591	322	106	2.6	0.964	1.81	1.27
131337592	322	106	2.6	0.964	1.81	1.27
131337593	322	106	2.6	0.964	1.81	1.27
131337594	322	106	2.6	0.964	1.81	1.27
131337595	322	106	2.6	0.964	1.81	1.27
131337596	322	106	2.6	0.964	1.81	1.27
131337597	322	106	2.6	0.964	1.81	1.27
131337598	322	106	2.6	0.964	1.81	1.27
131337599	322	106	2.6	0.964	1.81	1.27
131337600	322	106	2.6	0.964	1.81	1.27
131337601	322	106	2.6	0.964	1.81	1.27
131337602	322	106	2.6	0.964	1.81	1.27
131337603	322	106	2.6	0.964	1.81	1.27
131337604	322	106	2.6	0.964	1.81	1.27

Laboratory Manager: 

GSE-8.2.4-029 Rev -- 03/05

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Kingstree Lab - US

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
62151		West Pasco County	Springhill, FL	FS2-300E-06-08-E-00	7/27/2010

	ASTM D 5199	ASTM D 7179 / D 5035	ASTM D 4218 / D 1603*	ASTM D 1505 / D 792	GRI GC7* / ASTM D7005		D3776
	Average Thickness (mils)	Geonet Tensile Strength (ppi)	Carbon Black Content (%)	Density (g/cc)	Peel Strength Side A - Average (ppi)	Peel Strength Side B - Average (ppi)	Mass/Unit Area lb/ft2
Roll No.	every 11th	every 11th	every 11th	every 11th	every 11th		every 11th
131347460	326	105	2.7	0.962	4.92	5.84	0.2953
131347461	313	98	2.3	0.963	4.48	7.17	0.2967
131347462	313	98	2.3	0.963	4.48	7.17	0.2967
131347463	313	98	2.3	0.963	4.48	7.17	0.2967
131347464	313	98	2.3	0.963	4.48	7.17	0.2967
131347465	313	98	2.3	0.963	4.48	7.17	0.2967
131347466	313	98	2.3	0.963	4.48	7.17	0.2967
131347467	313	98	2.3	0.963	4.48	7.17	0.2967
131347468	313	98	2.3	0.963	4.48	7.17	0.2967
131347469	313	98	2.3	0.963	4.48	7.17	0.2967
131347470	313	98	2.3	0.963	4.48	7.17	0.2967
131347471	313	98	2.3	0.963	4.48	7.17	0.2967

Laboratory Manager:

GSE-8.2.4-029 Rev -- 03/05

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Kingstree Lab - US

GSE *Lining Technology, Inc.*

Transmissivity Report
ASTM D4716

Roll No. *131336801*

ROLL IDENTIFICATION	
Roll Number	131336801
Product Name	FS2-300E-06-08-E-00
Production Date	3/12/2010
Resin Lot #	CAA610252

CUSTOMER INFORMATION	
Order Number	61162
Customer Name	West Pasco County
Project Name	West Pasco County Ash Landfill Cell A-4
Location	Springhill, FL

Pressure (psf)	***Gradient***	***Net/Composite***	***Transmissivity Results*** (m^2/sec)	***(gal/min/ft)***	***Seat Time (min)***	***Boundary***
10000	0.02	Composite	5.30E-03	26.21	6000	SS Plates

GSE *Lining Technology, Inc.*

Transmissivity Report
ASTM D4716

Roll No. *131335690*

ROLL IDENTIFICATION	
Roll Number	131335690
Product Name	FS2-300E-06-08-E-00
Production Date	2/28/2010
Resin Lot #	C100110A02

CUSTOMER INFORMATION	
Order Number	61162
Customer Name	West Pasco County
Project Name	West Pasco County Ash Landfill Cell A-4
Location	Springhill, FL

Pressure (psf)	***Gradient***	***Net/Composite***	***Transmissivity Results*** (m^2/sec)	$(gal/min/ft)$	***Seat Time (min)***	***Boundary***
10000	0.02	Net	1.89E-02	91.07	6000	SS Plates
10000	0.02	Composite	4.71E-03	23.30	6000	SS Plates

GSE *Lining Technology, Inc.*

Transmissivity Report
ASTM D4716

Roll No. *131335725*

ROLL IDENTIFICATION	
Roll Number	131335725
Product Name	FS2-300E-06-08-E-00
Production Date	2/28/2010
Resin Lot #	CB20011504

CUSTOMER INFORMATION	
Order Number	61162
Customer Name	West Pasco County
Project Name	West Pasco County Ash Landfill Cell A-4
Location	Springhill, FL

Pressure (psf)	***Gradient***	***Net/Composite***	***Transmissivity Results*** (m^2/sec)	***(gal/min/ft)***	***Seat Time (min)***	***Boundary***
10000	0.02	Composite	2.35E-03	11.09	6000	Sand / Liner

Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
Sales Order: 61162

Required Testing: ASTM D 1238, 190 / 2.16 -- Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer

Custom Frequency: 1/Resin Lot

Custom Criteria: <1.0 g/10 minutes

Product Code	Resin Lot Number	Roll Number	Test Results
FS2-300E-06-08-E-00	C100110A02	131335690	0.34
FS2-300E-06-08-E-00	CB20011504	131335716	0.33
FS2-300E-06-08-E-00	CB20011501	131336004	0.32
FS2-300E-06-08-E-00	CAA610252	131336798	0.33
FS2-300E-06-08-E-00	CAA610251	131337219	0.32
FS2-300E-06-08-E-00	CAB610840	131337590	0.37

Approved by: Debra Gortemiller
Date: March 25, 2010

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Report Date
11/19/2010

Quality Assurance Laboratory Test Results

Job Name: West Pasco County Ash Landfill Cell A-4
Sales Order: 62151

Required Testing: ASTM D 1238, 190 / 2.16 -- Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer

Custom Criteria: <1.0 g/10 minutes

Product Code	Resin Lot Number	Roll Number	Test Results
FS2-300E-06-08-E-00	CB10061602	131347460	0.3106
FS2-300E-06-08-E-00	CB10061602	131347471	0.3094

Approved by: Debra Gortemiller
Date: July 27, 2010

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INEOS
Olefins & Polymers USA
A Division of INEOS USA LLC

CERTIFICATE OF ANALYSIS

Selling Company:
INEOS Olefins & Polymers USA
A Division of INEOS USA LLC
2600 South Shore Blvd. Suite 500
LEAGUE CITY, Texas 77573
United States

Ship To:
GSE LINING TECHNOLOGY - KINGSTREE
1245 EASTLAND AVE
KINGSTREE SC 29556
Contact: DON BOHAC
Fax: 281-230-8630

Sold To:
GSE LINING TECHNOLOGY INC

Delivery Doc Number/Item:	89080366/000010
Print Date / Time:	01/15/2010/09:25:57
Sales Order Number/Date:	5158932/ 01/11/2010
Customer PO Number/Date:	03-61338/
Shipment Date:	01/15/2010
Place of Despatch:	0607 Dayton TX-Lease Trk (Stor)
Mode of Transport:	0007 Rail w/o rtnbol
Transport/Vehicle Number:	HLTX006180
Net Weight:	203,499.999 LB

Page 1 of 1

Product Description: B53-35H-011 PE PELLETS - BULK
Batch Number: C100110A02

Characteristic	Method	Result	Unit	Specifications Min	Max
MI 2.16 (1X)	ASTM D1238	0.3300	g/10min	0.3000	0.4000
DENSITY (NATURAL)	ASTM D 4883	0.9551	G/CM3	0.9530	0.9560

APPROVED BY: Quality Assurance Manager.
This certifies that the INEOS Polyethylene meets our specifications for the grade.

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Equistar Chemicals, LP
One Houston Center
1221 McKinney
Houston TX 77010

Certificate Of Analysis

Certificate of Analysis Contact:
GSE LINING TECHNOLOGY INC.
1245 EASTLAND AVENUE
KINGSTREE SC 29556

Ship-To Address:
GSE LINING TECHNOLOGY INC.
1245 EASTLAND AVENUE
KINGSTREE SC 29556
USA

Equistar Material	: 504295 PETROTHENE® LR732001	Customer Order No.	: 03-061337
Batch Number	: CB20011504	Customer Number	: 42584
Vehicle Number	: EQUX631898	Date Shipped	: January 18, 2010
Estimated Quantity	: 194,150 LBS	Equistar Order No.	: 1832928 000010
		Delivery Item No.	: 82241616 000010

Test Description	Test Result	Unit of Measure	
Vehicle ID	EQUX631898		
Vehicle Type	HOPPER CAR		
Density, Extrudate @ 23C	0.9543	g/cc	STM 011
Melt Index, 2160g @ 190C	0.34	g/10 min.	STM 002

Data reported was generated in an approved Quality Assurance Lab.

Print Date: January 18, 2010 BNLITTLE
This information is available 24 hours a day at
www.CustomerXPRESS.com
Questions ? Call Customer Service: 888-777-0232

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One Houston Center
1221 McKinney
Houston TX 77010

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KINGSTREE SC 29556

Ship-To Address:
GSE LINING TECHNOLOGY INC.
1245 EASTLAND AVENUE
KINGSTREE SC 29556
USA

Equistar Material	: 504295 PETROTHENE® LR732001	Customer Order No.	: 03-061337
Batch Number	: CB20011501	Customer Number	: 42584
Vehicle Number	: ALAX47265	Date Shipped	: January 18, 2010
Estimated Quantity	: 192,400 LBS	Equistar Order No.	: 1833372 000010
		Delivery Item No.	: 82241615 000010

Test Description	Test Result	Unit of Measure	
Vehicle ID	ALAX47265		
Vehicle Type	HOPPER CAR		
Density, Extrudate @ 23C	0.9536	g/cc	STM 011
Melt Index, 2160g @ 190C	0.32	g/10 min.	STM 002

Data reported was generated in an approved Quality Assurance Lab.

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www.CustomerXPRESS.com
Questions ? Call Customer Service: 888-777-0232

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Chevron Phillips Chemical Company LP

CoA Date: 01/12/2010

Certificate of Analysis

Shipped To: GSE NONWOVEN TECHNOLOGY CO
1245 EASTLAND AVE
KINGSTREE SC 29556
USA

Recipient: WILLIAMS
Fax:

CPC Delivery #: 87985613
PO #: 03-061176
Weight: 208350 LB
Ship Date: 01/12/2010
Package: BULK
Mode: Hopper Car
Car #: HCBX001644
Seal No: 497836

Product:
Marlex HHM 5502BN HDPE

Lot Number: CAA610252

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.31	g/10mi
Density	D1505 or D4883	0.9546	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP.
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at 800-231-1212

Chevron Phillips Chemical Company LP

CoA Date: 01/12/2010

Certificate of Analysis

Shipped To: GSE NONWOVEN TECHNOLOGY CO
1245 EASTLAND AVE
KINGSTREE SC 29556
USA

Recipient: WILLIAMS
Fax:

CPC Delivery #: 87985612
PO #: 03-061176
Weight: 205700 LB
Ship Date: 01/12/2010
Package: BULK
Mode: Hopper Car
Car #: HLTX006125
Seal No: 497835

Product:
Marlex HHM 5502BN HDPE

Lot Number: CAA610251

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.31	g/10mi
Density	D1505 or D4883	0.9546	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP.
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at 800-231-1212

Chevron Phillips Chemical Company LP

CoA Date: 02/19/2010

Certificate of Analysis

Shipped To: GSE NONWOVEN TECHNOLOGY CO
1245 EASTLAND AVE
KINGSTREE SC 29556
USA

Recipient: WILLIAMS
Fax:

CPC Delivery #: 88007715
PO #: 03-061558
Weight: 207050 LB
Ship Date: 02/19/2010
Package: BULK
Mode: Hopper Car
Car #: HLTX006163
Seal No: 498918

Product:
Marlex HHM 5502BN HDPE

Lot Number: CAB610840

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.36	g/10mi
Density	D1505 or D4883	0.9548	g/cm3

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Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at 800-231-1212

Equistar Chemicals, LP
One Houston Center
1221 McKinney
Houston TX 77010

Certificate Of Analysis

Certificate of Analysis Contact:
GSE LINING TECHNOLOGY INC
1245 EASTLAND AVENUE
KINGSTREE SC 29556

Ship-To Address:
GSE LINING TECHNOLOGY INC
1245 EASTLAND AVENUE
KINGSTREE SC 29556
USA

Equistar Material	: 504295 PETROTHENE® LR732001	**Customer Order No.**	: 03-062623
Batch Number	: CB10061602	**Customer Number**	: 42584
Vehicle Number	: CITX200194	**Date Shipped**	: June 17, 2010
Estimated Quantity	: 199,650 LBS	**Equistar Order No.**	: 1891615 000010
		Delivery Item No.	: 82314698 000010

Test Description	Test Result	Unit of Measure
Vehicle ID	CITX200194	
Vehicle Type	HOPPER CAR	
Density, Extrudate @ 23C	0.9535	g/cc
Melt Index, 2160g @ 190C	0.35	g/10 min.

Data reported was generated in an approved Quality Assurance Lab.

Print Date: June 18, 2010 JASMITH2
This information is available 24 hours a day at www.CustomerXPRESS.com
Questions ? Call Customer Service: 888-777-0232

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GSE Roll Allocation

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130355307	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355308	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355309	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355310	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355315	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355316	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355317	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355318	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355319	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355320	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355321	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355322	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355323	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355324	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130355325	FBR-080E-EBC-E-00	NW8	11/16/2009	1500
130357318	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357324	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357325	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357326	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357328	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357329	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357330	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357331	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357332	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357333	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357334	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357335	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357336	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357337	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357338	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357339	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357340	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357342	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357344	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357346	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357347	FBR-080E-EBC-E-00	NW8	1/15/2010	1500

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130357348	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357353	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357354	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357355	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357356	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357357	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357358	FBR-080E-EBC-E-00	NW8	1/15/2010	1500
130357391	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357430	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357441	FBR-080E-EBC-E-00	NW8	1/20/2010	1115
130357442	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357443	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357444	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357446	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357447	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357448	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357449	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357451	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357452	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357453	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357455	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357456	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357457	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357458	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357459	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357460	FBR-080E-EBC-E-00	NW8	1/20/2010	1500
130357461	FBR-080E-EBC-E-00	NW8	1/22/2010	1500
130357462	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357463	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357464	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357465	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357466	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357467	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357468	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357469	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357470	FBR-080E-EBC-E-00	NW8	1/19/2010	1500

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130357471	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357472	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357473	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357474	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357475	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357476	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357478	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357479	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357480	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357481	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357483	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357484	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357485	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357486	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357487	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357488	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357489	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357490	FBR-080E-EBC-E-00	NW8	1/19/2010	1500
130357492	FBR-080E-EBC-E-00	NW8	1/19/2010	1500

GSE Roll Allocation

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130354374	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354375	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354376	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354377	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354379	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354381	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354389	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354390	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354391	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354396	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354397	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354398	FBR-060E-EBC-E-00	FBR0608200	10/18/2009	1500
130354476	FBR-060E-EBC-E-00	FBR0608200	10/19/2009	1500
130354486	FBR-060E-EBC-E-00	FBR0608200	10/19/2009	1500
130354491	FBR-060E-EBC-E-00	FBR0608200	10/19/2009	1500
130357129	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357132	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357133	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357135	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357136	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357137	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357138	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357139	FBR-060E-EBC-E-00	FBR0608200	1/13/2010	1500
130357148	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357158	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357159	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357168	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357170	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357171	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357186	FBR-060E-EBC-E-00	FBR0608200	1/14/2010	1500
130357218	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357225	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357226	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357227	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357228	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500

Order 61162
Customer West Pasco County
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Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130357229	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357230	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357231	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357232	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357233	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357235	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357237	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357239	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357240	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357241	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357242	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357243	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357244	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357245	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357246	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357247	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357252	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357253	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357254	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357256	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357257	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357258	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357260	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357261	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357262	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357263	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357272	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357273	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357274	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130357275	FBR-060E-EBC-E-00	FBR0608200	1/15/2010	1500
130358890	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358893	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358895	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358896	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358899	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358906	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500

Order 61162
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130358907	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358913	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358914	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358915	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130358916	FBR-060E-EBC-E-00	FBR0608200	2/10/2010	1500
130359073	FBR-060E-EBC-E-00	FBR0608200	2/12/2010	1500
130359075	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359076	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1343
130359078	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359087	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359088	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359089	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359090	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359091	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359092	FBR-060E-EBC-E-00	FBR0608200	2/13/2010	1500
130359093	FBR-060E-EBC-E-00	FBR0608200	2/14/2010	1500

Roll Test Data Report

GSE Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-080E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th		every 4th				every 4th
130355307	112	1.50	0.180	494	150	174	137	126	91	295	266	8.3
130355308	112	1.50	0.180	494	150	174	137	126	91	295	266	8.3
130355309	112	1.50	0.180	494	150	174	137	126	91	295	266	8.3
130355310	112	1.50	0.180	494	150	174	137	126	91	295	266	8.3
130355315	115	1.60	0.180	436	130	174	150	120	93	279	272	8.4
130355316	115	1.60	0.180	436	130	174	150	120	93	279	272	8.4
130355317	115	1.60	0.180	436	130	174	150	120	93	279	272	8.4
130355318	115	1.60	0.180	436	130	174	150	120	93	279	272	8.4
130355319	112	1.50	0.180	462	134	187	128	107	90	266	262	8.3
130355320	112	1.50	0.180	462	134	187	128	107	90	266	262	8.3
130355321	112	1.50	0.180	462	134	187	128	107	90	266	262	8.3
130355322	112	1.50	0.180	462	134	187	128	107	90	266	262	8.3
130355323	121	1.60	0.180	454	137	202	133	118	90	323	277	8.4
130355324	121	1.60	0.180	454	137	202	133	118	90	323	277	8.4
130355325	121	1.60	0.180	454	137	202	133	118	90	323	277	8.4
130357318	134	1.80	0.180	428	135	191	148	150	90	227	281	8.2
130357324	134	1.80	0.180	436	135	157	138	152	84	244	296	8.8
130357325	134	1.80	0.180	436	135	157	138	152	84	244	296	8.8
130357326	134	1.80	0.180	436	135	157	138	152	84	244	296	8.8
130357328	124	1.70	0.180	418	121	150	129	147	88	240	276	8.5
130357329	124	1.70	0.180	418	121	150	129	147	88	240	276	8.5
130357330	124	1.70	0.180	418	121	150	129	147	88	240	276	8.5
130357331	124	1.70	0.180	442	138	163	162	156	87	230	295	8.8
130357332	124	1.70	0.180	442	138	163	162	156	87	230	295	8.8
130357333	124	1.70	0.180	442	138	163	162	156	87	230	295	8.8
130357334	124	1.70	0.180	442	138	163	162	156	87	230	295	8.8
130357335	127	1.70	0.180	396	136	160	128	145	90	230	268	8.1
130357336	127	1.70	0.180	396	136	160	128	145	90	230	268	8.1
130357337	127	1.70	0.180	396	136	160	128	145	90	230	268	8.1
130357338	127	1.70	0.180	396	136	160	128	145	90	230	268	8.1

GSE *Lining Technology, Inc*

Roll Test Data Report

Sales Order No.	*Project Number*	*Customer Name*	*Project Location*	*Product Name*	*Report Date*
61162		West Pasco County	Springhill, FL	FBR-080E-EBC-E-00	3/25/2010

GSE QC APPROVED

	ASTM D 4491		*ASTM D 4751*	*ASTM D 3786*	*ASTM D 4833*	*ASTM D 4533*		*ASTM D 4632*				*ASTM D 5261*
	Average Sample Flow Rate	*Permittivity*	*Apparent Opening Size*	*Mullen Burst Strength*	*Puncture Resistance*	*Trap Tear Strength CD*	*Trap Tear Strength MD*	*Grab Elongation CD*	*Grab Elongation MD*	*Grab Strength CD*	*Grab Strength MD*	*Mass per Unit Area*
	(gallon/min/ft2)	*(Sec-1)*	*(mm)*	*(psi)*	*(lbs)*	*(lbs)*	*(lbs)*	*(%)*	*(%)*	*(lbs)*	*(lbs)*	*(oz./yd2)*
Roll No.	*every 24th*		*every roll*	*every 4th*	*every 4th*	*every 4th*		*every 4th*				*every 4th*
130357339	127	1.70	0.180	484	152	175	196	140	98	296	296	9.2
130357340	127	1.70	0.180	484	152	175	196	140	98	296	296	9.2
130357342	127	1.70	0.180	484	152	175	196	140	98	296	296	9.2
130357344	122	1.70	0.180	468	142	162	161	148	86	267	280	8.5
130357346	122	1.70	0.180	468	142	162	161	148	86	267	280	8.5
130357347	122	1.70	0.180	468	134	183	189	143	85	269	300	8.8
130357348	122	1.70	0.180	468	134	183	189	143	85	269	300	8.8
130357353	120	1.60	0.180	472	159	198	179	141	91	272	313	8.9
130357354	120	1.60	0.180	472	159	198	179	141	91	272	313	8.9
130357355	120	1.60	0.180	458	154	134	122	145	93	280	268	8.4
130357356	120	1.60	0.180	458	154	134	122	145	93	280	268	8.4
130357357	120	1.60	0.180	458	154	134	122	145	93	280	268	8.4
130357358	120	1.60	0.180	458	154	134	122	145	93	280	268	8.4
130357391	112	1.50	0.180	452	143	164	149	141	91	258	290	8.7
130357430	116	1.60	0.180	404	148	129	122	145	93	277	263	8.4
130357441	120	1.60	0.180	404	142	139	134	143	98	227	270	8.5
130357442	120	1.60	0.180	404	142	139	134	143	98	227	270	8.5
130357443	120	1.60	0.180	428	137	164	125	143	96	258	257	8.6
130357444	120	1.60	0.180	428	137	164	125	143	96	258	257	8.6
130357446	120	1.60	0.180	428	137	164	125	143	96	258	257	8.6
130357447	120	1.60	0.180	426	131	139	140	146	99	266	275	8.6
130357448	120	1.60	0.180	426	131	139	140	146	99	266	275	8.6
130357449	120	1.60	0.180	426	131	139	140	146	99	266	275	8.6
130357451	120	1.60	0.180	432	145	179	143	146	94	241	257	8.1
130357452	120	1.60	0.180	432	145	179	143	146	94	241	257	8.1
130357453	120	1.60	0.180	432	145	179	143	146	94	241	257	8.1
130357455	136	1.80	0.180	424	138	150	136	149	92	276	285	8.8
130357456	136	1.80	0.180	424	138	150	136	149	92	276	285	8.8
130357457	136	1.80	0.180	424	138	150	136	149	92	276	285	8.8
130357458	136	1.80	0.180	424	138	150	136	149	92	276	285	8.8

GSE *Lining Technology, Inc*

Roll Test Data Report

Sales Order No.	*Project Number*	*Customer Name*	*Project Location*	*Product Name*	*Report Date*
61162		West Pasco County	Springhill, FL	FBR-080E-EBC-E-00	3/25/2010

	ASTM D 4491		*ASTM D 4751*	*ASTM D 3786*	*ASTM D 4833*	*ASTM D 4533*		*ASTM D 4632*				*ASTM D 5261*
	Average Sample Flow Rate	*Permittivity*	*Apparent Opening Size*	*Mullen Burst Strength*	*Puncture Resistance*	*Trap Tear Strength CD*	*Trap Tear Strength MD*	*Grab Elongation CD*	*Grab Elongation MD*	*Grab Strength CD*	*Grab Strength MD*	*Mass per Unit Area*
	(gallon/min/ft2)	*(Sec-1)*	*(mm)*	*(psi)*	*(lbs)*	*(lbs)*	*(lbs)*	*(%)*	*(%)*	*(lbs)*	*(lbs)*	*(oz./yd2)*
Roll No.	*every 24th*		*every roll*	*every 4th*	*every 4th*	*every 4th*				*every 4th*		*every 4th*
130357459	136	1.80	0.180	412	123	167	130	152	87	237	264	8.1
130357460	136	1.80	0.180	412	123	167	130	152	87	237	264	8.1
130357461	136	1.80	0.180	412	123	167	130	152	87	237	264	8.1
130357462	136	1.80	0.180	412	123	167	130	152	87	237	264	8.1
130357463	139	1.90	0.180	438	133	156	124	149	91	249	253	8.2
130357464	139	1.90	0.180	438	133	156	124	149	91	249	253	8.2
130357465	139	1.90	0.180	438	133	156	124	149	91	249	253	8.2
130357466	139	1.90	0.180	438	133	156	124	149	91	249	253	8.2
130357467	139	1.90	0.180	434	130	172	141	148	95	248	261	8.2
130357468	139	1.90	0.180	434	130	172	141	148	95	248	261	8.2
130357469	139	1.90	0.180	434	130	172	141	148	95	248	261	8.2
130357470	139	1.90	0.180	434	130	172	141	148	95	248	261	8.2
130357471	136	1.80	0.180	500	149	169	190	143	89	278	276	9.0
130357472	136	1.80	0.180	500	149	169	190	143	89	278	276	9.0
130357473	136	1.80	0.180	500	149	169	190	143	89	278	276	9.0
130357474	136	1.80	0.180	500	149	169	190	143	89	278	276	9.0
130357475	136	1.80	0.180	468	153	181	156	143	100	259	252	8.4
130357476	136	1.80	0.180	468	153	181	156	143	100	259	252	8.4
130357478	136	1.80	0.180	468	153	181	156	143	100	259	252	8.4
130357479	133	1.80	0.180	480	136	189	150	141	96	252	255	8.5
130357480	133	1.80	0.180	480	136	189	150	141	96	252	255	8.5
130357481	133	1.80	0.180	480	136	189	150	141	96	252	255	8.5
130357483	133	1.80	0.180	450	141	156	141	148	96	245	266	8.2
130357484	133	1.80	0.180	450	141	156	141	148	96	245	266	8.2
130357485	133	1.80	0.180	450	141	156	141	148	96	245	266	8.2
130357486	133	1.80	0.180	450	141	156	141	148	96	245	266	8.2
130357487	130	1.70	0.180	466	148	180	159	159	88	244	267	8.8
130357488	130	1.70	0.180	466	148	180	159	159	88	244	267	8.8
130357489	130	1.70	0.180	466	148	180	159	159	88	244	267	8.8
130357490	130	1.70	0.180	466	148	180	159	159	88	244	267	8.8

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-080E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th		every 4th				every 4th
130357492	130	1.70	0.180	448	120	163	139	154	92	242	261	8.3

Laboratory Manager:

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Kingstree Lab - US

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
62151		West Pasco County	Springhill, FL	FBR-080E-EBC-E-00	7/27/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every 24th	every 4th	every 4th	every 4th			every 4th			every 4th
130355248	119	1.60	0.180	446	148	119	122	132	84	241	253	8.3
130355287	125	1.70	0.180	430	168	174	122	124	88	288	275	8.6
130355289	125	1.70	0.180	430	168	174	122	124	88	288	275	8.6

Laboratory Manager:

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Kingstree Lab - US

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-060E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th			every 4th			every 4th
130354374	130	1.80	0.212	352	97	89	101	145	95	208	190	6.9
130354375	130	1.80	0.212	352	97	89	101	145	95	208	190	6.9
130354376	130	1.80	0.212	352	97	89	101	145	95	208	190	6.9
130354377	130	1.80	0.212	352	97	89	101	145	95	208	190	6.9
130354379	130	1.80	0.212	334	104	87	92	152	90	197	195	6.7
130354381	130	1.80	0.212	334	104	87	92	152	90	197	195	6.7
130354389	149	2.00	0.212	362	102	90	95	157	98	194	174	6.4
130354390	149	2.00	0.212	354	105	108	95	150	95	210	205	6.8
130354391	149	2.00	0.212	354	105	108	95	150	95	210	205	6.8
130354396	149	2.00	0.212	380	107	96	99	161	95	187	201	6.8
130354397	149	2.00	0.212	380	107	96	99	161	95	187	201	6.8
130354398	149	2.00	0.212	330	106	84	84	153	92	174	189	6.3
130354476	162	2.20	0.212	330	107	126	112	145	84	184	194	6.5
130354486	162	2.20	0.212	342	92	128	111	135	88	193	196	6.2
130354491	134	1.80	0.212	352	112	152	117	138	93	197	212	6.7
130357129	130	1.80	0.212	352	110	90	99	155	92	194	223	6.4
130357132	130	1.80	0.212	344	105	115	103	144	89	196	191	6.2
130357133	130	1.80	0.212	344	105	115	103	144	89	196	191	6.2
130357135	130	1.80	0.212	344	105	115	103	144	89	196	191	6.2
130357136	130	1.80	0.212	346	116	122	111	141	74	209	224	6.3
130357137	130	1.80	0.212	346	116	122	111	141	74	209	224	6.3
130357138	130	1.80	0.212	346	116	122	111	141	74	209	224	6.3
130357139	130	1.80	0.212	346	116	122	111	141	74	209	224	6.3
130357148	139	1.90	0.212	340	104	126	109	149	86	188	201	6.4
130357158	139	1.90	0.212	336	118	125	112	151	86	183	212	6.4
130357159	139	1.90	0.212	336	104	125	112	151	86	183	212	6.4
130357168	145	2.00	0.212	342	112	90	88	155	81	187	201	6.4
130357170	145	2.00	0.212	342	112	90	88	155	81	187	201	6.4
130357171	145	2.00	0.212	342	112	90	88	155	81	187	201	6.4
130357186	130	1.80	0.212	376	108	90	106	152	86	193	213	6.5

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-060E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th			every 4th			every 4th
130357218	134	1.80	0.212	342	120	137	142	140	76	214	232	6.7
130357225	134	1.80	0.212	372	108	131	111	145	83	224	243	6.7
130357226	134	1.80	0.212	372	108	131	111	145	83	224	243	6.7
130357227	134	1.80	0.212	372	108	131	111	145	83	224	243	6.7
130357228	134	1.80	0.212	346	109	121	115	141	82	205	247	6.5
130357229	134	1.80	0.212	346	109	121	115	141	82	205	247	6.5
130357230	134	1.80	0.212	346	109	121	115	141	82	205	247	6.5
130357231	134	1.80	0.212	346	109	121	115	141	82	205	247	6.5
130357232	134	1.80	0.212	328	105	130	118	127	83	200	235	6.5
130357233	134	1.80	0.212	328	105	130	118	127	83	200	235	6.5
130357235	134	1.80	0.212	328	105	130	118	127	83	200	235	6.5
130357237	157	2.10	0.212	342	99	145	107	139	91	194	225	6.0
130357239	157	2.10	0.212	342	99	145	107	139	91	194	225	6.0
130357240	157	2.10	0.212	332	105	142	136	145	77	191	218	6.2
130357241	157	2.10	0.212	332	105	142	136	145	77	191	218	6.2
130357242	157	2.10	0.212	332	105	142	136	145	77	191	218	6.2
130357243	157	2.10	0.212	332	105	142	136	145	77	191	218	6.2
130357244	157	2.10	0.212	340	109	130	115	139	83	199	223	6.8
130357245	157	2.10	0.212	340	109	130	115	139	83	199	223	6.8
130357246	157	2.10	0.212	340	109	130	115	139	83	199	223	6.8
130357247	157	2.10	0.212	340	109	130	115	139	83	199	223	6.8
130357252	157	2.10	0.212	338	96	151	125	140	93	208	207	6.6
130357253	157	2.10	0.212	338	96	151	125	140	93	208	207	6.6
130357254	157	2.10	0.212	338	96	151	125	140	93	208	207	6.6
130357256	157	2.10	0.212	346	98	121	122	121	100	187	199	6.6
130357257	157	2.10	0.212	346	98	121	122	121	100	187	199	6.6
130357258	157	2.10	0.212	346	98	121	122	121	100	187	199	6.6
130357260	188	2.50	0.212	342	117	136	108	144	95	218	208	6.5
130357261	188	2.50	0.212	342	117	136	108	144	95	218	208	6.5
130357262	188	2.50	0.212	342	117	136	108	144	95	218	208	6.5

Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-060E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th			every 4th			every 4th
130357263	188	2.50	0.212	342	117	136	108	144	95	218	208	6.5
130357272	165	2.20	0.212	324	92	134	113	139	98	182	206	6.3
130357273	165	2.20	0.212	324	92	134	113	139	98	182	206	6.3
130357274	165	2.20	0.212	324	92	134	113	139	98	182	206	6.3
130357275	165	2.20	0.212	324	92	134	113	139	98	182	206	6.3
130358890	131	1.80	0.212	386	117	114	98	141	90	260	245	7.0
130358893	163	2.20	0.211	394	112	112	97	137	96	244	237	6.8
130358895	163	2.20	0.211	394	112	112	97	137	96	244	237	6.8
130358896	163	2.20	0.211	376	104	117	81	137	86	251	216	6.3
130358899	163	2.20	0.211	376	104	117	81	137	86	251	216	6.3
130358906	163	2.20	0.211	348	105	142	131	142	83	228	216	6.3
130358907	163	2.20	0.211	348	105	142	131	142	83	228	216	6.3
130358913	147	2.00	0.212	340	113	132	105	141	86	224	194	6.2
130358914	147	2.00	0.212	340	113	132	105	141	86	224	194	6.2
130358915	147	2.00	0.212	340	113	132	105	141	86	224	194	6.2
130358916	147	2.00	0.212	346	90	144	138	93	150	229	207	6.3
130359073	132	1.80	0.212	358	113	100	80	115	96	241	216	6.4
130359075	132	1.80	0.212	358	113	100	80	115	96	241	216	6.4
130359076	132	1.80	0.212	374	107	108	90	126	94	269	221	6.6
130359078	132	1.80	0.212	374	107	108	90	126	94	269	221	6.6
130359087	132	1.80	0.212	399	108	132	97	125	94	245	227	6.7
130359088	132	1.80	0.212	344	98	119	88	119	96	235	206	6.2
130359089	132	1.80	0.212	344	98	119	88	119	96	235	206	6.2
130359090	132	1.80	0.212	344	98	119	88	119	96	235	206	6.2
130359091	132	1.80	0.212	344	98	119	88	119	96	235	206	6.2
130359092	170	2.30	0.212	391	106	127	110	130	90	242	221	6.5
130359093	170	2.30	0.212	391	106	127	110	130	90	242	221	6.5

Laboratory Manager: Jane Allen

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Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
61162		West Pasco County	Springhill, FL	FBR-060E-EBC-E-00	3/25/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every roll	every 4th	every 4th	every 4th		every 4th				every 4th

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Roll Test Data Report

Lining Technology, Inc

Sales Order No.	Project Number	Customer Name	Project Location	Product Name	Report Date
62151		West Pasco County	Springhill, FL	FBR-060E-EBC-E-00	7/27/2010

	ASTM D 4491		ASTM D 4751	ASTM D 3786	ASTM D 4833	ASTM D 4533		ASTM D 4632				ASTM D 5261
	Average Sample Flow Rate	Permittivity	Apparent Opening Size	Mullen Burst Strength	Puncture Resistance	Trap Tear Strength CD	Trap Tear Strength MD	Grab Elongation CD	Grab Elongation MD	Grab Strength CD	Grab Strength MD	Mass per Unit Area
	(gallon/min/ft2)	(Sec-1)	(mm)	(psi)	(lbs)	(lbs)	(lbs)	(%)	(%)	(lbs)	(lbs)	(oz./yd2)
Roll No.	every 24th		every 24th	every 4th	every 4th	every 4th			every 4th			every 4th
130364498	127	1.70	0.212	344	114	161	195	131	92	208	225	6.5
130364517	153	2.10	0.212	378	110	147	182	132	87	219	221	6.4

Laboratory Manager:

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GSE Roll Allocation

Order 61478
Customer Comanco
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130357581	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357582	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357583	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357584	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357587	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357591	GEO-080E-EBC-E-00	NW8	1/19/2010	600
130357592	GEO-080E-EBC-E-00	NW8	1/19/2010	600

GSE Roll Allocation

Order 62151
Customer West Pasco County
Site West Pasco County Ash Landfill Cell A-4

Roll#	*Product Code*	*Description*	*Mfg. Date*	*Length*
130364691	GEO-080E-EBC-E-00	NW8	6/27/2010	600

GSE *ining Technology, Inc*

Roll Test Data Report

Sales Order No.	*Project Number*	*Customer Name*	*Project Location*	*Product Name*	*Report Date*
61478		Comanco	Brooksville, FL	GEO-080E-EBC-E-00	4/14/2010

GSE QC APPROVED

	ASTM D 4491		*ASTM D 4751*	*ASTM D 4833*	*ASTM D 4533*		*ASTM D 4632*				*ASTM D 5199*	*ASTM D 5261*
	Average Sample Flow Rate	*Permittivity*	*Apparent Opening Size*	*Puncture Resistance*	*Trap Tear Strength CD*	*Trap Tear Strength MD*	*Grab Elongation CD*	*Grab Elongation MD*	*Grab Strength CD*	*Grab Strength MD*	*Thickness*	*Mass per Unit Area*
	(gallon/min/ft2)	*(Sec-1)*	*(mm)*	*(lbs)*	*(lbs)*	*(lbs)*	*(%)*	*(%)*	*(lbs)*	*(lbs)*	*(mils)*	*(oz./yd2)*
Roll No.	*every 60th*		*every 10th*	*every 10th*	*every 10th*				*every 10th*		*every 10th*	*every 10th*
130357581	123	1.70	0.180	159	218	180	138	93	238	283	88	8.9
130357582	123	1.70	0.180	159	218	180	138	93	238	283	88	8.9
130357583	123	1.70	0.180	159	218	180	138	93	238	283	88	8.9
130357584	123	1.70	0.180	159	218	180	138	93	238	283	88	8.9
130357587	123	1.70	0.180	138	183	174	138	98	238	273	81	8.5
130357591	123	1.70	0.180	138	183	174	138	98	238	273	81	8.5
130357592	123	1.70	0.180	138	183	174	138	98	238	273	81	8.5

Laboratory Manager: Jane Allen

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GSE *Lining Technology, Inc*

Roll Test Data Report

Sales Order No.	*Project Number*	*Customer Name*	*Project Location*	*Product Name*	*Report Date*
62151		West Pasco County	Springhill, FL	GEO-080E-EBC-E-00	7/23/2010

GSE QC APPROVED

	ASTM D 4491		*ASTM D 4751*	*ASTM D 4833*	*ASTM D 4533*		*ASTM D 4632*				*ASTM D 5199*	*ASTM D 5261*
	Average Sample Flow Rate	*Permittivity*	*Apparent Opening Size*	*Puncture Resistance*	*Trap Tear Strength CD*	*Trap Tear Strength MD*	*Grab Elongation CD*	*Grab Elongation MD*	*Grab Strength CD*	*Grab Strength MD*	*Thickness*	*Mass per Unit Area*
	(gallon/min/ft2)	*(Sec-1)*	*(mm)*	*(lbs)*	*(lbs)*	*(lbs)*	*(%)*	*(%)*	*(lbs)*	*(lbs)*	*(mils)*	*(oz./yd2)*
Roll No.	*every 10th*		*every 10th roll*	*every 10th*	*every 10th*				*every 10th*		*every 10th*	*every 10th*
130364691	112	1.50	0.180	151	98	95	114	102	357	258	83	9.0

Laboratory Manager: Jane Allen

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Image # 91230 2052
Date 12.30.09

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(W Pasco Facility) 09017

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Date 03.25.10

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Image # 1003252065
Date 03.25.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 100426 2155
Date 04.26.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 100426 2157
Date 04.26.10

Aero Photo

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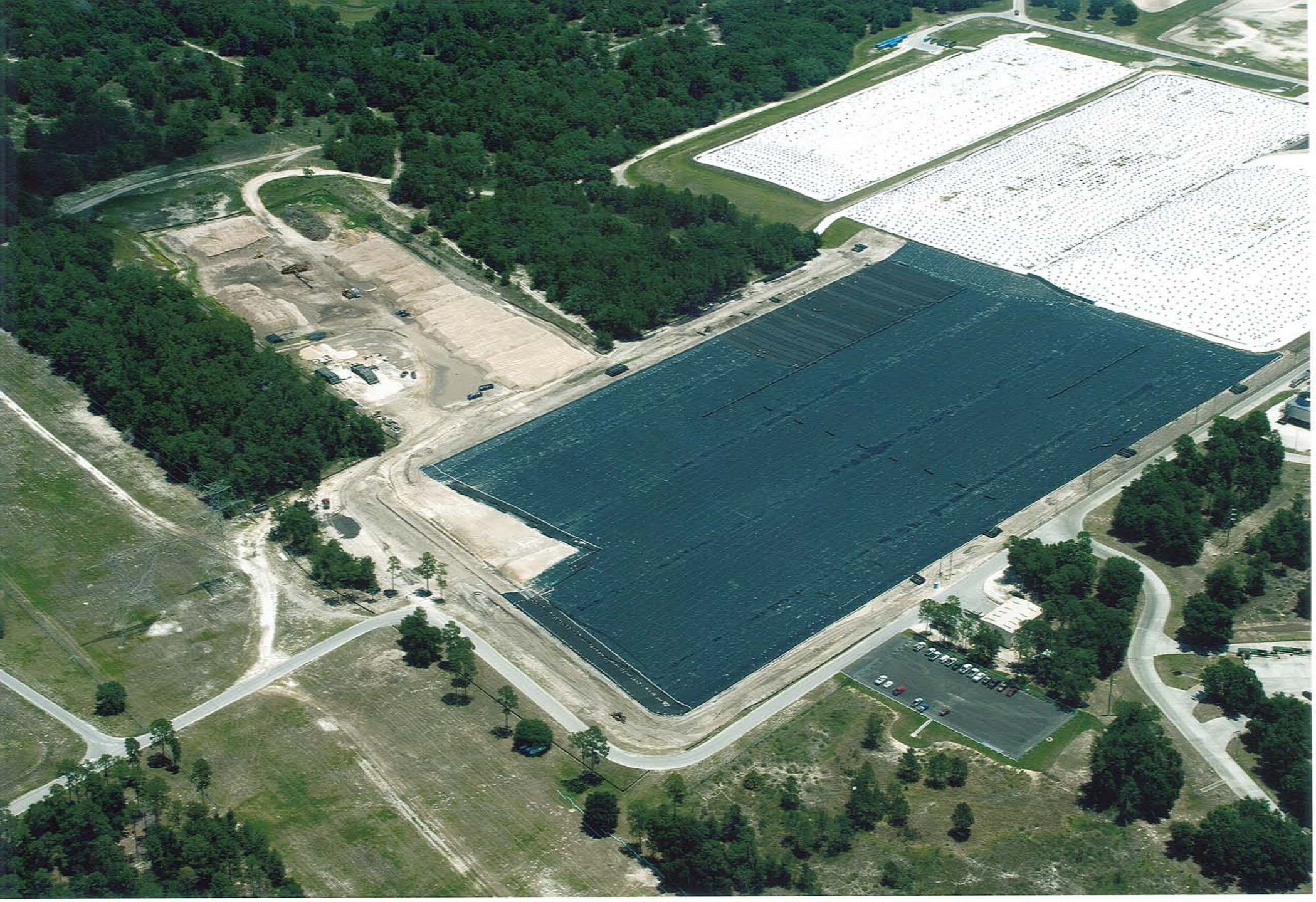
Ash Cell A-4 and Parking (Improvements)
(W Pasco Facility) 09017

Image # 100526 2224
Date 05.26.10



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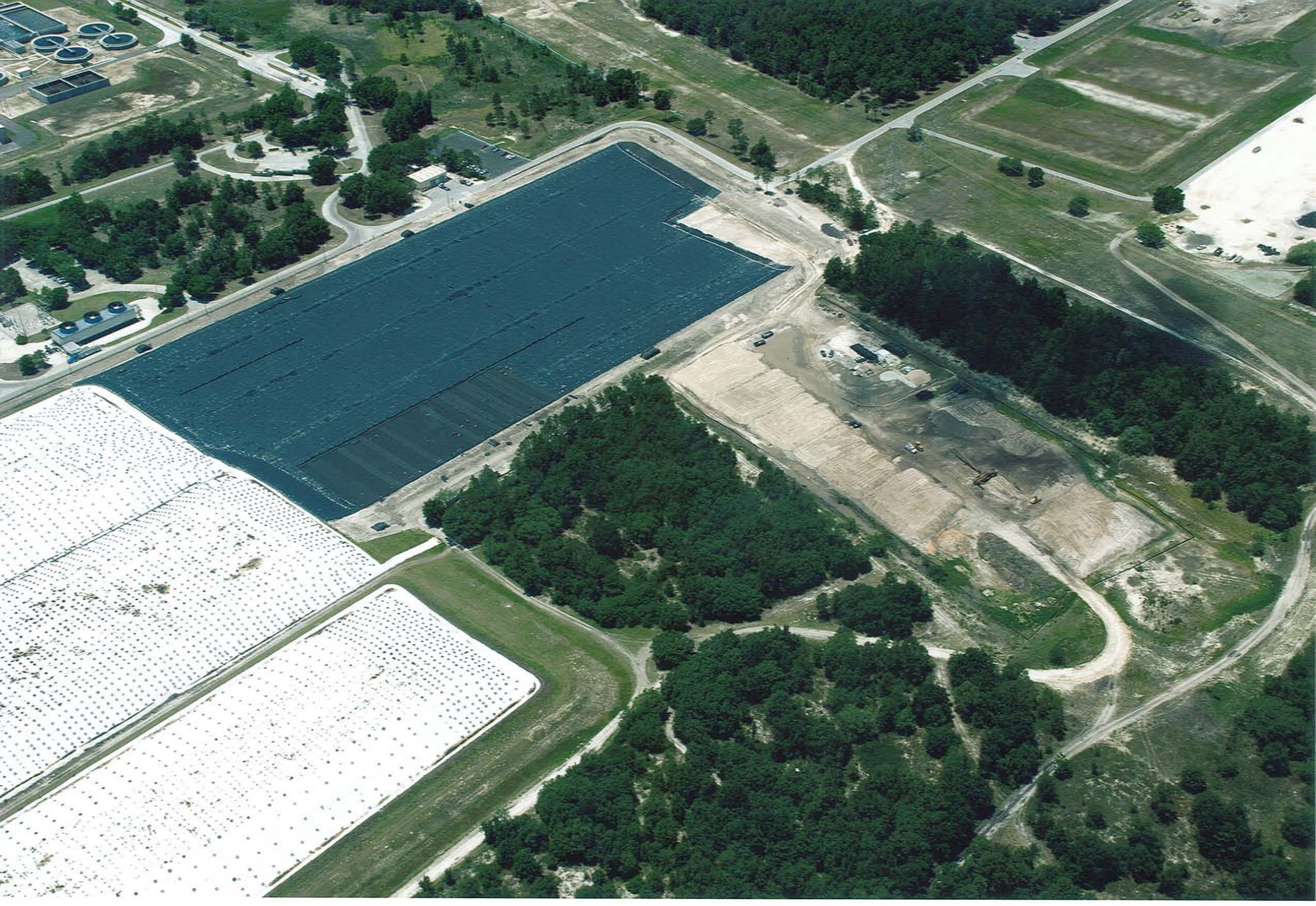
Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 100526 2227
Date 05.26.10



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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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Date 07.26.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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Date 07.26.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 100830 2016
Date 08.30.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 100830 2018
Date 08.30.10

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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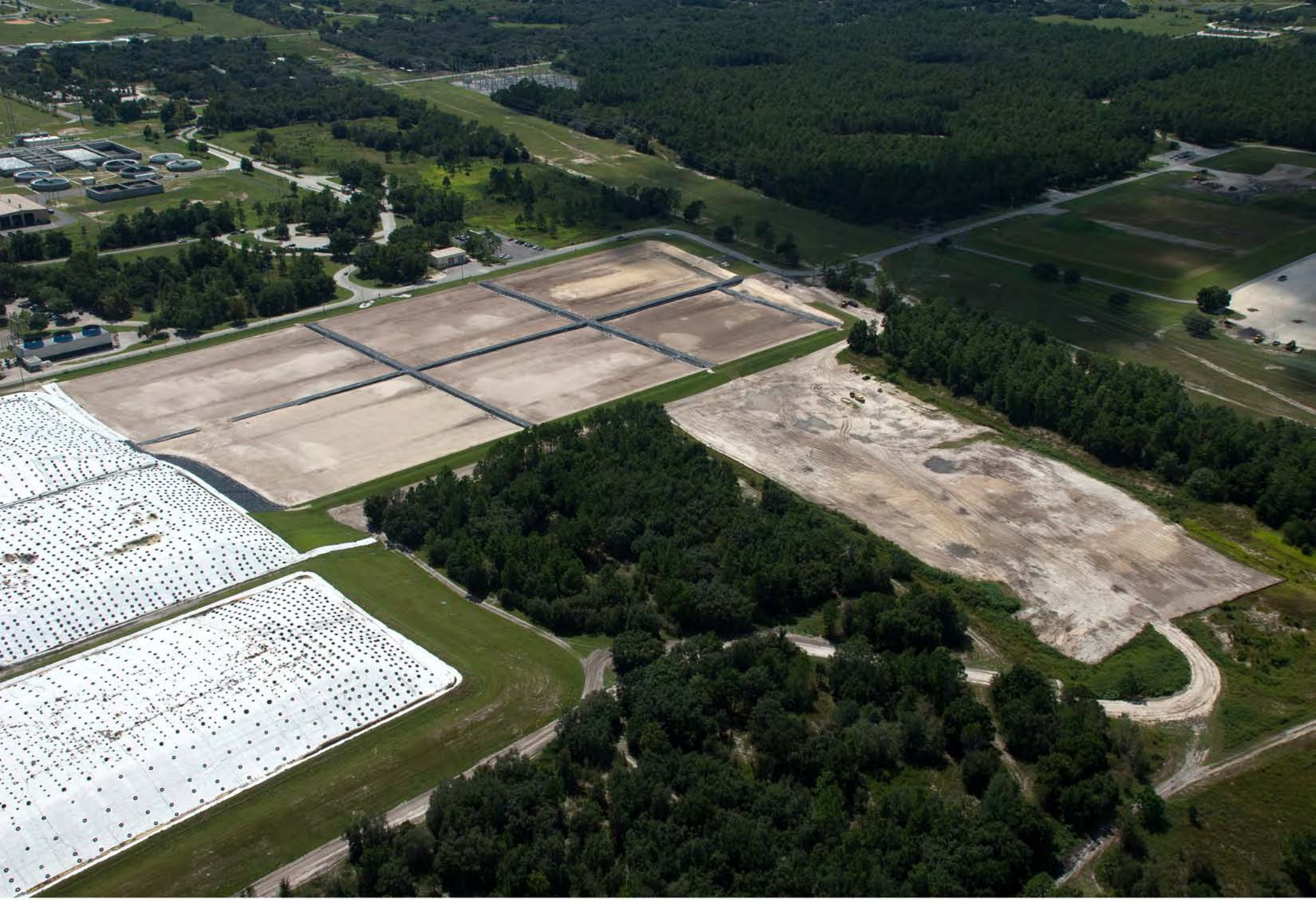

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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Date 09.27.10

Aero Photo

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Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

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Aero Photo
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www.aerophoto.com

Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 101025 2180
Date 10.25.10

Aero Photo

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www.aerophoto.com

Ash Cell A-4 and Parking (Improvements) (W Pasco Facility) 09017

Image # 101025 2182
Date 10.25.10

October 2010

Precision Geosynthetic Laboratories

Pasco County, Florida
West Pasco Cell A-4 Construction CQA Testing

Corporate Office
1160 North Gilbert Street
Anaheim, CA 92801 USA
Tel: 800-522-4599
714-520-9631
Fax: 714-520-9637
Email: sales@precisionlabs.net

China Lab
162 Qingqui Street
Suzhou Industry Park
Suzhou, China 215126
TeL: (86)512-62831397
Fax: (86)512-62821393
Email: pglchina@precisionlabs.net

Precision Geosynthetic Laboratories

DESTRUCTIVE SEAM TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

April 13, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of eight (8) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 13, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

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The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100283)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100283)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 13, 2010 **DATE REPORTED:** April 13, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-1 S6/S7	65478
DS-2 S11/S12	65479
DS-3 S14/S15	65480
DS-4 S24/S25	65481
DS-5 S33/S34	65482
DS-6 S32/S35	65483
DS-7 Exist/S19	65484
DS-8 Cap/S35	65485

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/13/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **13-Apr-10** | PGL JOB #: **G100283** | DATE REPORT: 13-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 1	**65478**	196	> 50%	BRK		1 Outside	152	0	SE1	
S6/S7		195	> 50%	BRK		2 Outside	150	0	SE1	
		205	> 50%	BRK		3 Outside	153	0	SE1	
		201	> 50%	BRK		4 Outside	154	0	SE1	
		202	> 50%	BRK		5 Outside	151	0	SE1	
						AVG:	**152**			95
						STD. DEV.	**1**			
						1 Inside	149	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	142	0	SE1	
						5 Inside	147	0	SE1	
	AVG.	**200**			120	**AVG:**	**147**			95
	STD. DEV.	**4**				STD. DEV.	**5**			
DS- 2	**65479**	197	> 50%	BRK		1 Outside	144	0	SE1	
S11/S12		194	> 50%	BRK		2 Outside	143	0	SE1	
		199	> 50%	BRK		3 Outside	146	0	SE1	
		201	> 50%	BRK		4 Outside	137	0	SE1	
		200	> 50%	BRK		5 Outside	149	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**5**			
						1 Inside	147	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	165	0	SE1	
						4 Inside	154	0	SE1	
						5 Inside	149	0	SE1	
	AVG:	**198**			120	**AVG:**	**153**			95
	STD. DEV.	**3**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-Apr-10** | PGL JOB #: **G100283** | DATE REPORT: 13-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 3	**65480**	200	> 50%	BRK		1 Outside	143	0	SE1	
S14/S15		182	> 50%	BRK		2 Outside	109	0	SE1	
		190	> 50%	BRK		3 Outside	142	0	SE1	
		191	> 50%	BRK		4 Outside	137	0	SE1	
		199	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**15**			
						1 Inside	137	0	SE1	
						2 Inside	131	0	SE1	
						3 Inside	144	0	SE1	
						4 Inside	139	0	SE1	
						5 Inside	140	0	SE1	
	AVG.	**192**			120	**AVG:**	**138**			95
	STD. DEV.	**8**				STD. DEV.	**5**			
DS- 4	**65481**	200	> 50%	BRK		1 Outside	152	0	SE1	
S24/S25		193	> 50%	BRK		2 Outside	134	0	SE1	
		200	> 50%	BRK		3 Outside	143	0	SE1	
		200	> 50%	BRK		4 Outside	147	0	SE1	
		201	> 50%	BRK		5 Outside	162	0	SE1	
						AVG:	**147**			95
						STD. DEV.	**10**			
						1 Inside	161	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	159	0	SE1	
						4 Inside	151	0	SE1	
						5 Inside	156	0	SE1	
	AVG:	**199**			120	**AVG:**	**155**			95
	STD. DEV.	**3**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **13-Apr-10** | PGL JOB #: **G100283** | DATE REPORT: 13-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 5	**65482**	199	> 50%	BRK		1 Outside	166	0	SE1	
S33/S34		201	> 50%	BRK		2 Outside	158	0	SE1	
		199	> 50%	BRK		3 Outside	159	0	SE1	
		195	> 50%	BRK		4 Outside	164	0	SE1	
		202	> 50%	BRK		5 Outside	164	0	SE1	
						AVG:	**162**			95
						STD. DEV.	**4**			
						1 Inside	170	0	SE1	
						2 Inside	164	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	154	0	SE1	
	AVG.	**199**			120	**AVG:**	**158**			95
	STD. DEV.	**3**				STD. DEV.	**8**			
DS- 6	**65483**	208	> 50%	BRK		1 Outside	159	0	SE1	
S32/S35		200	> 50%	BRK		2 Outside	162	0	SE1	
		203	> 50%	BRK		3 Outside	163	0	SE1	
		201	> 50%	BRK		4 Outside	165	0	SE1	
		201	> 50%	BRK		5 Outside	168	0	SE1	
						AVG:	**163**			95
						STD. DEV.	**3**			
						1 Inside	152	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	147	0	SE1	
	AVG:	**202**			120	**AVG:**	**143**			95
	STD. DEV.	**3**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
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BRK2	BREAK IN TOP SHEETING.
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HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Extrusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **13-Apr-10** | PGL JOB #: **G100283** | DATE REPORT: 13-Apr-10

		Crosshead Speed: 2 in/min				Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 7	**65484**	167	> 50%	BRK		1 Outside	134	0	SE3	
Exist/S19		161	> 50%	BRK		2 Outside	149	0	SE3	
		163	> 50%	BRK		3 Outside	146	0	SE3	
		161	> 50%	BRK		4 Outside	147	0	SE3	
		162	> 50%	BRK		5 Outside	143	0	SE3	
						AVG:	**144**			78
						STD. DEV.	**6**			
						1 Inside	N/A			
						2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG.	**163**			120	**AVG:**				
	STD. DEV.	**3**				STD. DEV.				
DS- 8	**65485**	193	> 50%	BRK		1 Outside	172	0	SE3	
Cap/S35		190	> 50%	BRK		2 Outside	186	0	SE3	
		191	> 50%	BRK		3 Outside	180	0	SE3	
		189	> 50%	BRK		4 Outside	179	0	SE3	
		190	> 50%	BRK		5 Outside	168	0	SE3	
						AVG:	**177**			78
						STD. DEV.	**7**			
						1 Inside	N/A			
						2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG:	**191**			120	**AVG:**				
	STD. DEV.	**1**				STD. DEV.				

BREAK DESCRIPTION (ASTM D6392 FUSION):

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SE2	BREAK AT TOP EDGE OF SEAM.
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BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
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Precision Geosynthetic Laboratories

April 14, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

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Enclosed is the ***final*** laboratory report for the testing of eight (8) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 14, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

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Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100293)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100293)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 14, 2010 **DATE REPORTED:** April 14, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-9 S35/S38	65544
DS-10 S37/S39	65545
DS-11 S39/S43	65546
DS-12 S44/S47	65547
DS-13 S41/S40	65548
DS-14 S46/S49	65549
DS-15 S49/S50	65550
DS-16 S50/S52	65551

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/14/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **14-Apr-10** | PGL JOB #: **G100293** | DATE REPORT: **14-Apr-10**

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-9	**65544**	202	> 50%	BRK		1 Outside	156	0	SE1	
S35/S38		203	> 50%	BRK		2 Outside	140	0	SE1	
		198	> 50%	BRK		3 Outside	138	0	SE1	
		198	> 50%	BRK		4 Outside	144	0	SE1	
		200	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**8**			
						1 Inside	152	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	151	0	SE1	
						5 Inside	146	0	SE1	
	AVG.	**200**			120	**AVG:**	**145**			95
	STD. DEV.	**2**				STD. DEV.	**7**			
DS-10	**65545**	206	> 50%	BRK		1 Outside	149	0	SE1	
S37/S39		201	> 50%	BRK		2 Outside	135	0	SE1	
		203	> 50%	BRK		3 Outside	138	0	SE1	
		202	> 50%	BRK		4 Outside	142	0	SE1	
		200	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**6**			
						1 Inside	128	0	SE1	
						2 Inside	120	0	SE1	
						3 Inside	123	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	124	0	SE1	
	AVG:	**202**			120	**AVG:**	**126**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **14-Apr-10** | PGL JOB #: **G100293** | DATE REPORT: 14-Apr-10

		Crosshead Speed: 2 in/min				Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-11	**65546**	204	> 50%	BRK		1 Outside	158	0	SE1	
S39/S43		202	> 50%	BRK		2 Outside	142	0	SE1	
		201	> 50%	BRK		3 Outside	159	0	SE1	
		203	> 50%	BRK		4 Outside	152	0	SE1	
		201	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**9**			
						1 Inside	146	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	144	0	SE1	
	AVG.	**202**			120	**AVG:**	**149**			95
	STD. DEV.	**1**				STD. DEV.	**4**			
DS-12	**65547**	196	> 50%	BRK		1 Outside	145	0	SE1	
S44/S47		198	> 50%	BRK		2 Outside	146	0	SE1	
		195	> 50%	BRK		3 Outside	138	0	SE1	
		200	> 50%	BRK		4 Outside	142	0	SE1	
		198	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**4**			
						1 Inside	153	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	140	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	150	0	SE1	
	AVG:	**197**			120	**AVG:**	**150**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **14-Apr-10** | PGL JOB #: **G100293** | DATE REPORT: 14-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-13	**65548**	193	> 50%	BRK		1 Outside	182	0	SE1	
S41/S40		198	> 50%	BRK		2 Outside	152	0	SE1	
		198	> 50%	BRK		3 Outside	164	0	SE1	
		198	> 50%	BRK		4 Outside	164	0	SE1	
		192	> 50%	BRK		5 Outside	166	0	SE1	
						AVG:	**166**			95
						STD. DEV.	**11**			
						1 Inside	160	0	SE1	
						2 Inside	158	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	156	0	SE1	
						5 Inside	161	0	SE1	
	AVG.	**196**			120	**AVG:**	**158**			95
	STD. DEV.	**3**				STD. DEV.	**3**			
DS-14	**65549**	205	> 50%	BRK		1 Outside	136	0	SE1	
S46/S49		202	> 50%	BRK		2 Outside	144	0	SE1	
		202	> 50%	BRK		3 Outside	154	0	SE1	
		203	> 50%	BRK		4 Outside	135	0	SE1	
		204	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**8**			
						1 Inside	136	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	142	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**203**			120	**AVG:**	**139**			95
	STD. DEV.	**1**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **14-Apr-10** | PGL JOB #: **G100293** | DATE REPORT: 14-Apr-10

		Crosshead Speed: 2 in/min					Crosshead Speed: 2 in/min				
		SHEAR EVALUATION					**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-15	**65550**	201	> 50%	BRK		1 Outside	132	0	SE1	
S49/S50		202	> 50%	BRK		2 Outside	134	0	SE1	
		203	> 50%	BRK		3 Outside	128	0	SE1	
		198	> 50%	BRK		4 Outside	144	0	SE1	
		200	> 50%	BRK		5 Outside	135	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**6**			
						1 Inside	143	0	SE1	
						2 Inside	149	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	152	0	SE1	
	AVG.	**201**			120	**AVG:**	**148**			95
	STD. DEV.	**2**				STD. DEV.	**5**			
DS-16	**65551**	200	> 50%	BRK		1 Outside	132	0	SE1	
S50/S52		201	> 50%	BRK		2 Outside	140	0	SE1	
		203	> 50%	BRK		3 Outside	137	0	SE1	
		201	> 50%	BRK		4 Outside	130	0	SE1	
		203	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**4**			
						1 Inside	142	0	SE1	
						2 Inside	139	0	SE1	
						3 Inside	132	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	146	0	SE1	
	AVG:	**202**			120	**AVG:**	**138**			95
	STD. DEV.	**1**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
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EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
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Precision Geosynthetic Laboratories

April 15, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of eight (8) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 15, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100305)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100305)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 15, 2010 **DATE REPORTED:** April 15, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-17 S51/S54	65594
DS-18 S52/S53	65595
DS-19 S53/S57	65596
DS-20 S57/S58	65597
DS-21 S56/S59	65598
DS-22 S58/S61	65599
DS-23 S60/S63	65600
DS-24 S62/S66	65601

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/15/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **15-Apr-10** | PGL JOB #: **G100305** | DATE REPORT: 15-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 17	**65594**	198	> 50%	BRK		1 Outside	139	0	SE1	
S51/S54		197	> 50%	BRK		2 Outside	134	0	SE1	
		197	> 50%	BRK		3 Outside	136	0	SE1	
		197	> 50%	BRK		4 Outside	136	0	SE1	
		191	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	**136**			95
						STD. DEV.	**2**			
						1 Inside	134	0	SE1	
						2 Inside	129	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	134	0	SE1	
	AVG.	**196**			120	**AVG:**	**133**			95
	STD. DEV.	**3**				STD. DEV.	**2**			
DS- 18	**65595**	196	> 50%	BRK		1 Outside	143	0	SE1	
S52/S53		201	> 50%	BRK		2 Outside	145	0	SE1	
		200	> 50%	BRK		3 Outside	135	0	SE1	
		199	> 50%	BRK		4 Outside	145	0	SE1	
		195	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**4**			
						1 Inside	128	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	133	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	130	0	SE1	
	AVG:	**198**			120	**AVG:**	**131**			95
	STD. DEV.	**2**				STD. DEV.	**2**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **15-Apr-10** | PGL JOB #: **G100305** | DATE REPORT: 15-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 19	**65596**	200	> 50%	BRK		1 Outside	129	0	SE1	
S53/S57		200	> 50%	BRK		2 Outside	132	0	SE1	
		198	> 50%	BRK		3 Outside	134	0	SE1	
		198	> 50%	BRK		4 Outside	138	0	SE1	
		197	> 50%	BRK		5 Outside	139	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**4**			
						1 Inside	140	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	152	0	SE1	
	AVG.	**199**			120	**AVG:**	**145**			95
	STD. DEV.	**1**				STD. DEV.	**7**			
DS- 20	**65597**	199	> 50%	BRK		1 Outside	134	0	SE1	
S57/S58		201	> 50%	BRK		2 Outside	141	0	SE1	
		200	> 50%	BRK		3 Outside	144	0	SE1	
		197	> 50%	BRK		4 Outside	137	0	SE1	
		199	> 50%	BRK		5 Outside	143	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**4**			
						1 Inside	152	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	131	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	132	0	SE1	
	AVG:	**199**			120	**AVG:**	**140**			95
	STD. DEV.	**1**				STD. DEV.	**11**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
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SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **15-Apr-10** | PGL JOB #: **G100305** | DATE REPORT: 15-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 21	**65598**	197	> 50%	BRK		1 Outside	154	0	SE1	
S56/S59		197	> 50%	BRK		2 Outside	157	0	SE1	
		197	> 50%	BRK		3 Outside	152	0	SE1	
		199	> 50%	BRK		4 Outside	146	0	SE1	
		197	> 50%	BRK		5 Outside	155	0	SE1	
						AVG:	**153**			95
						STD. DEV.	**4**			
						1 Inside	145	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	143	0	SE1	
						5 Inside	147	0	SE1	
	AVG.	**197**			120	**AVG:**	**144**			95
	STD. DEV.	**1**				STD. DEV.	**4**			
DS- 22	**65599**	190	> 50%	BRK		1 Outside	154	0	SE1	
S58/S61		194	> 50%	BRK		2 Outside	136	0	SE1	
		195	> 50%	BRK		3 Outside	142	0	SE1	
		192	> 50%	BRK		4 Outside	152	0	SE1	
		193	> 50%	BRK		5 Outside	158	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**9**			
						1 Inside	134	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	151	0	SE1	
						5 Inside	146	0	SE1	
	AVG:	**193**			120	**AVG:**	**143**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **15-Apr-10** | PGL JOB #: **G100305** | DATE REPORT: 15-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 23	**65600**	192	> 50%	BRK		1 Outside	136	0	SE1	
S60/S63		190	> 50%	BRK		2 Outside	133	0	SE1	
		198	> 50%	BRK		3 Outside	143	0	SE1	
		191	> 50%	BRK		4 Outside	139	0	SE1	
		195	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**4**			
						1 Inside	141	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	135	0	SE1	
						5 Inside	142	0	SE1	
	AVG.	**193**			120	**AVG:**	**139**			95
	STD. DEV.	**3**				STD. DEV.	**3**			
DS- 24	**65601**	202	> 50%	BRK		1 Outside	157	0	SE1	
S62/S66		203	> 50%	BRK		2 Outside	160	0	SE1	
		203	> 50%	BRK		3 Outside	154	0	SE1	
		199	> 50%	BRK		4 Outside	156	0	SE1	
		201	> 50%	BRK		5 Outside	166	0	SE1	
						AVG:	**158**			95
						STD. DEV.	**4**			
						1 Inside	169	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	158	0	SE1	
	AVG:	**202**			120	**AVG:**	**157**			95
	STD. DEV.	**2**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

April 16, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of twelve (12) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 16, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100315)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100315)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 16, 2010 **DATE REPORTED:** April 16, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-25 S64/S68	65652
DS-26 S66/S65	65653
DS-27 S67/S69	65654
DS-28 S70/S71	65655
DS-29 S71/S74	65656
DS-30 S74/S75	65657
DS-31 S74/S73	65658
DS-32 S76/S79	65659
DS-33 S78/S70	65660
DS-34 S78/S81	65661
DS-35 S81/S82	65662
DS-36 S82/S86	65663

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 6.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/16/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: **16-Apr-10**

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 25	**65652**	198	> 50%	BRK		1 Outside	136	0	SE1	
S64/S68		192	> 50%	BRK		2 Outside	161	0	SE1	
		194	> 50%	BRK		3 Outside	158	0	SE1	
		196	> 50%	BRK		4 Outside	172	0	SE1	
		192	> 50%	BRK		5 Outside	156	0	SE1	
						AVG:	**157**			95
						STD. DEV.	**13**			
						1 Inside	158	0	SE1	
						2 Inside	162	0	SE1	
						3 Inside	154	0	SE1	
						4 Inside	162	0	SE1	
						5 Inside	168	0	SE1	
	AVG.	**194**			120	**AVG:**	**161**			95
	STD. DEV.	**3**				STD. DEV.	**5**			
DS- 26	**65653**	200	> 50%	BRK		1 Outside	157	0	SE1	
S66/S65		198	> 50%	BRK		2 Outside	165	0	SE1	
		200	> 50%	BRK		3 Outside	159	0	SE1	
		202	> 50%	BRK		4 Outside	148	0	SE1	
		203	> 50%	BRK		5 Outside	166	0	SE1	
						AVG:	**159**			95
						STD. DEV.	**7**			
						1 Inside	162	0	SE1	
						2 Inside	170	0	SE1	
						3 Inside	172	0	SE1	
						4 Inside	174	0	SE1	
						5 Inside	165	0	SE1	
	AVG:	**200**			120	**AVG:**	**169**			95
	STD. DEV.	**2**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: 16-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 27	**65654**	204	> 50%	BRK		1 Outside	137	0	SE1	
S67/S69		201	> 50%	BRK		2 Outside	146	0	SE1	
		200	> 50%	BRK		3 Outside	136	0	SE1	
		201	> 50%	BRK		4 Outside	145	0	SE1	
		199	> 50%	BRK		5 Outside	146	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**5**			
						1 Inside	141	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	143	0	SE1	
						5 Inside	160	0	SE1	
	AVG.	**201**			120	**AVG:**	**148**			95
	STD. DEV.	**2**				STD. DEV.	**11**			
DS- 28	**65655**	202	> 50%	BRK		1 Outside	152	0	SE1	
S70/S71		201	> 50%	BRK		2 Outside	156	0	SE1	
		200	> 50%	BRK		3 Outside	142	0	SE1	
		204	> 50%	BRK		4 Outside	161	0	SE1	
		202	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**151**			95
						STD. DEV.	**8**			
						1 Inside	142	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	129	0	SE1	
						4 Inside	135	0	SE1	
						5 Inside	130	0	SE1	
	AVG:	**202**			120	**AVG:**	**135**			95
	STD. DEV.	**1**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: 16-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 29	**65656**	200	> 50%	BRK		1 Outside	146	0	SE1	
S71/S74		198	> 50%	BRK		2 Outside	148	0	SE1	
		195	> 50%	BRK		3 Outside	150	0	SE1	
		196	> 50%	BRK		4 Outside	160	0	SE1	
		198	> 50%	BRK		5 Outside	145	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**6**			
						1 Inside	164	0	SE1	
						2 Inside	170	0	SE1	
						3 Inside	170	0	SE1	
						4 Inside	170	0	SE1	
						5 Inside	167	0	SE1	
	AVG.	**197**			120	**AVG:**	**168**			95
	STD. DEV.	**2**				STD. DEV.	**3**			
DS- 30	**65657**	200	> 50%	BRK		1 Outside	141	0	SE1	
S74/S75		204	> 50%	BRK		2 Outside	141	0	SE1	
		203	> 50%	BRK		3 Outside	142	0	SE1	
		200	> 50%	BRK		4 Outside	136	0	SE1	
		201	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**3**			
						1 Inside	138	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	130	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	135	0	SE1	
	AVG:	**202**			120	**AVG:**	**133**			95
	STD. DEV.	**2**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: 16-Apr-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 31	**65658**	190	> 50%	BRK		1 Outside	166	0	SE1	
S74/S73		192	> 50%	BRK		2 Outside	143	0	SE1	
		193	> 50%	BRK		3 Outside	153	0	SE1	
		190	> 50%	BRK		4 Outside	160	0	SE1	
		198	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**155**			95
						STD. DEV.	**9**			
						1 Inside	148	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	152	0	SE1	
	AVG.	**193**			120	**AVG:**	**149**			95
	STD. DEV.	**3**				STD. DEV.	**2**			
DS- 32	**65659**	199	> 50%	BRK		1 Outside	126	0	SE1	
S76/S79		193	> 50%	BRK		2 Outside	120	0	SE1	
		192	> 50%	BRK		3 Outside	124	0	SE1	
		194	> 50%	BRK		4 Outside	122	0	SE1	
		195	> 50%	BRK		5 Outside	114	0	SE1	
						AVG:	**121**			95
						STD. DEV.	**5**			
						1 Inside	129	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	142	0	SE1	
						5 Inside	141	0	SE1	
	AVG:	**195**			120	**AVG:**	**141**			95
	STD. DEV.	**3**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: 16-Apr-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 33	**65660**	198	> 50%	BRK		1 Outside	144	0	SE1	
S78/S80		198	> 50%	BRK		2 Outside	136	0	SE1	
		198	> 50%	BRK		3 Outside	137	0	SE1	
		197	> 50%	BRK		4 Outside	134	0	SE1	
		199	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**137**			95
						STD. DEV.	**4**			
						1 Inside	155	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	144	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	138	0	SE1	
	AVG.	**198**			120	**AVG:**	**140**			95
	STD. DEV.	**1**				STD. DEV.	**10**			
DS- 34	**65661**	200	> 50%	BRK		1 Outside	144	0	SE1	
S78/S81		200	> 50%	BRK		2 Outside	143	0	SE1	
		202	> 50%	BRK		3 Outside	143	0	SE1	
		200	> 50%	BRK		4 Outside	148	0	SE1	
		199	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**3**			
						1 Inside	156	0	SE1	
						2 Inside	162	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	155	0	SE1	
	AVG:	**200**			120	**AVG:**	**153**			95
	STD. DEV.	**1**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **16-Apr-10** | PGL JOB #: **G100315** | DATE REPORT: 16-Apr-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 35	**65662**	200	> 50%	BRK		1 Outside	150	0	SE1	
S81/S82		200	> 50%	BRK		2 Outside	147	0	SE1	
		202	> 50%	BRK		3 Outside	138	0	SE1	
		200	> 50%	BRK		4 Outside	126	0	SE1	
		200	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**10**			
						1 Inside	132	0	SE1	
						2 Inside	166	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	162	0	SE1	
	AVG.	**200**			120	**AVG:**	**148**			95
	STD. DEV.	**1**				STD. DEV.	**16**			
DS- 36	**65663**	203	> 50%	BRK		1 Outside	133	0	SE1	
S82/S86		201	> 50%	BRK		2 Outside	136	0	SE1	
		202	> 50%	BRK		3 Outside	133	0	SE1	
		202	> 50%	BRK		4 Outside	154	0	SE1	
		203	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**9**			
						1 Inside	133	0	SE1	
						2 Inside	139	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	133	0	SE1	
	AVG:	**202**			120	**AVG:**	**135**			95
	STD. DEV.	**1**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

April 19, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of eight (8) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 19, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100329)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100329)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 19, 2010 **DATE REPORTED:** April 19, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-37 S85/S87	65713
DS-38 S87/S90	65714
DS-39 S90/S91	65715
DS-40 S91/S95	65716
DS-41 S91/S92	65717
DS-42 S95/S96	65718
DS-43 S96/S98	65719
DS-44 S99/S100	65720

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/19/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **19-Apr-10** | PGL JOB #: **G100329** | DATE REPORT: **19-Apr-10**

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 37	**65713**	194	> 50%	BRK		1 Outside	128	0	SE1	
S85/S87		190	> 50%	BRK		2 Outside	129	0	SE1	
		192	> 50%	BRK		3 Outside	126	0	SE1	
		193	> 50%	BRK		4 Outside	126	0	SE1	
		190	> 50%	BRK		5 Outside	123	0	SE1	
						AVG:	**126**			95
						STD. DEV.	**2**			
						1 Inside	139	0	SE1	
						2 Inside	135	0	SE1	
						3 Inside	131	0	SE1	
						4 Inside	129	0	SE1	
						5 Inside	129	0	SE1	
	AVG.	**192**			120	**AVG:**	**133**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DS- 38	**65714**	191	> 50%	BRK		1 Outside	134	0	SE1	
S87/S90		190	> 50%	BRK		2 Outside	135	0	SE1	
		192	> 50%	BRK		3 Outside	125	0	SE1	
		193	> 50%	BRK		4 Outside	138	0	SE1	
		190	> 50%	BRK		5 Outside	128	0	SE1	
						AVG:	**132**			95
						STD. DEV.	**5**			
						1 Inside	129	0	SE1	
						2 Inside	121	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	129	0	SE1	
						5 Inside	129	0	SE1	
	AVG:	**191**			120	**AVG:**	**130**			95
	STD. DEV.	**1**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **19-Apr-10** | PGL JOB #: **G100329** | DATE REPORT: 19-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 39	**65715**	188	> 50%	BRK		1 Outside	127	0	SE1	
S90/S91		180	> 50%	BRK		2 Outside	133	0	SE1	
		183	> 50%	BRK		3 Outside	131	0	SE1	
		181	> 50%	BRK		4 Outside	133	0	SE1	
		182	> 50%	BRK		5 Outside	126	0	SE1	
						AVG:	**130**			95
						STD. DEV.	**3**			
						1 Inside	128	0	SE1	
						2 Inside	141	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	139	0	SE1	
	AVG.	**183**			120	**AVG:**	**136**			95
	STD. DEV.	**3**				STD. DEV.	**5**			
DS- 40	**65716**	192	> 50%	BRK		1 Outside	137	0	SE1	
S91/S95		191	> 50%	BRK		2 Outside	138	0	SE1	
		190	> 50%	BRK		3 Outside	140	0	SE1	
		192	> 50%	BRK		4 Outside	147	0	SE1	
		192	> 50%	BRK		5 Outside	132	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**5**			
						1 Inside	142	0	SE1	
						2 Inside	141	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	154	0	SE1	
						5 Inside	128	0	SE1	
	AVG:	**191**			120	**AVG:**	**141**			95
	STD. DEV.	**1**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **19-Apr-10** | PGL JOB #: **G100329** | DATE REPORT: 19-Apr-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 41	**65717**	184	> 50%	BRK		1 Outside	164	0	SE1	
S91/S92		180	> 50%	BRK		2 Outside	159	0	SE1	
		181	> 50%	BRK		3 Outside	157	0	SE1	
		182	> 50%	BRK		4 Outside	163	0	SE1	
		182	> 50%	BRK		5 Outside	168	0	SE1	
						AVG:	**162**			95
						STD. DEV.	**4**			
						1 Inside	170	0	SE1	
						2 Inside	166	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	160	0	SE1	
						5 Inside	165	0	SE1	
	AVG.	**182**			120	**AVG:**	**162**			95
	STD. DEV.	**1**				STD. DEV.	**8**			
DS- 42	**65718**	191	> 50%	BRK		1 Outside	143	0	SE1	
S95/S96		190	> 50%	BRK		2 Outside	138	0	SE1	
		189	> 50%	BRK		3 Outside	136	0	SE1	
		189	> 50%	BRK		4 Outside	142	0	SE1	
		192	> 50%	BRK		5 Outside	146	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**4**			
						1 Inside	140	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	139	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	161	0	SE1	
	AVG:	**190**			120	**AVG:**	**147**			95
	STD. DEV.	**1**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **19-Apr-10** | PGL JOB #: **G100329** | DATE REPORT: 19-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS- 43	**65719**	188	> 50%	BRK		1 Outside	136	0	SE1	
S96/S98		181	> 50%	BRK		2 Outside	145	0	SE1	
		184	> 50%	BRK		3 Outside	148	0	SE1	
		180	> 50%	BRK		4 Outside	142	0	SE1	
		181	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**5**			
						1 Inside	134	0	SE1	
						2 Inside	134	0	SE1	
						3 Inside	133	0	SE1	
						4 Inside	129	0	SE1	
						5 Inside	133	0	SE1	
	AVG.	**183**			120	**AVG:**	**133**			95
	STD. DEV.	**3**				STD. DEV.	**2**			
DS- 44	**65720**	189	> 50%	BRK		1 Outside	136	0	SE1	
S99/S100		188	> 50%	BRK		2 Outside	138	0	SE1	
		188	> 50%	BRK		3 Outside	130	0	SE1	
		187	> 50%	BRK		4 Outside	128	0	SE1	
		180	> 50%	BRK		5 Outside	131	0	SE1	
						AVG:	**133**			95
						STD. DEV.	**4**			
						1 Inside	130	0	SE1	
						2 Inside	127	0	SE1	
						3 Inside	125	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	120	0	SE1	
	AVG:	**186**			120	**AVG:**	**127**			95
	STD. DEV.	**4**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

April 22, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of six (6) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 22, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100349)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

April 22, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of six (6) 60mil HDPE Seam samples specified on the proceeding sheet which were received on April 22, 2010

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

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It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100349)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100349)

MATERIAL DESCRIPTION: 60mil HDPE Seams

SAMPLES SENT BY: A. Taylor, RIPA & ASSOCIATES

DATE RECEIVED: April 22, 2010 **DATE REPORTED:** April 22, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-45 S100/S101	65833
DS-46 S100/S103	65834
DS-47 S104/S106	65835
DS-48 S105/S108	65836
DS-49 S109/S108	65837
DS-50 S108/S110	65838

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bonded Strength
ASTM D6392	Peel Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/22/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **22-Apr-10** | PGL JOB #: **G100349** | DATE REPORT: **22-Apr-10**

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-45	**65833**	208	> 50%	BRK		1 Outside	145	0	SE1	
S100/S101		201	> 50%	BRK		2 Outside	158	0	SE1	
		206	> 50%	BRK		3 Outside	160	0	SE1	
		205	> 50%	BRK		4 Outside	148	0	SE1	
		204	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**152**			95
						STD. DEV.	**7**			
						1 Inside	157	0	SE1	
						2 Inside	166	0	SE1	
						3 Inside	169	0	SE1	
						4 Inside	167	0	SE1	
						5 Inside	154	0	SE1	
	AVG.	**205**			120	**AVG:**	**163**			95
	STD. DEV.	**3**				STD. DEV.	**7**			
DS-46	**65834**	195	> 50%	BRK		1 Outside	132	0	SE1	
S100/S103		198	> 50%	BRK		2 Outside	141	0	SE1	
		196	> 50%	BRK		3 Outside	123	0	SE1	
		194	> 50%	BRK		4 Outside	126	0	SE1	
		197	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**132**			95
						STD. DEV.	**7**			
						1 Inside	128	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	132	0	SE1	
						4 Inside	133	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	**196**			120	**AVG:**	**131**			95
	STD. DEV.	**2**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **22-Apr-10** | PGL JOB #: **G100349** | DATE REPORT: 22-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-47	**65835**	205	> 50%	BRK		1 Outside	142	0	SE1	
S104/S106		206	> 50%	BRK		2 Outside	154	0	SE1	
		206	> 50%	BRK		3 Outside	147	0	SE1	
		206	> 50%	BRK		4 Outside	142	0	SE1	
		205	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**147**			95
						STD. DEV.	**5**			
						1 Inside	147	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	158	0	SE1	
						5 Inside	138	0	SE1	
	AVG.	**206**			120	**AVG:**	**149**			95
	STD. DEV.	**1**				STD. DEV.	**8**			
DS-48	**65836**	197	> 50%	BRK		1 Outside	134	0	SE1	
S105/S108		198	> 50%	BRK		2 Outside	143	0	SE1	
		200	> 50%	BRK		3 Outside	136	0	SE1	
		194	> 50%	BRK		4 Outside	133	0	SE1	
		193	> 50%	BRK		5 Outside	143	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**5**			
						1 Inside	144	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	154	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	146	0	SE1	
	AVG:	**196**			120	**AVG:**	**150**			95
	STD. DEV.	**3**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **22-Apr-10** | PGL JOB #: **G100349** | DATE REPORT: 22-Apr-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-49	**65837**	206	> 50%	BRK		1 Outside	160	0	SE1	
S109/108		208	> 50%	BRK		2 Outside	156	0	SE1	
		205	> 50%	BRK		3 Outside	154	0	SE1	
		202	> 50%	BRK		4 Outside	161	0	SE1	
		205	> 50%	BRK		5 Outside	163	0	SE1	
						AVG:	**159**			95
						STD. DEV.	**4**			
						1 Inside	166	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	172	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	164	0	SE1	
	AVG.	**205**			120	**AVG:**	**162**			95
	STD. DEV.	**2**				STD. DEV.	**8**			
DS/50	**65838**	214	> 50%	BRK		1 Outside	152	0	SE1	
S108/S110		211	> 50%	BRK		2 Outside	152	0	SE1	
		212	> 50%	BRK		3 Outside	146	0	SE1	
		210	> 50%	BRK		4 Outside	152	0	SE1	
		212	> 50%	BRK		5 Outside	156	0	SE1	
						AVG:	**152**			95
						STD. DEV.	**4**			
						1 Inside	148	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	152	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	149	0	SE1	
	AVG:	**212**			120	**AVG:**	**147**			95
	STD. DEV.	**2**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/03/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of twenty (20) HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100419

DATE RECEIVED: May 3, 2010 **DATE REPORTED:** May 3, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-1 P17/Existing	66079
DP-2 P5/Existing	66080
DP-3 P2/P1	66081
DP-4 P10/P9	66082
DP-5 P17/P16	66083
DP-6 P28/P27	66084
DP-7 P30/P35	66085
DP-8 P35/P38	66086
DP-9 P37/P40	66087
DP-10 P40/P42	66088
DP-11 P40/P41	66089
DP-12 P43/P44	66090
DP-13 P45/P47	66091
DP-14 P47/P48	66092
DP-15 P47/P50	66093
DP-16 P50/P52	66094
DP-17 P52/P51	66095
DP-18 P51/P54	66096
DP-19 P54/P56	66097
DP-20 P57/P59	66098

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 10.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Extrusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-1	**66079**	179	> 50%	BRK		1 Outside	150	0	SE3	
P17/Existing		180	> 50%	BRK		2 Outside	174	0	SE3	
		178	> 50%	BRK		3 Outside	175	0	SE3	
		178	> 50%	BRK		4 Outside	160	0	SE3	
		177	> 50%	BRK		5 Outside	158	0	SE3	
						AVG:	**163**			78
						STD. DEV.	**11**			
						1 Inside	N/A			
						2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG.	**178**			120	**AVG:**				
	STD. DEV.	**1**				STD. DEV.				
DP-2	**66080**	191	> 50%	BRK		1 Outside	156	0	SE3	
P5/Existing		190	> 50%	BRK		2 Outside	137	0	SE3	
		190	> 50%	BRK		3 Outside	156	0	SE3	
		188	> 50%	BRK		4 Outside	173	0	SE3	
		188	> 50%	BRK		5 Outside	136	0	SE3	
						AVG:	**152**			78
						STD. DEV.	**15**			
						1 Inside	N/A			
						2 Inside				
						3 Inside				
						4 Inside				
						5 Inside				
	AVG:	**189**			120	**AVG:**				
	STD. DEV.	**1**				STD. DEV.				

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-3	**66081**	208	> 50%	BRK		1 Outside	136	0	SE1	
P2/P1		201	> 50%	BRK		2 Outside	142	0	SE1	
		202	> 50%	BRK		3 Outside	133	0	SE1	
		206	> 50%	BRK		4 Outside	132	0	SE1	
		201	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**137**			95
						STD. DEV.	**5**			
						1 Inside	136	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	149	0	SE1	
						4 Inside	142	0	SE1	
						5 Inside	146	0	SE1	
	AVG.	**204**			120	**AVG:**	**146**			95
	STD. DEV.	**3**				STD. DEV.	**7**			
DP-4	**66082**	199	> 50%	BRK		1 Outside	132	0	SE1	
P10/P9		192	> 50%	BRK		2 Outside	153	0	SE1	
		196	> 50%	BRK		3 Outside	147	0	SE1	
		193	> 50%	BRK		4 Outside	149	0	SE1	
		198	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**146**			95
						STD. DEV.	**8**			
						1 Inside	144	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	137	0	SE1	
						4 Inside	144	0	SE1	
						5 Inside	136	0	SE1	
	AVG:	**196**			120	**AVG:**	**140**			95
	STD. DEV.	**3**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-5	**66083**	196	> 50%	BRK		1 Outside	133	0	SE1	
P17/P16		192	> 50%	BRK		2 Outside	132	0	SE1	
		196	> 50%	BRK		3 Outside	132	0	SE1	
		195	> 50%	BRK		4 Outside	134	0	SE1	
		193	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**3**			
						1 Inside	138	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	126	0	SE1	
						5 Inside	128	0	SE1	
	AVG.	**194**			120	**AVG:**	**136**			95
	STD. DEV.	**2**				STD. DEV.	**9**			
DP-6	**66084**	192	> 50%	BRK		1 Outside	129	0	SE1	
P28/P27		190	> 50%	BRK		2 Outside	146	0	SE1	
		192	> 50%	BRK		3 Outside	152	0	SE1	
		193	> 50%	BRK		4 Outside	130	0	SE1	
		192	> 50%	BRK		5 Outside	135	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**10**			
						1 Inside	140	0	SE1	
						2 Inside	140	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	134	0	SE1	
	AVG:	**192**			120	**AVG:**	**136**			95
	STD. DEV.	**1**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-7	**66085**	202	> 50%	BRK		1 Outside	140	0	SE1	
P30/P35		200	> 50%	BRK		2 Outside	122	0	SE1	
		203	> 50%	BRK		3 Outside	152	0	SE1	
		202	> 50%	BRK		4 Outside	164	0	SE1	
		206	> 50%	BRK		5 Outside	162	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**17**			
						1 Inside	160	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	144	0	SE1	
	AVG.	**203**			120	**AVG:**	**147**			95
	STD. DEV.	**2**				STD. DEV.	**9**			
DP-8	**66086**	197	> 50%	BRK		1 Outside	126	0	SE1	
P35/P38		190	> 50%	BRK		2 Outside	144	0	SE1	
		192	> 50%	BRK		3 Outside	130	0	SE1	
		193	> 50%	BRK		4 Outside	144	0	SE1	
		192	> 50%	BRK		5 Outside	160	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**13**			
						1 Inside	136	0	SE1	
						2 Inside	139	0	SE1	
						3 Inside	140	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	142	0	SE1	
	AVG:	**193**			120	**AVG:**	**139**			95
	STD. DEV.	**3**				STD. DEV.	**2**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

		Crosshead Speed: 2 in/min				Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-9	**66087**	205	> 50%	BRK		1 Outside	120	0	SE1	
P37/P40		206	> 50%	BRK		2 Outside	160	0	SE1	
		203	> 50%	BRK		3 Outside	158	0	SE1	
		202	> 50%	BRK		4 Outside	121	0	SE1	
		203	> 50%	BRK		5 Outside	164	0	SE1	
						AVG:	**145**			95
						STD. DEV.	**22**			
						1 Inside	175	0	SE1	
						2 Inside	156	0	SE1	
						3 Inside	176	0	SE1	
						4 Inside	162	0	SE1	
						5 Inside	164	0	SE1	
	AVG.	**204**			120	**AVG:**	**167**			95
	STD. DEV.	**2**				STD. DEV.	**9**			
DP-10	**66088**	200	> 50%	BRK		1 Outside	123	0	SE1	
P40/P42		203	> 50%	BRK		2 Outside	160	0	SE1	
		204	> 50%	BRK		3 Outside	150	0	SE1	
		202	> 50%	BRK		4 Outside	162	0	SE1	
		201	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**149**			95
						STD. DEV.	**16**			
						1 Inside	142	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	154	0	SE1	
						5 Inside	160	0	SE1	
	AVG:	**202**			120	**AVG:**	**153**			95
	STD. DEV.	**2**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-11	**66089**	198	> 50%	BRK		1 Outside	130	0	SE1	
P40/P41		192	> 50%	BRK		2 Outside	120	0	SE1	
		193	> 50%	BRK		3 Outside	128	0	SE1	
		198	> 50%	BRK		4 Outside	113	0	SE1	
		195	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**129**			95
						STD. DEV.	**15**			
						1 Inside	160	0	SE1	
						2 Inside	158	0	SE1	
						3 Inside	156	0	SE1	
						4 Inside	158	0	SE1	
						5 Inside	138	0	SE1	
	AVG.	**195**			120	**AVG:**	**154**			95
	STD. DEV.	**3**				STD. DEV.	**9**			
DP-12	**66090**	198	> 50%	BRK		1 Outside	110	0	SE1	
P43/P44		193	> 50%	BRK		2 Outside	120	0	SE1	
		193	> 50%	BRK		3 Outside	126	0	SE1	
		197	> 50%	BRK		4 Outside	132	0	SE1	
		194	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	**124**			95
						STD. DEV.	**9**			
						1 Inside	129	0	SE1	
						2 Inside	128	0	SE1	
						3 Inside	130	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	141	0	SE1	
	AVG:	**195**			120	**AVG:**	**135**			95
	STD. DEV.	**2**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 7.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-13	**66091**	198	> 50%	BRK		1 Outside	130	0	SE1	
P45/P47		198	> 50%	BRK		2 Outside	126	0	SE1	
		195	> 50%	BRK		3 Outside	130	0	SE1	
		198	> 50%	BRK		4 Outside	132	0	SE1	
		200	> 50%	BRK		5 Outside	125	0	SE1	
						AVG:	**129**			95
						STD. DEV.	**3**			
						1 Inside	145	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	149	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	133	0	SE1	
	AVG.	**198**			120	**AVG:**	**141**			95
	STD. DEV.	**2**				STD. DEV.	**7**			
DP-14	**66092**	185	> 50%	BRK		1 Outside	139	0	SE1	
P47/P48		180	> 50%	BRK		2 Outside	136	0	SE1	
		188	> 50%	BRK		3 Outside	144	0	SE1	
		186	> 50%	BRK		4 Outside	147	0	SE1	
		188	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**4**			
						1 Inside	160	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	152	0	SE1	
						4 Inside	162	0	SE1	
						5 Inside	166	0	SE1	
	AVG:	**185**			120	**AVG:**	**155**			95
	STD. DEV.	**3**				STD. DEV.	**12**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 8.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-15	**66093**	186	> 50%	BRK		1 Outside	139	0	SE1	
P47/P50		185	> 50%	BRK		2 Outside	132	0	SE1	
		184	> 50%	BRK		3 Outside	134	0	SE1	
		186	> 50%	BRK		4 Outside	133	0	SE1	
		183	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**3**			
						1 Inside	148	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	151	0	SE1	
						4 Inside	144	0	SE1	
						5 Inside	142	0	SE1	
	AVG.	**185**			120	**AVG:**	**146**			95
	STD. DEV.	**1**				STD. DEV.	**4**			
DP-16	**66094**	191	> 50%	BRK		1 Outside	126	0	SE1	
P50/P52		193	> 50%	BRK		2 Outside	119	0	SE1	
		189	> 50%	BRK		3 Outside	132	0	SE1	
		189	> 50%	BRK		4 Outside	127	0	SE1	
		191	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	**127**			95
						STD. DEV.	**5**			
						1 Inside	140	0	SE1	
						2 Inside	140	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	133	0	SE1	
						5 Inside	136	0	SE1	
	AVG:	**190**			120	**AVG:**	**137**			95
	STD. DEV.	**2**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 9.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-17	**66095**	196	> 50%	BRK		1 Outside	148	0	SE1	
P52/P51		186	> 50%	BRK		2 Outside	158	0	SE1	
		197	> 50%	BRK		3 Outside	154	0	SE1	
		196	> 50%	BRK		4 Outside	149	0	SE1	
		194	> 50%	BRK		5 Outside	156	0	SE1	
						AVG:	**153**			95
						STD. DEV.	**4**			
						1 Inside	160	0	SE1	
						2 Inside	163	0	SE1	
						3 Inside	164	0	SE1	
						4 Inside	158	0	SE1	
						5 Inside	170	0	SE1	
	AVG.	**194**			120	**AVG:**	**163**			95
	STD. DEV.	**4**				STD. DEV.	**5**			
DP-18	**66096**	207	> 50%	BRK		1 Outside	163	0	SE1	
P51/P54		209	> 50%	BRK		2 Outside	152	0	SE1	
		208	> 50%	BRK		3 Outside	152	0	SE1	
		201	> 50%	BRK		4 Outside	159	0	SE1	
		201	> 50%	BRK		5 Outside	154	0	SE1	
						AVG:	**156**			95
						STD. DEV.	**5**			
						1 Inside	158	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	152	0	SE1	
						4 Inside	158	0	SE1	
						5 Inside	142	0	SE1	
	AVG:	**205**			120	**AVG:**	**151**			95
	STD. DEV.	**4**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 10.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **3-May-10** | PGL JOB #: **G100419** | DATE REPORT: 3-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-19	**66097**	196	> 50%	BRK		1 Outside	150	0	SE1	
P54/P56		198	> 50%	BRK		2 Outside	144	0	SE1	
		195	> 50%	BRK		3 Outside	143	0	SE1	
		197	> 50%	BRK		4 Outside	142	0	SE1	
		188	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**4**			
						1 Inside	156	0	SE1	
						2 Inside	162	0	SE1	
						3 Inside	156	0	SE1	
						4 Inside	159	0	SE1	
						5 Inside	156	0	SE1	
	AVG.	**195**			120	**AVG:**	**158**			95
	STD. DEV.	**4**				STD. DEV.	**3**			
DP-20	**66098**	203	> 50%	BRK		1 Outside	158	0	SE1	
P57/P59		203	> 50%	BRK		2 Outside	150	0	SE1	
		200	> 50%	BRK		3 Outside	155	0	SE1	
		195	> 50%	BRK		4 Outside	150	0	SE1	
		199	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**153**			95
						STD. DEV.	**3**			
						1 Inside	140	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	158	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	134	0	SE1	
	AVG:	**200**			120	**AVG:**	**143**			95
	STD. DEV.	**3**				STD. DEV.	**10**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/04/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of eighteen (18) HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100429

DATE RECEIVED: May 4, 2010 **DATE REPORTED:** May 4, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-21 P59/P63	66135
DP-22 P63/P62	66136
DP-23 P63/P64	66137
DP-24 P65/P68	66138
DP-25 P67/P70	66139
DP-26 P70/P71	66140
DP-27 P72/P73	66141
DP-28 P71/P74	66142
DP-29 P74/P76	66143
DP-30 P76/P77	66144
DP-31 P78/P77	66145
DP-32 P78/P80	66146
DP-33 P80/P82	66147
DP-34 P82/P84	66148
DP-35 P84/P85	66149
DP-36 P88/P90	66150
DP-37 P88/P89	66151
DP-38 P85/P87	66152

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 9.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee**
PROJECT: **Pasco Lf Construction Ash Cell A-4**
DATE REC'D: **4-May-10**

MATERIAL: **60mil HDPE SEAM**
SEAM TYPE: **Fusion Weld**
PGL JOB #: **G100429**

QC'd By:
TEST METHOD: ASTM D6392
DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-21	**66135**	189	> 50%	BRK		1 Outside	142	0	SE1	
P59/P63		188	> 50%	BRK		2 Outside	156	0	SE1	
		184	> 50%	BRK		3 Outside	150	0	SE1	
		187	> 50%	BRK		4 Outside	131	0	SE1	
		189	> 50%	BRK		5 Outside	132	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**11**			
						1 Inside	148	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	154	0	SE1	
						4 Inside	143	0	SE1	
						5 Inside	147	0	SE1	
	AVG.	**187**			120	**AVG:**	**148**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DP-22	**66136**	183	> 50%	BRK		1 Outside	142	0	SE1	
P63/P62		182	> 50%	BRK		2 Outside	138	0	SE1	
		184	> 50%	BRK		3 Outside	147	0	SE1	
		175	> 50%	BRK		4 Outside	147	0	SE1	
		177	> 50%	BRK		5 Outside	139	0	SE1	
						AVG:	**143**			95
						STD. DEV.	**4**			
						1 Inside	170	0	SE1	
						2 Inside	163	0	SE1	
						3 Inside	157	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	164	0	SE1	
	AVG:	**180**			120	**AVG:**	**162**			95
	STD. DEV.	**4**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-23	**66137**	193	> 50%	BRK		1 Outside	136	0	SE1	
P63/P64		191	> 50%	BRK		2 Outside	142	0	SE1	
		195	> 50%	BRK		3 Outside	148	0	SE1	
		191	> 50%	BRK		4 Outside	148	0	SE1	
		195	> 50%	BRK		5 Outside	146	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**5**			
						1 Inside	133	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	125	0	SE1	
						5 Inside	129	0	SE1	
	AVG.	**193**			120	**AVG:**	**130**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DP-24	**66138**	178	> 50%	BRK		1 Outside	134	0	SE1	
P65/P68		185	> 50%	BRK		2 Outside	137	0	SE1	
		183	> 50%	BRK		3 Outside	119	0	SE1	
		182	> 50%	BRK		4 Outside	146	0	SE1	
		186	> 50%	BRK		5 Outside	147	0	SE1	
						AVG:	**137**			95
						STD. DEV.	**11**			
						1 Inside	146	0	SE1	
						2 Inside	141	0	SE1	
						3 Inside	129	0	SE1	
						4 Inside	137	0	SE1	
						5 Inside	115	0	SE1	
	AVG:	**183**			120	**AVG:**	**134**			95
	STD. DEV.	**3**				STD. DEV.	**12**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for EEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-25	**66139**	193	> 50%	BRK		1 Outside	161	0	SE1	
P67/P70		190	> 50%	BRK		2 Outside	169	0	SE1	
		192	> 50%	BRK		3 Outside	141	0	SE1	
		192	> 50%	BRK		4 Outside	140	0	SE1	
		193	> 50%	BRK		5 Outside	163	0	SE1	
						AVG:	**155**			95
						STD. DEV.	**13**			
						1 Inside	144	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	141	0	SE1	
						5 Inside	146	0	SE1	
	AVG.	**192**			120	**AVG:**	**148**			95
	STD. DEV.	**1**				STD. DEV.	**7**			
DP-26	**66140**	196	> 50%	BRK		1 Outside	140	0	SE1	
P70/P71		201	> 50%	BRK		2 Outside	148	0	SE1	
		196	> 50%	BRK		3 Outside	165	0	SE1	
		193	> 50%	BRK		4 Outside	156	0	SE1	
		191	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**11**			
						1 Inside	146	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	165	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**195**			120	**AVG:**	**147**			95
	STD. DEV.	**4**				STD. DEV.	**11**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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ISO 9001 - 2000

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-27	**66141**	184	> 50%	BRK		1 Outside	143	0	SE1	
P72/P73		189	> 50%	BRK		2 Outside	157	0	SE1	
		190	> 50%	BRK		3 Outside	140	0	SE1	
		187	> 50%	BRK		4 Outside	145	0	SE1	
		185	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**7**			
						1 Inside	136	0	SE1	
						2 Inside	143	0	SE1	
						3 Inside	137	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	137	0	SE1	
	AVG.	**187**			120	**AVG:**	**138**			95
	STD. DEV.	**2**				STD. DEV.	**3**			
DP-28	**66142**	190	> 50%	BRK		1 Outside	161	0	SE1	
P71/P74		193	> 50%	BRK		2 Outside	140	0	SE1	
		188	> 50%	BRK		3 Outside	126	0	SE1	
		184	> 50%	BRK		4 Outside	128	0	SE1	
		188	> 50%	BRK		5 Outside	155	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**15**			
						1 Inside	152	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	145	0	SE1	
	AVG:	**189**			120	**AVG:**	**146**			95
	STD. DEV.	**3**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-29	**66143**	178	> 50%	BRK		1 Outside	138	0	SE1	
P74/P76		178	> 50%	BRK		2 Outside	125	0	SE1	
		183	> 50%	BRK		3 Outside	143	0	SE1	
		179	> 50%	BRK		4 Outside	141	0	SE1	
		182	> 50%	BRK		5 Outside	126	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**9**			
						1 Inside	134	0	SE1	
						2 Inside	141	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	132	0	SE1	
	AVG.	**180**			120	**AVG:**	**134**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DP-30	**66144**	185	> 50%	BRK		1 Outside	151	0	SE1	
P76/P77		184	> 50%	BRK		2 Outside	145	0	SE1	
		186	> 50%	BRK		3 Outside	145	0	SE1	
		186	> 50%	BRK		4 Outside	134	0	SE1	
		188	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**7**			
						1 Inside	119	0	SE1	
						2 Inside	120	0	SE1	
						3 Inside	133	0	SE1	
						4 Inside	124	0	SE1	
						5 Inside	124	0	SE1	
	AVG:	**186**			120	**AVG:**	**124**			95
	STD. DEV.	**1**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% longation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-31	**66145**	188	> 50%	BRK		1 Outside	155	0	SE1	
P78/P77		188	> 50%	BRK		2 Outside	152	0	SE1	
		190	> 50%	BRK		3 Outside	154	0	SE1	
		185	> 50%	BRK		4 Outside	144	0	SE1	
		186	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**151**			95
						STD. DEV.	**4**			
						1 Inside	160	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	158	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	168	0	SE1	
	AVG.	**187**			120	**AVG:**	**157**			95
	STD. DEV.	**2**				STD. DEV.	**8**			
DP-32	**66146**	193	> 50%	BRK		1 Outside	128	0	SE1	
P78/P80		192	> 50%	BRK		2 Outside	138	0	SE1	
		187	> 50%	BRK		3 Outside	134	0	SE1	
		195	> 50%	BRK		4 Outside	138	0	SE1	
		193	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**4**			
						1 Inside	149	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**192**			120	**AVG:**	**146**			95
	STD. DEV.	**3**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 7.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-33	**66147**	192	> 50%	BRK		1 Outside	146	0	SE1	
P80/P82		198	> 50%	BRK		2 Outside	137	0	SE1	
		190	> 50%	BRK		3 Outside	144	0	SE1	
		189	> 50%	BRK		4 Outside	147	0	SE1	
		193	> 50%	BRK		5 Outside	146	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**4**			
						1 Inside	149	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	128	0	SE1	
						4 Inside	133	0	SE1	
						5 Inside	147	0	SE1	
	AVG.	**192**			120	**AVG:**	**139**			95
	STD. DEV.	**4**				STD. DEV.	**9**			
DP-34	**66148**	199	> 50%	BRK		1 Outside	144	0	SE1	
P82/P84		198	> 50%	BRK		2 Outside	144	0	SE1	
		192	> 50%	BRK		3 Outside	142	0	SE1	
		196	> 50%	BRK		4 Outside	134	0	SE1	
		193	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**4**			
						1 Inside	151	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	132	0	SE1	
						4 Inside	155	0	SE1	
						5 Inside	145	0	SE1	
	AVG:	**195**			120	**AVG:**	**145**			95
	STD. DEV.	**3**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 8.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-35	**66149**	184	> 50%	BRK		1 Outside	154	0	SE1	
P84/P85		184	> 50%	BRK		2 Outside	156	0	SE1	
		186	> 50%	BRK		3 Outside	144	0	SE1	
		185	> 50%	BRK		4 Outside	156	0	SE1	
		184	> 50%	BRK		5 Outside	149	0	SE1	
						AVG:	**152**			95
						STD. DEV.	**5**			
						1 Inside	146	0	SE1	
						2 Inside	163	0	SE1	
						3 Inside	140	0	SE1	
						4 Inside	154	0	SE1	
						5 Inside	156	0	SE1	
	AVG.	**185**			120	**AVG:**	**152**			95
	STD. DEV.	**1**				STD. DEV.	**9**			
DP-36	**66150**	193	> 50%	BRK		1 Outside	135	0	SE1	
P88/P90		192	> 50%	BRK		2 Outside	132	0	SE1	
		190	> 50%	BRK		3 Outside	132	0	SE1	
		190	> 50%	BRK		4 Outside	133	0	SE1	
		194	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**3**			
						1 Inside	130	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	128	0	SE1	
						5 Inside	150	0	SE1	
	AVG:	**192**			120	**AVG:**	**136**			95
	STD. DEV.	**2**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 9.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **4-May-10** | PGL JOB #: **G100429** | DATE REPORT: 4-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-37	**66151**	204	> 50%	BRK		1 Outside	147	0	SE1	
P88/P89		203	> 50%	BRK		2 Outside	140	0	SE1	
		202	> 50%	BRK		3 Outside	136	0	SE1	
		202	> 50%	BRK		4 Outside	130	0	SE1	
		201	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**6**			
						1 Inside	132	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	141	0	SE1	
	AVG.	**202**			120	**AVG:**	**139**			95
	STD. DEV.	**1**				STD. DEV.	**5**			
DP-38	**66152**	196	> 50%	BRK		1 Outside	135	0	SE1	
P85/P87		198	> 50%	BRK		2 Outside	144	0	SE1	
		193	> 50%	BRK		3 Outside	142	0	SE1	
		190	> 50%	BRK		4 Outside	138	0	SE1	
		193	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**4**			
						1 Inside	134	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	148	0	SE1	
						4 Inside	134	0	SE1	
						5 Inside	143	0	SE1	
	AVG:	**194**			120	**AVG:**	**138**			95
	STD. DEV.	**3**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/06/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of two (2) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100451

DATE RECEIVED: May 6, 2010 **DATE REPORTED:** May 6, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-39 P89/P93	66238
DP-40 P93/P95	66239

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100451** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-39	**66238**	191	> 50%	BRK		1 Outside	134	0	SE1	
P89/P93		192	> 50%	BRK		2 Outside	132	0	SE1	
		193	> 50%	BRK		3 Outside	133	0	SE1	
		192	> 50%	BRK		4 Outside	139	0	SE1	
		192	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**3**			
						1 Inside	140	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	139	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	145	0	SE1	
	AVG.	**192**			120	**AVG:**	**140**			95
	STD. DEV.	**1**				STD. DEV.	**5**			
DP-40	**66239**	200	> 50%	BRK		1 Outside	133	0	SE1	
P93/P95		202	> 50%	BRK		2 Outside	139	0	SE1	
		200	> 50%	BRK		3 Outside	136	0	SE1	
		198	> 50%	BRK		4 Outside	136	0	SE1	
		196	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**137**			95
						STD. DEV.	**3**			
						1 Inside	135	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	146	0	SE1	
						5 Inside	148	0	SE1	
	AVG:	**199**			120	**AVG:**	**144**			95
	STD. DEV.	**2**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/06/2010

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of thirteen (13) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100452

DATE RECEIVED: May 6, 2010 **DATE REPORTED:** May 6, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-51 S110/S111	66240
DS-52 S110/S112	66241
DS-53 S113/S112	66242
DS-54 S112/S114	66243
DS-55 S114/S115	66244
DS-56 S114/S117	66245
DS-57 S117/S118	66246
DS-58 S117/S119	66247
DS-59 S119/S122	66248
DS-60 S120/S123	66249
DS-61 S122/S124	66250
DS-62 S124/S125	66251
DS-63 S129/S127	66252

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 7.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: **6-May-10**

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-51	**66240**	202	> 50%	BRK		1 Outside	149	0	SE1	
S110/S111		188	> 50%	BRK		2 Outside	151	0	SE1	
		190	> 50%	BRK		3 Outside	161	0	SE1	
		195	> 50%	BRK		4 Outside	156	0	SE1	
		196	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**153**			95
						STD. DEV.	**5**			
						1 Inside	131	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	156	0	SE1	
						4 Inside	158	0	SE1	
						5 Inside	169	0	SE1	
	AVG.	**194**			120	**AVG:**	**155**			95
	STD. DEV.	**6**				STD. DEV.	**14**			
DS-52	**66241**	194	> 50%	BRK		1 Outside	146	0	SE1	
S110/S112		197	> 50%	BRK		2 Outside	154	0	SE1	
		193	> 50%	BRK		3 Outside	149	0	SE1	
		189	> 50%	BRK		4 Outside	141	0	SE1	
		194	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**5**			
						1 Inside	115	0	SE1	
						2 Inside	126	0	SE1	
						3 Inside	121	0	SE1	
						4 Inside	122	0	SE1	
						5 Inside	126	0	SE1	
	AVG:	**193**			120	**AVG:**	**122**			95
	STD. DEV.	**3**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-53	**66242**	182	> 50%	BRK		1 Outside	157	0	SE1	
S113/S112		187	> 50%	BRK		2 Outside	158	0	SE1	
		180	> 50%	BRK		3 Outside	169	0	SE1	
		188	> 50%	BRK		4 Outside	146	0	SE1	
		185	> 50%	BRK		5 Outside	158	0	SE1	
						AVG:	**158**			95
						STD. DEV.	**8**			
						1 Inside	158	0	SE1	
						2 Inside	153	0	SE1	
						3 Inside	161	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	144	0	SE1	
	AVG.	**184**			120	**AVG:**	**153**			95
	STD. DEV.	**3**				STD. DEV.	**7**			
DS-54	**66243**	197	> 50%	BRK		1 Outside	146	0	SE1	
S112/S114		197	> 50%	BRK		2 Outside	151	0	SE1	
		197	> 50%	BRK		3 Outside	145	0	SE1	
		190	> 50%	BRK		4 Outside	148	0	SE1	
		196	> 50%	BRK		5 Outside	154	0	SE1	
						AVG:	**149**			95
						STD. DEV.	**4**			
						1 Inside	131	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	135	0	SE1	
						5 Inside	149	0	SE1	
	AVG:	**195**			120	**AVG:**	**140**			95
	STD. DEV.	**3**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-55	**66244**	178	> 50%	BRK		1 Outside	161	0	SE1	
S114/S115		180	> 50%	BRK		2 Outside	159	0	SE1	
		184	> 50%	BRK		3 Outside	150	0	SE1	
		188	> 50%	BRK		4 Outside	150	0	SE1	
		187	> 50%	BRK		5 Outside	153	0	SE1	
						AVG:	**155**			95
						STD. DEV.	**5**			
						1 Inside	158	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	158	0	SE1	
	AVG.	**183**			120	**AVG:**	**157**			95
	STD. DEV.	**4**				STD. DEV.	**4**			
DS-56	**66245**	192	> 50%	BRK		1 Outside	140	0	SE1	
S114/S117		194	> 50%	BRK		2 Outside	137	0	SE1	
		194	> 50%	BRK		3 Outside	143	0	SE1	
		188	> 50%	BRK		4 Outside	143	0	SE1	
		192	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**3**			
						1 Inside	129	0	SE1	
						2 Inside	122	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	144	0	SE1	
						5 Inside	147	0	SE1	
	AVG:	**192**			120	**AVG:**	**138**			95
	STD. DEV.	**3**				STD. DEV.	**11**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-57	**66246**	184	> 50%	BRK		1 Outside	168	0	SE1	
S117/S118		187	> 50%	BRK		2 Outside	160	0	SE1	
		187	> 50%	BRK		3 Outside	153	0	SE1	
		179	> 50%	BRK		4 Outside	152	0	SE1	
		186	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**156**			95
						STD. DEV.	**7**			
						1 Inside	147	0	SE1	
						2 Inside	157	0	SE1	
						3 Inside	159	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	155	0	SE1	
	AVG.	**185**			120	**AVG:**	**155**			95
	STD. DEV.	**4**				STD. DEV.	**5**			
DS-58	**66247**	190	> 50%	BRK		1 Outside	128	0	SE1	
S117/S119		192	> 50%	BRK		2 Outside	137	0	SE1	
		190	> 50%	BRK		3 Outside	142	0	SE1	
		192	> 50%	BRK		4 Outside	150	0	SE1	
		189	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**8**			
						1 Inside	137	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	129	0	SE1	
						4 Inside	134	0	SE1	
						5 Inside	152	0	SE1	
	AVG:	**190**			120	**AVG:**	**138**			95
	STD. DEV.	**1**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-59	**66248**	184	> 50%	BRK		1 Outside	138	0	SE1	
S119/S122		190	> 50%	BRK		2 Outside	140	0	SE1	
		183	> 50%	BRK		3 Outside	134	0	SE1	
		188	> 50%	BRK		4 Outside	139	0	SE1	
		191	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**3**			
						1 Inside	148	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	135	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	153	0	SE1	
	AVG.	**187**			120	**AVG:**	**146**			95
	STD. DEV.	**4**				STD. DEV.	**7**			
DS-60	**66249**	187	> 50%	BRK		1 Outside	161	0	SE1	
S120/S123		192	> 50%	BRK		2 Outside	159	0	SE1	
		192	> 50%	BRK		3 Outside	142	0	SE1	
		189	> 50%	BRK		4 Outside	134	0	SE1	
		190	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**12**			
						1 Inside	133	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	135	0	SE1	
						5 Inside	143	0	SE1	
	AVG:	**190**			120	**AVG:**	**135**			95
	STD. DEV.	**2**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-61	**66250**	183	> 50%	BRK		1 Outside	126	0	SE1	
S122/S124		183	> 50%	BRK		2 Outside	133	0	SE1	
		184	> 50%	BRK		3 Outside	133	0	SE1	
		176	> 50%	BRK		4 Outside	133	0	SE1	
		182	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**133**			95
						STD. DEV.	**5**			
						1 Inside	156	0	SE1	
						2 Inside	123	0	SE1	
						3 Inside	152	0	SE1	
						4 Inside	146	0	SE1	
						5 Inside	140	0	SE1	
	AVG.	**182**			120	**AVG:**	**143**			95
	STD. DEV.	**3**				STD. DEV.	**13**			
DS-62	**66251**	184	> 50%	BRK		1 Outside	133	0	SE1	
S124/S125		188	> 50%	BRK		2 Outside	143	0	SE1	
		187	> 50%	BRK		3 Outside	140	0	SE1	
		190	> 50%	BRK		4 Outside	159	0	SE1	
		186	> 50%	BRK		5 Outside	168	0	SE1	
						AVG:	**149**			95
						STD. DEV.	**14**			
						1 Inside	164	0	SE1	
						2 Inside	165	0	SE1	
						3 Inside	168	0	SE1	
						4 Inside	161	0	SE1	
						5 Inside	151	0	SE1	
	AVG:	**187**			120	**AVG:**	**162**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 7.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **6-May-10** | PGL JOB #: **G100452** | DATE REPORT: 6-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-63	**66252**	190	> 50%	BRK		1 Outside	140	0	SE1	
S129/S127		187	> 50%	BRK		2 Outside	141	0	SE1	
		186	> 50%	BRK		3 Outside	126	0	SE1	
		187	> 50%	BRK		4 Outside	132	0	SE1	
		188	> 50%	BRK		5 Outside	151	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**10**			
						1 Inside	143	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	126	0	SE1	
						4 Inside	125	0	SE1	
						5 Inside	126	0	SE1	
	AVG.	**188**			120	**AVG:**	**130**			95
	STD. DEV.	**2**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/12/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of eighteen (18) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100474

DATE RECEIVED: May 12, 2010 **DATE REPORTED:** May 12, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-41 P95/P97	66394
DP-42 P97/P98	66395
DP-43 P97/P99	66396
DP-44 P99/P103	66397
DP-45 P103/P105	66398
DP-46 P105/P104	66399
DP-47 P105/P107	66400
DP-48 P107/P111	66401
DP-49 P111/P110	66402
DP-50 P110/P113	66403
DP-51 P112/P116	66404
DP-52 P115/P114	66405
DP-53 P116/P117	66406
DP-54 P117/P120	66407
DP-55 P120/P129	66408
DP-56 P120/P122	66409
DP-57 P122/P124	66410
DP-58 P124/P125	66411

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 9.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: **12-May-10**

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-41	**66394**	199	> 50%	BRK		1 Outside	138	0	SE1	
P95/P97		192	> 50%	BRK		2 Outside	131	0	SE1	
		196	> 50%	BRK		3 Outside	138	0	SE1	
		195	> 50%	BRK		4 Outside	134	0	SE1	
		197	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**3**			
						1 Inside	167	0	SE1	
						2 Inside	167	0	SE1	
						3 Inside	169	0	SE1	
						4 Inside	164	0	SE1	
						5 Inside	160	0	SE1	
	AVG.	**196**			120	**AVG:**	**165**			95
	STD. DEV.	**2**				STD. DEV.	**3**			
DP-42	**66395**	187	> 50%	BRK		1 Outside	147	0	SE1	
P97/P98		178	> 50%	BRK		2 Outside	146	0	SE1	
		182	> 50%	BRK		3 Outside	153	0	SE1	
		183	> 50%	BRK		4 Outside	155	0	SE1	
		184	> 50%	BRK		5 Outside	151	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**4**			
						1 Inside	155	0	SE1	
						2 Inside	167	0	SE1	
						3 Inside	162	0	SE1	
						4 Inside	156	0	SE1	
						5 Inside	165	0	SE1	
	AVG:	**183**			120	**AVG:**	**161**			95
	STD. DEV.	**3**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-43	**66396**	189	> 50%	BRK		1 Outside	143	0	SE1	
P97/P99		184	> 50%	BRK		2 Outside	149	0	SE1	
		192	> 50%	BRK		3 Outside	148	0	SE1	
		179	> 50%	BRK		4 Outside	117	0	SE1	
		190	> 50%	BRK		5 Outside	147	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**13**			
						1 Inside	119	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	129	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	135	0	SE1	
	AVG.	**187**			120	**AVG:**	**130**			95
	STD. DEV.	**5**				STD. DEV.	**7**			
DP-44	**66397**	187	> 50%	BRK		1 Outside	146	0	SE1	
P99/P103		182	> 50%	BRK		2 Outside	148	0	SE1	
		180	> 50%	BRK		3 Outside	164	0	SE1	
		187	> 50%	BRK		4 Outside	141	0	SE1	
		186	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**149**			95
						STD. DEV.	**9**			
						1 Inside	140	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	151	0	SE1	
	AVG:	**184**			120	**AVG:**	**145**			95
	STD. DEV.	**3**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	*PGL CONTROL #*	*MAXIMUM STRENGTH (lb/in width)*	*% Elongation*	*Locus of Break*	*PROJECT SPEC. (lb/in width)*	*SPECIMEN NUMBER*	*MAXIMUM STRENGTH (lb/in width)*	*% INCURSION (%)*	*LOCUS OF BREAK*	*PROJECT SPEC. (lb/in width)*
DP-45	**66398**	193	> 50%	BRK		1 Outside	164	0	SE1	
P103/P105		195	> 50%	BRK		2 Outside	163	0	SE1	
		194	> 50%	BRK		3 Outside	139	0	SE1	
		192	> 50%	BRK		4 Outside	155	0	SE1	
		195	> 50%	BRK		5 Outside	155	0	SE1	
						AVG:	**155**			95
						STD. DEV.	**10**			
						1 Inside	147	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	151	0	SE1	
	AVG.	**194**			120	**AVG:**	**149**			95
	STD. DEV.	**1**				STD. DEV.	**3**			
DP-46	**66399**	195	> 50%	BRK		1 Outside	157	0	SE1	
P105/P104		190	> 50%	BRK		2 Outside	165	0	SE1	
		193	> 50%	BRK		3 Outside	149	0	SE1	
		191	> 50%	BRK		4 Outside	159	0	SE1	
		189	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**156**			95
						STD. DEV.	**7**			
						1 Inside	164	0	SE1	
						2 Inside	166	0	SE1	
						3 Inside	161	0	SE1	
						4 Inside	171	0	SE1	
						5 Inside	170	0	SE1	
	AVG:	**191**			120	**AVG:**	**167**			95
	STD. DEV.	**2**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-47	**66400**	194	> 50%	BRK		1 Outside	142	0	SE1	
P105/P107		195	> 50%	BRK		2 Outside	134	0	SE1	
		187	> 50%	BRK		3 Outside	135	0	SE1	
		191	> 50%	BRK		4 Outside	149	0	SE1	
		192	> 50%	BRK		5 Outside	135	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**7**			
						1 Inside	147	0	SE1	
						2 Inside	140	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	146	0	SE1	
						5 Inside	151	0	SE1	
	AVG.	**192**			120	**AVG:**	**146**			95
	STD. DEV.	**3**				STD. DEV.	**4**			
DP-48	**66401**	191	> 50%	BRK		1 Outside	147	0	SE1	
P107/P111		190	> 50%	BRK		2 Outside	147	0	SE1	
		186	> 50%	BRK		3 Outside	142	0	SE1	
		191	> 50%	BRK		4 Outside	146	0	SE1	
		188	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**3**			
						1 Inside	135	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	137	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	133	0	SE1	
	AVG:	**189**			120	**AVG:**	**135**			95
	STD. DEV.	**2**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-49	**66402**	188	> 50%	BRK		1 Outside	134	0	SE1	
P111/P110		181	> 50%	BRK		2 Outside	123	0	SE1	
		183	> 50%	BRK		3 Outside	133	0	SE1	
		179	> 50%	BRK		4 Outside	152	0	SE1	
		183	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**10**			
						1 Inside	146	0	SE1	
						2 Inside	163	0	SE1	
						3 Inside	173	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	158	0	SE1	
	AVG.	**183**			120	**AVG:**	**159**			95
	STD. DEV.	**4**				STD. DEV.	**10**			
DP-50	**66403**	186	> 50%	BRK		1 Outside	131	0	SE1	
P110/P113		181	> 50%	BRK		2 Outside	134	0	SE1	
		185	> 50%	BRK		3 Outside	136	0	SE1	
		184	> 50%	BRK		4 Outside	133	0	SE1	
		184	> 50%	BRK		5 Outside	133	0	SE1	
						AVG:	**133**			95
						STD. DEV.	**2**			
						1 Inside	149	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	155	0	SE1	
						4 Inside	163	0	SE1	
						5 Inside	151	0	SE1	
	AVG:	**184**			120	**AVG:**	**154**			95
	STD. DEV.	**2**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-51	**66404**	180	> 50%	BRK		1 Outside	164	0	SE1	
P112/P116		183	> 50%	BRK		2 Outside	134	0	SE1	
		182	> 50%	BRK		3 Outside	120	0	SE1	
		179	> 50%	BRK		4 Outside	142	0	SE1	
		184	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**16**			
						1 Inside	146	0	SE1	
						2 Inside	134	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	129	0	SE1	
	AVG.	**182**			120	**AVG:**	**140**			95
	STD. DEV.	**2**				STD. DEV.	**9**			
DP-52	**66405**	181	> 50%	BRK		1 Outside	148	0	SE1	
P115/P114		185	> 50%	BRK		2 Outside	150	0	SE1	
		183	> 50%	BRK		3 Outside	156	0	SE1	
		173	> 50%	BRK		4 Outside	148	0	SE1	
		180	> 50%	BRK		5 Outside	147	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**3**			
						1 Inside	161	0	SE1	
						2 Inside	139	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	154	0	SE1	
	AVG:	**180**			120	**AVG:**	**151**			95
	STD. DEV.	**5**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 7.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-53	**66406**	177	> 50%	BRK		1 Outside	128	0	SE1	
P116/P117		178	> 50%	BRK		2 Outside	121	0	SE1	
		176	> 50%	BRK		3 Outside	122	0	SE1	
		178	> 50%	BRK		4 Outside	128	0	SE1	
		178	> 50%	BRK		5 Outside	128	0	SE1	
						AVG:	**125**			95
						STD. DEV.	**4**			
						1 Inside	129	0	SE1	
						2 Inside	128	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	141	0	SE1	
	AVG.	**177**			120	**AVG:**	**133**			95
	STD. DEV.	**1**				STD. DEV.	**5**			
DP-54	**66407**	188	> 50%	BRK		1 Outside	155	0	SE1	
P117/P120		183	> 50%	BRK		2 Outside	143	0	SE1	
		186	> 50%	BRK		3 Outside	141	0	SE1	
		182	> 50%	BRK		4 Outside	147	0	SE1	
		181	> 50%	BRK		5 Outside	139	0	SE1	
						AVG:	**145**			95
						STD. DEV.	**6**			
						1 Inside	127	0	SE1	
						2 Inside	129	0	SE1	
						3 Inside	139	0	SE1	
						4 Inside	137	0	SE1	
						5 Inside	136	0	SE1	
	AVG:	**184**			120	**AVG:**	**134**			95
	STD. DEV.	**3**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 8.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-55	**66408**	183	> 50%	BRK		1 Outside	***126***	***75***	***AD-BRK***	
P120/P129		184	> 50%	BRK		2 Outside	142	0	SE1	
		186	> 50%	BRK		3 Outside	137	0	SE1	
		184	> 50%	BRK		4 Outside	158	0	SE1	
		183	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**12**			
						1 Inside	***108***	***25***	***AD-BRK***	
						2 Inside	139	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	147	0	SE1	
						5 Inside	***81***	***50***	***AD-BRK***	
	AVG.	**184**			120	**AVG:**	**122**			95
	STD. DEV.	**1**				STD. DEV.	**27**			
DP-56	**66409**	189	> 50%	BRK		1 Outside	134	0	SE1	
P120/P122		195	> 50%	BRK		2 Outside	155	0	SE1	
		190	> 50%	BRK		3 Outside	134	0	SE1	
		187	> 50%	BRK		4 Outside	134	0	SE1	
		188	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**9**			
						1 Inside	121	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	145	0	SE1	
						4 Inside	143	0	SE1	
						5 Inside	142	0	SE1	
	AVG:	**190**			120	**AVG:**	**139**			95
	STD. DEV.	**3**				STD. DEV.	**10**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 9.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-May-10** | PGL JOB #: **G100474** | DATE REPORT: 12-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-57	**66410**	180	> 50%	BRK		1 Outside	145	0	SE1	
P122/P124		180	> 50%	BRK		2 Outside	142	0	SE1	
		186	> 50%	BRK		3 Outside	140	0	SE1	
		185	> 50%	BRK		4 Outside	145	0	SE1	
		183	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**143**			95
						STD. DEV.	**2**			
						1 Inside	126	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	127	0	SE1	
						4 Inside	127	0	SE1	
						5 Inside	130	0	SE1	
	AVG.	**183**			120	**AVG:**	**128**			95
	STD. DEV.	**3**				STD. DEV.	**3**			
DP-58	**66411**	190	> 50%	BRK		1 Outside	167	0	SE1	
P124/P125		186	> 50%	BRK		2 Outside	170	0	SE1	
		185	> 50%	BRK		3 Outside	123	0	SE1	
		187	> 50%	BRK		4 Outside	128	0	SE1	
		189	> 50%	BRK		5 Outside	162	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**23**			
						1 Inside	146	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	155	0	SE1	
	AVG:	**187**			120	**AVG:**	**151**			95
	STD. DEV.	**2**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/13/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of eight (8) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100481

DATE RECEIVED: May 13, 2010 **DATE REPORTED:** May 13, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-72 S135/S136	66441
DS-73 S142/S144	66442
DS-74 S136/S145	66443
DS-75 S145/S147	66444
DS-76 S147/S146	66445
DS-77 S146/S148	66446
DS-78 S148/S150	66447
DS-79 S151/S152	66448

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **13-May-10** | PGL JOB #: **G100481** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-72	**66441**	193	> 50%	BRK		1 Outside	145	0	SE1	
S135/S136		193	> 50%	BRK		2 Outside	156	0	SE1	
		190	> 50%	BRK		3 Outside	144	0	SE1	
		191	> 50%	BRK		4 Outside	148	0	SE1	
		187	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**147**			95
						STD. DEV.	**6**			
						1 Inside	144	0	SE1	
						2 Inside	157	0	SE1	
						3 Inside	161	0	SE1	
						4 Inside	157	0	SE1	
						5 Inside	143	0	SE1	
	AVG.	**191**			120	**AVG:**	**152**			95
	STD. DEV.	**3**				STD. DEV.	**8**			
DS-73	**66442**	188	> 50%	BRK		1 Outside	140	0	SE1	
S142/S144		189	> 50%	BRK		2 Outside	144	0	SE1	
		186	> 50%	BRK		3 Outside	132	0	SE1	
		182	> 50%	BRK		4 Outside	144	0	SE1	
		187	> 50%	BRK		5 Outside	122	0	SE1	
						AVG:	**136**			95
						STD. DEV.	**9**			
						1 Inside	145	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	147	0	SE1	
						5 Inside	137	0	SE1	
	AVG:	**186**			120	**AVG:**	**143**			95
	STD. DEV.	**3**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: KB
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **13-May-10** | PGL JOB #: **G100481** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-74	**66443**	187	> 50%	BRK		1 Outside	118	0	SE1	
S136/S145		188	> 50%	BRK		2 Outside	126	0	SE1	
		183	> 50%	BRK		3 Outside	126	0	SE1	
		182	> 50%	BRK		4 Outside	124	0	SE1	
		188	> 50%	BRK		5 Outside	123	0	SE1	
						AVG:	**123**			95
						STD. DEV.	**3**			
						1 Inside	119	0	SE1	
						2 Inside	125	0	SE1	
						3 Inside	123	0	SE1	
						4 Inside	125	0	SE1	
						5 Inside	123	0	SE1	
	AVG.	**185**			120	**AVG:**	**123**			95
	STD. DEV.	**3**				STD. DEV.	**2**			
DS- 75	**66444**	192	> 50%	BRK		1 Outside	154	0	SE1	
S145/S147		194	> 50%	BRK		2 Outside	149	0	SE1	
		187	> 50%	BRK		3 Outside	156	0	SE1	
		191	> 50%	BRK		4 Outside	158	0	SE1	
		191	> 50%	BRK		5 Outside	158	0	SE1	
						AVG:	**155**			95
						STD. DEV.	**4**			
						1 Inside	149	0	SE1	
						2 Inside	141	0	SE1	
						3 Inside	161	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	146	0	SE1	
	AVG:	**191**			120	**AVG:**	**149**			95
	STD. DEV.	**2**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100481** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-76	**66445**	193	> 50%	BRK		1 Outside	161	0	SE1	
S147/S146		192	> 50%	BRK		2 Outside	157	0	SE1	
		186	> 50%	BRK		3 Outside	147	0	SE1	
		187	> 50%	BRK		4 Outside	154	0	SE1	
		190	> 50%	BRK		5 Outside	162	0	SE1	
						AVG:	**156**			95
						STD. DEV.	**6**			
						1 Inside	147	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	149	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	150	0	SE1	
	AVG.	**189**			120	**AVG:**	**147**			95
	STD. DEV.	**3**				STD. DEV.	**2**			
DS-77	**66446**	192	> 50%	BRK		1 Outside	151	0	SE1	
S146/S148		195	> 50%	BRK		2 Outside	154	0	SE1	
		189	> 50%	BRK		3 Outside	144	0	SE1	
		186	> 50%	BRK		4 Outside	149	0	SE1	
		191	> 50%	BRK		5 Outside	147	0	SE1	
						AVG:	**149**			95
						STD. DEV.	**4**			
						1 Inside	152	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	165	0	SE1	
						4 Inside	144	0	SE1	
						5 Inside	149	0	SE1	
	AVG:	**190**			120	**AVG:**	**151**			95
	STD. DEV.	**3**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100481** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-78	**66447**	190	> 50%	BRK		1 Outside	147	0	SE1	
S148/S150		192	> 50%	BRK		2 Outside	158	0	SE1	
		190	> 50%	BRK		3 Outside	165	0	SE1	
		188	> 50%	BRK		4 Outside	140	0	SE1	
		191	> 50%	BRK		5 Outside	162	0	SE1	
						AVG:	**154**			95
						STD. DEV.	**10**			
						1 Inside	152	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	152	0	SE1	
	AVG.	**190**			120	**AVG:**	**150**			95
	STD. DEV.	**1**				STD. DEV.	**3**			
DS-79	**66448**	193	> 50%	BRK		1 Outside	152	0	SE1	
S151/S152		191	> 50%	BRK		2 Outside	148	0	SE1	
		193	> 50%	BRK		3 Outside	153	0	SE1	
		190	> 50%	BRK		4 Outside	153	0	SE1	
		191	> 50%	BRK		5 Outside	149	0	SE1	
						AVG:	**151**			95
						STD. DEV.	**2**			
						1 Inside	146	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	161	0	SE1	
						5 Inside	162	0	SE1	
	AVG:	**192**			120	**AVG:**	**153**			95
	STD. DEV.	**1**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/13/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of eight (8) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100483

DATE RECEIVED: May 13, 2010 **DATE REPORTED:** May 13, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-64 S127/S129	66452
DS-65 S129/S137	66453
DS-66 S129/S130	66454
DS-67 S138/S139	66455
DS-68 S131/S132	66456
DS-69 S132/S141	66457
DS-70 S141/S133	66458
DS-71 S133/S135	66459

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100483** | DATE REPORT: **13-May-10**

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-64	**66452**	191	> 50%	BRK		1 Outside	138	0	SE1	
S127/S129		190	> 50%	BRK		2 Outside	142	0	SE1	
		188	> 50%	BRK		3 Outside	140	0	SE1	
		186	> 50%	BRK		4 Outside	138	0	SE1	
		190	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**2**			
						1 Inside	126	0	SE1	
						2 Inside	123	0	SE1	
						3 Inside	122	0	SE1	
						4 Inside	116	0	SE1	
						5 Inside	128	0	SE1	
	AVG.	**189**			120	**AVG:**	**123**			95
	STD. DEV.	**2**				STD. DEV.	**5**			
DS-65	**66453**	188	> 50%	BRK		1 Outside	150	0	SE1	
S129/S137		186	> 50%	BRK		2 Outside	148	0	SE1	
		181	> 50%	BRK		3 Outside	158	0	SE1	
		183	> 50%	BRK		4 Outside	144	0	SE1	
		184	> 50%	BRK		5 Outside	157	0	SE1	
						AVG:	**151**			95
						STD. DEV.	**6**			
						1 Inside	156	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	144	0	SE1	
						4 Inside	168	0	SE1	
						5 Inside	153	0	SE1	
	AVG:	**185**			120	**AVG:**	**156**			95
	STD. DEV.	**3**				STD. DEV.	**9**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100483** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-66	**66454**	194	> 50%	BRK		1 Outside	139	0	SE1	
S129/S130		191	> 50%	BRK		2 Outside	124	0	SE1	
		192	> 50%	BRK		3 Outside	138	0	SE1	
		190	> 50%	BRK		4 Outside	131	0	SE1	
		192	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	**132**			95
						STD. DEV.	**6**			
						1 Inside	143	0	SE1	
						2 Inside	130	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	130	0	SE1	
						5 Inside	130	0	SE1	
	AVG.	**192**			120	**AVG:**	**134**			95
	STD. DEV.	**1**				STD. DEV.	**6**			
DS-67	**66455**	197	> 50%	BRK		1 Outside	148	0	SE1	
S138/S139		190	> 50%	BRK		2 Outside	130	0	SE1	
		193	> 50%	BRK		3 Outside	128	0	SE1	
		193	> 50%	BRK		4 Outside	132	0	SE1	
		194	> 50%	BRK		5 Outside	132	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**8**			
						1 Inside	137	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	130	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	136	0	SE1	
	AVG:	**193**			120	**AVG:**	**136**			95
	STD. DEV.	**2**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100483** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-68	**66456**	186	> 50%	BRK		1 Outside	148	0	SE1	
S131/S132		180	> 50%	BRK		2 Outside	135	0	SE1	
		183	> 50%	BRK		3 Outside	154	0	SE1	
		184	> 50%	BRK		4 Outside	146	0	SE1	
		183	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**8**			
						1 Inside	122	0	SE1	
						2 Inside	118	0	SE1	
						3 Inside	122	0	SE1	
						4 Inside	120	0	SE1	
						5 Inside	124	0	SE1	
	AVG.	**183**			120	**AVG:**	**121**			95
	STD. DEV.	**2**				STD. DEV.	**2**			
DS-69	**66457**	185	> 50%	BRK		1 Outside	132	0	SE1	
S132/S141		184	> 50%	BRK		2 Outside	126	0	SE1	
		183	> 50%	BRK		3 Outside	130	0	SE1	
		180	> 50%	BRK		4 Outside	130	0	SE1	
		183	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	**130**			95
						STD. DEV.	**2**			
						1 Inside	148	0	SE1	
						2 Inside	132	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	128	0	SE1	
						5 Inside	148	0	SE1	
	AVG:	**183**			120	**AVG:**	**140**			95
	STD. DEV.	**2**				STD. DEV.	**10**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **13-May-10** | PGL JOB #: **G100483** | DATE REPORT: 13-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-70	**66458**	189	> 50%	BRK		1 Outside	158	0	SE1	
S141/S133		189	> 50%	BRK		2 Outside	150	0	SE1	
		186	> 50%	BRK		3 Outside	156	0	SE1	
		185	> 50%	BRK		4 Outside	152	0	SE1	
		190	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**154**			95
						STD. DEV.	**3**			
						1 Inside	158	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	156	0	SE1	
	AVG.	**188**			120	**AVG:**	**149**			95
	STD. DEV.	**2**				STD. DEV.	**9**			
DS-71	**66459**	183	> 50%	BRK		1 Outside	138	0	SE1	
S133/S135		182	> 50%	BRK		2 Outside	144	0	SE1	
		183	> 50%	BRK		3 Outside	135	0	SE1	
		180	> 50%	BRK		4 Outside	132	0	SE1	
		183	> 50%	BRK		5 Outside	128	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**6**			
						1 Inside	123	0	SE1	
						2 Inside	122	0	SE1	
						3 Inside	154	0	SE1	
						4 Inside	128	0	SE1	
						5 Inside	122	0	SE1	
	AVG:	**182**			120	**AVG:**	**130**			95
	STD. DEV.	**1**				STD. DEV.	**14**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/14/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of four (4) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100491

DATE RECEIVED: May 14, 2010 **DATE REPORTED:** May 14, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-80 S150/S159	66499
DS-81 S159/S161	66500
DS-82 S163/S166	66501
DS-83 S163/S169	66502

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 2.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: DS

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **14-May-10** | PGL JOB #: **G100491** | DATE REPORT: 14-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-80	**66499**	194	> 50%	BRK		1 Outside	146	0	SE1	
S150/S159		193	> 50%	BRK		2 Outside	146	0	SE1	
		198	> 50%	BRK		3 Outside	149	0	SE1	
		190	> 50%	BRK		4 Outside	142	0	SE1	
		193	> 50%	BRK		5 Outside	149	0	SE1	
						AVG:	**146**			95
						STD. DEV.	**3**			
						1 Inside	167	0	SE1	
						2 Inside	135	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	136	0	SE1	
	AVG.	**194**			120	**AVG:**	**143**			95
	STD. DEV.	**3**				STD. DEV.	**14**			
DS-81	**66500**	190	> 50%	BRK		1 Outside	147	0	SE1	
S159/S161		192	> 50%	BRK		2 Outside	145	0	SE1	
		190	> 50%	BRK		3 Outside	***133***	***100%***	***AD***	
		194	> 50%	BRK		4 Outside	***133***	***100%***	***AD***	
		191	> 50%	BRK		5 Outside	129	0	SE1	
						AVG:	**137**			95
						STD. DEV.	**8**			
						1 Inside	142	0	SE1	
						2 Inside	138	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	135	0	SE1	
	AVG:	**191**			120	**AVG:**	**137**			95
	STD. DEV.	**1**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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ISO 9001 - 2000

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **14-May-10** | PGL JOB #: **G100491** | DATE REPORT: 14-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-82	**66501**	185	> 50%	BRK		1 Outside	124	0	SE1	
S163/S166		185	> 50%	BRK		2 Outside	127	0	SE1	
		186	> 50%	BRK		3 Outside	151	0	SE1	
		188	> 50%	BRK		4 Outside	144	0	SE1	
		186	> 50%	BRK		5 Outside	145	0	SE1	
						AVG:	**138**			95
						STD. DEV.	**12**			
						1 Inside	133	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	136	0	SE1	
						4 Inside	139	0	SE1	
						5 Inside	133	0	SE1	
	AVG.	**186**			120	**AVG:**	**135**			95
	STD. DEV.	**1**				STD. DEV.	**3**			
DS-83	**66502**	189	> 50%	BRK		1 Outside	158	0	SE1	
S163/S169		188	> 50%	BRK		2 Outside	142	0	SE1	
		186	> 50%	BRK		3 Outside	159	0	SE1	
		185	> 50%	BRK		4 Outside	148	0	SE1	
		183	> 50%	BRK		5 Outside	152	0	SE1	
						AVG:	**152**			95
						STD. DEV.	**7**			
						1 Inside	167	0	SE1	
						2 Inside	165	0	SE1	
						3 Inside	165	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	161	0	SE1	
	AVG:	**186**			120	**AVG:**	**162**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/18/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of four (4) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100507

DATE RECEIVED: May 18, 2010 **DATE REPORTED:** May 18, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-55A P119/P122	66567
DP-55B P120/P122	66568
DS-81A S159/S161	66569
DS-81B2 S159/S161	66570

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 2.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **18-May-10** | PGL JOB #: **G100507** | DATE REPORT: **18-May-10**

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				**PEEL EVALUATION**				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-55A	**66567**	198	> 50%	BRK		1 Outside	146	0	SE1	
P119/P122		198	> 50%	BRK		2 Outside	140	0	SE1	
		197	> 50%	BRK		3 Outside	144	0	SE1	
		200	> 50%	BRK		4 Outside	147	0	SE1	
		201	> 50%	BRK		5 Outside	143	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**3**			
						1 Inside	137	0	SE1	
						2 Inside	156	0	SE1	
						3 Inside	146	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	141	0	SE1	
	AVG.	**199**			120	**AVG:**	**147**			95
	STD. DEV.	**2**				STD. DEV.	**8**			
DP-55B	**66568**	198	> 50%	BRK		1 Outside	140	0	SE1	
P120/P122		197	> 50%	BRK		2 Outside	139	0	SE1	
		198	> 50%	BRK		3 Outside	143	0	SE1	
		199	> 50%	BRK		4 Outside	134	0	SE1	
		200	> 50%	BRK		5 Outside	146	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**5**			
						1 Inside	143	0	SE1	
						2 Inside	149	0	SE1	
						3 Inside	138	0	SE1	
						4 Inside	139	0	SE1	
						5 Inside	141	0	SE1	
	AVG:	**198**			120	**AVG:**	**142**			95
	STD. DEV.	**1**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **18-May-10** | PGL JOB #: **G100507** | DATE REPORT: 18-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-81A	**66569**	199	> 50%	BRK		1 Outside	137	0	SE1	
S159/S161		200	> 50%	BRK		2 Outside	136	0	SE1	
		192	> 50%	BRK		3 Outside	142	0	SE1	
		198	> 50%	BRK		4 Outside	143	0	SE1	
		198	> 50%	BRK		5 Outside	149	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**5**			
						1 Inside	133	0	SE1	
						2 Inside	136	0	SE1	
						3 Insid	141	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	139	0	SE1	
	AVG.	**197**			120	**AVG:**	**139**			95
	STD. DEV.	**3**				STD. DEV.	**5**			
DS-81B2	**66570**	198	> 50%	BRK		1 Outside	140	0	SE1	
S159/S161		198	> 50%	BRK		2 Outside	148	0	SE1	
		198	> 50%	BRK		3 Outside	141	0	SE1	
		199	> 50%	BRK		4 Outside	133	0	SE1	
		198	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**6**			
						1 Inside	142	0	SE1	
						2 Inside	143	0	SE1	
						3 Inside	139	0	SE1	
						4 Inside	137	0	SE1	
						5 Inside	145	0	SE1	
	AVG:	**198**			120	**AVG:**	**141**			95
	STD. DEV.	**1**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/20/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of eleven (11) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100521

DATE RECEIVED: May 20, 2010 **DATE REPORTED:** May 20, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-59 P124/P126	66656
DP-60 P125/P132	66657
DP-61 P132/P133	66658
DP-62 P127/P128	66659
DP-63 P133/P135	66660
DP-64 P135/P136	66661
DP-65 P128/P129	66662
DP-66 P129/P131	66663
DP-67 P137/P138	66664
DP-68 P138/P142	66665
DP-69 P139/P141	66666

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 6.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-59	**66656**	185	> 50%	BRK		1 Outside	132	0	SE1	
P124/P126		184	> 50%	BRK		2 Outside	131	0	SE1	
		182	> 50%	BRK		3 Outside	128	0	SE1	
		183	> 50%	BRK		4 Outside	123	0	SE1	
		186	> 50%	BRK		5 Outside	125	0	SE1	
						AVG:	**128**			95
						STD. DEV.	**4**			
						1 Inside	136	0	SE1	
						2 Inside	127	0	SE1	
						3 Inside	132	0	SE1	
						4 Inside	138	0	SE1	
						5 Inside	138	0	SE1	
	AVG.	**184**			120	**AVG:**	**134**			95
	STD. DEV.	**2**				STD. DEV.	**5**			
DP-60	**66657**	176	> 50%	BRK		1 Outside	138	0	SE1	
P125/P132		181	> 50%	BRK		2 Outside	143	0	SE1	
		181	> 50%	BRK		3 Outside	139	0	SE1	
		179	> 50%	BRK		4 Outside	138	0	SE1	
		180	> 50%	BRK		5 Outside	140	0	SE1	
						AVG:	**139**			95
						STD. DEV.	**2**			
						1 Inside	140	0	SE1	
						2 Inside	145	0	SE1	
						3 Inside	133	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	148	0	SE1	
	AVG:	**179**			120	**AVG:**	**143**			95
	STD. DEV.	**2**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-61	**66658**	175	> 50%	BRK		1 Outside	121	0	SE1	
P132/P133		178	> 50%	BRK		2 Outside	134	0	SE1	
		176	> 50%	BRK		3 Outside	128	0	SE1	
		170	> 50%	BRK		4 Outside	148	0	SE1	
		176	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**10**			
						1 Inside	133	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	166	0	SE1	
						4 Inside	133	0	SE1	
						5 Inside	133	0	SE1	
	AVG.	**175**			120	**AVG:**	**142**			95
	STD. DEV.	**3**				STD. DEV.	**14**			
DP-62	**66659**	181	> 50%	BRK		1 Outside	134	0	SE1	
P127/P128		184	> 50%	BRK		2 Outside	149	0	SE1	
		180	> 50%	BRK		3 Outside	176	0	SE1	
		182	> 50%	BRK		4 Outside	141	0	SE1	
		182	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**16**			
						1 Inside	158	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	159	0	SE1	
						4 Inside	170	0	SE1	
						5 Inside	166	0	SE1	
	AVG:	**182**			120	**AVG:**	**161**			95
	STD. DEV.	**1**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP- 63	**66660**	187	> 50%	BRK		1 Outside	131	0	SE1	
P133/P135		187	> 50%	BRK		2 Outside	141	0	SE1	
		182	> 50%	BRK		3 Outside	150	0	SE1	
		188	> 50%	BRK		4 Outside	148	0	SE1	
		188	> 50%	BRK		5 Outside	127	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**10**			
						1 Inside	136	0	SE1	
						2 Inside	136	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	143	0	SE1	
						5 Inside	136	0	SE1	
	AVG.	**187**			120	**AVG:**	**137**			95
	STD. DEV.	**3**				STD. DEV.	**3**			
DP- 64	**66661**	178	> 50%	BRK		1 Outside	111	0	SE1	
P135/P136		174	> 50%	BRK		2 Outside	110	0	SE1	
		178	> 50%	BRK		3 Outside	119	0	SE1	
		179	> 50%	BRK		4 Outside	118	0	SE1	
		180	> 50%	BRK		5 Outside	106	0	SE1	
						AVG:	**113**			95
						STD. DEV.	**6**			
						1 Inside	129	0	SE1	
						2 Inside	137	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**177**			120	**AVG:**	**135**			95
	STD. DEV.	**2**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-65	**66662**	190	> 50%	BRK		1 Outside	140	0	SE1	
P128/P129		197	> 50%	BRK		2 Outside	168	0	SE1	
		194	> 50%	BRK		3 Outside	139	0	SE1	
		196	> 50%	BRK		4 Outside	137	0	SE1	
		195	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**13**			
						1 Inside	139	0	SE1	
						2 Inside	160	0	SE1	
						3 Inside	168	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	140	0	SE1	
	AVG.	**195**			120	**AVG:**	**149**			95
	STD. DEV.	**3**				STD. DEV.	**14**			
DP-66	**66663**	193	> 50%	BRK		1 Outside	156	0	SE1	
P129/P131		196	> 50%	BRK		2 Outside	169	0	SE1	
		194	> 50%	BRK		3 Outside	146	0	SE1	
		194	> 50%	BRK		4 Outside	167	0	SE1	
		194	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**157**			95
						STD. DEV.	**11**			
						1 Inside	154	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	157	0	SE1	
	AVG:	**194**			120	**AVG:**	**153**			95
	STD. DEV.	**1**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-67	**66664**	190	> 50%	BRK		1 Outside	120	0	SE1	
P137/P138		185	> 50%	BRK		2 Outside	127	0	SE1	
		190	> 50%	BRK		3 Outside	159	0	SE1	
		188	> 50%	BRK		4 Outside	137	0	SE1	
		191	> 50%	BRK		5 Outside	125	0	SE1	
						AVG:	**134**			95
						STD. DEV.	**16**			
						1 Inside	139	0	SE1	
						2 Inside	133	0	SE1	
						3 Inside	139	0	SE1	
						4 Inside	146	0	SE1	
						5 Inside	140	0	SE1	
	AVG.	**189**			120	**AVG:**	**139**			95
	STD. DEV.	**2**				STD. DEV.	**5**			
DP-68	**66665**	191	> 50%	BRK		1 Outside	149	0	SE1	
P138/P142		192	> 50%	BRK		2 Outside	127	0	SE1	
		190	> 50%	BRK		3 Outside	146	0	SE1	
		191	> 50%	BRK		4 Outside	160	0	SE1	
		188	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**12**			
						1 Inside	137	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	141	0	SE1	
						4 Inside	136	0	SE1	
						5 Inside	155	0	SE1	
	AVG:	**191**			120	**AVG:**	**142**			95
	STD. DEV.	**2**				STD. DEV.	**8**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 6.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-May-10** | PGL JOB #: **G100521** | DATE REPORT: 20-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-69	**66666**	191	> 50%	BRK		1 Outside	171	0	SE1	
P139/P141		192	> 50%	BRK		2 Outside	169	0	SE1	
		192	> 50%	BRK		3 Outside	163	0	SE1	
		192	> 50%	BRK		4 Outside	157	0	SE1	
		186	> 50%	BRK		5 Outside	163	0	SE1	
						AVG:	**165**			95
						STD. DEV.	**5**			
						1 Inside	146	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	135	0	SE1	
						5 Inside	146	0	SE1	
	AVG.	**191**			120	**AVG:**	**146**			95
	STD. DEV.	**3**				STD. DEV.	**7**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/24/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of ten (10) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100538

DATE RECEIVED: May 24, 2010 **DATE REPORTED:** May 24, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-70 P141/P143	66754
DP-71 P143/P144	66755
DP-72 P144/P148	66756
DP-73 P148/P149	66757
DP-74 P149/P150	66758
DP-75 P150/P151	66759
DP-76 P151/P152	66760
DP-77 P152/P153	66761
DP-78 P155/P157	66762
DP-79 P153/P159	66763

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 5.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By: _____

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **24-May-10** | PGL JOB #: **G100538** | DATE REPORT: 24-May-10

Crosshead Speed: 2 in/min						Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-70	**66754**	196	> 50%	BRK		1 Outside	150	0	SE1	
P141/P143		192	> 50%	BRK		2 Outside	156	0	SE1	
		192	> 50%	BRK		3 Outside	144	0	SE1	
		193	> 50%	BRK		4 Outside	144	0	SE1	
		194	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**146**			95
						STD. DEV.	**7**			
						1 Inside	150	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	143	0	SE1	
	AVG.	**193**			120	**AVG:**	**149**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DP-71	**66755**	198	> 50%	BRK		1 Outside	140	0	SE1	
P143/P144		192	> 50%	BRK		2 Outside	140	0	SE1	
		195	> 50%	BRK		3 Outside	142	0	SE1	
		196	> 50%	BRK		4 Outside	144	0	SE1	
		198	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**2**			
						1 Inside	148	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	148	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	150	0	SE1	
	AVG:	**196**			120	**AVG:**	**148**			95
	STD. DEV.	**2**				STD. DEV.	**2**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:
PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392
DATE REC'D: **24-May-10** | PGL JOB #: **G100538** | DATE REPORT: 24-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-72	**66756**	201	> 50%	BRK		1 Outside	131	0	SE1	
P144/P148		206	> 50%	BRK		2 Outside	136	0	SE1	
		203	> 50%	BRK		3 Outside	136	0	SE1	
		198	> 50%	BRK		4 Outside	138	0	SE1	
		200	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**135**			95
						STD. DEV.	**3**			
						1 Inside	156	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	148	0	SE1	
						4 Inside	148	0	SE1	
						5 Inside	148	0	SE1	
	AVG.	**202**			120	**AVG:**	**151**			95
	STD. DEV.	**3**				STD. DEV.	**4**			
DP-73	**66757**	190	> 50%	BRK		1 Outside	141	0	SE1	
P148/P149		198	> 50%	BRK		2 Outside	144	0	SE1	
		195	> 50%	BRK		3 Outside	148	0	SE1	
		191	> 50%	BRK		4 Outside	152	0	SE1	
		193	> 50%	BRK		5 Outside	164	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**9**			
						1 Inside	150	0	SE1	
						2 Inside	151	0	SE1	
						3 Inside	158	0	SE1	
						4 Inside	152	0	SE1	
						5 Inside	152	0	SE1	
	AVG:	**193**			120	**AVG:**	**153**			95
	STD. DEV.	**3**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee**
PROJECT: **Pasco Lf Construction Ash Cell A-4**
DATE REC'D: **24-May-10**

MATERIAL: **60mil HDPE SEAM**
SEAM TYPE: **Fusion Weld**
PGL JOB #: **G100538**

QC'd By:
TEST METHOD: ASTM D6392
DATE REPORT: 24-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-74	**66758**	198	> 50%	BRK		1 Outside	152	0	SE1	
P149/P150		192	> 50%	BRK		2 Outside	162	0	SE1	
		198	> 50%	BRK		3 Outside	148	0	SE1	
		190	> 50%	BRK		4 Outside	140	0	SE1	
		197	> 50%	BRK		5 Outside	136	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**10**			
						1 Inside	146	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	146	0	SE1	
						5 Inside	157	0	SE1	
	AVG.	**195**			120	**AVG:**	**150**			95
	STD. DEV.	**4**				STD. DEV.	**4**			
DP-75	**66759**	193	> 50%	BRK		1 Outside	145	0	SE1	
P150/P151		192	> 50%	BRK		2 Outside	152	0	SE1	
		194	> 50%	BRK		3 Outside	148	0	SE1	
		195	> 50%	BRK		4 Outside	144	0	SE1	
		195	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**145**			95
						STD. DEV.	**5**			
						1 Inside	144	0	SE1	
						2 Inside	140	0	SE1	
						3 Inside	140	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**194**			120	**AVG:**	**141**			95
	STD. DEV.	**1**				STD. DEV.	**2**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 4.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **24-May-10** | PGL JOB #: **G100538** | DATE REPORT: 24-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-76	**66760**	197	> 50%	BRK		1 Outside	136	0	SE1	
P151/P152		196	> 50%	BRK		2 Outside	155	0	SE1	
		195	> 50%	BRK		3 Outside	156	0	SE1	
		195	> 50%	BRK		4 Outside	140	0	SE1	
		195	> 50%	BRK		5 Outside	164	0	SE1	
						AVG:	**150**			95
						STD. DEV.	**12**			
						1 Inside	133	0	SE1	
						2 Inside	146	0	SE1	
						3 Inside	142	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	150	0	SE1	
	AVG.	**196**			120	**AVG:**	**144**			95
	STD. DEV.	**1**				STD. DEV.	**7**			
DP-77	**66761**	196	> 50%	BRK		1 Outside	158	0	SE1	
P152/P153		192	> 50%	BRK		2 Outside	154	0	SE1	
		193	> 50%	BRK		3 Outside	161	0	SE1	
		194	> 50%	BRK		4 Outside	153	0	SE1	
		198	> 50%	BRK		5 Outside	158	0	SE1	
						AVG:	**157**			95
						STD. DEV.	**3**			
						1 Inside	168	0	SE1	
						2 Inside	168	0	SE1	
						3 Inside	160	0	SE1	
						4 Inside	164	0	SE1	
						5 Inside	154	0	SE1	
	AVG:	**195**			120	**AVG:**	**163**			95
	STD. DEV.	**2**				STD. DEV.	**6**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 5.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **24-May-10** | PGL JOB #: **G100538** | DATE REPORT: 24-May-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-78	**66762**	198	> 50%	BRK		1 Outside	142	0	SE1	
P155/P157		190	> 50%	BRK		2 Outside	144	0	SE1	
		194	> 50%	BRK		3 Outside	142	0	SE1	
		193	> 50%	BRK		4 Outside	140	0	SE1	
		192	> 50%	BRK		5 Outside	154	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**6**			
						1 Inside	155	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	162	0	SE1	
						4 Inside	156	0	SE1	
						5 Inside	157	0	SE1	
	AVG.	**193**			120	**AVG:**	**156**			95
	STD. DEV.	**3**				STD. DEV.	**4**			
DP-79	**66763**	202	> 50%	BRK		1 Outside	130	0	SE1	
P153/P159		201	> 50%	BRK		2 Outside	144	0	SE1	
		202	> 50%	BRK		3 Outside	142	0	SE1	
		198	> 50%	BRK		4 Outside	136	0	SE1	
		198	> 50%	BRK		5 Outside	130	0	SE1	
						AVG:	**136**			95
						STD. DEV.	**7**			
						1 Inside	152	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	156	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	156	0	SE1	
	AVG:	**200**			120	**AVG:**	**153**			95
	STD. DEV.	**2**				STD. DEV.	**3**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 06/29/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of two (2) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100739

DATE RECEIVED: June 29, 2010 **DATE REPORTED:** June 29, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DP-80 P159/P171	67753
DP-81 P159/P164	67754

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **29-Jun-10** | PGL JOB #: **G100739** | DATE REPORT: **29-Jun-10**

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DP-80	**67753**	191	> 50%	BRK		1 Outside	146	0	SE1	
P159/P171		190	> 50%	BRK		2 Outside	151	0	SE1	
		189	> 50%	BRK		3 Outside	142	0	SE1	
		189	> 50%	BRK		4 Outside	142	0	SE1	
		192	> 50%	BRK		5 Outside	138	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**5**			
						1 Inside	140	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	132	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	133	0	SE1	
	AVG.	**190**			120	**AVG:**	**138**			95
	STD. DEV.	**1**				STD. DEV.	**9**			
DP-81	**67754**	191	> 50%	BRK		1 Outside	145	0	SE1	
P159/P164		190	> 50%	BRK		2 Outside	141	0	SE1	
		192	> 50%	BRK		3 Outside	142	0	SE1	
		193	> 50%	BRK		4 Outside	143	0	SE1	
		190	> 50%	BRK		5 Outside	132	0	SE1	
						AVG:	**141**			95
						STD. DEV.	**5**			
						1 Inside	130	0	SE1	
						2 Inside	126	0	SE1	
						3 Inside	130	0	SE1	
						4 Inside	132	0	SE1	
						5 Inside	140	0	SE1	
	AVG:	**191**			120	**AVG:**	**132**			95
	STD. DEV.	**1**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 07/12/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of six (6) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100804

DATE RECEIVED: July 12, 2010 **DATE REPORTED:** July 12, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-84 S145/S178	68169
DS-85 S183/S181	68170
DS-86 S136/S183	68171
DS-87 S187/S185	68172
DS-88 S190/S189	68173
DS-89 S194/S193	68174

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-Jul-10** | PGL JOB #: **G100804** | DATE REPORT: 12-Jul-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-84	**68169**	186	> 50%	BRK		1 Outside	157	0	SE1	
S145/S178		189	> 50%	BRK		2 Outside	150	0	SE1	
		190	> 50%	BRK		3 Outside	128	0	SE1	
		184	> 50%	BRK		4 Outside	145	0	SE1	
		188	> 50%	BRK		5 Outside	134	0	SE1	
						AVG:	**143**			95
						STD. DEV.	**12**			
						1 Inside	153	0	SE1	
						2 Inside	144	0	SE1	
						3 Inside	149	0	SE1	
						4 Inside	140	0	SE1	
						5 Inside	162	0	SE1	
	AVG.	**187**			120	**AVG:**	**149**			95
	STD. DEV.	**3**				STD. DEV.	**8**			
DS-85	**68170**	192	> 50%	BRK		1 Outside	146	0	SE1	
S183/S181		186	> 50%	BRK		2 Outside	149	0	SE1	
		191	> 50%	BRK		3 Outside	144	0	SE1	
		184	> 50%	BRK		4 Outside	147	0	SE1	
		189	> 50%	BRK		5 Outside	144	0	SE1	
						AVG:	**146**			95
						STD. DEV.	**2**			
						1 Inside	150	0	SE1	
						2 Inside	148	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	145	0	SE1	
						5 Inside	144	0	SE1	
	AVG:	**188**			120	**AVG:**	**148**			95
	STD. DEV.	**4**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-Jul-10** | PGL JOB #: **G100804** | DATE REPORT: 12-Jul-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-86	**68171**	186	> 50%	BRK		1 Outside	114	0	SE1	
S136/S183		185	> 50%	BRK		2 Outside	122	0	SE1	
		181	> 50%	BRK		3 Outside	122	0	SE1	
		183	> 50%	BRK		4 Outside	121	0	SE1	
		186	> 50%	BRK		5 Outside	129	0	SE1	
						AVG:	**121**			95
						STD. DEV.	**5**			
						1 Inside	111	0	SE1	
						2 Inside	123	0	SE1	
						3 Inside	117	0	SE1	
						4 Inside	131	0	SE1	
						5 Inside	117	0	SE1	
	AVG.	**184**			120	**AVG:**	**120**			95
	STD. DEV.	**2**				STD. DEV.	**7**			
DS-87	**68172**	193	> 50%	BRK		1 Outside	137	0	SE1	
S187/S185		194	> 50%	BRK		2 Outside	138	0	SE1	
		193	> 50%	BRK		3 Outside	123	0	SE1	
		188	> 50%	BRK		4 Outside	139	0	SE1	
		187	> 50%	BRK		5 Outside	127	0	SE1	
						AVG:	**133**			95
						STD. DEV.	**8**			
						1 Inside	151	0	SE1	
						2 Inside	155	0	SE1	
						3 Inside	156	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	162	0	SE1	
	AVG:	**191**			120	**AVG:**	**155**			95
	STD. DEV.	**3**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **12-Jul-10** | PGL JOB #: **G100804** | DATE REPORT: 12-Jul-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-88	**68173**	187	> 50%	BRK		1 Outside	142	0	SE1	
S190/S189		192	> 50%	BRK		2 Outside	142	0	SE1	
		190	> 50%	BRK		3 Outside	133	0	SE1	
		188	> 50%	BRK		4 Outside	144	0	SE1	
		190	> 50%	BRK		5 Outside	137	0	SE1	
						AVG:	**140**			95
						STD. DEV.	**4**			
						1 Inside	149	0	SE1	
						2 Inside	152	0	SE1	
						3 Inside	134	0	SE1	
						4 Inside	149	0	SE1	
						5 Inside	147	0	SE1	
	AVG.	**190**			120	**AVG:**	**146**			95
	STD. DEV.	**2**				STD. DEV.	**7**			
DS-89	**68174**	190	> 50%	BRK		1 Outside	152	0	SE1	
S194/S193		192	> 50%	BRK		2 Outside	150	0	SE1	
		189	> 50%	BRK		3 Outside	141	0	SE1	
		188	> 50%	BRK		4 Outside	144	0	SE1	
		190	> 50%	BRK		5 Outside	148	0	SE1	
						AVG:	**147**			95
						STD. DEV.	**4**			
						1 Inside	119	0	SE1	
						2 Inside	110	0	SE1	
						3 Inside	111	0	SE1	
						4 Inside	121	0	SE1	
						5 Inside	117	0	SE1	
	AVG:	**189**			120	**AVG:**	**115**			95
	STD. DEV.	**1**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 07/20/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the Seam testing of six (6) 60mil HDPE seam samples.

PROJECT NAME: Pasco Landfill Construction Ash Cell A-4

REFERENCE PGL JOB NO.: G100848

DATE RECEIVED: July 20, 2010 **DATE REPORTED:** July 20, 2010

SAMPLES SENT BY: A. Taylor, Ripa & Associates

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
DS-82 P144/P148	68364
DS-83 P148/P149	68365
DS-84 P179/P177	68366
DS-85 P177/P178	68367
DS-86 P192/P191	68368
DS-87 P200/P199	68369

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D6392	Shear Bond Strength
ASTM D6392	Peel Bond Adhesion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Failed seam samples are kept for two (2) years and good seam samples are disposed of after two (2) weeks.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-Jul-10** | PGL JOB #: **G100848** | DATE REPORT: 20-Jul-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-82	**68364**	190	> 50%	BRK		1 Outside	141	0	SE1	
P144/P148		192	> 50%	BRK		2 Outside	140	0	SE1	
		193	> 50%	BRK		3 Outside	139	0	SE1	
		188	> 50%	BRK		4 Outside	142	0	SE1	
		190	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**142**			95
						STD. DEV.	**4**			
						1 Inside	151	0	SE1	
						2 Inside	150	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	151	0	SE1	
	AVG.	**191**			120	**AVG:**	**151**			95
	STD. DEV.	**2**				STD. DEV.	**1**			
DS-83	**68365**	190	> 50%	BRK		1 Outside	150	0	SE1	
P148/P149		188	> 50%	BRK		2 Outside	150	0	SE1	
		188	> 50%	BRK		3 Outside	153	0	SE1	
		191	> 50%	BRK		4 Outside	155	0	SE1	
		180	> 50%	BRK		5 Outside	155	0	SE1	
						AVG:	**153**			95
						STD. DEV.	**2**			
						1 Inside	153	0	SE1	
						2 Inside	154	0	SE1	
						3 Inside	155	0	SE1	
						4 Inside	154	0	SE1	
						5 Inside	143	0	SE1	
	AVG:	**187**			120	**AVG:**	**152**			95
	STD. DEV.	**4**				STD. DEV.	**5**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

TABLE 2.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE EC'D: **20-Jul-10** | PGL JOB #: **G100848** | DATE REPORT: 20-Jul-10

		Crosshead Speed: 2 in/min				Crosshead Speed: 2 in/min				
		SHEAR EVALUATION				PEEL EVALUATION				
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-84	**68366**	188	> 50%	BRK		1 Outside	141	0	SE1	
P179/P177		188	> 50%	BRK		2 Outside	150	0	SE1	
		190	> 50%	BRK		3 Outside	152	0	SE1	
		184	> 50%	BRK		4 Outside	152	0	SE1	
		188	> 50%	BRK		5 Outside	141	0	SE1	
						AVG:	**147**			95
						STD. DEV.	**6**			
						1 Inside	140	0	SE1	
						2 Inside	143	0	SE1	
						3 Inside	143	0	SE1	
						4 Inside	147	0	SE1	
						5 Inside	150	0	SE1	
	AVG.	**187**			120	**AVG:**	**145**			95
	STD. DEV.	**2**				STD. DEV.	**4**			
DS-85	**68367**	187	> 50%	BRK		1 Outside	150	0	SE1	
P177/P178		188	> 50%	BRK		2 Outside	152	0	SE1	
		187	> 50%	BRK		3 Outside	153	0	SE1	
		180	> 50%	BRK		4 Outside	142	0	SE1	
		186	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**148**			95
						STD. DEV.	**5**			
						1 Inside	142	0	SE1	
						2 Inside	142	0	SE1	
						3 Inside	148	0	SE1	
						4 Inside	150	0	SE1	
						5 Inside	151	0	SE1	
	AVG:	**186**			120	**AVG:**	**147**			95
	STD. DEV.	**3**				STD. DEV.	**4**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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TABLE 3.
SEAM PEEL AND SHEAR TEST RESULTS

CLIENT: **Camp Dresser & McKee** | MATERIAL: **60mil HDPE SEAM** | QC'd By:

PROJECT: **Pasco Lf Construction Ash Cell A-4** | SEAM TYPE: **Fusion Weld** | TEST METHOD: ASTM D6392

DATE REC'D: **20-Jul-10** | PGL JOB #: **G100848** | DATE REPORT: 20-Jul-10

Crosshead Speed: 2 in/min		SHEAR EVALUATION				Crosshead Speed: 2 in/min	PEEL EVALUATION			
SAMPLE ID	PGL CONTROL #	MAXIMUM STRENGTH (lb/in width)	% Elongation	Locus of Break	PROJECT SPEC. (lb/in width)	SPECIMEN NUMBER	MAXIMUM STRENGTH (lb/in width)	% INCURSION (%)	LOCUS OF BREAK	PROJECT SPEC. (lb/in width)
DS-86	**68368**	188	> 50%	BRK		1 Outside	150	0	SE1	
P192/P191		190	> 50%	BRK		2 Outside	141	0	SE1	
		188	> 50%	BRK		3 Outside	147	0	SE1	
		188	> 50%	BRK		4 Outside	148	0	SE1	
		189	> 50%	BRK		5 Outside	142	0	SE1	
						AVG:	**146**			95
						STD. DEV.	**4**			
						1 Inside	150	0	SE1	
						2 Inside	151	0	SE1	
						3 Inside	150	0	SE1	
						4 Inside	153	0	SE1	
						5 Inside	142	0	SE1	
	AVG.	**189**			120	**AVG:**	**149**			95
	STD. DEV.	**1**				STD. DEV.	**4**			
DS-87	**68369**	188	> 50%	BRK		1 Outside	142	0	SE1	
P200/P199		189	> 50%	BRK		2 Outside	147	0	SE1	
		192	> 50%	BRK		3 Outside	143	0	SE1	
		191	> 50%	BRK		4 Outside	140	0	SE1	
		192	> 50%	BRK		5 Outside	150	0	SE1	
						AVG:	**144**			95
						STD. DEV.	**4**			
						1 Inside	152	0	SE1	
						2 Inside	151	0	SE1	
						3 Inside	153	0	SE1	
						4 Inside	147	0	SE1	
						5 Inside	150	0	SE1	
	AVG:	**190**			120	**AVG:**	**151**			95
	STD. DEV.	**2**				STD. DEV.	**2**			

BREAK DESCRIPTION (ASTM D6392 FUSION):

AD	ADHESION FAILURE.
BRK	BREAK IN SHEETING.
SE1	BREAK AT OUTER EDGE OF SEAM.
SE2	BREAK AT INNER EDGE OF SEAM.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
SIP	SEPARATION IN THE PLANE OF THE SHEET.

EXTRUSION:

AD1	ADHESION FAILURE. SPECIMENS DELAMINATED UNDER THE BEAD.
AD2	ADHESION FAILURE.
AD-WLD	BREAK THROUGH THE FILLET.
SE1	BREAK AT BOTTOM EDGE OF SEAM.
SE2	BREAK AT TOP EDGE OF SEAM.
SE3	BREAK AT BOTTOM EDGE OF SEAM (for PEEL only)
BRK1	BREAK IN BOTTOM SHEETING.
BRK2	BREAK IN TOP SHEETING.
AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE.
HT	BREAK AT EDGE OF HOT TACK
SIP	SEPARATION IN THE PLANE OF THE SHEET.

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Precision Geosynthetic Laboratories

INTERFACE SHEAR TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

April 9, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***West Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for **Internal Shear / Interface Shear** testing of the materials in accordance to the test configurations listed on the next page.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGL neither accepts responsibility for nor makes claims to the intended final use and purpose of the material and data evaluated.

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The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Tested specimens* and *retained samples are kept for one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100130)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: West *Pasco Lf Construction Ash Cell A-4*

INTERFACE/INTERNAL SHEAR TESTING
(PGL Job No. G100130)

MATERIAL DESCRIPTION & IDENTIFICATIONS:

Material	Type	Manufacturer	Roll No.	PGL Control No.	Date Received
1. GCL	Bentomat ST	Cetco	257	64865	3/5/2010
2. GCL	Bentomat ST	Cetco	308	64866	3/5/2010
3. GCL	Bentomat ST	Cetco	643	64945	3/10/2010
4. Geomembrane	60mil textured HDPE	GSE	108150553	64948	3/10/2010
5. Geomembrane	60mil textured HDPE	GSE	108150592	64949	3/10/2010
6. Geomembrane	60mil textured HDPE	GSE	108150731	65076	3/19/2010
7. Sand	Liner Subgrade	NA	NA	64169, 65187	3/26/2010
8. Sand	Sand Cover	NA	NA	65188-65189	3/26/2010
9. Geocomposite	Double-sided	GSE	131335690	64901	3/9/2010
10. Geocomposite	Double-sided	GSE	131335926	64913	3/9/2010
11. Geocomposite	Double-sided	GSE	131336957	65138	3/23/2010

SAMPLED BY: PGL @ GSE Linings and Cetco Lining Technologies

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5321	Interface Shear
ASTM D6243	Interface Shear
ASTM D6243	Internal Shear

TEST CONFIGURATIONS:

Bentomat ST GCL Internal Shear
Bentomat ST GCL vs 60mil textured HDPE
Sand/Geocomposite/HDPE/Geocomposite/HDPE/GCL/Subgrade

TEST CONDITIONS: The samples were conditioned for a minimum one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1-A to 3-C.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 4/9/2010

Carmelo V. Zantua
Technical/Laboratory Director

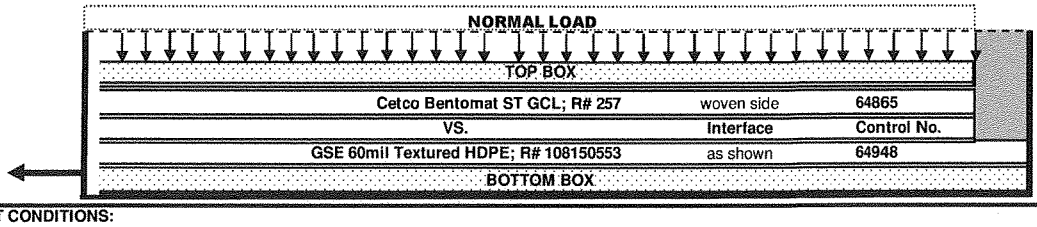
1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1-A
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By: _____
Date: 3/19/2010

TEST CONFIGURATION **1-A**



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the TOP box, and 14" x 19" for the BOTTOM box, with an effective test area of 12" x 12".
2. Specimens were secured via flat bar clamping mechanisms complete with bolts and nuts (7-pairs).

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		GCL Moisture Content		Asperity Heights		PEAK STRENGTH		POST- PEAK STRENGTH AT 3.0 INCHES	
		Before	After	Before	After	Shear Stress	Secant Angle	Shear Stress	Secant Angle
(psi)	(psf)	(%)	(%)	(mils)	(mils)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	16.4	137.8	25	24	73	27	52	20
2.00	288	16.4	116.7	24	23	161	29	83	16
3.00	432	16.4	107.6	26	24	227	28	151	19
					COEFFICIENT OF FRICTION :	0.53		0.34	
					FRICTION ANGLE (degrees) :	28.1		18.6	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. Sliding occurred between the two interfacing materials.
2. No tilting of the system or any abnormalities observed during and after the test.
3. Superficial abrasion on the geosynthetics interfacing side (typical to all loads)

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

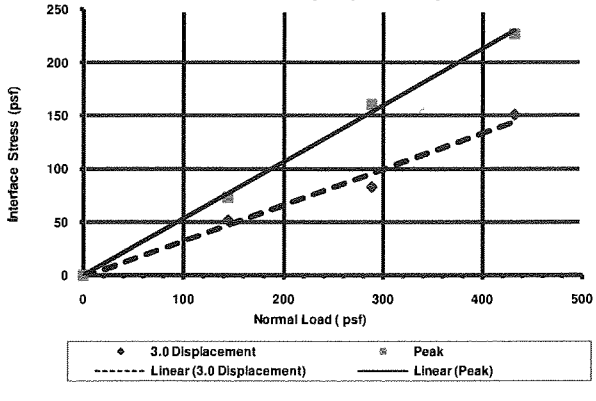


Figure #2
Shear Stress/ Displacement Curve

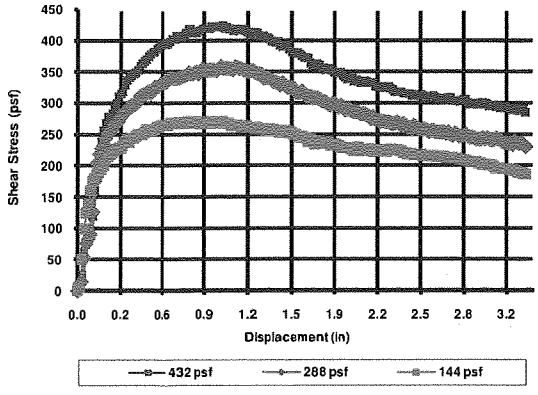


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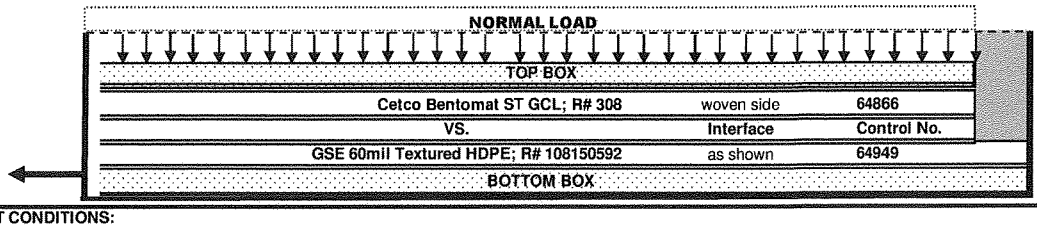
TABLE 1-B
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By:
Date: 3/19/2010

TEST CONFIGURATION 1-B



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the TOP box, and 14" x 19" for the BOTTOM box, with an effective test area of 12" x 12".
2. Specimens were secured via flat bar clamping mechanisms complete with bolts and nuts (7-pairs).

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		GCL Moisture Content		Asperity Heights		PEAK STRENGTH		POST- PEAK STRENGTH AT 3.0 INCHES	
		Before	After	Before	After	Shear Stress	Secant Angle	Shear Stress	Secant Angle
(psi)	(psf)	(%)	(%)	(mils)	(mils)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	15.3	130.6	25	24	98	34	47	18
2.00	288	15.3	121.5	25	24	174	31	102	20
3.00	432	15.3	107.2	24	23	287	34	145	19
				COEFFICIENT OF FRICTION :		0.66		0.34	
				FRICTION ANGLE (degrees) :		33.3		18.8	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. Sliding occurred between the two interfacing materials.
2. No tilting of the system or any abnormalities observed during and after the test.
3. Superficial abrasion on the geosynthetics interfacing side (typical to all loads)

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

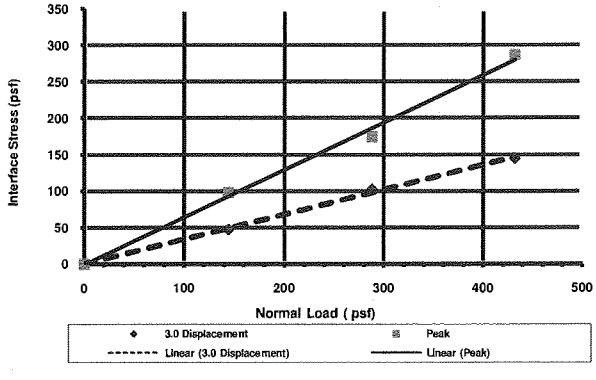


Figure #2
Shear Stress/ Displacement Curve

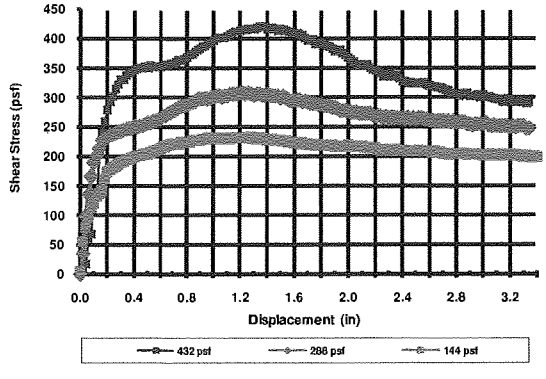


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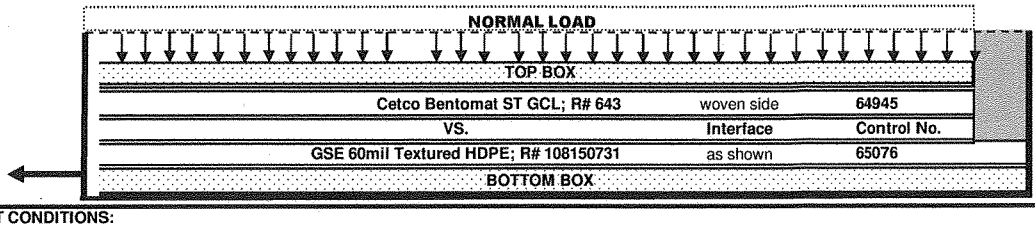
TABLE 1-C
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By:
Date: 3/29/2010

TEST CONFIGURATION 1-C



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the TOP box, and 14" x 19" for the BOTTOM box, with an effective test area of 12" x 12".
2. Specimens were secured via flat bar clamping mechanisms complete with bolts and nuts (7-pairs).

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		GCL Moisture Content		Asperity Heights		PEAK STRENGTH		POST- PEAK STRENGTH AT 3.0 INCHES	
		Before	After	Before	After	Shear Stress	Secant Angle	Shear Stress	Secant Angle
(psi)	(psf)	(%)	(%)	(mils)	(mils)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	21.1	132.0	25	24	67	25	50	19
2.00	288	21.1	122.6	26	25	200	35	135	25
3.00	432	21.1	114.7	26	24	234	28	167	21
				COEFFICIENT OF FRICTION :		0.58		0.41	
				FRICTION ANGLE (degrees) :		30.1		22.1	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. Sliding occurred between the two interfacing materials.
2. No tilting of the system or any abnormalities observed during and after the test.
3. Superficial abrasion on the geosynthetics interfacing side (typical to all loads)

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

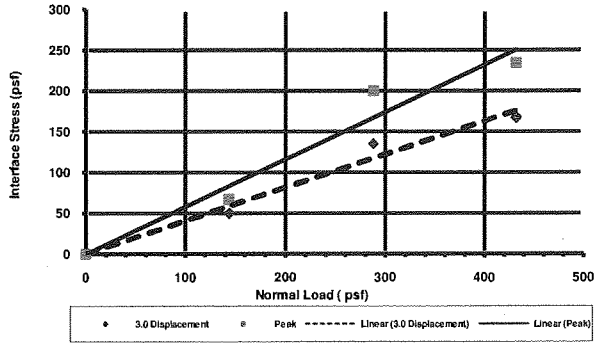


Figure #2
Shear Stress/ Displacement Curve

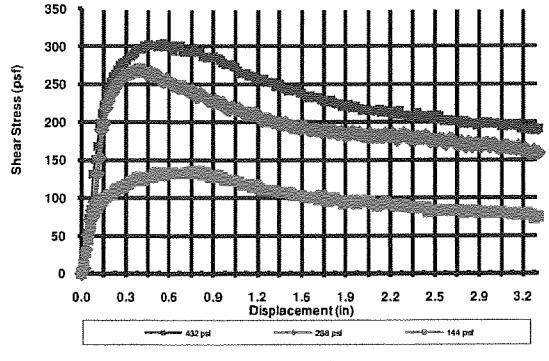


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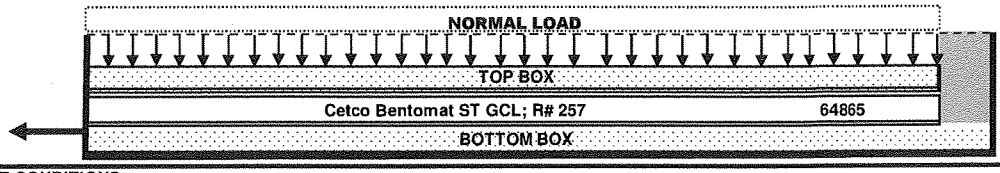
TABLE 2-A
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERNAL SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By:
Date: 3/19/2010

TEST CONFIGURATION **2-A**



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 19" for the upper box, and 14" x 17" for the lower box, with an effective test area of 12" x 12".
2. The GCL is fastened to a 1" PVC board coupled with a truss plate.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		Moisture Content %		PEAK STRENGTH Shear Stress	PEAK STRENGTH Secant Angle	POST- PEAK STRENGTH AT 3.0 INCHES Shear Stress	POST- PEAK STRENGTH AT 3.0 INCHES Secant Angle
(psi)	(psf)	(Before)	(After)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	23.5	127.4	166	49	86	31
2.00	288	23.5	124.5	316	48	169	30
3.00	432	23.5	122.7	490	49	257	31
		COEFFICIENT OF FRICTION :		**1.13**		**0.59**	
		FRICTION ANGLE (degrees) :		**48.4**		**30.7**	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. No tilting of the system or any abnormalities observed during and after the test.
2. At 1 psi: There was 50% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 2 psi: There was 50% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 3 psi: There was 75% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

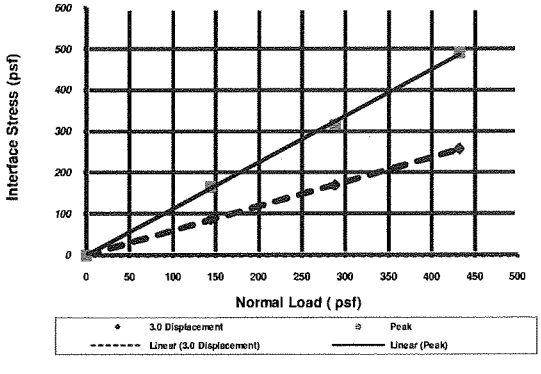


Figure #2
Shear Stress/ Displacement Curve

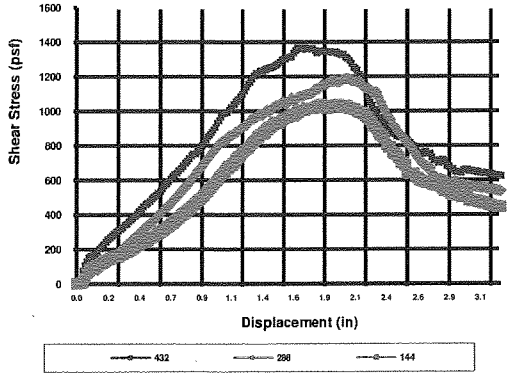


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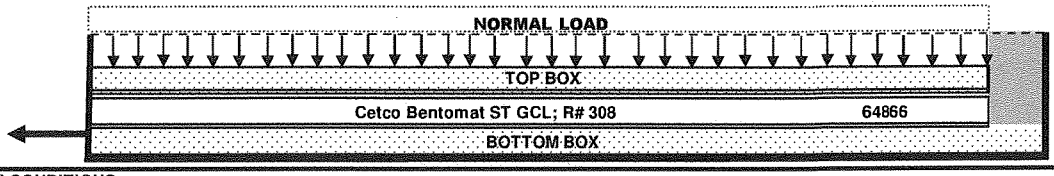
TABLE 2-B
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERNAL SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By: _____
Date: 3/19/2010

TEST CONFIGURATION **2-B**



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 19" for the upper box, and 14" x 17" for the lower box, with an effective test area of 12" x 12".
2. The GCL is fastened to a 1" PVC board coupled with a truss plate.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		Moisture Content %		PEAK STRENGTH Shear Stress	PEAK STRENGTH Secant Angle	POST- PEAK STRENGTH AT 3.0 INCHES Shear Stress	POST- PEAK STRENGTH AT 3.0 INCHES Secant Angle
(psi)	(psf)	(Before)	(After)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	21.7	116.3	163	49	67	25
2.00	288	21.7	110.9	279	44	135	25
3.00	432	21.7	107.6	465	47	201	25
N/A - Not Applicable		**COEFFICIENT OF FRICTION :**		**1.05**		**0.47**	
		FRICTION ANGLE (degrees) :		**46.4**		**25.0**	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. No tilting of the system or any abnormalities observed during and after the test.
2. At 1 psi: There was 25% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 2 psi: There was 50% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 3 psi: There was 50% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

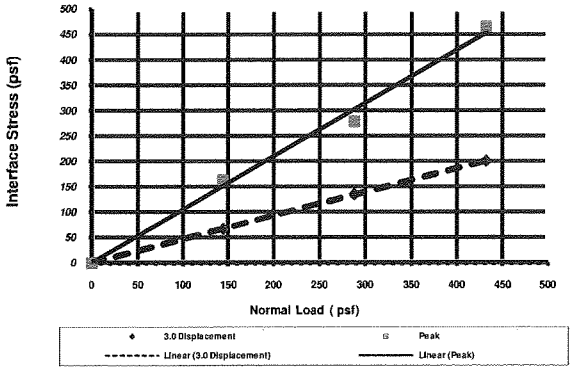


Figure #2
Shear Stress/ Displacement Curve

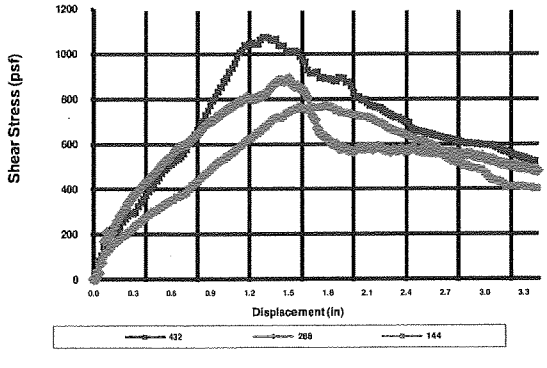


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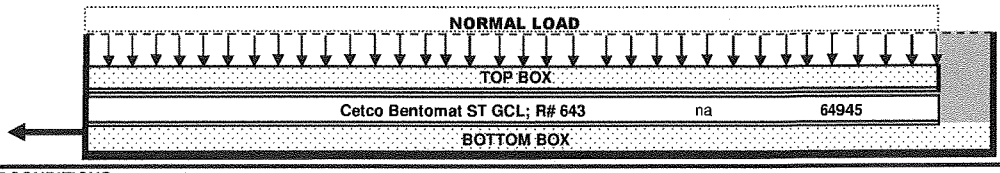
TABLE 2-C
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERNAL SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By: _____
Date: 3/29/2010

TEST CONFIGURATION **2-C**



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 19" for the upper box, and 14" x 17" for the lower box, with an effective test area of 12" x 12".
2. The GCL is fastened to a 1" PVC board coupled with a truss plate.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights** for all loads.

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. The test specimens were sheared at **drained** condition .
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		Moisture Content %		PEAK STRENGTH Shear Stress	PEAK STRENGTH Secant Angle	POST- PEAK STRENGTH AT 3.0 INCHES Shear Stress	POST- PEAK STRENGTH AT 3.0 INCHES Secant Angle
(psi)	(psf)	(Before)	(After)	(psf)	(degrees)	(psf)	(degrees)
1.00	144	21.1	137.4	174	50	102	35
2.00	288	21.1	122.3	311	47	158	29
3.00	432	21.1	112.4	503	49	283	33
		COEFFICIENT OF FRICTION :		1.14		0.63	
		FRICTION ANGLE (degrees) :		48.8		32.1	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:

1. No tilting of the system or any abnormalities observed during and after the test.
2. At 1 psi: There was 75% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 2 psi: There was 75% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.
   At 3 psi: There was 75% separation of the geotextiles. There was tearing and stretching of the woven geotextile. There was stretching of the non-woven geotextile.

NOTES:

1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

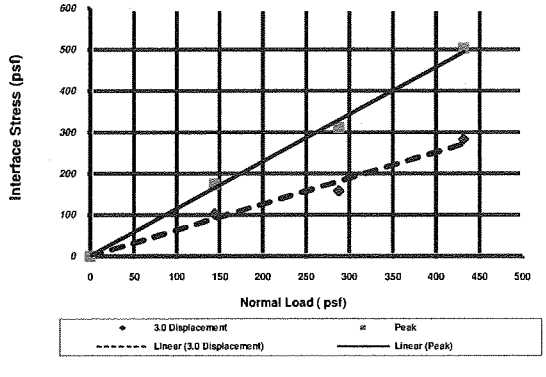


Figure #2
Shear Stress/ Displacement Curve

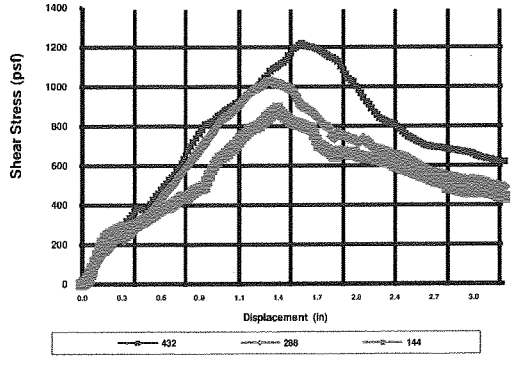


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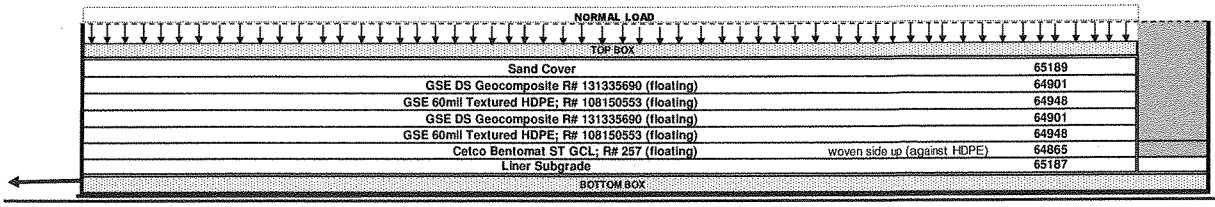
TABLE 3-A
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By: _____
Date: 4/5/2010

TEST CONFIGURATION 3-A



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the upper box, and 14" x 19" for the lower box, with an effective test area of 12" x 12".
2. The sand and subgrade were firmly compacted with standard drop hammer at wet condition.
3. The five intermediate geosynthetic specimens were floating during shear run.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights.**

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. Test specimens were sheared in **drained** condition.
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		ASPERITY HEIGHTS (UPPER HDPE)				ASPERITY HEIGHTS (LOWER HDPE)				GCL MOISTURE CONTENT		Sand Moisture Content		Subgrade Moisture Content		PEAK STRENGTH		POST- PEAK STRENGTH AT 3.0 INCHES	
		TOP SIDE		BOTTOM SIDE		TOP SIDE		BOTTOM SIDE								Shear Stress	Secant Angle	Shear Stress	Secant Angle
		Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After				
(psi)	(psf)	(mils)	(mils)	(%)	(%)	(mils)	(mils)	(mils)	(mils)	(%)	(%)	(%)	(%)	(%)	(%)	(psf)	(degrees)	(psf)	(degrees)
1	144	25	24	25	24	25	24	25	24	18.7	122.1	9.2	20.6	4.7	21.2	78	28	51	20
2	288	26	25	26	25	25	25	25	25	18.7	116.4	9.2	19.3	4.7	18.8	144	27	87	17
3	432	26	24	25	24	25	24	25	24	18.7	112.8	9.2	18.4	4.7	17.5	228	28	146	19
															COEFFICIENT OF FRICTION :		0.52		0.33
															FRICTION ANGLE (degrees) :		27.5		18.3

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:
1. No tilting of the system or any abnormalities observed during and after the test.
2. Superficial abrasion on the geosynthetics interfacing sides (typical to all loads).
3. Sliding occurred between the woven side of the Bentomat ST GCL and the textured geomembrane (typical to all loads).

NOTES:
1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

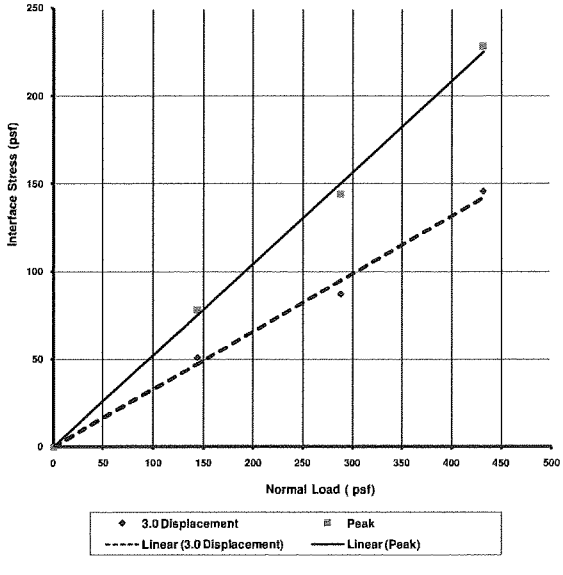


Figure #2
Shear Stress/ Displacement Curve

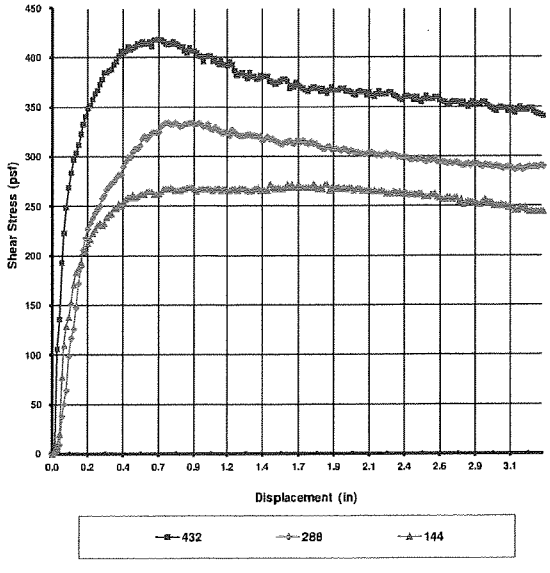
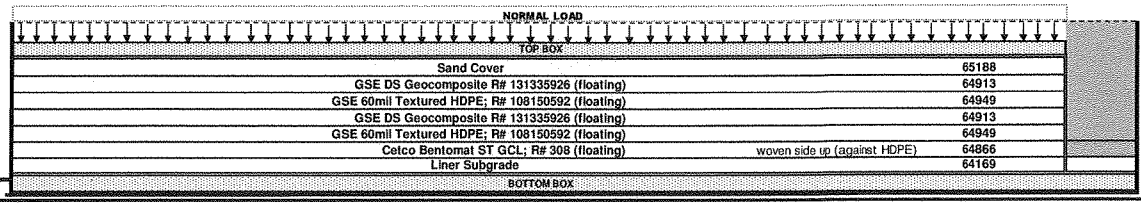


TABLE 3-B
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By: _____
Date: 4/5/2010

TEST CONFIGURATION 3-C



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the upper box, and 14" x 19" for the lower box, with an effective test area of 12" x 12".
2. The sand and subgrade were firmly compacted with standard drop hammer at wet condition.
3. The five intermediate geosynthetic specimens were floating during shear run.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights.**

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. Test specimens were sheared in **drained** condition.
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		ASPERITY HEIGHTS (UPPER HDPE)				ASPERITY HEIGHTS (LOWER HDPE)				GCL MOISTURE CONTENT		Sand Moisture Content		Subgrade Moisture Content		PEAK STRENGTH		POST- PEAK STRENGTH AT 3.0 INCHES	
		TOP SIDE		BOTTOM SIDE		TOP SIDE		BOTTOM SIDE								Shear Stress	Secant Angle	Shear Stress	Secant Angle
		Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After				
(psi)	(psf)	(mils)	(mils)	(%)	(%)	(mils)	(mils)	(mils)	(mils)	(%)	(%)	(%)	(%)	(%)	(%)	(psf)	(degrees)	(psf)	(degrees)
1	144	26	25	26	25	26	25	25	24	22.5	122.2	8.1	23.0	4.9	23.3	101	35	67	25
2	288	26	25	26	25	26	25	26	25	22.5	112.7	8.1	18.8	4.9	22.6	144	27	113	21
3	432	25	24	25	24	25	24	25	24	22.5	100.4	8.1	19.5	4.9	21.6	274	32	190	24
															COEFFICIENT OF FRICTION :		0.60		0.43
															FRICTION ANGLE (degrees) :		31.0		23.1

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:
1. No tilting of the system or any abnormalities observed during and after the test.
2. Superficial abrasion on the geosynthetics interfacing sides (typical to all loads).
3. Sliding occurred between the woven side of the Bentomat ST GCL and the textured geomembrane (typical to all loads)..

NOTES:
1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

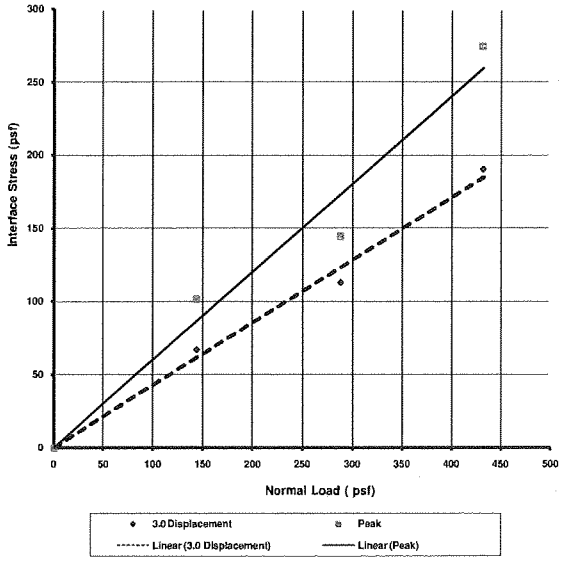


Figure #2
Shear Stress/ Displacement Curve

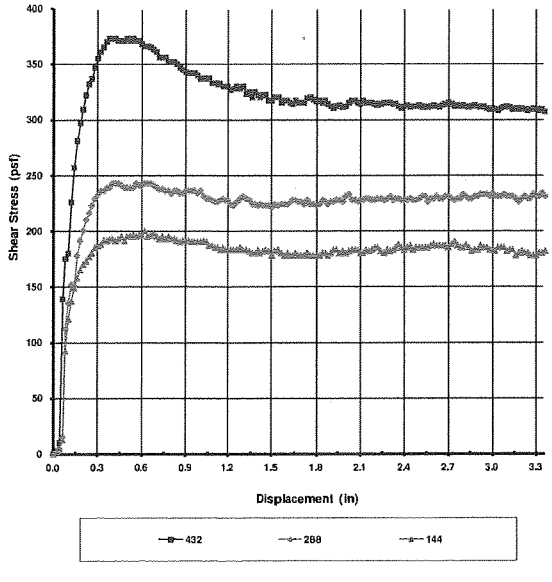
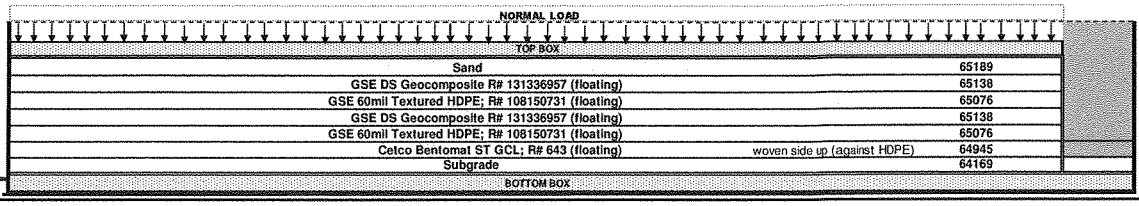


TABLE 3-C
CLIENT: Camp Dresser & Mckee
PROJECT: West Pasco LF Construction Ash Cell A-4

INTERFACE SHEAR TEST RESULT (ASTM D6243)
PGL Job No. G100130

Reviewed By:
Date: 4/9/2010

TEST CONFIGURATION 3-C



TEST CONDITIONS:

SAMPLE PREPARATION:

1. Specimens were cut along machine direction to 14" x 17" for the upper box, and 14" x 19" for the lower box, with an effective test area of 12" x 12".
2. The sand and subgrade were firmly compacted with standard drop hammer at wet condition.
3. The five intermediate geosynthetic specimens were floating during shear run.

CONSOLIDATION:

1. Each set of specimen was consolidated under **saturated** condition for **24 hrs** @ normal load before shearing.
2. Normal loads were applied using **dead weights.**

SHEAR TEST:

1. Shear test was conducted @ **0.004** in/ min.
2. Sheared @ minimum **3.0** inch horizontal displacement.
3. Test specimens were sheared in **drained** condition.
4. Test were performed in general accordance with ASTM D6243 using Brainard-Kilman LG-112 Direct Shear machine with effective test area of 12 in X 12 in.

TEST RESULTS:

Normal Stresses Applied		ASPERITY HEIGHTS (UPPER HDPE)				ASPERITY HEIGHTS (LOWER HDPE)				GCL MOISTURE CONTENT		Sand Moisture Content		Subgrade Moisture Content		PEAK STRENGTH		POST- PEAK ST INCHES	
		TOP SIDE		BOTTOM SIDE		TOP SIDE		BOTTOM SIDE								Shear Stress	Secant Angle	Shear Stress	Secant Angle
		Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After				
(psf)	(psf)	(mils)	(mils)	(%)	(%)	(mils)	(mils)	(mils)	(mils)	(%)	(%)	(%)	(%)	(%)	(%)	(psf)	(degrees)	(psf)	(degrees)
1	144	26	25	25	24	26	25	26	25	21.2	128.2	8.6	27.2	4.7	21.9	77	28	60	23
2	288	26	25	26	25	26	25	25	24	21.2	119.4	8.6	23.4	4.7	20.2	130	24	112	21
3	432	26	25	26	25	26	25	26	25	21.2	109.2	8.6	19.2	4.7	19.8	219	27	176	22
														COEFFICIENT OF FRICTION :		0.49		0.40	
														FRICTION ANGLE (degrees) :		26.2		21.9	

NOTE: The friction angles results given here are based on zero cohesion and mathematically determined best fit line.

OBSERVATIONS:
1. No tilting of the system or any abnormalities observed during and after the test.
2. Superficial abrasion on the geosynthetics interfacing sides (typical to all loads).
3. Sliding occurred between the woven side of the Bentomat ST GCL and the textured geomembrane (typical to all loads)..

NOTES:
1. The peak and post-peak values indicated in the table above and Figure #1 below were not reflective of the obtained cohesion values.
2. Figure #2 shows the actual stresses obtained from the test.

Figure #1
Normal Stress/ Interface Stress

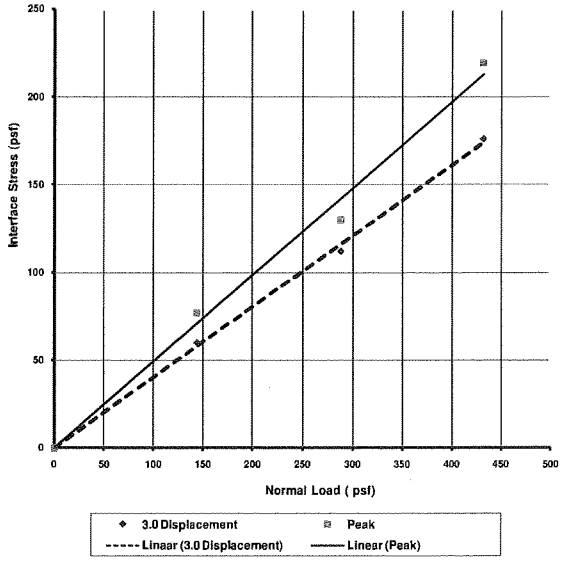
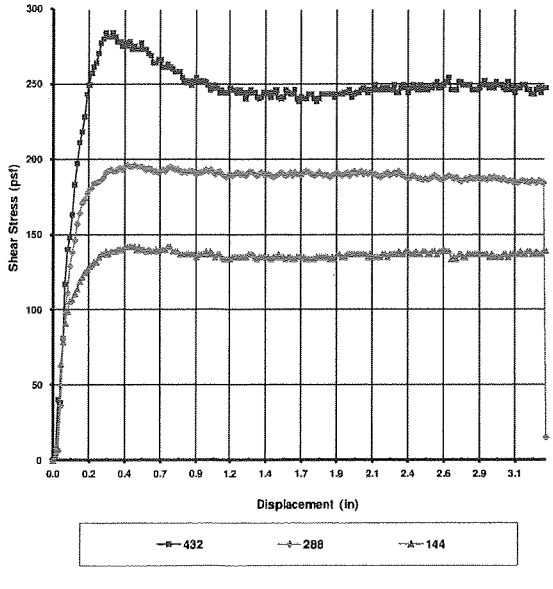


Figure #2
Shear Stress/ Displacement Curve



Precision Geosynthetic Laboratories

GSE 300MIL DOUBLE-SIDED GEOCOMPOSITE CONFORMANCE TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	131335690	C100110A02	170	14.5	2465	2/28/2010	BG	3/4/2010	3/9/2010	G100141 C#64901
2	131335691	C100110A02	170	14.5	2465	2/28/2010				
3	131335692	C100110A02	170	14.5	2465	2/28/2010				
4	131335693	C100110A02	170	14.5	2465	2/28/2010				
5	131335694	C100110A02	170	14.5	2465	2/28/2010				
6	131335695	C100110A02	170	14.5	2465	2/28/2010				
7	131335696	C100110A02	170	14.5	2465	2/28/2010				
8	131335697	C100110A02	170	14.5	2465	2/28/2010				
9	131335698	C100110A02	170	14.5	2465	2/28/2010				
10	131335699	C100110A02	170	14.5	2465	2/28/2010				
11	131335700	C100110A02	170	14.5	2465	2/28/2010				
12	131335701	C100110A02	170	14.5	2465	2/28/2010				
13	131335702	C100110A02	170	14.5	2465	2/28/2010				
14	131335703	C100110A02	170	14.5	2465	2/28/2010				
15	131335704	C100110A02	170	14.5	2465	2/28/2010				
16	131335705	C100110A02	170	14.5	2465	2/28/2010				
17	131335706	C100110A02	170	14.5	2465	2/28/2010				
18	131335707	C100110A02	170	14.5	2465	2/28/2010				
19	131335708	C100110A02	170	14.5	2465	2/28/2010				
20	131335709	C100110A02	170	14.5	2465	2/28/2010				
				Sub Total ft^2 =	49,300					
21	131335710	CB20011504	170	14.5	2465	2/28/2010				

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Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
22	131335711	CB20011504	170	14.5	2465	2/28/2010				
23	131335712	CB20011504	170	14.5	2465	2/28/2010				
24	131335713	CB20011504	170	14.5	2465	2/28/2010				
25	131335714	CB20011504	170	14.5	2465	2/28/2010				
26	131335715	CB20011504	170	14.5	2465	2/28/2010				
27	131335716	CB20011504	170	14.5	2465	2/28/2010				
28	131335717	CB20011504	170	14.5	2465	2/28/2010				
29	131335718	CB20011504	170	14.5	2465	2/28/2010				
30	131335719	CB20011504	170	14.5	2465	2/28/2010				
31	131335720	CB20011504	170	14.5	2465	2/28/2010				
32	131335721	CB20011504	170	14.5	2465	2/28/2010				
33	131335722	CB20011504	170	14.5	2465	2/28/2010				
34	131335723	CB20011504	170	14.5	2465	2/28/2010				
35	131335724	CB20011504	170	14.5	2465	2/28/2010				
36	131335725	CB20011504	170	14.5	2465	2/28/2010				
37	131335726	CB20011504	170	14.5	2465	2/28/2010	BG	3/4/2010	3/9/2010	G100141 C#64902
38	131335727	CB20011504	170	14.5	2465	2/28/2010				
39	131335728	CB20011504	170	14.5	2465	2/28/2010				
40	131335729	CB20011504	170	14.5	2465	2/28/2010				
41	131335730	CB20011504	170	14.5	2465	2/28/2010				
42	131335731	CB20011504	170	14.5	2465	2/28/2010				
43	131335732	CB20011504	170	14.5	2465	2/28/2010				

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Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
44	131335733	CB20011504	170	14.5	2465	2/28/2010				
45	131335734	CB20011504	170	14.5	2465	2/28/2010				
46	131335735	CB20011504	170	14.5	2465	2/28/2010				
47	131335736	CB20011504	170	14.5	2465	2/28/2010				
48	131335737	CB20011504	170	14.5	2465	2/28/2010				
49	131335738	CB20011504	170	14.5	2465	2/28/2010				
50	131335739	CB20011504	170	14.5	2465	2/28/2010				
51	131335740	CB20011504	170	14.5	2465	2/28/2010				
52	131335741	CB20011504	170	14.5	2465	2/28/2010				
53	131335742	CB20011504	170	14.5	2465	2/28/2010				
54	131335743	CB20011504	170	14.5	2465	2/28/2010				
55	131335744	CB20011504	170	14.5	2465	2/28/2010				
56	131335745	CB20011504	170	14.5	2465	2/28/2010				
57	131335746	CB20011504	170	14.5	2465	2/28/2010				
58	131335747	CB20011504	170	14.5	2465	2/28/2010				
59	131335748	CB20011504	170	14.5	2465	2/28/2010				
60	131335749	CB20011504	170	14.5	2465	2/28/2010				
61	131335750	CB20011504	170	14.5	2465	2/28/2010				
62	131335751	CB20011504	170	14.5	2465	2/28/2010				
63	131335752	CB20011504	170	14.5	2465	3/1/2010				
64	131335753	CB20011504	170	14.5	2465	3/1/2010				
65	131335754	CB20011504	170	14.5	2465	3/1/2010				

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Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
66	131335757	CB20011504	170	14.5	2465	3/1/2010				
67	131335758	CB20011504	170	14.5	2465	3/1/2010				
68	131335759	CB20011504	170	14.5	2465	3/1/2010				
69	131335760	CB20011504	170	14.5	2465	3/1/2010				
70	131335761	CB20011504	170	14.5	2465	3/1/2010				
71	131335762	CB20011504	170	14.5	2465	3/1/2010				
72	131335763	CB20011504	170	14.5	2465	3/1/2010				
73	131335768	CB20011504	170	14.5	2465	3/1/2010				
74	131335769	CB20011504	170	14.5	2465	3/1/2010				
75	131335770	CB20011504	170	14.5	2465	3/1/2010	BG	3/4/2010	3/9/2010	G100141 C#64903
76	131335771	CB20011504	170	14.5	2465	3/1/2010				
77	131335772	CB20011504	170	14.5	2465	3/1/2010				
78	131335773	CB20011504	170	14.5	2465	3/1/2010				
79	131335774	CB20011504	170	14.5	2465	3/1/2010				
80	131335775	CB20011504	170	14.5	2465	3/1/2010				
81	131335776	CB20011504	170	14.5	2465	3/1/2010				
82	131335777	CB20011504	170	14.5	2465	3/1/2010				
83	131335778	CB20011504	170	14.5	2465	3/1/2010				
84	131335779	CB20011504	170	14.5	2465	3/1/2010				
85	131335780	CB20011504	170	14.5	2465	3/1/2010				
86	131335785	CB20011504	170	14.5	2465	3/1/2010				
87	131335786	CB20011504	170	14.5	2465	3/1/2010				

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Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
88	131335787	CB20011504	170	14.5	2465	3/1/2010				
89	131335788	CB20011504	170	14.5	2465	3/1/2010				
90	131335789	CB20011504	170	14.5	2465	3/1/2010				
91	131335790	CB20011504	170	14.5	2465	3/1/2010				
92	131335791	CB20011504	170	14.5	2465	3/1/2010				
93	131335792	CB20011504	170	14.5	2465	3/1/2010				
94	131335793	CB20011504	170	14.5	2465	3/1/2010				
95	131335794	CB20011504	170	14.5	2465	3/1/2010				
96	131335795	CB20011504	170	14.5	2465	3/1/2010				
97	131335796	CB20011504	170	14.5	2465	3/1/2010				
98	131335797	CB20011504	170	14.5	2465	3/1/2010				
99	131335798	CB20011504	170	14.5	2465	3/1/2010				
100	131335799	CB20011504	170	14.5	2465	3/1/2010				
101	131335800	CB20011504	170	14.5	2465	3/1/2010				
102	131335801	CB20011504	170	14.5	2465	3/1/2010				
103	131335802	CB20011504	170	14.5	2465	3/1/2010				
104	131335803	CB20011504	170	14.5	2465	3/1/2010				
105	131335804	CB20011504	170	14.5	2465	3/1/2010				
106	131335805	CB20011504	170	14.5	2465	3/1/2010				
107	131335806	CB20011504	170	14.5	2465	3/1/2010				
108	131335807	CB20011504	170	14.5	2465	3/1/2010				
109	131335808	CB20011504	170	14.5	2465	3/1/2010				

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Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
110	131335809	CB20011504	170	14.5	2465	3/1/2010	BG	3/4/2010	3/9/2010	G100142 C#64907
111	131335810	CB20011504	170	14.5	2465	3/1/2010				
112	131335811	CB20011504	170	14.5	2465	3/1/2010				
113	131335812	CB20011504	170	14.5	2465	3/1/2010				
114	131335813	CB20011504	170	14.5	2465	3/1/2010				
115	131335814	CB20011504	170	14.5	2465	3/1/2010				
116	131335815	CB20011504	170	14.5	2465	3/1/2010				
117	131335816	CB20011504	170	14.5	2465	3/1/2010				
118	131335817	CB20011504	170	14.5	2465	3/1/2010				
119	131335818	CB20011504	170	14.5	2465	3/1/2010				
120	131335819	CB20011504	170	14.5	2465	3/1/2010				
121	131335820	CB20011504	170	14.5	2465	3/1/2010				
122	131335821	CB20011504	170	14.5	2465	3/1/2010				
123	131335822	CB20011504	170	14.5	2465	3/1/2010				
124	131335823	CB20011504	170	14.5	2465	3/1/2010				
125	131335824	CB20011504	170	14.5	2465	3/1/2010				
126	131335825	CB20011504	170	14.5	2465	3/1/2010				
127	131335826	CB20011504	170	14.5	2465	3/2/2010				
128	131335827	CB20011504	170	14.5	2465	3/2/2010				
129	131335828	CB20011504	170	14.5	2465	3/2/2010				
130	131335829	CB20011504	170	14.5	2465	3/2/2010				
131	131335830	CB20011504	170	14.5	2465	3/2/2010				

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Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
132	131335831	CB20011504	170	14.5	2465	3/2/2010				
133	131335832	CB20011504	170	14.5	2465	3/2/2010				
134	131335833	CB20011504	170	14.5	2465	3/2/2010				
135	131335834	CB20011504	170	14.5	2465	3/2/2010				
136	131335835	CB20011504	170	14.5	2465	3/2/2010				
137	131335836	CB20011504	170	14.5	2465	3/2/2010				
138	131335837	CB20011504	170	14.5	2465	3/2/2010				
139	131335838	CB20011504	170	14.5	2465	3/2/2010				
140	131335839	CB20011504	170	14.5	2465	3/2/2010				
141	131335840	CB20011504	170	14.5	2465	3/2/2010				
142	131335841	CB20011504	170	14.5	2465	3/2/2010				
143	131335842	CB20011504	170	14.5	2465	3/2/2010				
144	131335843	CB20011504	170	14.5	2465	3/2/2010				
145	131335844	CB20011504	170	14.5	2465	3/2/2010				
146	131335845	CB20011504	170	14.5	2465	3/2/2010				
147	131335846	CB20011504	170	14.5	2465	3/2/2010				
148	131335847	CB20011504	170	14.5	2465	3/2/2010				
149	131335848	CB20011504	170	14.5	2465	3/2/2010	BG	3/4/2010	3/9/2010	G100142 C#64908
150	131335849	CB20011504	170	14.5	2465	3/2/2010				
151	131335850	CB20011504	170	14.5	2465	3/2/2010				
152	131335851	CB20011504	170	14.5	2465	3/2/2010				
153	131335852	CB20011504	170	14.5	2465	3/2/2010				

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Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
154	131335853	CB20011504	170	14.5	2465	3/2/2010				
155	131335854	CB20011504	170	14.5	2465	3/2/2010				
156	131335855	CB20011504	186	14.5	2697	3/2/2010				
157	131335856	CB20011504	170	14.5	2465	3/2/2010				
158	131335857	CB20011504	170	14.5	2465	3/2/2010				
159	131335858	CB20011504	170	14.5	2465	3/2/2010				
160	131335859	CB20011504	170	14.5	2465	3/2/2010				
161	131335860	CB20011504	170	14.5	2465	3/2/2010				
162	131335861	CB20011504	170	14.5	2465	3/2/2010				
163	131335862	CB20011504	170	14.5	2465	3/2/2010				
164	131335863	CB20011504	170	14.5	2465	3/2/2010				
165	131335864	CB20011504	170	14.5	2465	3/2/2010				
166	131335865	CB20011504	170	14.5	2465	3/2/2010				
167	131335866	CB20011504	170	14.5	2465	3/2/2010				
168	131335867	CB20011504	170	14.5	2465	3/2/2010				
169	131335868	CB20011504	170	14.5	2465	3/2/2010				
170	131335869	CB20011504	170	14.5	2465	3/2/2010				
171	131335870	CB20011504	170	14.5	2465	3/2/2010				
172	131335871	CB20011504	170	14.5	2465	3/2/2010				
173	131335872	CB20011504	170	14.5	2465	3/2/2010				
174	131335873	CB20011504	170	14.5	2465	3/2/2010				
175	131335874	CB20011504	170	14.5	2465	3/2/2010				

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Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
176	131335875	CB20011504	170	14.5	2465	3/2/2010				
177	131335876	CB20011504	170	14.5	2465	3/2/2010				
178	131335877	CB20011504	170	14.5	2465	3/2/2010				
179	131335878	CB20011504	170	14.5	2465	3/2/2010				
180	131335879	CB20011504	170	14.5	2465	3/2/2010				
181	131335880	CB20011504	170	14.5	2465	3/2/2010				
182	131335881	CB20011504	170	14.5	2465	3/2/2010				
183	131335882	CB20011504	170	14.5	2465	3/2/2010				
184	131335883	CB20011504	170	14.5	2465	3/2/2010				
185	131335884	CB20011504	170	14.5	2465	3/2/2010				
186	131335885	CB20011504	170	14.5	2465	3/2/2010				
187	131335886	CB20011504	170	14.5	2465	3/2/2010				
188	131335887	CB20011504	170	14.5	2465	3/2/2010				
189	131335888	CB20011504	170	14.5	2465	3/2/2010	BG	3/4/2010	3/9/2010	G100142 C#64909
190	131335889	CB20011504	170	14.5	2465	3/2/2010				
191	131335890	CB20011504	170	14.5	2465	3/2/2010				
192	131335891	CB20011504	170	14.5	2465	3/2/2010				
193	131335892	CB20011504	170	14.5	2465	3/2/2010				
194	131335893	CB20011504	170	14.5	2465	3/2/2010				
195	131335894	CB20011504	170	14.5	2465	3/2/2010				
196	131335895	CB20011504	170	14.5	2465	3/2/2010				
197	131335896	CB20011504	170	14.5	2465	3/2/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
198	131335897	CB20011504	170	14.5	2465	3/2/2010				
199	131335898	CB20011504	170	14.5	2465	3/2/2010				
200	131335899	CB20011504	170	14.5	2465	3/2/2010				
201	131335900	CB20011504	170	14.5	2465	3/2/2010				
202	131335901	CB20011504	170	14.5	2465	3/2/2010				
203	131335902	CB20011504	170	14.5	2465	3/2/2010				
204	131335903	CB20011504	170	14.5	2465	3/2/2010				
205	131335904	CB20011504	170	14.5	2465	3/2/2010				
206	131335905	CB20011504	170	14.5	2465	3/2/2010				
207	131335906	CB20011504	170	14.5	2465	3/2/2010				
208	131335907	CB20011504	170	14.5	2465	3/2/2010				
209	131335908	CB20011504	170	14.5	2465	3/2/2010				
210	131335909	CB20011504	170	14.5	2465	3/2/2010				
211	131335910	CB20011504	170	14.5	2465	3/2/2010				
212	131335911	CB20011504	170	14.5	2465	3/2/2010				
213	131335912	CB20011504	170	14.5	2465	3/2/2010				
214	131335913	CB20011504	170	14.5	2465	3/2/2010				
215	131335914	CB20011504	170	14.5	2465	3/2/2010				
216	131335915	CB20011504	170	14.5	2465	3/2/2010				
217	131335916	CB20011504	170	14.5	2465	3/2/2010				
218	131335917	CB20011504	170	14.5	2465	3/2/2010				
219	131335918	CB20011504	170	14.5	2465	3/2/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
220	131335919	CB20011504	170	14.5	2465	3/2/2010				
221	131335920	CB20011504	170	14.5	2465	3/2/2010				
222	131335921	CB20011504	170	14.5	2465	3/2/2010				
223	131335922	CB20011504	170	14.5	2465	3/2/2010				
224	131335923	CB20011504	170	14.5	2465	3/2/2010				
225	131335924	CB20011504	170	14.5	2465	3/2/2010				
226	131335925	CB20011504	170	14.5	2465	3/2/2010				
227	131335926	CB20011504	170	14.5	2465	3/2/2010	BG	3/4/2010	3/9/2010	G100143 C#64913
228	131335934	CB20011504	170	14.5	2465	3/2/2010				
229	131335935	CB20011504	170	14.5	2465	3/3/2010				
230	131335936	CB20011504	170	14.5	2465	3/3/2010				
231	131335937	CB20011504	170	14.5	2465	3/3/2010				
232	131335938	CB20011504	170	14.5	2465	3/3/2010				
233	131335939	CB20011504	170	14.5	2465	3/3/2010				
234	131335940	CB20011504	170	14.5	2465	3/3/2010				
235	131335941	CB20011504	170	14.5	2465	3/3/2010				
236	131335942	CB20011504	170	14.5	2465	3/3/2010				
237	131335943	CB20011504	170	14.5	2465	3/3/2010				
238	131335944	CB20011504	170	14.5	2465	3/3/2010				
239	131335945	CB20011504	170	14.5	2465	3/3/2010				
240	131335946	CB20011504	170	14.5	2465	3/3/2010				
241	131335947	CB20011504	170	14.5	2465	3/3/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
242	131335948	CB20011504	170	14.5	2465	3/3/2010				
243	131335949	CB20011504	170	14.5	2465	3/3/2010				
244	131335950	CB20011504	170	14.5	2465	3/3/2010				
245	131335951	CB20011504	170	14.5	2465	3/3/2010				
246	131335952	CB20011504	170	14.5	2465	3/3/2010				
247	131335953	CB20011504	170	14.5	2465	3/3/2010				
248	131335954	CB20011504	170	14.5	2465	3/3/2010				
249	131335955	CB20011504	140	14.5	2030	3/3/2010				
250	131335956	CB20011504	170	14.5	2465	3/3/2010				
251	131335957	CB20011504	170	14.5	2465	3/3/2010				
252	131335958	CB20011504	170	14.5	2465	3/3/2010				
253	131335959	CB20011504	170	14.5	2465	3/3/2010				
254	131335960	CB20011504	170	14.5	2465	3/3/2010				
255	131335961	CB20011504	170	14.5	2465	3/3/2010				
256	131335962	CB20011504	170	14.5	2465	3/3/2010				
257	131335963	CB20011504	170	14.5	2465	3/3/2010				
258	131335964	CB20011504	170	14.5	2465	3/3/2010				
259	131335965	CB20011504	170	14.5	2465	3/3/2010				
260	131335966	CB20011504	170	14.5	2465	3/3/2010				
261	131335967	CB20011504	170	14.5	2465	3/3/2010				
262	131335968	CB20011504	170	14.5	2465	3/3/2010				
263	131335969	CB20011504	170	14.5	2465	3/3/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
264	131335970	CB20011504	170	14.5	2465	3/3/2010				
265	131335971	CB20011504	170	14.5	2465	3/3/2010				
266	131335972	CB20011504	170	14.5	2465	3/3/2010	BG	3/4/2010	3/9/2010	G100143 C#64914
267	131335973	CB20011504	170	14.5	2465	3/3/2010				
268	131335974	CB20011504	170	14.5	2465	3/3/2010				
269	131335975	CB20011504	170	14.5	2465	3/3/2010				
270	131335976	CB20011504	170	14.5	2465	3/3/2010				
271	131335977	CB20011504	170	14.5	2465	3/3/2010				
272	131335978	CB20011504	170	14.5	2465	3/3/2010				
273	131335979	CB20011504	170	14.5	2465	3/3/2010				
274	131335980	CB20011504	170	14.5	2465	3/3/2010				
275	131335981	CB20011504	170	14.5	2465	3/3/2010				
276	131335982	CB20011504	170	14.5	2465	3/3/2010				
277	131335983	CB20011504	170	14.5	2465	3/3/2010				
278	131335984	CB20011504	170	14.5	2465	3/3/2010				
279	131335985	CB20011504	170	14.5	2465	3/3/2010				
280	131335986	CB20011504	170	14.5	2465	3/3/2010				
281	131335987	CB20011504	170	14.5	2465	3/3/2010				
282	131335988	CB20011504	170	14.5	2465	3/3/2010				
283	131335989	CB20011504	170	14.5	2465	3/3/2010				
284	131335990	CB20011504	170	14.5	2465	3/3/2010				
285	131335991	CB20011504	170	14.5	2465	3/3/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
286	131335992	CB20011504	170	14.5	2465	3/3/2010				
287	131335993	CB20011504	170	14.5	2465	3/3/2010				
288	131335994	CB20011504	170	14.5	2465	3/3/2010				
				Sub Total ft^2 =	660,417					
289	131335995	CB20011501	170	14.5	2465	3/3/2010				
290	131335996	CB20011501	170	14.5	2465	3/3/2010				
291	131335997	CB20011501	170	14.5	2465	3/3/2010				
292	131335998	CB20011501	170	14.5	2465	3/3/2010				
293	131335999	CB20011501	170	14.5	2465	3/3/2010				
294	131336000	CB20011501	170	14.5	2465	3/3/2010				
295	131336001	CB20011501	170	14.5	2465	3/3/2010				
296	131336004	CB20011501	170	14.5	2465	3/3/2010				
297	131336005	CB20011501	170	14.5	2465	3/3/2010				
298	131336006	CB20011501	170	14.5	2465	3/3/2010				
299	131336007	CB20011501	170	14.5	2465	3/3/2010				
300	131336008	CB20011501	170	14.5	2465	3/3/2010				
301	131336009	CB20011501	170	14.5	2465	3/3/2010				
302	131336010	CB20011501	170	14.5	2465	3/3/2010				
303	131336011	CB20011501	170	14.5	2465	3/3/2010	BG	3/4/2010	3/9/2010	G100143 C#64915
304	131336012	CB20011501	170	14.5	2465	3/3/2010				
305	131336013	CB20011501	170	14.5	2465	3/3/2010				
306	131336014	CB20011501	170	14.5	2465	3/3/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
307	31336015	CB20011501	170	14.5	2465	3/3/2010				
308	131336016	CB20011501	170	14.5	2465	3/3/2010				
309	131336017	CB20011501	170	14.5	2465	3/3/2010				
310	131336018	CB20011501	170	14.5	2465	3/3/2010				
311	131336019	CB20011501	170	14.5	2465	3/3/2010				
312	131336020	CB20011501	170	14.5	2465	3/3/2010				
313	131336021	CB20011501	170	14.5	2465	3/3/2010				
314	131336022	CB20011501	170	14.5	2465	3/3/2010				
315	131336023	CB20011501	170	14.5	2465	3/3/2010				
316	131336024	CB20011501	170	14.5	2465	3/3/2010				
317	131336025	CB20011501	170	14.5	2465	3/3/2010				
318	131336026	CB20011501	170	14.5	2465	3/3/2010				
319	131336027	CB20011501	170	14.5	2465	3/3/2010				
320	131336028	CB20011501	170	14.5	2465	3/3/2010				
321	131336029	CB20011501	170	14.5	2465	3/3/2010				
322	131336030	CB20011501	170	14.5	2465	3/3/2010				
323	131336031	CB20011501	170	14.5	2465	3/3/2010				
324	131336032	CB20011501	170	14.5	2465	3/3/2010				
325	131336033	CB20011501	170	14.5	2465	3/3/2010				
326	131336034	CB20011501	170	14.5	2465	3/3/2010				
327	131336035	CB20011501	170	14.5	2465	3/3/2010				
328	131336036	CB20011501	170	14.5	2465	3/3/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
329	131336037	CB20011501	170	14.5	2465	3/3/2010				
330	131336038	CB20011501	170	14.5	2465	3/3/2010				
331	131336039	CB20011501	170	14.5	2465	3/3/2010				
332	131336040	CB20011501	170	14.5	2465	3/3/2010				
333	131336041	CB20011501	170	14.5	2465	3/3/2010				
334	131336042	CB20011501	170	14.5	2465	3/3/2010				
				Sub Total ft^2 =	113,390					
335	131336798	CAA610252	170	14.5	2465	3/12/2010	BG	3/19/2010	3/23/2010	G100203 C#65131
336	131336799	CAA610252	170	14.5	2465	3/12/2010				
337	131336800	CAA610252	170	14.5	2465	3/12/2010				
338	131336801	CAA610252	170	14.5	2465	3/12/2010				
339	131336802	CAA610252	170	14.5	2465	3/12/2010				
340	131336803	CAA610252	170	14.5	2465	3/12/2010				
341	131336804	CAA610252	170	14.5	2465	3/12/2010				
342	131336805	CAA610252	170	14.5	2465	3/12/2010				
343	131336806	CAA610252	170	14.5	2465	3/12/2010				
344	131336807	CAA610252	170	14.5	2465	3/12/2010				
345	131336808	CAA610252	170	14.5	2465	3/12/2010				
346	131336809	CAA610252	170	14.5	2465	3/12/2010				
347	131336810	CAA610252	170	14.5	2465	3/12/2010				
348	131336811	CAA610252	170	14.5	2465	3/12/2010				
349	131336812	CAA610252	170	14.5	2465	3/12/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
350	131336813	CAA610252	170	14.5	2465	3/12/2010				
351	131336814	CAA610252	170	14.5	2465	3/12/2010				
352	131336815	CAA610252	170	14.5	2465	3/12/2010				
353	131336816	CAA610252	170	14.5	2465	3/12/2010				
354	131336817	CAA610252	170	14.5	2465	3/12/2010				
355	131336818	CAA610252	170	14.5	2465	3/12/2010				
356	131336819	CAA610252	170	14.5	2465	3/12/2010				
357	131336820	CAA610252	170	14.5	2465	3/12/2010				
358	131336821	CAA610252	170	14.5	2465	3/12/2010				
359	131336822	CAA610252	170	14.5	2465	3/12/2010				
360	131336823	CAA610252	170	14.5	2465	3/12/2010				
361	131336824	CAA610252	170	14.5	2465	3/12/2010				
362	131336825	CAA610252	170	14.5	2465	3/13/2010				
363	131336826	CAA610252	170	14.5	2465	3/13/2010				
364	131336827	CAA610252	170	14.5	2465	3/13/2010				
365	131336828	CAA610252	170	14.5	2465	3/13/2010				
366	131336829	CAA610252	170	14.5	2465	3/13/2010				
367	131336830	CAA610252	170	14.5	2465	3/13/2010				
368	131336831	CAA610252	170	14.5	2465	3/13/2010				
369	131336832	CAA610252	170	14.5	2465	3/13/2010				
370	131336833	CAA610252	170	14.5	2465	3/13/2010				
371	131336834	CAA610252	170	14.5	2465	3/13/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
372	131336835	CAA610252	170	14.5	2465	3/13/2010				
373	131336836	CAA610252	170	14.5	2465	3/13/2010				
374	131336837	CAA610252	170	14.5	2465	3/13/2010				
375	131336838	CAA610252	170	14.5	2465	3/13/2010				
376	131336839	CAA610252	170	14.5	2465	3/13/2010				
377	131336840	CAA610252	170	14.5	2465	3/13/2010	BG	3/19/2010	3/23/2010	G100203 C#65132
378	131336841	CAA610252	170	14.5	2465	3/13/2010				
379	131336842	CAA610252	170	14.5	2465	3/13/2010				
380	131336843	CAA610252	170	14.5	2465	3/13/2010				
381	131336844	CAA610252	170	14.5	2465	3/13/2010				
382	131336845	CAA610252	170	14.5	2465	3/13/2010				
383	131336846	CAA610252	170	14.5	2465	3/13/2010				
384	131336847	CAA610252	170	14.5	2465	3/13/2010				
385	131336848	CAA610252	170	14.5	2465	3/13/2010				
386	131336849	CAA610252	170	14.5	2465	3/13/2010				
387	131336850	CAA610252	170	14.5	2465	3/13/2010				
388	131336851	CAA610252	170	14.5	2465	3/13/2010				
389	131336852	CAA610252	170	14.5	2465	3/13/2010				
390	131336853	CAA610252	170	14.5	2465	3/13/2010				
391	131336854	CAA610252	170	14.5	2465	3/13/2010				
392	131336855	CAA610252	170	14.5	2465	3/13/2010				
393	131336856	CAA610252	170	14.5	2465	3/13/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
394	131336857	CAA610252	170	14.5	2465	3/13/2010				
395	131336858	CAA610252	170	14.5	2465	3/13/2010				
396	131336859	CAA610252	170	14.5	2465	3/13/2010				
397	131336860	CAA610252	170	14.5	2465	3/13/2010				
398	131336861	CAA610252	170	14.5	2465	3/13/2010				
399	131336862	CAA610252	170	14.5	2465	3/13/2010				
400	131336863	CAA610252	170	14.5	2465	3/13/2010				
401	131336864	CAA610252	170	14.5	2465	3/13/2010				
402	131336865	CAA610252	170	14.5	2465	3/13/2010				
403	131336866	CAA610252	170	14.5	2465	3/13/2010				
404	131336867	CAA610252	170	14.5	2465	3/13/2010				
405	131336868	CAA610252	170	14.5	2465	3/13/2010				
406	131336869	CAA610252	170	14.5	2465	3/13/2010				
407	131336870	CAA610252	170	14.5	2465	3/13/2010				
408	131336871	CAA610252	170	14.5	2465	3/13/2010				
409	131336872	CAA610252	170	14.5	2465	3/13/2010				
410	131336873	CAA610252	170	14.5	2465	3/13/2010				
411	131336874	CAA610252	170	14.5	2465	3/13/2010				
412	131336875	CAA610252	170	14.5	2465	3/13/2010				
413	131336876	CAA610252	170	14.5	2465	3/13/2010				
414	131336877	CAA610252	170	14.5	2465	3/13/2010				
415	131336878	CAA610252	170	14.5	2465	3/13/2010				

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
416	131336879	CAA610252	170	14.5	2465	3/13/2010	BG	3/19/2010	3/23/2010	G100203 C#65133
417	131336880	CAA610252	170	14.5	2465	3/13/2010				
418	131336881	CAA610252	170	14.5	2465	3/13/2010				
419	131336882	CAA610252	170	14.5	2465	3/13/2010				
420	131336883	CAA610252	170	14.5	2465	3/13/2010				
421	131336884	CAA610252	170	14.5	2465	3/13/2010				
422	131336885	CAA610252	170	14.5	2465	3/13/2010				
423	131336886	CAA610252	170	14.5	2465	3/13/2010				
424	131336887	CAA610252	170	14.5	2465	3/13/2010				
425	131336888	CAA610252	170	14.5	2465	3/13/2010				
426	131336889	CAA610252	170	14.5	2465	3/13/2010				
427	131336890	CAA610252	170	14.5	2465	3/13/2010				
428	131336891	CAA610252	170	14.5	2465	3/13/2010				
429	131336892	CAA610252	170	14.5	2465	3/13/2010				
430	131336893	CAA610252	170	14.5	2465	3/13/2010				
431	131336894	CAA610252	170	14.5	2465	3/13/2010				
432	131336895	CAA610252	170	14.5	2465	3/13/2010				
433	131336896	CAA610252	170	14.5	2465	3/13/2010				
434	131336897	CAA610252	170	14.5	2465	3/13/2010				
435	131336898	CAA610252	170	14.5	2465	3/13/2010				
436	131336899	CAA610252	170	14.5	2465	3/13/2010				
437	131336900	CAA610252	170	14.5	2465	3/13/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
438	131336901	CAA610252	170	14.5	2465	3/13/2010				
439	131336902	CAA610252	170	14.5	2465	3/13/2010				
440	131336903	CAA610252	170	14.5	2465	3/13/2010				
441	131336904	CAA610252	170	14.5	2465	3/13/2010				
442	131336905	CAA610252	170	14.5	2465	3/13/2010				
443	131336906	CAA610252	170	14.5	2465	3/13/2010				
444	131336907	CAA610252	170	14.5	2465	3/13/2010				
445	131336908	CAA610252	170	14.5	2465	3/13/2010				
446	131336909	CAA610252	170	14.5	2465	3/13/2010				
447	131336910	CAA610252	170	14.5	2465	3/13/2010				
448	131336911	CAA610252	170	14.5	2465	3/13/2010				
449	131336912	CAA610252	170	14.5	2465	3/13/2010				
450	131336913	CAA610252	170	14.5	2465	3/13/2010				
451	131336914	CAA610252	170	14.5	2465	3/14/2010				
452	131336915	CAA610252	170	14.5	2465	3/14/2010				
453	131336916	CAA610252	170	14.5	2465	3/14/2010				
454	131336917	CAA610252	170	14.5	2465	3/14/2010				
455	131336918	CAA610252	170	14.5	2465	3/14/2010	BG	3/19/2010	3/23/2010	G100204 C#65137
456	131336919	CAA610252	170	14.5	2465	3/14/2010				
457	131336920	CAA610252	170	14.5	2465	3/14/2010				
458	131336921	CAA610252	170	14.5	2465	3/14/2010				
459	131336922	CAA610252	170	14.5	2465	3/14/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
460	131336923	CAA610252	170	14.5	2465	3/14/2010				
461	131336924	CAA610252	170	14.5	2465	3/14/2010				
462	131336925	CAA610252	170	14.5	2465	3/14/2010				
463	131336926	CAA610252	170	14.5	2465	3/14/2010				
464	131336927	CAA610252	170	14.5	2465	3/14/2010				
465	131336928	CAA610252	170	14.5	2465	3/14/2010				
466	131336929	CAA610252	170	14.5	2465	3/14/2010				
467	131336930	CAA610252	170	14.5	2465	3/14/2010				
468	131336931	CAA610252	170	14.5	2465	3/14/2010				
469	131336932	CAA610252	170	14.5	2465	3/14/2010				
470	131336933	CAA610252	170	14.5	2465	3/14/2010				
471	131336934	CAA610252	170	14.5	2465	3/14/2010				
472	131336935	CAA610252	170	14.5	2465	3/14/2010				
473	131336936	CAA610252	170	14.5	2465	3/14/2010				
474	131336937	CAA610252	170	14.5	2465	3/14/2010				
475	131336938	CAA610252	170	14.5	2465	3/14/2010				
476	131336939	CAA610252	170	14.5	2465	3/14/2010				
477	131336940	CAA610252	170	14.5	2465	3/14/2010				
478	131336949	CAA610252	170	14.5	2465	3/14/2010				
479	131336950	CAA610252	170	14.5	2465	3/14/2010				
480	131336951	CAA610252	170	14.5	2465	3/14/2010				
481	131336952	CAA610252	170	14.5	2465	3/14/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
482	131336953	CAA610252	170	14.5	2465	3/14/2010				
483	131336954	CAA610252	170	14.5	2465	3/14/2010				
484	131336955	CAA610252	170	14.5	2465	3/14/2010				
485	131336956	CAA610252	170	14.5	2465	3/14/2010				
486	131336957	CAA610252	170	14.5	2465	3/14/2010	BG	3/19/2010	3/23/2010	G100204 C#65138
487	131336958	CAA610252	170	14.5	2465	3/14/2010				
488	131336959	CAA610252	170	14.5	2465	3/14/2010				
489	131336960	CAA610252	170	14.5	2465	3/14/2010				
490	131336961	CAA610252	170	14.5	2465	3/14/2010				
491	131336962	CAA610252	170	14.5	2465	3/14/2010				
492	131336963	CAA610252	170	14.5	2465	3/14/2010				
493	131336964	CAA610252	170	14.5	2465	3/14/2010				
494	131336965	CAA610252	170	14.5	2465	3/14/2010				
495	131336966	CAA610252	170	14.5	2465	3/14/2010				
496	131336967	CAA610252	170	14.5	2465	3/14/2010				
497	131336968	CAA610252	170	14.5	2465	3/14/2010				
498	131336969	CAA610252	170	14.5	2465	3/14/2010				
499	131336970	CAA610252	170	14.5	2465	3/14/2010				
500	131336971	CAA610252	170	14.5	2465	3/14/2010				
501	131336972	CAA610252	170	14.5	2465	3/14/2010				
502	131336973	CAA610252	170	14.5	2465	3/14/2010				
503	131336974	CAA610252	170	14.5	2465	3/14/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
504	131336975	CAA610252	170	14.5	2465	3/14/2010				
505	131336976	CAA610252	170	14.5	2465	3/14/2010				
506	131336977	CAA610252	170	14.5	2465	3/14/2010				
507	131336978	CAA610252	170	14.5	2465	3/14/2010				
508	131336979	CAA610252	170	14.5	2465	3/14/2010				
509	131336980	CAA610252	170	14.5	2465	3/14/2010				
510	131336981	CAA610252	170	14.5	2465	3/14/2010				
511	131336982	CAA610252	170	14.5	2465	3/14/2010				
512	131336983	CAA610252	170	14.5	2465	3/14/2010				
513	131336984	CAA610252	170	14.5	2465	3/14/2010				
514	131336985	CAA610252	170	14.5	2465	3/14/2010				
515	131336986	CAA610252	170	14.5	2465	3/14/2010				
516	131336987	CAA610252	170	14.5	2465	3/14/2010				
517	131336988	CAA610252	170	14.5	2465	3/14/2010				
518	131336989	CAA610252	170	14.5	2465	3/14/2010				
519	131336990	CAA610252	170	14.5	2465	3/14/2010				
520	131336991	CAA610252	170	14.5	2465	3/14/2010				
521	131336992	CAA610252	170	14.5	2465	3/14/2010				
522	131336993	CAA610252	170	14.5	2465	3/14/2010				
523	131336994	CAA610252	170	14.5	2465	3/14/2010				
524	131336995	CAA610252	170	14.5	2465	3/14/2010				
525	131336996	CAA610252	170	14.5	2465	3/14/2010	BG	3/19/2010	3/23/2010	G100204 C#65139

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
526	131336997	CAA610252	170	14.5	2465	3/14/2010				
527	131336998	CAA610252	170	14.5	2465	3/14/2010				
528	131336999	CAA610252	170	14.5	2465	3/14/2010				
529	131337001	CAA610252	170	14.5	2465	3/15/2010				
530	131337002	CAA610252	170	14.5	2465	3/15/2010				
531	131337003	CAA610252	170	14.5	2465	3/15/2010				
532	131337004	CAA610252	170	14.5	2465	3/15/2010				
533	131337005	CAA610252	170	14.5	2465	3/15/2010				
534	131337006	CAA610252	170	14.5	2465	3/15/2010				
535	131337007	CAA610252	170	14.5	2465	3/15/2010				
536	131337008	CAA610252	170	14.5	2465	3/15/2010				
537	131337009	CAA610252	170	14.5	2465	3/15/2010				
538	131337010	CAA610252	170	14.5	2465	3/15/2010				
539	131337011	CAA610252	170	14.5	2465	3/15/2010				
540	131337012	CAA610252	170	14.5	2465	3/15/2010				
541	131337013	CAA610252	170	14.5	2465	3/15/2010				
542	131337014	CAA610252	170	14.5	2465	3/15/2010				
543	131337015	CAA610252	170	14.5	2465	3/15/2010				
544	131337016	CAA610252	170	14.5	2465	3/15/2010				
545	131337023	CAA610252	170	14.5	2465	3/15/2010				
546	131337024	CAA610252	170	14.5	2465	3/15/2010				
547	131337025	CAA610252	170	14.5	2465	3/15/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
548	131337026	CAA610252	170	14.5	2465	3/15/2010				
549	131337027	CAA610252	170	14.5	2465	3/15/2010				
550	131337028	CAA610252	170	14.5	2465	3/15/2010				
551	131337029	CAA610252	170	14.5	2465	3/15/2010				
552	131337030	CAA610252	170	14.5	2465	3/15/2010				
553	131337031	CAA610252	170	14.5	2465	3/15/2010				
554	131337032	CAA610252	170	14.5	2465	3/15/2010				
555	131337033	CAA610252	170	14.5	2465	3/15/2010				
556	131337034	CAA610252	170	14.5	2465	3/15/2010				
557	131337035	CAA610252	170	14.5	2465	3/15/2010				
558	131337036	CAA610252	170	14.5	2465	3/15/2010				
559	131337037	CAA610252	170	14.5	2465	3/15/2010				
560	131337038	CAA610252	170	14.5	2465	3/15/2010				
561	131337039	CAA610252	170	14.5	2465	3/15/2010				
562	131337040	CAA610252	170	14.5	2465	3/15/2010				
563	131337041	CAA610252	170	14.5	2465	3/15/2010				
564	131337042	CAA610252	170	14.5	2465	3/15/2010	BG	3/19/2010	3/23/2010	G100205 C#65143
565	131337043	CAA610252	170	14.5	2465	3/15/2010				
566	131337044	CAA610252	170	14.5	2465	3/15/2010				
567	131337045	CAA610252	170	14.5	2465	3/15/2010				
				Sub Total ft^2 =	**574,345**					
568	131337046	CAA610251	170	14.5	2465	3/15/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
569	131337047	CAA610251	170	14.5	2465	3/15/2010				
570	131337057	CAA610251	170	14.5	2465	3/15/2010				
571	131337058	CAA610251	170	14.5	2465	3/15/2010				
572	131337059	CAA610251	170	14.5	2465	3/15/2010				
573	131337060	CAA610251	170	14.5	2465	3/15/2010				
574	131337061	CAA610251	170	14.5	2465	3/15/2010				
575	131337062	CAA610251	170	14.5	2465	3/15/2010				
576	131337063	CAA610251	170	14.5	2465	3/15/2010				
577	131337064	CAA610251	170	14.5	2465	3/15/2010				
578	131337074	CAA610251	170	14.5	2465	3/15/2010				
579	131337075	CAA610251	170	14.5	2465	3/15/2010				
580	131337076	CAA610251	170	14.5	2465	3/15/2010				
581	131337077	CAA610251	170	14.5	2465	3/15/2010				
582	131337078	CAA610251	170	14.5	2465	3/15/2010				
583	131337079	CAA610251	170	14.5	2465	3/15/2010				
584	131337080	CAA610251	170	14.5	2465	3/15/2010				
585	131337081	CAA610251	170	14.5	2465	3/15/2010	BG	3/19/2010	3/23/2010	G100205 C#65144
586	131337082	CAA610251	170	14.5	2465	3/15/2010				
587	131337083	CAA610251	170	14.5	2465	3/15/2010				
588	131337084	CAA610251	170	14.5	2465	3/15/2010				
589	131337085	CAA610251	170	14.5	2465	3/15/2010				
590	131337086	CAA610251	170	14.5	2465	3/15/2010				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
591	131337087	CAA610251	170	14.5	2465	3/15/2010				
592	131337088	CAA610251	170	14.5	2465	3/15/2010				
593	131337089	CAA610251	170	14.5	2465	3/15/2010				
594	131337090	CAA610251	170	14.5	2465	3/15/2010				
595	131337097	CAA610251	170	14.5	2465	3/15/2010				
596	131337098	CAA610251	170	14.5	2465	3/15/2010				
597	131337099	CAA610251	170	14.5	2465	3/15/2010				
598	131337100	CAA610251	170	14.5	2465	3/15/2010				
599	131337101	CAA610251	170	14.5	2465	3/15/2010				
600	131337102	CAA610251	170	14.5	2465	3/15/2010				
601	131337103	CAA610251	170	14.5	2465	3/15/2010				
602	131337104	CAA610251	170	14.5	2465	3/15/2010				
603	131337105	CAA610251	170	14.5	2465	3/15/2010				
604	131337109	CAA610251	170	14.5	2465	3/15/2010				
605	131337110	CAA610251	170	14.5	2465	3/15/2010				
606	131337111	CAA610251	170	14.5	2465	3/15/2010				
607	131337112	CAA610251	170	14.5	2465	3/15/2010				
608	131337113	CAA610251	170	14.5	2465	3/15/2010				
609	131337114	CAA610251	170	14.5	2465	3/15/2010				
610	131337115	CAA610251	170	14.5	2465	3/15/2010				
611	131337116	CAA610251	170	14.5	2465	3/15/2010				
612	131337117	CAA610251	170	14.5	2465	3/15/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
613	131337118	CAA610251	170	14.5	2465	3/15/2010				
614	131337119	CAA610251	170	14.5	2465	3/15/2010				
615	131337120	CAA610251	170	14.5	2465	3/15/2010	BG	3/19/2010	3/23/2010	G100205 C#65145
616	131337121	CAA610251	170	14.5	2465	3/15/2010				
617	131337122	CAA610251	170	14.5	2465	3/15/2010				
618	131337123	CAA610251	170	14.5	2465	3/15/2010				
619	131337124	CAA610251	170	14.5	2465	3/15/2010				
620	131337125	CAA610251	170	14.5	2465	3/15/2010				
621	131337126	CAA610251	170	14.5	2465	3/15/2010				
622	131337127	CAA610251	170	14.5	2465	3/15/2010				
623	131337128	CAA610251	170	14.5	2465	3/15/2010				
624	131337129	CAA610251	170	14.5	2465	3/15/2010				
625	131337130	CAA610251	170	14.5	2465	3/15/2010				
626	131337131	CAA610251	170	14.5	2465	3/15/2010				
627	131337132	CAA610251	170	14.5	2465	3/15/2010				
628	131337133	CAA610251	170	14.5	2465	3/15/2010				
629	131337134	CAA610251	170	14.5	2465	3/15/2010				
630	131337135	CAA610251	170	14.5	2465	3/15/2010				
631	131337136	CAA610251	170	14.5	2465	3/15/2010				
632	131337137	CAA610251	170	14.5	2465	3/15/2010				
633	131337138	CAA610251	170	14.5	2465	3/15/2010				
634	131337139	CAA610251	170	14.5	2465	3/15/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
635	131337140	CAA610251	170	14.5	2465	3/15/2010				
636	131337141	CAA610251	170	14.5	2465	3/15/2010				
637	131337142	CAA610251	170	14.5	2465	3/15/2010				
638	131337143	CAA610251	170	14.5	2465	3/15/2010				
639	131337144	CAA610251	170	14.5	2465	3/15/2010				
640	131337145	CAA610251	170	14.5	2465	3/15/2010				
641	131337146	CAA610251	170	14.5	2465	3/15/2010				
642	131337147	CAA610251	170	14.5	2465	3/15/2010				
643	131337148	CAA610251	170	14.5	2465	3/15/2010				
644	131337149	CAA610251	170	14.5	2465	3/15/2010				
645	131337150	CAA610251	170	14.5	2465	3/15/2010				
646	131337151	CAA610251	170	14.5	2465	3/15/2010				
647	131337152	CAA610251	170	14.5	2465	3/15/2010				
648	131337153	CAA610251	158	14.5	2291	3/16/2010				
649	131337157	CAA610251	170	14.5	2465	3/16/2010				
650	131337158	CAA610251	170	14.5	2465	3/16/2010				
651	131337159	CAA610251	170	14.5	2465	3/16/2010				
652	131337160	CAA610251	170	14.5	2465	3/16/2010				
653	131337161	CAA610251	170	14.5	2465	3/16/2010				
654	131337162	CAA610251	170	14.5	2465	3/16/2010				
655	131337163	CAA610251	170	14.5	2465	3/16/2010				
656	131337164	CAA610251	170	14.5	2465	3/16/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
657	131337165	CAA610251	170	14.5	2465	3/16/2010				
658	131337166	CAA610251	170	14.5	2465	3/16/2010				
659	131337167	CAA610251	170	14.5	2465	3/16/2010				
660	131337168	CAA610251	170	14.5	2465	3/16/2010			5/6/2010	Sent by GSE G100455 C#66257
661	131337169	CAA610251	170	14.5	2465	3/16/2010				
662	131337170	CAA610251	170	14.5	2465	3/16/2010				
663	131337171	CAA610251	170	14.5	2465	3/16/2010				
664	131337172	CAA610251	170	14.5	2465	3/16/2010				
665	131337173	CAA610251	170	14.5	2465	3/16/2010				
666	131337174	CAA610251	170	14.5	2465	3/16/2010				
667	131337175	CAA610251	170	14.5	2465	3/16/2010				
668	131337176	CAA610251	170	14.5	2465	3/16/2010				
669	131337177	CAA610251	170	14.5	2465	3/16/2010				
670	131337178	CAA610251	170	14.5	2465	3/16/2010				
671	131337179	CAA610251	170	14.5	2465	3/16/2010				
672	131337180	CAA610251	170	14.5	2465	3/16/2010				
673	131337181	CAA610251	170	14.5	2465	3/16/2010				
674	131337182	CAA610251	170	14.5	2465	3/16/2010				
675	131337183	CAA610251	170	14.5	2465	3/16/2010				
676	131337184	CAA610251	170	14.5	2465	3/16/2010				
677	131337185	CAA610251	170	14.5	2465	3/16/2010				
678	131337187	CAA610251	170	14.5	2465	3/16/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
679	131337188	CAA610251	170	14.5	2465	3/16/2010				
680	131337189	CAA610251	170	14.5	2465	3/16/2010				
681	131337190	CAA610251	170	14.5	2465	3/16/2010				
682	131337191	CAA610251	170	14.5	2465	3/16/2010				
683	131337192	CAA610251	170	14.5	2465	3/16/2010				
684	131337193	CAA610251	170	14.5	2465	3/16/2010				
685	131337194	CAA610251	170	14.5	2465	3/16/2010				
686	131337195	CAA610251	170	14.5	2465	3/16/2010				
687	131337196	CAA610251	170	14.5	2465	3/16/2010				
688	131337197	CAA610251	170	14.5	2465	3/16/2010				
689	131337198	CAA610251	170	14.5	2465	3/16/2010				
690	131337199	CAA610251	170	14.5	2465	3/16/2010				
691	131337200	CAA610251	170	14.5	2465	3/16/2010				
692	131337201	CAA610251	170	14.5	2465	3/16/2010				
693	131337202	CAA610251	170	14.5	2465	3/16/2010				
694	131337203	CAA610251	170	14.5	2465	3/16/2010				
695	131337204	CAA610251	170	14.5	2465	3/16/2010				
696	131337205	CAA610251	170	14.5	2465	3/16/2010				
697	131337206	CAA610251	170	14.5	2465	3/16/2010				
698	131337207	CAA610251	170	14.5	2465	3/16/2010				
699	131337208	CAA610251	170	14.5	2465	3/16/2010				
700	131337209	CAA610251	170	14.5	2465	3/16/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
701	131337210	CAA610251	170	14.5	2465	3/16/2010				
702	131337211	CAA610251	170	14.5	2465	3/16/2010				
703	131337212	CAA610251	170	14.5	2465	3/16/2010				
704	131337213	CAA610251	170	14.5	2465	3/16/2010				
705	131337214	CAA610251	170	14.5	2465	3/16/2010				
706	131337215	CAA610251	170	14.5	2465	3/16/2010				
707	131337216	CAA610251	170	14.5	2465	3/16/2010				
708	131337217	CAA610251	170	14.5	2465	3/16/2010			5/6/2010	Sent by GSE G100455 C#66258
709	131337218	CAA610251	170	14.5	2465	3/16/2010				
710	131337219	CAA610251	170	14.5	2465	3/16/2010				
				Sub Total ft^2 =	**352,321**					
711	131337590	CAB610840	170	14.5	2465	3/21/2010				
712	131337591	CAB610840	170	14.5	2465	3/21/2010				
713	131337592	CAB610840	170	14.5	2465	3/21/2010	BG	3/24/2010	3/29/2010	G100221 C#65214
714	131337593	CAB610840	170	14.5	2465	3/21/2010				
715	131337594	CAB610840	170	14.5	2465	3/21/2010				
716	131337595	CAB610840	170	14.5	2465	3/21/2010				
717	131337596	CAB610840	170	14.5	2465	3/21/2010				
718	131337597	CAB610840	170	14.5	2465	3/21/2010				
719	131337598	CAB610840	170	14.5	2465	3/21/2010				
720	131337599	CAB610840	170	14.5	2465	3/21/2010				
721	131337600	CAB610840	170	14.5	2465	3/21/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Double-Sided Geocomposite **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
722	131337601	CAB610840	170	14.5	2465	3/21/2010				
723	131337602	CAB610840	170	14.5	2465	3/21/2010				
724	131337603	CAB610840	170	14.5	2465	3/21/2010				
725	131337604	CAB610840	170	14.5	2465	3/21/2010				
				Sub Total ft^2 =	**36,975**					
726	131347460	CB10061602	180	14.5	2610	7/24/2010	BG	7/29/2010	8/2/2010	G100950 C#68916
727	131347461	CB10061602	180	14.5	2610	7/24/2010				
728	131347462	CB10061602	180	14.5	2610	7/24/2010				
729	131347463	CB10061602	180	14.5	2610	7/24/2010				
730	131347464	CB10061602	180	14.5	2610	7/24/2010				
731	131347465	CB10061602	180	14.5	2610	7/24/2010				
732	131347466	CB10061602	180	14.5	2610	7/24/2010				
733	131347467	CB10061602	180	14.5	2610	7/24/2010				
734	131347468	CB10061602	180	14.5	2610	7/24/2010				
735	131347469	CB10061602	180	14.5	2610	7/24/2010				
736	131347470	CB10061602	180	14.5	2610	7/24/2010				
737	131347471	CB10061602	180	14.5	2610	7/24/2010				
				Sub Total ft^2 =	**31,320**					
				Total ft^2 =	**1,818,068**					

Precision Geosynthetic Laboratories

March 19, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 9, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100141)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100141)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 9, 2010 **DATE REPORTED:** March 19, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131335690 L#C100110A02	
Geocomposite	64901
Geonet	64904
R#131335726 L#CB20011504	
Geocomposite	64902
Geonet	64905
R#131335770 L#CB20011504	
Geocomposite	64903
Geonet	64906

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 03/19/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335690 L#C100110A02**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64901**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64904**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		312	308	310	313	308	308	311	310	310	311	310	2	308	313	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9554	0.9554	0.9554								0.9554	0.0000	0.9554	0.9554	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3278	0.3267	0.3281								0.3275	0.0007	0.3267	0.3281	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.39	2.37									2.38	0.02	2.37	2.39	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	95	100	99	95	98						97	2	95	100	75
	TD	25	26	27	30	31	29	29	30			28	2	25	31	
	Apparent Elongation @ Maximum Load															
	MD	33	29	32	28	30						30	2	28	33	
	TD	96	99	94	104	102	104	100	100			100	4	94	104	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
	POLYMER	CARBON	ASH													
	97.52	2.38	0.10													
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

Continued on next page

*-Sub out
MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335690 L#C100110A02**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64901**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.2 ^{0}C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **3.45E-02**											**3.45E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD **3.35**											**3.35**				
	Transmissivity (gal/min/ft)															
	MD **166.44**											**166.44**				
	Test Set-Up:						***Thickness :*** 312 ***mils (Before)***									
	Plate _____						***Thickness :*** 304 ***mils (After)***									
	Sand (C#64169) oooooooo															
	Geonet XXXXXX															
	60mil HDPE Textured R#108150553 (C#64948) =========															
	Plate _____															
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0}C (70+/-2 ^{0}F)															
		0.395	**0.394**	**0.394**								**0.394**	**0.000**	**0.394**	**0.395**	
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.2 ^{0}C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **8.99E-03**											**8.99E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **43.43**											**43.43**				
	Flow Rate (gal./ min)															
	MD **0.87**											**0.87**				
	Test Set-Up:						***Thickness :*** 410 ***mils (Before)***									
	Plate _____						***Thickness :*** 338 ***mils (After)***									
	Geocomposite XXXXXX															
	Plate _____															

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

*-Sub out
MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335726 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64902**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64902**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		308	310	311	308	312	312	310	312	308	311	310	2	308	312	300
ASTM D1505	Density (grams/ cm.^{3})															
		0.9549	0.9549	0.9549								0.9549	0.0000	0.9549	0.9549	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.2989	0.2972	0.2997								0.2986	0.0013	0.2972	0.2997	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.35	2.35									2.35	0.00	2.35	2.35	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	97	94	103	104	100						100	4	94	104	75
	TD	28	29	26	27	31	30	29	30			29	2	26	31	
	Apparent Elongation @ Maximum Load															
	MD	33	30	37	34	32						33	3	30	37	
	TD	99	95	93	99	102	103	104	102			100	4	93	104	

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335726 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By:
PGL Job No.: **G100141**
PGL Control No.: **64902**

	SPECIMENS														Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs. MARV
METHOD DESCRIPTION															
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0} C (70+/-2 ^{0} F)															
	0.394	0.396	0.396								0.396	0.001	0.394	0.396	

Continued on next page

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335726 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64902**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	($m.^2$/ sec.)														
	MD	**9.29E-03**										**9.29E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**44.85**										**44.85**				
	Flow Rate	(gal./ min)														
	MD	**0.90**										**0.90**				

Test Set-Up: ***Thickness :*** *412* ***mils (Before)***

Plate _____ ***Thickness :*** *335* ***mils (After)***

Geocomposite *XXXXXX*

Plate _____

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

ISO 9001 - 2000

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335770 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64903**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64903**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		308	309	310	311	308	321	318	316	312	310	312	5	308	321	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9544	0.9544	0.9544								0.9544	0.0000	0.9544	0.9544	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190 ^{0} C and 2.16kg load.*															
		0.3090	0.3081	0.3086								0.3086	0.0005	0.3081	0.3090	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.48	2.45									2.47	0.02	2.45	2.48	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
MD		94	95	99	100	103						98	4	94	103	75
TD		27	30	30	31	27	27	29	31			29	2	27	31	
	Apparent Elongation @ Maximum Load															
MD		29	30	30	34	34						31	2	29	34	
TD		96	99	104	102	94	97	99	100			99	3	94	104	

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

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PERRY JOHNSON REGISTRARS, INC.
UKAS QUALITY MANAGEMENT
105-A

Precision Geosynthetic Laboratories

March 29, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 9, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100142)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100142)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 9, 2010 **DATE REPORTED:** March 29, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131335809 L# CB20011504	
Geocomposite	64907
Geonet	64910
R#131335848 L#CB20011504	
Geocomposite	64908
Geonet	64911
R#131335888 L#CB20011504	
Geocomposite	64909
Geonet	64912

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 03/29/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335809 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64907**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64910**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		309	312	312	321	316	315	318	319	317	318	316	4	309	321	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9547	0.9547	0.9547								0.9547	0.0000	0.9547	0.9547	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3619	0.3620	0.3678								0.3639	0.0034	0.3619	0.3678	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.34	2.32									2.33	0.01	2.32	2.34	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	103	100	96	95	95						98	4	95	103	75
	TD	29	30	32	29	29	31	30	27			29	1	27	32	
	Apparent Elongation @ Maximum Load															
	MD	34	34	32	32	33						33	1	32	34	
	TD	99	107	102	94	99	104	102	94			100	5	94	107	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
	POLYMER	CARBON	ASH													
	97.64	2.40	0.00													
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

Continued on next page

*-Sub out
MD - MACHINE DIRECTION
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Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335809 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64907**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs* *Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"*															
	Transmissivity ($m.^2$/ sec.)															
	MD **3.67E-02**											**3.67E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD **3.57**											**3.57**				
	Transmissivity (gal/min/ft)															
	MD **177.28**											**177.28**				
	Test Set-Up:						***Thickness :*** 316 ***mils (Before)***									
	Plate _____						***Thickness :*** 308 ***mils (After)***									
	Sand (C#64169) oooooooo															
	Geonet XXXXXX															
	60mil HDPE Textured R#108150553 (C#64948) =========															
	Plate _____															
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0}C (70+/-2 ^{0}F)															
	0.406	**0.408**	**0.410**									**0.408**	**0.002**	**0.406**	**0.410**	
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs* *Temperature of Test Water: 20.2 ^{0}C Specimen Size: 12" x 14"*															
	Transmissivity ($m.^2$/ sec.)															
	MD **8.94E-03**											**8.94E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **43.20**											**43.20**				
	Flow Rate (gal./ min)															
	MD **0.87**											**0.87**				
	Test Set-Up:						***Thickness :*** 411 ***mils (Before)***									
	Plate _____						***Thickness :*** 334 ***mils (After)***									
	Geocomposite XXXXXX															
	Plate _____															

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

*-Sub out
MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335848 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64908**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64911**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		308	310	312	315	320	316	320	321	316	320	316	5	308	321	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9544	0.9544	0.9544								0.9544	0.0000	0.9544	0.9544	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3481	0.3490	0.3461								0.3477	0.0015	0.3461	0.3490	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.28	2.29									2.29	0.01	2.28	2.29	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	106	110	99	103	104						104	4	99	110	75
	TD	29	26	27	32	30	29	26	26			28	2	26	32	
	Apparent Elongation @ Maximum Load															
	MD	34	34	32	34	34						34	1	32	34	
	TD	99	93	99	101	102	103	99	94			99	4	93	103	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.396	0.398	0.402								0.399	0.003	0.396	0.402	

Continued on next page

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC UKAS QUALITY MANAGEMENT 1CS-A

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335848 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64908**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2 ^{0} C Specimen Size: 12" x 14"														
	Transmissivity	(m.^{2}/ sec.)														
	MD	**8.18E-03**										**8.18E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**39.49**										**39.49**				
	Flow Rate	(gal./ min)														
	MD	**0.79**										**0.79**				

Test Set-Up: ***Thickness :*** *406* ***mils (Before)***

Plate _____ ***Thickness :*** *324* ***mils (After)***

Geocomposite *XXXXXX*

Plate _____

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335888 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64909**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	MARV
METHOD	**DESCRIPTION**															
GEONET COMPONENT:	**C#64912**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		310	312	308	310	312	308	312	312	316	312	311	2	308	316	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9551	0.9551	0.9551								0.9551	0.0000	0.9551	0.9551	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3401	0.3420	0.3411								0.3411	0.0010	0.3401	0.3420	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.28	2.28									2.28	0.00	2.28	2.28	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	94	96	95	100	101						97	3	94	101	75
	TD	28	30	30	31	29	29	28	25			29	2	25	31	
	Apparent Elongation @ Maximum Load															
	MD	29	29	33	35	35						32	3	29	35	
	TD	97	99	104	102	99	97	99	96			99	3	96	104	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.394	0.395	0.396								0.395	0.001	0.394	0.396	

Continued on next page

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

ISO 9001 - 2000
GAI-LAP ACCREDITED ANSI-RAB QMS PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 165-A

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/29/2010**
Client Sample ID: **R#131335888 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100142**
PGL Control No.: **64909**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10.000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.3° C Specimen Size: 12" x 14"														
	Transmissivity (m.²/ sec.)															
	MD **8.48E-03**											**8.48E-03**				**1.6 x 10⁻³**
	Transmissivity (gal./ min./ ft.)															
	MD **40.95**											**40.95**				
	Flow Rate (gal./ min)															
	MD **0.83**											**0.83**				

Test Set-Up:

Plate _____

Geocomposite *XXXXXX*

Plate _____

Thickness : *408* ***mils (Before)***

Thickness : *327* ***mils (After)***

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1984 Record#265

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335770 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64903**

	SPECIMENS														
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
METHOD DESCRIPTION															
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0} C (70+/-2 ^{0} F)															
	0.404	0.404	0.406								0.405	0.001	0.404	0.406	

Continued on next page

MD - MACHINE DIRECTION
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DC#1984 Record#265

ISO 9001 - 2000

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#131335770 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100141**
PGL Control No.: **64903**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.1 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	($m.^2$/ sec.)														
	MD	**8.36E-03**										**8.36E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**40.40**										**40.40**				
	Flow Rate	(gal./ min)														
	MD	**0.81**										**0.81**				

Test Set-Up:

Plate _____

Geocomposite ***XXXXXX***

Plate _____

Thickness : ***408*** ***mils (Before)***

Thickness : ***326*** ***mils (After)***

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1984 Record#265

Precision Geosynthetic Laboratories

April 5, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 9, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100143)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100143)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 9, 2010 **DATE REPORTED:** April 5, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131335926 L# CB20011504	
Geocomposite	64913
Geonet	64916
R#131335972 L#CB20011504	
Geocomposite	64914
Geonet	64917
R#131336011 L#CB20011501	
Geocomposite	64915
Geonet	64918

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 04/05/2010

Carmelo V. Zantua
Technical/Laboratory Director

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131335926 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64913**

METHOD DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT: **C#64916**															
ASTM D5199 Thickness (mils)															
Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
Loading time: 5sec Specimen Size: 4" x 4"															
	312	316	320	317	316	320	312	308	311	310	314	4	308	320	300
ASTM D1505 Density (grams/ $cm.^3$)															
	0.9544	0.9544	0.9544								0.9544	0.0000	0.9544	0.9544	0.9400
ASTM D1238 Melt Flow Index (grams/ 10 minutes)															
Procedure A *Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
	0.3201	0.3199	0.3200								0.3200	0.0001	0.3199	0.3201	1.0 max
ASTM D1603 Carbon Black Content (percent)															
	2.31	2.29									2.30	0.01	2.29	2.31	
ASTM D5035 Tensile Strength (lbs./in.)															
Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
MD	100	106	104	99	97						101	4	97	106	75
TD	28	28	30	30	26	27	27	31			28	2	26	31	
Apparent Elongation @ Maximum Load															
MD	29	36	34	33	33						33	2	29	36	
TD	98	106	102	101	99	102	107	110			103	4	98	110	
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
	0.394	0.396	0.395								0.395	0.001	0.394	0.396	

Continued on next page

MD - MACHINE DIRECTION
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DC#1984 Record#265

ISO 9001 - 2000
GAI-LAP
ANSI-RAB
PERRY JOHNSON REGISTRARS, INC
UKAS

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131335926 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64913**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.4 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	(m.^{2}/ sec.)														
	MD	**9.38E-03**										**9.38E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**45.29**										**45.29**				
	Flow Rate	(gal./ min)														
	MD	**0.91**										**0.91**				

Test Set-Up:

Plate _____

Geocomposite *XXXXXX*

Plate _____

Thickness : *416* ***mils (Before)***

Thickness : *333* ***mils (After)***

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131335972 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64914**

METHOD DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT: **C#64917**															
ASTM D5199 Thickness (mils)															
Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
Loading time: 5sec Specimen Size: 4" x 4"															
	312	309	308	311	315	316	320	316	315	316	314	4	308	320	300
ASTM D1505 Density (grams/ $cm.^3$)															
	0.9549	0.9549	0.9549								0.9549	0.0000	0.9549	0.9549	0.9400
ASTM D1238 Melt Flow Index (grams/ 10 minutes)															
Procedure A *Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
	0.3341	0.3360	0.3401								0.3367	0.0031	0.3341	0.3401	1.0 max
ASTM D1603 Carbon Black Content (percent)															
	2.32	2.30									2.31	0.01	2.30	2.32	
ASTM D5035 Tensile Strength (lbs./in.)															
Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
MD	103	106	104	104	106						104	1	103	106	75
TD	32	31	29	29	30	31	30	32			30	1	29	32	
Apparent Elongation @ Maximum Load															
MD	30	35	34	35	35						34	2	30	35	
TD	104	102	107	113	107	107	114	102			107	4	102	114	
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
	0.397	0.398	0.400								0.398	0.001	0.397	0.400	

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MD - MACHINE DIRECTION
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DC#1984 Record#265

ISO 9001 - 2000
GAI-LAP ACCREDITED ANSI-RAB QMS PERRY JOHNSON REGISTRARS, INC UKAS QUALITY MANAGEMENT 1166

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131335972 L#CB20011504**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64914**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10.000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	($m.^2$/ sec.)														
	MD	**9.85E-03**										**9.85E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**47.59**										**47.59**				
	Flow Rate	(gal./ min)														
	MD	**0.96**										**0.96**				

Test Set-Up: ***Thickness :*** *420* ***mils (Before)***

Plate _____ ***Thickness :*** *339* ***mils (After)***

Geocomposite *XXXXXX*

Plate _____

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

ISO 9001 - 2000

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131336011 L#CB20011501**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64915**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64918**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		310	316	311	308	312	310	312	320	312	315	313	4	308	320	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9551	0.9551	0.9551								0.9551	0.0000	0.9551	0.9551	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190 ^{0}C and 2.16kg load.*															
		0.3436	0.3411	0.3401								0.3416	0.0018	0.3401	0.3436	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.43	2.43									2.43	0.00	2.43	2.43	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	104	108	98	95	100						101	5	95	108	75
	TD	26	30	30	31	31	29	29	29			29	2	26	31	
	Apparent Elongation @ Maximum Load															
	MD	34	35	33	30	33						33	2	30	35	
	TD	96	99	101	101	104	90	99	94			98	4	90	104	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
		POLYMER		CARBON		ASH										
		97.38		2.51		0.11										
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

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Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/9/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#131336011 L#CB20011501**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100143**
PGL Control No.: **64915**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.2 ^{0} C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **3.50E-02**											**3.50E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD **3.40**											**3.40**				
	Transmissivity (gal/min/ft)															
	MD **169.19**											**169.19**				
	Test Set-Up:						***Thickness :***	***308***	***mils (Before)***							
	Plate _____						***Thickness :***	***296***	***mils (After)***							
	Sand (C#64169) ***oooooooo***															
	Geonet ***XXXXXX***															
	60mil HDPE Textured R#108150553 (C#64948) ***=========***															
	Plate _____															
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0} C (70+/-2 ^{0} F)															
	0.410 **0.404** **0.406**											**0.406**	**0.003**	**0.404**	**0.410**	
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.2 ^{0} C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **9.26E-03**											**9.26E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **44.70**											**44.70**				
	Flow Rate (gal./ min)															
	MD **0.90**											**0.90**				
	Test Set-Up:						***Thickness :***	***416***	***mils (Before)***							
	Plate _____						***Thickness :***	***334***	***mils (After)***							
	Geocomposite ***XXXXXX***															
	Plate _____															

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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Precision Geosynthetic Laboratories

April 12, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 23, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100203)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100203)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 23, 2010 **DATE REPORTED:** April 12, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131336798 L#CAA610252	
Geocomposite	65131
Geonet	65134
R#131336840 L#CAA610252	
Geocomposite	65132
Geonet	65135
R#131336879 L#CAA610252	
Geocomposite	65133
Geonet	65136

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 04/12/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336798 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100203**
PGL Control No.: **65131**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65134**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		317	317	315	308	311	310	312	311	312	314	313	3	308	317	300
ASTM D1505	Density (grams/ cm.^{3})															
		0.9556	0.9556	0.9556								0.9556	0.0000	0.9556	0.9556	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3135	0.3141	0.3120								0.3132	0.0011	0.3120	0.3141	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.51	2.51									2.51	0.00	2.51	2.51	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	99	100	98	94	96						97	2	94	100	75
	TD	30	30	31	30	29	26	31	30			30	1	26	31	
	Apparent Elongation @ Maximum Load															
	MD	30	30	31	30	30						30	0	30	31	
	TD	102	100	100	104	94	99	101	106			101	4	94	106	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
		POLYMER		CARBON		ASH										
		97.53		2.42		0.05										
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

Continued on next page

*-Sub out
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Precision Geosynthetic Laboratories

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TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336798 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: DS
PGL Job No.: **G100203**
PGL Control No.: **65131**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **3.40E-02**											**3.40E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD **3.30**											**3.30**				
	Transmissivity (gal/min/ft)															
	MD **164.00**											**82.00**				
	Test Set-Up:						***Thickness :*** 310 ***mils (Before)***									
	Plate _____						***Thickness :*** 304 ***mils (After)***									
	Sand (C#64169) oooooooo															
	Geonet XXXXXX															
	60mil HDPE Textured R#108150553 (C#64948) ==========															
	Plate _____															
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0}C (70+/-2 ^{0}F)															
	0.396	**0.394**	**0.395**									**0.395**	**0.001**	**0.394**	**0.396**	
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **9.23E-03**											**9.23E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **44.58**											**44.58**				
	Flow Rate (gal./ min)															
	MD **0.90**											**0.90**				
	Test Set-Up:						***Thickness :*** 415 ***mils (Before)***									
	Plate _____						***Thickness :*** 333 ***mils (After)***									
	Geocomposite XXXXXX															
	Plate _____															

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

*-Sub out
MD - MACHINE DIRECTION
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DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336840 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100203**
PGL Control No.: **65132**

METHOD DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT: C#64902															
ASTM D5199 Thickness (mils)															
Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
Loading time: 5sec Specimen Size: 4" x 4"															
	310	312	310	311	312	315	316	312	312	316	312	2	310	316	300
ASTM D1505 Density (grams/ $cm.^3$)															
	0.9561	0.9561	0.9561								0.9561	0.0000	0.9561	0.9561	0.9400
ASTM D1238 Melt Flow Index (grams/ 10 minutes)															
Procedure A *Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
	0.3011	0.3060	0.3090								0.3054	0.0040	0.3011	0.3090	1.0 max
ASTM D1603 Carbon Black Content (percent)															
	2.50	2.53									2.51	0.02	2.50	2.53	
ASTM D5035 Tensile Strength (lbs./in.)															
Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
MD	98	95	96	100	103						98	3	95	103	75
TD	27	27	30	31	30	32	31	27			29	2	27	32	
Apparent Elongation @ Maximum Load															
MD	33	29	32	30	31						31	2	29	33	
TD	93	99	100	101	104	101	104	95			100	4	93	104	
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
	0.396	0.396	0.396								0.396	0.000	0.396	0.396	

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GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336840 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100203**
PGL Control No.: **65132**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.4 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD **9.53E-03**											**9.53E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **46.03**											**46.03**				
	Flow Rate (gal./ min)															
	MD **0.93**											**0.93**				

Test Set-Up:
Plate _____
Geocomposite *XXXXXX*
Plate _____

Thickness : *418* ***mils (Before)***
Thickness : *335* ***mils (After)***

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336879 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100203**
PGL Control No.: **65133**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#64903**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		313	316	315	312	311	311	308	311	312	314	312	2	308	316	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9507	0.9507	0.9507								0.9507	0.0000	0.9507	0.9507	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.2981	0.3001	0.3011								0.2998	0.0015	0.2981	0.3011	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.50	2.53									2.51	0.02	2.50	2.53	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	103	104	99	99	100						101	2	99	104	75
	TD	31	29	31	30	29	32	29	27			30	2	27	32	
	Apparent Elongation @ Maximum Load															
	MD	33	29	31	31	31						31	1	29	33	
	TD	104	94	102	101	99	105	99	94			100	4	94	105	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.406	0.406	0.406								0.406	0.000	0.406	0.406	

Continued on next page

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UKAS QUALITY MANAGEMENT
107/-A

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/12/2010**
Client Sample ID: **R#131336879 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100203**
PGL Control No.: **65133**

		SPECIMENS														
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
METHOD	**DESCRIPTION**															
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.4 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	(m^2/ sec.)														
	MD	**8.76E-03**										**8.76E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**42.29**										**42.29**				
	Flow Rate	(gal./ min)														
	MD	**0.85**										**0.85**				

Test Set-Up:

Plate _____

Geocomposite *XXXXXX*

Plate _____

Thickness : *407* ***mils (Before)***

Thickness : *330* ***mils (After)***

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1984 Record#265

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UKAS QUALITY MANAGEMENT 1054

Precision Geosynthetic Laboratories

April 20, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 23, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100204)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100204)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 23, 2010 **DATE REPORTED:** April 20, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131336918 L#CAA610252	
Geocomposite	65137
Geonet	65140
R#131336957 L#CAA610252	
Geocomposite	65138
Geonet	65141
R#131336996 L#CAA610252	
Geocomposite	65139
Geonet	65142

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 04/20/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336918 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65137**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65140**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		308	311	310	311	312	316	315	314	312	306	311	3	306	316	300
ASTM D1505	Density (grams/ cm.^{3})															
		0.9556	0.9556	0.9556								0.9556	0.0000	0.9556	0.9556	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3060	0.3080	0.3071								0.3070	0.0010	0.3060	0.3080	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.60	2.60									2.60	0.00	2.60	2.60	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	106	104	101	103	101						103	2	101	106	75
	TD	32	30	30	31	29	29	29	29			30	1	29	32	
	Apparent Elongation @ Maximum Load															
	MD	30	28	30	32	33						30	2	28	33	
	TD	104	97	102	107	99	94	96	97			99	4	94	107	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.393	0.395	0.395								0.394	0.001	0.393	0.395	

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TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336918 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65137**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs* *Temperature of Test Water: 20.4 ^{0}C Specimen Size: 12" x 14"*															
	Transmissivity ($m.^2$/ sec.)															
	MD **1.02E-02**											**1.02E-02**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **49.14**											**49.14**				
	Flow Rate (gal./ min)															
	MD **0.99**											**0.99**				

Test Set-Up:
Plate _____
Geocomposite *XXXXXX*
Plate _____

Thickness : *425* ***mils (Before)***
Thickness : *332* ***mils (After)***

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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PERRY JOHNSON REGISTRARS, INC.
UKAS QUALITY MANAGEMENT

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336957 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65138**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs. MARV
METHOD	**DESCRIPTION**															
GEONET COMPONENT:	**C#65141**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		314	314	315	315	312	310	312	308	311	309	312	2	308	315	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9568	0.9568	0.9568								0.9568	0.0000	0.9568	0.9568	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3141	0.3098	0.3095								0.3111	0.0026	0.3095	0.3141	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.60	2.55									2.57	0.03	2.55	2.60	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	103	106	100	102	106						103	3	100	106	75
	TD	32	30	31	31	32	35	29	27			31	2	27	35	
	Apparent Elongation @ Maximum Load															
	MD	28	31	30	30	29						30	1	28	31	
	TD	101	102	104	101	114	129	94	94			105	12	94	129	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.406	0.406	0.404								0.405	0.001	0.404	0.406	

Continued on next page

MD - MACHINE DIRECTION
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UKAS QUALITY MANAGEMENT

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336957 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65138**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.4 ^{0} C Specimen Size: 12" x 14"															
	Transmissivity (m.^{2}/ sec.)															
	MD **9.72E-03**											**9.72E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **46.95**											**46.95**				
	Flow Rate (gal./ min)															
	MD **0.95**											**0.95**				

Test Set-Up:
Plate _____
Geocomposite *XXXXXX*
Plate _____

Thickness : *421* ***mils (Before)***
Thickness : *330* ***mils (After)***

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336996 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65139**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
GEONET COMPONENT:	**C#65142**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		316	310	312	315	314	316	315	316	318	315	315	2	310	318	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9565	0.9565	0.9565								0.9565	0.0000	0.9565	0.9565	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190° C and 2.16kg load.*															
		0.3112	0.3108	0.3110								0.3110	0.0002	0.3108	0.3112	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.53	2.50									2.51	0.02	2.50	2.53	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	98	100	106	103	100						101	3	98	106	75
	TD	32	29	26	28	27	30	31	30			29	2	26	32	
	Apparent Elongation @ Maximum Load															
	MD	29	31	33	31	30						31	1	29	33	
	TD	104	99	95	97	94	90	102	101			98	5	90	104	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1° C (70+/-2° F)															
		0.396	0.397	0.398								0.397	0.001	0.396	0.398	

Continued on next page

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ANSI-RAB ACCREDITED
PERRY JOHNSON REGISTRARS, INC.
UKAS QUALITY MANAGEMENT
1776-A

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/20/2010**
Client Sample ID: **R#131336996 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100204**
PGL Control No.: **65139**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity	(m.^{2}/ sec.)														
	MD	**8.93E-03**										**8.93E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**43.15**										**43.15**				
	Flow Rate	(gal./ min)														
	MD	**0.87**										**0.87**				

Test Set-Up:
Plate _____
Geocomposite *XXXXXX*
Plate _____

Thickness : *418* ***mils (Before)***
Thickness : *327* ***mils (After)***

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

Precision Geosynthetic Laboratories

April 29, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) Double-Sided Geocomposite samples specified on the proceeding sheets which were received on March 23, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100205)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100205)

MATERIAL DESCRIPTION: Double- Sided Geocomposites

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 23, 2010 **DATE REPORTED:** April 29, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131337042 L#CAA610252	
Geocomposite	65143
Geonet	65146
R#131337081 L#CAA610251	
Geocomposite	65144
Geonet	65147
R#131337120 L#CAA610251	
Geocomposite	65145
Geonet	65148

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 04/29/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337042 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65143**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65146**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		311	312	316	312	313	310	310	312	316	315	313	2	310	316	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9558	0.9558	0.9558								0.9558	0.0000	0.9558	0.9558	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.2998	0.2978	0.2985								0.2987	0.0010	0.2978	0.2998	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.45	2.43									2.44	0.01	2.43	2.45	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	103	106	105	100	110						105	4	100	110	75
	TD	31	29	29	31	29	30	29	28			29	1	28	31	
	Apparent Elongation @ Maximum Load															
	MD	33	29	29	33	32						31	2	29	33	
	TD	104	97	96	104	90	106	97	95			99	5	90	106	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.394	0.394	0.396								0.395	0.001	0.394	0.396	

Continued on next page

MD - MACHINE DIRECTION
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Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC UKAS QUALITY MANAGEMENT 1CD-A

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337042 L#CAA610252**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65143**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10.000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.3 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD	**1.03E-02**										**1.03E-02**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD	**49.87**										**49.87**				
	Flow Rate (gal./ min)															
	MD	**1.00**										**1.00**				

Test Set-Up:

Plate _____

Geocomposite *XXXXXX*

Plate _____

Thickness : *428* ***mils (Before)***

Thickness : *336* ***mils (After)***

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1984 Record#265

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337081 L#CAA610251**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65144**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65147**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		312	314	310	311	310	320	315	314	315	312	313	3	310	320	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9554	0.9554	0.9554								0.9554	0.0000	0.9554	0.9554	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3081	0.3090	0.3060								0.3077	0.0015	0.3060	0.3090	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.38	2.36									2.37	0.01	2.36	2.38	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	98	97	94	94	95						95	2	94	98	75
	TD	30	31	29	29	30	27	32	30			30	1	27	32	
	Apparent Elongation @ Maximum Load															
	MD	28	31	30	30	31						30	1	28	31	
	TD	97	104	94	95	97	94	102	101			98	4	94	104	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.404	0.404	0.406								0.405	0.001	0.404	0.406	

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MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
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UKAS QUALITY MANAGEMENT

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337081 L#CAA610251**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65144**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2° C Specimen Size: 12" x 14"														
	Transmissivity ($m.^2$/ sec.)															
	MD **1.07E-02**											**1.07E-02**				**1.6×10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **51.56**											**51.56**				
	Flow Rate (gal./ min)															
	MD **1.04**											**1.04**				

Test Set-Up:
Plate _____
Geocomposite *XXXXXX*
Plate _____

Thickness : *432* ***mils (Before)***
Thickness : *343* ***mils (After)***

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337120 L#CAA610251**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65145**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65148**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		309	**310**	**312**	**308**	**315**	**316**	**310**	**316**	**318**	**312**	**312**	**3**	**308**	**318**	**300**
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9561	**0.9561**	**0.9561**								**0.9561**	**0.0000**	**0.9561**	**0.9561**	**0.9400**
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3111	**0.3098**	**0.3095**								**0.3101**	**0.0009**	**0.3095**	**0.3111**	**1.0 max**
ASTM D1603	Carbon Black Content (percent)															
		2.40	**2.43**									**2.41**	**0.02**	**2.40**	**2.43**	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	**98**	**98**	**103**	**101**	**104**						**101**	**3**	**98**	**104**	**75**
	TD	**27**	**30**	**29**	**27**	**27**	**31**	**30**	**31**			**29**	**2**	**27**	**31**	
	Apparent Elongation @ Maximum Load															
	MD	**30**	**30**	**30**	**31**	**32**						**30**	**1**	**30**	**32**	
	TD	**99**	**93**	**95**	**97**	**95**	**107**	**104**	**102**			**99**	**5**	**93**	**107**	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
		POLYMER		CARBON		ASH										
		97.00		**2.86**		**0.14**										
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

Continued on next page

*-Sub out
MD - MACHINE DIRECTION
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TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **4/29/2010**
Client Sample ID: **R#131337120 L#CAA610251**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100205**
PGL Control No.: **65145**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10.000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.5 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD	**3.58E-02**										**3.58E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD	**3.50**										**3.50**				
	Transmissivity (gal/min/ft)															
	MD	**172.91**										**172.91**				
		Test Set-Up:					***Thickness :***	***311***	***mils (Before)***							
		Plate _____					***Thickness :***	***299***	***mils (After)***							
		Sand (C#64169) ***oooooooo***														
		Geonet ***XXXXXX***														
		60mil HDPE Textured R#108150553 (C#64948) =========														
		Plate _____														
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2)	*Specimen Size: 4" x 8"*														
		Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1 ^{0}C (70+/-2 ^{0}F)														
		0.407	**0.406**	**0.406**								**0.406**	**0.001**	**0.406**	**0.407**	
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10.000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2 ^{0}C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD	**9.26E-03**										**9.26E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD	**44.72**										**44.72**				
	Flow Rate (gal./ min)															
	MD	**0.90**										**0.90**				
		Test Set-Up:					***Thickness :***	***420***	***mils (Before)***							
		Plate _____					***Thickness :***	***333***	***mils (After)***							
		Geocomposite ***XXXXXX***														
		Plate _____														

End of Table 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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Precision Geosynthetic Laboratories

May 5, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of one (1) Double-Sided Geocomposite sample specified on the proceeding sheet which was received on March 29, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100221)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100221)

MATERIAL DESCRIPTION: Double- Sided Geocomposite

SAMPLED BY: PGL @ GSE, SC

DATE RECEIVED: March 29, 2010 **DATE REPORTED:** May 5, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131337592 L#CAB610840	
Geocomposite	65214
Geonet	65215

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity
Geonet	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry

TEST CONDITIONS: The sample was conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TEST RESULTS:

The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP

Initial: CVZ #:0.13

DATE: 05/05/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/29/2010**
Date Reported: **5/5/2010**
Client Sample ID: **R#131337592 L#CAB610840**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100221**
PGL Control No.: **65214**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#65215**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		311	316	315	314	308	312	312	318	314	316	314	3	308	318	300
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9556	0.9556	0.9556								0.9556	0.0000	0.9556	0.9556	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190° C and 2.16kg load.*															
		0.3661	0.3659	0.3648								0.3656	0.0007	0.3648	0.3661	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.44	2.38									2.41	0.04	2.38	2.44	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	113	115	111	113	119						114	3	111	119	75
	TD	31	29	29	31	28	27	29	31			29	1	27	31	
	Apparent Elongation @ Maximum Load															
	MD	35	34	37	40	45						38	4	34	45	
	TD	94	94	99	104	94	99	102	100			98	4	94	104	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
	POLYMER	CARBON	ASH													
	97.41	2.50	0.09													
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

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DC#1984 Record#265

Precision Geosynthetic Laboratories

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TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/29/2010**
Date Reported: **5/5/2010**
Client Sample ID: **R#131337592 L#CAB610840**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100221**
PGL Control No.: **65214**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2^0 C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD **3.53E-02**											**3.53E-02**				**1.6 x 10^{-3}**
	Flow Rate (gal/min)															
	MD **3.43**											**3.43**				
	Transmissivity (gal/min/ft)															
	MD **170.70**											**170.70**				
		Test Set-Up:					***Thickness :***	***308***	***mils (Before)***							
		Plate _____					***Thickness :***	***236***	***mils (After)***							
		Sand (C#64169) ***oooooooo***														
		Geonet ***XXXXXX***														
		60mil HDPE Textured R#108150553 (C#64948) ***=========***														
		Plate _____														
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.427	**0.423**	**0.439**								**0.430**	**0.008**	**0.423**	**0.439**	
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.5^0 C Specimen Size: 12" x 14"														
	Transmissivity (m.^{2}/ sec.)															
	MD **9.68E-03**											**9.68E-03**				**1.6 x 10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **46.76**											**46.76**				
	Flow Rate (gal./ min)															
	MD **0.95**											**0.95**				
		Test Set-Up:					***Thickness :***	***427***	***mils (Before)***							
		Plate _____					***Thickness :***	***336***	***mils (After)***							
		Geocomposite ***XXXXXX***														
		Plate _____														

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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GAI-LAP ANSI-RAB ACCREDITED QMS PERRY JOHNSON REGISTRARS, INC UKAS QUALITY MANAGEMENT TCO-A

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 05/13/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of two (2) 300mil Double-Sided Geocomposite samples.

PROJECT NAME: G100455

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: May 6, 2010 **DATE REPORTED:** May 13, 2010

SAMPLES SENT BY: GSE, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131337168 L#CAA610251	66257
R#131337217 L#CAA610251	66258

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geonet Component	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 2.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **5/6/2010**
Date Reported: **5/13/2010**
Client Sample ID: **R#131337168 L#CAA610251**
Material Description: **300mil Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100455**
PGL Control No.: **66257**

	SPECIMENS														Proj.
	1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs. MARV
METHOD DESCRIPTION															
GEONET COMPONENT:															
ASTM D5199 Thickness (mils)															
Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
Loading time: 5sec Specimen Size: 4" x 4"															
	315	309	320	320	326	318	316	322	315	320	318	5	309	326	300
ASTM D1505 Density (grams/ $cm.^3$)															
	0.9549	0.9549	0.9549								0.9549	0.0000	0.9549	0.9549	0.9400
ASTM D1238 Melt Flow Index (grams/ 10 minutes)															
Procedure A *Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
	0.3504	0.3540	0.3511								0.3518	0.0019	0.3504	0.3540	1.0 max
ASTM D1603 Carbon Black Content (percent)															
	2.50	2.53									2.51	0.02	2.50	2.53	
ASTM D5035 Tensile Strength (lbs./in.)															
Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
MD	150	149	144	153	144						148	4	144	153	75
TD	42	43	44	43	44	40	42	42			43	1	40	44	
Apparent Elongation @ Maximum Load															
MD	38	37	36	40	37						38	1	36	40	
TD	135	135	137	135	140	137	138	135			137	2	135	140	
GEOCOMPOSITE:															
ASTM D3776 Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
	0.407	0.408	0.410								0.408	0.001	0.407	0.410	

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TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **5/6/2010**
Date Reported: **5/13/2010**
Client Sample ID: **R#131337168 L#CAA610251**
Material Description: **300mil Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100455**
PGL Control No.: **66257**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2° C Specimen Size: 12" x 14"														
	Transmissivity ($m.^2$/ sec.)															
	MD **9.25E-03**											**9.25E-03**				**1.6×10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **44.69**											**44.69**				
	Flow Rate (gal./ min)															
	MD **0.90**											**0.90**				

Test Set-Up: ***Thickness :*** *422* ***mils (Before)***

Plate _____ ***Thickness :*** *335* ***mils (After)***

Geocomposite *XXXXXX*

Plate _____

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **5/6/2010**
Date Reported: **5/13/2010**
Client Sample ID: **R#131337217 L#CAA610251**
Material Description: **300mil Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100455**
PGL Control No.: **66258**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
GEONET COMPONENT:																
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		310	320	320	316	315	309	320	320	321	308	316	5	308	321	300
ASTM D1505	Density (grams/ cm.^{3})															
		0.9544	0.9544	0.9544								0.9544	0.0000	0.9544	0.9544	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3601	0.3611	0.3598								0.3603	0.0007	0.3598	0.3611	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.46	2.50									2.48	0.03	2.46	2.50	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	145	149	150	144	138						145	5	138	150	75
	TD	43	44	44	42	40	44	43	43			43	1	40	44	
	Apparent Elongation @ Maximum Load															
	MD	43	40	43	37	39						41	3	37	43	
	TD	139	140	139	140	134	146	134	137			139	4	134	146	
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		0.416	0.420	0.423								0.419	0.003	0.416	0.423	

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TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **5/6/2010**
Date Reported: **5/13/2010**
Client Sample ID: **R#131337217 L#CAA610251**
Material Description: **300mil Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100455**
PGL Control No.: **66258**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
ASTM D4716	Transmissivity	*Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*														
		Temperature of Test Water: 20.2^0 C Specimen Size: 12" x 14"														
	Transmissivity	(m.^{2}/ sec.)														
	MD	**9.42E-03**										**9.42E-03**				**1.6 x 10^{-3}**
	Transmissivity	(gal./ min./ ft.)														
	MD	**45.49**										**45.49**				
	Flow Rate	(gal./ min)														
	MD	**0.91**										**0.91**				

Test Set-Up: ***Thickness :*** *425* ***mils (Before)***

Plate _____ ***Thickness :*** *336* ***mils (After)***

Geocomposite *XXXXXX*

Plate _____

End of Table 2

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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PERRY JOHNSON REGISTRARS, INC
UKAS

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 08/10/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of one (1) 300mil Double-Sided Geocomposite sample.

PROJECT NAME: G100950

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: August 2, 2010 **DATE REPORTED:** August 10, 2010

SAMPLES SENT BY: GSE, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#131347460 L#CB10061602	
Geocomposite	68916
Geonet	68917

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
Geonet Component	
ASTM D1505	Density
ASTM D1238	Melt Flow Index
ASTM D1603	Carbon Black Content
ASTM D5199	Thickness
ASTM D5035	Tensile Strength
ASTM D4716	Transmissivity
ASTM E1131	Compositional Analysis by Thermogravimetry
Geocomposite	
ASTM D3776	Mass Per Unit Area
ASTM D4716	Transmissivity

TEST CONDITIONS: The sample was conditioned for a minimum of one hour in the laboratory at 22 $\pm$ 2°C (71.6 $\pm$ 3.6°F) and at 60 $\pm$ 10% relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/2/2010**
Date Reported: **8/10/2010**
Client Sample ID: **R#131347460 L#CB10061602**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100950**
PGL Control No.: **68916**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. MARV
GEONET COMPONENT:	**C#68917**															
ASTM D5199	Thickness (mils)															
	Apparatus: Dead weight dial micrometer with 56.4mm (2.22in) dia presser foot and 509gm dead weight (equivalent pressure= 2kPA or 0.29psi).															
	Loading time: 5sec Specimen Size: 4" x 4"															
		320	316	321	310	310	312	310	315	317	318	315	4	310	321	300
ASTM D1505	Density (grams/ cm.^{3})															
		0.9549	0.9549	0.9549								0.9549	0.0000	0.9549	0.9549	0.9400
ASTM D1238	Melt Flow Index (grams/ 10 minutes)															
Procedure A	*Condition FR-190/2.16.Thin 0.1-0.25" specimen strips were charged to the cylinder at a test temperature of 190^0 C and 2.16kg load.*															
		0.3095	0.3101	0.3100								0.3099	0.0003	0.3095	0.3101	1.0 max
ASTM D1603	Carbon Black Content (percent)															
		2.51	2.50									2.50	0.01	2.50	2.51	
ASTM D5035	Tensile Strength (lbs./in.)															
	Specimens were tested as directed in Test Method D5035 using specimen Type 2C and Cut Strip Test Method.															
	Testing Machine Used: Instron Tensile Testing Machine With Constant Rate of Extension Max load: 400lbs / 1500lbs															
	Jaw faces: 1 1/2" x 2" Serrated / 2" x 4" Serrated															
	MD	93	90	93	90	93						92	2	90	93	75
	TD	23	23	24	24	23	24	25	25			24	1	23	25	
	Apparent Elongation @ Maximum Load															
	MD	33	32	33	30	31						32	2	30	33	
	TD	137	140	146	140	142	137	134	138			139	4	134	146	
ASTM E1131*	Compositional Analysis by Thermogravimetry (%)															
		POLYMER		CARBON		ASH										
		97.77		2.23		0.00										
	Note: Polymer is composed of polyethylene with no other types of plastics detected.															

Continued on next page

*-Sub out
MD - MACHINE DIRECTION
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DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/2/2010**
Date Reported: **8/10/2010**
Client Sample ID: **R#131347460 L#CB10061602**
Material Description: **Double-Sided Geocomposite**

QC'd By: _____
PGL Job No.: **G100950**
PGL Control No.: **68916**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**MARV**
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.5° C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **3.64E-02**											**3.64E-02**				**1.6×10^{-3}**
	Flow Rate (gal/min)															
	MD **3.56**											**3.56**				
	Transmissivity (gal/min/ft)															
	MD **175.73**											**175.73**				
	Test Set-Up:						***Thickness :*** *311* ***mils (Before)***									
	Plate _____						***Thickness :*** *298* ***mils (After)***									
	Sand (C#64169) *oooooooo*															
	Geonet *XXXXXX*															
	60mil HDPE Textured *=========*															
	Plate _____															
GEOCOMPOSITE:																
ASTM D3776	Mass per Unit Area (lbs/ ft^2) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1° C (70+/-2° F)															
	0.394 **0.396** **0.399**											**0.396**	**0.003**	**0.394**	**0.399**	
ASTM D4716	Transmissivity *Tested at Normal Pressure : 10,000 psf, Gradient: 0.02 , Seating Time: 100 hrs*															
	Temperature of Test Water: 20.5° C Specimen Size: 12" x 14"															
	Transmissivity ($m.^2$/ sec.)															
	MD **9.71E-03**											**9.71E-03**				**1.6×10^{-3}**
	Transmissivity (gal./ min./ ft.)															
	MD **46.89**											**46.89**				
	Flow Rate (gal./ min)															
	MD **0.95**											**0.95**				
	Test Set-Up:						***Thickness :*** *420* ***mils (Before)***									
	Plate _____						***Thickness :*** *336* ***mils (After)***									
	Geocomposite *XXXXXX*															
	Plate _____															

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

*-Sub out
MD - MACHINE DIRECTION
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DC#1984 Record#265

Precision Geosynthetic Laboratories

ISO 9001 - 2000

Precision Geosynthetic Laboratories

GSE

8-oz NON-WOVEN GEOTEXTILE CONFORMANCE TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 8oz Non-woven Geotextile **SAMPLING FREQUENCY:** 1/100,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: SC

No.	Roll #	Product Code	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	130357581	GEO-080E-EBC-E-00	600	15	9000	1/19/2010	PGL	5/4/2010	5/5/2010	G100442 C#66208
2	130357582	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
3	130357583	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
4	130357584	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
5	130357587	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
6	130357591	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
7	130357592	GEO-080E-EBC-E-00	600	15	9000	1/19/2010				
8	130364691	GEO-080E-EBC-E-00	600	15	9000	6/27/2010	PGL	8/6/2010	8/10/2010	G101009 C#69259
				TOTAL ft^2 =	72,000					

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

Precision Geosynthetic Laboratories

Initial: CVZ #:0.13
DATE: 05/05/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of one (1) 8oz Non-woven Geotextile sample.

PROJECT NAME: G100442

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: May 5, 2010 **DATE REPORTED:** May 5, 2010

SAMPLED BY: PGL at GSE, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#130357581	66208

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D3776	Mass Per Unit Area
ASTM D3786	Mullen Burst Strength
ASTM D4833	Puncture Resistance
ASTM D4632	Grab Tensile
ASTM D4491	Permeability
ASTM D4751	Apparent Opening Size

TEST CONDITIONS: The sample was conditioned for a minimum of one hour in the laboratory at $22 \pm 2^{\circ}C$ ($71.6 \pm 3.6^{\circ}F$) and at $60 \pm 10\%$ relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/10/2010**
Date Reported: **8/12/2010**
Client Sample ID: **R#130364691**
Material Description: **8oz Non-Woven Geotextile**

QC'd By: _____
PGL Job No.: **G101009**
PGL Control No.: **69259**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D3776	Mass per Unit Area (oz/ yd.^{2}) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		8.3	8.6	8.5								8.4	0.2	8.3	8.6	
ASTM D4632	Grab Tensile															
	Test was performed as directed in D4632, dry condition. Instron Tensile Testing Machine with hydraulic action grips and															
	1 in x 2 in rubber faces was used. Maximum load used for testing: 1500 lbs															
	Grab Breaking Load (lbs)															
	MD	238	240	250	248	250	241	238	250	242	238	243	5	238	250	
	TD	268	270	260	260	248	255	259	262	251	265	260	7	248	270	
	Apparent Breaking Elongation (percent)															
	MD	77	73	80	75	70	73	77	73	80	73	75	3	70	80	
	TD	97	101	104	95	90	97	93	100	94	104	97	5	90	104	
ASTM D4833	Puncture Resistance (lbs)															
	Specimens were tested as directed in Test Method D4833. They were clamped without tension between circular plates of a ring															
	clamp attachment secured in the tensile machine. Test specimens were extended to or beyond the outer edges of the clamping plates.															
		155	147	142	138	142	142	142	140	142	138	142	4	138	155	
		140	142	143	140	140										
ASTM D3786	Mullen Burst Strength (psi) *(Total Breaking Pressure - Tare Pressure)*															
	Specimens were tested as directed in Test Method D3786 using the Mullen Tester.															
		495	505	495	485	475	465	545	535	495	455	495	28	455	545	

Continued on next page

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION

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TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/10/2010**
Date Reported: **8/12/2010**
Client Sample ID: **R#130364691**
Material Description: **8oz Non-Woven Geotextile**

QC'd By: _____
PGL Job No.: **G101009**
PGL Control No.: **69259**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4491	Permittivity (sec.$^{-1}$)															
Constant Head	*Four specimens were tested by holding the head constant at 50 mm. The corresponding water volume passing through the specimen was collected at the discharge side and the amount and time recorded. Five readings were taken for each specimen.*															
	BT Technology permittivity testing apparatus compliant to ASTM D4491 requirements was used.															
		1.67	**1.67**	**1.68**	**1.65**							**1.67**	**0.01**	**1.65**	**1.68**	
	Permeability (cm./ sec.)															
		0.34	**0.36**	**0.35**	**0.34**							**0.35**	**0.01**	**0.34**	**0.36**	
	Flow Rate (gpm/ ft.^{2})															
		125	**125**	**125**	**123**							**125**	**1**	**123**	**125**	
ASTM D4751	Apparent Opening Size (U.S. standard sieve size)															
	Specimens were tested as directed in Test Method D4751.Type of sieve shaker used is W.S. Tyler Rotap.															
		70-100	**70-100**	**70-100**	**70-100**	**70-100**						**70-100**	N/A	N/A	N/A	
ASTM D4751	Apparent Opening Size (mm)															
	Specimens were tested as directed in Test Method D4751.Type of sieve shaker used is W.S. Tyler Rotap.															
		0.209	**0.203**	**0.205**	**0.198**	**0.203**						**0.204**	**0.004**	**0.198**	**0.209**	

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 08/12/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of one (1) 8oz Non-woven Geotextile sample.

PROJECT NAME: G101009

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: August 10, 2010 **DATE REPORTED:** August 12, 2010

SAMPLED BY: PGL at GSE, SC

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#130364691	69259

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D3776	Mass Per Unit Area
ASTM D3786	Mullen Burst Strength
ASTM D4833	Puncture Resistance
ASTM D4632	Grab Tensile
ASTM D4491	Permeability
ASTM D4751	Apparent Opening Size

TEST CONDITIONS: The sample was conditioned for a minimum of one hour in the laboratory at $22 \pm 2^{\circ}C$ ($71.6 \pm 3.6^{\circ}F$) and at $60 \pm 10\%$ relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/10/2010**
Date Reported: **8/12/2010**
Client Sample ID: **R#130364691**
Material Description: **8oz Non-Woven Geotextile**

QC'd By: _____
PGL Job No.: **G101009**
PGL Control No.: **69259**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D3776	Mass per Unit Area (oz/ yd.^{2}) *Specimen Size: 4" x 8"*															
	Test was conducted as directed in OPTION C. All weighing tests were made in the standard atmosphere of 20+/1^0 C (70+/-2^0 F)															
		8.3	8.6	8.5								8.4	0.2	8.3	8.6	
ASTM D4632	Grab Tensile															
	Test was performed as directed in D4632, dry condition. Instron Tensile Testing Machine with hydraulic action grips and															
	1 in x 2 in rubber faces was used. Maximum load used for testing: 1500 lbs															
	Grab Breaking Load (lbs)															
	MD	238	240	250	248	250	241	238	250	242	238	243	5	238	250	
	TD	268	270	260	260	248	255	259	262	251	265	260	7	248	270	
	Apparent Breaking Elongation (percent)															
	MD	77	73	80	75	70	73	77	73	80	73	75	3	70	80	
	TD	97	101	104	95	90	97	93	100	94	104	97	5	90	104	
ASTM D4833	Puncture Resistance (lbs)															
	Specimens were tested as directed in Test Method D4833. They were clamped without tension between circular plates of a ring															
	clamp attachment secured in the tensile machine. Test specimens were extended to or beyond the outer edges of the clamping plates.															
		155	147	142	138	142	142	142	140	142	138	142	4	138	155	
		140	142	143	140	140										
ASTM D3786	Mullen Burst Strength (psi) *(Total Breaking Pressure - Tare Pressure)*															
	Specimens were tested as directed in Test Method D3786 using the Mullen Tester.															
		495	505	495	485	475	465	545	535	495	455	495	28	455	545	

Continued on next page

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **8/10/2010**
Date Reported: **8/12/2010**
Client Sample ID: **R#130364691**
Material Description: **8oz Non-Woven Geotextile**

QC'd By: _____
PGL Job No.: **G101009**
PGL Control No.: **69259**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4491	Permittivity (sec.$^{-1}$)															
Constant Head	*Four specimens were tested by holding the head constant at 50 mm. The corresponding water volume passing through the specimen was collected at the discharge side and the amount and time recorded. Five readings were taken for each specimen.*															
	BT Technology permittivity testing apparatus compliant to ASTM D4491 requirements was used.															
		1.67	1.67	1.68	1.65							1.67	0.01	1.65	1.68	
	Permeability (cm./ sec.)															
		0.34	0.36	0.35	0.34							0.35	0.01	0.34	0.36	
	Flow Rate (gpm/ ft.^{2})															
		125	125	125	123							125	1	123	125	
ASTM D4751	Apparent Opening Size (U.S. standard sieve size)															
	Specimens were tested as directed in Test Method D4751.Type of sieve shaker used is W.S. Tyler Rotap.															
		70-100	70-100	70-100	70-100	70-100						70-100	N/A	N/A	N/A	
ASTM D4751	Apparent Opening Size (mm)															
	Specimens were tested as directed in Test Method D4751.Type of sieve shaker used is W.S. Tyler Rotap.															
		0.209	0.203	0.205	0.198	0.203						0.204	0.004	0.198	0.209	

End of Table 1

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION

Precision Geosynthetic Laboratories

CETCO BENTOMAT ST CONFORMANCE TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	257	201009CV	947750B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100131 C#64867
2	258	201009CV	947750B	150	15	2250	N/A				
3	259	201009CV	947750B	150	15	2250	N/A				
4	260	201009CV	947749A	150	15	2250	N/A				
5	261	201009CV	947749A	150	15	2250	N/A				
6	262	201009CV	947749A	150	15	2250	N/A				
7	263	201009CV	947749A	150	15	2250	N/A				
8	264	201009CV	947749A	150	15	2250	N/A				
9	265	201009CV	947749A	150	15	2250	N/A				
10	266	201009CV	947749A	150	15	2250	N/A				
11	267	201009CV	947749A	150	15	2250	N/A				
12	268	201009CV	947749A	150	15	2250	N/A				
13	269	201009CV	947749A	150	15	2250	N/A				
14	270	201009CV	947749A	150	15	2250	N/A				
15	271	201009CV	947749A	150	15	2250	N/A				
16	272	201009CV	947749A	150	15	2250	N/A				
17	273	201009CV	947749A	150	15	2250	N/A				
18	274	201009CV	947749A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100131 C#64868
19	275	201009CV	947749A	150	15	2250	N/A				
20	276	201009CV	947749A	150	15	2250	N/A				
21	277	201009CV	947749A	150	15	2250	N/A				
22	278	201009CV	947749A	150	15	2250	N/A				
23	279	201009CV	947749A	150	15	2250	N/A				
24	280	201009CV	947749A	150	15	2250	N/A				

Rec. 244 , DC 1972

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
25	281	201009CV	947749A	150	15	2250	N/A				
26	282	201009CV	947749A	150	15	2250	N/A				
27	283	201009CV	947749A	150	15	2250	N/A				
28	284	201009CV	947749A	150	15	2250	N/A				
29	285	201009CV	947749A	150	15	2250	N/A				
30	286	201009CV	947749A	150	15	2250	N/A				
31	287	201009CV	947749A	150	15	2250	N/A				
32	288	201009CV	947749A	150	15	2250	N/A				
33	289	201009CV	947749A	150	15	2250	N/A				
34	290	201009CV	947749A	150	15	2250	N/A				
35	291	201009CV	947749A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100131 C#64869
36	292	201009CV	947749A	150	15	2250	N/A				
37	293	201009CV	947749A	150	15	2250	N/A				
38	294	201009CV	947749A	150	15	2250	N/A				
39	295	201009CV	947749A	150	15	2250	N/A				
40	296	201009CV	947749A	150	15	2250	N/A				
41	297	201009CV	947749A	150	15	2250	N/A				
42	298	201009CV	947749A	150	15	2250	N/A				
43	299	201009CV	947749A	141	15	2115	N/A				
44	300	201009CV	947749A	150	15	2250	N/A				
45	301	201009CV	947749A	150	15	2250	N/A				
46	302	201009CV	947749A	150	15	2250	N/A				
47	303	201009CV	947749A	150	15	2250	N/A				
48	304	201009CV	947749A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
49	305	201009CV	947749A	150	15	2250	N/A				
50	306	201009CV	947749A	150	15	2250	N/A				
51	307	201009CV	947749A	150	15	2250	N/A				
52	308	201009CV	947749A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100131 C#64870
53	309	201009CV	947749B	150	15	2250	N/A				
54	310	201009CV	947749B	150	15	2250	N/A				
55	311	201009CV	947749B	150	15	2250	N/A				
56	312	201009CV	947749B	150	15	2250	N/A				
57	313	201009CV	947749B	150	15	2250	N/A				
58	314	201009CV	947749B	150	15	2250	N/A				
59	315	201009CV	947749B	150	15	2250	N/A				
60	316	201009CV	947749B	150	15	2250	N/A				
61	317	201009CV	947749B	150	15	2250	N/A				
62	318	201009CV	947749B	150	15	2250	N/A				
63	319	201009CV	947749B	150	15	2250	N/A				
64	320	201009CV	947749B	150	15	2250	N/A				
65	321	201009CV	947749B	150	15	2250	N/A				
66	322	201009CV	947749B	150	15	2250	N/A				
67	323	201009CV	947749B	150	15	2250	N/A				
68	324	201009CV	947749B	150	15	2250	N/A				
69	325	201009CV	947749B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100132 C#64871
70	326	201009CV	947749B	150	15	2250	N/A				
71	327	201009CV	947749B	150	15	2250	N/A				
72	328	201009CV	947749B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
73	329	201009CV	947749B	150	15	2250	N/A				
74	330	201009CV	947749B	150	15	2250	N/A				
75	331	201009CV	947749B	150	15	2250	N/A				
76	332	201009CV	947749B	150	15	2250	N/A				
77	333	201009CV	947749B	150	15	2250	N/A				
78	334	201009CV	947749B	150	15	2250	N/A				
79	335	201009CV	947749B	150	15	2250	N/A				
80	336	201009CV	947749B	150	15	2250	N/A				
81	337	201009CV	947749B	150	15	2250	N/A				
82	338	201009CV	947749B	150	15	2250	N/A				
83	340	201009CV	947749B	150	15	2250	N/A				
84	341	201009CV	947749B	150	15	2250	N/A				
85	342	201009CV	947749B	150	15	2250	N/A				
86	343	201009CV	947749B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100132 C#64872
87	344	201009CV	947749B	150	15	2250	N/A				
88	345	201009CV	947749B	150	15	2250	N/A				
89	346	201009CV	947749B	150	15	2250	N/A				
90	347	201009CV	947749B	150	15	2250	N/A				
91	348	201009CV	947749B	150	15	2250	N/A				
92	349	201009CV	947749B	150	15	2250	N/A				
93	350	201009CV	947749B	150	15	2250	N/A				
94	351	201009CV	947749B	150	15	2250	N/A				
95	352	201009CV	947749B	150	15	2250	N/A				
96	353	201009CV	947749B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
97	354	201009CV	947749B	150	15	2250	N/A				
98	355	201009CV	947749B	150	15	2250	N/A				
99	356	201009CV	947749B	150	15	2250	N/A				
100	357	201009CV	947749B	150	15	2250	N/A				
101	358	201009CV	947748A	150	15	2250	N/A				
102	359	201009CV	947748A	150	15	2250	N/A				
103	360	201009CV	947748A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100132 C#64873
104	361	201009CV	947748A	150	15	2250	N/A				
105	362	201009CV	947748A	150	15	2250	N/A				
106	363	201009CV	947748A	150	15	2250	N/A				
107	364	201009CV	947748A	150	15	2250	N/A				
108	365	201009CV	947748A	150	15	2250	N/A				
109	366	201009CV	947748A	150	15	2250	N/A				
110	367	201009CV	947748A	150	15	2250	N/A				
111	369	201009CV	947748A	150	15	2250	N/A				
112	370	201009CV	947748A	150	15	2250	N/A				
113	371	201009CV	947748A	150	15	2250	N/A				
114	372	201009CV	947748A	150	15	2250	N/A				
115	373	201009CV	947748A	150	15	2250	N/A				
116	374	201009CV	947748A	150	15	2250	N/A				
117	375	201009CV	947748A	150	15	2250	N/A				
118	376	201009CV	947748A	150	15	2250	N/A				
119	377	201009CV	947748A	150	15	2250	N/A				
120	378	201009CV	947748A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100132 C#64874

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
121	379	201009CV	947748A	150	15	2250	N/A				
122	380	201009CV	947748A	150	15	2250	N/A				
123	381	201009CV	947748A	150	15	2250	N/A				
124	382	201009CV	947748A	150	15	2250	N/A				
125	383	201009CV	947748A	150	15	2250	N/A				
126	384	201009CV	947748A	150	15	2250	N/A				
127	385	201009CV	947748A	150	15	2250	N/A				
128	386	201009CV	947748A	150	15	2250	N/A				
129	387	201009CV	947748A	150	15	2250	N/A				
130	388	201009CV	947748A	150	15	2250	N/A				
131	389	201009CV	947748A	150	15	2250	N/A				
132	390	201009CV	947748A	150	15	2250	N/A				
133	391	201009CV	947748A	150	15	2250	N/A				
134	392	201009CV	947748A	150	15	2250	N/A				
135	393	201009CV	947748A	150	15	2250	N/A				
136	394	201009CV	947748A	150	15	2250	N/A				
137	395	201009CV	947748A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100133 C#64875
138	396	201009CV	947748A	150	15	2250	N/A				
139	397	201009CV	947748A	150	15	2250	N/A				
140	398	201009CV	947748A	150	15	2250	N/A				
141	399	201009CV	947748A	150	15	2250	N/A				
142	400	201009CV	947748A	150	15	2250	N/A				
143	401	201009CV	947748A	150	15	2250	N/A				
144	402	201009CV	947748A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
145	403	201009CV	947748A	150	15	2250	N/A				
146	404	201009CV	947748A	150	15	2250	N/A				
147	405	201009CV	947748A	150	15	2250	N/A				
148	406	201009CV	947748A	150	15	2250	N/A				
149	407	201009CV	947748B	150	15	2250	N/A				
150	408	201009CV	947748B	150	15	2250	N/A				
151	409	201009CV	947748B	150	15	2250	N/A				
152	410	201009CV	947748B	150	15	2250	N/A				
153	411	201009CV	947748B	150	15	2250	N/A				
154	412	201009CV	947748B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100133 C#64876
155	415	201009CV	947748B	150	15	2250	N/A				
156	416	201009CV	947748B	150	15	2250	N/A				
157	417	201009CV	947748B	150	15	2250	N/A				
158	418	201009CV	947748B	150	15	2250	N/A				
159	419	201009CV	947748B	150	15	2250	N/A				
160	420	201009CV	947748B	150	15	2250	N/A				
161	421	201009CV	947748B	150	15	2250	N/A				
162	422	201009CV	947748B	150	15	2250	N/A				
163	423	201009CV	947748B	150	15	2250	N/A				
164	424	201009CV	947748B	150	15	2250	N/A				
165	425	201009CV	947748B	150	15	2250	N/A				
166	426	201009CV	947748B	150	15	2250	N/A				
167	427	201009CV	947748B	150	15	2250	N/A				
168	428	201009CV	947748B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
169	429	201009CV	947748B	150	15	2250	N/A				
170	430	201009CV	947748B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100133 C#64877
171	431	201009CV	947748B	150	15	2250	N/A				
172	432	201009CV	947748B	150	15	2250	N/A				
173	433	201009CV	947748B	150	15	2250	N/A				
174	434	201009CV	947748B	150	15	2250	N/A				
175	435	201009CV	947748B	150	15	2250	N/A				
176	436	201009CV	947748B	150	15	2250	N/A				
177	437	201009CV	947748B	150	15	2250	N/A				
178	438	201009CV	947748B	150	15	2250	N/A				
179	439	201009CV	947748B	150	15	2250	N/A				
180	440	201009CV	947748B	150	15	2250	N/A				
181	441	201009CV	947748B	150	15	2250	N/A				
182	442	201009CV	947748B	150	15	2250	N/A				
183	443	201009CV	947748B	150	15	2250	N/A				
184	444	201009CV	947748B	150	15	2250	N/A				
185	445	201009CV	947748B	150	15	2250	N/A				
186	447	201009CV	947748B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100133 C#64878
187	448	201009CV	947748B	150	15	2250	N/A				
188	449	201009CV	947748B	150	15	2250	N/A				
189	450	201009CV	947748B	150	15	2250	N/A				
190	451	201009CV	947748B	150	15	2250	N/A				
191	452	201009CV	947748B	150	15	2250	N/A				
192	453	201009CV	947748B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
193	454	201009CV	947748B	150	15	2250	N/A				
194	455	201009CV	947748B	150	15	2250	N/A				
195	456	201009CV	947752A	150	15	2250	N/A				
196	457	201009CV	947752A	150	15	2250	N/A				
197	458	201009CV	947752A	150	15	2250	N/A				
198	459	201009CV	947752A	150	15	2250	N/A				
199	460	201009CV	947752A	150	15	2250	N/A				
200	461	201009CV	947752A	150	15	2250	N/A				
201	462	201009CV	947752A	150	15	2250	N/A				
202	463	201009CV	947752A	150	15	2250	N/A				
203	464	201009CV	947752A	150	15	2250	N/A				
204	465	201009CV	947752A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100134 C#64879
205	466	201009CV	947752A	150	15	2250	N/A				
206	467	201009CV	947752A	150	15	2250	N/A				
207	468	201009CV	947752A	150	15	2250	N/A				
208	469	201009CV	947752A	150	15	2250	N/A				
209	470	201009CV	947752A	150	15	2250	N/A				
210	471	201009CV	947752A	150	15	2250	N/A				
211	472	201009CV	947752A	150	15	2250	N/A				
212	473	201009CV	947752A	148	15	2220	N/A				
213	474	201009CV	947752A	150	15	2250	N/A				
214	475	201009CV	947752A	150	15	2250	N/A				
215	476	201009CV	947752A	150	15	2250	N/A				
216	477	201009CV	947752A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
217	478	201009CV	947752A	150	15	2250	N/A				
218	479	201009CV	947752A	150	15	2250	N/A				
219	480	201009CV	947752A	150	15	2250	N/A				
220	481	201009CV	947752A	150	15	2250	N/A				
221	482	201009CV	947752A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100134 C#64880
222	483	201009CV	947752A	150	15	2250	N/A				
223	484	201009CV	947752A	150	15	2250	N/A				
224	485	201009CV	947752A	150	15	2250	N/A				
225	488	201010CV	947752A	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100134 C#64881
226	489	201010CV	947752A	124	15	1860	N/A				
227	490	201010CV	947752A	150	15	2250	N/A				
228	491	201010CV	947752A	150	15	2250	N/A				
229	492	201010CV	947752A	150	15	2250	N/A				
230	493	201010CV	947752A	150	15	2250	N/A				
231	494	201010CV	947752A	150	15	2250	N/A				
232	495	201010CV	947752A	150	15	2250	N/A				
233	496	201010CV	947752A	150	15	2250	N/A				
234	497	201010CV	947752A	150	15	2250	N/A				
235	498	201010CV	947752A	150	15	2250	N/A				
236	499	201010CV	947752A	150	15	2250	N/A				
237	500	201010CV	947752A	150	15	2250	N/A				
238	501	201010CV	947752A	150	15	2250	N/A				
239	502	201010CV	947752A	150	15	2250	N/A				
240	503	201010CV	947752A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
241	505	201010CV	947752B	150	15	2250	N/A				
242	506	201010CV	947752B	150	15	2250	N/A	RM	3/2/2010	3/5/2010	G100134 C#64882
243	507	201010CV	947752B	150	15	2250	N/A				
244	508	201010CV	947752B	150	15	2250	N/A				
245	509	201010CV	947752B	150	15	2250	N/A				
246	510	201010CV	947752B	150	15	2250	N/A				
247	511	201010CV	947752B	150	15	2250	N/A				
248	512	201010CV	947752B	150	15	2250	N/A				
249	513	201010CV	947752B	150	15	2250	N/A				
250	514	201010CV	947752B	150	15	2250	N/A				
251	515	201010CV	947752B	150	15	2250	N/A				
252	516	201010CV	947752B	150	15	2250	N/A				
253	517	201010CV	947752B	150	15	2250	N/A				
254	518	201010CV	947752B	150	15	2250	N/A				
255	519	201010CV	947752B	150	15	2250	N/A				
256	520	201010CV	947752B	150	15	2250	N/A				
257	521	201010CV	947752B	150	15	2250	N/A				
258	522	201010CV	947752B	150	15	2250	N/A				
259	523	201010CV	947752B	150	15	2250	N/A				
260	524	201010CV	947752B	137	15	2055	N/A				
261	525	201010CV	947752B	150	15	2250	N/A				
262	526	201010CV	947752B	150	15	2250	N/A				
263	527	201010CV	947752B	150	15	2250	N/A				
264	528	201010CV	947752B	150	15	2250	N/A				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
265	529	201010CV	947752B	150	15	2250	N/A				
266	530	201010CV	947752B	150	15	2250	N/A				
267	531	201010CV	947752B	150	15	2250	N/A				
268	532	201010CV	947752B	150	15	2250	N/A				
269	533	201010CV	947752B	150	15	2250	N/A				
270	534	201010CV	947752B	150	15	2250	N/A				
271	535	201010CV	947752B	150	15	2250	N/A				
272	536	201010CV	947752B	150	15	2250	N/A				
273	537	201010CV	947752B	150	15	2250	N/A				
274	538	201010CV	947752B	150	15	2250	N/A				
275	539	201010CV	947752B	150	15	2250	N/A				
276	540	201010CV	947752B	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100150 C#64935
277	541	201010CV	947752B	150	15	2250	N/A				
278	542	201010CV	947752B	150	15	2250	N/A				
279	543	201010CV	947752B	150	15	2250	N/A				
280	544	201010CV	947752B	150	15	2250	N/A				
281	545	201010CV	947752B	150	15	2250	N/A				
282	546	201010CV	947752B	150	15	2250	N/A				
283	547	201010CV	947752B	150	15	2250	N/A				
284	548	201010CV	947752B	150	15	2250	N/A				
285	549	201010CV	947752B	150	15	2250	N/A				
286	550	201010CV	947752B	150	15	2250	N/A				
287	551	201010CV	947752B	150	15	2250	N/A				
288	552	201010CV	947752B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
289	553	201010CV	947752B	150	15	2250	N/A				
290	554	201010CV	948488A	150	15	2250	N/A				
291	555	201010CV	948488A	150	15	2250	N/A				
292	556	201010CV	948488A	150	15	2250	N/A				
293	557	201010CV	948488A	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100150 C#64936
294	558	201010CV	948488A	150	15	2250	N/A				
295	559	201010CV	948488A	150	15	2250	N/A				
296	560	201010CV	948488A	150	15	2250	N/A				
297	561	201010CV	948488A	150	15	2250	N/A				
298	562	201010CV	948488A	150	15	2250	N/A				
299	563	201010CV	948488A	150	15	2250	N/A				
300	565	201010CV	948488A	150	15	2250	N/A				
301	566	201010CV	948488A	150	15	2250	N/A				
302	567	201010CV	948488A	150	15	2250	N/A				
303	568	201010CV	948488A	150	15	2250	N/A				
304	569	201010CV	948488A	150	15	2250	N/A				
305	570	201010CV	948488A	150	15	2250	N/A				
306	571	201010CV	948488A	150	15	2250	N/A				
307	572	201010CV	948488A	150	15	2250	N/A				
308	573	201010CV	948488A	150	15	2250	N/A				
309	574	201010CV	948488A	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100150 C#64937
310	575	201010CV	948488A	150	15	2250	N/A				
311	576	201010CV	948488A	150	15	2250	N/A				
312	577	201010CV	948488A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
313	578	201010CV	948488A	150	15	2250	N/A				
314	579	201010CV	948488A	150	15	2250	N/A				
315	580	201010CV	948488A	150	15	2250	N/A				
316	581	201010CV	948488A	150	15	2250	N/A				
317	582	201010CV	948488A	150	15	2250	N/A				
318	583	201010CV	948488A	150	15	2250	N/A				
319	584	201010CV	948488A	150	15	2250	N/A				
320	585	201010CV	948488A	150	15	2250	N/A				
321	586	201010CV	948488A	150	15	2250	N/A				
322	587	201010CV	948488A	150	15	2250	N/A				
323	588	201010CV	948488A	150	15	2250	N/A				
324	589	201010CV	948488A	150	15	2250	N/A				
325	590	201010CV	948488A	150	15	2250	N/A				
326	591	201010CV	948488A	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100150 C#64938
327	592	201010CV	948488A	150	15	2250	N/A				
328	593	201010CV	948488A	150	15	2250	N/A				
329	594	201010CV	948488A	150	15	2250	N/A				
330	595	201010CV	948488A	150	15	2250	N/A				
331	596	201010CV	948488A	150	15	2250	N/A				
332	597	201010CV	948488A	150	15	2250	N/A				
333	599	201010CV	948488A	150	15	2250	N/A				
334	600	201010CV	948488A	150	15	2250	N/A				
335	601	201010CV	948488A	150	15	2250	N/A				
336	602	201010CV	948488A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
337	603	201010CV	948488B	150	15	2250	N/A				
338	604	201010CV	948488B	150	15	2250	N/A				
339	605	201010CV	948488B	150	15	2250	N/A				
340	606	201010CV	948488B	150	15	2250	N/A				
341	607	201010CV	948488B	150	15	2250	N/A				
342	608	201010CV	948488B	150	15	2250	N/A				
343	609	201010CV	948488B	150	15	2250	N/A				
344	610	201010CV	948488B	150	15	2250	N/A				
345	611	201010CV	948488B	150	15	2250	N/A				
346	612	201010CV	948488B	150	15	2250	N/A				
347	613	201010CV	948488B	150	15	2250	N/A				
348	614	201010CV	948488B	150	15	2250	N/A				
349	615	201010CV	948488B	150	15	2250	N/A				
350	616	201010CV	948488B	150	15	2250	N/A				
351	617	201010CV	948488B	150	15	2250	N/A				
352	619	201010CV	948488B	150	15	2250	N/A				
353	620	201010CV	948488B	150	15	2250	N/A				
354	621	201010CV	948488B	150	15	2250	N/A				
355	622	201010CV	948488B	150	15	2250	N/A				
356	623	201010CV	948488B	150	15	2250	N/A				
357	624	201010CV	948488B	150	15	2250	N/A				
358	625	201010CV	948488B	150	15	2250	N/A				
359	626	201010CV	948488B	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100151 C#64940
360	627	201010CV	948488B	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
361	628	201010CV	948488B	150	15	2250	N/A				
362	629	201010CV	948488B	150	15	2250	N/A				
363	630	201010CV	948488B	150	15	2250	N/A				
364	631	201010CV	948488B	150	15	2250	N/A				
365	632	201010CV	948488B	150	15	2250	N/A				
366	633	201010CV	948488B	150	15	2250	N/A				
367	634	201010CV	948488B	150	15	2250	N/A				
368	635	201010CV	948488B	150	15	2250	N/A				
369	636	201010CV	948488B	150	15	2250	N/A				
370	637	201010CV	948488B	150	15	2250	N/A				
371	638	201010CV	948488B	150	15	2250	N/A				
372	639	201010CV	948488B	150	15	2250	N/A				
373	640	201010CV	948488B	150	15	2250	N/A				
374	641	201010CV	948488B	150	15	2250	N/A				
375	642	201010CV	948488B	150	15	2250	N/A				
376	643	201010CV	948488B	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100151 C#64941
377	644	201010CV	948488B	150	15	2250	N/A				
378	645	201010CV	948488B	150	15	2250	N/A				
379	646	201010CV	948488B	150	15	2250	N/A				
380	647	201010CV	948488B	150	15	2250	N/A				
381	648	201010CV	948488B	150	15	2250	N/A				
382	649	201010CV	948488B	150	15	2250	N/A				
383	650	201010CV	948488B	150	15	2250	N/A				
384	651	201010CV	948480A	150	15	2250	N/A				

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
385	652	201010CV	948480A	150	15	2250	N/A				
386	653	201010CV	948480A	150	15	2250	N/A				
387	654	201010CV	948480A	150	15	2250	N/A				
388	655	201010CV	948480A	150	15	2250	N/A				
389	656	201010CV	948480A	150	15	2250	N/A				
390	657	201010CV	948480A	150	15	2250	N/A				
391	658	201010CV	948480A	150	15	2250	N/A				
392	659	201010CV	948480A	150	15	2250	N/A				
393	660	201010CV	948480A	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100151 C#64942
394	661	201010CV	948480A	150	15	2250	N/A				
395	662	201010CV	948480A	150	15	2250	N/A				
396	663	201010CV	948480A	150	15	2250	N/A				
397	664	201010CV	948480A	150	15	2250	N/A				
398	665	201010CV	948480A	150	15	2250	N/A				
399	666	201010CV	948480A	150	15	2250	N/A				
400	667	201010CV	948480A	150	15	2250	N/A				
401	668	201010CV	948480A	150	15	2250	N/A				
402	669	201010CV	948480A	150	15	2250	N/A				
403	670	201010CV	948480A	150	15	2250	N/A				
404	671	201010CV	948480A	150	15	2250	N/A				
405	673	201010CV	948480A	150	15	2250	N/A				
406	674	201010CV	948480A	150	15	2250	N/A				
407	675	201010CV	948480A	150	15	2250	N/A				
408	676	201010CV	948480A	150	15	2250	N/A				

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MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
409	677	201010CV	948480A	150	15	2250	N/A	RM	3/8/2010	3/10/2010	G100151 C#64943
410	678	201010CV	948480A	150	15	2250	N/A				
411	679	201010CV	948480A	150	15	2250	N/A				
412	680	201010CV	948480A	150	15	2250	N/A				
413	681	201010CV	948480A	150	15	2250	N/A				
414	682	201010CV	948480A	150	15	2250	N/A				
415	683	201010CV	948480A	150	15	2250	N/A				
416	684	201010CV	948480A	150	15	2250	N/A				
417	685	201010CV	948480A	150	15	2250	N/A				
418	686	201010CV	948480A	150	15	2250	N/A				
419	687	201010CV	948480A	150	15	2250	N/A				
420	688	201011CV	948480A	150	15	2250	N/A				
421	726	201011CV	948479B	150	15	2250	N/A	PGL	4/22/2010	4/28/2010	G100399 C#65975
422	727	201011CV	948479B	150	15	2250	N/A				
423	728	201011CV	948479B	150	15	2250	N/A				
424	729	201011CV	948479B	150	15	2250	N/A				
425	730	201011CV	948479B	150	15	2250	N/A				
426	731	201011CV	948479B	150	15	2250	N/A				
427	732	201011CV	948477A	150	15	2250	N/A				
428	733	201011CV	948477A	150	15	2250	N/A				
429	735	201011CV	948477A	150	15	2250	N/A				
430	736	201011CV	948477A	150	15	2250	N/A	PGL	4/22/2010	4/28/2010	G100399 C#65976
431	737	201011CV	948477A	150	15	2250	N/A				
432	738	201011CV	948477A	150	15	2250	N/A				

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Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: Bentomat ST GCL **SAMPLING FREQUENCY:** 1/40,000 sq.ft.

Manufacturer: CETCO

Location: GA

No.	Roll #	GCL Lot #	Clay Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
433	739	201011CV	948477A	150	15	2250	N/A				
434	740	201011CV	948477A	150	15	2250	N/A				
435	741	201011CV	948477A	150	15	2250	N/A				
436	742	201011CV	948477A	150	15	2250	N/A				
437	743	201011CV	948477A	150	15	2250	N/A				
					Sub Total ft^2 =	982,500					
438	2042	201019CV	958068A	150	15	2250	N/A			6/2/2010	Sent by CETCO
439	2043	201019CV	958068A	150	15	2250	N/A				
440	2045	201019CV	958068A	150	15	2250	N/A				
441	2047	201019CV	958068A	150	15	2250	N/A				
					Sub Total ft^2 =	9,000					
					TOTAL ft^2 =	991,500					

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 5, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100131)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100131)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 5, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#257 GCL L#201009CV Clay L#947750B	64867
R#274 GCL L#201009CV Clay L#947749A	64868
R#291 GCL L#201009CV Clay L#947749A	64869
R#308 GCL L#201009CV Clay L#947749A	64870

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5887	Index Flux
ASTM D5084	Hydraulic Conductivity

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0113
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#257 GCL Lot#201009CV Clay Lot#947750B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100131**
PGL Control No.: **64867**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	123	127	120	124	119	121	118	120	119	120	121	3	118	127	90
	TD	219	202	195	220	211	178	212	180	197	185	200	16	178	220	
	Apparent Elongation at Peak (percent)															
	MD	22	22	20	21	21	22	21	21	22	20	21	1	20	22	
	TD	131	115	153	145	159	115	137	136	129	150	137	15	115	159	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 23.1 %															
	Effective Consolidation Stress: 5 psi, Final MC: 109.2 %															
		1.5E-09										1.5E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m^3/ m^2/sec.$)															
	Confining Pressure: 5 psi															
		1.6E-09										1.6E-09	N/A			$1x10^{-8}$
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.2 ^0C After test: 20.4 ^0C															
		29										29	N/A			24 min.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	36	35	42	42	37						38	3	35	42	15
	TD	42	46	39	46	50						45	4	39	50	
ASTM D5993	Mass per Unit Area of the Clay ($lbs/ ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.19	1.16	1.13	1.12	1.16						1.15	0.03	1.12	1.19	0.75

Continued next page

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

ISO 9001 - 2000
CAL-LAP
ANSI-RAB
PERRY JOHNSON REGISTRARS, INC.
UKAS QUALITY MANAGEMENT

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#257 GCL Lot#201009CV Clay Lot#947750B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100131**
PGL Control No.: **64867**

		SPECIMENS														
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
METHOD	**DESCRIPTION**															
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.7° C					*Temperature after aging 20.2° C*										
		15.6										**15.6**	N/A			**18 max**

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#274 GCL Lot#201009CV Clay Lot #947749A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100131**
PGL Control No.: **64868**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 19.9 %															
	Effective Consolidation Stress: 5 psi, Final MC: 142.1 %															
		1.8E-09										1.8E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		2.2E-09										2.2E-09	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	36	32	42	42	50						40	7	32	50	15
	TD	50	50	52	48	45						49	3	45	52	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.16	1.20	1.13	1.15	1.16						1.16	0.03	1.13	1.20	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#291 GCL Lot#201009CV Clay Lot #947749A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100131**
PGL Control No.: **64869**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	41	39	40	46	37						40	3	37	46	15
	TD	48	55	56	42	38						48	8	38	56	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.13	1.11	1.16	1.16	1.12						1.13	0.02	1.11	1.16	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

ISO 9001 - 2000

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#308 GCL Lot#201009CV Clay Lot #947749A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100131**
PGL Control No.: **64870**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.2 °C After test: 20.4 °C															
		30										**30**	N/A			**24 min.**
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**36**	**41**	**35**	**44**	**50**						**41**	**6**	**35**	**50**	**15**
	TD	**56**	**48**	**48**	**50**	**50**						**50**	**3**	**48**	**56**	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.08	**1.03**	**1.16**	**1.09**	**1.17**						**1.10**	**0.06**	**1.03**	**1.17**	**0.75**
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.7° C Temperature after aging 20.2° C															
		15.8										**15.8**	N/A			**18 max**

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 5, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100132)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100132)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 5, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#325 GCL L#201009CV Clay L#947749B	64871
R#343 GCL L#201009CV Clay L#947749B	64872
R#360 GCL L#201009CV Clay L#947748A	64873
R#378 GCL L#201009CV Clay L#947748A	64874

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5887	Index Flux
ASTM D5084	Hydraulic Conductivity

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#325 GCL Lot#201009CV Clay Lot #947749B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100132**
PGL Control No.: **64871**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 20.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 134.9 %															
		1.7E-09										1.7E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		2.2E-09										2.2E-09	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	38	40	40	40	39						39	1	38	40	15
	TD	41	42	50	40	42						43	4	40	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.13	1.16	1.14	1.12	1.11						1.13	0.02	1.11	1.16	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

ISO 9001 - 2000

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#378 GCL Lot#201009CV Clay Lot #947748A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100132**
PGL Control No.: **64874**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 18.9 %															
	Effective Consolidation Stress: 5 psi, Final MC: 130.9 %															
		2.7E-09										**2.7E-09**	N/A			**$5x10^{-9}$**
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		3.4E-09										**3.4E-09**	N/A			**$1x10^{-8}$**
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**61**	**42**	**36**	**36**	**41**						**43**	**10**	**36**	**61**	**15**
	TD	**56**	**46**	**42**	**47**	**40**						**46**	**6**	**40**	**56**	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.08	**1.16**	**1.13**	**1.13**	**1.12**						**1.12**	**0.03**	**1.08**	**1.16**	**0.75**

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#343 GCL Lot#201009CV Clay Lot #947749B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100132**
PGL Control No.: **64872**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	119	122	120	118	127	123	118	124	122	124	122	3	118	127	90
	TD	200	263	202	205	211	186	213	183	194	201	206	22	183	263	
	Apparent Elongation at Peak (percent)															
	MD	21	23	23	21	22	24	22	23	22	22	22	1	21	24	
	TD	125	157	140	144	176	140	165	125	141	133	144	17	125	176	
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	46	52	42	46	46						46	4	42	52	15
	TD	46	50	48	50	50						49	2	46	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.13	1.13	1.10	1.17	1.15						1.13	0.03	1.10	1.17	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/9/2010**
Client Sample ID: **R#360 GCL Lot#201009CV Clay Lot #947748A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100132**
PGL Control No.: **64873**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21 °C After test: 20.4 °C															
		29										29	N/A			24 min.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	40	41	38	37	40						39	2	37	41	15
	TD	46	50	53	62	40						50	8	40	62	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.16	1.15	1.16	1.10	1.08						1.13	0.04	1.08	1.16	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.8 ° C Temperature after aging 20.2 ° C															
		15.0										15.0	N/A			18 max

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MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 5, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100133)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100133)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 5, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#395 GCL L#201009CV Clay L#947748A	64875
R#412 GCL L#201009CV Clay L#947748B	64876
R#430 GCL L#201009CV Clay L#947748B	64877
R#447 GCL L#201009CV Clay L#947748B	64878

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/10/2010**
Client Sample ID: **R#395 GCL Lot#201009CV Clay Lot #947748A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100133**
PGL Control No.: **64875**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4632	Peel Strength (lbs)															
Modified	*Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.*															
	Jaw faces uses rubber for padding.															
	MD	45	46	51	39	41						44	5	39	51	15
	TD	51	48	50	48	50						49	1	48	51	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.17	1.13	1.12	1.09	1.16						1.14	0.03	1.09	1.17	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/10/2010**
Client Sample ID: **R#447 GCL Lot#201009CV Clay Lot #947748B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100133**
PGL Control No.: **64878**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4632	Peel Strength (lbs)															
Modified	*Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.*															
	Jaw faces uses rubber for padding.															
	MD	40	40	38	42	43						40	2	38	43	15
	TD	51	48	51	47	45						48	2	45	51	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.13	1.13	1.15	1.16	1.17						1.15	0.02	1.13	1.17	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/10/2010**
Client Sample ID: **R#412 GCL Lot#201009CV Clay L#947748B**
Material Description: **Bentomat ST GCL**

QC'd By:
PGL Job No.: **G100133**
PGL Control No.: **64876**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.3 °C After test: 20.4 °C															
		30										**30**	N/A			**24 min.**
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**38**	**40**	**42**	**44**	**50**						**43**	**5**	**38**	**50**	**15**
	TD	**51**	**48**	**42**	**40**	**55**						**47**	**6**	**40**	**55**	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.13	**1.15**	**1.09**	**1.10**	**1.14**						**1.12**	**0.03**	**1.09**	**1.15**	**0.75**
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.7° C Temperature after aging 20.4°C															
		15.0										**15.0**	N/A			**18 max**

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#430 GCL Lot#201009CV Clay Lot #947748B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100133**
PGL Control No.: **64877**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	124	127	130	127	128	121	126	126	122	124	125	3	121	130	90
	TD	189	177	207	174	199	180	184	185	195	195	188	11	174	207	
	Apparent Elongation at Peak (percent)															
	MD	21	25	19	21	22	20	20	22	21	23	21	2	19	25	
	TD	156	138	138	122	149	125	139	149	149	164	143	13	122	164	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 19.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 126.9 %															
		8.3E-10										8.3E-10	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.1E-09										1.1E-09	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	42	39	46	56	51						47	7	39	56	15
	TD	45	50	56	42	50						49	5	42	56	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.12	1.15	1.14	1.14	1.14						1.14	0.01	1.12	1.15	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

March 19, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 5, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100134)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100134)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 5, 2010 **DATE REPORTED:** March 19, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#465 GCL L#201009CV Clay L#947752A	64879
R#482 GCL L#201009CV Clay L#947752A	64880
R#488 GCL L#201010CV Clay L#947752A	64881
R#506 GCL L#201010CV Clay L#947752B	64882

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #0.13
DATE: 03/19/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#465 GCL Lot#201009CV Clay Lot #947752A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100134**
PGL Control No.: **64879**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 17.1 %															
	Effective Consolidation Stress: 5 psi, Final MC: 111.2 %															
		1.1E-09										**1.1E-09**	N/A			**$5x10^{-9}$**
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.4E-09										**1.4E-09**	N/A			**$1x10^{-8}$**
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.3 °C After test: 20.4 °C															
		28										**28**	N/A			**24 min.**
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**51**	**48**	**50**	**48**	**47**						**49**	**2**	**47**	**51**	**15**
	TD	**50**	**51**	**40**	**45**	**42**						**46**	**5**	**40**	**51**	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.12	**1.13**	**1.14**	**1.13**	**1.13**						**1.13**	**0.01**	**1.12**	**1.14**	**0.75**
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.7° C Temperature after aging 20.4° C															
		15.2										**15.2**	N/A			**18 max**

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#482 GCL Lot#201009CV Clay Lot #947752A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100134**
PGL Control No.: **64880**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	44	50	50	52	48						49	3	44	52	15
	TD	50	50	51	46	42						48	4	42	51	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.12	1.15	1.14	1.12	1.13						1.13	0.01	1.12	1.15	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#488 GCL Lot#201010CV Clay Lot #947752A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100134**
PGL Control No.: **64881**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Peel Strength (lbs)															
Modified	*Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.*															
	Jaw faces uses rubber for padding.															
	MD	38	42	47	50	39						43	5	38	50	15
	TD	46	50	48	50	50						49	2	46	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.14	1.16	1.14	1.12	1.13						1.14	0.01	1.12	1.16	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/5/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#506 GCL Lot#201010CV Clay Lot#947752B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100134**
PGL Control No.: **64882**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	161	155	157	164	150	164	155	175	151	147	158	8	147	175	90
	TD	170	163	180	176	159	159	174	160	160	162	166	8	159	180	
	Apparent Elongation at Peak (percent)															
	MD	27	32	31	33	31	29	30	30	32	29	30	2	27	33	
	TD	211	96	198	187	203	206	225	203	118	84	173	52	84	225	
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.3 °C After test: 20.4 °C															
		29										29	N/A			24 min.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	38	36	40	42	44						40	3	36	44	15
	TD	46	50	52	48	41						47	4	41	52	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.15	1.14	1.11	1.10	1.14						1.13	0.02	1.10	1.15	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.7° C Temperature after aging 20.4° C															
		15.4										15.4	N/A			18 max

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 10, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100150)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100150)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 10, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#540 GCL L#201010CV Clay L#947752B	64935
R#557 GCL L#201010CV Clay L#948488A	64936
R#574 GCL L#201010CV Clay L#948488A	64937
R#591 GCL L#201010CV Clay L#948488A	64938

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#540 GCL Lot#201010CV Clay Lot #947752B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100150**
PGL Control No.: **64935**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 18.1 %															
	Effective Consolidation Stress: 5 psi, Final MC: 142.1 %															
		1.7E-09										1.7E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.7E-09										1.7E-09	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	41	38	42	44	46						42	3	38	46	15
	TD	45	46	50	42	46						46	3	42	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.09	1.14	1.05	1.09	1.12						1.10	0.03	1.05	1.14	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#557 GCL Lot#201010CV Clay Lot #948488A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100150**
PGL Control No.: **64936**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4632	Peel Strength (lbs)															
Modified	*Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.*															
	Jaw faces uses rubber for padding.															
	MD	38	40	40	50	47						43	5	38	50	15
	TD	46	50	47	43	44						46	3	43	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.16	1.10	1.03	1.10	1.11						1.10	0.04	1.03	1.16	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#574 GCL Lot#201010CV Clay Lot #948488A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100150**
PGL Control No.: **64937**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 19.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 129.7%															
		1.3E-09										**1.3E-09**	N/A			**$5x10^{-9}$**
ASTM D5887	Index Flux ($m.^3/ m.^2$/sec.)															
	Confining Pressure: 5 psi															
		1.6E-09										**1.6E-09**	N/A			**$1x10^{-8}$**
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.6 °C After test: 20.0 °C															
		29										**29**	N/A			**24 min.**
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**40**	**40**	**41**	**41**	**39**						**40**	**1**	**39**	**41**	**15**
	TD	**42**	**41**	**50**	**41**	**50**						**45**	**5**	**41**	**50**	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.11	**1.11**	**1.07**	**1.09**	**1.05**						**1.08**	**0.03**	**1.05**	**1.11**	**0.75**
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.6° C Temperature after aging 20.2° C															
		15.4										**15.4**	N/A			**18 max**

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#591 GCL Lot#201010CV Clay Lot #948488A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100150**
PGL Control No.: **64938**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	37	39	40	46	42						41	4	37	46	15
	TD	50	48	53	56	43						50	5	43	56	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.14	1.13	1.09	1.13	1.11						1.12	0.02	1.09	1.14	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) Bentomat ST GCL samples specified on the proceeding sheet which were received on March 10, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100151)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100151)

MATERIAL DESCRIPTION: Bentomat ST GCL

SAMPLED BY: PGL @ CETCO, GA

DATE RECEIVED: March 10, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#626 GCL L#201010CV Clay L#948488B	64940
R#643 GCL L#201010CV Clay L#948488B	64941
R#660 GCL L#201010CV Clay L#948480A	64942
R#677 GCL L#201010CV Clay L#948480A	64943

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#626 GCL Lot#201010CV Clay Lot #948488B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100151**
PGL Control No.: **64940**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	112	111	130	115	129	114	130	132	121	126	122	8	111	132	90
	TD	197	199	200	194	198	189	191	202	194	188	195	5	188	202	
	Apparent Elongation at Peak (percent)															
	MD	115	122	127	115	144	111	120	140	144	146	128	14	111	146	
	TD	142	115	136	108	130	104	110	132	149	112	124	16	104	149	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 16.8 %															
	Effective Consolidation Stress: 5 psi, Final MC: 107.9 %															
		9.1E-10										9.1E-10	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.2E-09										1.2E-09	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	39	42	46	42	50						44	4	39	50	15
	TD	53	48	50	48	50						50	2	48	53	
ASTM D5993	Mass per Unit Area of the Clay ($lbs/ ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.11	1.15	1.14	1.04	1.04						1.10	0.05	1.04	1.15	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#643 GCL Lot#201010CV Clay Lot #948488B**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100151**
PGL Control No.: **64941**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.6 ° C After test: 20.0 ° C															
		29										29	N/A			24 min.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	38	42	47	50	41						44	5	38	50	15
	TD	53	56	48	50	52						52	3	48	56	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.10	1.04	1.10	1.10	1.10						1.09	0.03	1.04	1.10	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 21.1 ° C Temperature after aging 20.2° C															
		15.2										15.2	N/A			18 max

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/19/2010**
Client Sample ID: **R#660 GCL Lot#201010CV Clay Lot #948480A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100151**
PGL Control No.: **64942**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4632	Peel Strength (lbs)															
Modified	*Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.*															
	Jaw faces uses rubber for padding.															
	MD	37	42	36	42	50						41	6	36	50	15
	TD	41	37	42	50	48						44	5	37	50	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ ft.^{2}) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.09	1.13	1.13	1.09	1.05						1.10	0.03	1.05	1.13	0.75

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#677 GCL Lot#201010CV Clay Lot #948480A**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100151**
PGL Control No.: **64943**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 18.6 %															
	Effective Consolidation Stress: 5 psi, Final MC: 134.2 %															
		1.3E-09										**1.3E-09**	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.6E-09										**1.6E-09**	N/A			$1x10^{-8}$
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 200 lbs.															
	Jaw faces uses rubber for padding.															
	MD	**36**	**41**	**42**	**43**	**50**						**42**	**5**	**36**	**50**	**15**
	TD	**46**	**50**	**52**	**52**	**46**						**49**	**3**	**46**	**52**	
ASTM D5993	Mass per Unit Area of the Clay ($lbs/ ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5^0 C for 16 hrs using thermostatically controlled oven.															
		1.09	**1.09**	**1.15**	**1.11**	**1.13**						**1.11**	**0.02**	**1.09**	**1.15**	**0.75**

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MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/30/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of two (2) Bentomat ST GCL samples.

PROJECT NAME: G100399

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: April 28, 2010 **DATE REPORTED:** April 30, 2010

SAMPLED BY: PGL at CETCO, GA

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#726 L#201011CV	65975
R#736 L#201011CV	65976

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at $22 \pm 2^{o}C$ ($71.6 \pm 3.6^{o}F$) and at $60 \pm 10\%$ relative humidity prior to test.

TEST RESULTS: The test results are summarized in Tables 1 to 2.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/28/2010**
Date Reported: **4/30/2010**
Client Sample ID: **R#726 L#201011CV**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100399**
PGL Control No.: **65975**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	114	110	120	121	119	120	122	126	130	120	120	6	110	130	90
	TD	230	220	190	188	195	196	200	203	198	198	202	13	188	230	
	Apparent Elongation at Peak (percent)															
	MD	27	20	23	30	27	31	29	30	33	29	28	4	20	33	
	TD	137	127	137	102	128	133	137	134	114	120	127	12	102	137	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 21.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 134.2 %															
		1.4E-09										1.4E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.7E-09										1.7E-09	N/A			$1x10^{-8}$
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.8 °C After test: 20.0 °C															
		28										28	N/A			24 minimum
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	41	44	39	43	44						42	2	39	44	15
	TD	46	50	51	49	49						49	2	46	51	
ASTM D5993	Mass per Unit Area of the Clay (lbs/ $ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.05	1.05	1.03	1.01	1.05						1.04	0.02	1.01	1.05	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 22.0° C Temperature after aging 20.6°C															
		15.6										15.6	N/A			18 maximum

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/28/2010**
Date Reported: **4/30/2010**
Client Sample ID: **R#736 L#201011CV**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100399**
PGL Control No.: **65976**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	108	120	119	121	115	108	119	120	117	116	116	5	108	121	90
	TD	174	181	198	199	200	202	198	196	188	190	193	9	174	202	
	Apparent Elongation at Peak (percent)															
	MD	24	28	28	30	30	31	30	28	31	32	29	2	24	32	
	TD	116	127	130	127	140	135	130	127	130	127	129	6	116	140	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 22.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 126.1 %															
		1.0E-09										1.0E-09	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.3E-09										1.3E-09	N/A			$1x10^{-8}$
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 21.8 °C After test: 20.0 °C															
		29										29	N/A			24 minimum
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	36	40	42	40	40						40	2	36	42	15
	TD	46	45	44	42	42						44	2	42	46	
ASTM D5993	Mass per Unit Area of the Clay ($lbs/ ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.08	1.05	1.08	1.02	1.01						1.05	0.03	1.01	1.08	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 22.0° C Temperature after aging 20.6°C															
		15.0										15.0	N/A			18 maximum

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

Precision Geosynthetic Laboratories

ISO 9001 - 2000

Precision Geosynthetic Laboratories

Initial: OVZ #:0.13
DATE: 06/02/2010

Rajendra Vaidya
Camp Dresser & McKee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the conformance testing of one (1) Bentomat ST GCL sample.

PROJECT NAME: G100542

REFERENCE PGL JOB NO.: Pasco Landfill Construction Ash Cell 4-A

DATE RECEIVED: May 24, 2010 **DATE REPORTED:** June 2, 2010

SAMPLE SENT BY: CETCO, GA

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#2042 L#201019CV	66796

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5890	Free Swell
ASTM D5891	Fluid Loss
ASTM D4632 Modified	Peel Strength
ASTM D5993	Mass per Unit Area
ASTM D4632	Grab Tensile
ASTM D5084	Hydraulic Conductivity
ASTM D5887	Index Flux

TEST CONDITIONS: The sample was conditioned for a minimum of one hour in the laboratory at $22 \pm 2^{\circ}C$ ($71.6 \pm 3.6^{\circ}F$) and at $60 \pm 10\%$ relative humidity prior to test.

TEST RESULTS: The test results are summarized in Table 1.

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **5/24/2010**
Date Reported: **6/2/2010**
Client Sample ID: **R#2042 L#201019CV**
Material Description: **Bentomat ST GCL**

QC'd By: _____
PGL Job No.: **G100542**
PGL Control No.: **66796**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs.
ASTM D4632	Grab Tensile															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 1500 lbs.															
	Jaw faces use rubber for padding.															
	Strength at Peak (lbs)															
	MD	120	119	126	123	124	128	129	123	120	119	123	4	119	129	90
	TD	230	200	199	232	220	219	210	208	212	210	214	11	199	232	
	Apparent Elongation at Peak (percent)															
	MD	97	94	98	97	95	90	99	94	94	90	95	3	90	99	
	TD	104	97	99	104	97	94	97	94	94	97	98	4	94	104	
ASTM D5084	Hydraulic Conductivity (cm./ sec.)															
	Initial Specimen Size: 4" dia Initial Moisture Content of the GCL: 21.7 %															
	Effective Consolidation Stress: 5 psi, Final MC: 126.9 %															
		9.7E-10										9.7E-10	N/A			$5x10^{-9}$
ASTM D5887	Index Flux ($m.^3/ m.^2/sec.$)															
	Confining Pressure: 5 psi															
		1.2E-09										1.2E-09	N/A			$1x10^{-8}$
ASTM D5890	Swell Index (mL/ 2 g.)															
	Temperature of the slurry at the start of test: 22.1 °C After test: 20.7 °C															
		29										29	N/A			24 min.
ASTM D4632 Modified	Peel Strength (lbs)															
	Test was conducted as directed in ASTM D4632 in dry condition using Tensile Machine with a full scale of 100 lbs.															
	Jaw faces uses rubber for padding.															
	MD	38	42	38	43	44						41	3	38	44	15
	TD	46	49	50	43	42						46	4	42	50	
ASTM D5993	Mass per Unit Area of the Clay ($lbs/ ft.^2$) @ 0% MC															
	Specimen Size: 4" x 8" Die Cut															
	Drying Time/ Temp: 110+/- 5° C for 16 hrs using thermostatically controlled oven.															
		1.05	1.04	1.10	1.05	1.07						1.06	0.02	1.04	1.10	0.75
ASTM D5891	Fluid Loss (mL)															
	Temperature of the slurry after mixing 29.5° C Temperature after aging 25°C															
		15.6										15.6	N/A			18 max

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD-Machine Direction
TD-Transverse Direction
DC#1982 Record#263

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GSE 60MIL TEXTURED HDPE GEOMEMBRANE CONFORMANCE TEST REPORTS

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
1	108150553	8200164	520	22.5	11700	3/5/2010	PGL	3/8/2010	3/10/2010	G100146 C#64921
2	108150554	8200164	520	22.5	11700	3/5/2010				
3	108150555	8200164	520	22.5	11700	3/5/2010				
4	108150556	8200164	520	22.5	11700	3/5/2010				
5	108150557	8200164	520	22.5	11700	3/5/2010	PGL	3/8/2010	3/10/2010	G100146 C#64922
6	108150558	8200164	520	22.5	11700	3/5/2010				
7	108150559	8200164	520	22.5	11700	3/6/2010				
8	108150560	8200164	520	22.5	11700	3/6/2010				
9	108150561	8200164	520	22.5	11700	3/6/2010	PGL	3/8/2010	3/10/2010	G100146 C#64923
10	108150562	8200164	520	22.5	11700	3/6/2010				
11	108150563	8200164	520	22.5	11700	3/6/2010				
				Sub Total ft^2 =	**128,700**					
12	108150564	8200160	520	22.5	11700	3/6/2010				
13	108150565	8200160	520	22.5	11700	3/6/2010	PGL	3/8/2010	3/10/2010	G100146 C#64924
14	108150566	8200160	520	22.5	11700	3/6/2010				
15	108150567	8200160	520	22.5	11700	3/6/2010				
16	108150568	8200160	520	22.5	11700	3/6/2010				
17	108150569	8200160	520	22.5	11700	3/6/2010	PGL	3/8/2010	3/10/2010	G100146 C#64925

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
18	108150570	8200160	520	22.5	11700	3/6/2010				
19	108150571	8200160	520	22.5	11700	3/6/2010				
20	108150572	8200160	520	22.5	11700	3/6/2010				
21	108150573	8200160	520	22.5	11700	3/6/2010	PGL	3/8/2010	3/10/2010	G100147 C#64926
22	108150574	8200160	520	22.5	11700	3/6/2010				
23	108150575	8200160	520	22.5	11700	3/7/2010				
24	108150576	8200160	520	22.5	11700	3/7/2010				
25	108150577	8200160	520	22.5	11700	3/7/2010	PGL	3/8/2010	3/10/2010	G100147 C#64927
26	108150578	8200160	520	22.5	11700	3/7/2010				
27	108150579	8200160	520	22.5	11700	3/7/2010				
28	108150580	8200160	520	22.5	11700	3/7/2010				
29	108150581	8200160	520	22.5	11700	3/7/2010	PGL	3/8/2010	3/10/2010	G100147 C#64928
30	108150582	8200160	520	22.5	11700	3/7/2010				
31	108150583	8200160	520	22.5	11700	3/7/2010				
32	108150584	8200160	520	22.5	11700	3/7/2010				
33	108150585	8200160	520	22.5	11700	3/7/2010	PGL	3/8/2010	3/10/2010	G100147 C#64929
34	108150586	8200160	520	22.5	11700	3/7/2010				
35	108150587	8200160	520	22.5	11700	3/7/2010				
36	108150588	8200160	520	22.5	11700	3/7/2010				
37	108150589	8200160	520	22.5	11700	3/7/2010	PGL	3/8/2010	3/10/2010	G100147 C#64930
38	108150590	8200160	520	22.5	11700	3/7/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
39	108150591	8200160	520	22.5	11700	3/7/2010				
40	108150592	8200160	520	22.5	11700	3/8/2010				
				Sub Total ft^2 =	339,300					
41	108150601	8200159	520	22.5	11700	3/8/2010	PGL	3/9/2010	3/11/2010	G100155 C#64959
42	108150602	8200159	520	22.5	11700	3/8/2010				
43	108150603	8200159	520	22.5	11700	3/8/2010				
44	108150604	8200159	520	22.5	11700	3/8/2010				
45	108150605	8200159	520	22.5	11700	3/8/2010	PGL	3/9/2010	3/11/2010	G100155 C#64960
46	108150606	8200159	520	22.5	11700	3/8/2010				
47	108150607	8200159	520	22.5	11700	3/8/2010				
48	108150608	8200159	520	22.5	11700	3/8/2010				
				Sub Total ft^2 =	93,600					
49	108150731	8200169	520	22.5	11700	3/16/2010	PGL	3/17/2010	3/19/2010	G100190 C#65071
50	108150732	8200169	520	22.5	11700	3/16/2010				
51	108150733	8200169	520	22.5	11700	3/16/2010				
52	108150734	8200169	520	22.5	11700	3/16/2010				
53	108150735	8200169	520	22.5	11700	3/16/2010	PGL	3/17/2010	3/19/2010	G100190 C#65072
54	108150736	8200169	520	22.5	11700	3/16/2010				
55	108150737	8200169	520	22.5	11700	3/16/2010				
56	108150738	8200169	520	22.5	11700	3/16/2010				
57	108150739	8200169	520	22.5	11700	3/16/2010	PGL	3/17/2010	3/19/2010	G100190 C#65073

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
58	108150740	8200169	520	22.5	11700	3/16/2010				
59	108150741	8200169	520	22.5	11700	3/16/2010				
60	108150742	8200169	520	22.5	11700	3/16/2010				
61	108150743	8200169	520	22.5	11700	3/16/2010	PGL	3/17/2010	3/19/2010	G100190 C#65074
62	108150744	8200169	520	22.5	11700	3/16/2010				
				Sub Total ft^2 =	163,800					
63	108150745	10B1201	520	22.5	11700	3/16/2010				
64	108150746	10B1201	520	22.5	11700	3/16/2010				
65	108150747	10B1201	520	22.5	11700	3/16/2010	PGL	3/17/2010	3/19/2010	G100190 C#65075
66	108150748	10B1201	520	22.5	11700	3/17/2010				
67	108150749	10B1201	520	22.5	11700	3/17/2010				
68	108150750	10B1201	520	22.5	11700	3/17/2010				
69	108150751	10B1201	520	22.5	11700	3/17/2010	PGL	3/18/2010	3/22/2010	G100196 C#65105
70	108150752	10B1201	520	22.5	11700	3/17/2010				
71	108150753	10B1201	520	22.5	11700	3/17/2010				
72	108150754	10B1201	520	22.5	11700	3/17/2010				
73	108150755	10B1201	520	22.5	11700	3/17/2010	PGL	3/18/2010	3/22/2010	G100196 C#65106
74	108150756	10B1201	520	22.5	11700	3/17/2010				
75	108150757	10B1201	520	22.5	11700	3/17/2010				
76	108150758	10B1201	520	22.5	11700	3/17/2010				
77	108150759	10B1201	520	22.5	11700	3/17/2010	PGL	3/18/2010	3/22/2010	G100196 C#65107

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
78	108150760	10B1201	520	22.5	11700	3/17/2010				
79	108150761	10B1201	520	22.5	11700	3/17/2010				
80	108150762	10B1201	520	22.5	11700	3/17/2010				
81	108150763	10B1201	520	22.5	11700	3/17/2010	PGL	3/18/2010	3/22/2010	G100196 C#65108
82	108150764	10B1201	520	22.5	11700	3/17/2010				
83	108150765	10B1201	460	22.5	10350	3/17/2010				
84	108150766	10B1201	520	22.5	11700	3/18/2010				
85	108150767	10B1201	520	22.5	11700	3/18/2010	PGL	3/19/2010	3/23/2010	G100199 C#65120
86	108150768	10B1201	520	22.5	11700	3/18/2010				
87	108150769	10B1201	520	22.5	11700	3/18/2010				
88	108150770	10B1201	520	22.5	11700	3/18/2010				
89	108150771	10B1201	520	22.5	11700	3/18/2010	PGL	3/19/2010	3/23/2010	G100199 C#65121
				Sub Total ft^2 =	**314,550**					
90	108150772	10B1200	520	22.5	11700	3/18/2010				
91	108150773	10B1200	520	22.5	11700	3/18/2010				
92	108150774	10B1200	520	22.5	11700	3/18/2010				
93	108150775	10B1200	520	22.5	11700	3/18/2010	PGL	3/19/2010	3/23/2010	G100199 C#65122
				Sub Total ft^2 =	**46,800**					
94	108150940	10C1034	520	22.5	11700	3/28/2010	PGL	3/29/2010	3/31/2010	G100226 C#65229
95	108150941	10C1034	520	22.5	11700	3/28/2010				
96	108150942	10C1034	520	22.5	11700	3/29/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
97	108150943	10C1034	520	22.5	11700	3/29/2010				
98	108150944	10C1034	520	22.5	11700	3/29/2010	PGL	3/29/2010	3/31/2010	G100226 C#65230
99	108150945	10C1034	520	22.5	11700	3/29/2010				
100	108150946	10C1034	520	22.5	11700	3/29/2010				
101	108150947	10C1034	520	22.5	11700	3/29/2010				
102	108150948	10C1034	520	22.5	11700	3/29/2010	PGL	3/30/2010	4/1/2010	G100231 C#65243
103	108150949	10C1034	520	22.5	11700	3/29/2010				
104	108150950	10C1034	520	22.5	11700	3/29/2010				
105	108150951	10C1034	520	22.5	11700	3/29/2010				
106	108150952	10C1034	520	22.5	11700	3/29/2010	PGL	3/30/2010	4/1/2010	G100231 C#65244
				Sub Total ft^2 =	**152,100**					
107	108150953	10C1148	520	22.5	11700	3/29/2010				
108	108150954	10C1148	520	22.5	11700	3/29/2010				
109	108150955	10C1148	520	22.5	11700	3/29/2010				
110	108150956	10C1148	520	22.5	11700	3/29/2010	PGL	3/30/2010	4/1/2010	G100231 C#65245
111	108150957	10C1148	520	22.5	11700	3/29/2010				
112	108150958	10C1148	520	22.5	11700	3/29/2010				
113	108150959	10C1148	520	22.5	11700	3/30/2010				
114	108150960	10C1148	520	22.5	11700	3/30/2010	PGL	3/30/2010	4/1/2010	G100231 C#65246
115	108150961	10C1148	520	22.5	11700	3/30/2010				
116	108150962	10C1148	520	22.5	11700	3/30/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
117	108150963	10C1148	520	22.5	11700	3/30/2010				
118	108150964	10C1148	520	22.5	11700	3/30/2010	PGL	3/31/2010	4/2/2010	G100235 C#65251
				Sub Total ft^2 =	140,400					
119	108150965	10C1151	520	22.5	11700	3/30/2010				
120	108150966	10C1151	520	22.5	11700	3/30/2010				
121	108150967	10C1151	520	22.5	11700	3/30/2010				
122	108150968	10C1151	520	22.5	11700	3/30/2010	PGL	3/31/2010	4/2/2010	G100235 C#65252
123	108150969	10C1151	520	22.5	11700	3/30/2010				
124	108150970	10C1151	520	22.5	11700	3/30/2010				
125	108150971	10C1151	520	22.5	11700	3/30/2010				
126	108150972	10C1151	520	22.5	11700	3/30/2010	PGL	3/31/2010	4/2/2010	G100235 C#65253
127	108150973	10C1151	520	22.5	11700	3/30/2010				
128	108150974	10C1151	520	22.5	11700	3/30/2010				
129	108150975	10C1151	520	22.5	11700	3/31/2010				
130	108150976	10C1151	520	22.5	11700	3/31/2010	PGL	3/31/2010	4/2/2010	G100235 C#65254
131	108150977	10C1151	520	22.5	11700	3/31/2010				
132	108150978	10C1151	520	22.5	11700	3/31/2010				
133	108150979	10C1151	520	22.5	11700	3/31/2010				
134	108150980	10C1151	520	22.5	11700	3/31/2010	PGL	4/1/2010	4/5/2010	G100238 C#65266
135	108150981	10C1151	520	22.5	11700	3/31/2010				
136	108150982	10C1151	520	22.5	11700	3/31/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
137	108150983	10C1151	520	22.5	11700	3/31/2010				
138	108150984	10C1151	520	22.5	11700	3/31/2010	PGL	4/1/2010	4/5/2010	G100238 C#65267
139	108150985	10C1151	520	22.5	11700	3/31/2010				
140	108150986	10C1151	520	22.5	11700	3/31/2010				
141	108150987	10C1151	520	22.5	11700	3/31/2010				
142	108150988	10C1151	520	22.5	11700	3/31/2010	PGL	4/1/2010	4/5/2010	G100238 C#65268
143	108150989	10C1151	520	22.5	11700	3/31/2010				
144	108150990	10C1151	520	22.5	11700	3/31/2010				
145	108150991	10C1151	520	22.5	11700	3/31/2010				
146	108150992	10C1151	520	22.5	11700	4/1/2010	PGL	4/1/2010	4/5/2010	G100238 C#65269
147	108150993	10C1151	520	22.5	11700	4/1/2010				
148	108150994	10C1151	520	22.5	11700	4/1/2010				
149	108150995	10C1151	520	22.5	11700	4/1/2010				
				Sub Total ft^2 =	**362,700**					
150	108150996	10C1149	520	22.5	11700	4/1/2010	PGL	4/5/2010	4/7/2010	G100257 C#65346
				Sub Total ft^2 =	**11,700**					
151	108151017	10C1214	520	22.5	11700	4/2/2010				
152	108151018	10C1214	520	22.5	11700	4/2/2010				
153	108151019	10C1214	520	22.5	11700	4/2/2010				
154	108151020	10C1214	520	22.5	11700	4/2/2010	PGL	4/5/2010	4/7/2010	G100257 C#65347
155	108151021	10C1214	520	22.5	11700	4/2/2010				

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

MANUFACTURING QA IN-PLANT SAMPLING/INSPECTION REPORT

Project Name: Pasco Lf Construction Ash Cell A-4 **TYPE OF MQA:** LEVEL (2) **QA by:**

Material: 60mil HDPE Textured Geomembrane **SAMPLING FREQUENCY:** 1/50,000 sq.ft. or 1/lot (whichever is greater)

Manufacturer: GSE

Location: TX

No.	Roll #	Lot #	Length (ft.)	Width (ft.)	Area (ft^2)	Date Manufactured	Sampled by	Date Sampled	Date Received	Reference Job No/ Control No
156	108151022	10C1214	520	22.5	11700	4/2/2010				
157	108151023	10C1214	520	22.5	11700	4/2/2010				
158	108151024	10C1214	520	22.5	11700	4/3/2010	PGL	4/5/2010	4/7/2010	G100257 C#65348
159	108151025	10C1214	520	22.5	11700	4/3/2010				
160	108151026	10C1214	520	22.5	11700	4/3/2010				
161	108151027	10C1214	520	22.5	11700	4/3/2010				
162	108151028	10C1214	520	22.5	11700	4/3/2010	PGL	4/5/2010	4/7/2010	G100257 C#65349
163	108151029	10C1214	520	22.5	11700	4/3/2010				
164	108151030	10C1214	520	22.5	11700	4/3/2010				
165	108151031	10C1214	520	22.5	11700	4/3/2010				
166	108151032	10C1214	520	22.5	11700	4/3/2010	PGL	4/5/2010	4/7/2010	G100257 C#65350
167	108151033	10C1214	520	22.5	11700	4/3/2010				
168	108151034	10C1214	520	22.5	11700	4/3/2010				
169	108151035	10C1214	520	22.5	11700	4/3/2010				
				Sub Total ft^2 =	**222,300**					
				Total ft^2 =	**1,975,950**					

Precision Geosynthetic Laboratories 1160 North Gilbert Street, Anaheim, CA 92801

Precision Geosynthetic Laboratories

March 12, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of five (5) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 10, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100146)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100146)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 10, 2010 **DATE REPORTED:** March 12, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150553 L#8200164	64921
R#108150557 L#8200164	64922
R#108150561 L#8200164	64923
R#108150565 L#8200160	64924
R#108150569 L#8200160	64925

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 5.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/12/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150553 L#8200164**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100146**
PGL Control No.: **64921**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	65	62	63	64	64	62	63	66	63	63	1	61	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9469	0.9469	0.9469								0.9469	0.0000	0.9469	0.9469	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and*															
	50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	199	199	198	196	192						197	3	192	199	126
	TD	195	209	196	196	199						199	6	195	209	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	213	232	180	214	220						212	19	180	232	90
	TD	198	214	192	214	220						208	12	192	220	
	Elongation at Yield (percent, %)															
	MD	18	18	16	18	19						18	1	16	19	12
	TD	17	17	17	17	17						17	0	17	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	443	475	362	444	491						443	50	362	491	100
	TD	424	478	419	501	549						474	54	419	549	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	61	61	63	62	58	58	58	58	60	62	60	2	58	63	42
	TD	64	61	62	62	60	62	60	63	62	61	62	1	60	64	
ASTM D1603	Carbon Black Content (percent, %)															
		2.39	2.40									2.39	0.01	2.39	2.40	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

ISO 9001 - 2000
GAI-LAP ANSI-RAB PERRY JOHNSON REGISTRARS, INC UKAS QUALITY MANAGEMENT

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150557 L#8200164**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100146**
PGL Control No.: **64922**

		SPECIMENS														
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															
		62	60	65	65	65	61	62	61	63	64	63	2	60	65	60 nominal 54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	195	194	202	192	195						196	4	192	202	126
	TD	200	214	209	199	192						203	9	192	214	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	228	233	183	199	216						212	21	183	233	90
	TD	188	196	208	210	216						204	11	188	216	
	Elongation at Yield (percent, %)															
	MD	18	18	18	18	19						18	0	18	19	12
	TD	15	16	16	16	16						16	0	15	16	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	490	508	408	469	484						472	38	408	508	100
	TD	440	490	451	501	551						486	44	440	551	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	58	58	60	63	60	63	62	58	58	58	60	2	58	63	42
	TD	58	60	62	62	58	58	59	60	62	58	60	2	58	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.41									2.43	0.03	2.41	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

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TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

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ANSI-RAB
PERRY JOHNSON REGISTRARS, INC
UKAS

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150561 L#8200164**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100146**
PGL Control No.: **64923**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															**Min. Ave.**
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															**60 nominal**
		64	60	61	61	62	63	61	62	62	61	62	1	60	64	**54 min.**
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9474	0.9474	0.9474								0.9474	0.0000	0.9474	0.9474	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	204	209	211	208	199						206	5	199	211	126
	TD	199	213	214	210	200						207	7	199	214	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	240	240	217	224	208						226	14	208	240	90
	TD	198	230	199	232	236						219	19	198	236	
	Elongation at Yield (percent, %)															
	MD	17	18	17	18	18						18	1	17	18	12
	TD	15	16	17	17	17						16	1	15	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	497	493	434	551	491						493	41	434	551	100
	TD	438	496	401	506	551						478	59	401	551	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	57	58	57	60	61	60	58	58	60	57	59	1	57	61	42
	TD	58	57	60	61	62	62	60	62	62	60	60	2	57	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.31	2.32									2.31	0.00	2.31	2.32	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150565 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100146**
PGL Control No.: **64924**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	61	62	63	61	63	65	61	61	61	62	1	61	65	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9478	0.9478	0.9478								0.9478	0.0000	0.9478	0.9478	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	198	202	199	205	205						202	3	198	205	126
	TD	210	204	211	192	191						202	10	191	211	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	230	196	232	220	219						219	14	196	232	90
	TD	184	216	191	196	208						199	13	184	216	
	Elongation at Yield (percent, %)															
	MD	18	17	17	19	19						18	1	17	19	12
	TD	17	16	17	17	17						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	482	430	481	466	444						460	23	430	482	100
	TD	394	470	417	449	530						452	53	394	530	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	55	56	54	62	60	62	58	58	60	60	58	3	54	62	42
	TD	62	64	61	60	58	55	57	59	60	58	59	3	55	64	
ASTM D1603	Carbon Black Content (percent, %)															
		2.48	2.46									2.47	0.01	2.46	2.48	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

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TABLE 5.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150569 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100146**
PGL Control No.: **64925**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	60	64	62	61	62	61	61	62	61	62	1	60	64	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9482	0.9482	0.9482								0.9482	0.0000	0.9482	0.9482	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	198	198	196	200	182						195	7	182	200	126
	TD	211	199	202	201	202						203	5	199	211	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	234	229	218	232	230						228	6	218	234	90
	TD	227	220	233	222	188						218	18	188	233	
	Elongation at Yield (percent, %)															
	MD	19	17	17	17	18						18	1	17	19	12
	TD	17	17	16	16	16						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	510	492	450	512	499						493	25	450	512	100
	TD	484	500	538	508	425						491	42	425	538	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	54	60	62	58	61	58	59	60	56	56	58	2	54	62	42
	TD	58	58	58	60	61	60	58	58	58	55	58	2	55	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.47	2.48									2.48	0.00	2.47	2.48	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC UKAS

Precision Geosynthetic Laboratories

March 12, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of five (5) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 10, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100147)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100147)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 10, 2010 **DATE REPORTED:** March 12, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150573 L#8200160	64926
R#108150577 L#8200160	64927
R#108150581 L#8200160	64928
R#108150585 L#8200160	64929
R#108150589 L#8200160	64930

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 5.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0-13
DATE: 03/12/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150573 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100147**
PGL Control No.: **64926**

		SPECIMENS														
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	62	62	62	61	62	61	62	61	1	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9482	0.9482	0.9482								0.9482	0.0000	0.9482	0.9482	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	174	183	191	186	182						183	6	174	191	126
	TD	180	182	182	190	184						183	4	180	190	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	200	195	196	195	208						199	6	195	208	90
	TD	204	212	164	204	200						197	19	164	212	
	Elongation at Yield (percent, %)															
	MD	19	19	18	19	18						19	0	18	19	12
	TD	19	18	17	18	18						18	1	17	19	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	505	406	430	425	530						459	55	406	530	100
	TD	456	502	397	530	506						478	53	397	530	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	62	62	60	58	56	58	60	61	62	62	60	2	56	62	42
	TD	64	62	62	60	61	56	59	59	60	56	60	2	56	64	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.47									2.46	0.01	2.46	2.47	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

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GAI-LAP ANSI-RAB PERRY JOHNSON REGISTRARS, INC UKAS

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150577 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100147**
PGL Control No.: **64927**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	62	61	62	62	61	62	62	61	62	1	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	173	180	180	184	184						180	5	173	184	126
	TD	188	183	192	184	183						186	4	183	192	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	207	212	218	199	227						212	10	199	227	90
	TD	208	212	187	185	199						198	12	185	212	
	Elongation at Yield (percent, %)															
	MD	19	18	18	19	18						18	0	18	19	12
	TD	17	16	16	16	16						16	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	476	430	451	430	530						463	42	430	530	100
	TD	510	551	439	430	489						484	50	430	551	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	63	60	62	55	60	60	61	62	58	58	60	2	55	63	42
	TD	58	58	59	61	62	62	63	61	56	60	60	2	56	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.34	2.37									2.35	0.02	2.34	2.37	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

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PERRY JOHNSON REGISTRARS, INC
UKAS

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150581 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100147**
PGL Control No.: **64928**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	61	63	62	61	62	61	62	62	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9469	0.9469	0.9469								0.9469	0.0000	0.9469	0.9469	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	189	189	181	179	182						184	5	179	189	126
	TD	180	184	181	188	180						183	3	180	188	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	220	204	202	183	202						202	13	183	220	90
	TD	198	200	184	200	179						192	10	179	200	
	Elongation at Yield (percent, %)															
	MD	18	18	17	18	17						18	1	17	18	12
	TD	16	16	17	17	16						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	525	430	449	428	453						457	39	428	525	100
	TD	477	471	406	486	412						450	38	406	486	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	59	62	62	60	63	58	58	60	60	62	60	2	58	63	42
	TD	60	62	58	60	61	62	62	60	62	61	61	1	58	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.43	2.40									2.41	0.02	2.40	2.43	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150585 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100147**
PGL Control No.: **64929**

		SPECIMENS														
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	63	62	64	62	61	62	63	61	62	1	61	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9474	0.9474	0.9474								0.9474	0.0000	0.9474	0.9474	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	183	178	182	176	180						180	3	176	183	126
	TD	179	182	174	184	180						180	4	174	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	208	207	213	220	209						211	5	207	220	90
	TD	206	204	206	200	199						203	3	199	206	
	Elongation at Yield (percent, %)															
	MD	18	18	18	17	18						18	0	17	18	12
	TD	17	17	16	17	16						17	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	480	462	484	530	493						490	25	462	530	100
	TD	514	494	506	489	471						495	17	471	514	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	56	58	58	58	60	56	58	59	60	58	58	1	56	60	42
	TD	60	62	58	58	60	56	58	56	58	58	58	2	56	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.48	2.46									2.47	0.01	2.46	2.48	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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TABLE 5.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/10/2010**
Date Reported: **3/12/2010**
Client Sample ID: **R#108150589 L#8200160**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100147**
PGL Control No.: **64930**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	62	61	62	61	61	61	62	61	61	62	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9482	0.9482	0.9482								0.9482	0.0000	0.9482	0.9482	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	196	213	194	197	188						197	9	188	213	126
	TD	192	184	189	184	180						186	5	180	192	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	229	226	184	216	230						217	19	184	230	90
	TD	178	188	199	200	201						193	10	178	201	
	Elongation at Yield (percent, %)															
	MD	19	18	18	19	17						18	1	17	19	12
	TD	17	17	17	17	17						17	0	17	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	467	467	414	450	475						455	24	414	475	100
	TD	399	410	451	530	555						469	70	399	555	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	60	60	58	56	59	58	57	56	61	60	58	2	56	61	42
	TD	62	58	58	58	56	58	60	58	58	61	58	2	56	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.38	2.38									2.38	0.00	2.38	2.38	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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Precision Geosynthetic Laboratories

March 15, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of two (2) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 11, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100155)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100155)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 11, 2010 **DATE REPORTED:** March 15, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150601 L#8200159	64959
R#108150605 L#8200159	64960

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 and 2.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/15/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/11/2010**
Date Reported: **3/15/2010**
Client Sample ID: **R#108150601 L#8200159**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100155**
PGL Control No.: **64959**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		65	65	64	64	64	64	64	62	64	65	64	1	62	65	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	198	190	184	189	192						191	5	184	198	126
	TD	188	196	191	190	196						192	3	188	196	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	232	199	188	221	208						210	17	188	232	90
	TD	210	192	198	203	196						200	7	192	210	
	Elongation at Yield (percent, %)															
	MD	18	16	18	18	19						18	1	16	19	12
	TD	17	16	17	17	16						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	488	449	401	493	432						453	39	401	493	100
	TD	468	452	456	469	430						455	16	430	469	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	62	60	61	60	60	56	57	61	59	58	59	2	56	62	42
	TD	58	57	58	57	59	58	58	58	55	55	57	1	55	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.50	2.46									2.48	0.03	2.46	2.50	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/11/2010**
Date Reported: **3/15/2010**
Client Sample ID: **R#108150605 L#8200159**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100155**
PGL Control No.: **64960**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	63	64	65	64	64	66	64	65	65	64	1	63	66	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	195	187	195	188	186						190	5	186	195	126
	TD	192	200	194	182	196						193	7	182	200	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	206	199	230	211	235						216	15	199	235	90
	TD	192	184	197	185	208						193	10	184	208	
	Elongation at Yield (percent, %)															
	MD	17	18	18	17	19						18	1	17	19	12
	TD	16	18	17	16	18						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	442	427	491	462	521						468	38	427	521	100
	TD	430	365	465	416	534						442	63	365	534	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	57	58	60	59	57	57	61	62	57	59	2	57	62	42
	TD	56	55	57	56	63	56	57	57	56	57	57	2	55	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.50	2.50									2.50	0.00	2.50	2.50	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

March 23, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of five (5) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 19, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100190)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100190)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 19, 2010 **DATE REPORTED:** March 23, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150731 L#8200169	65071
R#108150735 L#8200169	65072
R#108150739 L#8200169	65073
R#108150743 L#8200169	65074
R#108150747 L#10B1201	65075

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 5.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/23/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/19/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#108150731 L#8200169**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100190**
PGL Control No.: **65071**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz) Loading Time: 5 sec Specimen Size: 4" x 4"														60 nominal
		62	61	61	61	61	62	61	61	61	61	61	0	61	62	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9490	0.9490	0.9490								0.9490	0.0000	0.9490	0.9490	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	202	208	207	206	200						205	3	200	208	126
	TD	210	208	216	210	214						211	3	208	216	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	195	192	200	222	226						207	16	192	226	90
	TD	192	216	237	204	195						209	18	192	237	
	Elongation at Yield (percent, %)															
	MD	17	16	18	16	16						17	1	16	18	12
	TD	16	16	17	16	16						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	327	356	417	477	466						409	66	327	477	100
	TD	406	413	539	423	416						439	56	406	539	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	62	60	60	62	58	60	59	61	58	62	60	2	58	62	42
	TD	58	58	60	57	58	56	60	58	62	59	59	2	56	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.44									2.44	0.00	2.44	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

ISO 9001 - 2000
CAI-LAP
ANSI-RAB
PERRY JOHNSON REGISTRARS, INC
UKAS

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/19/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#108150735 L#8200169**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100190**
PGL Control No.: **65072**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	62	61	61	61	61	61	62	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	209	210	205	207	212						209	3	205	212	126
	TD	212	216	210	214	215						213	2	210	216	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	188	218	224	230	239						220	19	188	239	90
	TD	216	226	223	228	200						219	11	200	228	
	Elongation at Yield (percent, %)															
	MD	18	18	18	17	16						17	1	16	18	12
	TD	16	17	17	17	16						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	385	439	449	496	530						460	56	385	530	100
	TD	436	508	453	551	419						473	55	419	551	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	63	65	64	63	57	60	63	59	61	58	61	3	57	65	42
	TD	58	56	57	59	58	59	60	61	57	60	58	2	56	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.44									2.44	0.00	2.44	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 160-A

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/19/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#108150739 L#8200169**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100190**
PGL Control No.: **65073**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	61	62	61	61	61	61	61	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	205	206	209	200	203						205	3	200	209	126
	TD	215	203	210	204	200						206	6	200	215	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	208	216	239	231	217						222	12	208	239	90
	TD	192	206	199	212	216						205	10	192	216	
	Elongation at Yield (percent, %)															
	MD	17	17	17	18	16						17	1	16	18	12
	TD	18	17	18	17	17						17	0	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	393	425	503	507	434						452	50	393	507	100
	TD	446	475	416	531	551						484	56	416	551	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	59	58	59	61	62	64	60	59	60	64	61	2	58	64	42
	TD	59	59	59	61	59	59	61	60	59	56	59	1	56	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.44									2.45	0.01	2.44	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP ANSI-RAB PERRY JOHNSON REGISTRARS, INC UKAS

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/19/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#108150743 L#8200169**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100190**
PGL Control No.: **65074**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	62	61	61	62	61	61	61	61	61	61	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9478	0.9478	0.9478								0.9478	0.0000	0.9478	0.9478	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	206	193	197	199	196						198	5	193	206	126
	TD	200	197	206	197	204						201	4	197	206	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	199	207	211	215	219						210	8	199	219	90
	TD	192	193	199	195	200						196	4	192	200	
	Elongation at Yield (percent, %)															
	MD	18	17	18	18	18						18	0	17	18	12
	TD	16	16	18	17	16						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	426	453	446	472	435						447	18	426	472	100
	TD	451	411	443	397	451						431	25	397	451	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	60	57	62	61	63	67	63	62	59	60	61	3	57	67	42
	TD	61	59	56	58	62	54	59	57	63	59	59	3	54	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.44									2.45	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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ISO 9001 - 2000

TABLE 5.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/19/2010**
Date Reported: **3/23/2010**
Client Sample ID: **R#108150747 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100190**
PGL Control No.: **65075**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	61	61	61	61	63	62	62	61	62	61	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and*															
	50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	206	192	195	197	191						196	6	191	206	126
	TD	197	194	202	199	199						198	3	194	202	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	192	233	228	229	180						212	24	180	233	90
	TD	191	179	180	184	208						188	12	179	208	
	Elongation at Yield (percent, %)															
	MD	17	18	18	17	18						18	0	17	18	12
	TD	16	17	17	17	18						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	373	525	479	497	364						448	74	364	525	100
	TD	373	348	395	401	519						407	66	348	519	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	58	62	64	65	60	62	59	64	63	60	62	2	58	65	42
	TD	58	61	58	59	57	58	59	57	59	59	59	1	57	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.43	2.50									2.47	0.05	2.43	2.50	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

March 24, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 22, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100196)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100196)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 22, 2010 **DATE REPORTED:** March 24, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150751 L#10B1201	65105
R#108150755 L#10B1201	65106
R#108150759 L#10B1201	65107
R#108150763 L#10B1201	65108

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #0.13
DATE: 03/24/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/22/2010**
Date Reported: **3/24/2010**
Client Sample ID: **R#108150751 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100196**
PGL Control No.: **65105**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		65	65	64	64	64	64	64	65	64	64	64	0	64	65	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	197	208	211	204	213						207	6	197	213	126
	TD	211	215	215	206	212						212	4	206	215	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	217	199	212	227	214						214	10	199	227	90
	TD	228	212	200	192	208						208	13	192	228	
	Elongation at Yield (percent, %)															
	MD	17	19	18	18	18						18	1	17	19	12
	TD	15	17	16	16	16						16	0	15	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	463	410	439	500	444						451	33	410	500	100
	TD	509	470	439	430	452						460	31	430	509	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	57	60	60	59	57	61	60	58	63	56	59	2	56	63	42
	TD	57	55	63	58	58	59	59	56	57	59	58	2	55	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.45									2.45	0.01	2.45	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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Precision Geosynthetic Laboratories

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TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/22/2010**
Date Reported: **3/24/2010**
Client Sample ID: **R#108150755 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100196**
PGL Control No.: **65106**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		65	66	66	66	65	64	64	64	65	66	65	1	64	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9478	0.9478	0.9478								0.9478	0.0000	0.9478	0.9478	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	213	208	206	206	217						210	5	206	217	126
	TD	209	217	214	208	210						212	4	208	217	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	230	241	216	218	212						223	12	212	241	90
	TD	188	191	214	194	196						197	10	188	214	
	Elongation at Yield (percent, %)															
	MD	18	18	18	16	18						18	1	16	18	12
	TD	17	16	16	16	16						16	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	474	497	465	461	431						465	24	431	497	100
	TD	395	419	464	426	445						430	26	395	464	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	64	58	64	58	60	61	59	58	61	59	60	2	58	64	42
	TD	61	61	61	59	58	65	59	56	60	59	60	2	56	65	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.44									2.44	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 1001-A

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/22/2010**
Date Reported: **3/24/2010**
Client Sample ID: **R#108150759 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100196**
PGL Control No.: **65107**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		66	66	66	65	66	65	65	67	67	64	66	1	64	67	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	214	211	203	201	206						207	5	201	214	126
	TD	204	192	191	204	200						198	6	191	204	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	196	212	192	204	196						200	8	192	212	90
	TD	175	179	187	208	177						185	14	175	208	
	Elongation at Yield (percent, %)															
	MD	18	18	18	18	17						18	0	17	18	12
	TD	16	16	16	17	17						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	398	455	391	442	392						416	31	391	455	100
	TD	374	401	487	530	401						438	67	374	530	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	59	57	62	64	59	59	60	62	59	58	60	2	57	64	42
	TD	60	58	62	59	62	57	61	59	59	60	60	2	57	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.43	2.45									2.44	0.01	2.43	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1987 Record #268

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PERRY JOHNSON REGISTRARS, INC
UKAS QUALITY MANAGEMENT 1015-A

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/22/2010**
Date Reported: **3/24/2010**
Client Sample ID: **R#108150763 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100196**
PGL Control No.: **65108**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		65	66	66	66	64	66	62	64	64	64	65	1	62	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9478	0.9478	0.9478								0.9478	0.0000	0.9478	0.9478	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	204	201	198	199	206						202	3	198	206	126
	TD	209	203	202	192	194						200	7	192	209	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	222	216	218	206	225						217	7	206	225	90
	TD	192	188	204	200	191						195	7	188	204	
	Elongation at Yield (percent, %)															
	MD	17	18	18	18	18						18	1	17	18	12
	TD	16	16	16	16	17						16	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	443	495	462	447	500						469	27	443	500	100
	TD	430	380	491	481	416						440	46	380	491	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	59	60	59	58	60	61	55	62	58	57	59	2	55	62	42
	TD	57	59	59	57	61	57	60	61	60	57	59	2	57	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.46									2.46	0.00	2.46	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

ISO 9001 - 2000
GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 1064

Precision Geosynthetic Laboratories

March 25, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of three (3) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 23, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

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The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100199)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100199)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 23, 2010 **DATE REPORTED:** March 25, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150767 L#10B1201	65120
R#108150771 L#10B1201	65121
R#108150775 L#10B1200	65122

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 3.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 03/25/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **3/25/2010**
Client Sample ID: **R#108150767 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100199**
PGL Control No.: **65120**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		65	65	64	65	66	65	64	64	64	64	65	1	64	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9490	0.9490	0.9490								0.9490	0.0000	0.9490	0.9490	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	193	201	192	193	193						194	4	192	201	126
	TD	204	203	202	198	201						202	2	198	204	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	220	233	195	215	196						212	16	195	233	90
	TD	188	195	211	197	194						197	8	188	211	
	Elongation at Yield (percent, %)															
	MD	17	18	16	17	18						17	1	16	18	12
	TD	2	16	16	16	17						13	6	2	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	475	486	413	461	416						450	34	413	486	100
	TD	441	430	490	441	430						446	25	430	490	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	58	55	62	57	58	55	57	59	56	56	57	2	55	62	42
	TD	58	56	54	60	56	54	54	56	59	54	56	2	54	60	
ASTM D1603	Carbon Black Content (percent, %)															
		2.47	2.47									2.47	0.00	2.47	2.47	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
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DC#1987 Record #268

Precision Geosynthetic Laboratories

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GAI-LAP ANSI-RAB ACCREDITED PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 105-A

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **3/25/2010**
Client Sample ID: **R#108150771 L#10B1201**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100199**
PGL Control No.: **65121**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		64	64	64	65	64	65	64	64	65	64	64	0	64	65	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9483	0.9483	0.9483								0.9483	0.0000	0.9483	0.9483	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	188	186	191	188	183						187	3	183	191	126
	TD	194	199	192	199	199						197	3	192	199	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	224	216	214	228	216						220	6	214	228	90
	TD	199	200	191	199	200						198	4	191	200	
	Elongation at Yield (percent, %)															
	MD	18	19	18	18	19						19	0	18	19	12
	TD	17	17	17	18	17						17	0	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	501	491	460	551	492						499	33	460	551	100
	TD	449	519	434	465	491						472	34	434	519	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	56	56	61	66	57	60	57	59	58	58	59	3	56	66	42
	TD	58	61	55	58	55	60	58	59	58	59	58	2	55	61	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.44									2.44	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/23/2010**
Date Reported: **3/25/2010**
Client Sample ID: **R#108150775 L#10B1200**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100199**
PGL Control No.: **65122**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz) Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	62	64	65	63	63	66	66	64	64	64	1	62	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9471	0.9471	0.9471								0.9471	0.0000	0.9471	0.9471	0.9400
ASTM D638 Type IV Modified	Tensile Properties: *Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	183	185	186	188						185	2	183	188	126
	TD	192	199	190	184	187						190	6	184	199	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	224	212	208	224	202						214	10	202	224	90
	TD	199	200	204	200	199						201	2	199	204	
	Elongation at Yield (percent, %)															
	MD	20	19	18	19	18						19	1	18	20	12
	TD	17	17	17	16	16						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	491	430	417	501	419						452	41	417	501	100
	TD	436	541	549	419	451						479	61	419	549	
ASTM D1004 Die C	Tear Resistance (lbs) *Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	57	59	62	58	57	60	57	61	55	57	58	2	55	62	42
	TD	57	56	57	60	58	56	57	59	57	57	57	1	56	60	
ASTM D1603	Carbon Black Content (percent, %)															
		2.43	2.43									2.43	0.00	2.43	2.43	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

April 2, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of two (2) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on March 31, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100226)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100226)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: March 31, 2010 **DATE REPORTED:** April 2, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150940 L#10C1034	65229
R#108150944 L#10C1034	65230

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 and 2.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/02/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/31/2010**
Date Reported: **4/2/2010**
Client Sample ID: **R#108150940 L#10C1034**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100226**
PGL Control No.: **65229**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz) Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	62	61	61	60	60	60	60	60	60	61	1	60	63	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9490	0.9490	0.9490								0.9490	0.0000	0.9490	0.9490	0.9400
ASTM D638 Type IV Modified	Tensile Properties: *Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	183	177	179	179	182						180	3	177	183	126
	TD	178	184	183	180	184						182	3	178	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	167	168	221	191	218						193	26	167	221	90
	TD	169	175	198	202	206						190	17	169	206	
	Elongation at Yield (percent, %)															
	MD	17	18	18	18	20						18	1	17	20	12
	TD	18	17	18	18	17						18	1	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	340	396	512	429	516						439	76	340	516	100
	TD	410	399	481	507	519						463	55	399	519	
ASTM D1004 Die C	Tear Resistance (lbs) *Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	57	60	60	56	65	56	54	60	59	61	59	3	54	65	42
	TD	56	57	55	53	57	55	55	57	55	55	55	1	53	57	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.44									2.44	0.00	2.44	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **3/31/2010**
Date Reported: **4/2/2010**
Client Sample ID: **R#108150944 L#10C1034**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: 08
PGL Job No.: **G100226**
PGL Control No.: **65230**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		60	61	61	63	62	61	60	61	62	61	61	1	60	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	178	199	204	210	203						199	12	178	210	126
	TD	206	215	206	204	204						207	4	204	215	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	212	230	232	226	221						224	8	212	232	90
	TD	230	230	218	221	232						226	6	218	232	
	Elongation at Yield (percent, %)															
	MD	18	18	16	18	18						17	1	16	18	12
	TD	16	16	18	16	16						16	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	481	508	507	477	461						487	20	461	508	100
	TD	533	529	508	491	544						521	21	491	544	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	57	55	61	58	55	59	58	59	53	57	57	2	53	61	42
	TD	56	53	55	54	55	56	59	54	54	59	55	2	53	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.44									2.44	0.00	2.44	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

ISO 9001 - 2000
GAI-LAP ANSI-RAB PERRY JOHNSON REGISTRARS, INC UKAS

Precision Geosynthetic Laboratories

April 5, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on April 1, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100231)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100231)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: April 1, 2010 **DATE REPORTED:** April 5, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150948 L#10C1034	65243
R#108150952 L#10C1034	65244
R#108150956 L#10C1148	65245
R#108150960 L#10C1148	65246

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.18
DATE: 04/05/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/1/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150948 L#10C1034**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100231**
PGL Control No.: **65243**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	62	61	61	61	62	61	61	61	61	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	205	191	202	195	175						194	12	175	205	126
	TD	180	179	183	185	180						181	2	179	185	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	217	223	222	223	211						219	5	211	223	90
	TD	187	200	201	180	208						195	11	180	208	
	Elongation at Yield (percent, %)															
	MD	20	17	17	18	18						18	1	17	20	12
	TD	18	17	17	17	18						17	1	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	477	499	467	492	491						485	13	467	499	100
	TD	397	511	519	403	527						471	65	397	527	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	55	59	58	59	58	55	63	55	55	56	57	3	55	63	42
	TD	58	56	54	55	59	53	54	59	55	56	56	2	53	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.43									2.43	0.01	2.43	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

ISO 9001 - 2000
GAI-LAP ANSI-RAB PERRY JOHNSON REGISTRARS, INC. UKAS QUALITY MANAGEMENT 1654

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/1/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150952 L#10C1034**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100231**
PGL Control No.: **65244**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	61	61	61	61	63	61	61	61	61	61	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	178	174	179	179	183						179	3	174	183	126
	TD	173	181	181	180	179						179	3	173	181	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	209	225	203	216	190						209	13	190	225	90
	TD	194	201	206	210	207						204	6	194	210	
	Elongation at Yield (percent, %)															
	MD	18	19	19	19	18						19	0	18	19	12
	TD	17	16	18	16	18						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	498	564	469	529	432						498	51	432	564	100
	TD	493	514	535	514	511						513	15	493	535	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	57	55	59	59	58	62	59	56	62	59	59	2	55	62	42
	TD	55	55	55	57	55	56	55	56	55	58	56	1	55	58	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.43									2.44	0.02	2.43	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/1/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150956 L#10C1148**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100231**
PGL Control No.: **65245**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	62	61	62	61	61	61	61	61	62	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9483	0.9483	0.9483								0.9483	0.0000	0.9483	0.9483	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	187	187	189	191	192						189	3	187	192	126
	TD	180	184	181	178	175						180	4	175	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	211	199	242	239	242						227	20	199	242	90
	TD	199	200	187	199	212						200	9	187	212	
	Elongation at Yield (percent, %)															
	MD	17	17	17	18	19						18	1	17	19	12
	TD	17	17	17	18	17						17	0	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	456	431	562	568	556						514	65	431	568	100
	TD	501	551	434	515	595						519	60	434	595	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	59	57	56	59	62	61	56	57	59	57	58	2	56	62	42
	TD	55	57	58	54	55	57	52	53	55	57	55	2	52	58	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.43									2.44	0.01	2.43	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/1/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150960 L#10C1148**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100231**
PGL Control No.: **65246**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	62	63	62	62	62	62	62	62	62	1	61	63	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9490	0.9490	0.9490								0.9490	0.0000	0.9490	0.9490	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	191	187	183	186	191						188	4	183	191	126
	TD	168	172	176	183	187						177	8	168	187	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	212	216	204	195	212						208	8	195	216	90
	TD	184	191	208	216	199						200	13	184	216	
	Elongation at Yield (percent, %)															
	MD	19	18	19	19	18						19	0	18	19	12
	TD	17	18	17	17	18						17	1	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	501	531	493	430	530						497	41	430	531	100
	TD	430	444	530	589	453						489	68	430	589	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	56	56	56	59	56	57	55	57	55	56	56	1	55	59	42
	TD	56	56	56	53	59	57	56	56	56	52	56	2	52	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.45									2.45	0.00	2.45	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

April 5, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on April 2, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100235)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100235)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: April 2, 2010 **DATE REPORTED:** April 5, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150964 L#10C1148	65251
R#108150968 L#10C1151	65252
R#108150972 L#10C1151	65253
R#108150976 L#10C1151	65254

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/05/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/2/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150964 L#10C1148**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100235**
PGL Control No.: **65251**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		64	64	62	61	64	61	62	64	64	66	63	2	61	66	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	183	189	188	191	189						188	3	183	191	126
	TD	190	189	184	191	193						190	3	184	193	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	200	226	201	218	183						205	17	183	226	90
	TD	207	215	208	184	207						204	12	184	215	
	Elongation at Yield (percent, %)															
	MD	18	19	18	19	19						19	0	18	19	12
	TD	17	17	18	17	16						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	446	529	444	493	414						465	45	414	529	100
	TD	514	534	494	476	492						502	22	476	534	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	58	57	57	59	61	61	60	61	60	59	2	57	61	42
	TD	55	68	55	58	59	63	60	56	57	54	58	4	54	68	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.45									2.45	0.00	2.45	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

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MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/2/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150968 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100235**
PGL Control No.: **65252**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	61	62	62	61	61	61	62	61	1	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9474	0.9474	0.9474								0.9474	0.0000	0.9474	0.9474	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	187	196	190	187	187						190	4	187	196	126
	TD	187	183	178	190	187						185	4	178	190	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	211	219	216	224	216						217	5	211	224	90
	TD	215	191	187	206	216						203	14	187	216	
	Elongation at Yield (percent, %)															
	MD	18	18	17	19	18						18	1	17	19	12
	TD	17	16	16	17	17						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	490	473	469	510	471						483	18	469	510	100
	TD	501	430	419	490	549						478	53	419	549	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	62	58	59	59	59	59	62	61	61	60	60	1	58	62	42
	TD	53	58	58	57	60	55	57	53	54	56	56	2	53	60	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.44									2.44	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/2/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150972 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100235**
PGL Control No.: **65253**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz) Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	62	61	61	61	61	61	64	62	62	62	1	61	64	54 min.
ASTM D1505	Density (grams/ cm.^{3})															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638 Type IV Modified	Tensile Properties: *Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	183	187	188	183						185	2	183	188	126
	TD	184	180	179	186	191						184	5	179	191	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	200	204	199	212	208						205	6	199	212	90
	TD	200	212	188	187	199						197	10	187	212	
	Elongation at Yield (percent, %)															
	MD	19	18	19	17	18						18	0	17	19	12
	TD	17	17	17	17	17						17	0	17	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	449	450	369	530	530						466	67	369	530	100
	TD	503	549	469	439	480						488	41	439	549	
ASTM D1004 Die C	Tear Resistance (lbs) *Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	58	57	65	57	59	62	59	60	65	65	61	3	57	65	42
	TD	59	56	59	63	54	61	55	58	59	60	58	3	54	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.44									2.45	0.01	2.44	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/2/2010**
Date Reported: **4/5/2010**
Client Sample ID: **R#108150976 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: DB
PGL Job No.: **G100235**
PGL Control No.: **65254**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz) Loading Time: 5 sec Specimen Size: 4" x 4"															
		62	62	61	61	61	61	61	61	61	61	61	0	61	62	60 nominal 54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9486	0.9486	0.9486								0.9486	0.0000	0.9486	0.9486	0.9400
ASTM D638 Type IV Modified	Tensile Properties: *Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	183	191	188	184						186	3	183	191	126
	TD	180	176	186	191	183						183	6	176	191	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	208	206	215	200	207						207	5	200	215	90
	TD	208	215	202	195	195						203	9	195	215	
	Elongation at Yield (percent, %)															
	MD	18	19	18	19	19						18	1	18	19	12
	TD	16	17	17	17	17						17	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	481	451	530	491	510						492	30	451	530	100
	TD	530	585	510	491	489						521	40	489	585	
ASTM D1004 Die C	Tear Resistance (lbs) *Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	55	58	59	62	54	60	60	59	58	58	58	2	54	62	42
	TD	58	54	57	63	60	52	64	59	60	59	59	4	52	64	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.46									2.45	0.01	2.44	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

April 7, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of four (4) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on April 5, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100238)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100238)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: April 5, 2010 **DATE REPORTED:** April 7, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150980 L#10C1151	65266
R#108150984 L#10C1151	65267
R#108150988 L#10C1151	65268
R#108150992 L#10C1151	65269

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 4.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/7/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/5/2010**
Date Reported: **4/7/2010**
Client Sample ID: **R#108150980 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100238**
PGL Control No.: **65266**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		63	64	62	62	64	64	64	64	64	64	63	1	62	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9471	0.9471	0.9471								0.9471	0.0000	0.9471	0.9471	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	178	182	182	183						182	2	178	184	126
	TD	187	187	192	174	182						185	7	174	192	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	180	199	227	178	179						193	21	178	227	90
	TD	183	195	200	198	178						191	10	178	200	
	Elongation at Yield (percent, %)															
	MD	17	17	19	18	19						18	1	17	19	12
	TD	16	17	17	16	16						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	411	469	564	363	408						443	77	363	564	100
	TD	389	475	430	512	444						450	46	389	512	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	57	61	62	59	62	58	59	59	63	62	60	2	57	63	42
	TD	60	58	57	62	59	53	60	57	57	57	58	3	53	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.45									2.44	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

ISO 9001 - 2000

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/5/2010**
Date Reported: **4/7/2010**
Client Sample ID: **R#108150984 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100238**
PGL Control No.: **65267**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs. Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		64	62	62	61	62	62	61	64	62	61	62	1	61	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9481	0.9481	0.9481								0.9481	0.0000	0.9481	0.9481	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	181	192	181	182						184	5	181	192	126
	TD	184	184	180	186	184						184	2	180	186	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	202	204	206	209	211						206	4	202	211	90
	TD	200	199	214	226	176						203	19	176	226	
	Elongation at Yield (percent, %)															
	MD	18	18	18	18	16						18	1	16	18	12
	TD	16	16	16	17	17						16	1	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	474	491	452	516	464						480	25	452	516	100
	TD	521	501	553	552	439						513	47	439	553	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	60	58	60	55	60	60	63	62	64	57	60	3	55	64	42
	TD	58	56	61	62	55	62	59	59	58	54	59	3	54	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.44									2.45	0.01	2.44	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

ISO 9001 - 2000
GAI-LAP
ANSI-RAB
PERRY JOHNSON REGISTRARS, INC
UKAS

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/5/2010**
Date Reported: **4/7/2010**
Client Sample ID: **R#108150988 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: DB
PGL Job No.: **G100238**
PGL Control No.: **65268**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	64	62	64	62	63	62	64	64	64	63	1	62	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9478	0.9478	0.9478								0.9478	0.0000	0.9478	0.9478	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	180	175	176	184	183						180	4	175	184	126
	TD	192	191	187	187	180						188	5	180	192	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	204	212	190	199	216						204	11	190	216	90
	TD	199	184	200	188	192						193	7	184	200	
	Elongation at Yield (percent, %)															
	MD	18	18	17	18	19						18	0	17	19	12
	TD	15	17	17	17	16						16	1	15	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	494	525	420	451	551						488	53	420	551	100
	TD	551	445	549	451	489						497	51	445	551	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	59	58	58	57	63	62	57	58	55	59	2	55	63	42
	TD	56	59	59	56	57	56	57	56	55	56	57	1	55	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.44									2.44	0.01	2.44	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/5/2010**
Date Reported: **4/7/2010**
Client Sample ID: **R#108150992 L#10C1151**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100238**
PGL Control No.: **65269**

		SPECIMENS														Proj. Specs.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Min. Ave.
METHOD	**DESCRIPTION**															
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	62	63	64	63	62	62	61	64	62	1	61	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	180	179	183	184						182	2	179	184	126
	TD	183	184	180	181	176						181	3	176	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	208	199	201	216	196						204	8	196	216	90
	TD	201	204	184	199	208						199	9	184	208	
	Elongation at Yield (percent, %)															
	MD	19	21	18	18	19						19	1	18	21	12
	TD	17	16	16	17	16						16	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	530	453	501	589	451						505	58	451	589	100
	TD	530	545	419	506	590						518	63	419	590	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	55	57	58	58	56	58	61	60	57	59	58	2	55	61	42
	TD	57	56	58	60	54	57	54	60	56	56	57	2	54	60	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.46									2.46	0.00	2.46	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

MD - MACHINE DIRECTION
TD - TRANSVERSE DIRECTION
DC#1987 Record #268

Precision Geosynthetic Laboratories

April 9, 2010

Rajendra Vaidya
Camp Dresser & Mckee
1715 N. Westshore Blvd., Suite 875
Tampa, FL 33607

RE: ***Pasco Lf Construction Ash Cell A-4***

Dear Mr. Vaidya:

Thank you for consulting Precision Geosynthetic Laboratories (PGL) for your material testing needs.

Enclosed is the ***final*** laboratory report for the testing of five (5) 60mil HDPE Textured Geomembrane samples specified on the proceeding sheet which were received on April 7, 2010.

It shall be noted that the samples tested are believed to be true representatives of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. Precision Geosynthetic Laboratories neither accepts responsibility for nor makes claims to the intended final use and purpose of the material.

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims arising out of the use of this data to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself.

It is a policy of the company to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. ***Retained conformance samples are disposed of after one (1) month.*** On the other hand, should you need us to keep them at longer time, please advise us in writing.

Should you have any questions or if we may be of further service to you, please do not hesitate to contact us at telephone number: 800-522-4599.

Sincerely,

PRECISION GEOSYNTHETIC LABORATORIES

Carmelo V. Zantua
Technical/Laboratory Director

Enclosure: (Job No. G100257)

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

Precision Geosynthetic Laboratories

CLIENT: *Camp Dresser & Mckee*
PROJECT: *Pasco Lf Construction Ash Cell A-4*

VERIFICATION OF MATERIAL PROPERTIES
(PGL Job No. G100257)

MATERIAL DESCRIPTION: 60mil HDPE Textured Geomembrane

SAMPLED BY: PGL @ GSE, TX

DATE RECEIVED: April 7, 2010 **DATE REPORTED:** April 9, 2010

SAMPLE IDENTIFICATIONS:

SAMPLE ID	PGL CONTROL NUMBER
R#108150996 L#10C1149	65346
R#108151020 L#10C1214	65347
R#108151024 L#10C1214	65348
R#108151028 L#10C1214	65349
R#108151032 L#10C1214	65350

TESTS REQUIRED:

TEST METHOD	DESCRIPTION
ASTM D5994	Thickness
ASTM D1505	Density
ASTM D638 Type IV, Modified	Tensile Properties
ASTM D1603	Carbon Black Content
ASTM D1004	Tear Resistance
ASTM D5596	Carbon Black Dispersion

TEST CONDITIONS: The samples were conditioned for a minimum of one hour in the laboratory at 22 ± 2°C (71.6 ± 3.6°F) and at 60 ± 10% relative humidity prior to test.

TEST RESULTS:

The test results are summarized in Tables 1 to 5.

PRECISION GEOSYNTHETIC LABORATORIES

GAI-LAP
Initial: CVZ #:0.13
DATE: 04/09/2010

Carmelo V. Zantua
Technical/Laboratory Director

1160 North Gilbert Street, Anaheim, CA. 92801, Tel# 714-520-9631, Fax#714-520-9637

TABLE 1.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/7/2010**
Date Reported: **4/9/2010**
Client Sample ID: **R#108150996 L#10C1149**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100257**
PGL Control No.: **65346**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	62	61	61	61	64	62	61	61	62	1	61	64	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9476	0.9476	0.9476								0.9476	0.0000	0.9476	0.9476	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	182	179	188	179	180						182	4	179	188	126
	TD	177	199	231	184	180						194	22	177	231	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	179	214	202	191	188						195	14	179	214	90
	TD	199	231	204	212	199						209	13	199	231	
	Elongation at Yield (percent, %)															
	MD	17	18	17	19	18						18	1	17	19	12
	TD	16	16	18	17	18						17	1	16	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	401	483	412	452	430						436	33	401	483	100
	TD	451	551	430	451	460						468	47	430	551	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	62	55	58	61	59	60	58	59	59	59	2	55	62	42
	TD	55	59	57	62	55	57	55	56	57	59	57	2	55	62	
ASTM D1603	Carbon Black Content (percent, %)															
		2.43	2.43									2.43	0.00	2.43	2.43	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

TABLE 2.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/7/2010**
Date Reported: **4/9/2010**
Client Sample ID: **R#108151020 L#10C1214**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100257**
PGL Control No.: **65347**

		SPECIMENS														Proj.
		1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Specs.
METHOD	**DESCRIPTION**															Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	61	61	62	61	62	61	61	61	61	1	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9487	0.9487	0.9487								0.9487	0.0000	0.9487	0.9487	0.9400
ASTM D638	Tensile Properties:															
Type IV	*Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in,*															
Modified	*Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min*															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	180	178	183	184						182	3	178	184	126
	TD	172	184	180	183	184						181	5	172	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	190	199	203	208	194						199	7	190	208	90
	TD	188	199	212	207	192						200	10	188	212	
	Elongation at Yield (percent, %)															
	MD	19	18	18	18	18						18	1	18	19	12
	TD	17	17	17	18	17						17	0	17	18	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	493	530	546	551	503						525	26	493	551	100
	TD	491	501	585	545	469						518	47	469	585	
ASTM D1004	Tear Resistance (lbs)															
Die C	*Machine: Tensile machine equipped with constant rate of extension and chart recorder.*															
	MD	55	59	57	64	56	60	57	59	57	65	59	3	55	65	42
	TD	55	57	59	55	55	57	55	59	56	57	56	1	55	59	
ASTM D1603	Carbon Black Content (percent, %)															
		2.45	2.45									2.45	0.00	2.45	2.45	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

Precision Geosynthetic Laboratories

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GAI-LAP
ANSI-RAB
PERRY JOHNSON REGISTRARS, INC.
UKAS QUALITY MANAGEMENT

TABLE 3.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/7/2010**
Date Reported: **4/9/2010**
Client Sample ID: **R#108151024 L#10C1214**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100257**
PGL Control No.: **65348**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	62	62	61	61	61	61	62	62	62	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9479	0.9479	0.9479								0.9479	0.0000	0.9479	0.9479	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	176	179	180	187	183						181	4	176	187	126
	TD	180	184	187	183	184						184	2	180	187	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	199	200	199	208	194						200	5	194	208	90
	TD	196	200	192	199	215						200	9	192	215	
	Elongation at Yield (percent, %)															
	MD	19	18	17	18	19						18	1	17	19	12
	TD	18	19	18	17	17						18	1	17	19	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	501	551	530	551	489						524	28	489	551	100
	TD	460	469	439	460	510						468	26	439	510	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	56	59	60	59	58	57	60	60	58	59	1	56	60	42
	TD	57	51	55	57	58	54	55	54	52	55	55	2	51	58	
ASTM D1603	Carbon Black Content (percent, %)															
		2.46	2.45									2.45	0.01	2.45	2.46	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

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TABLE 4.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/7/2010**
Date Reported: **4/9/2010**
Client Sample ID: **R#108151028 L#10C1214**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100257**
PGL Control No.: **65349**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		62	61	62	61	62	61	61	61	62	61	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9484	0.9484	0.9484								0.9484	0.0000	0.9484	0.9484	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	180	184	176	183						182	3	176	184	126
	TD	184	182	183	178	175						181	4	175	184	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	200	199	199	208	215						204	7	199	215	90
	TD	208	188	199	199	208						200	8	188	208	
	Elongation at Yield (percent, %)															
	MD	18	19	18	17	18						18	0	17	19	12
	TD	16	16	17	17	16						16	0	16	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	500	491	493	503	551						507	25	491	551	100
	TD	551	449	469	460	501						486	41	449	551	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	59	60	60	58	63	57	61	58	57	64	60	2	57	64	42
	TD	61	58	56	56	63	62	56	58	55	53	58	3	53	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.40	2.43									2.42	0.02	2.40	2.43	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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DC#1987 Record #268

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TABLE 5.

MATERIAL PROPERTIES

CLIENT: Camp Dresser & Mckee

PROJECT: Pasco Lf Construction Ash Cell A-4

Date Received: **4/7/2010**
Date Reported: **4/9/2010**
Client Sample ID: **R#108151032 L#10C1214**
Material Description: **60mil HDPE Textured Geomembrane**

QC'd By: _____
PGL Job No.: **G100257**
PGL Control No.: **65350**

METHOD	DESCRIPTION	SPECIMENS 1	2	3	4	5	6	7	8	9	10	Avg.	Std. Dev.	Min	Max	Proj. Specs. Min. Ave.
ASTM D5994	Thickness (mils)															
	Apparatus: Dead-weight dial micrometer with gauge points tapered at an angle of 60° +/- 2° to the horizontal with the tip rounded to a radius of 0.8+/-0.1 mm(0.031+/-0.004 in), with a specified force of 0.56+/-0.05 N (2+/-0.2 oz)															
	Loading Time: 5 sec Specimen Size: 4" x 4"															60 nominal
		61	61	62	61	61	62	61	61	62	61	61	0	61	62	54 min.
ASTM D1505	Density (grams/ $cm.^3$)															
		0.9489	0.9489	0.9489								0.9489	0.0000	0.9489	0.9489	0.9400
ASTM D638 Type IV Modified	Tensile Properties:															
	Test Specimens: Type IV, Width of narrow section:0.25in, Length of narrow section:1.3in, Width Overall:0.75in, Length Overall: 4.5in Conditioning: Conducted test in standard laboratory atmosphere of 23+/-2° C (73.4+/-3.6° F), and 50+/-5% relative humidity. Rate of Separation: 2"/min															
	Tensile Strength at Yield (lbs/ in.-width)															
	MD	184	182	183	178	179						181	2	178	184	126
	TD	189	184	180	181	178						183	4	178	189	
	Tensile Strength at Break (lbs/ in.- width)															
	MD	191	204	192	212	195						199	9	191	212	90
	TD	208	216	192	199	208						205	9	192	216	
	Elongation at Yield (percent, %)															
	MD	20	18	19	18	17						18	1	17	20	12
	TD	15	16	16	17	17						16	1	15	17	
	Elongation at Break (percent, %) *Gauge Length = 2.0 in. (GRI-GM13 Modified)*															
	MD	451	501	469	601	469						498	60	451	601	100
	TD	501	601	493	521	551						533	44	493	601	
ASTM D1004 Die C	Tear Resistance (lbs)															
	Machine: Tensile machine equipped with constant rate of extension and chart recorder.															
	MD	57	60	58	65	55	60	64	61	59	60	60	3	55	65	42
	TD	58	60	62	57	57	62	58	63	56	57	59	2	56	63	
ASTM D1603	Carbon Black Content (percent, %)															
		2.44	2.44									2.44	0.00	2.44	2.44	2-3
ASTM D5596	Carbon Black Dispersion (category rating per reference chart PCN: 12-455960-38)															
		1	1	1	1	1	1	1	1	1	1	1	N/A			1,2 or 3

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

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Appendix A
Precision Geosynthetics Laboratoryies Report (Bound Separately)

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

Title				
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Table Title/Figure # Cell

Table Header 1	Table Header 2
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Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text." Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text."

[Sidebar Bullet]

[Sidebar Bullet]

[Sidebar Bullet]

Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

Appendix:

Tab No. 1: Proctors

Tab No. 2: Densities

Tab No. 3: Coarse Aggregate

Tab No. 4: Soil Classification

Tab No. 5: Fine Aggregate Sieves

UNIVERSAL
ENGINEERING SCIENCES, INC.
Consultants in: Geotechnical Engineering • Environmental Sciences
Construction Materials Testing • Threshold Inspection • Private Provider Inspection
9802 Palm River Road • Tampa, FL 33619 • Ph (813) 740-8506 • Fax (813) 740-8706

November 23, 2010

CDM
1715 North Westshore Blvd.
Suite 875
Tampa, Fl 33607

Attention: Aamod Sonawane, P.E., BCEE
Reference: Pasco County Ash Cell A-4
14230 Hay Rd., Shady Hill, FL
UES Project No. 0810.1000004.0000

Dear Mr. Sonawane:

Pursuant to your request please find attached a complete summarization of the testing reports to date for this project. All of the attached test reports have been through our standard in-house Quality Control/ Quality Acceptance review process. This letter certifies reports PR# 1-7, DR# 1-14, FR# 1, RR# 1-6, SC# 1-5, and SA# 1-46, bound herein.

We trust this test report package is acceptable to your current needs. However, if you should require additional information please contact us.

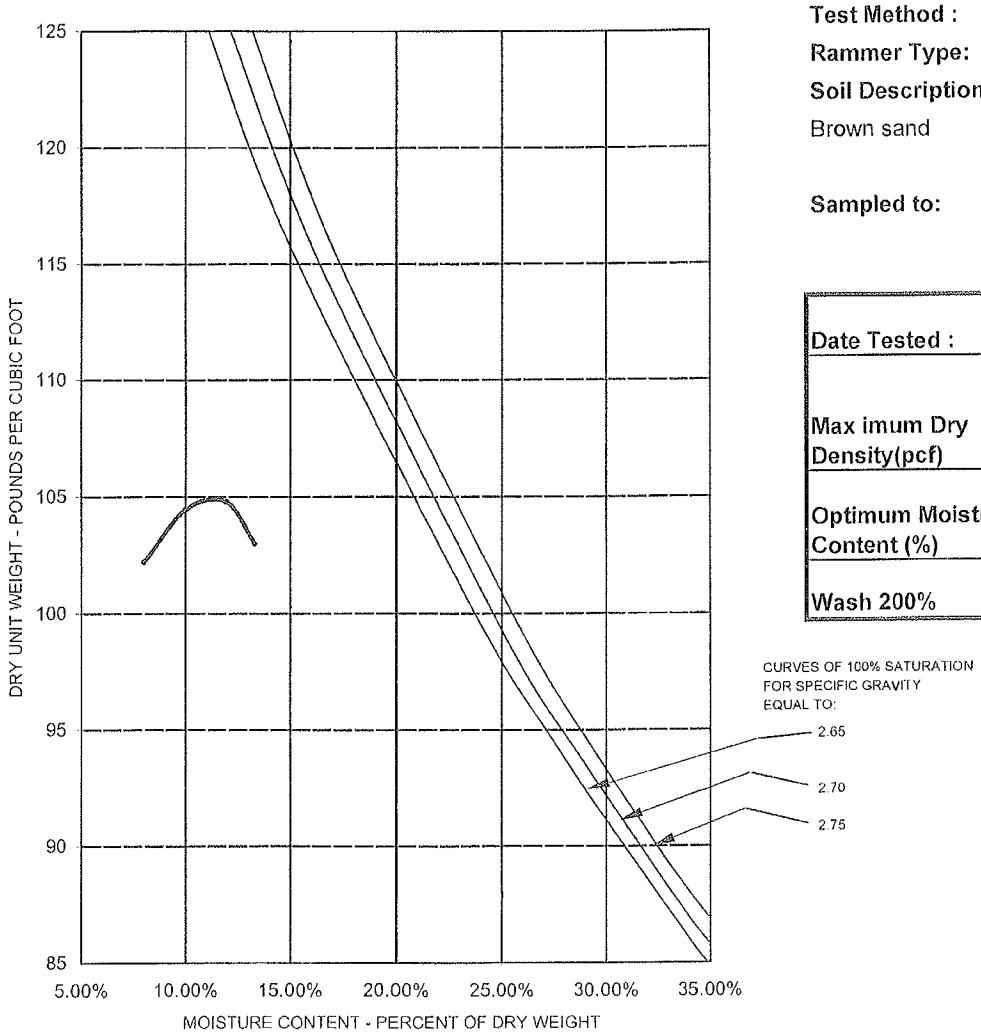
Respectfully submitted,
UNIVERSAL ENGINEERING SCIENCES, INC.
Certificate of Authorization No. 549/GB33

Mark K. Hardy, P.E.
Tampa Branch Manager
Professional Engineer No. 57233

Proctors

UNIVERSAL ENGINEERING SCIENCES, INC.
Consultants in: Geotechnical Engineering • Enviromental Sciences
Construction Materials Testing • Threshold Inspection • Private Provider Inspection
9802 Palm River Road • Tampa FL 33619-4438 • (813) 740-8506 • Fax(813) 740-8706

Client :	Ripa And Associates	**Project No.:**	0810.100004
Project:	Pasco County Ash Cell A-4	**Report No.:**	PR#1
Sample Date:	1/28/2010	**Report Date:**	2/3/2010
Location:	North Berm	**Lab # :**	3306
		Test Method :	D 1557 (B)
		Rammer Type:	Mechanical
		Soil Description:	
		Brown sand	
		Sampled to:	AASHTO T-002



Date Tested :	2/1/2010
Max imum Dry Density(pcf)	105
Optimum Moisture Content (%)	11
Wash 200%	N/A

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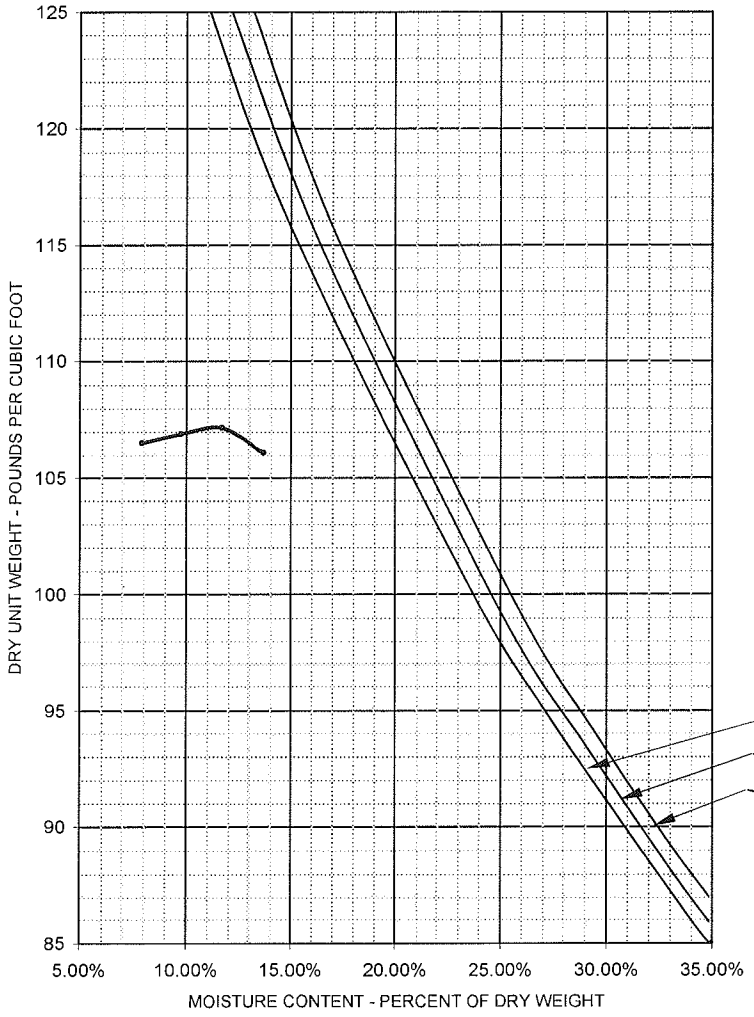
Client : Ripa And Associates
Project: Pasco County Ash Cell A-4
Sample Date: 2/5/2010
Location: Northeast corner of property

Project No.: 0810.100004
Report No.: PR#2
Report Date: 2/10/2010
Lab # : 3321
Test Method : D 1557 (B)
Rammer Type: Mechanical
Soil Description:
Tan sand

Sampled to: AASHTO T-002



Date Tested :	2/8/2010
Max imum Dry Density(pcf)	**107**
Optimum Moisture Content (%)	**11**
Wash 200%	N/A

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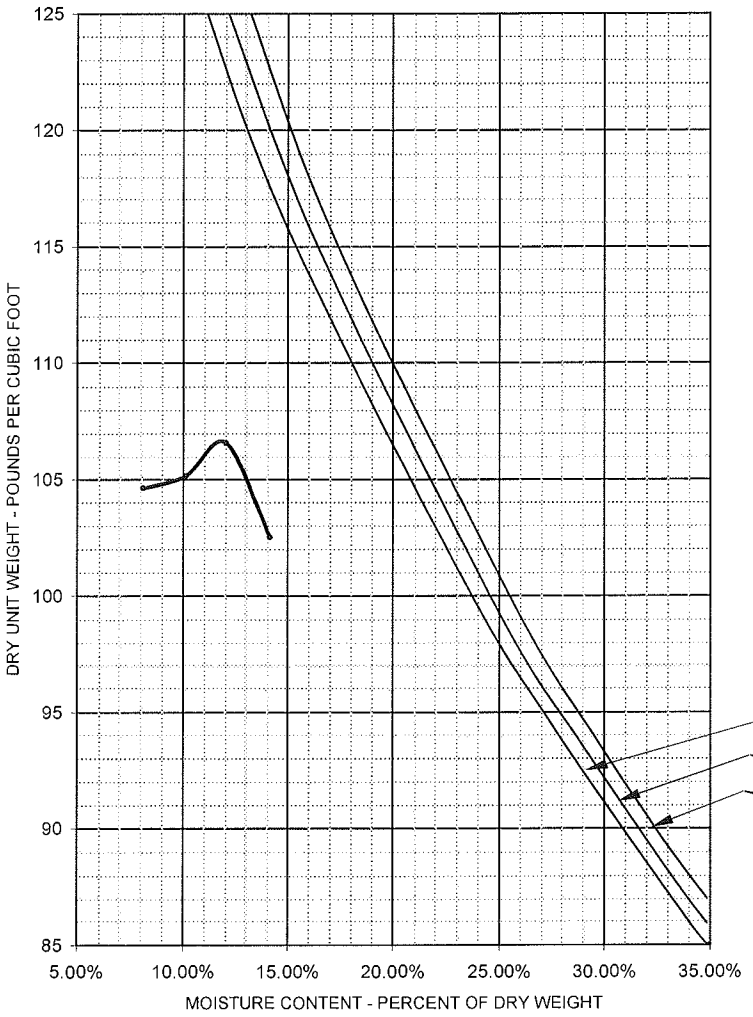
Client : Ripa Ans Associates
Project: Pasco County Ash Cell A-4
Sample Date: 2/15/2010
Location: Stockpile

Project No.: 0810.100004
Report No.: PR#3
Report Date: 2/18/2010
Lab # : 3334
Test Method : D 1557 (B)
Rammer Type: Mechanical
Soil Description:
Light gray sand

Sampled to: AASHTO T-002



Date Tested :	2/17/2010
Max imum Dry Density(pcf)	**107**
Optimum Moisture Content (%)	**12**
Wash 200%	N/A

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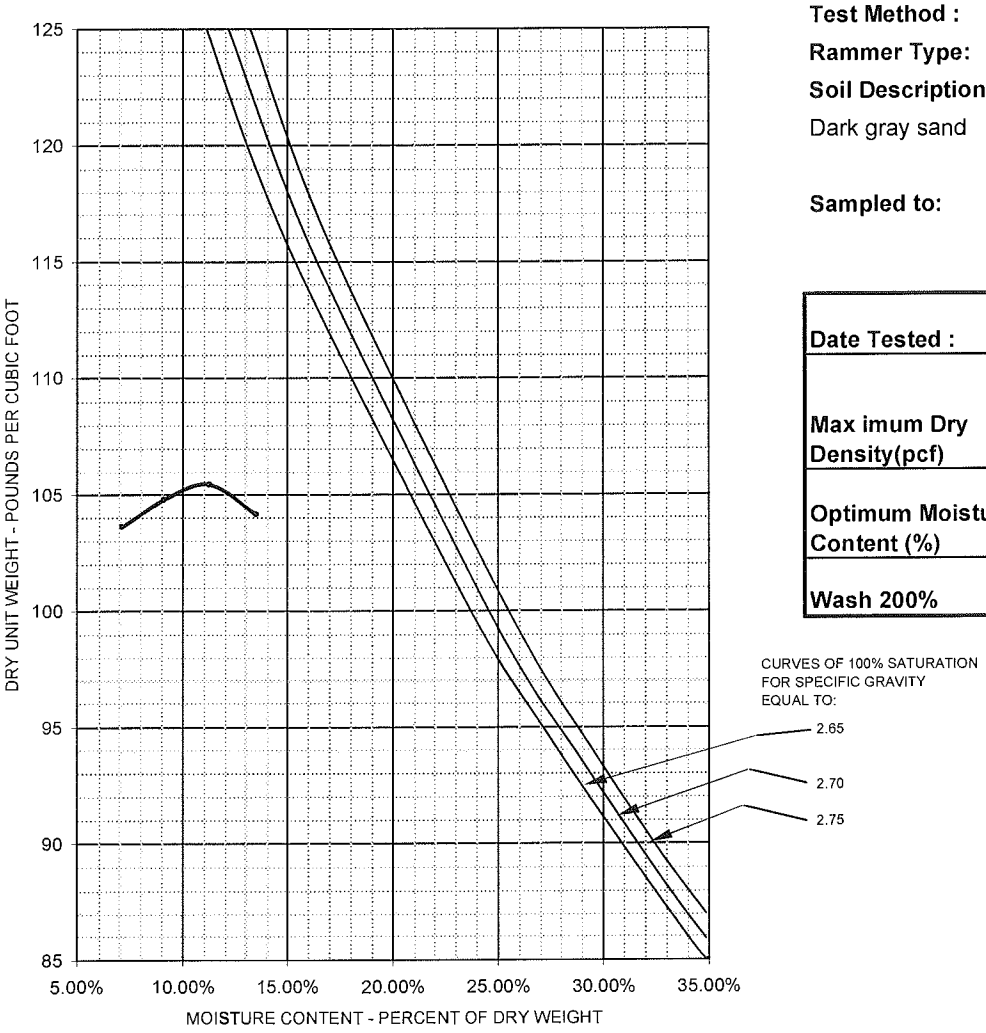
Client : Ripa And Associates
Project: Pasco County Ash Cell A-4
Sample Date: 2/8/2010
Location: Stockpile #2

Project No.: 0810.100004
Report No.: PR#4

Report Date: 2/23/2010
Lab # : 3326
Test Method : D 1557 (B)
Rammer Type: Mechanical
Soil Description:
Dark gray sand

Sampled to: AASHTO T-002



Date Tested :	2/11/2010
Max imum Dry Density(pcf)	**105**
Optimum Moisture Content (%)	**11**
Wash 200%	4.8

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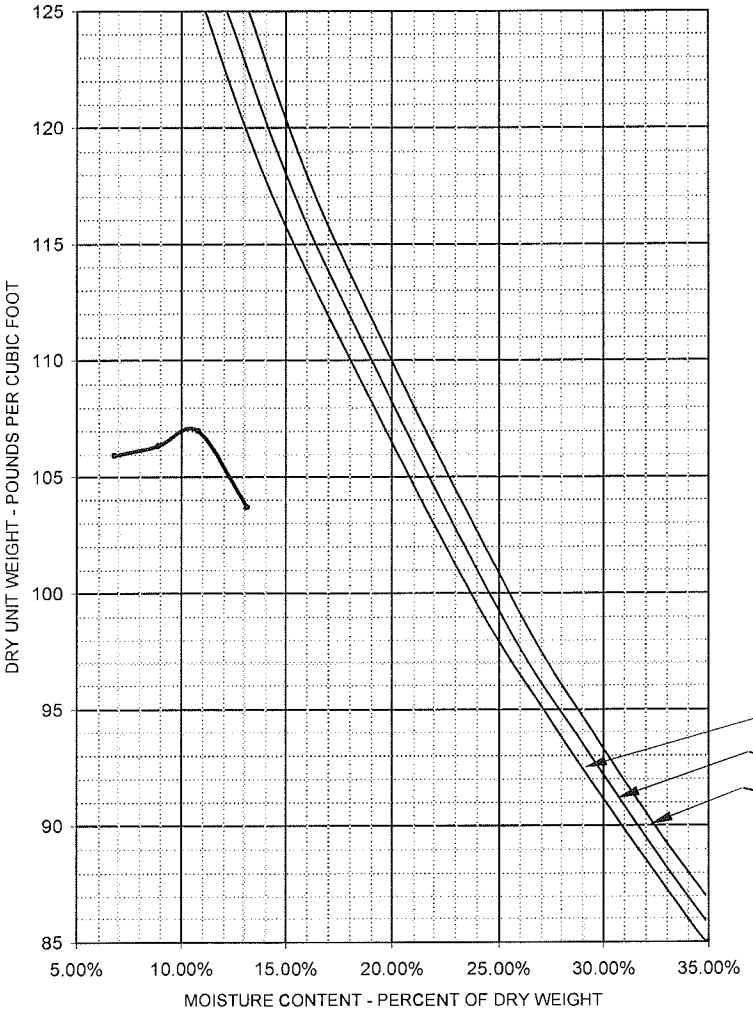
Client : Ripa And Associates
Project: Pasco County Ash Cell A-4
Sample Date: 2/18/2010
Location: Consolidated Pile #1

Project No.: 0810.100004
Report No.: PR#5

Report Date: 2/23/2010
Lab # : 3345
Test Method : D 1557 (B)
Rammer Type: Mechanical
Soil Description:
Light brown sand

Sampled to: AASHTO T-002



Date Tested :	2/19/2010
Max imum Dry Density(pcf)	**107**
Optimum Moisture Content (%)	**10**
Organic Content	**0.56%**

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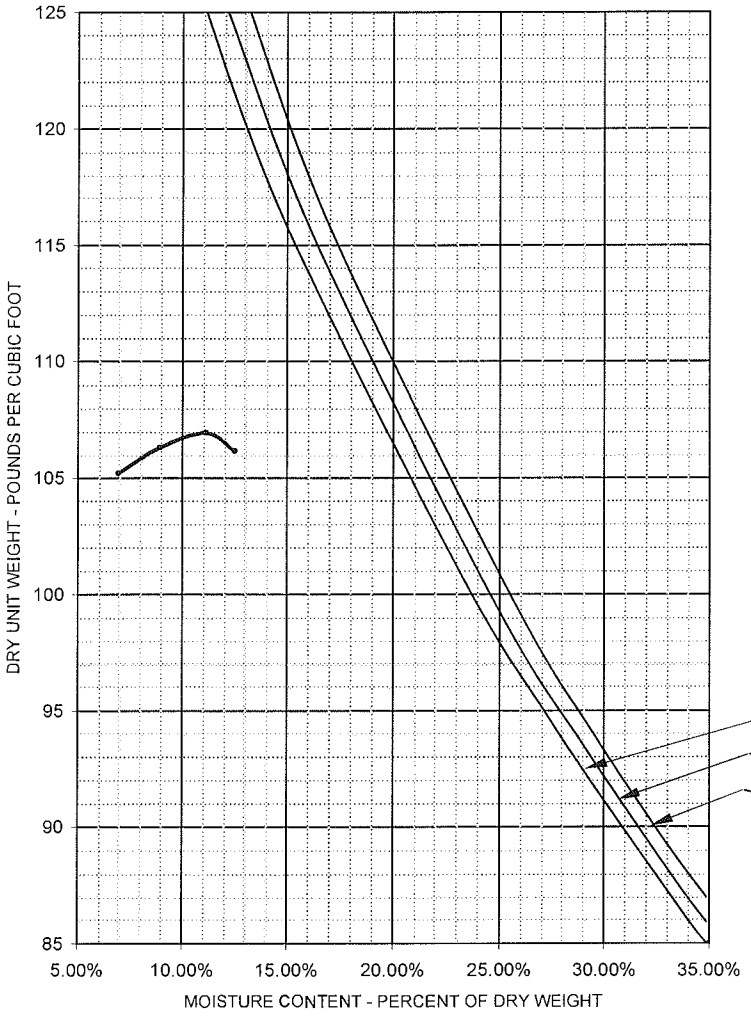
Client : Ripa And Associates
Project: Pasco County Ash Cell A-4
Sample Date: 4/19/2010
Location: Stockpile #1

Project No.: 0810.100004
Report No.: PR#6
Report Date: 4/26/2010
Lab # : 3430
Test Method : D 698
Rammer Type: Manual
Soil Description:
Light brown sand

Sampled to: AASHTO T-002



Date Tested :	4/20/2010
Max imum Dry Density(pcf)	**107**
Optimum Moisture Content (%)	**11**
Organic Content	**0.70%**

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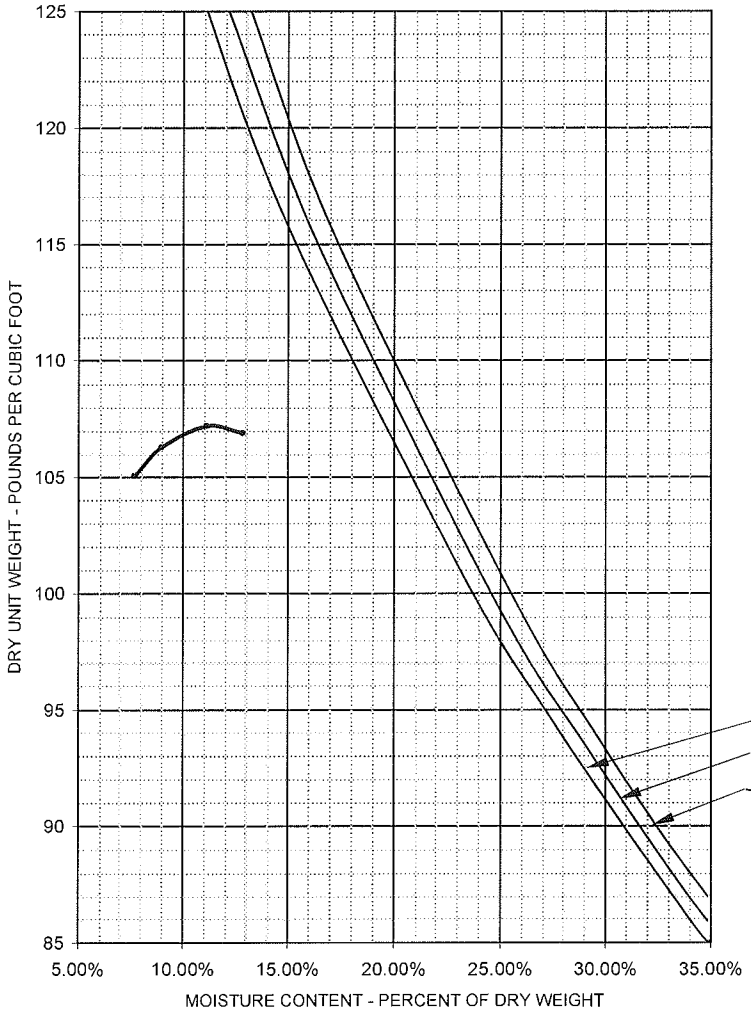
Client : Ripa And Associates
Project: Pasco County Ash Cell A-4
Sample Date: 4/19/2010
Location: Stockpile #2

Project No.: 0810.100004
Report No.: PR#7
Report Date: 4/26/2010
Lab # : 3431
Test Method : D 698
Rammer Type: Manual
Soil Description:
Light brown sand

Sampled to: AASHTO T-002



Date Tested :	4/20/2010
Max imum Dry Density(pcf)	**107**
Optimum Moisture Content (%)	**11**
Organic Content	**0.70%**

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Densities

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Project No.: 0810.1000004.0000
Report No.: DR # 1
Date: February 17, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Berm

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2937 Drive Sleeve Method **Date Tested:** February 5, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
1	250' from East End	+2	108.0	11.0	104.1	9.9	96
2	500' from East End	+2	108.0	11.0	103.5	9.2	96
3	750' from East End	+2	108.0	11.0	104.2	10.2	97

Technician: B. Long
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 2
Date: March 19, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Berm

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** January 28, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
4	110' from E End of Berm N Side	+1	105.0	11.0	102.3	5.2	97
5	50' from E End of Berm N Side	+1	105.0	11.0	100.8	4.0	96
6	100' from E End of Berm N Side	+1	105.0	11.0	101.6	3.4	97
7	50' from W End of Berm N Side	+1	105.0	11.0	103.1	7.0	98
8	75' from W End of Berm N Side	+1	105.0	11.0	103.0	6.6	98
9	15' from W End of Berm S Side	+1	105.0	11.0	101.5	3.3	97
10	75' from W End of Berm S Side	+1	105.0	11.0	102.3	3.2	97
11	50' from E End of Berm S Side	+1	105.0	11.0	100.0	2.9	95

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Technician: M. Arroyo
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 3
Date: March 19, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Landfill Backfill

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** February 8, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
12	50' W x 28' S from NE Corner of Large Lot	+2	105.0	11.0	103.1	8.0	98
13	31' W x 85' S from NE Corner of Large Lot	+2	105.1	11.0	105.2	5.1	100
14	69' W x 291' S from NE Corner of Large Lot	+2	106.6	11.0	106.7	7.1	100
15	110' W x 77' S from NE Corner of Lot	+2	106.0	11.0	106.0	6.9	100
16	181' W x 152' S from Ne Corner of Large Lot	+2	107.1	11.0	107.1	6.4	100
17	146' W x 213' S from NE Corner of Large Lot	+2	106.4	11.0	106.4	5.6	100
18	220' W x 48' S from NE Corner of Large Lot	+2	108.2	11.0	108.2	7.3	100
19	288' W x 135' S from NE Corner of Large Lot	+2	105.9	11.0	105.9	6.4	100
20	259' W x 280' S from NE Corner of Large Lot	+2	107.1	11.0	107.3	6.0	100
21	91' W x 68' S from NE Corner of Large Lot	+1	106.3	11.0	106.3	6.4	100
22	33' W x 172 S from NE Corner of Large Lot	+1	106.3	11.0	106.8	5.6	100
23	58' W x 231' S from NE Corner of Large Lot	+1	106.3	11.0	105.9	7.2	100
24	105' W x 80' S from NE Corner of Large Lot	+1	107.4	11.0	107.5	6.6	100

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Technician: R. Roome
Field CC: Dan
cc:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
25	192' W x 179' S from NE Corner of Large Lot	+1	107.4	11.0	107.1	6.2	100
26	125' W x 213' S from NE Corner of Large Lot	+1	108.0	11.0	108.0	4.8	100
27	282' W x 78' S from NE Corner of Large Lot	+1	104.9	11.0	104.9	9.3	100
28	202' W x 158' S from NE Corner of Large Lot	+1	106.8	11.0	106.8	5.4	100
29	266' W x 289' S from NE Corner of Large Lot	+1	109.5	11.0	109.6	5.6	100
30	23' W x 10' N from SE Corner of Small Lot	+1	105.9	11.0	106.0	5.4	100
31	20' W x 63' N from SE Corner of Small Lot	+1	107.9	11.0	107.9	5.7	100
32	23' W x 19' N from SE Corner of Small Lot	+2	106.9	11.0	106.9	5.2	100
33	82' W x 77 N from SE Corner of Small Lot	+2	105.6	11.0	105.7	5.6	100

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Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 4
Date: March 19, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Berm Cell A-4

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** February 15, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
34	NE Corner of Berm N Berm	+2	108.0	11.0	103.2	7.9	96
35	200' from NE Corner on N Berm	+2	108.0	11.0	102.6	6.6	95
36	400' from NE Corner on N Berm	+2	108.0	11.0	104.7	6.7	97
37	400' from NW Corner on N Berm	+2	108.0	11.0	103.3	7.0	96
38	NW Corner of Berm N Berm	+2	108.0	11.0	102.1	9.5	95
39	150' from NW Corner of Berm on W Berm	+2	108.0	11.0	103.0	8.2	95
40	300' from NW Corner of Berm on W Berm	+2	108.0	11.0	104.0	9.1	96
41	150' from SW Corner of Berm on W Berm	+2	108.0	11.0	104.7	7.0	97
42	SW Corner of Berm on W Berm	+2	108.0	11.0	103.2	6.4	96
43	200' from NE Corner of N Berm	+1	108.0	11.0	102.7	13.0	95
44	400' from NE Corner of N Berm	+1	108.0	11.0	107.0	7.9	99
45	600' from NE Corner of N Berm	+1	108.0	11.0	106.0	5.8	98
46	400' from NW Corner of N Berm	+1	108.0	11.0	105.2	7.7	97

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Field CC: Dan
cc:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
47	200' from NW Corner of N Berm	+1	108.0	11.0	105.0	6.9	97
48	NW Corner on W Berm	+1	108.0	11.0	105.4	6.6	98
49	150' from NW Corner of W Berm	+1	108.0	11.0	104.2	7.1	96
50	150' from SW Corner on W Berm	+1	108.0	11.0	105.5	5.6	98
51	SW Corner on W Berm	+1	108.0	11.0	106.5	12.3	99
52	150' from SW Corner of Berm on S Berm	+2	108.0	11.0	107.2	6.6	99
53	300' from SW Corner of Berm on S Berm	+2	108.0	11.0	108.7	6.4	101

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Technician: M. Arroyo
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 5
Date: March 19, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Embankment

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** March 16, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
54	125' W of NE Corner	+2	108.0	11.0	104.5	7.1	97
55	375' W of NE Corner	+2	108.0	11.0	105.5	6.7	98
56	625' W of NE Corner	+2	108.0	11.0	104.8	6.9	97
57	125' E of NW Corner	+2	108.0	11.0	104.5	8.5	97

Technician: B. Long
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 6
Date: March 19, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Berm

Reference Datum: Top of Berm

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** March 16, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
58	125' E of NW Corner	+0	108.0	11.0	105.2	6.9	97
59	125' E of NW Corner	-1	108.0	11.0	105.4	7.4	98
60	125' S of NW Corner	+0	108.0	11.0	104.8	6.3	97
61	125' S of NW Corner	-1	108.0	11.0	105.4	6.5	98
62	375' S of NW Corner	+0	108.0	11.0	105.2	6.4	97
63	375' S of NW Corner	-1	108.0	11.0	105.0	8.3	97
64	525' S of NW Corner	+0	108.0	11.0	104.9	7.5	97
65	525' S of NW Corner	-1	108.0	11.0	104.2	8.4	97
66	125' E of SE Corner	+0	108.0	11.0	104.7	6.6	97
67	125' E of SW Corner	-1	108.0	11.0	105.1	6.7	97

Technician: B. Long
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 7
Date: April 15, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Ash Cell A-4

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** April 5, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
68	615' S,275' W from NE Corner	0	107.0	12.0	103.4	5.5	97
69	550' S,275' W from NE Corner	0	107.0	12.0	102.9	4.7	96
70	450' S,275' W from NE Corner	0	107.0	12.0	102.9	4.1	96
71	350' S,275' W from NE Corner	0	107.0	12.0	104.5	2.5	98
72	250' S,275' W from NE Corner	0	107.0	12.0	105.3	1.6	98
73	150' S,275' W from NE Corner	0	107.0	12.0	104.6	4.3	98
74	50' S,275' W from NE Corner	0	107.0	12.0	103.5	4.0	97
75	50' S,325' W from NE Corner	0	107.0	12.0	103.7	4.2	97
76	150' S,325' W from NE Corner	0	107.0	12.0	103.9	5.3	97
77	150' S,175' W from NE Corner	0	107.0	12.0	101.8	5.5	95
78	50' S,175' W from NE Corner	0	107.0	12.0	102.8	4.1	96
79	50' S,225' W from NE Corner	0	107.0	12.0	103.1	3.6	96
80	150' S,225' W from NE Corner	0	107.0	12.0	105.5	3.6	99

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Technician: R. Roome
Field CC: Dan
cc:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
81	250' S,225' W from NE Corner	0	107.0	12.0	103.6	4.8	97
82	350' S,225' W from NE Corner	0	107.0	12.0	103.7	3.9	97
83	450' S,225' W from NE Corner	0	107.0	12.0	102.8	5.7	96
84	550' S,225' W from NE Corner	0	107.0	12.0	105.5	3.4	99
85	615' S,225' W from NE Corner	0	107.0	12.0	102.8	4.6	96

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Project No.: 0810.1000004.0000
Report No.: DR # 8
Date: April 15, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Ash Cell A-4

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** April 5, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
86	50' S,25' W from NE Corner	0	107.0	12.0	102.5	3.6	96
87	150' S,35' W from NE Corner	0	107.0	12.0	102.6	5.2	96
88	200' S,15' W from NE Corner	0	107.0	12.0	103.8	5.0	97
89	250' S,20' W from NE Corner	0	107.0	12.0	101.9	6.0	95
90	300' S,10' W from NE Corner	0	107.0	12.0	105.1	3.7	98
91	350' S,15' W from NE Corner	0	107.0	12.0	103.1	4.0	96
92	400' S,40' W from NE Corner	0	107.0	12.0	106.7	3.1	100
93	450' S,45' W from NE Corner	0	107.0	12.0	102.5	5.0	96
94	500' S,35' W from NE Corner	0	107.0	12.0	105.3	3.3	98
95	500' S,20' W from NE Corner	0	107.0	12.0	103.6	4.4	97
96	550' S,10' W from NE Corner	0	107.0	12.0	105.3	3.8	98
97	600' S,5' W from NE Corner	0	107.0	12.0	102.7	3.9	96
98	610' S,8' W from NE Corner	0	107.0	12.0	103.5	1.7	97

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Technician: M. Arroyo
Field CC: Dan
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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
99	50' N,75'W from SE Corner	0	107.0	12.0	102.5	3.1	96
100	100' N,65' W from SE Corner	0	107.0	12.0	103.5	2.4	97
101	150' N,60' W from SE Corner	0	107.0	12.0	102.3	2.9	96
102	200' N,70' W from SE Corner	0	107.0	12.0	103.3	4.3	97
103	250' N,80' W from SE Corner	0	107.0	12.0	102.4	4.0	96
104	300' N,55' W from SE Corner	0	107.0	12.0	104.1	4.2	97
105	350' N,63' W from SE Corner	0	107.0	12.0	104.2	2.5	97
106	400' N,78' W from SE Corner	0	107.0	12.0	103.3	2.0	97
107	450' N,90' W from SE Corner	0	107.0	12.0	102.6	3.3	96
108	500' N,95' W from SE Corner	0	107.0	12.0	105.0	1.9	98
109	550' W,88' W from SE Corner	0	107.0	12.0	102.2	2.3	96
110	600' N,77' W from SE Corner	0	107.0	12.0	104.7	3.2	98
111	630' N,95' W from SE Corner	0	107.0	12.0	102.2	2.4	96

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Technician: M. Arroyo
Field CC: Dan
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Project No.: 0810.1000004.0000
Report No.: DR # 9
Date: April 15, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Ash Cell A-4

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** April 6, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
112	50' S,700' W from NE Corner	0	107.0	12.0	104.1	1.7	97
113	100' S,775' W from NE Corner	0	107.0	12.0	105.5	5.4	99
114	300' S,775' W from NE Corner	0	107.0	12.0	104.6	3.8	98
115	500' S,775' W from NE Corner	0	107.0	12.0	103.9	6.2	97
116	615' S,775' W from NE Corner	0	107.0	12.0	103.1	3.3	96
117	450' S,600' W from NE Corner	0	107.0	12.0	101.2	4.4	95
118	550' S,600' W from NE Corner	0	107.0	12.0	101.2	5.5	95
119	615' S,600' W from NE Corner	0	107.0	12.0	102.4	4.9	96
120	615' S,700' W from NE Corner	0	107.0	12.0	103.0	3.6	96
121	550' S,700' W from NE Corner	0	107.0	12.0	104.4	4.1	98
122	450' S,700' W from NE Corner	0	107.0	12.0	103.1	3.9	96
123	350' S,700' W from NE Corner	0	107.0	12.0	105.7	5.4	99
124	250' S,700' W from NE Corner	0	107.0	12.0	101.9	3.3	95

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Field CC: Dan
CC:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
125	150' S,700' W from NE Corner	0	107.0	12.0	103.6	3.9	97
126	450' S,500' W from NE Corner	0	107.0	12.0	105.2	3.5	98
127	350' S,500' W from NE Corner	0	107.0	12.0	106.3	5.1	99
128	250' S,500' W from NE Corner	0	107.0	12.0	106.0	3.0	99
129	150' S,500' W from NE Corner	0	107.0	12.0	105.5	2.9	99
130	50' S,500' W from NE Corner	0	107.0	12.0	105.9	2.7	99
131	50' S,600' W from NE Corner	0	107.0	12.0	105.6	3.4	99
132	150' S,600' W from NE Corner	0	107.0	12.0	104.3	4.3	97
133	250' S,600' W from NE Corner	0	107.0	12.0	101.2	4.2	95
134	350' S,600' W from NE Corner	0	107.0	12.0	103.3	3.0	97
135	50' S,400' W from NE Corner	0	107.0	12.0	103.2	4.2	96
136	150' S,400' W from NE Corner	0	107.0	12.0	105.5	2.5	99
137	250' S,400' W from NE Corner	0	107.0	12.0	105.2	1.7	98
138	350' S, 400' W from NE Corner	0	107.0	12.0	101.9	3.1	95
139	450' S,400' W from NE Corner	0	107.0	12.0	101.5	4.3	95
140	550' S,400' W from NE Corner	0	107.0	12.0	104.4	3.4	98
141	615' S,400' W from NE Corner	0	107.0	12.0	107.4	1.6	100
142	615' S,500' W from NE Corner	0	107.0	12.0	104.9	2.8	98
143	550' S,500' W from NE Corner	0	107.0	12.0	105.4	3.3	99
144	250' S,325' W from NE Corner	0	107.0	12.0	103.6	4.8	97
145	350' S,325' W from NE Corner	0	107.0	12.0	102.4	2.9	96
146	450' S,325' W from NE Corner	0	107.0	12.0	104.2	1.8	97
147	550' S,325' W from NE Corner	0	107.0	12.0	105.3	1.9	98
148	615' S,325' W from NE Corner	0	107.0	12.0	102.9	3.1	96

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Project No.: 0810.1000004.0000
Report No.: DR # 10
Date: April 15, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Ash Cell A-4; Berm

Reference Datum: Top of Import

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** April 14, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
149	35' E from SW Corner	0	107.0	12.0	102.6	6.8	96
150	243' E from SW Corner	0	107.0	12.0	101.9	4.3	95
151	260' N from SW Corner	0	107.0	12.0	101.8	5.7	95
152	112' S from NW Corner	0	107.0	12.0	101.8	4.0	95
153	98' E from NW Corner	0	107.0	12.0	101.5	4.2	95
154	401' E from NW Corner	0	107.0	12.0	104.0	3.0	97

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Field CC: Dan
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Project No.: 0810.1000004.0000
Report No.: DR # 11
Date: April 16, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Ash Cell A-4; Liner

Reference Datum: Top of Import

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** April 14, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
155	850' W,50' S from NE Corner	0	107.0	12.0	104.7	2.0	98
156	850' W,150' S from NE Corner	0	107.0	12.0	110.6	4.1	103
157	850' W,250' S from NE Corner	0	107.0	12.0	108.2	5.2	101
158	850' W,350'S from NE Corner	0	107.0	12.0	107.5	2.7	100
159	850' W,450' S rom NE Corner	0	107.0	12.0	106.1	5.0	99
160	850' W,550' S from NE Corner	0	107.0	12.0	106.3	4.9	99
161	900' W,615' S from NE Corner	0	107.0	12.0	103.4	4.3	97
162	950' W,550' S from NE Corner	0	107.0	12.0	104.9	3.4	98
163	950' W,450' S from NE Corner	0	107.0	12.0	104.0	4.0	97
164	950' W, 350' S from NE Corner	0	107.0	12.0	103.4	2.4	97
165	950' W,250' S from NE Corner	0	107.0	12.0	105.0	4.0	98
166	950' W,150' S from NE Corner	0	107.0	12.0	105.5	3.7	99
167	950' W,50' S from NE Corner	0	107.0	12.0	105.1	2.7	98

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
168	1050' W,50' S from NE Corner	0	107.0	12.0	101.5	7.4	95
169	1050' W,150' S from NE Corner	0	107.0	12.0	106.5	4.6	100
170	1050' W,250' S from NE Corner	0	107.0	12.0	109.6	3.1	102
171	1050' W,350' S from NE Corner	0	107.0	12.0	104.3	1.4	98
172	1050' W,450' S from NE Corner	0	107.0	12.0	105.3	6.4	98
173	1050' W,550' S from NE Corner	0	107.0	12.0	101.2	2.5	95
174	1100' W,615' S from NE Corner	0	107.0	12.0	101.6	2.4	95
175	1150' W,550' S from NE Corner	0	107.0	12.0	101.3	2.1	95
176	1150' W,450' S from NE Corner	0	107.0	12.0	105.0	2.3	98
177	1150' W,350' S from NE Corner	0	107.0	12.0	104.3	2.8	97
178	1150' W,250' S from NE Corner	0	107.0	12.0	103.5	2.9	97
179	1150' W,150' S from NE Corner	0	107.0	12.0	105.6	3.3	99
180	1150' W, 50' S from NE Corner	0	107.0	12.0	106.0	3.0	99

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Field CC: Dan
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Project No.: 0810.1000004.0000
Report No.: DR # 12
Date: June 3, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Pipe Backfill

Reference Datum: Top of Pipe

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** May 10, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: Some of the tests below DID NOT meet the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density. These tests are marked with an *.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
181	50' W from Center of W Wall in Cell A4	+1	107.0	12.0	97.5	4.1	91 *
182	RETEST - 50' W from Center of W Wall in Cell A-4	+1	107.0	12.0	101.7	4.6	95

Technician: M. Arroyo
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 13
Date: June 3, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Pipe Backfill

Reference Datum: Top of Native

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** May 11, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 95% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
183	Center of N Pipe	+6	107.0	12.0	102.5	9.2	96
184	Center of S Pipe	+6	107.0	12.0	103.4	9.6	97
185	Center of N Pipe	+7	107.0	12.0	101.8	11.8	95
186	Center of S Pipe	+7	107.0	12.0	102.1	11.5	95
187	Center of N Pipe	+8	107.0	12.0	104.0	8.1	97
188	Center of S Pipe	+8	107.0	12.0	103.6	5.9	97
189	Center of N Pipe	+2	107.0	12.0	106.8	7.7	100
190	Center of S Pipe	+2	107.0	12.0	102.5	9.6	96
191	Center of N Pipe	+3	107.0	12.0	106.4	7.4	99
192	Center of S Pipe	+3	107.0	12.0	103.0	8.8	96
193	Center of N Pipe	+4	107.0	12.0	102.2	11.2	95
194	Center of S Pipe	+4	107.0	12.0	101.5	9.3	95
195	Center of N Pipe	+5	107.0	12.0	105.2	8.8	98

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Technician: M. Sanders
Field CC: Dan
cc:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
196	Center of S Pipe	+5	107.0	12.0	102.3	11.6	96

Technician: M. Sanders
Field CC: Dan
cc:

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Project No.: 0810.1000004.0000
Report No.: DR # 14
Date: September 10, 2010

IN-PLACE DENSITY REPORT

Client: RIPA & Associates
1409 Tech Blvd., Suite 1
Tampa, FL 33619

Project: Pasco County Resource - Ash cell A-4
14230 Hay Road
Shady Hill, FL

Area Tested: Liner Fill IPDs

Reference Datum: Liner

Type of Test- **Field:** ASTM D-2922 Nuclear Method **Date Tested:** September 7, 2010
Laboratory: ASTM D1557 - Modified Proctor

Remarks: The tests below met the minimum 90% relative soil compaction requirement of a Laboratory Proctor Maximum Dry Density.

TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
197	200' E; 75' S of the NW Corner of the NE Partial	+2	108.0	12.0	110.8	5.4	103
198	200' E; 200' S of the NW Corner of the NE Partial	+2	108.0	12.0	109.1	5.9	101
199	100' E; 75' S of the NW Corner of the SE Partial	+2	108.0	12.0	107.8	8.3	100
200	100' E; 200' S of the NW Corner of the SE Partial	+2	108.0	12.0	109.8	6.0	102
201	200' E; 75' S of the NW Crner of the N Center Partial	+2	108.0	12.0	109.6	5.9	102
202	200' E; 200' S of the NW Corner of the N Center Partial	+2	108.0	12.0	107.5	5.8	100
203	100' E; 75' S of the NW Crner of the S Center Partial	+2	108.0	12.0	106.8	6.2	99
204	100' E; 200' S of the NW Corner of the S Center Partial	+2	108.0	12.0	108.0	7.1	100
205	200' E; 225' N of the SW Corner of the NW Partial	+2	108.0	12.0	105.1	6.2	97
206	150' E; 175' N of the SW Corner of the NW Partial	+2	108.0	12.0	108.1	5.3	100
207	100' E; 100' N of the SW Corner of the NW Partial	+2	108.0	12.0	103.6	6.1	96
208	200' E; 50' S of the NW Corner of the SW Partial	+2	108.0	12.0	109.2	5.6	101
209	150' E; 100' S of the NW Corner of the SW Partial	+2	108.0	12.0	105.6	6.2	98

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Technician: J. VanDyke
Field CC:
cc:

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TEST LOCATION			LAB RESULTS		FIELD TEST RESULTS		
Test No.	Description of Test Location	Depth (ft.)	Maximum Density (pcf)	Optimum Moisture (%)	Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)
210	200' E; 150' S of the NW Corner of the SW Partial	+2	108.0	12.0	106.7	6.4	99

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Technician: J. VanDyke
Field CC:
CC:

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Project #: 0810.1000004
Report #: FR #1
Date: September 10, 2010

REPORT ON SITE OBSERVATION

Client: RIPA & Associates, 1409 Tech Blvd., #1
Tampa, FL 33619

Project: Pasco County Resource-Ash Cell A-4
14230 Hays Road, Shady Hills, FL

Scope of Field Work: Thickness and Unit Weight Test

Date Observed: September 3, 2010 **Observed By:** J. Vandyke **Field Contact:**

OBSERVATIONS:

J. Vandyke, a representative of Universal Engineering Sciences (UES) was on-site to observe the above listed work located in Shady Hill, FL.

Location	Thickness (in)	Unit Weight (pcf) ASTM D4254-C
197	25	91.8
198	25	91.8
199	25	89.3
200	25	89.3
201	26	89.3
202	27	91.8
203	24	91.8
204	25	89.3
205	25	91.8
206	24	91.8
207	26	91.8
208	25	91.8
209	26	91.8
210	25	91.8

For Location Descriptions, See DR# 14

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Coarse Aggregate

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Project No.: 0810.1000004.000
Report No.: RR#1
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource
Sample #: RR#1 **Date Sampled:** Sample Delivered to Office
Date Tested: 1/8/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Conrad Yelvington

Dry Weight of total sample: 133.47

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.00	100.00	**100**
1 1/2"	8.6	6.44	93.56	**90 - 100**
1"	68.1	51.02	48.98	**20 - 55**
3/4"	125.8	94.25	5.75	**0 - 15**

Material Passing 3/4": 7.67lbs

Carbonate Content : 0 **ASTM D4373**

Sieve Analysis: Results Above **ASTM D422**

Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#2
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource
Sample #: RR#2 **Date Sampled:** 2/24/2010
Date Tested: 3/3/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Bottom Pile

Dry Weight of total sample: 68.45

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.00	100.00	**100**
1 1/2"	2.25	3.29	96.71	**90 - 100**
1"	36.25	52.96	47.04	**20 - 55**
3/4"	59.75	87.29	12.71	**0 - 15**

Material Passing 3/4": 8.7 lbs
Carbonate Content : 0 **ASTM D4373**
Sieve Analysis: Results Above **ASTM D422**
Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#3
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource
Sample #: RR#3 **Date Sampled:** 2/24/2010
Date Tested: 3/3/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Top Pile

Dry Weight of total sample: 65

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.00	100.00	**100**
1 1/2"	4.9	7.54	92.46	**90 - 100**
1"	41.4	63.69	36.31	**20 - 55**
3/4"	55.8	85.85	14.15	**0 - 15**

Material Passing 3/4": 9.2 lbs

Carbonate Content : 0 **ASTM D4373**

Sieve Analysis: Results Above **ASTM D422**

Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#4
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource - Ash Cell - A-4
Sample #: RR#4 **Date Sampled:** 4/1/2010
Date Tested: 4/7/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Top Pile

Dry Weight of total sample: 67.15

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.0%	100.0%	**100**
1 1/2"	2.05	3.1%	96.9%	**90 - 100**
1"	24.2	36.0%	64.0%	**20 - 55**
3/4"	45.85	68.3%	31.7%	**0 - 15**

Material Passing 3/4" Sieve = 21.30 lbs.

Carbonate Content : 0 **ASTM D4373**
Sieve Analysis: Results Above **ASTM D422**
Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#5
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource - Ash Cell - A-4
Sample #: RR#5 **Date Sampled:** 5/6/2010
Date Tested: 5/14/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Stockpile

Dry Weight of total sample: 125

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.0%	100.0%	**100**
1 1/2"	5.18	4.1%	95.9%	**90 - 100**
1"	68.72	55.0%	45.0%	**20 - 55**
3/4"	111.78	89.4%	10.6%	**0 - 15**

Material Passing 3/4" Sieve = 13.22 lbs.

Carbonate Content : 0 **ASTM D4373**
Sieve Analysis: Results Above **ASTM D422**
Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#6
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource - Ash Cell - A-4
Sample #: RR#6 **Date Sampled:** 6/7/2010
Date Tested: 6/16/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Stockpile

Dry Weight of total sample: 66.98

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.0%	100.0%	**100**
1 1/2"	9.44	14.1%	85.9%	**90 - 100**
1"	54.74	81.7%	18.3%	**20 - 55**
3/4"	65.34	97.6%	2.4%	**0 - 15**

Material Passing 3/4" Sieve = 1.64 lbs.

Carbonate Content : 0 **ASTM D4373**
Sieve Analysis: Results Above **ASTM D422**
Classification: Coarse **ASTM D2488**

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Project No.: 0810.1000004.000
Report No.: RR#7
Date: 11/15/2010

Client: RIPA & Associates
Project: Pasco County Resource - Ash Cell - A-4
Sample #: RR#7 **Date Sampled:** 8/31/2010
Date Tested: 9/1/2010 **Tested By:** P. Roach
Soil Description: River Rock **Sample Location:** Stockpile

Dry Weight of total sample: 140.52

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	TARGET
2"	0	0.0%	100.0%	**100**
1 1/2"	6.44	4.6%	95.4%	**90 - 100**
1"	74.56	53.1%	46.9%	**20 - 55**
3/4"	116.86	83.2%	16.8%	**0 - 15**

Material Passing 3/4" Sieve = 23.66 lbs.

Carbonate Content : 0 **ASTM D4373**
Sieve Analysis: Results Above **ASTM D422**
Classification: Coarse **ASTM D2488**

Soil Classifications

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Client : RIPA & Associates
Project: Pasco County Resource
Sample Date: 2/3/2010
Location: East Stockpile

Project No.: 0810.1000004.0000
Report No.: SC#1
Report Date: 2/9/2010
Lab # : 3315
Soil Description:
Light Brown Sand

Date Tested	2/5/2010
Organic Content (ASTM D2974)	1.2
Liquid Limit (ASTM D4318)	NP
Plasticity Index (ASTM D 4318)	NP
Soil Classification (ASTM D2488)	SP

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Client : RIPA & Associates
Project: Pasco County Resource
Sample Date: 2/3/2010
Location: West Stockpile

Project No.: 0810.1000004.0000
Report No.: SC#2
Report Date: 2/9/2010
Lab # : 3316
Soil Description:
Light Brown Sand

Date Tested	2/5/2010
Organic Content (ASTM D2974)	1.1
Liquid Limit (ASTM D4318)	NP
Plasticity Index (ASTM D 4318)	NP
Soil Classification (ASTM D2488)	SP

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Client : RIPA & Associates
Project: Pasco County Resource
Sample Date: 2/8/2010
Location: Stockpile #2

Project No.: 0810.1000004.0000
Report No.: SC#3
Report Date: 2/23/2010
Lab # : 3326
Soil Description:
Dark Gray sand

Date Tested	2/11/2010
Organic Content (ASTM D2974)	2.17
Liquid Limit (ASTM D4318)	NP
Plasticity Index (ASTM D 4318)	NP
Soil Classification (ASTM D2488)	SP

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Client : RIPA & Associates
Project: Pasco County Resource
Sample Date: 2/24/2010
Location: Consolidated Screen Pile #4

Project No.: 0810.1000004.0000
Report No.: SC#4
Report Date: 3/3/2010
Lab # : 3357
Soil Description:
Brown sand w/t of organics

Date Tested	3/2/2010
Organic Content (ASTM D2974)	1.8
Liquid Limit (ASTM D4318)	NP
Plasticity Index (ASTM D 4318)	NP
Soil Classification (ASTM D2488)	SP

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Client : RIPA & Associates
Project: Pasco County Resource
Sample Date: 2/24/2010
Location: Consolidated Screen Pile #2

Project No.: 0810.1000004.0000
Report No.: SC#5
Report Date: 3/3/2010
Lab # : 3356
Soil Description:
Brown sand w/t of organics

Date Tested	3/2/2010
Organic Content (ASTM D2974)	1.6
Liquid Limit (ASTM D4318)	NP
Plasticity Index (ASTM D 4318)	NP
Soil Classification (ASTM D2488)	SP

Fine Aggregate Sieves

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Project No.: 0810.1000004.000
Report No.: SA#1
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: North Center
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown sand

Dry Weight of total sample: 323.9

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.06%	99.94%	**80 - 95**
40	9.7	2.99%	97.01%	**60 - 80**
60	75.9	23.43%	76.57%	**30 - 55**
100	239.3	73.88%	26.12%	**0 - 15**
200	322.2	99.48%	0.52%	**5 MAX**
pan	323.9	100.00%	0.00%	

Specific Gravity :	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.42%	**ASTM D2974**
Permeability :	1.23E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.60%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#2
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Ser. Kimba Ct. **Date Sampled:** 1/8/2010
Date Tested: 1/20/2010 **Tested By:** RB
Description Brown sand

Dry Weight of total sample: 285.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.5	0.18%	99.82%	**85 - 100**
20	0.6	0.21%	99.79%	**80 - 95**
40	6.7	2.35%	97.65%	**60 - 80**
60	49.2	17.25%	82.75%	**30 - 55**
100	197	69.05%	30.95%	**0 - 15**
200	284.4	99.68%	0.32%	**5 MAX**
pan	285.3	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.56%	**ASTM D2974**
Permeability :	5.49E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.30%	**ASTM D1140**
Sieve Anaylsis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#3
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Northeast
Date Tested: 1/20/2010
Description Light Brown Sand

Date Sampled: 1/8/2010
Tested By: RB

Dry Weight of total sample: 278.2

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	2.4	0.86%	99.14%	**100**
10	3.5	1.26%	98.74%	**85 - 100**
20	3.8	1.37%	98.63%	**80 - 95**
40	11.6	4.17%	95.83%	**60 - 80**
60	72.6	26.10%	73.90%	**30 - 55**
100	215.2	77.35%	22.65%	**0 - 15**
200	277.4	99.71%	0.29%	**5 MAX**
pan	278.2	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.34%	**ASTM D2974**
Permeability :	5.54E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.20%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#4
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Northwest
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown Sand

Dry Weight of total sample: 313.4

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.06%	99.94%	**80 - 95**
40	9.5	3.03%	96.97%	**60 - 80**
60	68	21.70%	78.30%	**30 - 55**
100	214.8	68.54%	31.46%	**0 - 15**
200	310.3	99.01%	0.99%	**5 MAX**
pan	313.4	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.18%	**ASTM D2974**
Permeability :	1.31E-02	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.70%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#5
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: South Center
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown Sand

Dry Weight of total sample: 313.8

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.03%	99.97%	**80 - 95**
40	10.2	3.25%	96.75%	**60 - 80**
60	74.4	23.71%	76.29%	**30 - 55**
100	227	72.34%	27.66%	**0 - 15**
200	312.3	99.52%	0.48%	**5 MAX**
pan	313.8	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.28%	**ASTM D2974**
Permeability :	7.38E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.80%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#6
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Southeast
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown Sand

Dry Weight of total sample: 308.8

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.06%	99.94%	**80 - 95**
40	11.8	3.82%	96.18%	**60 - 80**
60	82	26.55%	73.45%	**30 - 55**
100	226.7	73.41%	26.59%	**0 - 15**
200	306.7	99.32%	0.68%	**5 MAX**
pan	308.8	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.43%	**ASTM D2974**
Permeability :	2.05E-02	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.80%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#7
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Southwest
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown Sand

Dry Weight of total sample: 290.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	11.2	3.86%	96.14%	**60 - 80**
60	77.3	26.63%	73.37%	**30 - 55**
100	220.5	75.96%	24.04%	**0 - 15**
200	289.1	99.59%	0.41%	**5 MAX**
pan	290.3	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.30%	**ASTM D2974**
Permeability :	7.38E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.70%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#8
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Ivory Tusk
Date Sampled: 1/8/2010
Date Tested: 1/20/2010
Tested By: RB
Description Light Brown Sand

Dry Weight of total sample: 297.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.3	0.10%	99.90%	**85 - 100**
20	0.4	0.13%	99.87%	**80 - 95**
40	4.5	1.51%	98.49%	**60 - 80**
60	38.4	12.92%	87.08%	**30 - 55**
100	192.3	64.68%	35.32%	**0 - 15**
200	295.8	99.50%	0.50%	**5 MAX**
pan	297.3	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.23%	**ASTM D2974**
Permeability :	1.23E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.20%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#9
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile #2 **Date Sampled:** 2/8/2010
Date Tested: 2/11/2010 **Tested By:** RB
Description Dark grey sand

Dry Weight of total sample: 297.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.3	0.10%	99.90%	**85 - 100**
20	0.4	0.13%	99.87%	**80 - 95**
40	4.5	1.51%	98.49%	**60 - 80**
60	38.4	12.92%	87.08%	**30 - 55**
100	192.3	64.68%	35.32%	**0 - 15**
200	295.8	99.50%	0.50%	**5 MAX**
pan	297.3	100.00%	0.00%	

Specific Gravity:	2.64	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	2.17%	**ASTM D2974**
Permeability : cm/sec	3.03E-03	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	4.80%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#10
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile #3 **Date Sampled:** 2/18/2010
Date Tested: 2/19/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 329.27

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.6	0.18%	99.82%	**85 - 100**
20	2.7	0.82%	99.18%	**80 - 95**
40	15.1	4.59%	95.41%	**60 - 80**
60	85.1	25.85%	74.15%	**30 - 55**
100	231.4	70.28%	29.72%	**0 - 15**
200	312.6	94.94%	5.06%	**5 MAX**
pan	329.27	100.00%	0.00%	

Specific Gravity;	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.75%	**ASTM D2974**
Permeability:	1.58E-02	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	4.90%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#11
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile# 1
Date Sampled: 4/19/2010
Date Tested: 4/21/2010
Tested By: RB
Description Light Brown Sand
Proctor #: PR#6
Dry Weight of total sample: 270.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.4	0.15%	99.85%	**80 - 95**
40	9.2	3.40%	96.60%	**60 - 80**
60	66.2	24.49%	75.51%	**30 - 55**
100	197.7	73.14%	26.86%	**0 - 15**
200	269.2	99.59%	0.41%	**5 MAX**
pan	270.3	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.70%	**ASTM D2974**
Permeability :	1.2E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.50%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#12
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile# 2 **Date Sampled:** 4/19/2010
Date Tested: 4/21/2010 **Tested By:** RB
Description Light Brown Sand
Proctor #: PR#7
Dry Weight of total sample: 289.5

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	100
10	0	0.00%	100.00%	85 - 100
20	0.1	0.03%	99.97%	80 - 95
40	11	3.80%	96.20%	60 - 80
60	73.2	25.28%	74.72%	30 - 55
100	214.1	73.96%	26.04%	0 - 15
200	288.2	99.55%	0.45%	5 MAX
pan	289.5	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.70%	**ASTM D2974**
Permeability :	1.27E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.90%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#13
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Serengeti Screened Pile 1 **Date Sampled:** 5/10/2010
Date Tested: 5/13/2010 **Tested By:** RB
Description Tan Sand

Dry Weight of total sample: 271.5

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.04%	99.96%	**80 - 95**
40	5.6	2.06%	97.94%	**60 - 80**
60	43.4	15.99%	84.01%	**30 - 55**
100	183.2	67.48%	32.52%	**0 - 15**
200	270.7	99.71%	0.29%	**5 MAX**
pan	271.5	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	0.3%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.10%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#14
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Screened Pile 3 **Date Sampled:** 5/10/2010
Date Tested: 5/13/2010 **Tested By:** RB
Description Tan Sand

Dry Weight of total sample: 302

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.03%	99.97%	**80 - 95**
40	9.6	3.18%	96.82%	**60 - 80**
60	71.2	23.58%	76.42%	**30 - 55**
100	221.3	73.28%	26.72%	**0 - 15**
200	300.9	99.64%	0.36%	**5 MAX**
pan	302	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.49E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.00%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#15
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile #2 **Date Sampled:** 5/20/2010
Date Tested: 5/28/2010 **Tested By:** RB
Description Tan Sand

Dry Weight of total sample: 276.3

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.11%	99.89%	**80 - 95**
40	9.7	3.51%	96.49%	**60 - 80**
60	69.9	25.30%	74.70%	**30 - 55**
100	209.8	75.93%	24.07%	**0 - 15**
200	275.6	99.75%	0.25%	**5 MAX**
pan	276.3	100.00%	0.00%	

Specific Gravity:	2.64	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.58E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.20%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#16
Date: 11/15/2010

Client: RIPA
Project: West Pasco Landfill
Sample #: Stockpile #1 **Date Sampled:** 5/20/2010
Date Tested: 5/28/2010 **Tested By:** RB
Description Tan Sand

Dry Weight of total sample: 267.4

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.11%	99.89%	**80 - 95**
40	9.6	3.59%	96.41%	**60 - 80**
60	69.3	25.92%	74.08%	**30 - 55**
100	201.6	75.39%	24.61%	**0 - 15**
200	266.7	99.74%	0.26%	**5 MAX**
pan	267.4	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.6%	**ASTM D2974**
Permeability :	1.46E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.30%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#17
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Serengeti Pile 3 **Date Sampled:** 5/25/2010
Date Tested: 6/2/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 308.6

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.06%	99.94%	**80 - 95**
40	7	2.27%	97.73%	**60 - 80**
60	50.8	16.46%	83.54%	**30 - 55**
100	217.7	70.54%	29.46%	**0 - 15**
200	307.6	99.68%	0.32%	**5 MAX**
pan	308.6	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	8.47E-03 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.9%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#18
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Serengeti Pile 2 **Date Sampled:** 5/25/2010
Date Tested: 6/2/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 305.1

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.1	0.03%	99.97%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	7.8	2.56%	97.44%	**60 - 80**
60	51.6	16.91%	83.09%	**30 - 55**
100	214.7	70.37%	29.63%	**0 - 15**
200	304.3	99.74%	0.26%	**5 MAX**
pan	305.1	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.08E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.9%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#19
Date: 11/15/2010

Client:	RIPA	**Project # :**	0810.1000004.0000
Project:	Pasco Co. Res. - Ash Cell A-4	**Report # ;**	SA#19
Sample #:	On-site Pile 3	**Date Sampled:**	5/25/2010
Date Tested:	6/2/2010	**Tested By:**	RB
Description	Light brown sand		

Dry Weight of total sample: 292.1

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.3	0.10%	99.90%	**85 - 100**
20	0.4	0.14%	99.86%	**80 - 95**
40	9.8	3.36%	96.64%	**60 - 80**
60	69.1	23.66%	76.34%	**30 - 55**
100	213.4	73.06%	26.94%	**0 - 15**
200	290.8	99.55%	0.45%	**5 MAX**
pan	292.1	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	8.08E-03 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.2%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#20
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Serengeti Pile 1 **Date Sampled:** 5/25/2010
Date Tested: 6/2/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 289.4

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.2	0.07%	99.93%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	5.9	2.04%	97.96%	**60 - 80**
60	44.5	15.38%	84.62%	**30 - 55**
100	196.4	67.86%	32.14%	**0 - 15**
200	288.6	99.72%	0.28%	**5 MAX**
pan	289.4	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	1.16E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.2%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#21
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #4 **Date Sampled:** 6/8/2010
Date Tested: 6/15/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 304.6

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.03%	99.97%	**80 - 95**
40	7.3	2.40%	97.60%	**60 - 80**
60	53	17.40%	82.60%	**30 - 55**
100	204.9	67.27%	32.73%	**0 - 15**
200	298.7	98.06%	1.94%	**5 MAX**
pan	304.6	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.2%	**ASTM D2974**
Permeability :	1.44E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#22
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #6 **Date Sampled:** 6/8/2010
Date Tested: 6/15/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 306.09

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	100
10	0.4	0.13%	99.87%	85 - 100
20	0.5	0.16%	99.84%	80 - 95
40	7.2	2.35%	97.65%	60 - 80
60	52.3	17.09%	82.91%	30 - 55
100	204.4	66.78%	33.22%	0 - 15
200	300.5	98.17%	1.83%	5 MAX
pan	306.09	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.2%	**ASTM D2974**
Permeability :	1.12E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#23
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #5 **Date Sampled:** 6/8/2010
Date Tested: 6/15/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 314.07

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	100
10	0.2	0.06%	99.94%	85 - 100
20	0.3	0.10%	99.90%	80 - 95
40	6.6	2.10%	97.90%	60 - 80
60	52.8	16.81%	83.19%	30 - 55
100	212.6	67.69%	32.31%	0 - 15
200	306.9	97.72%	2.28%	5 MAX
pan	314.07	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.2%	**ASTM D2974**
Permeability :	1.24E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.8%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#24
Date: 11/15/2010

Client:	RIPA		
Project:	Pasco Co. Res. - Ash Cell A-4		
Sample #:	Pile #7	**Date Sampled:**	6/18/2010
Date Tested:	6/22/2010	**Tested By:**	RB
Description	Light brown sand		

Dry Weight of total sample: 309.37

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	6.9	2.23%	97.77%	**60 - 80**
60	52.2	16.87%	83.13%	**30 - 55**
100	207	66.91%	33.09%	**0 - 15**
200	305	98.59%	1.41%	**5 MAX**
pan	309.37	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.3%	**ASTM D2974**
Permeability :	9.74E-03 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	0.8%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#25
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #8 **Date Sampled:** 6/18/2010
Date Tested: 6/22/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 302.62

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.07%	99.93%	**80 - 95**
40	6.6	2.18%	97.82%	**60 - 80**
60	49.9	16.49%	83.51%	**30 - 55**
100	198.7	65.66%	34.34%	**0 - 15**
200	298	98.47%	1.53%	**5 MAX**
pan	302.62	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.04E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.0%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#26
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #9 **Date Sampled:** 6/23/2010
Date Tested: 6/25/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 311.91

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	1.3	0.42%	99.58%	**85 - 100**
20	3.1	0.99%	99.01%	**80 - 95**
40	11.1	3.56%	96.44%	**60 - 80**
60	57.9	18.56%	81.44%	**30 - 55**
100	209.8	67.26%	32.74%	**0 - 15**
200	307	98.43%	1.57%	**5 MAX**
pan	311.91	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.10E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.0%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#27
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #10 **Date Sampled:** 6/28/2010
Date Tested: 6/30/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 295.6

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	7	2.37%	97.63%	**60 - 80**
60	51.1	17.29%	82.71%	**30 - 55**
100	201.5	68.17%	31.83%	**0 - 15**
200	294.4	99.59%	0.41%	**5 MAX**
pan	295.6	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	1.22E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.0%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#28
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #11 **Date Sampled:** 7/2/2010
Date Tested: 7/8/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 304.2

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.03%	99.97%	**80 - 95**
40	5.3	1.74%	98.26%	**60 - 80**
60	43.5	14.30%	85.70%	**30 - 55**
100	187.5	61.64%	38.36%	**0 - 15**
200	297.1	97.67%	2.33%	**5 MAX**
pan	304.2	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.26E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.1%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#29
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #12 **Date Sampled:** 7/9/2010
Date Tested: 7/13/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 317.95

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.1	0.03%	99.97%	**85 - 100**
20	0.2	0.06%	99.94%	**80 - 95**
40	6.5	2.04%	97.96%	**60 - 80**
60	46.7	14.69%	85.31%	**30 - 55**
100	203.5	64.00%	36.00%	**0 - 15**
200	311.4	97.94%	2.06%	**5 MAX**
pan	317.95	100.00%	0.00%	

Specific Gravity:	2.64	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.44E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.8%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#30
Date: 11/15/2010

Client:	RIPA		
Project:	Pasco Co. Res. - Ash Cell A-4		
Sample #:	Pile #13	**Date Sampled:**	7/13/2010
Date Tested:	7/14/2010	**Tested By:**	RB
Description	Light brown sand		

Dry Weight of total sample: 306.51

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.07%	99.93%	**80 - 95**
40	6.1	1.99%	98.01%	**60 - 80**
60	44.7	14.58%	85.42%	**30 - 55**
100	188.6	61.53%	38.47%	**0 - 15**
200	299.6	97.75%	2.25%	**5 MAX**
pan	306.51	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	1.39E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.9%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#31
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #14 **Date Sampled:** 7/16/2010
Date Tested: 7/19/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 302.2

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.9	0.30%	99.70%	**85 - 100**
20	1.1	0.36%	99.64%	**80 - 95**
40	7.8	2.58%	97.42%	**60 - 80**
60	46.2	15.29%	84.71%	**30 - 55**
100	187.1	61.91%	38.09%	**0 - 15**
200	295.8	97.88%	2.12%	**5 MAX**
pan	302.2	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.8%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#32
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #15 **Date Sampled:** 7/21/2010
Date Tested: 7/22/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 319.32

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.5	0.16%	99.84%	**85 - 100**
20	0.7	0.22%	99.78%	**80 - 95**
40	7.8	2.44%	97.56%	**60 - 80**
60	53.5	16.75%	83.25%	**30 - 55**
100	204.4	64.01%	35.99%	**0 - 15**
200	314.9	98.62%	1.38%	**5 MAX**
pan	319.32	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.3%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#33
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #15 **Date Sampled:** 7/21/2010
Date Tested: 7/22/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 319.32

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.5	0.16%	99.84%	**85 - 100**
20	0.7	0.22%	99.78%	**80 - 95**
40	7.8	2.44%	97.56%	**60 - 80**
60	53.5	16.75%	83.25%	**30 - 55**
100	204.4	64.01%	35.99%	**0 - 15**
200	314.9	98.62%	1.38%	**5 MAX**
pan	319.32	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.3%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#34
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #16 **Date Sampled:** 7/26/2010
Date Tested: 7/27/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 298.18

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.07%	99.93%	**80 - 95**
40	5.5	1.84%	98.16%	**60 - 80**
60	41.5	13.92%	86.08%	**30 - 55**
100	180.7	60.60%	39.40%	**0 - 15**
200	292.3	98.03%	1.97%	**5 MAX**
pan	298.18	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#35
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #17 **Date Sampled:** 7/28/2010
Date Tested: 7/29/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 297.8

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.07%	99.93%	**80 - 95**
40	6.1	2.05%	97.95%	**60 - 80**
60	41.5	13.94%	86.06%	**30 - 55**
100	188.7	63.36%	36.64%	**0 - 15**
200	289.4	97.18%	2.82%	**5 MAX**
pan	297.8	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.44E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#36
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #18 **Date Sampled:** 8/2/2010
Date Tested: 8/3/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 294.6

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.3	0.10%	99.90%	**80 - 95**
40	7.4	2.51%	97.49%	**60 - 80**
60	56.4	19.14%	80.86%	**30 - 55**
100	211.5	71.79%	28.21%	**0 - 15**
200	288.1	97.79%	2.21%	**5 MAX**
pan	294.6	100.00%	0.00%	

Specific Gravity:	2.54	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.6%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.0%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#37
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Pile #19 **Date Sampled:** 8/9/2010
Date Tested: 8/12/2010 **Tested By:** RB
Description Light brown sand

Dry Weight of total sample: 303.6

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.1	0.03%	99.97%	**80 - 95**
40	7.6	2.50%	97.50%	**60 - 80**
60	53.3	17.56%	82.44%	**30 - 55**
100	203.6	67.06%	32.94%	**0 - 15**
200	295.1	97.20%	2.80%	**5 MAX**
pan	303.6	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.4%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#38
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Screened Pile A **Date Sampled:** 8/12/2010
Date Tested: 8/6/2010 **Tested By:** RB
Description Brown sand

Dry Weight of total sample: 303.9

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	100
10	0.2	0.07%	99.93%	85 - 100
20	0.6	0.20%	99.80%	80 - 95
40	1.3	0.43%	99.57%	60 - 80
60	4.8	1.58%	98.42%	30 - 55
100	57	18.76%	81.24%	0 - 15
200	263.5	86.71%	13.29%	5 MAX
pan	303.9	100.00%	0.00%	

Specific Gravity:	2.57	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	7.39E-03 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	10.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#39
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Screened Pile B **Date Sampled:** 8/17/2010
Date Tested: 8/18/2010 **Tested By:** RB
Description Tan sand

Dry Weight of total sample: 280.66

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.5	0.18%	99.82%	**80 - 95**
40	9.1	3.24%	96.76%	**60 - 80**
60	44.8	15.96%	84.04%	**30 - 55**
100	173.5	61.82%	38.18%	**0 - 15**
200	273.4	97.41%	2.59%	**5 MAX**
pan	280.66	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	2.04E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	0.7%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#40
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Screened Pile C
Date Sampled: 8/17/2010
Date Tested: 8/18/2010
Tested By: RB
Description Tan Sand

Dry Weight of total sample: 262.09

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.4	0.15%	99.85%	**85 - 100**
20	0.7	0.27%	99.73%	**80 - 95**
40	4.9	1.87%	98.13%	**60 - 80**
60	46.2	17.63%	82.37%	**30 - 55**
100	170.2	64.94%	35.06%	**0 - 15**
200	254.8	97.22%	2.78%	**5 MAX**
pan	262.09	100.00%	0.00%	

Specific Gravity:	2.64	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.5%	**ASTM D2974**
Permeability :	7.83E-03 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	0.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#41
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Screened Pile 20 **Date Sampled:** 8/12/2010
Date Tested: 8/16/2010 **Tested By:** RB
Description Brown sand

Dry Weight of total sample: 220.5

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.09%	99.91%	**80 - 95**
40	7.6	3.45%	96.55%	**60 - 80**
60	42.5	19.27%	80.73%	**30 - 55**
100	144.9	65.71%	34.29%	**0 - 15**
200	210.6	95.51%	4.49%	**5 MAX**
pan	220.5	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.6%	**ASTM D2974**
Permeability :	1.51E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	3.2%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#42
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Screened Pile 21 **Date Sampled:** 8/16/2010
Date Tested: 8/17/2010 **Tested By:** CH
Description Brown sand

Dry Weight of total sample: 259.4

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0.3	0.12%	99.88%	**85 - 100**
20	0.8	0.31%	99.69%	**80 - 95**
40	7.9	3.05%	96.95%	**60 - 80**
60	46.8	18.04%	81.96%	**30 - 55**
100	172.1	66.35%	33.65%	**0 - 15**
200	255.3	98.42%	1.58%	**5 MAX**
pan	259.4	100.00%	0.00%	

Specific Gravity:	2.62	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.7%	**ASTM D2974**
Permeability :	1.42E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.6%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#43
Date: 11/15/2010

Client:	RIPA		
Project:	Pasco Co. Res. - Ash Cell A-4		
Sample #:	Source B / Pile 1	**Date Sampled:**	8/23/2010
Date Tested:	8/24/2010	**Tested By:**	CH
Description	Light Brown sand		

Dry Weight of total sample: 245.9

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.08%	99.92%	**80 - 95**
40	7.8	3.17%	96.83%	**60 - 80**
60	40.6	16.51%	83.49%	**30 - 55**
100	149.9	60.96%	39.04%	**0 - 15**
200	239.2	97.28%	2.72%	**5 MAX**
pan	245.9	100.00%	0.00%	

Specific Gravity:	2.61	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.3%	**ASTM D2974**
Permeability :	1.12E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.4%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#44
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Source B / Pile 2 **Date Sampled:** 8/23/2010
Date Tested: 8/24/2010 **Tested By:** CH
Description Light Brown sand

Dry Weight of total sample: 245.9

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.08%	99.92%	**80 - 95**
40	7.8	3.17%	96.83%	**60 - 80**
60	40.6	16.51%	83.49%	**30 - 55**
100	149.9	60.96%	39.04%	**0 - 15**
200	239.2	97.28%	2.72%	**5 MAX**
pan	245.9	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.3%	**ASTM D2974**
Permeability :	1.24E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	2.4%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#45
Date: 11/15/2010

Client:	RIPA		
Project:	Pasco Co. Res. - Ash Cell A-4		
Sample #:	Source B / Pile 3	**Date Sampled:**	8/26/2010
Date Tested:	8/26/2010	**Tested By:**	CH
Description	Light Brown sand		

Dry Weight of total sample: 278

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.4	0.14%	99.86%	**80 - 95**
40	5	1.80%	98.20%	**60 - 80**
60	29.4	10.58%	89.42%	**30 - 55**
100	155.9	56.08%	43.92%	**0 - 15**
200	273.3	98.31%	1.69%	**5 MAX**
pan	278	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.3%	**ASTM D2974**
Permeability :	1.24E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.7%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

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Project No.: 0810.1000004.000
Report No.: SA#46
Date: 11/15/2010

Client: RIPA
Project: Pasco Co. Res. - Ash Cell A-4
Sample #: Source B / Pile 4 **Date Sampled:** 8/30/2010
Date Tested: 8/31/2010 **Tested By:** CH
Description Light Brown sand

Dry Weight of total sample: 301.7

SIEVE SIZE	ACCUM. WEIGHT	PERCENT RETAINED	PERCENT PASSING	Range
4	0	0.00%	100.00%	**100**
10	0	0.00%	100.00%	**85 - 100**
20	0.2	0.07%	99.93%	**80 - 95**
40	6	1.99%	98.01%	**60 - 80**
60	34.4	11.40%	88.60%	**30 - 55**
100	170.3	56.45%	43.55%	**0 - 15**
200	297	98.44%	1.56%	**5 MAX**
pan	301.7	100.00%	0.00%	

Specific Gravity:	2.63	**ASTM D854**
Carbonate Content :	0%	**ASTM D4373**
Organic Content :	.4%	**ASTM D2974**
Permeability :	1.02E-02 cm/sec	
Soil Classification :	SP	**ASTM D2488**
200 Wash :	1.4%	**ASTM D1140**
Sieve Analysis:	Results Above	**ASTM D422**

Appendix B
Universal Report
(Bound Separately)

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

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Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

LEAK LOCATION SERVICES, INC.

16124 UNIVERSITY OAK • SAN ANTONIO, TEXAS 78249 • (210) 408-1241 / FAX (210) 408-1242

September 20, 2010

Comanco Environmental Corporation
4301 Sterling Commerce Dr.
Plant City, FL 33566-7372

Attention: Mr. Matthew R. Remmert, EI

Email: mremmert@comanco.com

Subject: Report for "Electrical Leak Location Survey for Ash Cell A4
At the West Pasco County Landfill Located in
Spring Hill, Florida";
LLSI Project 1203

Dear Mr. Remmert:

On September 13 through September 17 of 2010, Phillip Gatesuwan and German Flores of Leak Location Services, Inc. (LLSI) conducted a leak location survey of the primary geomembrane of the Ash Cell A4 at the West Pasco County Landfill located in Spring Hill, Florida. The landfill cell has an area of approximately 18.4 acres, and was surveyed using the soil-covered survey method in accordance with Section 02776-15 Paragraph 3.08 of the Specification Documents.

All of the primary geomembrane was surveyed for leaks. However the detection of leaks in the easternmost areas of the cell where the leak detection zone could not be flooded with water, depended on the leak flowing enough water through the geocomposite to make an effective connection with the flooded portion of the leak detection zone. So leak detection in these areas was not certain.

The cell is lined, from the bottom up, with geosynthetic clay liner (GCL), textured 60-mil HDPE secondary geomembrane, geonet with geotextile both sides, textured 60-mil HDPE primary geomembrane, geonet with geotextile both sides, and 24 inches of drainage sand layer. This report documents the results of the survey.

I. SURVEY

A. Results

Seven leaks were found in the primary geomembrane of Ash Cell A4. Figure 1 shows the approximate locations of the leaks, and Table 1 lists the approximate locations and descriptions of the leaks found during the survey. The leaks were uncovered, repaired by Comanco Environmental, and retested. No additional leaks were detected.

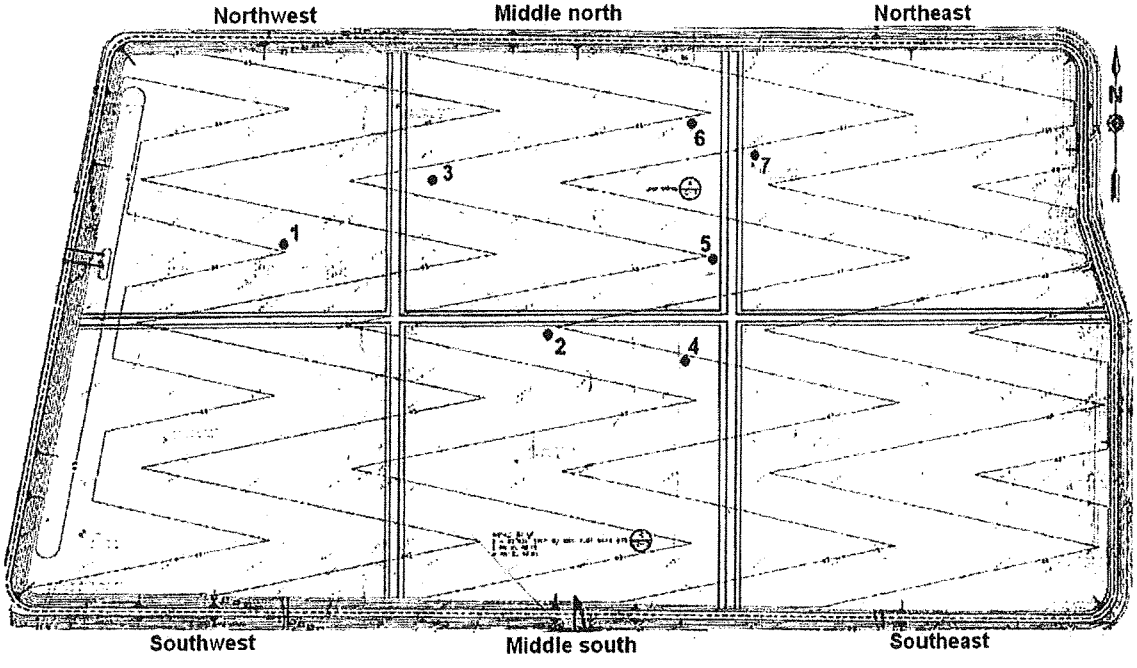

FIGURE 1. APPROXIMATELY LOCATION OF LEAKS FOUND IN ASH CELL A4

B. Calibration

The leak location equipment was tested for sensitivity and proper operation. This procedure was conducted at the beginning and end of the day by each LLSI personnel to verify equipment functionality. For a soil-covered survey, a 3mm diameter artificial leak was buried in the soil and leak location survey lines were run along both sides of the artificial leak. Leak location survey measurements were collected to determine the maximum distance that the simulated leak could be reliably detected. This detection distance was approximately 10 feet.

Table 1. Approximate Locations and Descriptions of Leaks Found in Ash Cell A4

LEAK	LOCATION	DESCRIPTION
1	Approximately 156 feet from west toe line and approximately 85 feet north of toe of center berm	0.12-inch hole on tee of patch
2	Approximately 144 feet from middle south west berm and approximately 10 feet south of toe of center berm	Extrusion weld on patch
3	Approximately 60 feet from middle north west berm and approximately 150 feet north of toe of center berm	Two holes from staple
4	Approximately 258 feet from middle north west berm and approximately 40 feet south of toe of center berm	0.20-inch tear
5	Approximately 318 feet from middle north west berm and approximately 55 feet north of toe of center berm	1-inch slit
6	Approximately 264 feet from middle north west berm and approximately 220 feet north of toe of center berm	Extrusion weld on patch
7	Approximately 27 feet from northeast west berm and approximately 170 feet north of toe of center berm	Extrusion weld on patch

II. TECHNIQUE

A. Principles of the Electrical Leak Location Method

The principle of the electrical survey method for geomembrane liners is to impress a high DC voltage across the liner and measure the resulting potential gradients on or in the conducting material on the liner. If any holes are present, characteristic anomalies in the potential measurements caused by electrical current flowing through the holes indicate their location.

B. Soil-Covered Survey

A high voltage isolated DC power supply was used to impress a voltage across the liner using one electrode placed in the drainage layer located on top of the primary liner and a second electrode placed in the electrically conducting material located between the liners. Therefore, the geomembrane liner provides an electrical barrier between the electrodes except where there are holes in the geomembrane liner. Electrical current flowing through the holes in the geomembrane liner produces localized anomalous areas of high current density near the holes. This electrical current path is provided by electrically conducting material such as water, sand, or soil.

The survey of the cell was conducted by making potential gradient measurements on the moist sand with measurement electrodes spaced approximately 3 feet apart. These measurements were made approximately every 3 feet along numbered survey lines that were spaced approximately 5 feet apart. A portable digital data logger was used to collect the data. The data was then downloaded into a portable computer for display, plotting, and analysis.

If there are any questions regarding the electrical survey or this report, please contact us at (210) 408-1241. We appreciate the opportunity to have been of service to Comanco Environmental Corporation.

Very truly yours,

German Flores
Project Manager

Approved by:

Glenn T. Darilek
Principal Engineer

Appendix C
Electronic Leak Detection Report

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VIDEO PIPELINE INSPECTION
NO DIG POINT REPAIRS
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LUTZ, FL 33558
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FLORIDAJETCLEAN@TAMPABAY.RR.COM

COMANCO
Pasco County Landfill
Ash Monofill – Cell A4
High-pressure Water-jetting & Explosion-proof Video-inspection

Work Performed
October 2010

Conducted By:
Florida Jetclean
800-226-8013

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LUTZ, FL 33558
TEL: 800-226-8013 FAX: 813-926-4616
FLORIDAJETCLEAN@TAMPABAY.RR.COM

DATE : 11/2/2010
TO : Steve Harrison – Comanco
FROM : Ralph Calistri (floridajetclean@yahoo.com)
SUBJECT : Pasco County Landfill – Ash Monofill – Cell A4

Florida Jetclean completed the high-pressure water-jetting and explosion-proof video-inspection of the new Cell A4 Ash Monofill leachate collection piping and leachate detection piping at the above location on 10/28/2010. This report contains the applicable jetting log, video-inspection Pipe Graphic reports, and the video-inspection footage in DVD format for further reference.

HIGH-PRESSURE WATER-JETTING:

All new leachate collection piping and leachate detection piping was high-pressure jetcleaned end-to-end without any obstructions encountered (see jetting log below). All new piping was clean and blockage free upon completion.

***** JETTING LOG *****

LOCATION	ACHIEVED DISTANCE (ft) *	RESULT
CO 4	1,322'	Entire pipe cleaned
CO 3	1,291'	Entire pipe cleaned
CO 2	1,263'	Entire pipe cleaned
CO 1	1,218'	Entire pipe cleaned
Collection Header	671'	Entire pipe cleaned
Detection Header	667'	Entire pipe cleaned

EXPLOSION-PROOF VIDEO-INSPECTION:

After the above high-pressure jetcleaning was completed, all new piping was video-inspected in their entirety with no defects noted (see included video-inspection Pipe Graphic reports and DVD's). Please note that the video-footage was recorded in reverse as the camera was retracted from the pipes for best picture lighting and clarity.

All new leachate collection piping and leachate detection piping in new Ash Monofill Cell A4 flows and drains properly, and looks to be ready for service.

Regards,
Ralph Calistri
Ralph Calistri - Florida Jetclean

Pipe Graphic Report of PLR CO.4 EAST B **for** COMANCO

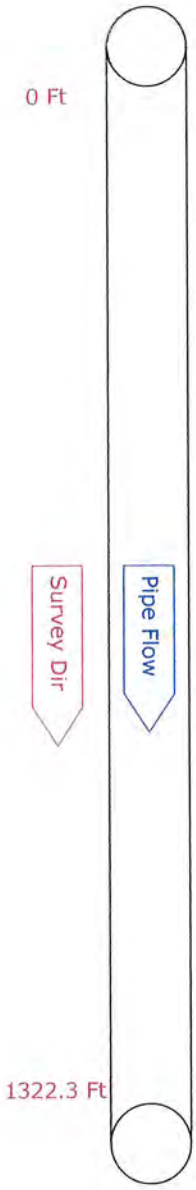
Work Order		**Contract**		**Video** 1	**Setup** 1
Facility		**Operator** BMN		**Van Ref** 3	**Surveyed On** 10/28/2010
Street Name	West Pasco LF Cell A4	**City**	Pasco		
Location type	LANDFILL				
Surface					
Survey purpose	Pre-acceptance - normally new sewers for adoption or private line goin			**Weather**	Dry

Pipe Use	LEACHATE	**Schedule length**	1322.3 Ft	**From**	CO.4 EAST	**Depth**	Ft
Shape	Circular	**Size** 8	**by** ins	**To**	CO.4 WEST	**Depth**	Ft
Material	Polyethylene - High density	**Joint spacing**	Ft	**Direction**	Downstream		
Lining		**Year laid**	2010	**Pre-clean**	Y	**Last cleaned**	10/28/2010

General note

Location note

Structural Service Constructional
Miscellaneous Hydraulic



	Start of Survey
0.0 Ft	Water level 0
	Manhole/Node [CO.4 EAST]
25.9 Ft	General observation [HEADDER]
478.4 Ft	General observation [VALVE]
865.4 Ft	General observation [VALVE]
1,322.3 Ft	Manhole/Node [CO.4 WEST]
	Finish of Surveys

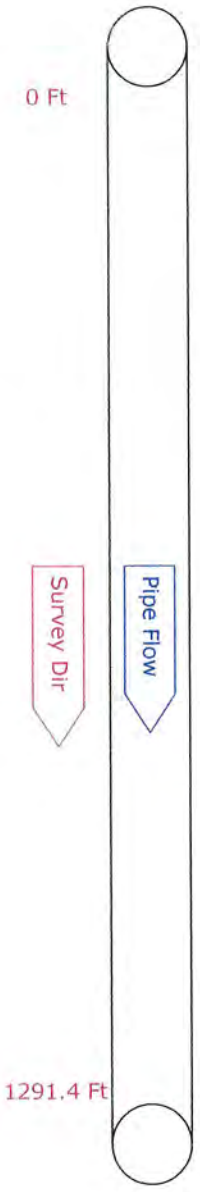
Pipe Graphic Report of PLR CO.3 EAST C **for** COMANCO

Work Order		**Contract**		**Video** 1	**Setup** 2
Facility		**Operator** BMN		**Van Ref** 3	**Surveyed On** 10/28/2010
Street Name	West Pasco LF Cell A4	**City**	Pasco		
Location type	LANDFILL				
Surface					
Survey purpose	Pre-acceptance - normally new sewers for adoption or private line goin			**Weather**	Dry

Pipe Use	LEACHATE	**Schedule length**	1291.4 Ft	**From**	CO.3 EAST	**Depth**	Ft
Shape	Circular	**Size** 8	**by** ins	**To**	CO.3 WEST	**Depth**	Ft
Material	Polyethylene - High density	**Joint spacing**	Ft	**Direction**	Downstream		
Lining		**Year laid**	2010	**Pre-clean**	Y	**Last cleaned**	10/28/2010

General note DVD CONT ON DISC 2
Location note

Structural Service Constructional
Miscellaneous Hydraulic



0.0 Ft Start of Survey
Manhole/Node [CO.3 EAST]
Water level 0

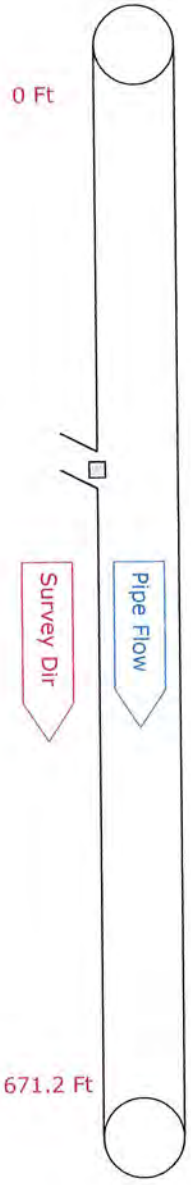
1,291.4 Ft Manhole/Node [CO.EAST]
Finish of Surveys

Pipe Graphic Report of PLR N D CO B **for** COMANCO

Work Order		**Contract**		**Video** 1	**Setup** 3
Facility		**Operator** BMN		**Van Ref** 2	**Surveyed On** 10/05/2010
Street Name	WEST PASCO CO LANDFILL	**City**	PASCO COUNTY		
Location type	Berm				
Surface					
Survey purpose	Other (state in comments)			**Weather**	Dry

Pipe Use	Other (state in comments)	**Schedule length**	671.2 Ft	**From**	N D CO	**Depth**	Ft
Shape	Circular	**Size** 8 **by**	ins	**To**	S D CO	**Depth**	Ft
Material	Other (state in comments)	**Joint spacing**	Ft	**Direction**	Downstream		
Lining		**Year laid**		**Pre-clean**	Y	**Last cleaned**	10/4/2010

General note HDPE DETECTION HEADER
Location note JETTING=671.2



0.0 Ft Start of Survey
Manhole/Node [N D CO]
Water level 0

261.3 Ft Lateral or connection exists OK 03 o'clock [LS/MH]

261.5 Ft Lateral or connection exists OK 03 o'clock [LS/MH]

671.2 Ft Manhole/Node [S D CO]

Pipe Graphic Report of PLR CO.2 EAST E **for** COMANCO

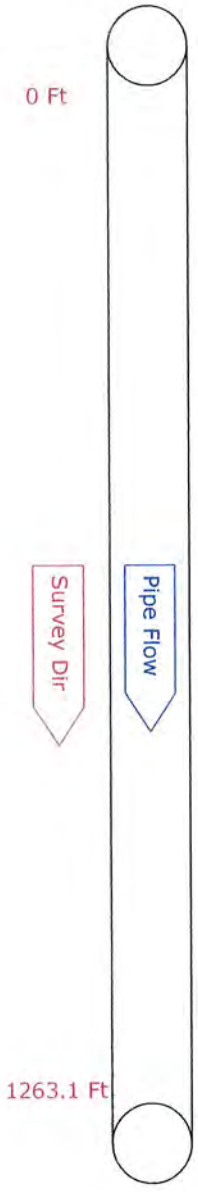
Work Order		**Contract**		**Video** 2	**Setup** 4
Facility		**Operator** BMN		**Van Ref** 3	**Surveyed On** 10/28/2010
Street Name	West Pasco LF Cell A4	**City**	Pasco		
Location type	LANDFILL				
Surface					
Survey purpose	Pre-acceptance - normally new sewers for adoption or private line goin			**Weather**	Dry

Pipe Use	LEACHATE	**Schedule length**	1263.1 Ft	**From**	CO.2 EAST	**Depth**	Ft
Shape	Circular	**Size** 8	**by** ins	**To**	CO.2 WEST	**Depth**	Ft
Material	Polyethylene - High density	**Joint spacing**	Ft	**Direction**	Downstream		
Lining		**Year laid** 2010		**Pre-clean**	Y	**Last cleaned**	10/28/2010

General note

Location note

Structural Service Constructional
Miscellaneous Hydraulic



	Start of Survey
0.0 Ft	Manhole/Node [CO.2 EAST]
	Water level 0
28.5 Ft	General observation [HEADDER]
73.0 Ft	General observation [VALVE]
403.4 Ft	General observation [VALVE]
797.7 Ft	General observation [VALVE]
1,263.1 Ft	Manhole/Node [CO.2 EAST]
	Finish of Surveys

Pipe Graphic Report of PLR CO.1 EAST G **for** COMANCO

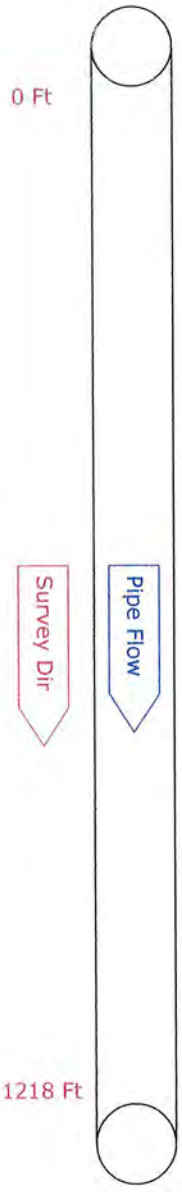
Work Order		**Contract**		**Video** 2	**Setup** 5
Facility		**Operator** BMN		**Van Ref** 3	**Surveyed On** 10/28/2010
Street Name	West Pasco LF Cell A4	**City**	Pasco		
Location type	LANDFILL				
Surface					
Survey purpose	Pre-acceptance - normally new sewers for adoption or private line goin			**Weather**	Dry

Pipe Use	LEACHATE	**Schedule length**	1218.0 Ft	**From**	CO.1 EAST	**Depth**	Ft
Shape	Circular	**Size** 8	**by** ins	**To**	CO.1 WEST	**Depth**	Ft
Material	Polyethylene - High density	**Joint spacing**	Ft	**Direction**	Downstream		
Lining		**Year laid**	2010	**Pre-clean**	Y	**Last cleaned**	10/28/2010

General note

Location note

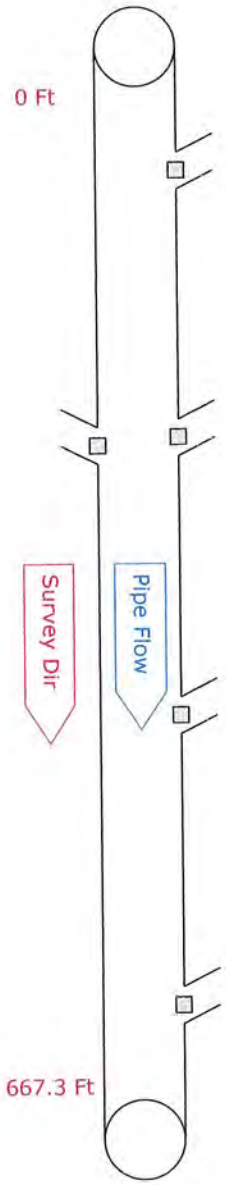
Structural Service Constructional
Miscellaneous Hydraulic



0.0 Ft	Start of Survey Manhole/Node [CO.1 EAST] Water level 0 Manhole/Node [CO.1 EAST]
40.9 Ft	General observation [VALVE]
369.9 Ft	General observation [VALVE]
1,218.0 Ft	Manhole/Node [CO.1 WEST] Finish of Surveys

Pipe Graphic Report of PLR N C CO A for COMANCO

Work Order		**Contract**		**Video** 2	**Setup** 6
Facility		**Operator** BMN		**Van Ref** 2	**Surveyed On** 10/05/2010
Street Name	WEST PASCO CO LANDFILL	**City**	PASCO COUNTY		
Location type	Berm				
Surface					
Survey purpose	Other (state in comments)			**Weather**	Dry
Pipe Use	Other (state in comments)	**Schedule length**	667.3 Ft	**From** N C CO	**Depth** Ft
Shape	Circular	**Size** 12	**by** ins	**To** S C CO	**Depth** Ft
Material	Other (state in comments)	**Joint spacing**	Ft	**Direction** Downstream	
Lining		**Year laid**		**Pre-clean** Y	**Last cleaned** 10/4/2010
General note	HDPE COLLECTION HEADER				
Location note	JETTING=667.3				



0.0 Ft	Start of Survey Manhole/Node [N D CO] Water level 0
75.8 Ft	Lateral or connection exists OK 09 o'clock [LAT 1]
239.1 Ft	Lateral or connection exists OK 09 o'clock [LAT 2]
244.1 Ft	Lateral or connection exists OK 03 o'clock [LS MH]
408.7 Ft	Lateral or connection exists OK 09 o'clock [LAT 3]
585.4 Ft	Lateral or connection exists OK 09 o'clock [LAT 4]
667.3 Ft	Manhole/Node [S C CO]

Appendix D
Leachate Collection System Video Inspection Report

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Graphic Elements

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Table Title/Figure # Cell

Table Header 1	Table Header 2
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Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text." Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text."

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[Sidebar Bullet]

Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

QUALITY CONTROL DATA PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

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QUALITY CONTROL
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COMANCO®

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PANEL PLACEMENT SUMMARY

SECTION A

PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Panel Placement Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell Name: cell A4 **Layer:** Primary

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
1	108150772	04/28/2010	1,308.37	69.47	277.86	0.00	0.00	0.00	18.69	1,586.23
2	108150772	04/28/2010	1,519.81	0.00	0.00	0.00	0.00	0.00	21.60	1,519.81
3	108150772	04/28/2010	1,388.34	0.00	0.00	0.00	0.00	0.00	21.70	1,388.34
4	108150555	04/28/2010	123.96	0.00	0.00	0.00	0.00	0.00	0.00	123.96
5	108150555	04/28/2010	1,529.74	0.00	0.00	0.00	0.00	0.00	21.74	1,529.74
6	108150555	04/28/2010	1,516.86	0.00	0.00	0.00	0.00	0.00	22.06	1,516.86
7	108150555	04/28/2010	1,525.96	0.00	0.00	0.00	0.00	0.00	21.71	1,525.96
8	108150555	04/28/2010	1,504.20	0.00	0.00	0.00	0.00	0.00	21.93	1,504.20
9	108150555	04/28/2010	1,518.52	0.00	0.00	0.00	0.00	0.00	21.90	1,518.52
10	108150555	04/28/2010	1,540.25	0.00	0.00	0.00	0.00	0.00	22.26	1,540.25
11	108150555	04/28/2010	1,615.87	0.00	0.00	0.00	0.00	0.00	21.76	1,615.87
12	108150986	04/28/2010	1,633.15	0.00	0.00	0.00	0.00	0.00	22.19	1,633.15
13	108150986	04/28/2010	1,668.61	0.00	0.00	0.00	0.00	0.00	21.95	1,668.61
14	108150986	04/28/2010	1,636.24	0.00	0.00	0.00	0.00	0.00	21.88	1,636.24
15	108150986	04/28/2010	1,628.40	0.00	0.00	0.00	0.00	0.00	21.53	1,628.40
16	108150986	04/28/2010	1,609.89	0.00	0.00	0.00	0.00	0.00	21.77	1,609.89
17	108150986	04/28/2010	1,612.02	0.00	0.00	0.00	0.00	0.00	22.08	1,612.02
18	108150986	04/28/2010	1,040.62	0.00	0.00	0.00	0.00	0.00	22.13	1,040.62
19	108150978	04/28/2010	551.36	0.00	0.00	0.00	0.00	0.00	0.00	551.36
20	108150978	04/28/2010	1,617.68	0.00	0.00	0.00	0.00	0.00	21.42	1,617.68
21	108150978	04/28/2010	1,600.22	0.00	0.00	0.00	0.00	0.00	21.97	1,600.22
22	108150978	04/28/2010	1,582.21	0.00	0.00	0.00	0.00	0.00	21.54	1,582.21
23	108150978	04/28/2010	1,602.64	0.00	0.00	0.00	0.00	0.00	22.12	1,602.64

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
24	108150978	04/28/2010	1,592.56	0.00	0.00	0.00	0.00	0.00	21.73	1,592.56
25	108150978	04/28/2010	1,566.99	0.00	0.00	0.00	0.00	0.00	21.70	1,566.99
26	108150982	04/28/2010	1,569.69	0.00	0.00	0.00	0.00	0.00	21.91	1,569.69
27	108150982	04/28/2010	1,573.33	0.00	0.00	0.00	0.00	0.00	21.94	1,573.33
28	108150982	04/28/2010	1,558.64	0.00	0.00	0.00	0.00	0.00	21.92	1,558.64
29	108150982	04/28/2010	1,547.13	0.00	0.00	0.00	0.00	0.00	21.99	1,547.13
30	108150982	04/28/2010	1,537.50	0.00	0.00	0.00	0.00	0.00	21.36	1,537.50
31	108150982	04/28/2010	1,594.08	0.00	0.00	0.00	0.00	0.00	22.25	1,594.08
32	108150982	04/28/2010	1,283.55	0.00	0.00	0.00	0.00	0.00	24.98	1,283.55
33	108151032	04/28/2010	484.70	0.00	0.00	0.00	0.00	0.00	0.00	484.70
34	108151032	04/28/2010	1,713.23	109.55	438.19	0.00	0.00	0.00	25.07	2,151.42
35	108151033	04/28/2010	11,296.81	21.38	85.53	0.00	0.00	0.00	0.00	11,382.33
36	108150554	04/28/2010	3,364.25	21.68	86.71	0.00	0.00	0.00	0.00	3,450.97
37	108150554	04/28/2010	7,704.43	21.90	87.60	0.00	0.00	0.00	0.00	7,792.03
38	108151032	04/28/2010	6,912.34	21.82	87.29	0.00	0.00	0.00	0.00	6,999.63
39	108151032	04/28/2010	1,093.26	22.08	88.31	0.00	0.00	0.00	0.00	1,181.57
40	108151031	04/28/2010	11,308.69	0.00	0.00	0.00	0.00	0.00	0.00	11,308.69
41	108150983	04/28/2010	11,227.01	21.69	86.75	0.00	0.00	0.00	0.00	11,313.76
42	108150985	04/28/2010	2,168.49	21.78	87.11	0.00	0.00	0.00	0.00	2,255.60
43	108150985	04/28/2010	3,391.50	21.87	87.47	0.00	0.00	0.00	0.00	3,478.97
44	108150985	04/28/2010	3,530.27	21.52	86.06	0.00	0.00	0.00	0.00	3,616.33
45	108151018	04/28/2010	11,139.77	22.03	88.11	0.00	0.00	0.00	0.00	11,227.88
46	108150985	04/29/2010	1,672.01	22.15	88.59	0.00	0.00	0.00	0.00	1,760.60
47	108150985	04/29/2010	11,180.52	0.00	0.00	0.00	0.00	0.00	0.00	11,180.52
48	108151024	04/29/2010	1,812.60	22.23	88.93	0.00	0.00	0.00	0.00	1,901.53
49	108151024	04/29/2010	3,384.55	21.69	86.77	0.00	0.00	0.00	0.00	3,471.32
50	108150986	04/29/2010	11,176.81	21.44	85.75	0.00	0.00	0.00	0.00	11,262.56
51	108151024	04/29/2010	4,087.53	21.85	87.42	0.00	0.00	0.00	0.00	4,174.95
52	108150984	04/29/2010	10,445.09	21.75	86.99	0.00	0.00	0.00	0.00	10,532.08
53	108150992	04/29/2010	1,796.37	22.18	88.73	0.00	0.00	0.00	0.00	1,885.11
54	108151024	04/29/2010	1,620.80	0.00	0.00	0.00	0.00	0.00	0.00	1,620.80
55	108151022	04/29/2010	11,220.28	21.72	86.86	0.00	0.00	0.00	0.00	11,307.14
56	108150992	04/29/2010	2,837.18	21.44	85.77	0.00	0.00	0.00	0.00	2,922.95
57	108151017	04/29/2010	11,349.31	0.00	0.00	0.00	0.00	0.00	0.00	11,349.31
58	108150984	04/29/2010	486.69	22.39	89.56	0.00	0.00	0.00	0.00	576.26
59	108150987	04/29/2010	11,278.99	21.55	86.18	0.00	0.00	0.00	0.00	11,365.17
60	108150992	04/29/2010	3,281.83	21.89	87.56	0.00	0.00	0.00	0.00	3,369.39
61	108150992	04/29/2010	2,852.06	21.78	87.12	0.00	0.00	0.00	0.00	2,939.19
62	108150952	04/29/2010	1,306.90	0.00	0.00	0.00	0.00	0.00	0.00	1,306.90
63	108151019	04/29/2010	10,507.41	21.92	87.66	0.00	0.00	0.00	0.00	10,595.07
64	108151020	04/29/2010	11,280.78	22.02	88.10	0.00	0.00	0.00	0.00	11,368.88
65	108150952	04/29/2010	3,285.06	21.85	87.40	0.00	0.00	0.00	0.00	3,372.46

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
66	108151019	04/29/2010	593.98	21.90	87.59	0.00	0.00	0.00	0.00	681.57
67	108151027	04/29/2010	11,355.43	0.00	0.00	0.00	0.00	0.00	0.00	11,355.43
68	108150952	04/29/2010	2,631.87	22.09	88.36	0.00	0.00	0.00	0.00	2,720.24
69	108150952	04/29/2010	3,337.54	21.58	86.34	0.00	0.00	0.00	0.00	3,423.88
70	108150770	04/29/2010	11,410.95	21.70	86.79	0.00	0.00	0.00	0.00	11,497.74
71	108150557	04/29/2010	11,178.29	22.28	89.13	0.00	0.00	0.00	0.00	11,267.42
72	108150954	04/29/2010	3,462.95	21.98	87.93	0.00	0.00	0.00	0.00	3,550.88
73	108150954	04/29/2010	3,268.64	22.12	88.47	0.00	0.00	0.00	0.00	3,357.11
74	108150948	04/29/2010	11,256.92	22.03	88.12	0.00	0.00	0.00	0.00	11,345.04
75	108150995	04/29/2010	10,311.60	21.72	86.90	0.00	0.00	0.00	0.00	10,398.50
76	108150954	04/29/2010	4,253.52	21.69	86.75	0.00	0.00	0.00	0.00	4,340.27
77	108150956	04/30/2010	3,327.99	22.43	89.73	0.00	0.00	0.00	0.00	3,417.72
78	108151028	04/30/2010	11,307.40	21.84	87.38	0.00	0.00	0.00	0.00	11,394.78
79	108150995	04/30/2010	443.19	21.45	85.78	0.00	0.00	0.00	0.00	528.97
80	108150989	04/30/2010	11,245.85	0.00	0.00	0.00	0.00	0.00	0.00	11,245.85
81	108150956	04/30/2010	2,852.96	21.36	85.43	0.00	0.00	0.00	0.00	2,938.39
82	108151023	04/30/2010	11,320.22	22.00	88.01	0.00	0.00	0.00	0.00	11,408.22
83	108150956	04/30/2010	3,351.88	22.15	88.60	0.00	0.00	0.00	0.00	3,440.48
84	108151034	04/30/2010	11,081.27	22.15	88.60	0.00	0.00	0.00	0.00	11,169.86
85	108150956	04/30/2010	1,344.93	0.00	0.00	0.00	0.00	0.00	0.00	1,344.93
86	108151025	04/30/2010	2,158.69	21.72	86.90	0.00	0.00	0.00	0.00	2,245.59
87	108151025	04/30/2010	3,449.61	21.64	86.54	0.00	0.00	0.00	0.00	3,536.15
88	108151035	04/30/2010	11,139.87	21.92	87.66	0.00	0.00	0.00	0.00	11,227.53
89	108150994	04/30/2010	10,616.24	21.70	86.79	0.00	0.00	0.00	0.00	10,703.03
90	108151025	04/30/2010	3,927.35	22.03	88.13	0.00	0.00	0.00	0.00	4,015.47
91	108150981	04/30/2010	1,882.80	21.79	87.16	0.00	0.00	0.00	0.00	1,969.96
92	108151025	04/30/2010	1,501.26	0.00	0.00	0.00	0.00	0.00	0.00	1,501.26
93	108150768	04/30/2010	11,261.14	21.86	87.44	0.00	0.00	0.00	0.00	11,348.57
94	108150994	04/30/2010	519.12	21.64	86.55	0.00	0.00	0.00	0.00	605.68
95	108150760	04/30/2010	11,160.82	0.00	0.00	0.00	0.00	0.00	0.00	11,160.82
96	108150981	04/30/2010	2,900.08	21.88	87.53	0.00	0.00	0.00	0.00	2,987.61
97	108151026	05/10/2010	11,247.01	21.99	87.97	0.00	0.00	0.00	0.00	11,334.98
98	108150981	05/10/2010	3,306.56	21.74	86.98	0.00	0.00	0.00	0.00	3,393.54
99	108150991	05/10/2010	10,514.50	21.83	87.33	0.00	0.00	0.00	0.00	10,601.83
100	108150734	05/10/2010	1,849.31	0.00	0.00	0.00	0.00	0.00	0.00	1,849.31
101	108150981	05/10/2010	2,208.77	21.77	87.07	0.00	0.00	0.00	0.00	2,295.84
102	108150734	05/10/2010	3,279.83	21.92	87.69	0.00	0.00	0.00	0.00	3,367.52
103	108150556	05/10/2010	11,283.67	21.85	87.40	0.00	0.00	0.00	0.00	11,371.07
104	108150734	05/10/2010	2,734.94	21.82	87.26	0.00	0.00	0.00	0.00	2,822.20
105	108150767	05/10/2010	11,411.54	0.00	0.00	0.00	0.00	0.00	0.00	11,411.54
106	108150991	05/10/2010	551.34	21.84	87.35	0.00	0.00	0.00	0.00	638.69
107	108150993	05/10/2010	11,229.14	21.79	87.15	0.00	0.00	0.00	0.00	11,316.29

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
108	108150963	05/10/2010	363.54	0.00	0.00	0.00	0.00	0.00	0.00	363.54
109	108150734	05/10/2010	2,995.43	21.86	87.43	0.00	0.00	0.00	0.00	3,082.87
110	108150963	05/10/2010	3,607.07	21.86	87.42	0.00	0.00	0.00	0.00	3,694.50
111	108150960	05/10/2010	11,031.58	21.98	87.92	0.00	0.00	0.00	0.00	11,119.50
112	108150962	05/10/2010	11,244.14	21.90	87.60	0.00	0.00	0.00	0.00	11,331.74
113	108150963	05/10/2010	3,368.01	21.86	87.44	0.00	0.00	0.00	0.00	3,455.44
114	108150963	05/10/2010	3,194.65	22.20	88.81	0.00	0.00	0.00	0.00	3,283.45
115	108150942	05/10/2010	844.78	0.00	0.00	0.00	0.00	0.00	0.00	844.78
116	108150947	05/10/2010	10,620.39	22.68	90.73	0.00	0.00	0.00	0.00	10,711.12
117	108150942	05/10/2010	10,361.55	21.31	85.25	0.00	0.00	0.00	0.00	10,446.80
118	108150961	05/10/2010	4,224.79	22.12	88.46	0.00	0.00	0.00	0.00	4,313.26
119	108150961	05/10/2010	3,319.04	21.63	86.52	0.00	0.00	0.00	0.00	3,405.55
120	108150996	05/10/2010	11,193.00	21.92	87.68	0.00	0.00	0.00	0.00	11,280.67
121	108150942	05/11/2010	509.87	21.96	87.82	0.00	0.00	0.00	0.00	597.69
122	108150738	05/10/2010	11,402.14	0.00	0.00	0.00	0.00	0.00	0.00	11,402.14
123	108150961	05/10/2010	2,719.16	21.97	87.88	0.00	0.00	0.00	0.00	2,807.04
124	108150949	05/10/2010	11,307.31	21.96	87.83	0.00	0.00	0.00	0.00	11,395.15
125	108150990	05/10/2010	3,350.18	21.97	87.88	0.00	0.00	0.00	0.00	3,438.05
126	108150944	05/18/2010	11,051.55	21.58	86.32	0.00	0.00	0.00	0.00	11,137.88
127	108150940	05/18/2010	11,174.93	21.77	87.09	0.00	0.00	0.00	0.00	11,262.03
128	108150585	05/18/2010	10,325.89	22.02	88.06	0.00	0.00	0.00	0.00	10,413.96
129	108150602	05/18/2010	11,275.96	22.01	88.04	0.00	0.00	0.00	0.00	11,364.00
130	108150585	05/18/2010	797.70	22.01	88.06	0.00	0.00	0.00	0.00	885.76
131	108150607	05/18/2010	11,320.80	0.00	0.00	0.00	0.00	0.00	0.00	11,320.80
132	108150945	05/18/2010	3,513.43	21.86	87.43	0.00	0.00	0.00	0.00	3,600.86
133	108150945	05/18/2010	3,442.11	21.87	87.48	0.00	0.00	0.00	0.00	3,529.59
134	108150601	05/18/2010	801.23	22.13	88.51	0.00	0.00	0.00	0.00	889.74
135	108150945	05/18/2010	3,491.55	0.00	0.00	0.00	0.00	0.00	0.00	3,491.55
136	108150988	05/18/2010	3,350.77	22.14	88.54	0.00	0.00	0.00	0.00	3,439.31
137	108150988	05/18/2010	2,459.96	21.98	87.90	0.00	0.00	0.00	0.00	2,547.86
138	108150988	05/18/2010	5,049.75	21.70	86.81	0.00	0.00	0.00	0.00	5,136.57
139	108150604	05/18/2010	9,538.28	21.61	86.43	0.00	0.00	0.00	0.00	9,624.71
140	108150604	05/18/2010	1,680.44	22.02	88.10	0.00	0.00	0.00	0.00	1,768.53
141	108150589	05/18/2010	11,328.85	0.00	0.00	0.00	0.00	0.00	0.00	11,328.85
142	108150590	05/18/2010	1,528.21	22.07	88.28	0.00	0.00	0.00	0.00	1,616.48
143	108150605	05/20/2010	11,226.78	21.82	87.27	0.00	0.00	0.00	0.00	11,314.05
144	108150587	05/20/2010	11,096.95	21.71	86.84	0.00	0.00	0.00	0.00	11,183.78
145	108150590	05/20/2010	3,301.75	21.75	86.99	0.00	0.00	0.00	0.00	3,388.74
146	108150590	05/20/2010	2,260.42	21.57	86.28	0.00	0.00	0.00	0.00	2,346.69
147	108150590	05/20/2010	1,310.11	0.00	0.00	0.00	0.00	0.00	0.00	1,310.11
148	108150591	05/20/2010	11,173.26	21.77	87.07	0.00	0.00	0.00	0.00	11,260.33
149	108150606	05/20/2010	11,151.78	22.22	88.87	0.00	0.00	0.00	0.00	11,240.65

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
150	108150603	05/20/2010	11,176.60	22.01	88.03	0.00	0.00	0.00	0.00	11,264.64
151	108150583	05/20/2010	11,212.47	21.21	84.86	0.00	0.00	0.00	0.00	11,297.33
152	108150558	05/20/2010	11,051.93	22.35	89.39	0.00	0.00	0.00	0.00	11,141.32
153	108150563	05/20/2010	6,153.77	21.79	87.18	0.00	0.00	0.00	0.00	6,240.95
154	108150608	05/20/2010	1,068.36	22.02	88.06	0.00	0.00	0.00	0.00	1,156.42
155	108150608	05/20/2010	472.21	0.00	0.00	0.00	0.00	0.00	0.00	472.21
156	108150608	05/20/2010	33.51	3.12	12.49	0.00	0.00	0.00	0.00	45.99
157	108150608	05/20/2010	3,714.15	22.43	89.72	0.00	0.00	0.00	0.00	3,803.87
158	108150608	05/20/2010	234.09	0.00	0.00	0.00	0.00	0.00	0.00	234.09
159	108150608	05/20/2010	6,881.50	21.99	87.95	0.00	0.00	0.00	0.00	6,969.45
160	108150580	06/11/2010	995.73	21.97	87.86	0.00	0.00	0.00	0.00	1,083.59
161	108150580	06/11/2010	967.12	21.91	87.63	0.00	0.00	0.00	0.00	1,054.76
162	108150580	06/11/2010	950.71	21.97	87.87	0.00	0.00	0.00	0.00	1,038.57
163	108150580	06/11/2010	953.66	21.70	86.82	0.00	0.00	0.00	0.00	1,040.47
164	108150580	06/11/2010	935.41	22.03	88.11	0.00	0.00	0.00	0.00	1,023.53
165	108150580	06/11/2010	938.40	21.91	87.66	0.00	0.00	0.00	0.00	1,026.06
166	108150580	06/11/2010	938.56	21.87	87.49	0.00	0.00	0.00	0.00	1,026.05
167	108150580	06/11/2010	949.48	22.05	88.22	0.00	0.00	0.00	0.00	1,037.70
168	108150580	06/11/2010	938.28	21.95	87.79	0.00	0.00	0.00	0.00	1,026.07
169	108150580	06/11/2010	930.23	22.02	88.07	0.00	0.00	0.00	0.00	1,018.29
170	108150560	06/11/2010	927.47	21.99	87.97	0.00	0.00	0.00	0.00	1,015.44
171	108150560	06/11/2010	927.14	21.93	87.73	0.00	0.00	0.00	0.00	1,014.87
172	108150560	06/11/2010	573.04	22.37	89.47	0.00	0.00	0.00	0.00	662.51
173	108150560	06/11/2010	202.50	15.86	63.43	0.00	0.00	0.00	0.00	265.93
174	108150560	06/11/2010	3.68	1.81	7.25	0.00	0.00	0.00	0.00	10.93
175	108150560	06/11/2010	515.66	22.00	88.01	0.00	0.00	0.00	0.00	603.67
176	108150561	07/14/2010	1,016.57	21.96	87.85	0.00	0.00	0.00	0.00	1,104.42
177	108150561	07/14/2010	1,306.04	21.94	87.78	0.00	0.00	0.00	0.00	1,393.81
178	108150571	07/14/2010	1,384.64	21.67	86.70	0.00	0.00	0.00	0.00	1,471.33
179	108150571	07/14/2010	188.59	0.00	0.00	0.00	0.00	0.00	0.00	188.59
180	108150571	07/14/2010	50.68	0.00	0.00	0.00	0.00	0.00	0.00	50.68
181	108150571	07/14/2010	1,314.05	21.85	87.42	0.00	0.00	0.00	0.00	1,401.47
182	108150571	07/14/2010	1,231.23	21.89	87.57	0.00	0.00	0.00	0.00	1,318.79
183	108150571	07/14/2010	1,128.16	21.75	87.00	0.00	0.00	0.00	0.00	1,215.16
184	108150571	07/14/2010	1,033.65	22.06	88.25	0.00	0.00	0.00	0.00	1,121.90
185	108150571	07/14/2010	936.52	21.83	87.33	0.00	0.00	0.00	0.00	1,023.85
186	108150571	07/14/2010	905.79	21.87	87.48	0.00	0.00	0.00	0.00	993.28
187	108150571	07/14/2010	804.03	17.98	71.91	0.00	0.00	0.00	0.00	875.94
188	108150553	07/14/2010	3,089.88	21.94	87.75	0.00	0.00	0.00	0.00	3,177.63
189	108150553	07/14/2010	3,009.47	21.92	87.67	0.00	0.00	0.00	0.00	3,097.14
190	108150553	07/14/2010	2,902.19	22.01	88.05	0.00	0.00	0.00	0.00	2,990.25
191	108150572	07/14/2010	1,309.14	22.00	87.98	0.00	0.00	0.00	0.00	1,397.12

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
192	108150553	07/14/2010	1,497.47	0.00	0.00	0.00	0.00	0.00	0.00	1,497.47
193	108150572	07/14/2010	2,714.47	21.86	87.43	0.00	0.00	0.00	0.00	2,801.90
194	108150572	07/14/2010	2,595.60	22.56	90.26	0.00	0.00	0.00	0.00	2,685.86
195	108150572	07/14/2010	52.20	13.12	52.47	0.00	0.00	0.00	0.00	104.67
196	108150572	07/14/2010	441.62	25.45	101.79	0.00	0.00	0.00	0.00	543.42
197	108150572	07/14/2010	575.69	21.94	87.78	0.00	0.00	0.00	0.00	663.46
198	108150571	07/14/2010	582.48	21.83	87.32	0.00	0.00	0.00	0.00	669.81
199	108150572	07/14/2010	595.51	21.89	87.57	0.00	0.00	0.00	0.00	683.09
200	108150572	07/14/2010	605.47	21.84	87.37	0.00	0.00	0.00	0.00	692.83
		TOTALS:	**853,592.68**	**3,234.01**	**12,936.02**	**0.00**	**0.00**	**0.00**	**680.79**	**866,528.70**

PRE-WELD TESTS

SECTION B

PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Preweld Test Report

Job Number: 03083171
Cell: cell A4
Layer: Primary
Material Type: 60 Mil HDPE Textured

Job Name: West Pasco Ash
Superintendent: Arnulfo Martinez
QC Technician: Carlos Lopez
Reported By: _____

Peel Test Extrusion Minimum: 78.00 **PPI**
Peel Test Fusion Minimum: 95.00 **PPI**
Shear Test Minimum: 120.00 **PPI**

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
1	04/08/2010 S To S	10:12 am	SERBELIO MENDEZ	WE-A052	8	800	0	77	Peel	132	140	137	137	132	146	140	129	138	134	Pass
									Shear	190		186		186		184		180		
2	04/08/2010 S To S	10:28 am	DANIEL LOPEZ	WE-A075	13	800	0	80	Peel	136	132	138	129	128	133	138	122	137	149	Pass
									Shear	188		182		184		183		187		
3	04/08/2010 S To S	10:43 am	RAFAEL ORDONEZ	WE--A047	8	750	0	80	Peel	125	138	146	124	145	135	126	127	142	124	Pass
									Shear	185		177		176		178		185		
4	04/28/2010 T To T	7:20 am	DANIEL LOPEZ	WE-A091	15	800	0	62	Peel	145	131	141	129	133	130	133	140	129	125	Pass
									Shear	199		203		206		195		185		
5	04/28/2010 T To T	7:25 am	RAFAEL ORDONEZ	WE--A047	7	850	0	62	Peel	143	149	138	121	146	141	140	142	140	138	Pass
									Shear	206		197		200		201		189		
6	04/28/2010 T To T	7:00 am	SARBELIO MENDEZ	WE-A075	14	800	0	61	Peel	138	138	135	139	147	157	142	138	144	139	Pass
									Shear	196		200		199		201		178		
7	04/28/2010 T To T	7:20 am	CIRINO MARTINEZ	ET-A061	0	520	500	62	Peel	154	00	141	00	178	00	110	00	163	00	Pass
									Shear	186		176		192		176		178		
8	04/28/2010 T To T	8:40 am	JOSE PALESTIANO	ET-A040	0	520	480	71	Peel	114	00	124	00	136	00	119	00	98	00	Pass
									Shear	164		174		160		161		157		
9	04/28/2010 T To T	12:30 pm	RAFAEL ORDONEZ	WE--A047	7	850	0	78	Peel	135	121	139	135	128	148	143	126	129	139	Pass
									Shear	178		176		181		174		182		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
10	04/28/2010 T To T	12:35 pm	SARBELIO MENDEZ	WE-A075	15	800	0	77	Peel	124	145	119	147	148	115	123	143	121	140	Pass
									Shear	167		161		166		171		170		
11	04/28/2010 T To T	12:40 pm	DANIEL LOPEZ	WE-A091	15	800	0	77	Peel	119	123	125	115	122	123	119	120	116	108	Pass
									Shear	166		165		168		157		169		
12	04/28/2010 T To T	12:20 pm	JOSE PALESTIANO	ET-A040	0	510	480	77	Peel	154	00	124	00	151	00	139	00	142	00	Pass
									Shear	156		152		157		155		147		
13	04/28/2010 T To T	12:15 pm	CIRINO MARTINEZ	ET-A061	0	500	485	73	Peel	149	00	140	00	147	00	144	00	143	00	Pass
									Shear	182		177		178		168		172		
14	04/29/2010 T To T	8:00 am	RAFAEL ORDONEZ	WE--A047	7	850	0	69	Peel	132	139	130	135	138	135	130	135	112	132	Pass
									Shear	204		203		203		197		189		
15	04/29/2010 T To T	8:10 am	SARBELIO MENDEZ	WE-A068	16	800	0	69	Peel	134	127	137	148	161	144	138	126	127	131	Pass
									Shear	197		194		199		195		203		
16	04/29/2010 T To T	8:05 am	DANIEL LOPEZ	WE-A091	15	800	0	69	Peel	133	129	119	124	137	147	117	129	125	133	Pass
									Shear	192		190		194		185		198		
17	04/29/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	515	495	69	Peel	137	00	122	00	138	00	141	00	126	00	Pass
									Shear	181		185		184		185		180		
18	04/29/2010 T To T	7:25 am	JOSE PALESTIANO	ET-A040	0	520	490	69	Peel	96	00	88	00	139	00	126	00	124	00	Pass
									Shear	187		174		184		179		171		
19	04/29/2010 T To T	12:00 pm	SARBELIO MENDEZ	WE-A068	16	800	0	83	Peel	141	128	130	124	149	149	145	139	134	128	Pass
									Shear	167		155		161		153		158		
20	04/29/2010 T To T	12:00 pm	RAFAEL ORDONEZ	WE--A047	7	850	0	83	Peel	153	146	146	146	158	145	145	139	146	144	Pass
									Shear	168		164		167		159		174		
21	04/29/2010 T To T	12:05 pm	DANIEL LOPEZ	WE-A091	15	800	0	82	Peel	133	146	143	148	152	133	145	131	117	134	Pass
									Shear	163		158		162		148		147		
22	04/29/2010 T To T	12:00 pm	CIRINO MARTINEZ	ET-A061	0	490	468	83	Peel	157	00	159	00	154	00	138	00	127	00	Pass
									Shear	166		165		171		166		168		
23	04/29/2010 T To T	12:00 pm	JOSE PALESTIANO	ET-A040	0	490	460	83	Peel	138	00	133	00	115	00	119	00	128	00	Pass
									Shear	161		156		167		158		161		
24	04/29/2010 T To T	2:40 pm	DANIEL LOPEZ	WE-A091	15	800	0	89	Peel	114	127	109	129	116	118	108	122	116	116	Pass
									Shear	145		140		148		150		143		
25	04/30/2010 T To T	7:40 am	SARBELIO MENDEZ	WE-A068	16	800	0	73	Peel	135	133	125	124	134	127	129	128	120	125	Pass
									Shear	174		171		175		175		170		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
26	04/30/2010 T To T	8:10 am	RAFAEL ORDONEZ	WE-A040	9	850	0	73	Peel	127	152	134	121	130	138	141	131	129	133	Pass
									Shear	161		165		165		166		174		
27	04/30/2010 T To T	8:18 am	DANIEL LOPEZ	WE-A091	15	800	0	73	Peel	135	127	134	121	145	123	158	129	130	115	Pass
									Shear	180		165		175		165		174		
28	04/30/2010 T To T	8:20 am	JOSE PALESTIANO	ET-A040	0	500	470	73	Peel	99	00	108	00	126	00	114	00	111	00	Pass
									Shear	161		165		166		165		177		
29	04/30/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	510	490	72	Peel	137	00	120	00	142	00	127	00	128	00	Pass
									Shear	173		166		177		164		168		
30	04/30/2010 T To T	12:23 pm	CIRINO MARTINEZ	ET-A061	0	487	457	90	Peel	134	00	124	00	144	00	139	00	142	00	Pass
									Shear	153		144		148		153		146		
31	05/03/2010 T To T	7:45 am	CIRINO MARTINEZ	ET-A061	0	795	475	80	Peel	112	00	116	00	97	00	119	00	131	00	Pass
									Shear	175		168		177		164		164		
32	05/03/2010 T To T	8:00 am	NICOLAS VIRGEN	ET-A040	0	490	460	80	Peel	145	00	150	00	126	00	121	00	118	00	Pass
									Shear	168		165		164		158		157		
33	05/03/2010 T To T	7:00 am	SARBELIO MENDEZ	ET-A066	0	480	400	80	Peel	116	00	138	00	149	00	141	00	133	00	Pass
									Shear	159		162		158		161		161		
34	05/04/2010 T To T	7:45 am	CIRINO MARTINEZ	ET-A061	0	495	476	80	Peel	117	00	132	00	134	00	134	00	120	00	Pass
									Shear	163		160		160		156		148		
35	05/04/2010 T To T	9:50 am	RAFAEL ORDONEZ	WE-A040	8	850	0	85	Peel	139	151	138	141	138	147	142	140	135	121	Pass
									Shear	164		156		160		155		161		
36	05/10/2010 T To T	7:30 am	DANIEL LOPEZ	WE-A091	15	800	0	79	Peel	153	152	131	122	138	131	151	149	130	133	Pass
									Shear	170		160		166		162		158		
37	05/10/2010 T To T	7:30 am	SARBELIO MENDEZ	WE-A068	16	800	0	79	Peel	142	127	133	139	127	129	139	105	130	126	Pass
									Shear	164		160		164		156		156		
38	05/10/2010 T To T	7:40 am	RAFAEL ORDONEZ	WE-A040	8	850	0	79	Peel	141	148	132	142	144	143	137	145	129	146	Pass
									Shear	172		163		144		138		143		
39	05/10/2010 T To T	8:00 am	CIRINO MARTINEZ	ET-A061	0	500	485	80	Peel	149	00	133	00	142	00	146	00	133	00	Pass
									Shear	167		156		147		168		165		
40	05/10/2010 T To T	12:00 pm	DANIEL LOPEZ	WE-A091	15	800	0	85	Peel	130	130	119	120	123	118	126	121	136	110	Pass
									Shear	172		159		159		168		162		
41	05/10/2010 T To T	12:00 pm	SARBELIO MENDEZ	WE-A068	16	800	0	85	Peel	122	128	101	112	102	122	119	122	118	124	Pass
									Shear	152		132		143		144		142		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
42	05/10/2010 T To T	12:00 pm	RAFAEL ORDONEZ	WE-A040	8	850	0	85	Peel	120	116	101	97	96	105	106	112	104	144	Pass
									Shear	157		144		147		148		129		
43	05/10/2010 T To T	12:00 pm	CIRINO MARTINEZ	ET-A061	0	490	473	85	Peel	108	00	121	00	123	00	135	00	121	00	Pass
									Shear	159		143		146		153		146		
44	05/11/2010 T To T	7:40 am	CIRINO MARTINEZ	ET-A061	0	500	485	68	Peel	133	00	126	00	137	00	125	00	129	00	Pass
									Shear	189		168		176		168		160		
45	05/11/2010 T To T	12:50 pm	CIRINO MARTINEZ	ET-A061	0	495	477	89	Peel	132	00	128	00	122	00	134	00	122	00	Pass
									Shear	137		133		138		142		132		
46	05/17/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	530	510	78	Peel	155	00	124	00	138	00	144	00	109	00	Pass
									Shear	172		165		159		167		160		
47	05/18/2010 T To T	8:50 am	SARBELIO MENDEZ	WE-A068	16	800	0	81	Peel	120	118	105	111	111	113	114	130	114	121	Pass
									Shear	157		162		162		161		149		
48	05/18/2010 T To T	8:50 am	DANIEL LOPEZ	WE-A096	15	800	0	82	Peel	125	115	117	132	108	106	123	109	120	128	Pass
									Shear	160		153		158		154		154		
49	05/18/2010 T To T	1:15 pm	CIRINO MARTINEZ	ET-A061	0	500	475	91	Peel	131	00	115	00	130	00	127	00	126	00	Pass
									Shear	151		133		147		145		137		
50	05/18/2010 T To T	1:00 pm	DANIEL LOPEZ	WE-A096	15	800	0	92	Peel	132	136	125	122	138	128	132	125	146	130	Pass
									Shear	151		139		152		145		145		
51	05/19/2010 T To T	7:20 am	CIRINO MARTINEZ	ET-A061	0	520	500	68	Peel	143	00	133	00	144	00	129	00	135	00	Pass
									Shear	183		162		167		169		164		
52	05/20/2010 T To T	7:40 am	DANIEL LOPEZ	WE-A096	15	800	0	72	Peel	141	138	126	115	128	126	141	128	130	110	Pass
									Shear	170		162		171		173		167		
53	05/20/2010 T To T	7:30 am	SARBELIO MENDEZ	WE-A068	15	800	0	73	Peel	135	144	113	136	125	123	131	133	112	124	Pass
									Shear	162		154		156		168		154		
54	05/20/2010 T To T	9:09 am	CIRINO MARTINEZ	ET-A061	0	510	487	87	Peel	124	00	108	00	125	00	127	00	113	00	Pass
									Shear	154		132		133		149		136		
55	05/20/2010 T To T	12:00 pm	CIRINO MARTINEZ	ET-A061	0	510	480	88	Peel	132	00	116	00	135	00	140	00	121	00	Pass
									Shear	145		141		142		154		140		
56	05/21/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	540	510	81	Peel	130	00	145	00	129	00	118	00	130	00	Pass
									Shear	142		136		137		138		134		
57	06/01/2010 T To T	7:44 am	CIRINO MARTINEZ	ET-A061	0	525	500	73	Peel	131	00	121	00	140	00	137	00	146	00	Pass
									Shear	168		171		172		168		170		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
58	06/11/2010 T To T	8:16 am	SARBELIO MENDEZ	WE-A068	13	820	0	79	Peel	129	128	119	121	125	121	138	122	118	115	Pass
									Shear	170		156		166		162		152		
59	06/11/2010 T To T	8:00 am	DANIEL LOPEZ	WE-A096	12	800	0	80	Peel	130	115	125	109	96	99	114	104	103	105	Pass
									Shear	159		149		163		160		151		
60	06/11/2010 T To T	9:43 am	CIRINO MARTINEZ	ET-A061	0	500	480	88	Peel	140	00	134	00	143	00	137	00	139	00	Pass
									Shear	146		142		152		143		139		
61	07/14/2010 T To T	11:20 am	JOSE PALESTIANO	WE-A076	15	800	0	90	Peel	132	117	143	121	123	126	127	131	141	128	Pass
									Shear	165		171		174		169		178		
62	07/14/2010 T To T	11:20 am	DANIEL LOPEZ	WE-A096	15	800	0	90	Peel	134	117	129	122	127	130	120	131	122	126	Pass
									Shear	177		180		183		179		174		
63	07/14/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061	0	500	470	94	Peel	115	00	120	00	118	00	121	00	125	00	Pass
									Shear	152		154		161		158		149		
64	07/15/2010 T To T	7:00 am	CIRINO MARTINEZ	ET-A061	0	500	470	82	Peel	119	00	113	00	125	00	120	00	116	00	Pass
									Shear	151		148		145		142		147		
65	07/21/2010 T To T	11:00 am	CIRINO MARTINEZ	ET-A061	0	470	450	90	Peel	114	00	120	00	118	00	110	00	105	00	Pass
									Shear	158		163		160		149		157		
66	09/14/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061		550	440	89	Peel	144	00	125	00	133	00	122	00	135	00	Pass
									Shear	155		148		151		148		157		
67	09/15/2010 T To T	11:30 am	CIRINO MARTINEZ	ET-A061		550	540	78	Peel	142	00	147	00	144	00	140	00	144	00	Pass
									Shear	168		175		168		171		169		
68	09/16/2010 T To T	2:00 pm	CIRINO MARTINEZ	ET-A061		550	540	88	Peel	138	00	150	00	151	00	148	00	144	00	Pass
									Shear	166		171		171		165		168		
69	09/16/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061		550	540	70	Peel	158	00	161	00	155	00	149	00	149	00	Pass
									Shear	165		153		155		157		169		
70	09/17/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061		550	540	87	Peel	120	00	128	00	131	00	126	00	134	00	Pass
									Shear	158		149		153		151		164		

DESTRUCTIVE TEST REPORT / LOCATION SUMMARY

SECTION C

PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Destructive Sample Report

Job Number: 03083171
Cell: cell A4
Layer: Primary

Job Name: West Pasco Ash
Superintendent: Arnulfo Martinez
QC Technician: Carlos Lopez

Peel Test Extrusion Minimum: 78.00 **PPI**
Peel Test Fusion Minimum: 95.00 **PPI**
Shear Test Minimum: 120.00 **PPI**

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
1	Nor: 1,468,066.20 Eas 319,679.03 Ele: 51.64	Seam No. 17/17	04/28/2010	JOSE PALESTIANO	ET-A040	0	520	480	Peel	119	000	111	000	134	000	100	000	090	000	Pass
									Shear	153		148		156		155		154		
2	Nor: 1,468,341.20 Eas 319,671.20 Ele: 63.23	Seam No. 5/5	04/28/2010	CIRINO MARTINEZ	ET-A061	0	520	500	Peel	127	000	140	000	149	000	114	000	131	000	Pass
									Shear	175		162		161		155		161		
3	Nor: 1,468,390.10 Eas 319,614.80 Ele: 49.14	Seam No. 1/2	04/28/2010	SARBELIO MENDEZ	WE-A075	14	800	0	Peel	145	146	118	134	139	141	144	146	138	138	Pass
									Shear	177		175		181		185		180		
4	Nor: 1,468,237.10 Eas 319,615.25 Ele: 50.00	Seam No. 9/10	04/28/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	133	129	127	133	134	137	126	135	123	140	Pass
									Shear	181		181		177		174		169		
5	Nor: 1,468,084.50 Eas 319,630.25 Ele: 49.31	Seam No. 16/17	04/28/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	145	125	127	125	141	121	149	123	114	125	Pass
									Shear	170		167		171		168		167		
6	Nor: 1,467,866.00 Eas 319,641.60 Ele: 49.16	Seam No. 27/28	04/28/2010	SARBELIO MENDEZ	WE-A075	14	800	0	Peel	126	137	135	120	138	128	139	134	127	138	Pass
									Shear	175		165		177		168		172		
7	Nor: 1,467,813.40 Eas 319,608.00 Ele: 48.19	Seam No. 30/35	04/28/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	130	138	117	128	140	147	142	147	127	134	Pass
									Shear	167		168		178		174		162		
8	Nor: 1,467,962.40 Eas 319,584.28 Ele: 48.24	Seam No. 35/38	04/28/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	128	132	125	123	131	131	132	128	126	140	Pass
									Shear	170		162		174		168		168		
9	Nor: 1,468,112.60 Eas 319,561.47 Ele: 48.61	Seam No. 37/40	04/28/2010	SARBELIO MENDEZ	WE-A075	14	800	0	Peel	116	141	140	146	119	139	121	142	111	158	Pass
									Shear	174		172		179		172		174		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
10	Nor: 1,468,308.50 Eas 319,550.38 Ele: 47.88	Seam No. 40/42	04/28/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	151	145	143	149	159	146	149	145	150	149	Pass
									Shear	160		158		155		160		160		
11	Nor: 1,468,161.60 Eas 319,539.28 Ele: 47.55	Seam No. 40/41	04/28/2010	SARBELIO MENDEZ	WE-A075	14	800	00	Peel	129	103	128	100	128	127	132	122	120	101	Pass
									Shear	153		149		155		151		146		
12	Nor: 1,468,310.80 Eas 319,516.34 Ele: 47.79	Seam No. 43/44	04/28/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	123	115	130	127	124	118	128	129	113	120	Pass
									Shear	160		169		170		169		146		
13	Nor: 1,467,866.00 Eas 319,497.78 Ele: 47.63	Seam No. 45/47	04/29/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	114	115	109	122	109	119	122	109	113	110	Pass
									Shear	157		156		156		156		147		
14	Nor: 1,468,326.40 Eas 319,483.53 Ele: 47.17	Seam No. 47/48	04/29/2010	RAFAEL ORDONEZ	WE--A047	7	850	00	Peel	130	136	133	142	133	146	136	148	129	141	Pass
									Shear	167		165		167		162		156		
15	Nor: 1,468,014.50 Eas 319,474.70 Ele: 47.65	Seam No. 47/50	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	116	125	114	119	117	126	119	115	121	120	Pass
									Shear	148		139		146		149		142		
16	Nor: 1,467,866.40 Eas 319,454.22 Ele: 47.76	Seam No. 50/52	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	121	115	127	115	127	109	123	112	123	108	Pass
									Shear	150		142		147		148		144		
17	Nor: 1,468,224.20 Eas 319,440.00 Ele: 48.01	Seam No. 51/52	04/29/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	132	141	138	143	144	140	138	134	137	137	Pass
									Shear	129		156		150		151		150		
18	Nor: 1,468,263.60 Eas 319,429.25 Ele: 48.24	Seam No. 54/51	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	136	142	141	133	143	145	129	143	117	140	Pass
									Shear	176		163		170		167		167		
19	Nor: 1,468,313.10 Eas 319,407.20 Ele: 47.01	Seam No. 54/56	04/29/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	146	134	115	129	130	135	138	114	120	142	Pass
									Shear	166		161		169		163		163		
20	Nor: 1,468,214.10 Eas 319,386.25 Ele: 47.75	Seam No. 57/59	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	121	122	112	119	124	126	102	127	116	116	Pass
									Shear	156		154		157		157		156		
21	Nor: 1,467,817.50 Eas 319,367.90 Ele: 46.98	Seam No. 59/63	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	123	131	098	120	112	132	130	127	129	128	Pass
									Shear	153		147		155		155		158		
22	Nor: 1,468,220.80 Eas 319,352.40 Ele: 47.98	Seam No. 63/62	04/29/2010	RAFAEL ORDONEZ	WE--A047	7	850	0	Peel	144	126	131	121	120	115	134	107	132	110	Pass
									Shear	152		150		152		148		148		
23	Nor: 1,467,866.20 Eas 319,345.28 Ele: 47.61	Seam No. 63/64	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	105	114	101	112	099	113	099	108	101	107	Pass
									Shear	153		149		151		147		149		
24	Nor: 1,468,313.80 Eas 319,319.78 Ele: 46.72	Seam No. 68/65	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	121	115	107	111	103	114	095	118	099	103	Pass
									Shear	144		143		147		144		145		
25	Nor: 1,468,162.80 Eas 319,299.00 Ele: 46.64	Seam No. 67/70	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	126	122	135	114	127	144	120	127	138	138	Pass
									Shear	149		142		146		146		149		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
26	Nor: 1,468,062.20 Eas 319,277.56 Ele: 47.79	Seam No. 70/71	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	135	137	130	125	137	127	123	122	132	134	Pass
									Shear	156		151		157		149		159		
27	Nor: 1,468,312.00 Eas 319,253.88 Ele: 46.70	Seam No. 72/73	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	126	117	104	116	105	118	108	110	109	107	Pass
									Shear	153		143		152		147		145		
28	Nor: 1,467,816.10 Eas 319,258.22 Ele: 46.71	Seam No. 71/74	04/29/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	136	128	119	113	129	118	132	121	115	118	Pass
									Shear	150		142		149		144		147		
29	Nor: 1,468,237.20 Eas 319,232.56 Ele: 47.83	Seam No. 74/76	04/29/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	120	116	114	100	126	108	112	110	114	105	Pass
									Shear	141		137		139		137		134		
30	Nor: 1,468,312.60 Eas 319,210.22 Ele: 46.32	Seam No. 76/77	04/30/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	126	116	123	107	122	117	133	111	132	115	Pass
									Shear	146		142		144		143		142		
31	Nor: 1,468,258.00 Eas 319,203.44 Ele: 47.60	Seam No. 78/77	04/30/2010	RAFAEL ORDONEZ	WE-A040	9	850	0	Peel	138	138	136	133	131	130	127	126	135	125	Pass
									Shear	148		145		146		145		140		
32	Nor: 1,467,779.50 Eas 319,192.84 Ele: 47.23	Seam No. 78/80	04/30/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	128	131	103	121	134	120	128	116	109	119	Pass
									Shear	156		142		147		144		150		
33	Nor: 1,467,868.50 Eas 319,170.53 Ele: 46.83	Seam No. 80/82	04/30/2010	RAFAEL ORDONEZ	WE-A040	9	850	0	Peel	130	129	127	121	130	127	123	145	118	117	Pass
									Shear	152		144		150		142		145		
34	Nor: 1,467,969.40 Eas 319,147.00 Ele: 46.45	Seam No. 82/84	04/30/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	127	118	133	122	129	116	121	128	111	128	Pass
									Shear	147		143		146		147		149		
35	Nor: 1,468,253.10 Eas 319,134.90 Ele: 47.38	Seam No. 85/84	04/30/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	131	135	113	140	128	121	134	131	145	150	Pass
									Shear	148		138		145		138		142		
36	Nor: 1,468,245.90 Eas 319,100.97 Ele: 47.35	Seam No. 88/90	04/30/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	137	121	131	120	134	108	110	124	129	113	Pass
									Shear	144		144		142		144		139		
37	Nor: 1,467,827.60 Eas 319,105.06 Ele: 45.82	Seam No. 88/89	04/30/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	136	134	118	118	128	119	115	119	112	122	Pass
									Shear	149		142		146		147		150		
38	Nor: 1,468,281.50 Eas 319,122.60 Ele: 46.59	Seam No. 85/87	04/30/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	128	135	117	120	129	128	127	119	115	118	Pass
									Shear	140		134		139		144		141		
39	Nor: 1,468,007.00 Eas 319,081.16 Ele: 45.79	Seam No. 89/93	04/30/2010	RAFAEL ORDONEZ	WE-A040	7	850	0	Peel	128	131	116	130	120	134	120	137	119	133	Pass
									Shear	165		164		164		165		164		
40	Nor: 1,468,162.50 Eas 319,059.03 Ele: 45.52	Seam No. 93/95	04/30/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	159	132	138	141	112	129	146	128	140	134	Pass
									Shear	169		165		171		167		165		
41	Nor: 1,468,018.40 Eas 319,037.00 Ele: 45.91	Seam No. 95/97	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	140	131	113	126	127	129	140	138	117	132	Pass
									Shear	169		157		164		160		155		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
42	Nor: 1,468,261.80 Eas 319,024.20 Ele: 46.71	Seam No. 97/98	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	135	148	138	144	139	134	131	140	137	129	Pass
									Shear	158		145		142		155		149		
43	Nor: 1,468,118.40 Eas 319,015.44 Ele: 46.29	Seam No. 97/99	05/11/2010	RAFAEL ORDONEZ	WE-A040	8	850	0	Peel	133	131	115	115	125	121	123	108	119	120	Pass
									Shear	158		147		160		156		150		
44	Nor: 1,467,917.40 Eas 318,994.78 Ele: 47.03	Seam No. 99/103	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	120	133	102	114	106	124	126	122	118	124	Pass
									Shear	161		147		159		156		149		
45	Nor: 1,467,868.20 Eas 318,973.56 Ele: 46.22	Seam No. 103/105	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	143	128	116	121	132	109	118	140	140	131	Pass
									Shear	162		149		165		165		156		
46	Nor: 1,468,291.50 Eas 318,959.16 Ele: 45.94	Seam No. 105/104	05/10/2010	RAFAEL ORDONEZ	WE-A040	8	850	0	Peel	144	140	125	140	137	137	150	134	122	128	Pass
									Shear	171		151		162		165		155		
47	Nor: 1,467,967.90 Eas 318,950.40 Ele: 45.80	Seam No. 105/107	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	130	103	117	121	115	127	128	133	115	Pass
									Shear	172		159		165		163		159		
48	Nor: 1,468,021.60 Eas 318,928.06 Ele: 45.56	Seam No. 107/111	05/10/2010	RAFAEL ORDONEZ	WE-A040	8	850	0	Peel	115	128	111	116	115	106	125	119	106	111	Pass
									Shear	164		148		155		154		155		
49	Nor: 1,468,250.40 Eas 318,916.94 Ele: 46.53	Seam No. 110/111	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	142	150	133	126	136	127	135	125	139	121	Pass
									Shear	153		144		153		147		143		
50	Nor: 1,468,318.20 Eas 318,905.00 Ele: 45.15	Seam No. 110/113	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	135	112	118	122	120	123	119	112	125	110	Pass
									Shear	158		138		147		151		147		
51	Nor: 1,468,219.00 Eas 318,883.90 Ele: 45.79	Seam No. 112/116	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	119	121	131	098	122	113	112	113	120	118	Pass
									Shear	151		127		151		149		144		
52	Nor: 1,468,271.00 Eas 318,869.12 Ele: 45.87	Seam No. 114/115	05/10/2010	RAFAEL ORDONEZ	WE-A040	8	850	0	Peel	127	135	111	115	112	121	129	139	113	131	Pass
									Shear	148		130		155		150		144		
53	Nor: 1,468,117.90 Eas 318,862.12 Ele: 45.77	Seam No. 116/117	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	124	121	096	097	101	111	119	102	115	122	Pass
									Shear	144		142		150		146		141		
54	Nor: 1,468,019.20 Eas 318,840.62 Ele: 45.07	Seam No. 117/120	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	125	133	100	129	105	108	124	121	108	105	Pass
									Shear	148		141		144		137		145		
55	Nor: 1,468,264.50 Eas 318,828.22 Ele: 46.04	Seam No. 119/120	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
55	Nor: 1,468,243.10 Eas 318,817.90 Ele: 45.12	Seam No. 120/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
55	Nor: 1,468,274.10 Eas 318,817.72 Ele: 45.90	Seam No. 119/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
55	Nor: 1,468,240.10 Eas 318,818.28 Ele: 46.07	Seam No. 120/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
55	Nor: 1,468,276.60 Eas 318,817.97 Ele: 45.67	Seam No. 119/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
55	Nor: 1,468,262.80 Eas 318,818.16 Ele: 46.06	Seam No. 120/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
55	Nor: 1,468,265.50 Eas 318,817.66 Ele: 45.95	Seam No. 119/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel	132	132	108	127	119	122	132	122	128	153	Pass
									Shear	157		147		143		148		137		
56	Nor: 1,468,169.00 Eas 318,818.40 Ele: 44.61	Seam No. 120/122	05/10/2010	DANIEL LOPEZ	WE-A091	15	800	00	Peel	121	119	124	126	113	110	131	125	119	120	Pass
									Shear	159		143		140		155		142		
57	Nor: 1,467,821.20 Eas 318,799.40 Ele: 44.74	Seam No. 122/124	05/10/2010	RAFAEL ORDONEZ	WE-A040	8	850	0	Peel	113	123	116	100	107	112	122	113	145	109	Pass
									Shear	160		139		145		147		141		
58	Nor: 1,468,265.60 Eas 318,786.56 Ele: 45.86	Seam No. 124/125	05/10/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	138	121	125	099	119	138	147	143	129	116	Pass
									Shear	154		134		138		146		142		
59	Nor: 1,468,220.90 Eas 318,774.50 Ele: 45.51	Seam No. 124/126	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	116	125	101	125	106	109	108	115	096	113	Pass
									Shear	151		128		147		146		145		
60	Nor: 1,468,368.10 Eas 318,773.28 Ele: 45.16	Seam No. 125/132	05/18/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	124	133	111	117	114	119	108	119	102	122	Pass
									Shear	157		135		148		147		144		
61	Nor: 1,468,320.90 Eas 318,751.62 Ele: 44.73	Seam No. 132/133	05/18/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	121	121	098	106	104	120	115	113	101	120	Pass
									Shear	156		142		143		149		147		
62	Nor: 1,468,170.80 Eas 318,730.90 Ele: 44.32	Seam No. 127/128	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	155	126	113	122	101	122	106	126	121	109	Pass
									Shear	150		145		151		158		143		
63	Nor: 1,468,319.50 Eas 318,729.94 Ele: 44.55	Seam No. 133/135	05/18/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	121	130	109	113	112	121	116	134	123	115	Pass
									Shear	152		147		151		153		144		
64	Nor: 1,468,369.60 Eas 318,707.94 Ele: 44.88	Seam No. 135/136	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	114	103	103	122	113	098	123	128	099	126	Pass
									Shear	147		133		139		141		131		
65	Nor: 1,467,971.90 Eas 318,710.28 Ele: 44.83	Seam No. 128/129	05/18/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	137	124	125	120	122	107	140	118	120	120	Pass
									Shear	159		148		158		159		148		
66	Nor: 1,468,022.20 Eas 318,688.00 Ele: 44.58	Seam No. 129/131	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	142	146	131	114	133	118	136	122	119	127	Pass
									Shear	160		137		162		156		143		
67	Nor: 1,468,323.00 Eas 318,664.75 Ele: 44.27	Seam No. 137/138	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	129	137	123	114	126	127	130	122	111	134	Pass
									Shear	155		146		148		156		149		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
68	Nor: 1,468,371.80 Eas 318,642.47 Ele: 44.70	Seam No. 138/142	05/18/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	151	123	115	133	125	115	127	117	147	134	Pass
									Shear	160		146		157		159		145		
69	Nor: 1,468,173.20 Eas 318,643.66 Ele: 43.86	Seam No. 139/141	05/18/2010	SARBELIO MENDEZ	WE-A068	16	800	0	Peel	132	137	127	112	121	120	130	133	125	144	Pass
									Shear	155		147		156		155		148		
70	Nor: 1,468,073.10 Eas 318,621.84 Ele: 45.41	Seam No. 141/143	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	130	124	119	131	121	111	130	124	118	124	Pass
									Shear	163		148		163		161		158		
71	Nor: 1,468,028.20 Eas 318,600.56 Ele: 44.37	Seam No. 143/144	05/20/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	142	131	115	126	121	120	138	125	116	137	Pass
									Shear	170		154		158		168		156		
72	Nor: 1,467,977.60 Eas 318,579.22 Ele: 44.18	Seam No. 144/148	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	135	146	111	128	116	125	123	129	122	141	Pass
									Shear	162		164		157		161		153		
73	Nor: 1,467,878.50 Eas 318,558.72 Ele: 44.41	Seam No. 148/149	05/20/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	130	134	114	104	130	124	134	145	148	115	Pass
									Shear	168		155		158		163		154		
74	Nor: 1,467,823.00 Eas 318,537.84 Ele: 43.68	Seam No. 149/150	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	141	140	125	122	127	135	146	134	158	134	Pass
									Shear	160		151		158		160		151		
75	Nor: 1,467,971.00 Eas 318,513.66 Ele: 44.10	Seam No. 150/151	05/20/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	122	151	117	127	112	124	122	139	117	127	Pass
									Shear	160		154		155		156		153		
76	Nor: 1,467,921.90 Eas 318,492.53 Ele: 44.73	Seam No. 151/152	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	137	119	109	133	134	112	120	116	130	126	Pass
									Shear	160		154		144		155		167		
77	Nor: 1,467,872.90 Eas 318,471.66 Ele: 44.08	Seam No. 152/153	05/20/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	138	133	124	106	126	130	135	137	142	130	Pass
									Shear	163		153		154		149		155		
78	Nor: 1,467,821.40 Eas 318,438.60 Ele: 43.50	Seam No. 155/157	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	141	129	123	108	126	121	139	121	119	139	Pass
									Shear	161		149		153		154		156		
79	Nor: 1,468,020.20 Eas 318,455.44 Ele: 43.00	Seam No. 153/159	05/20/2010	SARBELIO MENDEZ	WE-A068	15	800	0	Peel	145	136	133	123	147	113	122	135	142	144	Pass
									Shear	164		156		149		160		158		
80	Nor: 1,467,799.80 Eas 318,389.72 Ele: 43.58	Seam No. 171/159	06/11/2010	SARBELIO MENDEZ	WE-A068	13	820	0	Peel	100	120	106	121	103	119	111	122	117	126	Pass
									Shear	170		173		168		163		160		
81	Nor: 1,467,949.80 Eas 318,419.34 Ele: 42.58	Seam No. 164/159	06/11/2010	DANIEL LOPEZ	WE-A096	12	800	0	Peel	100	106	104	110	108	105	110	113	113	106	Pass
									Shear	168		171		169		175		170		
82	Nor: 1,468,123.90 Eas 318,578.12 Ele: 44.55	Seam No. 144/148	07/14/2010	JOSE PALESTIANO	WE-A076	15	800	0	Peel	122	129	127	131	119	122	125	127	129	119	Pass
									Shear	187		191		185		179		182		
83	Nor: 1,468,124.60 Eas 318,556.06 Ele: 44.49	Seam No. 148/149	07/14/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	140	119	137	125	131	122	128	129	135	127	Pass
									Shear	189		179		185		180		183		

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
84	Nor: 1,468,081.50 Eas 318,460.30 Ele: 43.30	Seam No. 177/179	07/14/2010	JOSE PALESTIANO	WE-A076	15	800	0	Peel	140	125	132	129	129	125	128	131	139	126	Pass
									Shear	176		180		183		185		189		
85	Nor: 1,468,097.50 Eas 318,421.84 Ele: 46.02	Seam No. 177/178	07/14/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	121	118	124	115	119	128	127	127	129	122	Pass
									Shear	179		181		184		186		185		
86	Nor: 1,468,344.40 Eas 318,508.56 Ele: 42.94	Seam No. 191/192	07/14/2010	JOSE PALESTIANO	WE-A076	15	800	0	Peel	129	124	134	122	130	126	126	126	118	131	Pass
									Shear	176		179		186		181		189		
87	Nor: 1,468,406.20 Eas 318,554.53 Ele: 47.11	Seam No. 199/200	07/14/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	145	132	133	127	137	129	129	125	122	126	Pass
									Shear	179		183		180		182		176		

Destruct Location Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell: cell A4 **Layer:** Primary **QC Technician:** Carlos Lopez

Destruct Number	Location Information				
1	Northing: 1,468,066.20	Easting: 319,679.03	Elevation: 51.64	Seam No.:	17/EXL
2	Northing: 1,468,341.20	Easting: 319,671.20	Elevation: 63.23	Seam No.:	5/EXL
3	Northing: 1,468,390.10	Easting: 319,614.80	Elevation: 49.14	Seam No.:	1/2
4	Northing: 1,468,237.10	Easting: 319,615.25	Elevation: 50.00	Seam No.:	9/10
5	Northing: 1,468,084.50	Easting: 319,630.25	Elevation: 49.31	Seam No.:	16/17
6	Northing: 1,467,866.00	Easting: 319,641.60	Elevation: 49.16	Seam No.:	27/28
7	Northing: 1,467,813.40	Easting: 319,608.00	Elevation: 48.19	Seam No.:	30/35
8	Northing: 1,467,962.40	Easting: 319,584.28	Elevation: 48.24	Seam No.:	35/38
9	Northing: 1,468,112.60	Easting: 319,561.47	Elevation: 48.61	Seam No.:	37/40
10	Northing: 1,468,308.50	Easting: 319,550.38	Elevation: 47.88	Seam No.:	40/42
11	Northing: 1,468,161.60	Easting: 319,539.28	Elevation: 47.55	Seam No.:	40/41
12	Northing: 1,468,310.80	Easting: 319,516.34	Elevation: 47.79	Seam No.:	43/44
13	Northing: 1,467,866.00	Easting: 319,497.78	Elevation: 47.63	Seam No.:	45/47
14	Northing: 1,468,326.40	Easting: 319,483.53	Elevation: 47.17	Seam No.:	47/48
15	Northing: 1,468,014.50	Easting: 319,474.70	Elevation: 47.65	Seam No.:	47/50
16	Northing: 1,467,866.40	Easting: 319,454.22	Elevation: 47.76	Seam No.:	50/52
17	Northing: 1,468,224.20	Easting: 319,440.00	Elevation: 48.01	Seam No.:	51/52
18	Northing: 1,468,263.60	Easting: 319,429.25	Elevation: 48.24	Seam No.:	54/51
19	Northing: 1,468,313.10	Easting: 319,407.20	Elevation: 47.01	Seam No.:	54/56
20	Northing: 1,468,214.10	Easting: 319,386.25	Elevation: 47.75	Seam No.:	57/59
21	Northing: 1,467,817.50	Easting: 319,367.90	Elevation: 46.98	Seam No.:	59/63
22	Northing: 1,468,220.80	Easting: 319,352.40	Elevation: 47.98	Seam No.:	63/62
23	Northing: 1,467,866.20	Easting: 319,345.28	Elevation: 47.61	Seam No.:	63/64
24	Northing: 1,468,313.80	Easting: 319,319.78	Elevation: 46.72	Seam No.:	68/65
25	Northing: 1,468,162.80	Easting: 319,299.00	Elevation: 46.64	Seam No.:	67/70
26	Northing: 1,468,062.20	Easting: 319,277.56	Elevation: 47.79	Seam No.:	70/71
27	Northing: 1,468,312.00	Easting: 319,253.88	Elevation: 46.70	Seam No.:	72/73
28	Northing: 1,467,816.10	Easting: 319,258.22	Elevation: 46.71	Seam No.:	71/74

Destruct Number	Location Information				
29	Northing: 1,468,237.20	Easting: 319,232.56	Elevation: 47.83	Seam No.:	74/76
30	Northing: 1,468,312.60	Easting: 319,210.22	Elevation: 46.32	Seam No.:	76/77
31	Northing: 1,468,258.00	Easting: 319,203.44	Elevation: 47.60	Seam No.:	78/77
32	Northing: 1,467,779.50	Easting: 319,192.84	Elevation: 47.23	Seam No.:	78/80
33	Northing: 1,467,868.50	Easting: 319,170.53	Elevation: 46.83	Seam No.:	80/82
34	Northing: 1,467,969.40	Easting: 319,147.00	Elevation: 46.45	Seam No.:	82/84
35	Northing: 1,468,253.10	Easting: 319,134.90	Elevation: 47.38	Seam No.:	85/84
36	Northing: 1,468,245.90	Easting: 319,100.97	Elevation: 47.35	Seam No.:	88/90
37	Northing: 1,467,827.60	Easting: 319,105.06	Elevation: 45.82	Seam No.:	88/89
38	Northing: 1,468,281.50	Easting: 319,122.60	Elevation: 46.59	Seam No.:	85/87
39	Northing: 1,468,007.00	Easting: 319,081.16	Elevation: 45.79	Seam No.:	89/93
40	Northing: 1,468,162.50	Easting: 319,059.03	Elevation: 45.52	Seam No.:	93/95
41	Northing: 1,468,018.40	Easting: 319,037.00	Elevation: 45.91	Seam No.:	95/97
42	Northing: 1,468,261.80	Easting: 319,024.20	Elevation: 46.71	Seam No.:	97/98
43	Northing: 1,468,118.40	Easting: 319,015.44	Elevation: 46.29	Seam No.:	97/99
44	Northing: 1,467,917.40	Easting: 318,994.78	Elevation: 47.03	Seam No.:	99/103
45	Northing: 1,467,868.20	Easting: 318,973.56	Elevation: 46.22	Seam No.:	103/105
46	Northing: 1,468,291.50	Easting: 318,959.16	Elevation: 45.94	Seam No.:	105/104
47	Northing: 1,467,967.90	Easting: 318,950.40	Elevation: 45.80	Seam No.:	105/107
48	Northing: 1,468,021.60	Easting: 318,928.06	Elevation: 45.56	Seam No.:	107/111
49	Northing: 1,468,250.40	Easting: 318,916.94	Elevation: 46.53	Seam No.:	110/111
50	Northing: 1,468,318.20	Easting: 318,905.00	Elevation: 45.15	Seam No.:	110/113
51	Northing: 1,468,219.00	Easting: 318,883.90	Elevation: 45.79	Seam No.:	112/116
52	Northing: 1,468,271.00	Easting: 318,869.12	Elevation: 45.87	Seam No.:	114/115
53	Northing: 1,468,117.90	Easting: 318,862.12	Elevation: 45.77	Seam No.:	116/117
54	Northing: 1,468,019.20	Easting: 318,840.62	Elevation: 45.07	Seam No.:	117/120
55	Northing: 1,468,265.50	Easting: 318,817.66	Elevation: 45.95	Seam No.:	119/122
	Northing: 1,468,262.80	Easting: 318,818.16	Elevation: 46.06	Seam No.:	120/122
	Northing: 1,468,276.60	Easting: 318,817.97	Elevation: 45.67	Seam No.:	119/122
	Northing: 1,468,240.10	Easting: 318,818.28	Elevation: 46.07	Seam No.:	120/122
	Northing: 1,468,274.10	Easting: 318,817.72	Elevation: 45.90	Seam No.:	119/122
	Northing: 1,468,243.10	Easting: 318,817.90	Elevation: 45.12	Seam No.:	120/122
	Northing: 1,468,264.50	Easting: 318,828.22	Elevation: 46.04	Seam No.:	119/120
56	Northing: 1,468,169.00	Easting: 318,818.40	Elevation: 44.61	Seam No.:	120/122
57	Northing: 1,467,821.20	Easting: 318,799.40	Elevation: 44.74	Seam No.:	122/124
58	Northing: 1,468,265.60	Easting: 318,786.56	Elevation: 45.86	Seam No.:	124/125
59	Northing: 1,468,220.90	Easting: 318,774.50	Elevation: 45.51	Seam No.:	124/126
60	Northing: 1,468,368.10	Easting: 318,773.28	Elevation: 45.16	Seam No.:	125/132
61	Northing: 1,468,320.90	Easting: 318,751.62	Elevation: 44.73	Seam No.:	132/133

Destruct Number	Location Information				
62	Northing: 1,468,170.80	Easting: 318,730.90	Elevation: 44.32	Seam No.:	127/128
63	Northing: 1,468,319.50	Easting: 318,729.94	Elevation: 44.55	Seam No.:	133/135
64	Northing: 1,468,369.60	Easting: 318,707.94	Elevation: 44.88	Seam No.:	135/136
65	Northing: 1,467,971.90	Easting: 318,710.28	Elevation: 44.83	Seam No.:	128/129
66	Northing: 1,468,022.20	Easting: 318,688.00	Elevation: 44.58	Seam No.:	129/131
67	Northing: 1,468,323.00	Easting: 318,664.75	Elevation: 44.27	Seam No.:	137/138
68	Northing: 1,468,371.80	Easting: 318,642.47	Elevation: 44.70	Seam No.:	138/142
69	Northing: 1,468,173.20	Easting: 318,643.66	Elevation: 43.86	Seam No.:	139/141
70	Northing: 1,468,073.10	Easting: 318,621.84	Elevation: 45.41	Seam No.:	141/143
71	Northing: 1,468,028.20	Easting: 318,600.56	Elevation: 44.37	Seam No.:	143/144
72	Northing: 1,467,977.60	Easting: 318,579.22	Elevation: 44.18	Seam No.:	144/148
73	Northing: 1,467,878.50	Easting: 318,558.72	Elevation: 44.41	Seam No.:	148/149
74	Northing: 1,467,823.00	Easting: 318,537.84	Elevation: 43.68	Seam No.:	149/150
75	Northing: 1,467,971.00	Easting: 318,513.66	Elevation: 44.10	Seam No.:	150/151
76	Northing: 1,467,921.90	Easting: 318,492.53	Elevation: 44.73	Seam No.:	151/152
77	Northing: 1,467,872.90	Easting: 318,471.66	Elevation: 44.08	Seam No.:	152/153
78	Northing: 1,467,821.40	Easting: 318,438.60	Elevation: 43.50	Seam No.:	155/157
79	Northing: 1,468,020.20	Easting: 318,455.44	Elevation: 43.00	Seam No.:	153/159
80	Northing: 1,467,799.80	Easting: 318,389.72	Elevation: 43.58	Seam No.:	171/159
81	Northing: 1,467,949.80	Easting: 318,419.34	Elevation: 42.58	Seam No.:	164/159
82	Northing: 1,468,123.90	Easting: 318,578.12	Elevation: 44.55	Seam No.:	144/148
83	Northing: 1,468,124.60	Easting: 318,556.06	Elevation: 44.49	Seam No.:	148/149
84	Northing: 1,468,081.50	Easting: 318,460.30	Elevation: 43.30	Seam No.:	177/179
85	Northing: 1,468,097.50	Easting: 318,421.84	Elevation: 46.02	Seam No.:	177/178
86	Northing: 1,468,344.40	Easting: 318,508.56	Elevation: 42.94	Seam No.:	191/192
87	Northing: 1,468,406.20	Easting: 318,554.53	Elevation: 47.11	Seam No.:	199/200

SEAM INSTALLATION

SECTION D

PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By Carlos Lopez

Primary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-28-10	1 / 2	72	7:30 AM	SARBELIO MENDEZ	WE-A075	14	800		4-28-10	AIR TEST	8:05 / 30	8:10 / 29	1	PASS
	2 / 3	65	7:42 AM	DANIEL LOPEZ	WE A091	15	800				8:08 / 30	8:13 / 30	—	
	2 / 4	5	7:40 AM								8:08 / 30	8:13 / 30	—	
	3 / 4	21	7:30 AM								8:08 / 30	8:13 / 30	—	
	4 / 5	5	7:49 AM								8:12 / 30	8:17 / 30	—	
	3 / 5	64	7:50 AM								8:10 / 30	8:15 / 30	—	
	5 / 6	47	8:00 AM								8:25 / 30	8:30 / 29	1	
	5 / 6	20	8:03 AM								8:33 / 30	8:38 / 29	1	
	6 / 7	72	7:20 AM	RAFAEL ORDONEZ	WE-A047	7	850				8:26 / 30	8:31 / 30	—	
	7 / 8	71	7:49 AM								8:27 / 30	8:32 / 30	—	
	8 / 9	70	8:05 AM								8:28 / 30	8:33 / 30	—	
	9 / 10	72	8:20 AM								8:50 / 30	8:55 / 30	—	
	10 / 11	68	7:43 AM	SARBELIO MENDEZ	WE-A075	14	800				8:51 / 30	8:50 / 30	—	
	11 / 12	76	7:54 AM								8:52 / 30	8:57 / 30	—	
	12 / 13	78	8:05 AM								8:53 / 30	8:58 / 30	—	
	13 / 14	77	8:12 AM								8:54 / 30	8:59 / 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
04.28.10	14/15	76	8:20 AM	SARBELIO MENDEZ	Ub-A075	14	800		4-28-10	Air Test	9:00 30	9:05 30	-	PASS
	15/16	78	8:28 AM								9:01 30	9:06 30	-	
	16/17	76	8:10 AM	DANIEL LOPEZ	Ub-A091	15	800				9:02 30	9:07 29	1	
	17/19	25	8:24 AM								9:14 30	9:19 30	-	
	17/18	48	8:26 AM								9:14 30	9:19 30	-	
	18/19	21	8:21 AM								9:14 30	9:19 30	-	
	19/20	25	8:31 AM								9:15 30	9:20 30	-	
	18/20	48	8:33 AM								9:15 30	9:20 30	-	
	20/21	75	8:43 AM								9:30 30	9:35 30	-	
	21/22	74	8:54 AM								9:31 30	9:36 30	-	
	22/23	74	9:05 AM								9:32 30	9:37 30	-	
	23/24	64	9:11 AM								9:33 30	9:38 30		
	23/24	8	9:17 AM								9:33 30	9:38 30		
	24/25	75	8:31 AM	RAFAEL ORDONEZ	Ub-A047	7	850				10:00 30	10:05 30		
	25/26	73	8:52 AM								10:01 30	10:06 30		
	26/27	73	9:05 AM								10:02 30	10:07 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Primary: Cell [x] Pond [ ] Pad [ ] Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
04-28-10	27/28	74	8:39 AM	SARBELIO MENDEZ	Ut-A075	14	800		4-28-10	AIR TEST	10:03 / 30	10:08 / 30	-	PASS
	28/29	73	8:46 AM								10:05 / 30	10:10 / 29	1	
	29/30	73	8:54 AM								10:06 / 30	10:11 / 30	-	
	30/31	74	9:04 AM								10:07 / 30	10:12 / 30	-	
	31/32	21	9:20 AM								10:28 / 30	10:33 / 30	-	
	31/32	53	9:22 AM								10:28 / 30	10:33 / 30	-	
	32/33	21	9:14 AM								10:28 / 30	10:33 / 30	-	
	33/34	20	9:28 AM								10:29 / 30	10:34 / 29	1	
	32/34	64	9:30 AM								10:29 / 30	10:34 / 30	-	
	34/35	18	10:10 AM	DANIEL LOPEZ	Ut-A091	15	800				10:43 / 30	10:48 / 30	-	
	33/35	21	10:12 AM								10:44 / 30	10:49 / 30	-	
	31/35	21	10:14 AM								10:45 / 30	10:50 / 30	-	
	30/35	21	10:16 AM								10:46 / 30	10:51 / 29	1	
	29/35	21	10:18 AM								10:50 / 30	10:55 / 30	-	
	28/35	21	10:20 AM								10:51 / 30	10:56 / 30	-	
	27/35	21	10:22 AM								10:52 / 30	10:57 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4.28.10	26/35	21	10:24 AM	DANIEL LOPEZ	GUE-A091	15	600		4.28.10	AIR TEST	10:53 / 30	10:58 / 30	-	PASS
	25/35	21	10:26 AM								11:00 / 30	11:05 / 30	-	
	24/35	21	10:28 AM								11:01 / 30	11:06 / 30	-	
	23/35	21	10:30 AM								11:02 / 30	11:07 / 29	1	
	22/35	21	10:32 AM								11:03 / 30	11:08 / 30	-	
	21/35	21	10:34 AM								11:13 / 30	11:18 / 30	-	
	20/35	21	10:36 AM								11:15 / 30	11:20 / 30	-	
	19/35	21	10:38 AM								11:16 / 30	11:21 / 30	-	
	17/35	21	10:40 AM								11:17 / 30	11:22 / 30	-	
	16/35	21	10:42 AM								11:26 / 30	11:31 / 30	-	
	15/35	21	10:44 AM								11:27 / 30	11:32 / 30		
	14/35	21	10:46 AM								11:28 / 30	11:33 / 30		
	13/35	21	11:45 AM								1:04 / 30	1:09 / 30		
	12/35	21	11:47 AM								1:04 / 30	1:09 / 30		
	11/35	21	11:49 AM								1:06 / 30	1:11 / 30		
	10/35	21	11:52 AM								1:06 / 30	1:11 / 30		

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Page 5 of

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Primary: Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4.28.10	9 / 35	14	11:54 AM	DANIEL LOPEZ	WE-A091	15	800	-	4.28.10	Air Test	1:07 / 30	1:12 / 30	-	Pass
	8 / 36	21	12:50 PM								1:20 / 30	1:25 / 30	-	
	7 / 36	21	12:54 PM								1:20 / 30	1:25 / 30	-	
	6 / 36	21	12:57 PM								1:21 / 30	1:26 / 30	-	
	5 / 36	21	1:00 PM								1:21 / 30	1:26 / 30	-	
	4 / 36	21	1:03 PM								1:22 / 30	1:27 / 28	2	
	2 / 36	21	1:05 PM								1:22 / 30	1:27 / 30	-	
	1 / 36	18	1:08 PM								1:23 / 30	1:28 / 30	-	
	36 / 35	21	11:30 AM	RAFAEL ORDONEZ	WE-A047	7	850				1:07 / 30	1:12 / 30	-	
	36 / 37	156	11:37 AM								1:25 / 30	1:30 / 30	-	
	35 / 37	198	11:04 AM								11:48 / 30	11:53 / 30	-	
	35 / 38	320	10:10 AM								11:48 / 30	11:53 / 30	-	
	37 / 38	21	10:55 AM								11:48 / 30	11:53 / 30	-	
	38 / 39	52	10:23 AM	SARBELIO MENDEZ	WE-A075	14	800				12:50 / 30	12:55 / 30	-	
	39 / 40	21	10:30 AM								12:50 / 30	12:55 / 30	-	
	38 / 40	272	10:35 AM								12:50 / 30	12:55 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Job # 03083171
Superintendent:
Primary Cell x; Pond; Pad
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.28.10	37/40	251	10:50 AM	SARBELIO MENDEZ	WE-A075	14	800		4.28.10	AIR TEST	11:49 30	11:54 30	–	PASS
	40/42	21	12:49 PM	RAFAEL CRUZ	WE-A047	7	650				1:45 30	1:50 30	–	
	37/42	98	12:55 PM	RAFAEL CRUZ	WE-A047	7	650				1:33 30	1:38 30	–	
	42/43	100	1:30 PM								1:58 30	2:03 30	–	
	40/43	52	1:25 PM								1:45 30	1:50 30	–	
	41/43	21	1:20 PM								1:46 30	1:51 30	–	
	40/41	46	11:58 AM	SARBELIO MENDEZ	WE-A075	14	800				1:03 30	1:08 30	–	
	40/41	315	11:33 AM								1:00 30	1:05 30	–	
	39/41	47	11:30 AM								2:51 30	2:56 30	–	
	41/45	352	1:00 PM	SARBELIO MENDEZ	WE-A075	15	800				1:54 30	1:59 30	–	
	41/45	23	1:24 PM								1:55 30	2:00 30	–	
	41/45	129	1:40 PM	DANIEL LOPEZ	WE-A091	15	800				1:52 30	2:01 29	1	
	44/45	21	1:32 PM								1:47 30	1:52 29	1	
	43/44	155	1:52 PM						4.29.10		9:08 30	9:13 30	–	
	1 Exc	18	8:00 AM	CIRINO MAITINEZ	ET-A041	–	520	500		VACUUM	:	:		
	2 Exc	22	8:28 AM								:	:		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Job # 03083171

Superintendent:

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Primary Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.28.10	3 Ext	22	8:41 AM	ERIND HARTINEZ	GT. AC61		520	500	4.29.10	VACUUM	:	:		
	5 Ext	22	8:55 AM								:	:		
	6 Ext	22	9:19 AM								:	:		
	7 Ext	22	9:26 AM								:	:		
	8 Ext	22	9:48 AM								:	:		
	9 Ext	22	10:00 AM								:	:		
	10 Ext	22	10:35 AM								:	:		
	11 Ext	22	10:47 AM								:	:		
	12 Ext	22	11:07 AM								:	:		
	13 Ext	22	11:29 AM								:	:		
	14 Ext	22	11:40 AM								:	:		
	15 Ext	21	12:55 PM				500	485	4.30.10		:	:		
	16 Ext	22	1:00 PM								:	:		
	17 Ext	22	9:20 AM	JOSE PACESTIANO	WET. AC410		520	480			:	:		
	18 Ext	22	9:27 AM								:	:		
	20 Ext	22	9:40 AM								:	:		

Rev 2-10-05

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Primary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.28.10	21 Ext	22	10:00 AM	JOSE PALESTIANO	ET-A0410		520	480	4-30	Vacuum	:	:		
	22 Ext	22	10:30 AM								:	:		
	23 Ext	22	10:46 AM								:	:		
	24 Ext	22	11:00 AM								:	:		
	25 Ext	22	11:15 AM								:	:		
	26 Ext	22	11:30 AM								:	:		
	27 Ext	22	12:41 PM								:	:		
	28 Ext	22	12:55 PM								:	:		
	29 Ext	22	1:05 PM				510	480			:	:		
	30 Ext	22	1:20 PM								:	:		
	31 Ext	22	1:40 PM								:	:		
4.29.10	32 Ext	23	8:00 AM				520	490			:	:		
	34 Ext	23	8:15 AM				520	490			:	:		
	46 45	78	8:05 AM	RAFAEL ORDONEZ	UE-A047	7	850		4.29.10	Air Test	9:33 30	9:38 30	—	
	47 46	21	8:15 AM	SAZBELIO MENDEZ	UE-A068	16	800				9:33 30	9:36 30	—	
	45 47	442	8:20 AM	RAFAEL ORDONEZ	UE-A047	7	850				10:00 30	10:05 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-29-10	44/47	78	9:20 AM	RAFAEL ORDONEZ	WE A047	7	850		4-29-10	AIR TEST	10:30 / 30	10:35 / 30	-	PASS
	44/48	83	9:36 AM								10:30 / 30	10:35 / 30	-	
	47/48	21	9:30 AM								10:30 / 30	10:35 / 30	-	
	48/49	85	10:10 AM								10:31 / 30	10:36 / 30	-	
	47/49	73	10:05 AM								10:31 / 30	10:36 / 30	-	
	49/50	21	9:55 AM								11:05 / 30	11:10 / 30	-	
	47/50	449	8:27 AM	SARBELIO MENDEZ	WE-40	16	800				10:01 / 30	10:06 / 30	-	
	46/50	76	8:22 AM								9:34 / 30	9:39 / 30	-	
	50/52	508	8:10 AM	DANIEL LOPEZ	WE A091	15	800				10:02 / 30	10:07 / 29	1	
	51/52	21	10:30 AM	RAFAEL ORDONEZ	WE A047	7	850				10:50 / 30	10:55 / 30	-	
	50/51	25	10:37 AM								10:50 / 30	10:55 / 30	-	
	49/51	162	10:40 AM								11:05 / 30	11:10 / 30	-	
	51/53	85	10:11 AM	SARBELIO MENDEZ	WE A068	16	800				11:06 / 30	11:11 / 30	-	
	53/54	16	10:00 AM	SARBELIO MENDEZ	WE A068	16	800				11:06 / 30	11:11 / 30	-	
	51/54	75	10:06 AM								10:06 / 30	11:11 / 30	-	
	51/55	24	10:04 AM								10:51 / 30	10:56 / 30	-	

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Job # 03083171

Superintendent: _____

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By _____

Primary Cell [x] Pond [ ] Pad [ ]

Other _____

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-29-10	54/55	21	9:50 AM	SARBELIO MENDEZ	UE A068	16	800		4-29-10	Air Test	10:57 / 30	10:56 / 30	—	PASS
	52/55	500	8:55 AM	DANIEL LOPEZ	UE A091	15	850				10:03 / 30	10:08 / 30	—	
	57/58	21	9:05 AM	SARBELIO MENDEZ	UE A068	16	800				9:35 / 30	9:40 / 30	—	
	55/58	22	9:07 AM								9:35 / 30	9:40 / 30	—	
	55/57	570	9:10 AM								10:04 / 30	10:09 / 30	—	
	54/57	24	9:45 AM								10:55 / 30	11:00 / 30	—	
	56/57	21	11:17 AM	RAFAEL ORDONEZ	UE A047	7	850				11:36 / 30	11:41 / 30	—	
	56/54	48	11:20 AM								1:15 / 30	1:20 / 30	—	
	56/53	85	11:25 AM								1:15 / 30	1:20 / 30	—	
	60/56	8	10:44 AM	DANIEL LOPEZ	UE-A091	15	800				12:55 / 30	1:00 / 30	—	
	60/56	12	10:43 AM								12:58 / 30	1:03 / 30	—	
	60/56	21	10:42 AM								1:04 / 30	1:09 / 30	—	
	60/56	9	10:41 AM								1:05 / 30	1:10 / 29	1	
	60/56	7	10:40 AM								1:11 / 30	1:16 / 30	—	
	60/56	52	10:37 AM								11:49 / 30	11:54 / 30	—	
	60/57	18	10:39 AM								1:25 / 30	1:30 / 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Primary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.29.10	59/60	21	10:31 AM	DANIEL LOPEZ	WEA091	15	800		4.29.10	AIR TEST	1:25 / 30	1:30 / 30	-	PASS
	57/59	520	9:58 AM								1:25 / 30	1:30 / 30	-	
	58/59	21	9:55 AM								1:33 / 30	1:38 / 30	-	
	59/63	498	10:27 AM	SARBELIO ALEMAN	WEA068	16	800				2:05 / 30	2:10 / 30	-	
	62/63	21	11:43 AM	RAFAEL ORDONEZ	WEA047	7	880				2:06 / 30	2:11 / 30	-	
	59/62	35	11:48 AM								2:35 / 30	2:40 / 30	-	
	62/60	20	11:50 AM								2:35 / 30	2:40 / 30	-	
	61/62	21	1:03 PM								2:37 / 30	2:42 / 30	-	
	60/61	5	1:08 PM								2:36 / 30	2:41 / 30	-	
	60/61	53	3:56 PM	CIRINO MARTINEZ	E A061				4.30.10	VACUUM R47	:	:		
	60/61	53	3:05 PM	DANIEL LOPEZ	WEA091	15	800		4.29.10	AIR TEST	3:20 / 30	3:25 / 30	-	
	60/61	14	3:13 PM								3:20 / 30	3:25 / 30	-	
	61/65	129	12:59 PM								2:43 / 30	2:48 / 30	-	
	62/65	20	11:51 AM								2:37 / 30	2:42 / 30	-	
	62/64	37	11:49 AM								2:06 / 30	2:11 / 30	-	
	63/64	425	11:14 AM								2:06 / 30	2:11 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Job # 03083171

Superintendent:

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Primary — Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.29.10	63/64	60	11:10 AM	DANIEL LOPEZ	WE-A091	15	800		4.29.10	Air Test	1:48 30	1:53 30	-	
	66/67	21	11:15 AM	SARBELIO MENDO	WE-A068	16	500				1:49 30	1:54 30	-	
	64/66	27	11:25 AM								1:49 30	1:54 30	-	
	64/67	505	11:28 AM								2:07 30	2:12 30	-	
	64/65	21	12:53 PM	DANIEL LOPEZ	WE-A091	15	800				2:07 30	2:12 30	-	
	67/65	27	12:50 PM	SARBELIO MENDEZ	WE-A068	16	500				2:50 30	2:55 30	-	
	68/65	121	12:53 PM								2:50 30	2:55 30	-	
	67/68	21	1:10 PM								2:50 30	2:55 30	-	
	68/69	122	2:57 PM	DANIEL LOPEZ	WE-A091	15	800				3:13 30	3:18 30	-	
	67/69	29	2:55 PM								3:13 30	3:18 30	-	
	69/70	21	2:53 PM								3:15 30	3:20 30	-	
	67/70	192	2:45 PM								3:37 30	3:42 30	-	
	67/70	304	1:23 PM								3:37 30	3:42 30	-	
	66/70	26	1:20 PM								1:50 30	1:55 30	-	
	70/71	519	1:25 PM	SARBELIO MENDEZ	WE-A068	16	800				3:29 30	3:34 30	-	
	71/72	21	3:40 PM	DANIEL LOPEZ	WE-A091	15	800				3:15 30	3:20 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-29-10	70/72	5	2:00 PM	SARBELIO MENDEZ	WE-A068	16	800		4-29-10	Air Test	3:15 30	3:20 30	-	Pass
	69/72	155	2:01 PM								3:15 30	3:20 30	-	
	72/73	153	3:20 PM	DANIEL LOPEZ	WE-A091	15	800				4:14 30	4:19 30	-	
	72/74	7	3:00 PM								4:14 30	4:19 30	-	
	73/74	15	3:18 PM								4:13 30	4:18 30	-	
	71/74	518	2:30 PM	SARBELIO MENDEZ	WE-A068	16	800				4:03 30	4:08 30	-	
	74/75	490	3:20 PM	DANIEL LOPEZ	WE-A091	15	800				4:02 30	4:07 30	-	
	75/76	21	3:45 PM	DANIEL LOPEZ	WE-A091	15	800				4:02 30	4:07 30	-	
	74/76	36	3:48 PM								4:13 30	4:18 30	-	
	76/73	154	3:51 PM								4:13 30	4:18 30	-	
4-30-10	75/76	482	8:48 AM	SARBELIO MENDEZ	WE-A068	16	800		4-30-10		10:07 30	10:12 30	-	
	76/78	37	9:21 AM								10:07 30	10:12 30	-	
	76/77	152	11:08 AM								12:15 30	12:20 30	-	
	77/78	21	11:30 AM	RAFAEL OROZCO	WE-A040	9	850				12:15 30	12:20 30	-	
	77/81	129	11:24 AM	SARBELIO MENDEZ	WE-A068	16	800				12:17 30	12:22 30	-	
	77/80	17	11:22 AM								12:17 30	12:22 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Primary — Cell [X] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-30-10	80/81	21	11:43 AM	RAFAEL ORDONEZ	WE-A047	7	850		4-30-10	Air Test	12:17 30	12:22 30	—	Pass
	78/80	500	8:25 AM	DANIEL LOPEZ	WE A091	15	800				10:08 30	10:13 30	—	
	78/79	15	8:59 AM	1	1	1	1				9:47 30	9:52 30	—	
	79/80	21	8:18 AM	RAFAEL ORDONEZ	WE-A040	9	850				9:46 30	9:51 30	—	
	79/82	10	8:35 AM								9:46 30	9:51 30	—	
	80/82	309	8:39 AM								10:09 30	10:14 30	—	
	82/83	20	11:53 AM								12:20 30	12:25 30	—	
	80/83	17	11:36 AM	SARBELIO MENDEZ	WE A06X	16	800				12:20 30	12:25 30	—	
	81/83	133	11:38 AM								12:18 30	12:23 30	—	
	83/86	97	11:47 AM	DANIEL LOPEZ	WE A091	15	800				12:28 30	12:33 30	—	
	83/85	51	11:41 AM								12:28 30	12:33 30	—	
	85/86	21	12:00 PM	RAFAEL ORDONEZ	WE-A040	9	850				12:28 30	12:33 30	—	
	84/85	21	11:37 AM	DANIEL LOPEZ	WE A091	15	800				12:26 30	12:31 30	—	
	82/85	5	9:50 AM	SARBELIO MENDEZ	WE A06X	16	800				12:26 30	12:31 30	—	
	82/84	508	9:00 AM	S							10:10 30	10:15 30	—	
	84/86	508	9:35 AM	DANIEL LOPEZ	WE A091	15	800				10:11 30	10:16 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Job # 03083171
Superintendent:
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-30-10	B5 / B7	57	11:55 AM	SARBELIO MENDEZ	WEA068	16	800		4-30-10	Air Test	12:29 / 30	12:34 / 30	-	Pass
	B6 / B7	100	12:00 PM								12:29 / 30	12:34 / 30	-	
	B7 / 90	153	12:08 PM	DANIEL LOPEZ	WEA091	15	800				12:27 / 30	1:32 / 30	-	
	B8 / 90	19	12:05 PM								12:30 / 30	12:35 / 30	-	
	B7 / B8	21	12:10 PM	RAFAEL ORDONEZ	WEA040	9	850				1:08 / 30	1:13 / 30	-	
	B9 / 90	21	12:20 PM								1:29 / 30	1:34 / 30	-	
	B8 / B9	486	9:53 AM	SARBELIO MENDEZ	WEA068	16	800				10:30 / 30	10:35 / 30	-	
	B9 / 93	486	10:15 AM	RAFAEL ORDONEZ	WEA040	9	850				11:30 / 30	11:35 / 29	1	
	93 / 90	23	12:10 PM	SARBELIO MENDEZ	WEA068	16	800				1:29 / 30	1:34 / 28	2	
	92 / 90	66	12:13 PM								1:30 / 30	1:35 / 30	-	
	91 / 90	86	12:17 PM								1:34 / 30	1:39 / 30	-	
	92 / 93	21	12:25 PM	RAFAEL ORDONEZ	WEA040	9	850				1:30 / 30	1:35 / 30	-	
	91 / 92	21	12:30 PM	SARBELIO MENDEZ	WEA068	16	800				1:35 / 30	1:40 / 30	-	
	95 / 96	21	12:26 PM	RAFAEL ORDONEZ	WEA040	9	850				1:31 / 30	1:36 / 30	-	
	91 / 96	87	12:27 PM	DANIEL LOPEZ	WE091	15	800				1:35 / 30	1:40 / 30	-	
	92 / 96	44	12:23 PM			1					1:35 / 30	1:40 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.30.10	92/95	17	12:20 PM	DANIEL LOPEZ	WEA091	15	800		4.30.10	AIR TEST	1:31 30	1:36 30	-	P/F
	93/95	404	10:57 AM								11:31 30	11:36 30	-	
	93/95	88	10:50 AM								11:00 30	11:05 30	-	
	93/94	23	10:45 AM								11:00 30	11:05 30	-	
	94/95	21	10:43 AM	DANIEL LOPEZ	WEA091	15	800				11:00 30	11:05 30	-	
5.10.10	94/97	22	7:42 AM	SARBELIO HENDEZ	WE-A068	16	800		5.10.10		8:52 30	8:57 30	-	
	95/97	507	7:44 AM								9:14 30	9:19 30	-	
	97/98	21	9:40 AM	DANIEL LOPEZ	WEA091	15	800				10:10 30	10:15 30	-	
	98/95	17	9:45 AM								10:11 30	10:16 30	-	
	96/98	136	9:48 AM								10:11 30	10:16 30	-	
	98/101	104	10:28 AM								10:40 30	10:45 30	-	
	100/98	48	10:25 AM								10:40 30	10:45 30	-	
	97/100	31	10:22 AM								10:34 30	10:39 30	-	
	99/100	21	10:18 AM								10:34 30	10:39 30	-	
	100/101	21	10:08 AM								10:17 30	10:22 30	-	
	97/99	492	7:52 AM	RAFAEL OCONNEL	WE A040	8	850				9:15 30	9:20 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED **Primary** Cell [x] **Air Pressure Test** 30 PSI

Job Description: cell A4 Pond [ ] **Air Pressure Hold Time** 5 Minutes

Reported By **Other** Pad [ ] **Allowable Air Pressure Loss** 4 PSI

[ ] **Total LF of Welding to Date Combined** **Extrusion LF Weld Total To Date** [ ] **Fusion LF Weld Total To Date:** [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5.10.10	99/103	327	8:00 AM	DANIEL LOPEZ	WE A091	15	800		5.10.10	Air Test	9:30 30	9:35 30	-	Pass
	99/103	168	8:21 AM								9:30 30	9:35 30	-	
	100/103	32	10:50 AM								11:38 30	11:43 30	-	
	100/102	48	10:54 AM								11:38 30	11:43 30	-	
	101/102	103	10:57 AM								11:40 30	11:45 30	-	
	102/103	21	10:40 AM								11:38 30	11:43 30	-	
	103/105	490	8:39 AM	SARBELIO MENDEZ	WE A068	16	800				9:40 30	9:45 30	-	
	102/105	28	11:10 AM	DANIEL LOPEZ	WE A091	15	800				11:39 30	11:44 30	-	
	102/104	127	11:13 AM								11:39 30	11:44 30	-	
	105/104	21	11:00 AM	RAFAEL ORDONEZ	WE A040	8	350				11:39 30	11:44 30	-	
	104/109	127	11:16 AM								11:47 30	11:52 30	-	
	105/109	11	11:14 AM								11:47 30	11:52 30	-	
	105/108	14	11:10 AM								11:46 30	11:51 30	-	
	105/107	489	8:49 AM	DANIEL LOPEZ	WE A091	15	800				9:39 30	9:44 30	-	
	107/108	21	10:32 AM	RAFAEL ORDONEZ	WE A040	8	350				1:00 30	10:5 30	-	
	108/109	21	10:40 AM								11:46 30	11:51 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED **Primary** **Cell** X

Job Description: cell A4 **Pond**

Reported By **Other** **Pad**

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined **Extrusion LF Weld Total To Date** **Fusion LF Weld Total To Date:**

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5.10.10	107/111	503	9:10 AM	RAFAEL ORDONEZ	WE A040	8	850		5.10.10	AIR TEST	10:53 30	10:58 30	-	PASS
	110/111	21	10:21 AM	SARBELIO MENDEZ	WE A063	16	800				1:01 30	1:06 30	-	
	107/110	8	10:20 AM	RAFAEL ORDONEZ	WE A040	8	850				1:01 30	1:06 30	-	
	108/110	16	11:32 AM	RAFAEL ORDONEZ	WE A040	8	850				1:00 30	1:05 30	-	
	109/110	139	11:34 AM								1:19 30	1:24 30	-	
	110/113	152	10:32 AM	SARBELIO MENDEZ	WE A068	16	800				1:20 30	1:25 30	-	
	110/112	11	10:30 AM								1:20 30	1:25 30	-	
	112/113	21	10:26 AM								1:20 30	1:25 29	1	
	111/112	290	9:45 AM								10:55 30	11:00 30	-	
	111/112	221	9:29 AM								9:55 30	10:00 30	-	
	105/106	21	8:33 AM								9:00 30	9:05 30	-	
	103/106	26	8:36 AM								9:00 30	9:05 30	-	
	106/107	26	8:45 AM	DANIEL LOPEZ	WE A091	15	800				9:00 30	9:05 30	-	
	112/116	500	10:56 AM	SARBELIO MENDEZ	WE A068	16	800				2:29 30	2:34 30	-	
	112/115	26	11:39 AM								1:38 30	1:43 30	-	
	113/115	5	11:42 AM								1:21 30	1:26 30	-	

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5.10.10	113/114	12	11:43 AM	SARBELIO MENDEZ	WE 9068	16	800		5.10.10	Air Test	1:22 / 30	1:27 / 30	-	PASS
	113/114	129	11:74 AM	"	"	"	"				1:22 / 30	1:27 / 30	-	
	114/115	21	1:00 PM	RAFAEL ORDONEZ	WE 9040	8	850				1:21 / 30	1:26 / 28	2	
	115/116	21	11:35 AM	SARBELIO MENDEZ	WE 9068	16	800				1:38 / 30	1:43 / 28	2	
	116/117	486	11:34 AM	DANIEL LOPEZ	WE 7091	15	800				2:55 / 30	3:00 / 30	-	
	117/120	206	1:00 PM	SARBELIO MENDEZ	WE 9068	16	800				2:14 / 30	2:19 / 30	-	
	117/120	274	1:14 PM	"	"	"	"				2:27 / 30	2:32 / 30	-	
	116/118	6	1:48 PM	"	"	"	"				2:55 / 30	3:00 / 30	-	
	115/118	35	1:49 PM	"	"	"	"				2:56 / 30	3:01 / 30	-	
	114/118	148	1:52 PM	"	"	"	"				2:56 / 30	3:01 / 30	-	
	118/119	152	2:13 PM	"	"	"	"				3:00 / 30	3:05 / 30	-	
	118/120	30	2:10 PM	"	"	"	"				2:58 / 30	3:03 / 30	-	
	118/120	10	2:09 PM	"	"	"	"				2:58 / 30	3:03 / 30	-	
	117/118	21	2:05 PM	"	"	"	"				2:55 / 30	3:00 / 30	-	
	119/120	21	2:05 PM	DANIEL LOPEZ	WE 7091	15	800				3:00 / 30	3:05 / 30	-	
	122/123	21	2:35 PM	"	"	"	"				3:10 / 30	3:15 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Page 20 of

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED **Primary** Cell [x] **Air Pressure Test** 30 PSI

Job Description: cell A4 Pond [ ] **Air Pressure Hold Time** 5 Minutes

Reported By **Other** Pad [ ] **Allowable Air Pressure Loss** 4 PSI

[ ] **Total LF of Welding to Date Combined** **Extrusion LF Weld Total To Date** [ ] **Fusion LF Weld Total To Date:** [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5-10-10	123/119	126	2:12 PM	DANIEL LOPEZ	Ut A041	15	800		5-10-10	Air Test	3:10 / 30	3:15 / 30	-	Pass
	119/122	25	2:10 PM								3:10 / 30	3:15 / 30	-	
	120/122	76	:								3:17 / 30	3:22 / 30	-	
	120/122	423	1:13 PM								3:20 / 30	3:25 / 30	-	
	120/121	183	1:10 PM								2:16 / 30	2:21 / 30	-	
	121/122	21	1:05 PM								2:16 / 30	2:21 / 30	-	
	121/124	22	1:25 PM	RAFAEL ORDONEZ	Ut A047	8	850				2:17 / 30	2:22 / 30	-	
	122/124	164	1:29 PM								3:23 / 30	3:28 / 30	-	
1/3	122/124	142	1:50 PM								3:23 / 30	3:28 / 30	-	
2/3	122/125	25	2:39 PM								3:15 / 30	3:20 / 30	-	
	123/125	125	2:40 PM	DANIEL LOPEZ	Ut A041	15	800				3:15 / 30	3:20 / 30	-	
	122/123	21	2:35 PM								3:10 / 30	3:15 / 30	-	
	124/125	21	2:40 PM	SARBELIO MENDEZ	WE A068	16	800				3:14 / 30	3:19 / 30	-	
	125/122	25	2:39 PM	RAFAEL ORDONEZ	Ut A047	8	850				3:15 / 30	3:20 / 30	-	
3/3	122/124	185	2:17 PM	RAFAEL ORDONEZ	Ut A047	8	850				3:16 / 30	3:21 / 30	-	
	/		:								:	:		

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5.18.10	124/126	520	8:58 AM	SABELIO MENDEZ	WE A068	16	800		5.18.10	AIR TEST	11:54 30	11:59 29	1	PASS
	126/127	502	9:30 AM	DANIEL LOPEZ	WE A096	15	800				11:55 30	12:00 28	2	
	127/128	119	9:51 AM	SABELIO MENDEZ	WE A068	16	800				12:37 30	12:42 30	—	
	128/129	471	10:25 AM	DANIEL LOPEZ	WE A096	15	800				12:43 30	12:48 30	—	
	129/130	35	10:35 AM	SABELIO MENDEZ	WE A063	16	800				11:31 30	11:36 28		
	129/131	479	10:38 AM	"	"	"	"				12:45 30	12:50 30	—	
	126/132	21	11:15 AM	DANIEL LOPEZ	WE A096	15	800				1:10 30	1:15 29	1	
	124/132	4	11:17 AM	"	"	"	"				1:10 30	1:15 30	—	
	125/132	39	11:18 AM	"	"	"	"				1:11 30	1:16 30	—	
	125/132	18	11:20 AM	"	"	"	"				1:12 30	1:17 30	—	
	125/132	89	11:22 AM	"	"	"	"				1:12 30	1:17 30	—	
	132/133	65	11:51 AM	"	"	"	"				1:13 30	1:18 28	2	
	132/133	88	11:45 AM	"	"	"	"				1:13 30	1:18 30	—	
	127/133	21	11:40 AM	"	"	"	"				1:15 30	1:20 30	—	
	128/135	21	1:08 PM	"	"	"	"				1:44 30	1:49 30	—	
	127/135	33	1:21 PM	"	"	"	"				1:44 30	1:49 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [X] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5-18-10	135/133	119	1:26 PM	DANIEL LOPEZ	WEA096	15	800		5-18-10	AIR TEST	2:20 30	2:25 30	-	PASS
	134/133	35	1:37 AM								2:20 30	2:25 28	2	
	134/135	21	11:30 AM	SABELIO MENDEZ	WEA068	16	800				2:20 30	2:25 30	-	
	134/136	35	11:24 AM								2:21 30	2:26 30	-	
	136/135	112	11:15 AM								2:21 30	2:26 30	-	
	129/136	17	11:27 AM								1:45 30	1:50 30	-	
128/129 *	135/129	43	10:55 AM	DANIEL LOPEZ	WEA096	15	800				1:45 30	1:50 30	-	
	131/136	37	11:35 AM	SABELIO MENDEZ	WEA068	16	800				2:40 30	2:45 30	-	
	136/137	112	11:37 AM								2:40 30	2:45 30	-	
	137/138	113	11:50 AM								2:41 30	2:46 30	-	
	131/137	21	11:46 AM								2:41 30	2:46 30	-	
	138/131	119	1:26 PM								2:41 30	2:46 30	-	
	139/138	21	1:13 PM	DANIEL LOPEZ	WEA096	15	800				2:54 30	2:59 30	-	
	141/138	161	1:55 PM								2:42 30	2:47 30	-	
	138/142	69	2:08 P.M								2:42 30	2:47 30	-	
	141/142	21	2:20 PM								2:42 30	2:47 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [X] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5-18-10	130 / 131	21	10:30 PM	SABELIO MENDEZ	WE A068	16	800		5-18-10	Air Test	11:31 30	11:36 28	2	Fail
	130 / 139	36	12:58 PM								2:04 30	2:09 30	—	
	131 / 139	400	1:01 PM								2:54 30	2:59 30	—	
	139 / 140	77	1:48 PM								2:05 30	2:10 30	—	
	140 / 141	21	1:55 PM								2:05 30	2:10 30	—	
	139 / 141	353	1:57 PM								2:55 30	3:00 30	—	
	127 / 128	353	9:59 AM								11:30 30	11:35 30	—	
5.20.10	140 / 143	76	7:34 AM	SABELIO MENDEZ	WE A068	15	800		5.20.10		9:03 30	9:08 30	—	
	141 / 143	447	7:40 AM								9:00 30	9:05 30	—	
	141 / 145	82	8:15 AM								9:31 30	9:36 30	—	
	142 / 145	69	8:21 AM								9:31 30	9:36 30	—	
	143 / 145	21	8:30 AM								9:28 30	9:33 30	—	
	145 / 146	106	8:28 AM	DANIEL LOPEZ	WE A096	15	800				9:30 30	9:35 30	—	
	146 / 147	21	8:40 AM	DANIEL LOPEZ	WE A096	15	800				9:30 30	9:35 29	1	
	147 / 145	48	8:27 AM								9:28 30	9:33 30	—	
	143 / 147	5	8:26 AM								9:27 30	9:32 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5-20-10	144 / 147	21	6:45 AM	DANIEL LOPEZ	UE A096	15	800		5-20-10	AIR TEST	9:27 30	9:32 30	-	PASS
	144 / 143	348	7:48 AM								8:57 30	9:04 30	-	
	144 / 148	346	8:35 AM	SARBELIO MENDEZ	UE A068	15	800				9:55 30	10:00 28	2	
	148 / 149	335	8:55 AM	DANIEL LOPEZ	UE A096	15	800				9:56 30	10:01 30	-	
	149 / 150	327	9:04 AM	SARBELIO MENDEZ	UE A068	15	800				9:58 30	10:03 30	-	
	150 / 151	324	9:30 AM	DANIEL LOPEZ	UE A096	15	800				10:00 30	10:05 30	-	
	151 / 152	324	9:33 AM	SARBELIO MENDEZ	WEA 068	15	800				10:01 30	10:06 30	-	
	152 / 153	323	10:00 AM	DANIEL LOPEZ	WEA 096	15	800				10:35 30	10:40 29	1	
	153 / 154	55	10:35 AM		WEA 096	15	800				11:05 30	11:10 30	-	
	153 / 155	64	10:43 AM								11:05 30	11:10 30	-	
	153 / 157	57	10:51 AM								11:12 30	11:17 30	-	
	153 / 158	44	11:01 AM								11:20 30	11:25 30	-	
	153 / 159	82	10:17 AM	SARBELIO MENDEZ	WEA 068	15	800				10:36 30	10:41 30	-	
	157 / 158	9	11:13 AM	DANIEL LOPEZ	WEA 096	15	800				11:20 30	11:25 30	-	
	157 / 154	66	10:53 AM	SARBELIO MENDEZ	WEA 068	15	800				11:11 30	11:16 30	-	
	154 / 155	13	10:33 AM			15	800				11:05 30	11:10 28	2	

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Primary: Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
5/20/10	154/156	21	10:40 AM	SARVELIO MENDEZ	WEA 068	15	800	
	156/157	21	10:45 AM					
	154/157	31	10:40 AM					
	157/159	189	10:00 AM					
	159/158	45	10:12 AM					
6-11-10	160/161	44	8:35 AM	DANIEL LOPEZ	WE A096	12	800	
	161/162	43	8:40 AM					
	162/163	43	8:48 AM					
	163/164	43	8:55 AM					
	164/165	43	8:35 AM	SARVELIO MENDEZ	WE A068	13	820	
	165/166	43	8:41 AM					
	166/167	43	8:47 AM					
	167/168	43	8:52 AM					
	168/169	43	8:57 AM					
	169/170	42	9:02 AM					
	170/171	42	9:04 AM					

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5/20/10	Air test	11:08 30	11:13 30	-	PASS
		11:08 30	11:13 30	-	
		11:10 30	11:15 30	-	
		10:37 30	10:42 30	-	
		10:37 30	10:42 30	-	
6-11-10		9:10 30	9:15 30		
		9:11 30	9:16 30		
		9:12 30	9:17 30		
		9:13 30	9:18 30		
		9:14 30	9:19 28		
		9:15 30	9:20 30		
		9:16 30	9:21 30		
		9:17 30	9:22 30		
		9:19 30	9:24 30		
		9:21 30	9:26 30		
		10:44 30	10:49 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
6-11-10	171 / 172	42	9:47 AM	SARBELIO MENDEZ	UE-A068	13	820		6-11-10	AIR TEST	10:45 30	10:50 30	—	PASS
	172 / 173	27	9:48 AM	"	"	"	"			"	10:48 30	10:53 30	—	"
	173 / 174	4	:	CIRINO MTZ	ET-A061	—	525	500		V. BOX	:	:	—	"
	173 / 175	22	9:30 AM	SARBELIO MENDEZ	UE A068	13	820		6-11-10	AIR TEST	10:48 30	10:53 30	—	"
	172 / 175	15	9:50 AM	"	"	"	"			"	10:47 30	10:52 30	—	"
	174 / 175	4	:	CIRINO MTZ	ET-A061	—	525	500		V. BOX	:	:	—	"
	175 / 159	31	10:03 AM	SARBELIO MENDEZ	UE A068	13	820		6-11-10	AIR TEST	10:46 30	10:51 30	—	"
	171 / 159	21	10:05 AM	"	"	"	"			"	10:44 30	10:49 30	—	"
	170 / 159	21	9:23 AM	DANIEL LOPEZ	UE A096	12	820			"	10:00 30	10:05 30	—	"
	169 / 159	21	9:25 AM	"	"	"	"			"	10:00 30	10:05 30	—	"
	168 / 159	21	9:27 AM	"	"	"	"			"	10:01 30	10:06 30	—	"
	167 / 159	21	9:29 AM	"	"	"	"			"	10:01 30	10:06 28	2	"
	166 / 159	21	9:31 AM	"	"	"	"			"	10:03 30	10:08 28	2	"
	165 / 159	21	9:33 AM	"	"	"	"			"	10 090 30	10:08 30	—	"
	164 / 159	21	9:35 AM	"	"	"	"			"	10:05 30	10:10 30	—	"
	163 / 159	21	9:37 AM	"	"	"	"			"	10:05 30	10:10 30	—	"

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other
Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI
Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
6-11-10	162 / 159	21	9:39 AM	DANIEL LOPEZ	WEA096	12	820		6-11-10	AIR TEST	10:07 / 30	10:12 / 30	-	PASS
	161 / 159	21	9:41 AM								10:07 / 30	10:12 / 30	-	
	160 / 159	21	9:43 AM								10:08 / 30	10:13 / 30	-	
7-14-10	148 / 144	102	11:30 AM	JOSE PALESTIANO	WE A076	15	800		7-14-10		1:15 / 30	1:20 / 29	1	
	148 / 144	67	11:36 AM								1:15 / 30	1:20 / 29	1	
	148 / 149	183	11:25 AM	DANIEL LOPEZ	WEA096	15	800				1:13 / 30	1:18 / 30	-	
	149 / 150	196	11:45 AM								1:12 / 30	1:17 / 30	-	
	150 / 151	193	11:45 AM	JOSE PALESTIANO	WE A076	15	800				1:10 / 30	1:15 / 28	2	
	151 / 152	197	2:10 PM								2:36 / 30	2:41 / 30	-	
	180 / 159	18	2:05 PM								2:15 / 30	2:20 / 28	2	
	176 / 159	21	1:45 PM								1:48 / 30	1:53 / 30	-	
	160 / 176	38	1:30 PM								1:48 / 30	1:53 / 30	-	
	176 / 177	46	1:20 PM	DANIEL LOPEZ	WEA096	15	800				1:49 / 30	1:54 / 30	-	
	177 / 180	11	1:56 PM	JOSE PALESTIANO	WE076	15	800				2:16 / 30	2:21 / 30		
	179 / 180	5	1:58 PM								2:16 / 30	2:21 / 30		
	177 / 179	21	1:40 PM								2:12 / 30	2:17 / 30		

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
7-14-10	177/178	58	1:30 pm	DANIEL LOPEZ	WEA096	15	800		7-14-10	AIR TEST	2:12 / 30	2:17 / 30	—	PASS
	178/181	59	1:45 pm								3:06 / 30	3:11 / 28	2	
	181/182	59	2:00 pm								3:25 / 30	3:30 / 30	—	
	182/183	54	2:10 pm								3:26 / 30	3:31 / 29	1	
	183/184	49	2:16 pm								3:27 / 30	3:32 / 30	—	
	184/185	45	2:23 pm								3:28 / 30	3:33 / 29	1	
	185/186	41	2:30 pm								3:41 / 30	3:46 / 30	—	
	186/187	43	2:30 pm	JOSE PALESTINO	WEA076	15	800				3:43 / 30	3:48 / 30	—	
	187/188	42	2:59 pm								3:45 / 30	3:50 / 30	—	
	148/188	13	2:56 pm								3:45 / 30	3:50 / 30	—	
	149/188	20	2:53 pm								3:57 / 30	4:02 / 30	—	
	150/188	20	2:50 pm								3:57 / 30	4:02 / 30	—	
	151/188	19	2:47 pm								3:59 / 30	4:04 / 28	2	
	152/188	20	2:45 pm								3:59 / 30	4:04 / 30	—	
	152/179	19	2:50 pm	DANIEL LOPEZ	WEA096	15	800				3:05 / 30	3:10 / 30	—	
	152/178	19	2:52 pm								3:05 / 30	3:10 / 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Primary Cell x; Pond; Pad
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
7.14.10	181/152	21	2:54 PM	DANIEL LOPEZ	WE A096	15	800		7.14.10	AIR TEST	3:25 / 30	3:30 / 30	–	PASS
	182/152	21	2:56 PM								3:25 / 30	3:28 / 28	2	
	183/152	21	2:58 PM								3:27 / 30	3:32 / 29	1	
	184/152	22	3:00 PM								3:27 / 30	3:32 / 29	1	
	185/152	21	3:02 PM								3:41 / 30	3:46 / 30	–	
	186/152	20	3:04 PM								3:41 / 30	3:46 / 30	–	
	187/152	21	3:06 PM								3:45 / 30	3:50 / 30	–	
	188/189/142		3:05 PM	JOSE MAGESTANO	WE A096	15	800		7.15.10		7:46 / 30	7:51 / 30	–	
	189/190	137	3:20 PM								7:47 / 30	7:52 / 30	–	
	190/191	62	3:50 PM								8:05 / 30	8:10 / 30	–	
	190/192	70	3:46 PM								8:05 / 30	8:10 / 30	–	
	191/192	21	3:38 PM								8:06 / 30	8:11 / 30	–	
	192/193	67	3:23 PM	DANIEL LOPEZ	WE A096	15	800				8:06 / 30	8:11 / 30	–	
	191/193	58	3:26 PM								8:06 / 30	8:11 / 30	–	
	193/194	124	3:35 PM								8:10 / 30	8:15 / 30	–	
	194/200	21	4:29 PM								8:29 / 30	8:34 / 30	–	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED **Primary** Cell [x] Pond [ ] Pad [ ]

Job Description: cell A4 **Other** _____

Reported By

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
7-14-10	199 / 194	21	4:30 PM	DANIEL COPER	WE A096	15	800		7-15-10	AIR TEST	8:29 / 30	8:34 / 30	-	Pass
	198 / 194	21	4:32 PM								8:39 / 30	8:44 / 30	-	
	197 / 194	21	4:34 PM								8:39 / 30	8:44 / 30	-	
	196 / 194	21	4:36 PM								8:51 / 30	8:56 / 30	-	
	195 / 194	8	4:37 PM								8:51 / 30	8:56 / 30	-	
7-15-10	195 / 196	12	10:00 AM	CIRINO MARTINEZ	G. A061	-	500	470		VBOX EXT	:	:	-	
7-14-10	196 / 197	26	4:23 PM	DANIEL COPER	WE A096	15	800			AIR TEST	8:45 / 30	8:50 / 30	-	
	197 / 198	27	4:17 PM								8:39 / 30	8:44 / 30	-	
	198 / 199	26	4:12 PM								8:29 / 30	8:34 / 28	2	
	199 / 200	28	4:08 PM								8:29 / 30	8:34 / 30	-	
	147 / 188	19	4:10 PM	JOSE PALESTIAN	WE A076	15	800				7:46 / 30	7:51 / 30	-	
	147 / 189	21	4:15 PM								7:46 / 30	7:51 / 28	2	
	147 / 190	10	4:20 PM								7:53 / 30	7:58 / 30	-	
	146 / 190	10	4:23 PM								7:53 / 30	7:58 / 30	-	
	146 / 192	21	4:25 PM								8:00 / 30	8:05 / 28	2	
	146 / 193	21	4:28 PM								8:00 / 30	8:05 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County **Job #** 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Primary Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
7.14.10	146 / 194	21	4:32 PM	JOSE PALESTINO	GEM.A076	15	800		7.15.10	AIR TEST	8:15 30	8:20 30	-	Pass
7.14.10	146 / 200	28	4:36 PM	/	/	/	/		/	/	8:28 30	8:33 30	-	/
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		
	/		:								:	:		

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REPAIR RECORDS / LOCATION SUMMARY

SECTION E

PRIMARY

PASCO COUNTY

CELL 4A

JOB# 03083171

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COMANCO ENVIRONMENTAL CORPORATION

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Comanco Enviro ntal Corporation
Repair Report

Page 1 of _____

Reported By: _____ Superintendent: _____ Job # : 03083171

Project Name: Pasco County Primary Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes

CR --Crease; DS --Destruct Sample; SI --Subgrade Irregularity; SJ --Seam Joint; BO --Burn Out; FS --Failed Seam; WR --Wrinkle; AV --Airvent; AO --Add On; PB --Pipe Boot; MatD --Material Defect; WS --Welder Restart; RW --Roller Wrinkle; FM --Fishmouth; CF --Custom Fit; LL --Lost Lap; MD --Mechanical Damage; DO --Damage By Others; AT --Air test

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
1	BO	32.34			P	2 x 2		4.29.10	JOSE PALESTINO	G. AO 40	Vacuum	PASS	4.30.10
2	MD		28		P	2 x 2		4.28.10					
3	BO	23.24			P	2 x 2		4.29.10					
4	MD		22		P	2 x 2		4.28.10					
5	SJ	20.21			P	2 x 2		4.28.10					
6	DS.1	17 Ext			P	2 x 6		4.29.10					
7	MD		17		P	2 x 2		4.28.10	CRINO MARTINEZ	G. AO 41			
8	BO	15.16			P	2 x 2							4.29.10
9	BO	13.14			P	2 x 2							
10	MD		12		P	2 x 3							
11	MD		11		P	2 x 3							
12	MD		10		P	2 x 2							
13	MD		9		P	2 x 3							
14	SJ	8.9			P	2 x 2							
15	MD		8		P	1 x 1							
16	MD		8		P	1 x 1							
17	MD		7		P	2 x 2							
18	SJ		6.7		P	2 x 2							
19	MD		5		P	2 x 2							
20	DS.2	5 Ext			P	2 x 7		4.29					

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Comanco Enviro ntal Corporation
Repair Report

Job # : 03083171

Reported By: ____ **Superintendent:** ____

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other ____

Job Description: cell A4

Damage Codes
CR --Crease; DS --Destruct Sample; SI --Subgrade Irregularity; SJ --Seam Joint
BO --Burn Out; FS --Failed Seam; WR --Wrinkle; AV --Airvent; AO --Add On
PB --Pipe Boot; MatD --Material Defect; WS --Welder Restart; RW --Roller Wrinkle; FM --Fishmouth
CF --Custom Fit; LL --Lost Lap; MD --Mechanical Damage; DO --Damage By Others; AT --Air test

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
21	MD		2		P	2 x 2		4-28-10	CIRINO MARTINEZ	GT-706i	Vacuum	PASS	4-29-10
22	AS-3	1-2			P	2 x 6		4-29-10					
23	SJ	1-2-36			P	2 x 2							
24	SJ	2-4-36			P	2 x 2							
25	SJ	2-3-4			P	2 x 2							
26	SJ	4-5	36		P	2 x 2							
27	SJ	3-4-5			P	2 x 2							
28	SJ	5-6	36		P	2 x 3							
29	BO	5-6			P	2 x 2							
30	SJ	6-7	36		P	2 x 2							
31	SJ	7-8	36		P	2 x 2							
32	SJ	8-9	35-36		P	2 x 9							4-30-10
33	SJ	35-36	37		P	2 x 3							4-29-10
34	SJ	9-10	35		P	2 x 2							
35	AS-4	9-10			P	2 x 6							
36	SJ	10-11	35		P	2 x 6							
37	SJ	11-12	35		P	2 x 2							
38	SJ	12-13	35		P	~~3~~ 2 x ~~3~~ 2		4-28-10					
39	SJ	13-14	35		P	3 x 4							
40	SJ	14-15	35		P	2 x 2							

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Comanco Enviro ntal Corporation

Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
41	SJ	15.16	35		P	2 x 2		4.28.10	GRINO MARTINEZ	EG.A061	VACUUM	PASS	4.29.10
42	SJ	16.17	35		P	2 x 2		1	1	1	1	1	1
43	DS-5	16.17			P	2 x 6		4.29.10	JOSE PALESTINO	EG.A080			4.30.10
44	SJ	17.19	35		P	2 x 2							4.29.10
45	SJ	17.18	19		P	2 x 2							1
46	SJ	18.19	20		P	2 x 2							4.30.10
47	SJ	19.20	35		P	2 x 2							
48	SJ	35.38	37		P	4 x 4							
49	SJ	20.21	35		P	2 x 2							
50	SJ	21.22	35		P	2 x 2							
51	SJ	22.23	35		P	2 x 2							
52	SJ	23.24	35		P	2 x 2							
53	SJ	24.25	35		P	2 x 2							
54	SJ	25.26	35		P	2 x 2							
55	SJ	26.27	35		P	2 x 2							
56	SJ	27.28	35		P	2 x 2							
57	SJ	28.29	35		P	2 x 2							
58	SJ	29.30	35		P	2 x 2							
59	SJ	30.31	35		P	2 x 2							
60	SJ	31.33	35		P	2 x 2							

COMANCO

Comanco Enviro[illegible]ntal Corporation
Repair Report

Page 4 of _____

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes					SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit			Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap			Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others			Air Lance	*E=East	
	AO --Add On	FM --Fishmouth	AT --Air test					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
61	SJ	31-32	33		P	2 x 2	-	4-29-10	JOSE PALESTIANO	EG-A040	Vacuum	Pass	4-30-10
62	SJ	32-33	34		P	2 x 2							
63	SJ	33-34	35		P	2 x 2							
64	BO	35 38			P	2 x 4		4-30-10					
65	BO	39-41			P	2 x 4							
66	SJ	38-39	40		P	2 x 4							
67	SJ	39-40	41		P	2 x 6							
68	SJ	37 38	40		P	2 x 5		4-29-10					
69	BO	40-41			P	2 x 6							
70	SJ	40-41	43		P	2 x 3			GEINO MARTINEZ	EG-A061			
71	SJ	40-42	37		P	2 x 5							
72	SJ	40-42	43		P	2 x 2							
73	SJ	44-47	48		P	2 x 3							
74	SJ	44 45	47		P	2 x 3							
75	SJ	41-43	45-44		P	2 x 7							
76	WS	41-45			P	2 x 4		4-30-10	JOSE PALESTANO	EG-A040			
77	BO	41-45			P	2 x 3		4-30-10					
78	SJ	45-46	47		P	3 x 4							
79	BO	41-45			P	2 x 4							
80	MD		45		P	2 x 2							

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Comanco Enviro ental Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other ____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	AT --Air test

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
B1	DS.9	37-40			P	2 x 6		4.29.10	JOSE PALESTANO	ET.A040	Vacuum	Pass	4.30.10
B2	DS.6	27-28			P	2 x 6		4.29	JOSE PALESTIANO	ET.A040			1
B3	DS.7	30-35			P	2 x 6							4.30.10
B4	DS.8	35-38			P	2 x 6							
B5	DS.10	40-42			P	2 x 6		4.29.10	CIRINO MARTINEZ	ET.A061			
B6	DS.11	40-41			P	2 x 6		4.30.10	JOSE PALESTANO	ET.A040			
B7	DS.12	43-44			P	2 x 6		4.29.10	CIRINO MARTINEZ	ET.A061			
B8	DS.14	47-48			P	2 x 6		4.29.	CIRINO MARTINEZ	ET.A061			
B9	SJ	47-48	49		P	2 x 2							
90	SJ	47-49	50		P	2 x 4							
91	SJ	49-50	51		P	2 x 3							
92	SJ	50-51	52		P	3 x 5							
93	DS.15	47-50			P	2 x 6		4.30.10	JOSE PALESTANO	ET.A040			
94	DS.16	50-52			P	2 x 6							
95	DS.13	45-47			P	2 x 6		4.30.10	JOSE PALESTIANO	ET.A040			
96	SJ	50-46	47		P	2 x 3							
97	MD		50		P	2 x 2							
98	BO	46-50			P	2 x 4							
99	MD		50		P	2 x 2							
100	MD		55		P	2 x 2		5.3.10	NICOLAS VIEGEN	ET.A040			

COMANCO

Comanco Environmental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
101	MD		55		P	2 x 2		4.30.10	JOSE PALESTANO	G.A040	Vacuu	Pass	4.30
102	MD		55		P	2 x 2		1	1	1			1
103	SJ	55-58	57		P	2 x 2		5.3.10	NICOLAS VIEGEN	EI.A040			5.3.10
104	SJ	51.52	55		P	3 x 8		4.29.10	CRINO CARRILLO JR	EI A041			4.30.10
105	SJ	53.54	55		P	2 x 2							
106	SJ	54.55	57		P	2 x 2							
107	SJ	54.56	57		P	2 x 5							
108	SJ	51.53	54		P	2 x 2							
109	SJ	53.54	56		P	2 x 6							
110	BO	56.60			P	2 x 6		4.30.10					
111	BO	56.60			P	2 x 2		1					
112	BO	56.60			P	2 x 4		4.29.10					
113	BO	56.60			P	2 x 2							
114	BO	56.60			P	2 x 2							
115	BO	56.60			P	2 x 2							
116	SJ	56.57	60		P	3 x 8							
117	SJ	6061	62		P	2 x 3							
118	SJ	59.60	62		P	2 x 2							
119	SJ	57.59	60		P	3 x 4							
120	SJ	59.62	63		P	3 x 4		4.30.10					

COMANCO

Comanco Enviro. ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other ____

Job Description: cell A4

Damage Codes					
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	SF Patch Material	Test Type: Vacuum, Air Pressure, Spark, Air Lance
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	LF Welded	Abbrv.: *S=South, *N=North, *W=West, *E=East
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		Repair Types: C--Cap Strip, P--Patch, B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		
	AO --Add On	FM --Fishmouth	AT --Air test		

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
121	SJ	57-58	59		P	2 x 2		5.3.10	NICOLAS VIRGEN	EG.4040	Vacuum	Pass	5.3.10
122	BO	59 63			P	2 x 3							
123	BO	63 64			P	2 x 6			CIRINO MTZ	EG.4061			
124	SJ	64 66	67		P	2 x 2		4.30.10	CIRINO MTZ	EG.4061			4.30.10
125	BO	63 64			P	2 x 3							
126	SJ	62 63	64		P	2 x 2							
127	SJ	62 64	65		P	2 x 3							5.3.10
128	SJ	64 65	67		P	3 x 5							
129	SJ	61 62	65		P	3 x 3							
130	SJ	65 67	68		P	2 x 3							
131	SJ	67 68	69		P	2 x 2							
132	SJ	69 70	72		P	2 x 2							
133	SJ	70 71	72		P	2 x 2							
134	SJ	67 69	70		P	2 x 4							
135	BO	67 70			P	2 x 5							
136	SJ	66 67	70		P	2 x 3							
137	MD		66		P	2 x 2							
138	MD		66		P	2 x 2							
139	BO	70-71			P	2 x 5							
140	SJ	75-76	72		P	2 x 3							

COMANCO

Comanco Environ ntal Corporation
Repair Report

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Reported By: _____ Superintendent: _____ Job # : 03083171

Project Name: Pasco County Primary Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit		Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap		Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		Air Lance	*E=East	
	AO --Add On	FM --Fishmouth	AT --Air test				

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
141	SJ	73.74	76		P	4 x 3		4.30.10	CIRINO MTZ	EQ.A061	Vacuum	Pass	5.3.10
142	SJ	71.72	74		P	3 x 6		4.30.10					5.3.10
143	SJ	73.74	72		P	3 x 6		1					
144	DT.17	51.52			P	2 x 6		4.30.10	CIRINO MARTINEZ	EQ.A061			4.30
145	BO	60.61			P	2 x 6							
146	BO	60.61			P	2 x 3		4.29.10	CIRINO MTZ	EQ.A061			
147	BO	60.61			P	2 x 53		4.29.10					
148	DS.19	54.56			P	2 x 6		4.29	CIRINO MTZ	EQ.A061			
149	MO		54		P	2 x 2		4.29.10	CIRINO MTZ	EQ.A061			
150	DT.18	51.54			P	2 x 6		4.30	CIRINO MARTINEZ	EQ.A061			
151	DT.20	57/59			P	2 x 6		1					
152	MO		55		P	2 x 2							
153	BO	58.59			P	2 x 3							
154	BO	66.70			P	2 x 2		4.30.10	CIRINO MTZ				5.3.10
155	BO	72.73			P	2 x 2		1					
156	BO	72.73			P	2 x 3							
157	SJ	77.80	B1		P	3 x 4		5.3.10	SARBELIO MENDEZ	EQ.A066			5.3.10
158	SJ	B0.B1	B3		P	2 x 2							5.4.10
159	SJ	B0.B2	B3		P	2 x 4							
160	SJ	77.78	B0		P	2 x 6							5.5

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COMANCO

Comanco Environmental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit			Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap			Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others			Air Lance	*E=East	
	AO --Add On	FM --Fishmouth	AT --Air test					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
161	SJ	77-78	76		P	2 x 7		5.3.10	SARBELIO MENDEZ	E1.A066	Vacuum	Pass	5.3.10
162	SJ	75-76	78		P	2 x 2							
163	SJ	78-79	80		P	2 x 2		4.30.10	CICINO MARTINEZ	E1.A061			5.3.10
164	BO	78-79			P	2 x 7							
165	SJ	79-80	82		P	2 x 2							
166	BO	75-78			P	2 x 3							
167	BO	7982			P	2 x 3							
168	BO	8284			P	2 x 2							
169	BO	84-88			P	2 x 3							
170	BO	88-89			P	2 x 2							
171	SJ	88-89	90		P	2 x 4		5.3.10	CICINO MTZ				5.4.10
172	SJ	87-88	90		P	2 x 8							
173	SJ	84-85	88-89		P	2 x 7							
174	SJ	8284	85		P	2 x 3							
175	SJ	82 83	85		P	2 x 3							
176	SJ	88-85	86		P	2 x 4			SARBELIO MENDEZ	E1.A066			
177	SJ	85-86	87		P	2 x 3		5.3.10	SARBELIO MENDEZ	E1.A066			
178	SJ	90-91	92		P	2 x 4			CICINO MTZ	E2.A061			
179	SJ	91-92	96		P	2 x 2							
180	SJ	92-95	96		P	2 x 3							

COMANCO

Comanco Enviro ntal Corporation
Repair Report

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Reported By: _____ Superintendent: _____ Job # : 03083171

Project Name: Pasco County Primary Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes

CR --Crease; DS --Destruct Sample; SI --Subgrade Irregularity; SJ --Seam Joint

BO --Burn Out; FS --Failed Seam; WR --Wrinkle; AV --Airvent; AO --Add On

PB --Pipe Boot; MatD --Material Defect; WS --Welder Restart; RW --Roller Wrinkle; FM --Fishmouth

CF --Custom Fit; LL --Lost Lap; MD --Mechanical Damage; DO --Damage By Others; AT --Air test

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
181	SJ	92-93	95		P	3 x 4	5	5-3-10	CIRINO MTZ	G7.A061	VACUUM	PASS	5-4-10
182	SJ	90-92	93		P	2 x 3		1	1	1	1	1	1
183	SJ	93-89	90		P	2 x 4		5-3-10	CIRINO MTZ	G7.A061	1	1	5-4-10
184	BO	95-93			D	2 x 3		1	NICOLAS VIRGEN	G7.A040	1	1	5-3-10
185	SJ	93-94	95		P	2 x 2		4-30-10	CIRINO MARTINEZ	G7.A061	1	1	5-4-10
186	MO		96		P	2 x 2		1	1	1	1	1	1
187	BO	93-94			P	2 x 2		1	1	1	1	1	1
188	BO	89-93			P	2 x 3		1	1	1	1	1	1
189	DT21	59-63			P	2 x 6		5-3-10	NICOLAS VIRGEN	G7.A040	1	1	5-3-10
190	DT.22	62-63			D	2 x 6		1	CIRINO MTZ	G7.A061	1	1	1
191	DT.23	63-64			P	2 x 6		1	NICOLAS VIRGEN	G7.A040	1	1	1
192	DT.24	65-68			P	2 x 6		1	CIRINO MTZ	G7.A061	1	1	5-4-10
193	DT.25	67-70			P	2 x 6		1	NICOLAS VIRGEN	G7.A040	1	1	1
194	DT.26	70-71			P	2 x 6		1	1	1	1	1	1
195	DT.27	72-73			P	2 x 6		1	CIRINO MTZ	G7.A061	1	1	5-4-10
196	DT.28	71-74			P	2 x 6		1	NICOLAS VIRGEN	G7.A040	1	1	5-4-10
197	DT.29	74-76			P	2 x 6		1	CIRINO MTZ	G7.A061	1	1	5-4-10
198	DT.30	76-77			P	2 x 6		1	1	1	1	1	5-4-10
199	DT.31	77-78			P	2 x 6		1	1	1	1	1	5-4-10
200	DT.32	78-80			P	2 x 6		1	NICOLAS VIRGEN	G7.A040	1	1	5-3-10

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COMANCO

Comanco Enviro ntal Corporation
Repair Report

Reported By: _____ Superintendent: _____ Job # : 03083171

Project Name: Pasco County Primary Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes
CR --Crease; DS --Destruct Sample; SI --Subgrade Irregularity; SJ --Seam Joint
BO --Burn Out; FS --Failed Seam; WR --Wrinkle; AV --Airvent; AO --Add On
PB --Pipe Boot; MatD --Material Defect; WS --Welder Restart; RW --Roller Wrinkle; FM --Fishmouth
CF --Custom Fit; LL --Lost Lap; MD --Mechanical Damage; DO --Damage By Others; AT --Air test

SF Patch Material

LF Welded

Test Type: Vacuum; Air Pressure; Spark; Air Lance

Abbrv.: *S=South; *N=North; *W=West; *E=East

Repair Types: C--Cap Strip; P--Patch; B--Extrusion Bead

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
201	DT.33	80-82			P	2 x 6		5-3-10	NICOLAS VIRGEN	E1-A061	Vacuum	Pass	5-3-10
202	DT.34	82-84			P	2 x 6			NICOLAS VIRGEN	E1-A040			5-3-10
203	DT.35	84-85			P	2 x 6			CIRINO MTZ	E1-A061			5-4-10
204	DT.36	88-90			P	2 x 6			CIRINO MTZ				5-4-10
205	DT.37	~~88-89~~			P	2 x 6							
206	DT.38	~~85-87~~			P	2 x 6							
207	DT.39	89-93			P	2 x 6			CIRINO MTZ	E1-A061			5-4-10
208	DT.40	93-95			P	2 x 6							
209	MD	94			P	2 x 2		5-3-10	NICOLAS VIRGEN	E1-A040			5-3-10
210	MD	95			P	2 x 2		5-3-10					
211	BO	94-97			P	2 x 3		5-10-10	CIRINO MTZ	E1-A061			5-19
212	SJ	94-95	97		P	2 x 2							
213	BO	97-99			P	2 x 4							
214	SJ	99-103			P	2 x 2							
215	BO	99-103			P	2 x 2		05-11-10					
216	SJ	97-98	95		P	2 x 2		5-10-10					
217	SJ	95-96	98		P	2 x 2							
218	SJ	100-101	98		P	2 x 4							
219	SJ	97-98	100		P	2 x 2							
220	SJ	99-100	97		P	2 x 2		5-10-10					

COMANCO

Comanco Enviro[illegible]ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit		
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap		
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		
	AO --Add On	FM --Fishmouth	AT --Air test		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
221	SJ	99-100	103		P	2 x 3		5-10-10	SIGINO MARTINEZ	EX-A061	Vacuum	Pass	5-19-10
222	SJ	102-103	100		P	2 x 2							
223	SJ	100-101	102		P	2 x 2							
224	SJ	102-104	105		P	2 x 2							
225	SJ	102-103	105		P	2 x 3							
226	SJ	107 108	105		P	2 x 3							
227	SJ	105-108	109		P	2 x 2							
228	SJ	104-105	109		P	2 x 2							
229	SJ	108-109	110		P	2 x 2							
230	SJ	107-108	110		P	3 x 3							
231	SJ	110-111	107		P	2 x 2							
232	SJ	103 104	105		P	2 x 3		5-10-10	SIGINO MTZ	EX-A061			
233	SJ	105 106	107		P	2 x 2							
234	BO	116-117			P	2 x 3		5-11-10					
235	BO	111-112			P	2 x 2							
236	HA		110		P	2 x 2		5-11-10					
237	HO		110		P	2 x 3							
238	SJ	110-111	112		P	2 x 3							
239	SJ	112 113	110		P	2 x 2							
240	BO	113 114			P	2 x 3							

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Comanco Enviro ntal Corporation
Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
241	SJ	113 115	114		P	2 x 4		5.11.10	CLEMENTE MARTINEZ	GA 9061	VACUUM	PASS	5.19.10
242	SJ	112 113	115		P	2 x 5							
243	SJ	115 116	112		P	3 x 4							
244	SJ	116.117	118		P	2 x 7							
245	140		118		P	2 x 2							
246	SJ	115 116	118		P	2 x 5							
247	SJ	114.115	118		P	2 x 2							
248	SJ	118 119	120	122	C	3 x 22		5.17.10					5.17.10
249	BO	120.122			P	3 x 2		5.11.10					5.19.10
250	SJ	117 118	120		P	3 x 5		5.11.					
251	BO	117 120			P	2 x 5							5.20
252	BO	117 120			P	2 x 2							5.19.10
253	SJ	120.121	122		P	2 x 2							
254	BO	120 121			P	2 x 7							
255	SJ	121.122	124		P	2 x 2							
256	BO	121 124			P	2 x 4							
257	BO	121.124			P	2 x 2							
258	BO	121.124			P	2 x 3							
259	SJ	122 124	125		P	2 x 2							
260	SJ	122.123	125		P	3 x 4							

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Comanco Environmental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	SF Patch Material	Test Type: Vacuum, Air Pressure, Spark, Air Lance
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	LF Welded	Abbrv.: *S=South, *N=North, *W=West, *E=East
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		Repair Types: C--Cap Strip, P--Patch, B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		
	AO --Add On	FM --Fishmouth	AT --Air test		

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
261	[illegible]	119-122	123		P	2 x 4		5-10-10	CHRIS HILL	EG-9061	Vacuum	Pass	5-19-10
262	DS-46	104-105			P	2 x 6		5-10-10					
263	DS-42	97-98			P	2 x 6		5-10-10					
264	DS-43	97 99			P	2 x 6		5-11					
265	DS-41	94 97			P	2 x 6							
266	DS-44	99-103			P	2 x 6		5-11-10					
267	DS-45	103 105			P	2 x 6							
268	DS-47	105-107			P	2 x 6							
269	DS-48	107-111			P	2 x 6							
270	DS-49	111-112			P	2 x 6		5-11-10					
271	DS-50	113-116			P	2 x 6							
272	BO	118-120			P	2 x 2							
273	BO	120-122			P	2 x 4							
274	DT-51	112-116			P	2 x 6							
275	DS-52	114-115			P	2 x 6							
276	DT-53	116-117			P	2 x 6							
277	DT-54	117 120			P	2 x 6							5-20
278	DT-55	119-120		(FAIL DS) ✓	P	2 x 6							5-17
279	DT-56	120-122			P	2 x 6		5-11-10					5-19
280	DT-57	122-124			P	2 x 6							5-20

COMANCO

Comanco Environmental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
~~281~~	DI.SB	124.125			P	2 x 6		5.11.10	CIRINO RITZ	E7.A061	Vacuum	Pass	5.19.10
282	DS.SA	119 122		(550) ✓	P	~~2~~ x 6							
283	DS.SB	120.122		(551) ✓	P	2 x 6							
284	BO	124.126			P	2 x 2		5.18.10	CIRINO MARTINEZ	E7.A061			5.20.10
285	BO	126.127			P	2 x 7							
286	SJ	124.130	131		P	2 x 2							
287	SJ	130.131	139		P	2 x 2		5.19.10					
288	SJ	124.126	132		P	3 x 3		5.18.10					5.19.10
289	SJ	124.125	132		P	2 x 3							
290	SJ	126.129	132.133		P	3 x 8							5.20.
291	BO	125.132			P	2 x 3							5.19.10
292	BO	125.132			P	2 x 4							
293	BO	132.133			P	2 x 4							5.20.10
294	SJ	133.134	135		P	2 x 2		5.19.10					
295	SJ	134.135	136		P	2 x 4							
296	SJ	127.133	135		P	3 x 4		5.18.10					
297	SJ	127.128	135		/	3 x 4							
298	SJ	128.129	135		P	3 x 3		5.19.10					
299	SJ	129.135	136		P	4 x 5		5.18.10					5.19.10
300	SJ	129.131	136		P	4 x 4							5.20.10

COMANCO

Comanco Enviro ental Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes					SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit			Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap			Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others			Air Lance	*E=East	
	AO --Add On	FM --Fishmouth	AT --Air test					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
~~301~~	SJ	131.137	136		P	2 x 2		5.19.10	CIRINO MARTINEZ	EX. 2061	Vacuum	Pass	5.20.10
302	SJ	131/137	138		P	2 x 4							
303	SJ	138.139	131		P	2 x 3							
304	SJ	138.139	141		P	3 x 4							
305	SJ	141.142	138		P	3 x 5							
306	SJ	140.141	139		P	3 x 4							5.19.10
307	DS. 59	124.126			P	2 x 6							
308	DS.60	125.132			P	2 x 6		5.18.10					
309	DS.61	132/133			P	2 x 6		5.19.10					5.20.10
310	DS.62	127.128			P	2 x 6							
311	DS.63	~~128.129~~	133.135		P	2 x 6							
312	DS.64	135.136			P	2 x 6							
313	DS.65	128.129			P	2 x 6							
314	DS.66	129.131			P	2 x 6							
315	DS.67	131/132			P	2 x 6							
316	DS.68	138.142			P	2 x 6							
317	DS.69	139.141			P	2 x 6							
318	AO		134		P	2 x 2							5.19.10
319	AO		127		P	2 x 2		5.18.10					5.20.10
320	AO	127.128			P	2 x 2							

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Comanco Enviro ntal Corporation
Repair Report

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Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
321	BO	143/144			P	2 x 4		5/20/10	CIRINO MARTINEZ	EIA 061	Vacuum	Pass	5/20/10
322	SJ	140/141	143		P	2 x 2							
323	DS.72	144/148			P	2 x 7							
324	DS71	143/144			P	2 x 7							
325	DS 70	141/143			P	2 x 7							
326	BO	143/144			P	2 x 6							5-20-10
327	BO	143/144			P	2 x 2							
328	BO	143/144			P	2 x 4							
329	SJ	141/143	145		P	3 x 3							
330	SJ	143/145	147		P	3 x 3							
331	SJ	143/144	147		P	3 x 4							
332	SJ	145/146	147		P	2 x 2							
333	SJ	141/142	145		P	2 x 2							
334	DS.75	150-151			P	2 x 7							
335	DS.73	148-149			P	2 x 6							
336	DS.74	149-150			P	2 x 6							
337	MD		149		P	2 x 2							
338	MD		149		P	2 x 2							
339	MD				P	2 x 2							
340	MD				P	2 x 2							

Rev 2-10-05

COMANCO

Comanco Enviro ental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit			Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap			Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others			Air Lance	*E=East	
	AO --Add On	FM --Fishmouth	AT --Air test					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
341	DS-79	153.159			P	2 x 6		5-20-10	CIRINO MARTINEZ	ET-A061	VACUUM	PASS	5-20-10
342	SJ	153.158	159		P	3 x 4							
343	SJ	157.158	159		P	2 x 3							
344	SJ	157.158.153			P	3 x 3							
345	SJ	153.155	157		P	2 x 6							
346	DS-77	152.153			P	2 x 6							
347	DS-78	155.157			P	2 x 6							
348	SJ	154.155	157		P	2 x 2							
349	SJ	153.154	155		P	2 x 2							
350	SJ	154.156			P	6 x 4							
351	BO	157.159			P	2 x 2							
352	SJ	154.156	157		P	2 x 7							
353	DS-76	151.152			P	2 x 6							
354	DS-55	120.122		(POINT COVERING R1-4 2654 PASS DS)	C	2 x 37		5-17-10					5-17-10
355	BO	55.57			P	2 x 2		6-01-10					6-01-10
356	BO	164.162			P	2 x 5		6-11-10					6-11
357	BO	163.164			P	2 x 3							
358	SJ	172.173	175		P	6 x 6							
359	SJ	173.174	175		P	3 x 3							
360	PB		175		P	5 x 6							

COMANCO

Comanco Enviro[illegible]ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	SF Patch Material	Test Type: Vacuum, Air Pressure, Spark, Air Lance
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	LF Welded	Abbrv.: *S=South, *N=North, *W=West, *E=East
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		Repair Types: C--Cap Strip, P--Patch, B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		
	AO --Add On	FM --Fishmouth	AT --Air test		

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
361	BO	159-175			P	2 x 4		6-11-10	CRUZ MARTINEZ	EG-A0961	Vacuum	Pass	6-11
362	SJ	159-175	172-171		P	2 x 10							
363	BO	175-172			P	2 x 2							
364	SJ	170-171	159		P	3 x 3							
365	SJ	169-170	159		P	2 x 2							
366	SJ	168-169	159		P	2 x 2							
367	SJ	167-168	159		P	2 x 2							
368	SJ	166-167	159		P	2 x 2							
369	SJ	165-166	159		P	2 x 2							
370	SJ	164-165	159		P	2 x 2							
371	SJ	163-164	159		P	2 x 2							
372	SJ	162-163	159		P	2 x 2							
373	SJ	161-162	159		P	2 x 2							
374	SJ	160-161	159		P	2 x 3							
375	15-80	171-159			P	8 x 6							
376	NC-81	159-164			P	2 x 4							
377	BO	178-181			P	2 x 6		7-15-10					7-15-10
378	BO	160-176			P	2 x 6		/					/
379	SJ	159-160	176		P	5 x 6		7-14-10	CIELIN MTZ	EG-A0961			7-15-10
380	SJ	176-177	159-180		P	3 x 4		/	/	/			/

COMANCO

Comanco Enviro ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other ____

Job Description: cell A4

Damage Codes

CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	AT --Air test

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
381	SJ	180-[illegible]	177-179		P	2 x 2	-	7.14.10	CICINO MARTINEZ	Ex. A061	Vacuum	Pass	7-15-10
382	SJ	152-153	157-179	180	P	5 x 6							
383	SJ	177-178	179-182		P	2 x 9							
384	SJ	178-181	152		P	2 x 2							
385	SJ	181-182	152		P	2 x 2							
386	SJ	182-183	152		P	2 x 2							
387	SJ	183-184	152		P	2 x 2							
388	SJ	184-185	152		P	2 x 2							
389	SJ	185-186	152		P	2 x 2							
390	SJ	186-187	152		P	2 x 2							
391	SJ	152-187	198		P	2 x 3							
392	SJ	151-152	188		P	2 x 2							
393	SJ	150-151	188		P	2 x 2							
394	SJ	149-150	188		P	2 x 2							
395	SJ	148-149	188		P	3 x 7							
396	SJ	148-188			P	4 x 7							
397	BO	148-144			P	2 x 3							
398	BO S	148-144			P	2 x 3							
399	WS	148-149			P	2 x 2							
400	WS	149-150			P	2 x 2							

COMANCO

Comanco Enviro ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Primary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes					
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	SF Patch Material	Test Type: Vacuum, Air Pressure, Spark, Air Lance
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	LF Welded	Abbrv.: *S=South, *N=North, *W=West, *E=East
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		Repair Types: C--Cap Strip, P--Patch, B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		
	AO --Add On	FM --Fishmouth	AT --Air test		

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
401	WS	150-151			P	2 x 4		7.14.10	CIRINO HARTNER	ET-AC01	Vacuum	Pass	7.15.10
402	WS	151-152			P	2 x 3							
403	SJ	188-189	147		P	2 x 2		7.15.10					
404	SJ	189-190	147		P	2 x 2							
405	SJ	190-196	147		P	2 x 2							
406	SJ	190-192	146		P	2 x 2							
407	SJ	190-191	192		P	2 x 2							
408	SJ	191-192	193		P	2 x 2							
409	SJ	192-193	146		P	2 x 2							
410	SJ	193-194	146		P	2 x 2							
411	SJ	200-194	146		P	3 x 6							
412	SJ	194-199	200		P	2 x 2							
413	SJ	198-199	194		P	2 x 2							
414	SJ	197-198	194		P	2 x 2							
415	SJ	196-197	194		P	2 x 2							
416	SJ	195-196	194		P	2 x 2							
417	PB		196		P	3 x 6							
418	DS-B2	144-148			P	2 x 6							
419	DS-B3	148-149			P	2 x 6							
420	DS-B4	177-179			P	2 x 6							

COMANCO

Comanco Enviro[illegible]ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Primary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth	AT --Air test	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)			Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
421	DS-85				P	2	x	6		7.15.10	CIRINO MTZ	ET-A061	Vacuum	Pass	7.15.10
422	DS-86	191 192			P	2	x	6		"	"	"	"	"	7.19.10
423	DS-87	199-200			P	2	x	6		"	"	"	"	"	"
424	PB		182		P		x				ONLY LOCATION				
425	PB		183		P	6	x	6		7.22.10	CIRINO MTZ	ET-A061	Vacuum	Pass	7.22.10
426	MO		127		P	2	x	3		7-21-10	"	"	"	"	7.21.10
427	LK	138		R.303	P	2	x	2		9-14-10	CIRINO MARTINEZ	ET-A061	"	"	9-14-10
428	LK	103		R.215	B		x		6	9-15-10	"	"	"	"	9-15-10
429	LK	88			P	1	x	1		9-16-10	"	"	"	"	9-16-10
430	LK	112			P	1	x	1		"	"	"	"	"	"
431	LK	80			P	1	x	1		"	"	"	"	"	"
432	LK	83		R176	B		x		6	"	"	"	"	"	"
433	LK	74		R143	B		x		6	9-17-10	"	"	"	"	9-17-10
							x								
							x								
							x								
							x								
							x							10	
							x								
							x								

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Repair Location Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell: cell A4 **Layer:** Primary

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
1	1,467,756.90	319,695.40	51.35	32, 34
2	1,467,854.80	319,678.38	51.41	28, 28
3	1,467,953.10	319,669.47	49.94	23, 24
4	1,467,983.40	319,678.28	51.37	22, 22
5	1,468,018.60	319,679.12	51.37	20, 21
6	1,468,066.20	319,679.03	51.64	17, 17
7	1,468,079.90	319,678.84	51.55	17, 17
8	1,468,105.90	319,659.94	50.13	15, 16
9	1,468,148.50	319,679.47	60.76	13, 14
10	1,468,189.60	319,676.94	62.92	12, 12
11	1,468,202.20	319,675.12	63.07	11, 11
12	1,468,232.80	319,672.70	63.08	10, 10
13	1,468,249.90	319,671.72	62.94	9, 9
14	1,468,257.90	319,671.22	63.13	8, 9
15	1,468,273.00	319,670.72	63.14	8, 8
16	1,468,277.60	319,670.47	63.12	8, 8
17	1,468,289.80	319,670.97	63.06	7, 7
18	1,468,301.50	319,671.56	63.17	6, 7
19	1,468,330.40	319,671.10	63.21	5, 5
20	1,468,341.20	319,671.20	63.23	5, 5
21	1,468,369.60	319,671.56	63.46	2, 2
22	1,468,390.10	319,614.80	49.14	1, 2
23	1,468,390.60	319,604.06	48.85	1, 2, 36
24	1,468,368.60	319,604.22	48.54	2, 36, 4
25	1,468,368.50	319,609.97	48.90	2, 3, 4
26	1,468,346.40	319,603.66	47.95	4, 5, 36
27	1,468,346.60	319,609.12	48.23	3, 4, 5
28	1,468,325.10	319,603.88	48.06	5, 6, 36

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
29	1,468,323.60	319,650.16	57.96	5, 6
30	1,468,302.90	319,603.78	48.07	6, 7, 36
31	1,468,281.00	319,603.94	48.65	7, 8, 36
32	1,468,259.00	319,603.60	49.18	8, 9, 36
	1,468,254.40	319,603.97	49.40	9, 35, 36
33	1,468,254.00	319,582.22	48.94	35, 36, 37
34	1,468,237.00	319,603.72	49.69	9, 10, 35
35	1,468,237.10	319,615.25	50.00	9, 10
36	1,468,215.20	319,604.30	48.67	10, 11, 35
37	1,468,193.20	319,604.38	48.47	11, 12, 35
38	1,468,171.50	319,604.56	48.11	12, 13, 35
39	1,468,150.00	319,605.12	48.07	13, 14, 35
40	1,468,128.20	319,605.20	48.48	14, 15, 35
41	1,468,106.10	319,605.34	48.75	15, 16, 35
42	1,468,084.20	319,605.47	49.24	16, 17, 35
43	1,468,084.50	319,630.25	49.31	16, 17
44	1,468,062.60	319,605.80	49.56	17, 19, 35
45	1,468,062.50	319,631.28	49.70	17, 18, 19
46	1,468,040.90	319,631.12	49.31	18, 19, 20
47	1,468,040.90	319,605.78	48.88	19, 20, 35
48	1,468,056.20	319,583.88	49.19	35, 37, 38
49	1,468,018.60	319,605.75	47.97	20, 21, 35
50	1,467,996.80	319,605.97	47.89	21, 22
51	1,467,975.20	319,606.00	47.85	22, 23, 35
52	1,467,953.50	319,606.22	48.58	23, 24, 35
53	1,467,931.80	319,606.44	48.97	24, 25, 35
54	1,467,910.00	319,606.56	49.58	25, 26, 35
55	1,467,888.20	319,606.78	49.32	26, 27, 35
56	1,467,866.40	319,606.88	49.14	27, 28, 35
57	1,467,844.50	319,607.20	48.79	28, 29, 35
58	1,467,822.90	319,607.75	48.26	29, 30, 35
59	1,467,801.10	319,608.12	48.51	30, 31, 35
60	1,467,779.20	319,608.28	48.63	31, 33, 35
61	1,467,779.20	319,630.70	48.61	32, 33, 31
62	1,467,757.40	319,630.38	49.00	32, 33, 34
63	1,467,757.20	319,608.50	48.90	35, 33, 34
64	1,467,739.20	319,587.25	50.13	35, 38
65	1,467,739.90	319,543.38	49.90	41, 39
66	1,467,790.10	319,564.34	48.54	38, 39, 40
67	1,467,789.90	319,542.90	48.40	39, 40, 41
68	1,468,055.90	319,561.90	49.10	38, 37, 40

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
69	1,468,106.50	319,539.88	48.58	40, 41
70	1,468,254.90	319,538.44	48.94	40, 41, 43
71	1,468,308.10	319,559.84	47.94	37, 40, 42
72	1,468,308.90	319,538.10	47.80	43, 42, 40
73	1,468,326.90	319,494.50	47.29	44, 47, 48
74	1,468,248.00	319,494.66	48.61	45, 47, 44
75	1,468,248.40	319,516.66	49.06	41, 45, 44
	1,468,254.50	319,516.62	48.93	41, 43, 44
76	1,468,117.90	319,517.78	48.63	41, 45
77	1,468,092.60	319,517.94	49.58	41, 45
78	1,467,816.40	319,498.80	47.50	45, 46, 47
79	1,467,739.80	319,521.70	50.12	41, 45
80	1,467,742.80	319,513.75	50.08	45
81	1,468,112.60	319,561.47	48.61	37, 40
82	1,467,866.00	319,641.60	49.16	27, 28
83	1,467,813.40	319,608.00	48.19	30, 35
84	1,467,962.40	319,584.28	48.24	35, 38
85	1,468,308.50	319,550.38	47.88	40, 42
86	1,468,161.60	319,539.28	47.55	40, 41
87	1,468,310.80	319,516.34	47.79	43, 44
88	1,468,326.40	319,483.53	47.17	47, 48
89	1,468,326.90	319,472.53	47.26	47, 48, 49
90	1,468,253.90	319,472.72	48.50	47, 50, 49
91	1,468,253.90	319,451.16	48.59	50, 49, 51
92	1,468,224.50	319,451.28	48.33	50, 52, 51
93	1,468,014.50	319,474.70	47.65	47, 50
94	1,467,866.40	319,454.22	47.76	50, 52
95	1,467,866.00	319,497.78	47.63	45, 47
96	1,467,815.80	319,476.88	47.49	46, 47, 50
97	1,467,757.20	319,457.34	48.54	50
98	1,467,740.20	319,477.53	50.12	46, 50
99	1,467,741.10	319,469.10	50.20	50
100	1,467,747.00	319,424.30	49.88	55
101	1,467,754.50	319,424.22	48.75	55
102	1,467,761.80	319,424.34	48.53	55
103	1,467,763.20	319,412.12	48.42	55, 58, 57
104	1,468,223.50	319,429.75	48.33	52, 55, 51
105	1,468,253.50	319,429.25	48.56	51, 55, 54
106	1,468,252.80	319,407.56	48.25	55, 54, 57
107	1,468,280.20	319,407.12	47.76	54, 57, 56
108	1,468,327.20	319,428.72	47.08	51, 54, 53

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
109	1,468,327.60	319,413.10	46.93	53, 54
	1,468,327.50	319,407.16	47.17	53, 56, 54
110	1,468,402.00	319,385.53	48.99	56, 60
	1,468,404.40	319,385.50	49.51	56, 60
	1,468,409.80	319,385.70	49.79	56, 60
111	1,468,395.80	319,385.50	48.22	56, 60
112	1,468,381.00	319,385.34	47.81	56, 60
113	1,468,357.40	319,385.38	47.21	56, 60
114	1,468,347.10	319,385.56	47.14	56, 60
115	1,468,338.60	319,385.38	46.69	56, 60
116	1,468,279.90	319,385.06	47.49	56, 57, 60
117	1,468,280.20	319,363.80	47.43	60, 61, 62
118	1,468,259.00	319,363.88	48.23	59, 60, 62
119	1,468,259.60	319,385.40	48.14	57, 60, 59
120	1,468,220.90	319,364.28	47.92	62, 63, 59
121	1,467,763.10	319,390.20	48.32	58, 57, 59
122	1,467,741.80	319,368.75	49.89	59, 63
123	1,467,742.50	319,346.84	49.95	63, 64
	1,467,747.50	319,346.88	50.00	63, 64
124	1,467,770.20	319,324.16	47.89	64, 66, 67
125	1,467,806.10	319,345.94	47.01	63, 64
126	1,468,220.10	319,342.16	47.86	63, 64, 62
127	1,468,258.50	319,341.80	47.98	62, 65, 64
128	1,468,257.90	319,320.00	47.95	64, 67, 65
129	1,468,280.40	319,342.10	47.46	61, 62, 65
130	1,468,289.90	319,319.90	47.06	65, 68, 67
131	1,468,289.80	319,298.12	47.15	67, 68, 69
132	1,468,259.20	319,275.90	47.78	70, 69, 72
133	1,468,251.90	319,275.90	48.08	70, 71, 72
134	1,468,259.20	319,298.20	47.47	67, 70, 69
135	1,468,067.90	319,299.90	47.28	67, 70
136	1,467,769.50	319,302.80	47.47	66, 70, 67
137	1,467,746.00	319,310.34	49.86	66
138	1,467,746.00	319,316.44	49.84	66
139	1,467,743.00	319,281.25	50.12	70, 71
	1,467,747.50	319,280.75	50.31	70, 71
140	1,468,218.80	319,232.70	47.46	74, 75, 76
141	1,468,260.10	319,232.16	47.57	73, 74, 76
142	1,468,251.90	319,253.88	47.87	71, 72, 74
143	1,468,260.40	319,253.97	47.60	72, 73, 74
144	1,468,224.20	319,440.00	48.01	51, 52

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	Northing	Easting	Elevation	Panels
145	1,468,409.20	319,363.80	49.86	60, 61
146	1,468,391.90	319,363.47	48.18	60, 61
147	1,468,286.20	319,363.56	47.36	61, 60
	1,468,327.00	319,363.44	46.80	61, 60
	1,468,339.00	319,363.40	46.78	61, 60
148	1,468,313.10	319,407.20	47.01	54, 56
149	1,468,300.40	319,408.72	47.31	54
150	1,468,263.60	319,429.25	48.24	54, 51
151	1,468,214.10	319,386.25	47.75	57, 59
152	1,467,740.20	319,424.34	50.08	55, 55
153	1,467,741.50	319,390.30	50.26	58, 59
154	1,467,742.90	319,302.94	49.65	66, 70
155	1,468,410.50	319,254.53	49.91	72, 73
156	1,468,289.00	319,253.94	47.05	72, 73
157	1,468,282.40	319,188.40	47.16	77, 81, 80
158	1,468,281.90	319,166.78	46.92	80, 81, 83
159	1,468,260.90	319,166.34	47.36	80, 82, 83
160	1,468,258.00	319,188.66	47.48	78, 77, 80
161	1,468,258.00	319,210.38	47.60	76, 78, 77
162	1,468,218.40	319,211.03	47.29	78, 76, 75
163	1,467,764.80	319,193.38	47.87	79, 78, 80
164	1,467,744.10	319,193.40	49.76	78, 79
	1,467,749.10	319,193.40	49.87	78, 79
165	1,467,764.20	319,171.44	47.77	79, 80, 82
166	1,467,743.00	319,215.25	49.54	78, 75
167	1,467,744.20	319,171.97	49.70	79, 82
168	1,467,745.40	319,150.00	50.13	82, 84
169	1,467,745.20	319,127.84	50.04	84, 88
170	1,467,745.90	319,105.94	49.88	88, 89
171	1,468,231.80	319,101.47	47.13	88, 89, 90
172	1,468,263.50	319,100.78	47.00	90, 87
	1,468,255.90	319,101.00	47.21	87, 88, 90
173	1,468,256.60	319,122.84	47.29	87, 88, 85
	1,468,252.90	319,122.88	47.37	84, 88, 85
174	1,468,253.10	319,144.88	47.41	82, 84 85
175	1,468,260.10	319,144.53	47.36	82, 83, 85
176	1,468,314.60	319,144.44	46.20	83, 85, 86
177	1,468,314.60	319,122.75	46.02	86, 85, 87
178	1,468,327.20	319,079.22	45.82	90, 91, 92
179	1,468,327.20	319,057.34	45.65	91, 92, 96
180	1,468,281.80	319,057.12	46.51	95, 96, 92

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
181	1,468,259.00	319,057.47	46.94	92, 93, 95
182	1,468,258.40	319,079.10	47.07	90, 92, 93
183	1,468,231.60	319,079.80	47.05	90, 89, 93
184	1,467,859.40	319,061.28	46.07	93, 95
185	1,467,769.60	319,062.20	46.92	94, 95, 93
186	1,467,775.00	319,047.50	46.88	95
187	1,467,746.20	319,062.40	50.02	93, 94
188	1,467,746.00	319,084.25	49.82	89, 93
189	1,467,817.50	319,367.90	46.98	59, 63
190	1,468,220.80	319,352.40	47.98	63, 62
191	1,467,866.20	319,345.28	47.61	63, 64
192	1,468,313.80	319,319.78	46.72	68, 65
193	1,468,162.80	319,299.00	46.64	67, 70
194	1,468,062.20	319,277.56	47.79	70, 71
195	1,468,312.00	319,253.88	46.70	72, 73
196	1,467,816.10	319,258.22	46.71	71, 74
197	1,468,237.20	319,232.56	47.83	74, 76
198	1,468,312.60	319,210.22	46.32	76, 77
199	1,468,258.00	319,203.44	47.60	78, 77
200	1,467,779.50	319,192.84	47.23	78, 80
201	1,467,868.50	319,170.53	46.83	80, 82
202	1,467,969.40	319,147.00	46.45	82, 84
203	1,468,253.10	319,134.90	47.38	85, 84
204	1,468,245.90	319,100.97	47.35	88, 90
205	1,467,827.60	319,105.06	45.82	88, 89
206	1,468,281.50	319,122.60	46.59	85, 87
207	1,468,007.00	319,081.16	45.79	89, 93
208	1,468,162.50	319,059.03	45.52	93, 95
209	1,467,752.40	319,051.60	49.49	94
210	1,467,782.40	319,046.97	46.57	95
211	1,467,745.60	319,040.78	50.01	97, 94
212	1,467,769.80	319,040.34	47.11	94, 95, 97
213	1,467,746.40	319,018.78	50.12	97, 99
214	1,467,746.80	318,996.97	49.99	99, 103
	1,467,751.50	318,997.30	49.85	99, 103
215	1,468,063.00	318,993.40	46.87	99, 103
216	1,468,262.00	319,035.60	46.78	95, 97, 98
217	1,468,281.40	319,035.38	46.02	95, 98, 96
218	1,468,312.80	319,013.66	45.74	100, 101, 98
219	1,468,261.50	319,013.84	46.71	97, 98, 100
220	1,468,227.20	319,014.38	46.64	97, 99, 100

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
221	1,468,226.90	318,992.84	46.45	99, 100, 103
222	1,468,262.80	318,992.47	46.46	102, 103, 100
223	1,468,312.50	318,991.72	45.70	100, 101, 102
224	1,468,291.60	318,970.62	45.96	102, 105, 104
225	1,468,262.40	318,971.06	46.67	103, 102, 105
226	1,468,261.50	318,948.53	46.66	105, 107, 108
227	1,468,278.40	318,948.78	46.27	105, 108, 109
228	1,468,291.10	318,948.62	45.83	104, 109, 105
229	1,468,277.50	318,926.75	46.11	109, 108, 110
230	1,468,261.00	318,927.03	46.44	107, 108, 110
231	1,468,250.50	318,927.06	46.50	107, 110, 111
232	1,467,772.50	318,974.75	47.00	105, 106, 103
233	1,467,772.20	318,952.62	46.79	106, 107, 105
234	1,467,749.40	318,864.97	49.99	116, 117
235	1,467,964.80	318,906.70	45.69	111, 112
236	1,468,263.80	318,911.62	46.11	110
237	1,468,266.40	318,915.56	46.22	110
238	1,468,250.50	318,905.38	46.63	110, 111, 112
239	1,468,263.60	318,905.28	46.32	112, 113, 110
240	1,468,288.20	318,882.94	45.56	113, 114
241	1,468,271.20	318,883.12	45.88	114, 115, 113
242	1,468,263.20	318,883.30	46.11	112, 113, 115
243	1,468,233.10	318,883.53	46.04	112, 115, 116
244	1,468,221.90	318,861.88	45.90	116, 117, 118
245	1,468,231.20	318,852.66	45.99	118
246	1,468,232.90	318,861.56	46.10	116, 115, 115
247	1,468,270.80	318,861.00	46.26	115, 114, 118
248	1,468,264.60	318,839.34	46.24	119, 120, 118
	1,468,264.10	318,817.75	46.19	119, 122, 120
249	1,468,251.00	318,817.88	46.30	120, 122
250	1,468,221.60	318,840.00	45.85	117, 118, 120
251	1,467,951.50	318,841.28	45.71	117, 120
252	1,467,866.90	318,842.30	45.36	117, 120
253	1,467,772.10	318,821.56	46.17	120, 122, 121
254	1,467,749.90	318,821.75	49.88	121, 120
	1,467,754.50	318,821.90	49.79	121, 120
255	1,467,772.20	318,799.38	46.23	121, 122, 124
256	1,467,749.20	318,799.80	50.32	121, 124
257	1,467,937.20	318,797.72	45.71	122, 124
258	1,468,080.50	318,796.44	46.10	122, 124
259	1,468,265.40	318,795.90	46.05	124, 125, 122

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	Northing	Easting	Elevation	Panels
260	1,468,292.80	318,795.30	45.29	122, 123, 125
261	1,468,293.20	318,817.40	45.47	119, 122, 123
262	1,468,291.50	318,959.16	45.94	105, 104
263	1,468,261.80	319,024.20	46.71	97, 98
264	1,468,118.40	319,015.44	46.29	97, 99
265	1,468,018.40	319,037.00	45.91	95, 97
266	1,467,917.40	318,994.78	47.03	99, 103
267	1,467,868.20	318,973.56	46.22	103, 105
268	1,467,967.90	318,950.40	45.80	105, 107
269	1,468,021.60	318,928.06	45.56	107, 111
270	1,468,250.40	318,916.94	46.53	110, 111
271	1,468,318.20	318,905.00	45.15	110, 113
272	1,468,233.00	318,839.90	46.14	118, 120
273	1,468,188.80	318,818.56	45.13	120, 122
274	1,468,219.00	318,883.90	45.79	112, 116
275	1,468,271.00	318,869.12	45.87	114, 115
276	1,468,117.90	318,862.12	45.77	116, 117
277	1,468,019.20	318,840.62	45.07	117, 120
278	1,468,264.50	318,828.22	46.04	119, 120
279	1,468,169.00	318,818.40	44.61	120, 122
280	1,467,821.20	318,799.40	44.74	122, 124
281	1,468,265.60	318,786.56	45.86	124, 125
282	1,468,274.10	318,817.72	45.90	119, 122
283	1,468,243.10	318,817.90	45.12	120, 122
284	1,467,749.40	318,777.84	49.94	124, 126
285	1,467,749.80	318,756.28	49.80	126, 127
	1,467,754.80	318,755.80	49.96	126, 127
286	1,467,786.50	318,690.50	45.25	129, 130, 131
287	1,467,786.60	318,668.75	45.11	130, 139, 131
288	1,468,257.00	318,773.90	44.72	124, 126, 132
289	1,468,265.10	318,773.84	44.57	124, 125, 132
290	1,468,260.90	318,752.00	44.56	127, 132, 133
	1,468,256.10	318,752.12	44.71	126, 127, 132
291	1,468,306.10	318,772.97	43.74	132, 125
292	1,468,329.10	318,773.28	43.27	125, 132
293	1,468,352.20	318,751.50	44.82	133, 132
294	1,468,382.00	318,729.70	45.47	133, 134, 135
295	1,468,381.80	318,707.88	45.49	134, 135, 136
296	1,468,259.60	318,730.34	44.45	127, 135, 133
297	1,468,222.10	318,730.66	45.35	127, 128, 135
298	1,468,221.10	318,709.20	45.34	128, 129, 135

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
299	1,468,265.40	318,708.75	44.33	135, 129, 136
300	1,468,265.90	318,687.25	45.47	136, 129, 131
301	1,468,306.50	318,686.53	44.59	136, 137, 131
302	1,468,305.80	318,664.40	44.46	131, 138, 137
303	1,468,186.80	318,665.44	44.37	131, 139, 138
304	1,468,186.60	318,643.75	44.14	141, 138, 139
305	1,468,349.00	318,642.40	44.11	142, 141, 138
306	1,467,828.40	318,646.50	44.05	139, 140, 141
307	1,468,220.90	318,774.50	45.51	124, 126
308	1,468,368.10	318,773.28	45.16	125, 132
309	1,468,320.90	318,751.62	44.73	132, 133
310	1,468,170.80	318,730.90	44.32	127, 128
311	1,468,319.50	318,729.94	44.55	133, 135
312	1,468,369.60	318,707.94	44.88	135, 136
313	1,467,971.90	318,710.28	44.83	128, 129
314	1,468,022.20	318,688.00	44.58	129, 131
315	1,468,323.00	318,664.75	44.27	137, 138
316	1,468,371.80	318,642.47	44.70	138, 142
317	1,468,173.20	318,643.66	43.86	139, 141
318	1,468,388.60	318,727.03	45.59	134
319	1,467,981.40	318,740.30	44.72	127
320	1,467,868.50	318,733.40	45.09	127, 128
321	1,467,752.20	318,603.06	49.80	143, 144
322	1,467,827.60	318,624.62	44.04	140, 141, 143
323	1,467,977.60	318,579.22	44.18	144, 148
324	1,468,028.20	318,600.56	44.37	143, 144
325	1,468,073.10	318,621.84	45.41	141, 143
326	1,468,096.00	318,599.94	45.41	143, 144
327	1,468,114.50	318,599.90	44.82	143, 144
328	1,468,129.10	318,600.00	44.67	143, 144
329	1,468,266.20	318,621.50	45.29	141, 143, 145
330	1,468,266.40	318,599.90	45.24	145, 143, 147
331	1,468,258.00	318,599.72	45.33	143, 147, 144
332	1,468,317.50	318,599.16	44.10	146, 147, 145
333	1,468,349.00	318,620.66	43.85	141, 142, 145
334	1,467,971.00	318,513.66	44.10	150, 151
335	1,467,878.50	318,558.72	44.41	148, 149
336	1,467,823.00	318,537.84	43.68	149, 150
337	1,467,765.40	318,545.10	46.23	149
338	1,467,758.10	318,545.06	48.92	149
339	1,467,754.40	318,572.25	49.08	148

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
340	1,467,754.40	318,567.70	49.06	148
341	1,468,020.20	318,455.44	43.00	153, 159
342	1,467,983.40	318,448.38	43.40	153, 158, 159
343	1,467,937.10	318,439.16	43.38	157, 158, 159
344	1,467,935.20	318,448.90	43.80	153, 157, 158
345	1,467,875.90	318,449.10	44.04	153, 155, 157
346	1,467,872.90	318,471.66	44.08	152, 153
347	1,467,821.40	318,438.60	43.50	155, 157
348	1,467,808.50	318,436.12	43.85	154, 155, 157
349	1,467,808.60	318,450.22	43.86	153, 154, 155
350	1,467,753.00	318,424.97	49.92	156, 157
	1,467,753.00	318,428.06	50.11	154, 156
351	1,467,757.10	318,403.10	50.04	157, 159
352	1,467,773.90	318,429.20	45.29	154, 156, 157
	1,467,776.80	318,429.70	44.86	154, 157
353	1,467,921.90	318,492.53	44.73	151, 152
354	1,468,265.50	318,817.66	45.95	119, 122
	1,468,262.80	318,818.16	46.06	120, 122
	1,468,276.60	318,817.97	45.67	119, 122
	1,468,240.10	318,818.28	46.07	120, 122
355	1,468,008.40	319,409.47	47.22	55, 57
356	1,468,013.50	318,388.60	50.06	161, 162
357	1,467,970.50	318,381.22	50.33	164, 163
358	1,467,783.00	318,374.40	43.96	175, 172, 173
359	1,467,766.10	318,361.56	50.15	173, 174, 175
360	1,467,755.50	318,374.06	50.25	175
	1,467,759.90	318,374.16	50.20	175
361	1,467,754.50	318,380.56	50.27	159, 175
362	1,467,793.00	318,388.44	44.01	171, 172, 159
	1,467,790.40	318,388.06	44.11	172, 175, 159
	1,467,784.00	318,386.75	44.28	159, 175
363	1,467,786.20	318,380.22	43.82	175, 172
364	1,467,814.50	318,393.10	43.22	170, 171, 159
365	1,467,836.10	318,397.34	43.29	169, 170, 159
366	1,467,857.80	318,401.84	43.10	168, 169, 159
367	1,467,879.10	318,406.06	42.98	167, 168, 159
368	1,467,900.80	318,410.06	42.84	166, 167, 159
369	1,467,922.40	318,414.16	42.85	165, 166, 159
370	1,467,943.80	318,418.12	42.36	159, 164, 165
371	1,467,965.10	318,422.66	42.70	159, 163, 164
372	1,467,986.80	318,426.60	42.46	159, 162, 163
373	1,468,007.80	318,430.90	42.65	161, 162, 159

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	Northing	Easting	Elevation	Panels
374	1,468,029.60	318,435.30	42.75	159, 160, 161
375	1,467,799.80	318,389.72	43.58	171, 159
376	1,467,949.80	318,419.34	42.58	164, 159
377	1,468,121.10	318,408.38	49.95	181, 178
	1,468,120.40	318,413.22	50.07	181, 178
378	1,468,056.00	318,401.88	49.92	160, 176
	1,468,056.60	318,396.72	50.09	160, 176
379	1,468,050.20	318,442.12	42.70	176, 159, 160
	1,468,050.90	318,439.00	42.62	160, 176
380	1,468,072.10	318,445.30	42.64	176, 177, 180
	1,468,070.50	318,444.90	42.72	159, 180, 176
381	1,468,070.40	318,458.94	43.38	180, 177, 179
382	1,468,067.00	318,464.66	43.52	153, 159, 180
	1,468,069.90	318,468.94	43.76	180, 179, 152, 153
383	1,468,091.50	318,468.66	43.56	152, 179, 178
	1,468,092.50	318,461.34	43.13	177, 178, 179
384	1,468,113.60	318,468.47	43.29	178, 181, 152
385	1,468,135.50	318,468.44	43.07	181, 182, 152
386	1,468,157.50	318,468.16	42.71	182, 183, 152
387	1,468,179.50	318,468.30	42.42	183, 184, 152
388	1,468,201.60	318,468.38	42.71	184, 185, 152
389	1,468,223.90	318,468.30	42.61	185, 186, 152
390	1,468,245.20	318,472.10	42.81	186, 187, 152
391	1,468,266.00	318,475.60	42.84	187, 188, 152
392	1,468,265.20	318,490.20	43.63	151, 152, 188
393	1,468,264.20	318,511.97	44.64	150, 151, 188
394	1,468,263.40	318,533.72	44.75	188, 149, 150
395	1,468,256.20	318,555.84	45.06	148, 149
	1,468,262.20	318,555.72	44.85	148, 149, 188
396	1,468,261.40	318,577.94	45.08	148, 188, 147
	1,468,257.40	318,577.97	45.19	144, 147, 148
397	1,468,189.00	318,577.90	43.95	144, 148
398	1,468,088.40	318,577.80	45.25	148, 144
399	1,468,079.10	318,556.38	45.09	148, 149
400	1,468,072.80	318,534.56	44.84	149, 150
401	1,468,071.20	318,512.53	44.71	150, 151
402	1,468,070.50	318,490.84	44.58	151, 152
403	1,468,283.20	318,577.53	44.51	189, 188, 147
404	1,468,305.10	318,577.22	44.00	189, 190, 147
405	1,468,316.80	318,577.40	43.72	146, 147, 190
406	1,468,326.90	318,577.28	43.59	190, 192, 146
407	1,468,330.20	318,507.80	42.96	190, 191, 192

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	Northing	Easting	Elevation	Panels
408	1,468,352.00	318,508.90	43.11	191, 192, 193
409	1,468,348.80	318,576.84	43.66	192, 193, 146
410	1,468,370.50	318,576.66	44.39	193, 194, 146
411	1,468,392.50	318,576.66	44.77	200, 146, 194
412	1,468,393.50	318,554.20	44.68	199, 200, 194
413	1,468,394.40	318,532.70	44.76	198, 199, 194
414	1,468,395.60	318,510.56	44.71	197, 198, 194
415	1,468,395.90	318,489.12	44.42	197, 196, 194
416	1,468,397.00	318,468.06	49.33	194, 195, 196
417	1,468,404.40	318,469.38	50.76	196
418	1,468,123.90	318,578.12	44.55	144, 148
419	1,468,124.60	318,556.06	44.49	148, 149
420	1,468,081.50	318,460.30	43.30	177, 179
421	1,468,097.50	318,421.84	46.02	177, 178
422	1,468,344.40	318,508.56	42.94	191, 192
423	1,468,406.20	318,554.53	47.11	199, 200
424	1,468,156.80	318,441.53	42.44	179
425	1,468,170.80	318,443.22	42.70	181
426	1,468,049.60	318,750.78	45.37	127
427	1,468,187.40	318,665.00	44.47	138, R303
428	1,468,062.00	318,992.62	46.51	103, R215
429	1,468,031.60	319,123.53	46.44	88
430	1,468,250.40	318,901.75	46.60	112
431	1,468,146.80	319,184.78	46.28	80
432	1,468,316.60	319,144.97	46.06	83, R176
433	1,468,258.60	319,251.40	47.69	74, R143

AS-BUILT

SECTION F

PRIMARY

PASCO COUNTY

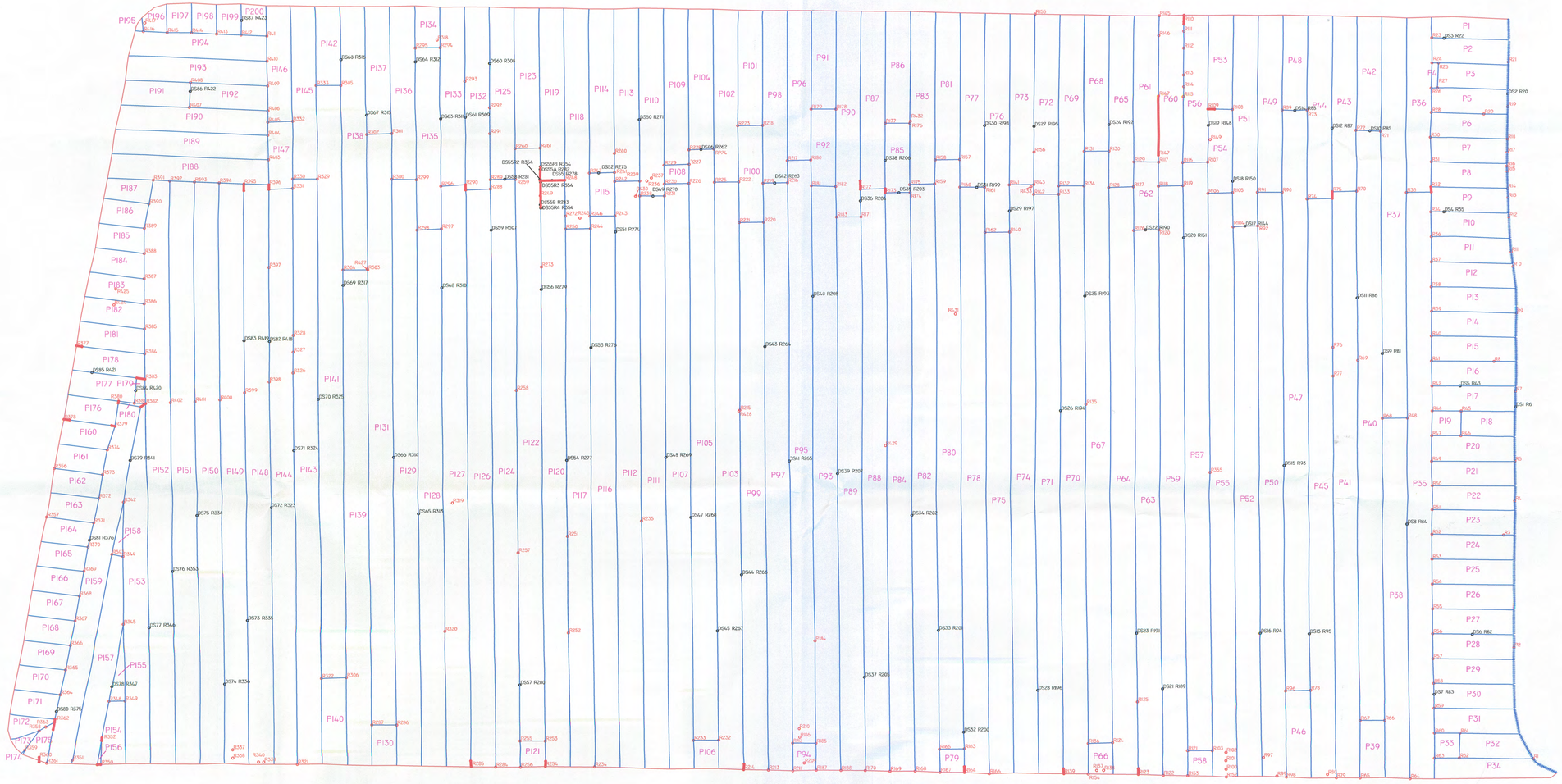
CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

NORTH



LEGEND

P	PANEL NUMBER	—	CAP
R	REPAIR NUMBER	○	PATCH
DS	DESTRUCTIVE TEST NUMBER	○	DESTRUCTIVE TEST
		⫴	EXTRUSION WELD

ASH CELL A-4
60 MIL TEXTURED
AS BUILT
PRIMARY

WEST PASCO CLASS I LANDFILL
PASCO COUNTY,FLORIDA

COMANCO®
ENVIRONMENTAL CORPORATION
4301 STERLING COMMERCE DR.
PLANT CITY, FL 33566-7372
TELEPHONE: (813) 988-8829
FAX: (813) 496-7305

DRAWN BY: WDS	CHKD. BY: SH	DWG. NO:	
DATE: 7-20-10	APPRVD. BY: DD		
PLOT SCALE: 1" = 50'	FILE NAME: PASCO COUNTY CELL A-4		
PROJECT NO.: 03083171			

QUALITY CONTROL DATA SECONDARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

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COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

PANEL PLACEMENT SUMMARY

SECTION A

SECONDARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Panel Placement Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell Name: cell A4 **Layer:** Secondary

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
1	108150743	04/08/2010	1,250.29	70.20	280.80	0.00	0.00	0.00	17.74	1,531.09
2	108150743	04/08/2010	1,535.73	0.00	0.00	0.00	0.00	0.00	21.67	1,535.73
3	108150743	04/08/2010	1,541.69	0.00	0.00	0.00	0.00	0.00	21.89	1,541.69
4	108150743	04/08/2010	1,525.22	0.00	0.00	0.00	0.00	0.00	22.29	1,525.22
5	108150743	04/08/2010	1,513.14	0.00	0.00	0.00	0.00	0.00	21.34	1,513.14
6	108150743	04/08/2010	1,498.57	0.00	0.00	0.00	0.00	0.00	22.14	1,498.57
7	108150743	04/08/2010	1,432.36	0.00	0.00	0.00	0.00	0.00	21.48	1,432.36
8	108150752	04/08/2010	95.80	0.00	0.00	0.00	0.00	0.00	0.00	95.80
9	108150752	04/08/2010	1,491.42	0.00	0.00	0.00	0.00	0.00	22.44	1,491.42
10	108150752	04/08/2010	1,543.04	0.00	0.00	0.00	0.00	0.00	22.36	1,543.04
11	108150752	04/08/2010	1,580.56	0.00	0.00	0.00	0.00	0.00	21.61	1,580.56
12	108150752	04/08/2010	1,639.50	0.00	0.00	0.00	0.00	0.00	22.20	1,639.50
13	108150752	04/08/2010	1,660.20	0.00	0.00	0.00	0.00	0.00	21.88	1,660.20
14	108150752	04/08/2010	1,643.43	0.00	0.00	0.00	0.00	0.00	21.90	1,643.43
15	108150752	04/08/2010	616.50	0.00	0.00	0.00	0.00	0.00	0.00	616.50
16	108150755	04/08/2010	999.65	0.00	0.00	0.00	0.00	0.00	21.81	999.65
17	108150755	04/08/2010	1,624.07	0.00	0.00	0.00	0.00	0.00	21.89	1,624.07
18	108150755	04/08/2010	1,632.43	0.00	0.00	0.00	0.00	0.00	21.82	1,632.43
19	108150755	04/08/2010	1,592.24	0.00	0.00	0.00	0.00	0.00	22.03	1,592.24
20	108150755	04/08/2010	1,594.62	0.00	0.00	0.00	0.00	0.00	21.17	1,594.62
21	108150755	04/08/2010	1,613.55	0.00	0.00	0.00	0.00	0.00	22.22	1,613.55
22	108150755	04/08/2010	1,604.27	0.00	0.00	0.00	0.00	0.00	22.24	1,604.27
23	108150763	04/08/2010	1,598.58	0.00	0.00	0.00	0.00	0.00	21.54	1,598.58

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
24	108150763	04/08/2010	1,581.96	0.00	0.00	0.00	0.00	0.00	22.27	1,581.96
25	108150763	04/08/2010	1,580.69	0.00	0.00	0.00	0.00	0.00	21.59	1,580.69
26	108150763	04/08/2010	1,597.47	0.00	0.00	0.00	0.00	0.00	22.00	1,597.47
27	108150763	04/08/2010	1,567.65	0.00	0.00	0.00	0.00	0.00	21.91	1,567.65
28	108150763	04/08/2010	1,565.56	0.00	0.00	0.00	0.00	0.00	21.93	1,565.56
29	108150763	04/08/2010	1,215.75	0.00	0.00	0.00	0.00	0.00	21.50	1,215.75
30	108150763	04/08/2010	334.11	0.00	0.00	0.00	0.00	0.00	0.00	334.11
31	108150750	04/08/2010	1,542.19	0.00	0.00	0.00	0.00	0.00	21.88	1,542.19
32	108150750	04/08/2010	1,596.88	0.00	0.00	0.00	0.00	0.00	22.93	1,596.88
33	108150750	04/08/2010	1,784.56	0.00	0.00	0.00	0.00	0.00	25.23	1,784.56
34	108150750	04/08/2010	1,631.22	108.38	433.50	0.00	0.00	0.00	27.52	2,064.72
35	108150732	04/09/2010	11,194.24	21.93	87.73	0.00	0.00	0.00	0.00	11,281.98
36	108150751	04/09/2010	3,419.47	21.71	86.84	0.00	0.00	0.00	0.00	3,506.31
37	108150751	04/09/2010	7,326.20	21.77	87.10	0.00	0.00	0.00	0.00	7,413.30
38	108150749	04/09/2010	7,300.52	21.99	87.97	0.00	0.00	0.00	0.00	7,388.49
39	108150745	04/12/2010	11,326.30	21.79	87.15	0.00	0.00	0.00	0.00	11,413.45
40	108150750	04/12/2010	2,428.33	21.88	87.50	0.00	0.00	0.00	0.00	2,515.84
41	108150749	04/12/2010	909.28	0.00	0.00	0.00	0.00	0.00	0.00	909.28
42	108150749	04/12/2010	2,779.08	21.94	87.77	0.00	0.00	0.00	0.00	2,866.85
43	108150747	04/12/2010	10,353.09	21.89	87.57	0.00	0.00	0.00	0.00	10,440.66
44	108150747	04/12/2010	835.12	0.00	0.00	0.00	0.00	0.00	0.00	835.12
45	108150748	04/12/2010	622.14	0.00	0.00	0.00	0.00	0.00	0.00	622.14
46	108150748	04/12/2010	10,673.53	21.93	87.72	0.00	0.00	0.00	0.00	10,761.25
47	108150746	04/12/2010	3,997.65	21.83	87.31	0.00	0.00	0.00	0.00	4,084.96
48	108150746	04/12/2010	7,070.66	21.85	87.41	0.00	0.00	0.00	0.00	7,158.06
49	108150761	04/12/2010	7,564.62	21.73	86.93	0.00	0.00	0.00	0.00	7,651.56
50	108150761	04/12/2010	3,638.38	21.98	87.93	0.00	0.00	0.00	0.00	3,726.31
51	108150766	04/12/2010	10,985.20	22.39	89.54	0.00	0.00	0.00	0.00	11,074.75
52	108150764	04/12/2010	11,319.88	21.87	87.49	0.00	0.00	0.00	0.00	11,407.37
53	108150754	04/12/2010	11,094.78	21.94	87.76	0.00	0.00	0.00	0.00	11,182.54
54	108150735	04/12/2010	3,358.66	21.66	86.66	0.00	0.00	0.00	0.00	3,445.32
55	108150735	04/12/2010	3,522.20	22.05	88.21	0.00	0.00	0.00	0.00	3,610.41
56	108150735	04/12/2010	4,173.33	21.73	86.92	0.00	0.00	0.00	0.00	4,260.25
57	108150733	04/13/2010	10,436.27	22.01	88.03	0.00	0.00	0.00	0.00	10,524.30
58	108150762	04/13/2010	11,132.12	21.60	86.38	0.00	0.00	0.00	0.00	11,218.50
59	108150753	04/13/2010	3,407.30	21.77	87.10	0.00	0.00	0.00	0.00	3,494.40
60	108150753	04/13/2010	7,716.25	21.87	87.48	0.00	0.00	0.00	0.00	7,803.73
61	108150739	04/13/2010	6,843.79	21.95	87.80	0.00	0.00	0.00	0.00	6,931.59
62	108150734	04/13/2010	4,237.06	22.01	88.04	0.00	0.00	0.00	0.00	4,325.10
63	108150756	04/13/2010	10,353.01	22.11	88.42	0.00	0.00	0.00	0.00	10,441.44
64	108150756	04/13/2010	705.43	21.95	87.79	0.00	0.00	0.00	0.00	793.21
65	108150742	04/13/2010	2,576.32	0.00	0.00	0.00	0.00	0.00	0.00	2,576.32

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
66	108150759	04/13/2010	11,230.81	21.70	86.81	0.00	0.00	0.00	0.00	11,317.62
67	108150742	04/13/2010	8,577.46	21.87	87.49	0.00	0.00	0.00	0.00	8,664.95
68	108150740	04/13/2010	6,031.69	21.60	86.41	0.00	0.00	0.00	0.00	6,118.10
69	108150731	04/13/2010	9,565.93	22.11	88.44	0.00	0.00	0.00	0.00	9,654.37
70	108150740	04/13/2010	5,067.70	21.90	87.62	0.00	0.00	0.00	0.00	5,155.32
71	108150741	04/14/2010	11,250.19	21.81	87.24	0.00	0.00	0.00	0.00	11,337.44
72	108150975	04/14/2010	3,314.54	21.84	87.37	0.00	0.00	0.00	0.00	3,401.90
73	108150975	04/14/2010	3,466.31	21.79	87.16	0.00	0.00	0.00	0.00	3,553.47
74	108150757	04/14/2010	11,082.73	21.71	86.84	0.00	0.00	0.00	0.00	11,169.57
75	108150736	04/14/2010	11,267.15	22.11	88.43	0.00	0.00	0.00	0.00	11,355.58
76	108150975	04/14/2010	3,346.13	21.65	86.60	0.00	0.00	0.00	0.00	3,432.73
77	108150975	04/14/2010	741.54	21.81	87.25	0.00	0.00	0.00	0.00	828.78
78	108150737	04/14/2010	11,271.91	0.00	0.00	0.00	0.00	0.00	0.00	11,271.91
79	108150946	04/14/2010	2,528.46	21.84	87.35	0.00	0.00	0.00	0.00	2,615.80
80	108150946	04/14/2010	3,278.76	22.08	88.31	0.00	0.00	0.00	0.00	3,367.07
81	108150774	04/14/2010	11,294.64	21.90	87.59	0.00	0.00	0.00	0.00	11,382.23
82	108150773	04/14/2010	9,449.10	21.89	87.56	0.00	0.00	0.00	0.00	9,536.66
83	108150946	04/14/2010	5,105.17	21.76	87.05	0.00	0.00	0.00	0.00	5,192.22
84	108150731	04/14/2010	1,602.60	22.09	88.36	0.00	0.00	0.00	0.00	1,690.96
85	108150970	04/14/2010	11,364.79	0.00	0.00	0.00	0.00	0.00	0.00	11,364.79
86	108150773	04/14/2010	1,643.95	21.68	86.73	0.00	0.00	0.00	0.00	1,730.68
87	108150568	04/15/2010	11,152.89	22.08	88.30	0.00	0.00	0.00	0.00	11,241.19
88	108150568	04/15/2010	3,331.46	21.81	87.24	0.00	0.00	0.00	0.00	3,418.70
89	108150568	04/15/2010	3,585.39	21.35	85.40	0.00	0.00	0.00	0.00	3,670.78
90	108150973	04/15/2010	10,980.15	21.75	86.99	0.00	0.00	0.00	0.00	11,067.14
91	108150964	04/15/2010	11,239.55	21.67	86.66	0.00	0.00	0.00	0.00	11,326.21
92	108150568	04/15/2010	3,358.26	21.94	87.76	0.00	0.00	0.00	0.00	3,446.01
93	108150568	04/15/2010	566.31	22.02	88.07	0.00	0.00	0.00	0.00	654.38
94	108150744	04/15/2010	3,105.48	0.00	0.00	0.00	0.00	0.00	0.00	3,105.48
95	108150775	04/15/2010	10,933.09	21.91	87.63	0.00	0.00	0.00	0.00	11,020.72
96	108150977	04/15/2010	6,521.70	21.96	87.85	0.00	0.00	0.00	0.00	6,609.55
97	108150744	04/15/2010	8,070.32	22.01	88.06	0.00	0.00	0.00	0.00	8,158.37
98	108150974	04/15/2010	10,074.02	21.86	87.45	0.00	0.00	0.00	0.00	10,161.47
99	108150977	04/15/2010	4,510.70	21.56	86.25	0.00	0.00	0.00	0.00	4,596.95
100	108150971	04/15/2010	11,344.40	22.34	89.36	0.00	0.00	0.00	0.00	11,433.76
101	108150769	04/15/2010	2,401.11	0.00	0.00	0.00	0.00	0.00	0.00	2,401.11
102	108150974	04/15/2010	953.12	21.98	87.93	0.00	0.00	0.00	0.00	1,041.05
103	108150972	04/16/2010	5,782.10	21.83	87.34	0.00	0.00	0.00	0.00	5,869.43
104	108150769	04/16/2010	8,671.44	21.11	84.43	0.00	0.00	0.00	0.00	8,755.86
105	108150972	04/16/2010	5,321.50	22.24	88.96	0.00	0.00	0.00	0.00	5,410.46
106	108150976	04/16/2010	9,406.84	22.36	89.43	0.00	0.00	0.00	0.00	9,496.27
107	108150772	04/16/2010	2,780.14	21.39	85.58	0.00	0.00	0.00	0.00	2,865.72

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
108	108150765	04/16/2010	9,988.02	0.00	0.00	0.00	0.00	0.00	0.00	9,988.02
109	108150976	04/16/2010	1,786.14	21.43	85.71	0.00	0.00	0.00	0.00	1,871.85
110	108150771	04/16/2010	11,215.73	22.10	88.40	0.00	0.00	0.00	0.00	11,304.13
111	108150772	04/16/2010	3,335.57	21.26	85.05	0.00	0.00	0.00	0.00	3,420.62
112	108150758	05/04/2010	10,689.08	21.89	87.54	0.00	0.00	0.00	0.00	10,776.62
113	108150980	05/04/2010	4,013.62	21.81	87.25	0.00	0.00	0.00	0.00	4,100.87
114	108151030	05/04/2010	11,297.90	22.08	88.32	0.00	0.00	0.00	0.00	11,386.22
115	108150980	05/04/2010	3,246.03	22.43	89.70	0.00	0.00	0.00	0.00	3,335.73
116	108150758	05/04/2010	451.30	22.00	88.00	0.00	0.00	0.00	0.00	539.30
117	108151021	05/04/2010	11,438.10	0.00	0.00	0.00	0.00	0.00	0.00	11,438.10
118	108150980	05/04/2010	2,758.19	21.46	85.83	0.00	0.00	0.00	0.00	2,844.02
119	108151029	05/04/2010	11,278.25	21.68	86.70	0.00	0.00	0.00	0.00	11,364.95
120	108150979	05/04/2010	3,362.59	22.12	88.50	0.00	0.00	0.00	0.00	3,451.09
121	108150980	05/04/2010	889.73	21.60	86.39	0.00	0.00	0.00	0.00	976.12
122	108150941	05/04/2010	11,350.23	0.00	0.00	0.00	0.00	0.00	0.00	11,350.23
123	108150979	05/04/2010	2,343.92	21.68	86.71	0.00	0.00	0.00	0.00	2,430.63
124	108150965	05/04/2010	11,312.31	22.26	89.04	0.00	0.00	0.00	0.00	11,401.35
125	108150979	05/04/2010	3,347.98	22.16	88.62	0.00	0.00	0.00	0.00	3,436.60
126	108150979	05/04/2010	1,577.15	21.55	86.22	0.00	0.00	0.00	0.00	1,663.36
127	108150966	05/04/2010	11,439.47	0.00	0.00	0.00	0.00	0.00	0.00	11,439.47
128	108150990	05/04/2010	1,695.82	21.50	86.02	0.00	0.00	0.00	0.00	1,781.84
129	108150959	05/11/2010	11,010.21	21.92	87.69	0.00	0.00	0.00	0.00	11,097.90
130	108150953	05/11/2010	11,430.55	22.16	88.64	0.00	0.00	0.00	0.00	11,519.19
131	108150950	05/11/2010	10,932.49	22.00	87.98	0.00	0.00	0.00	0.00	11,020.47
132	108150957	05/11/2010	11,308.88	21.78	87.12	0.00	0.00	0.00	0.00	11,396.00
133	108150955	05/11/2010	10,418.12	22.00	87.98	0.00	0.00	0.00	0.00	10,506.11
134	108150955	05/11/2010	799.70	21.95	87.79	0.00	0.00	0.00	0.00	887.49
135	108150965	05/11/2010	11,334.88	0.00	0.00	0.00	0.00	0.00	0.00	11,334.88
136	108150958	05/11/2010	11,289.72	21.67	86.68	0.00	0.00	0.00	0.00	11,376.40
137	108150586	05/11/2010	3,541.21	21.95	87.80	0.00	0.00	0.00	0.00	3,629.01
138	108150586	05/11/2010	3,382.81	21.84	87.37	0.00	0.00	0.00	0.00	3,470.18
139	108150601	05/11/2010	3,573.16	21.98	87.91	0.00	0.00	0.00	0.00	3,661.07
140	108150601	05/11/2010	3,337.36	21.95	87.82	0.00	0.00	0.00	0.00	3,425.18
141	108150601	05/11/2010	4,231.08	21.65	86.58	0.00	0.00	0.00	0.00	4,317.67
142	108150601	05/11/2010	2,425.74	22.01	88.06	0.00	0.00	0.00	0.00	2,513.80
143	108150990	05/11/2010	88.85	0.00	0.00	0.00	0.00	0.00	0.00	88.85
144	108150990	05/11/2010	3,296.60	21.47	85.88	0.00	0.00	0.00	0.00	3,382.48
145	108150588	05/12/2010	7,845.04	22.29	89.17	0.00	0.00	0.00	0.00	7,934.21
146	108150588	05/12/2010	3,278.50	21.85	87.39	0.00	0.00	0.00	0.00	3,365.89
147	108150592	05/12/2010	4,583.20	0.00	0.00	0.00	0.00	0.00	0.00	4,583.20
148	108150592	05/12/2010	6,604.49	22.15	88.59	0.00	0.00	0.00	0.00	6,693.08
149	108150569	05/12/2010	1,190.88	0.00	0.00	0.00	0.00	0.00	0.00	1,190.88

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
150	108150569	05/12/2010	7,665.92	21.55	86.19	0.00	0.00	0.00	0.00	7,752.11
151	108150569	05/12/2010	1,355.15	22.15	88.62	0.00	0.00	0.00	0.00	1,443.77
152	108150567	05/12/2010	1,321.74	22.20	88.79	0.00	0.00	0.00	0.00	1,410.53
153	108150567	05/12/2010	1,355.56	22.17	88.69	0.00	0.00	0.00	0.00	1,444.26
154	108150567	05/12/2010	1,065.84	21.81	87.24	0.00	0.00	0.00	0.00	1,153.08
155	108150567	05/12/2010	549.35	22.47	89.86	0.00	0.00	0.00	0.00	639.21
156	108150569	05/12/2010	75.52	16.70	66.80	0.00	0.00	0.00	0.00	142.31
157	108150567	05/12/2010	619.79	22.85	91.39	0.00	0.00	0.00	0.00	711.18
158	108150567	05/12/2010	1,052.17	22.57	90.29	0.00	0.00	0.00	0.00	1,142.47
159	108150567	05/13/2010	4,276.61	0.00	0.00	0.00	0.00	0.00	0.00	4,276.61
160	108150951	05/13/2010	730.01	0.00	0.00	0.00	0.00	0.00	0.00	730.01
161	108150951	05/13/2010	2,557.22	0.00	0.00	0.00	0.00	0.00	0.00	2,557.22
162	108150950	05/13/2010	301.43	0.00	0.00	0.00	0.00	0.00	0.00	301.43
163	108150951	05/13/2010	6,203.77	0.00	0.00	0.00	0.00	0.00	0.00	6,203.77
164	108150566	05/13/2010	967.08	21.91	87.64	0.00	0.00	0.00	0.00	1,054.72
165	108150566	05/13/2010	960.82	22.22	88.86	0.00	0.00	0.00	0.00	1,049.68
166	108150566	05/13/2010	966.85	22.12	88.48	0.00	0.00	0.00	0.00	1,055.34
167	108150566	05/13/2010	948.75	21.91	87.63	0.00	0.00	0.00	0.00	1,036.38
168	108150566	05/13/2010	936.34	22.56	90.26	0.00	0.00	0.00	0.00	1,026.60
169	108150566	05/13/2010	936.45	22.42	89.69	0.00	0.00	0.00	0.00	1,026.13
170	108150566	05/13/2010	952.35	22.02	88.10	0.00	0.00	0.00	0.00	1,040.45
171	108150566	05/13/2010	931.91	22.19	88.77	0.00	0.00	0.00	0.00	1,020.68
172	108150566	05/13/2010	936.95	21.96	87.83	0.00	0.00	0.00	0.00	1,024.78
173	108150566	05/13/2010	929.44	22.42	89.67	0.00	0.00	0.00	0.00	1,019.11
174	108150590	05/13/2010	946.82	22.05	88.20	0.00	0.00	0.00	0.00	1,035.02
175	108150590	05/13/2010	952.83	22.32	89.28	0.00	0.00	0.00	0.00	1,042.11
176	108150590	05/13/2010	713.43	17.43	69.71	0.00	0.00	0.00	0.00	783.15
177	108150574	07/08/2010	1,705.01	21.95	87.81	0.00	0.00	0.00	0.00	1,792.82
178	108150574	07/08/2010	3,248.27	21.88	87.52	0.00	0.00	0.00	0.00	3,335.79
179	108150574	07/08/2010	3,177.64	22.02	88.08	0.00	0.00	0.00	0.00	3,265.72
180	108150574	07/08/2010	63.90	0.00	0.00	0.00	0.00	0.00	0.00	63.90
181	108150574	07/08/2010	2,209.11	22.12	88.47	0.00	0.00	0.00	0.00	2,297.57
182	108150562	07/08/2010	840.99	0.00	0.00	0.00	0.00	0.00	0.00	840.99
183	108150562	07/08/2010	2,956.59	22.20	88.79	0.00	0.00	0.00	0.00	3,045.38
184	108150562	07/08/2010	2,864.15	21.90	87.61	0.00	0.00	0.00	0.00	2,951.76
185	108150562	07/08/2010	2,807.08	22.01	88.05	0.00	0.00	0.00	0.00	2,895.14
186	108150562	07/08/2010	1,299.11	22.10	88.40	0.00	0.00	0.00	0.00	1,387.51
187	108150577	07/08/2010	1,377.79	0.00	0.00	0.00	0.00	0.00	0.00	1,377.79
188	108150577	07/08/2010	2,601.73	22.11	88.42	0.00	0.00	0.00	0.00	2,690.16
189	108150577	07/08/2010	2,500.67	21.89	87.55	0.00	0.00	0.00	0.00	2,588.23
190	108150577	07/08/2010	2,406.49	21.95	87.81	0.00	0.00	0.00	0.00	2,494.30
191	108150577	07/08/2010	1,698.97	21.84	87.35	0.00	0.00	0.00	0.00	1,786.31

Panel #	Roll #	Deploy Date	Panel Total SF	LF in Anchor Trench	SF in Anchor Trench	LF in Ballast Trench	SF in Ballast Trench	LF of Fusion Tie-In	LF of Extruder Tie-In	Total SF (Pay Area)
192	108150570	07/08/2010	635.21	0.00	0.00	0.00	0.00	0.00	0.00	635.21
193	108150570	07/08/2010	2,226.08	21.96	87.86	0.00	0.00	0.00	0.00	2,313.94
194	108150570	07/08/2010	2,133.82	22.62	90.48	0.00	0.00	0.00	0.00	2,224.31
195	108150570	07/08/2010	451.01	28.20	112.82	0.00	0.00	0.00	0.00	563.82
196	108150570	07/08/2010	13.05	9.37	37.47	0.00	0.00	0.00	0.00	50.52
197	108150570	07/08/2010	554.67	22.12	88.47	0.00	0.00	0.00	0.00	643.14
198	108150570	07/08/2010	567.69	21.55	86.19	0.00	0.00	0.00	0.00	653.88
199	108150570	07/08/2010	575.51	22.02	88.07	0.00	0.00	0.00	0.00	663.59
		TOTALS:	**853,541.91**	**3,233.44**	**12,933.76**	**0.00**	**0.00**	**0.00**	**684.43**	**866,475.67**

PRE-WELD TESTS

SECTION B

SECONDARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Preweld Test Report

Job Number: 03083171
Cell: cell A4
Layer: Secondary
Material Type: 60 Mil HDPE Textured

Job Name: West Pasco Ash
Superintendent: Arnulfo Martinez
QC Technician: Carlos Lopez
Reported By: _____

Peel Test Extrusion Minimum: 78.00 **PPI**
Peel Test Fusion Minimum: 95.00 **PPI**
Shear Test Minimum: 120.00 **PPI**

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
1	04/08/2010 S To S	1:06 pm	DANIEL LOPEZ	WE-A075	13	850	0	90	Peel	147	141	139	136	136	136	143	146	122	121	Pass
									Shear	161		154		154		159		157		
2	04/08/2010 S To S	1:15 pm	SARBELIO MENDEZ	WE-A052	8	800	0	90	Peel	138	136	136	132	143	135	138	156	142	137	Pass
									Shear	164		164		162		164		161		
3	04/08/2010 S To S	2:05 pm	RAFAEL ORDONEZ	WE--A047	8	750	0	92	Peel	132	123	134	130	130	136	132	129	132	137	Pass
									Shear	153		151		166		157		161		
4	04/08/2010 T To T	2:14 pm	CIRINO MARTINEZ	ET-A061	0	500	480	93	Peel	132	00	116	00	122	00	123	00	122	00	Pass
									Shear	152		148		145		143		145		
5	04/08/2010 S To S	3:20 pm	NICOLAS VIRGEN	ET-A040	0	490	420	85	Peel	147	00	89	00	138	00	103	00	123	00	Pass
									Shear	153		146		154		146		141		
6	04/09/2010 T To T	10:00 am	JOSE PALESTIANO	ET-A040	0	480	500	68	Peel	148	00	146	00	141	00	145	00	125	00	Pass
									Shear	174		153		198		153		162		
7	04/09/2010 T To T	9:46 am	CIRINO MARTINEZ	ET-A061	0	500	530	69	Peel	146	00	138	00	133	00	142	00	132	00	Pass
									Shear	169		172		169		170		165		
8	04/09/2010 T To T	9:49 am	DANIEL LOPEZ	WE-A075	14	800	0	69	Peel	132	128	133	129	143	130	135	136	147	132	Pass
									Shear	188		180		184		182		175		
9	04/09/2010 T To T	9:46 am	SARBELIO MENDEZ	WE-A052	7	800	0	70	Peel	141	136	137	141	153	143	143	130	150	133	Pass
									Shear	188		178		186		187		180		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
10	04/09/2010 S To S	12:58 pm	JOSE PALESTIANO	ET-A040	0	460	475	76	Peel	145	00	139	00	138	00	139	00	141	00	Pass
									Shear	154		146		146		149		160		
11	04/09/2010 T To T	12:52 pm	CIRINO MARTINEZ	ET-A061	0	525	490	78	Peel	152	00	154	00	153	00	164	00	158	00	Pass
									Shear	171		172		176		170		178		
12	04/09/2010 T To T	1:00 pm	DANIEL LOPEZ	WE-A075	12	800	0	77	Peel	146	134	130	144	129	152	151	153	162	145	Pass
									Shear	176		169		173		167		175		
13	04/09/2010 T To T	12:51 pm	SARBELIO MENDEZ	WE--A047	7	800	0	79	Peel	149	130	153	149	147	134	129	138	159	128	Pass
									Shear	177		172		176		172		167		
14	04/12/2010 S To S	7:00 am							Peel	00	00	00	00	00	00	00	00	00	00	Incomplete
									Shear	00		00		00		00		00		
15	04/12/2010 T To T	9:40 am	CIRINO MARTINEZ	ET-A061	0	520	500	70	Peel	149	00	146	00	153	00	139	00	160	00	Pass
									Shear	188		190		190		190		189		
16	04/12/2010 T To T	10:10 am	DANIEL LOPEZ	WE-A075	15	800	0	74	Peel	119	139	113	133	122	139	128	128	121	118	Pass
									Shear	185		170		176		177		169		
17	04/12/2010 T To T	10:30 am	RAFAEL ORDONEZ	WE--A047	8	800	0	75	Peel	144	139	132	143	140	146	138	123	148	128	Pass
									Shear	182		176		180		180		179		
18	04/12/2010 T To T	9:50 am	SARBELIO MENDEZ	WE-A052	8	800	0	74	Peel	130	132	124	131	126	135	129	117	122	133	Pass
									Shear	148		148		159		180		148		
19	04/12/2010 T To T	12:41 pm	CIRINO MARTINEZ	ET-A061	0	500	480	80	Peel	163	00	157	00	158	00	147	00	157	00	Pass
									Shear	177		172		180		171		178		
20	04/12/2010 T To T	12:30 pm	SARBELIO MENDEZ	WE-A052	8	800	0	82	Peel	137	135	130	122	133	134	115	123	120	122	Pass
									Shear	181		178		183		177		174		
21	04/12/2010 T To T	10:52 pm	DANIEL LOPEZ	WE-A075	15	800	0	83	Peel	151	151	151	148	151	161	158	143	157	152	Pass
									Shear	179		177		181		171		174		
22	04/12/2010 T To T	2:30 pm	RAFAEL ORDONEZ	WE--A047	8	800	0	84	Peel	143	141	140	139	137	145	135	142	147	149	Pass
									Shear	173		167		171		162		171		
23	04/13/2010 T To T	8:00 am	CIRINO MARTINEZ	ET-A061	0	520	500	64	Peel	126	00	127	00	134	00	112	00	119	00	Pass
									Shear	195		186		191		192		188		
24	04/13/2010 T To T	10:48 am	DANIEL LOPEZ	WE-A091	15	800	0	79	Peel	143	139	130	136	146	124	137	142	153	159	Pass
									Shear	168		177		172		176		132		
25	04/13/2010 T To T	10:49 am	RAFAEL ORDONEZ	WE--A047	9	850	0	79	Peel	148	135	144	144	143	149	122	126	134	122	Pass
									Shear	174		171		176		176		174		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
26	04/13/2010 T To T	12:50 pm	CIRINO MARTINEZ	ET-A061	0	517	495	83	Peel	148	00	135	00	149	00	133	00	141	00	Pass
									Shear	176		173		175		172		172		
27	04/13/2010 T To T	12:50 pm	SARBELIO MENDEZ	WE-A075	16	800	0	84	Peel	123	123	129	152	123	129	132	122	129	120	Pass
									Shear	166		170		168		165		162		
28	04/13/2010 T To T	1:34 pm	RAFAEL ORDONEZ	WE--A047	9	850	0	85	Peel	123	136	123	138	136	121	124	128	118	134	Pass
									Shear	173		168		173		169		165		
29	04/13/2010 T To T	2:20 pm	DANIEL LOPEZ	WE-A091	15	800	0	84	Peel	128	140	140	144	143	128	134	146	119	133	Pass
									Shear	158		158		160		157		149		
30	04/14/2010 T To T	7:40 am	CIRINO MARTINEZ	ET-A061	0	520	500	63	Peel	160	00	115	00	129	00	157	00	127	00	Pass
									Shear	193		185		192		191		188		
31	04/14/2010 T To T	10:45 am	RAFAEL ORDONEZ	WE--A047	8	850	0	78	Peel	152	131	138	119	134	132	131	124	136	128	Pass
									Shear	191		177		183		175		185		
32	04/14/2010 T To T	7:00 am	DANIEL LOPEZ	WE-A091	15	800	0	79	Peel	148	129	124	125	137	137	103	132	129	122	Pass
									Shear	185		173		182		176		178		
33	04/14/2010 T To T	10:45 am	SARBELIO MENDEZ	WE-A075	15	800	0	79	Peel	133	137	135	144	135	125	143	123	132	144	Pass
									Shear	175		175		176		174		170		
34	04/14/2010 T To T	12:40 pm	CIRINO MARTINEZ	ET-A061	0	513	483	83	Peel	146	00	140	00	142	00	125	00	139	00	Pass
									Shear	172		174		180		173		172		
35	04/14/2010 T To T	1:20 pm	DANIEL LOPEZ	WE-A091	15	800	0	85	Peel	136	135	125	135	128	127	124	141	124	120	Pass
									Shear	173		163		170		161		165		
36	04/14/2010 S To S	3:00 pm							Peel	00	00	00	00	00	00	00	00	00	00	Incomplete
									Shear	00		00		00		00		00		
37	04/14/2010 T To T	3:00 pm	FRANCISCO MEDINA	WE-A075	12	800	0	85	Peel	146	142	147	136	154	137	151	157	148	146	Pass
									Shear	181		171		171		163		167		
38	04/14/2010 T To T	3:04 pm	RAFAEL ORDONEZ	WE--A047	8	850	0	85	Peel	147	133	139	128	136	142	134	144	137	139	Pass
									Shear	172		166		176		166		158		
39	04/15/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	520	500	69	Peel	154	00	154	00	147	00	126	00	133	00	Pass
									Shear	187		177		189		189		188		
40	04/15/2010 T To T	11:23 am	SARBELIO MENDEZ	WE-A075	15	800	0	80	Peel	148	141	144	141	149	156	150	138	134	144	Pass
									Shear	162		157		161		153		161		
41	04/15/2010 T To T	7:00 am	DANIEL LOPEZ	WE-A091	15	800	0	80	Peel	131	147	128	129	151	149	134	118	143	138	Pass
									Shear	163		159		162		158		161		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
42	04/15/2010 T To T	11:21 am	RAFAEL ORDONEZ	WE--A047	8	850	000	0	Peel	139	141	148	138	139	142	129	137	141	144	Pass
									Shear	172		174		172		169		167		
43	04/15/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061	0	515	490	84	Peel	150	00	143	00	153	00	149	00	143	00	Pass
									Shear	168		164		178		171		169		
44	04/15/2010 T To T	2:15 pm	SARBELIO MENDEZ	WE-A075	15	800	0	81	Peel	119	137	118	119	123	129	121	119	118	98	Pass
									Shear	150		144		153		153		146		
45	04/15/2010 T To T	2:10 pm	RAFAEL ORDONEZ	WE--A047	8	850	0	82	Peel	142	139	127	136	136	126	136	125	135	142	Pass
									Shear	172		166		175		159		169		
46	04/15/2010 T To T	2:10 pm	DANIEL LOPEZ	WE-A091	15	800	0	84	Peel	125	138	141	137	137	142	136	154	152	125	Pass
									Shear	156		167		171		164		162		
47	04/16/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	525	503	63	Peel	144	00	136	00	149	00	140	00	147	00	Pass
									Shear	196		192		201		195		196		
48	04/16/2010 T To T	9:30 am	DANIEL LOPEZ	WE-A091	15	800	0	75	Peel	138	147	135	128	138	130	137	135	136	129	Pass
									Shear	180		174		174		173		171		
49	04/16/2010 T To T	9:25 am	SARBELIO MENDEZ	WE-A075	15	800	0	76	Peel	127	141	137	127	140	133	132	128	139	127	Pass
									Shear	184		175		172		176		170		
50	04/16/2010 T To T	9:35 am	RAFAEL ORDONEZ	WE--A047	8	850	0	76	Peel	132	138	131	134	155	142	136	136	138	146	Pass
									Shear	171		165		168		169		169		
51	04/16/2010 T To T	12:40 pm	DANIEL LOPEZ	WE-A091	15	800	0	81	Peel	125	134	130	135	128	128	133	129	139	126	Pass
									Shear	179		183		186		176		184		
52	04/16/2010 T To T	12:40 pm	CIRINO MARTINEZ	ET-A061	0	515	487	80	Peel	152	101	149	120	144	100	148	79	148	132	Pass
									Shear	166		145		158		158		160		
53	04/16/2010 T To T	12:59 pm	JOSE PALESTIANO	ET-A040	0	515	515	78	Peel	140	00	133	00	151	00	120	00	141	00	Pass
									Shear	159		155		175		173		169		
54	04/19/2010 T To T	12:41 pm	CIRINO MARTINEZ	ET-A061	0	465	485	81	Peel	130	00	128	00	134	00	121	00	136	00	Pass
									Shear	188		193		199		196		197		
55	04/21/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	500	483	67	Peel	154	00	139	00	148	00	147	00	152	00	Pass
									Shear	201		182		191		185		180		
56	04/20/2010 T To T	7:00 am	CIRINO MARTINEZ	ET-A040	0	400	300	75	Peel	00	00	00	00	83	00	135	00	122	00	Fail
									Shear	02		03		26		149		83		
57	04/20/2010 T To T	7:00 am	CIRINO MARTINEZ	ET-A040	0	400	300	75	Peel	00	00	01	00	54	00	154	00	120	00	Fail
									Shear	00		00		01		00		04		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
58	05/04/2010 T To T	9:45 am	SARBELIO MENDEZ	WE-A068	16	800	0	85	Peel	150	140	156	134	151	119	151	130	144	133	Pass
									Shear	163		152		161		157		166		
59	05/04/2010 T To T	10:10 am	DANIEL LOPEZ	WE-A091	15	800	0	0	Peel	111	135	144	136	142	139	98	139	155	145	Pass
									Shear	150		152		163		154		146		
60	05/04/2010 T To T	9:50 am	RAFAEL ORDONEZ	WE-A040	8	850	0	85	Peel	139	151	138	141	138	147	142	140	135	121	Pass
									Shear	164		156		160		155		161		
61	05/04/2010 T To T	1:00 pm	DANIEL LOPEZ	WE-A091	15	800	0	91	Peel	127	125	118	125	135	132	116	122	114	126	Pass
									Shear	143		139		135		135		139		
62	05/04/2010 T To T	1:02 pm	RAFAEL ORDONEZ	WE-A040	8	850	0	92	Peel	107	106	102	117	119	112	105	125	113	117	Pass
									Shear	153		145		150		145		141		
63	05/04/2010 T To T	1:00 pm	SARBELIO MENDEZ	WE-A068	16	800	0	92	Peel	134	127	130	121	126	138	136	153	134	131	Pass
									Shear	164		143		157		153		156		
64	05/04/2010 T To T	1:20 pm	CIRINO MARTINEZ	ET-A061	0	480	457	92	Peel	129	00	142	00	106	00	106	00	136	00	Pass
									Shear	164		166		169		167		158		
65	05/04/2010 T To T	2:00 pm	JOSE PALESTIANO	ET-A066	0	480	465	92	Peel	92	00	124	00	121	00	93	00	127	00	Pass
									Shear	135		141		139		140		138		
66	05/04/2010 T To T	2:50 pm	SARBELIO MENDEZ	ET-A040	0	480	450	93	Peel	134	00	129	00	142	00	139	00	133	00	Pass
									Shear	145		147		150		149		147		
67	05/05/2010 T To T	7:30 am	CIRINO MARTINEZ	ET-A061	0	486	470	80	Peel	115	00	154	00	139	00	136	00	137	00	Pass
									Shear	170		167		171		172		165		
68	05/11/2010 T To T	10:32 am	SARBELIO MENDEZ	WE-A068	16	800	0	82	Peel	114	113	102	105	112	106	114	115	106	103	Pass
									Shear	160		147		153		149		142		
69	05/11/2010 T To T	10:32 am	RAFAEL ORDONEZ	WE-A040	8	850	0	82	Peel	129	130	121	115	112	111	121	120	122	120	Pass
									Shear	152		148		146		155		148		
70	05/11/2010 T To T	10:30 am	DANIEL LOPEZ	WE-A091	15	800	0	82	Peel	135	137	122	114	124	125	133	136	136	125	Pass
									Shear	152		146		145		152		148		
71	05/11/2010 T To T	1:00 pm	RAFAEL ORDONEZ	WE-A040	8	850	0	85	Peel	119	121	99	110	111	103	120	126	106	110	Pass
									Shear	148		135		142		147		142		
72	05/11/2010 T To T	1:35 pm	DANIEL LOPEZ	WE-A091	15	800	0	92	Peel	97	100	98	99	99	98	105	100	101	102	Pass
									Shear	122		130		129		130		133		
73	05/11/2010 T To T	2:00 pm	SARBELIO MENDEZ	WE-A068	16	800	0	91	Peel	97	119	102	102	99	110	106	119	102	115	Pass
									Shear	139		127		136		133		129		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
74	05/11/2010 T To T	12:50 pm	CIRINO MARTINEZ	ET-A040	0	495	477	89	Peel	132	00	128	00	122	00	134	00	122	00	Pass
									Shear	137		133		138		142		132		
75	05/12/2010 T To T	7:50 am	CIRINO MARTINEZ	ET-A040	0	515	495	68	Peel	155	00	122	00	138	00	139	00	141	00	Pass
									Shear	170		163		150		161		157		
76	05/12/2010 T To T	10:30 am	SARBELIO MENDEZ	WE-A068	16	800	0	81	Peel	137	135	119	141	123	108	136	129	117	134	Pass
									Shear	168		153		141		150		145		
77	05/12/2010 T To T	10:30 am	RAFAEL ORDONEZ	WE-A040	8	850	0	81	Peel	126	122	115	117	107	112	120	119	114	124	Pass
									Shear	161		147		156		156		151		
78	05/12/2010 T To T	10:30 am	DANIEL LOPEZ	WE-A096	15	800	0	81	Peel	125	123	112	107	104	116	123	147	110	147	Pass
									Shear	163		143		143		148		142		
79	05/12/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061	0	500	483	88	Peel	138	00	127	00	131	00	146	00	139	00	Pass
									Shear	167		152		140		150		151		
80	05/12/2010 T To T	1:14 pm	NICOLAS VIRGEN	ET-A040	0	490	470	88	Peel	123	00	118	00	123	00	139	00	128	00	Pass
									Shear	151		143		141		145		140		
81	05/13/2010 T To T	9:30 am	SARBELIO MENDEZ	WE-A068	16	800	0	81	Peel	135	130	113	122	113	124	124	127	121	124	Pass
									Shear	165		154		156		156		158		
82	05/13/2010 T To T	9:40 am	DANIEL LOPEZ	WE-A096	15	800	0	81	Peel	124	132	116	109	108	107	115	131	99	124	Pass
									Shear	160		148		151		151		146		
83	05/13/2010 T To T	11:50 am	CIRINO MARTINEZ	ET-A061	0	500	480	88	Peel	147	00	134	00	139	00	143	00	134	00	Pass
									Shear	163		147		149		159		157		
84	05/14/2010 T To T	7:25 am	CIRINO MARTINEZ	ET-A061	0	520	500	68	Peel	140	00	127	00	118	00	103	00	107	00	Pass
									Shear	162		157		163		170		160		
85	05/17/2010 T To T	12:00 pm	CIRINO MARTINEZ	ET-A061	0	530	510	79	Peel	155	00	124	00	138	00	144	00	103	00	Pass
									Shear	172		165		159		167		160		
86	07/08/2010 T To T	9:00 am	SARBELIO MENDEZ	WE-A076	16	800	0	79	Peel	129	134	124	130	119	131	120	126	121	118	Pass
									Shear	178		183		185		180		182		
87	07/08/2010 T To T	9:00 am	RAFAEL ORDONEZ	WE-A040	10	850	0	79	Peel	118	118	105	120	118	121	120	124	115	127	Pass
									Shear	184		180		189		183		182		
88	07/08/2010 T To T	9:00 am	DANIEL LOPEZ	WE-A096	15	800	0	79	Peel	135	112	131	119	116	117	120	115	124	120	Pass
									Shear	185		180		179		189		184		
89	07/08/2010 T To T	12:30 pm	SARBELIO MENDEZ	WE-A076	16	800	0	89	Peel	130	128	125	119	119	122	122	120	127	126	Pass
									Shear	179		184		180		176		182		

Preweld ID	Weld Date Liner Type	Weld Time	Operator Name	Machine Number	Mach. Speed	Mach. Temp	Preheat Temp	Ambient Temp		Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
90	07/08/2010 T To T	12:30 pm	RAFAEL ORDONEZ	WE-A040	10	850	0	89	Peel	126	129	131	134	130	119	128	120	125	118	Pass
									Shear	187		180		185		179		181		
91	07/08/2010 T To T	12:30 pm	DANIEL LOPEZ	WE-A096	15	800	0	89	Peel	119	124	120	126	119	116	125	120	129	125	Pass
									Shear	186		190		185		183		180		
92	07/08/2010 T To T	1:00 pm	CIRINO MARTINEZ	ET-A061	0	485	440	92	Peel	128	00	119	00	120	00	126	00	131	00	Pass
									Shear	170		174		180		179		183		
93	07/08/2010 T To T	4:00 pm	NICOLAS VIRGEN	ET-A006	0	440	430	95	Peel	113	00	135	00	116	00	110	00	115	00	Pass
									Shear	184		180		185		179		183		
94	07/09/2010 T To T	7:30 am	JOSE PALESTIANO	ET-A006	0	480	400	80	Peel	108	00	110	00	112	00	117	00	106	00	Pass
									Shear	180		173		185		180		189		
95	07/09/2010 T To T	7:40 am	CIRINO MARTINEZ	ET-A061	0	490	455	80	Peel	125	00	122	00	107	00	115	00	110	00	Pass
									Shear	183		180		176		183		180		
96	07/22/2010 T To T	11:00 am	CIRINO MARTINEZ	ET-A061	0	490	470	92	Peel	101	00	110	00	108	00	114	00	119	00	Pass
									Shear	156		175		181		178		168		

DESTRUCTIVE TEST REPORT / LOCATION SUMMARY

SECTION C

SECONDARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

Destructive Sample Report

Job Number: 03083171

Job Name: West Pasco Ash

Cell: cell A4

Superintendent: Arnulfo Martinez

Layer: Secondary

QC Technician: Carlos Lopez

Peel Test Extrusion Minimum: 78.00 **PPI**

Peel Test Fusion Minimum: 95.00 **PPI**

Shear Test Minimum: 120.00 **PPI**

Destruct Number	Location Information	Seam No.	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
1	Nor: 1,468,280.60 Eas 319,647.25 Ele: 56.41	6/7	04/08/2010	SARBELIO MEND	WE-A052	8	800	0	Peel 143	137	145	133	140	140	145	132	138	141	Pass
									Shear 196		187		191		194		192		
2	Nor: 1,468,192.50 Eas 319,652.40 Ele: 56.97	11/12	04/08/2010	DANIEL LOPEZ	WE-A075	13	800	0	Peel 142	151	139	143	151	146	157	120	140	136	Pass
									Shear 192		196		189		191		194		
3	Nor: 1,468,128.10 Eas 319,620.84 Ele: 48.54	14/15	04/08/2010	RAFAEL ORDONE	WE--A047	8	800	0	Peel 137	134	130	132	137	131	132	128	130	131	Pass
									Shear 194		196		188		193		196		
4	Nor: 1,467,931.20 Eas 319,638.88 Ele: 48.70	24/25	04/08/2010	DANIEL LOPEZ	WE-A075	13	800	0	Peel 159	138	140	147	132	132	159	128	138	131	Pass
									Shear 191		197		190		189		195		
5	Nor: 1,467,756.00 Eas 319,640.97 Ele: 48.70	33/34	04/08/2010	DANIEL LOPEZ	WE-A075	12	800	0	Peel 175	136	147	166	129	163	162	171	140	152	Pass
									Shear 192		196		198		193		195		
6	Nor: 1,467,784.60 Eas 319,607.80 Ele: 48.40	35/32	04/09/2010	SARBELIO MEND	WE-A052	8	800	000	Peel 143	134	150	136	147	135	138	143	137	131	Pass
									Shear 185		190		189		194		196		
7	Nor: 1,468,054.40 Eas 319,679.75 Ele: 51.24	19/EXL	04/08/2010	CIRINO MARTINE	ET-A061	0	500	480	Peel 134	000	115	000	149	000	130	000	128	000	Pass
									Shear 181		187		191		193		192		
8	Nor: 1,467,985.20 Eas 319,605.56 Ele: 47.35	22/35	04/08/2010	JOSE PALESTIAN	ET-A040	0	480	500	Peel 161	000	150	000	150	000	154	000	148	000	Pass
									Shear 176		174		170		181		179		
9	Nor: 1,468,109.80 Eas 319,583.72 Ele: 48.63	35/38	04/09/2010	DANIEL LOPEZ	WE-A075	14	800	0	Peel 139	164	126	161	132	141	142	157	125	164	Pass
									Shear 204		202		197		198		201		

Destruct Number	Location Information	Seam No.	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
10	Nor: 1,467,911.40 Eas 319,562.90 Ele: 49.11	37/39	04/12/2010	SARBELIO MEND	WE-A052	8	800	0	Peel 134	125	133	129	135	139	123	122	130	128	Pass
									Shear 207		203		212		199		199		
11	Nor: 1,468,061.00 Eas 319,540.22 Ele: 48.94	39/43	04/12/2010	DANIEL LOPEZ	WE-A075	15	800	0	Peel 136	145	130	168	136	149	132	136	149	134	Pass
									Shear 198		199		201		196		194		
12	Nor: 1,468,259.80 Eas 319,516.70 Ele: 48.59	44/47	04/12/2010	RAFAEL ORDONE	WE--A047	8	800	0	Peel 120	142	129	133	158	130	148	133	138	141	Pass
									Shear 196		190		198		194		200		
13	Nor: 1,468,297.60 Eas 319,551.47 Ele: 48.19	40/41	04/12/2010	SARBELIO MEND	WE-A052	8	800	0	Peel 151	157	153	148	161	144	170	160	154	159	Pass
									Shear 190		197		191		194		189		
14	Nor: 1,467,962.80 Eas 319,497.20 Ele: 47.86	46/49	04/12/2010	SARBELIO MEND	WE-A052	8	800	0	Peel 139	130	134	158	144	159	150	142	141	154	Pass
									Shear 206		199		197		201		195		
15	Nor: 1,467,765.90 Eas 319,477.47 Ele: 48.57	49/50	04/12/2010	DANIEL LOPEZ	WE-A075	15	800	0	Peel 146	143	135	146	167	162	158	161	140	152	Pass
									Shear 204		194		196		198		195		
16	Nor: 1,467,853.60 Eas 319,454.47 Ele: 47.78	50/52	04/12/2010	RAFAEL ORDONE	WE--A047	8	800	0	Peel 137	131	145	132	133	132	136	129	132	129	Pass
									Shear 191		192		196		198		195		
17	Nor: 1,468,311.80 Eas 319,450.53 Ele: 47.42	51/54	04/12/2010	RAFAEL ORDONE	WE--A047	8	800	0	Peel 145	148	136	147	152	146	140	143	147	136	Pass
									Shear 188		185		192		192		177		
18	Nor: 1,468,161.80 Eas 319,430.03 Ele: 47.10	53/52	04/12/2010	SARBELIO MEND	WE-A052	8	800	0	Peel 133	132	130	123	132	129	127	144	130	123	Pass
									Shear 200		180		191		186		184		
19	Nor: 1,467,961.60 Eas 319,409.38 Ele: 46.96	53/57	04/13/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 138	130	135	133	129	127	131	134	130	128	Pass
									Shear 196		200		195		189		197		
20	Nor: 1,467,864.90 Eas 319,388.66 Ele: 47.28	57/58	04/13/2010	RAFAEL ORDONE	WE--A047	9	800	0	Peel 149	141	147	154	161	138	134	183	140	137	Pass
									Shear 193		185		192		185		195		
21	Nor: 1,468,310.90 Eas 319,384.56 Ele: 47.08	56/59	04/13/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 143	136	150	124	145	130	132	135	133	130	Pass
									Shear 192		184		199		185		201		
22	Nor: 1,468,111.60 Eas 319,365.12 Ele: 47.78	58/61	04/13/2010	SARBELIO MEND	WE-A075	16	800	0	Peel 128	135	134	149	129	149	132	151	137	152	Pass
									Shear 183		175		181		174		186		
23	Nor: 1,467,963.10 Eas 319,344.44 Ele: 47.34	63/60	04/13/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 138	134	137	131	133	139	125	130	157	137	Pass
									Shear 186		174		186		186		174		
24	Nor: 1,467,864.00 Eas 319,323.50 Ele: 47.43	62/66	04/13/2010	RAFAEL ORDONE	WE--A047	9	800	0	Peel 154	135	129	130	143	136	151	136	156	143	Pass
									Shear 187		177		185		180		179		
25	Nor: 1,468,377.60 Eas 319,303.78	Seam No.	04/13/2010	SARBELIO MEND	WE-A075	16	800	0	Peel 158	139	157	139	145	154	139	149	140	149	Pass

Destruct Number	Location Information		Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
	Ele: 47.67	64/65							Shear	180		169		178		170		174	
									Peel	146	159	149	157	159	155	152	142	145	157
26	Nor: 1,468,258.40 Eas 319,305.97 Ele: 47.83	Seam No. 65/66	04/13/2010	RAFAEL ORDONE	WE--A047	9	800	0	Shear	175		159		181		169		171	Pass
									Peel	135	142	134	126	143	126	118	126	139	138
27	Nor: 1,468,013.00 Eas 319,278.60 Ele: 47.04	Seam No. 67/69	04/13/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	179		180		181		175		171	Pass
									Peel	139	131	129	140	140	132	135	124	140	126
28	Nor: 1,467,817.20 Eas 319,258.22 Ele: 46.74	Seam No. 70/71	04/14/2010	SARBELIO MEND	WE-A075	15	800	0	Shear	181		183		181		177		172	Pass
									Peel	134	129	132	130	138	136	132	142	136	133
29	Nor: 1,467,867.10 Eas 319,236.25 Ele: 47.15	Seam No. 71/74	04/14/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	182		170		181		173		174	Pass
									Peel	126	134	121	123	140	124	135	116	123	118
30	Nor: 1,467,917.20 Eas 319,214.03 Ele: 47.77	Seam No. 74/75	04/14/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear	178		173		182		173		174	Pass
									Peel	141	146	130	135	139	154	136	147	146	135
31	Nor: 1,468,251.60 Eas 319,220.34 Ele: 47.74	Seam No. 73/74	04/14/2010	SARBELIO MEND	WE-A075	15	800	0	Shear	167		160		165		163		160	Pass
									Peel	116	121	118	113	125	133	116	118	103	124
32	Nor: 1,468,312.00 Eas 319,188.20 Ele: 46.43	Seam No. 76/79	04/14/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	156		162		183		158		152	Pass
									Peel	126	131	123	124	132	131	127	128	123	122
33	Nor: 1,468,273.90 Eas 319,166.47 Ele: 47.03	Seam No. 78/80	04/14/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear	162		151		156		155		152	Pass
									Peel	130	128	126	129	134	131	133	139	140	138
34	Nor: 1,467,819.90 Eas 319,171.30 Ele: 46.20	Seam No. 78/81	04/14/2010	SARBELIO MEND	WE-A075	15	800	0	Shear	173		180		185		183		191	Pass
									Peel	137	131	132	138	141	142	138	145	139	149
35	Nor: 1,467,819.90 Eas 319,149.38 Ele: 46.16	Seam No. 81/82	04/14/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	168		173		179		181		176	Pass
									Peel	141	128	129	128	126	139	138	132	135	124
36	Nor: 1,467,792.00 Eas 319,127.66 Ele: 46.60	Seam No. 82/86	04/14/2010	FRANCISCO MEDI	WE-A075	12	800	0	Shear	175		155		176		166		170	Pass
									Peel	116	132	133	112	114	135	112	131	112	121
37	Nor: 1,467,869.80 Eas 319,105.20 Ele: 46.68	Seam No. 85/87	04/15/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	164		158		167		166		164	Pass
									Peel	125	135	113	110	126	123	121	125	126	128
38	Nor: 1,467,818.90 Eas 319,083.94 Ele: 45.99	Seam No. 87/90	04/15/2010	SARBELIO MEND	WE-A075	15	850	0	Shear	164		161		166		161		158	Pass
									Peel	144	135	137	125	126	121	116	128	128	125
39	Nor: 1,467,964.50 Eas 319,060.84 Ele: 46.22	Seam No. 90/91	04/15/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear	170		161		164		171		162	Pass
									Peel	129	135	126	114	130	123	125	129	131	127
40	Nor: 1,468,064.00 Eas 319,038.16 Ele: 46.74	Seam No. 91/95	04/15/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear	165		164		160		156		160	Pass
									Peel	149	137	136	144	139	131	139	139	127	140
	Nor: 1,468,259.80	Seam No.																	

8/4/10

Destruct Number	Location Information	Seam No.	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
41	Nor: 1,468,016.00 Eas 319,046.97 Ele: 46.85	91/92	04/15/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear 161		141		151		158		160		Pass
									Peel 143	132	121	140	127	131	124	128	138	130	
42	Nor: 1,468,016.00 Eas 319,016.90 Ele: 45.36	95/96	04/15/2010	SARBELIO MEND	WE-A075	15	800	0	Shear 163		168		169		161		161		Pass
									Peel 113	132	131	126	125	127	123	117	122	120	
43	Nor: 1,467,966.20 Eas 318,995.53 Ele: 45.61	96/98	04/15/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear 163		163		162		160		162		Pass
									Peel 133	127	112	129	145	147	121	129	143	133	
44	Nor: 1,467,918.90 Eas 318,973.72 Ele: 46.70	100/99	04/15/2010	SARBELIO MEND	WE-A075	15	800	0	Shear 164		150		161		155		173		Pass
									Peel 156	147	152	132	140	149	145	148	154	136	
45	Nor: 1,468,262.40 Eas 318,963.03 Ele: 46.03	101/100	04/15/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear 185		184		195		166		187		Pass
									Peel 132	136	133	120	122	117	117	133	141	121	
46	Nor: 1,468,167.50 Eas 318,949.97 Ele: 45.00	100/103	04/16/2010	SARBELIO MEND	WE-A075	15	800	0	Shear 177		171		175		175		160		Pass
									Peel 127	126	136	128	137	138	140	132	131	132	
47	Nor: 1,468,018.60 Eas 318,929.47 Ele: 45.34	104/106	04/16/2010	RAFAEL ORDONE	WE--A047	8	850	0	Shear 188		183		182		184		188		Pass
									Peel 124	138	126	139	136	137	126	125	124	129	
48	Nor: 1,467,917.60 Eas 318,908.30 Ele: 46.37	105/108	04/16/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear 183		175		173		171		186		Pass
									Peel 143	138	143	139	155	138	148	136	141	137	
49	Nor: 1,467,830.20 Eas 318,899.30 Ele: 45.02	108/109	04/16/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear 182		177		178		187		180		Pass
									Peel 140	159	129	133	160	136	131	122	141	110	
50	Nor: 1,468,067.10 Eas 318,885.06 Ele: 46.32	108/110	04/16/2010	SARBELIO MEND	WE-A075	15	800	0	Shear 184		185		189		187		187		Pass
									Peel 130	119	134	122	143	130	124	124	144	126	
51	Nor: 1,468,264.00 Eas 318,872.38 Ele: 46.02	110/111	04/16/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear 161		153		159		154		154		Pass
									Peel 132	124	104	119	143	121	135	117	132	118	
52	Nor: 1,468,168.60 Eas 318,862.44 Ele: 44.97	110/112	05/04/2010	RAFAEL ORDONE	WE-A040	8	850	0	Shear 151		157		158		163		160		Pass
									Peel 127	143	135	131	127	137	134	135	154	145	
53	Nor: 1,468,233.50 Eas 318,850.16 Ele: 45.98	112/113	05/04/2010	SARBELIO MEND	WE-A068	16	800	0	Shear 171		155		160		158		153		Pass
									Peel 147	140	136	143	130	132	146	129	136	127	
54	Nor: 1,467,819.80 Eas 318,843.34 Ele: 45.11	112/114	05/04/2010	SARBELIO MEND	WE-A068	16	800	0	Shear 159		156		162		162		158		Pass
									Peel 130	122	135	130	140	136	127	127	145	129	
55	Nor: 1,468,265.80 Eas 318,828.88 Ele: 46.15	115/114	05/04/2010	RAFAEL ORDONE	WE-A040	8	850	0	Shear 146		145		152		155		146		Pass
									Peel 115	110	114	117	136	134	126	118	117	110	
56	Nor: 1,468,168.90 Eas 318,818.62 Ele: 44.70	114/117	05/04/2010	DANIEL LOPEZ	WE-A091	15	800	0	Shear 159		150		159		159		158		Pass

Destruct Number	Location Information	Seam No.	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
57	Nor: 1,468,291.50 Eas 318,806.90 Ele: 45.36	118/117	05/04/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel 118	136	135	129	130	137	139	128	139	143	Pass
									Shear 156		148		159		158		145		
58	Nor: 1,468,117.60 Eas 318,797.20 Ele: 45.43	117/119	05/04/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 136	129	123	120	131	128	125	123	120	133	Pass
									Shear 157		150		152		154		153		
59	Nor: 1,468,218.80 Eas 318,774.20 Ele: 45.46	119/122	05/04/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 125	117	119	130	118	125	137	113	127	138	Pass
									Shear 157		145		155		155		152		
60	Nor: 1,468,365.20 Eas 318,773.00 Ele: 45.07	120/123	05/04/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel 121	138	138	113	140	119	147	116	143	111	Pass
									Shear 153		148		160		151		153		
61	Nor: 1,467,871.10 Eas 318,755.30 Ele: 44.99	122/124	05/04/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 101	124	114	118	114	119	119	120	131	125	Pass
									Shear 145		143		146		143		145		
62	Nor: 1,468,265.60 Eas 318,742.44 Ele: 45.64	124/125	05/04/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 133	121	119	130	142	116	135	111	130	128	Pass
									Shear 152		148		153		138		147		
63	Nor: 1,467,920.10 Eas 318,733.06 Ele: 45.75	124/127	05/04/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 111	114	119	127	109	138	117	134	112	132	Pass
									Shear 150		145		152		146		150		
64	Nor: 1,468,120.10 Eas 318,709.72 Ele: 44.97	127/129	05/11/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 124	119	111	104	113	102	115	114	115	117	Pass
									Shear 179		166		178		173		168		
65	Nor: 1,468,255.10 Eas 318,697.84 Ele: 45.59	129/137	05/11/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel 162	142	137	124	147	146	149	145	130	155	Pass
									Shear 176		165		177		162		165		
66	Nor: 1,468,020.40 Eas 318,688.56 Ele: 44.42	129/130	05/11/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 129	130	132	118	126	112	120	121	125	115	Pass
									Shear 155		156		163		165		159		
67	Nor: 1,468,319.10 Eas 318,664.25 Ele: 44.13	138/139	05/11/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 137	150	149	137	146	145	150	124	127	127	Pass
									Shear 180		166		187		175		169		
68	Nor: 1,468,170.50 Eas 318,643.40 Ele: 43.65	131/132	05/11/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel 121	114	108	105	120	105	119	111	115	105	Pass
									Shear 170		158		159		164		160		
69	Nor: 1,468,249.00 Eas 318,620.53 Ele: 45.24	132/141	05/11/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 151	115	127	099	144	114	107	114	140	112	Pass
									Shear 176		158		158		170		158		
70	Nor: 1,468,225.90 Eas 318,610.75 Ele: 44.72	141/133	05/12/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel 155	138	152	141	144	145	138	147	126	143	Pass
									Shear 177		159		173		173		158		
71	Nor: 1,467,968.90 Eas 318,601.28 Ele: 44.34	133/135	05/11/2010	SARBELIO MEND	WE-A068	16	800	0	Peel 129	123	121	134	133	145	122	128	116	123	Pass
									Shear 168		159		166		159		159		
72	Nor: 1,468,021.10 Eas 318,579.10	Seam No.	05/11/2010	DANIEL LOPEZ	WE-A091	15	800	0	Peel 156	143	133	137	139	142	150	130	137	138	Pass

Destruct Number	Location Information	Seam No.	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
	Ele: 43.87	135/136							Shear	175		164		175		177		166	
73	Nor: 1,468,369.10 Eas 318,576.00 Ele: 44.22	142/144	05/11/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	143	140	097	129	142	138	133	143	126	135	Pass
									Shear	178		173		163		172		160	
74	Nor: 1,468,073.60 Eas 318,556.72 Ele: 44.91	145/136	05/12/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel	104	126	102	106	101	101	126	105	104	102	Pass
									Shear	149		128		135		136		132	
75	Nor: 1,467,924.10 Eas 318,535.80 Ele: 44.97	147/145	05/12/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	133	131	107	126	099	118	116	120	133	128	Pass
									Shear	154		144		144		148		140	
76	Nor: 1,467,902.20 Eas 318,522.97 Ele: 44.79	146/147	05/12/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	139	136	113	104	126	128	116	131	109	118	Pass
									Shear	141		129		125		140		136	
77	Nor: 1,467,822.10 Eas 318,514.78 Ele: 43.73	146/148	05/12/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	122	137	106	120	106	115	122	127	104	131	Pass
									Shear	150		123		132		145		138	
78	Nor: 1,468,023.60 Eas 318,491.30 Ele: 43.58	150/148	05/12/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	130	133	121	119	121	114	120	119	123	122	Pass
									Shear	153		139		134		143		135	
79	Nor: 1,467,802.00 Eas 318,448.88 Ele: 43.54	151/152	05/12/2010	RAFAEL ORDONE	WE-A040	8	850	0	Peel	153	129	114	124	137	121	146	124	139	121	Pass
									Shear	170		155		161		162		160	
80	Nor: 1,467,924.60 Eas 318,470.03 Ele: 44.32	150/159	05/13/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	125	116	131	113	132	125	128	120	117	104	Pass
									Shear	152		142		143		151		146	
81	Nor: 1,467,874.50 Eas 318,448.47 Ele: 43.90	159/161	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	128	139	107	121	128	115	122	097	117	115	Pass
									Shear	139		133		144		145		139	
81	Nor: 1,467,892.00 Eas 318,448.38 Ele: 44.00	159/161	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	128	139	107	121	128	115	122	097	117	115	Pass
									Shear	139		133		144		145		139	
81	Nor: 1,467,863.10 Eas 318,448.60 Ele: 43.60	159/161	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	128	139	107	121	128	115	122	097	117	115	Pass
									Shear	139		133		144		145		139	
81	Nor: 1,467,852.60 Eas 318,448.40 Ele: 43.41	159/161	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	128	139	107	121	128	115	122	097	117	115	Pass
									Shear	139		133		144		145		139	
81	Nor: 1,467,833.90 Eas 318,448.90 Ele: 43.23	159/161	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	128	139	107	121	128	115	122	097	117	115	Pass
									Shear	139		133		144		145		139	
82	Nor: 1,467,870.20 Eas 318,404.38 Ele: 42.91	166/163	05/13/2010	SARBELIO MEND	WE-A068	16	800	0	Peel	120	118	115	120	107	112	124	123	120	133	Pass
									Shear	148		131		139		145		139	
83	Nor: 1,467,935.00 Eas 318,415.50 Ele: 42.72	169/163	05/13/2010	DANIEL LOPEZ	WE-A096	15	800	0	Peel	116	131	102	126	108	130	127	128	140	124	Pass
									Shear	143		130		128		141		128	
	Nor: 1,468,110.50	Seam No.							Peel	127	142	140	156	150	150	142	142	149	129	

Destruct Number	Location Information	Weld Date	Operator Name	Machine Number	Mach. Spee	Mach. Temp	Preheat Temp	Coupon 1 A	Coupon 1 B	Coupon 2 A	Coupon 2 B	Coupon 3 A	Coupon 3 B	Coupon 4 A	Coupon 4 B	Coupon 5 A	Coupon 5 B	Test Results
84	Eas 318,541.80 Ele: 44.42 145/178	07/08/2010	SARBELIO MEND	WE-A076	16	800	0											Pass
								Shear	171		180		175		187		179	
								Peel	141	146	136	149	141	136	132	129	128	120
85	Nor: 1,468,178.00 Seam No. Eas 318,496.97 Ele: 43.03 181/183	07/08/2010	RAFAEL ORDONE	WE-A040	10	850	0											Pass
								Shear	196		180		184		189		183	
								Peel	100	099	115	113	111	106	117	118	121	101
86	Nor: 1,468,187.60 Seam No. Eas 318,555.66 Ele: 43.55 136/183	07/08/2010	SARBELIO MEND	WE-A075	16	800	0											Pass
								Shear	180		189		179		180		182	
								Peel	125	110	121	116	115	120	121	124	117	119
87	Nor: 1,468,242.60 Seam No. Eas 318,527.16 Ele: 44.66 185/187	07/08/2010	DANIEL LOPEZ	WE-A096	15	800	0											Pass
								Shear	200		184		187		183		189	
								Peel	136	145	135	146	149	145	145	140	129	129
88	Nor: 1,468,308.80 Seam No. Eas 318,514.22 Ele: 43.49 189/190	07/08/2010	RAFAEL ORDONE	WE-A040	10	850	0											Pass
								Shear	186		180		177		175		182	
								Peel	108	101	117	115	120	112	133	118	110	121
89	Nor: 1,468,374.10 Seam No. Eas 318,510.22 Ele: 43.97 193/194	07/08/2010	DANIEL LOPEZ	WE-A096	15	800	0											Pass
								Shear	175		185		179		173		180	

Destruct Number **Location Information**

Destruct Location Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell: cell A4 **Layer:** Secondary **QC Technician:** Carlos Lopez

1	**Northing:** 1,468,280.60	**Easting:** 319,647.25	**Elevation:** 56.41	**Seam No.:**	6/7
2	**Northing:** 1,468,192.50	**Easting:** 319,652.40	**Elevation:** 56.97	**Seam No.:**	11/12
3	**Northing:** 1,468,128.10	**Easting:** 319,620.84	**Elevation:** 48.54	**Seam No.:**	14/15
4	**Northing:** 1,467,931.20	**Easting:** 319,638.88	**Elevation:** 48.70	**Seam No.:**	24/25
5	**Northing:** 1,467,756.00	**Easting:** 319,640.97	**Elevation:** 48.70	**Seam No.:**	33/34
6	**Northing:** 1,467,784.60	**Easting:** 319,607.80	**Elevation:** 48.40	**Seam No.:**	35/32
7	**Northing:** 1,468,054.40	**Easting:** 319,679.75	**Elevation:** 51.24	**Seam No.:**	19/EXL
8	**Northing:** 1,467,985.20	**Easting:** 319,605.56	**Elevation:** 47.35	**Seam No.:**	22/35
9	**Northing:** 1,468,109.80	**Easting:** 319,583.72	**Elevation:** 48.63	**Seam No.:**	35/38
10	**Northing:** 1,467,911.40	**Easting:** 319,562.90	**Elevation:** 49.11	**Seam No.:**	37/39
11	**Northing:** 1,468,061.00	**Easting:** 319,540.22	**Elevation:** 48.94	**Seam No.:**	39/43
12	**Northing:** 1,468,259.80	**Easting:** 319,516.70	**Elevation:** 48.59	**Seam No.:**	44/47
13	**Northing:** 1,468,297.60	**Easting:** 319,551.47	**Elevation:** 48.19	**Seam No.:**	40/41
14	**Northing:** 1,467,962.80	**Easting:** 319,497.20	**Elevation:** 47.86	**Seam No.:**	46/49
15	**Northing:** 1,467,765.90	**Easting:** 319,477.47	**Elevation:** 48.57	**Seam No.:**	49/50
16	**Northing:** 1,467,853.60	**Easting:** 319,454.47	**Elevation:** 47.78	**Seam No.:**	50/52
17	**Northing:** 1,468,311.80	**Easting:** 319,450.53	**Elevation:** 47.42	**Seam No.:**	51/54
18	**Northing:** 1,468,161.80	**Easting:** 319,430.03	**Elevation:** 47.10	**Seam No.:**	53/52
19	**Northing:** 1,467,961.60	**Easting:** 319,409.38	**Elevation:** 46.96	**Seam No.:**	53/57
20	**Northing:** 1,467,864.90	**Easting:** 319,388.66	**Elevation:** 47.28	**Seam No.:**	57/58
21	**Northing:** 1,468,310.90	**Easting:** 319,384.56	**Elevation:** 47.08	**Seam No.:**	56/59
22	**Northing:** 1,468,111.60	**Easting:** 319,365.12	**Elevation:** 47.78	**Seam No.:**	58/61
23	**Northing:** 1,467,963.10	**Easting:** 319,344.44	**Elevation:** 47.34	**Seam No.:**	63/60
24	**Northing:** 1,467,864.00	**Easting:** 319,323.50	**Elevation:** 47.43	**Seam No.:**	62/66
25	**Northing:** 1,468,377.60	**Easting:** 319,303.78	**Elevation:** 47.67	**Seam No.:**	64/65
26	**Northing:** 1,468,258.40	**Easting:** 319,305.97	**Elevation:** 47.83	**Seam No.:**	65/66
27	**Northing:** 1,468,013.00	**Easting:** 319,278.60	**Elevation:** 47.04	**Seam No.:**	67/69
28	**Northing:** 1,467,817.20	**Easting:** 319,258.22	**Elevation:** 46.74	**Seam No.:**	70/71
29	**Northing:** 1,467,867.10	**Easting:** 319,236.25	**Elevation:** 47.15	**Seam No.:**	71/74
30	**Northing:** 1,467,917.20	**Easting:** 319,214.03	**Elevation:** 47.77	**Seam No.:**	74/75
31	**Northing:** 1,468,251.60	**Easting:** 319,220.34	**Elevation:** 47.74	**Seam No.:**	73/74

Destruct Number	Location Information			
32	**Northing:** 1,468,312.00	**Easting:** 319,188.20	**Elevation:** 46.43	**Seam No.:** 76/79
33	**Northing:** 1,468,273.90	**Easting:** 319,166.47	**Elevation:** 47.03	**Seam No.:** 78/80
34	**Northing:** 1,467,819.90	**Easting:** 319,171.30	**Elevation:** 46.20	**Seam No.:** 78/81
35	**Northing:** 1,467,819.90	**Easting:** 319,149.38	**Elevation:** 46.16	**Seam No.:** 81/82
36	**Northing:** 1,467,792.00	**Easting:** 319,127.66	**Elevation:** 46.60	**Seam No.:** 82/86
37	**Northing:** 1,467,869.80	**Easting:** 319,105.20	**Elevation:** 46.68	**Seam No.:** 85/87
38	**Northing:** 1,467,818.90	**Easting:** 319,083.94	**Elevation:** 45.99	**Seam No.:** 87/90
39	**Northing:** 1,467,964.50	**Easting:** 319,060.84	**Elevation:** 46.22	**Seam No.:** 90/91
40	**Northing:** 1,468,064.00	**Easting:** 319,038.16	**Elevation:** 46.74	**Seam No.:** 91/95
41	**Northing:** 1,468,259.80	**Easting:** 319,046.97	**Elevation:** 46.85	**Seam No.:** 91/92
42	**Northing:** 1,468,016.00	**Easting:** 319,016.90	**Elevation:** 45.36	**Seam No.:** 95/96
43	**Northing:** 1,467,966.20	**Easting:** 318,995.53	**Elevation:** 45.61	**Seam No.:** 96/98
44	**Northing:** 1,467,918.90	**Easting:** 318,973.72	**Elevation:** 46.70	**Seam No.:** 100/99
45	**Northing:** 1,468,262.40	**Easting:** 318,963.03	**Elevation:** 46.03	**Seam No.:** 101/100
46	**Northing:** 1,468,167.50	**Easting:** 318,949.97	**Elevation:** 45.00	**Seam No.:** 100/103
47	**Northing:** 1,468,018.60	**Easting:** 318,929.47	**Elevation:** 45.34	**Seam No.:** 104/106
48	**Northing:** 1,467,917.60	**Easting:** 318,908.30	**Elevation:** 46.37	**Seam No.:** 105/108
49	**Northing:** 1,467,830.20	**Easting:** 318,899.30	**Elevation:** 45.02	**Seam No.:** 108/109
50	**Northing:** 1,468,067.10	**Easting:** 318,885.06	**Elevation:** 46.32	**Seam No.:** 108/110
51	**Northing:** 1,468,264.00	**Easting:** 318,872.38	**Elevation:** 46.02	**Seam No.:** 110/111
52	**Northing:** 1,468,168.60	**Easting:** 318,862.44	**Elevation:** 44.97	**Seam No.:** 110/112
53	**Northing:** 1,468,233.50	**Easting:** 318,850.16	**Elevation:** 45.98	**Seam No.:** 112/113
54	**Northing:** 1,467,819.80	**Easting:** 318,843.34	**Elevation:** 45.11	**Seam No.:** 112/114
55	**Northing:** 1,468,265.80	**Easting:** 318,828.88	**Elevation:** 46.15	**Seam No.:** 115/114
56	**Northing:** 1,468,168.90	**Easting:** 318,818.62	**Elevation:** 44.70	**Seam No.:** 114/117
57	**Northing:** 1,468,291.50	**Easting:** 318,806.90	**Elevation:** 45.36	**Seam No.:** 118/117
58	**Northing:** 1,468,117.60	**Easting:** 318,797.20	**Elevation:** 45.43	**Seam No.:** 117/119
59	**Northing:** 1,468,218.80	**Easting:** 318,774.20	**Elevation:** 45.46	**Seam No.:** 119/122
60	**Northing:** 1,468,365.20	**Easting:** 318,773.00	**Elevation:** 45.07	**Seam No.:** 120/123
61	**Northing:** 1,467,871.10	**Easting:** 318,755.30	**Elevation:** 44.99	**Seam No.:** 122/124
62	**Northing:** 1,468,265.60	**Easting:** 318,742.44	**Elevation:** 45.64	**Seam No.:** 124/125
63	**Northing:** 1,467,920.10	**Easting:** 318,733.06	**Elevation:** 45.75	**Seam No.:** 124/127
64	**Northing:** 1,468,120.10	**Easting:** 318,709.72	**Elevation:** 44.97	**Seam No.:** 127/129
65	**Northing:** 1,468,255.10	**Easting:** 318,697.84	**Elevation:** 45.59	**Seam No.:** 129/137
66	**Northing:** 1,468,020.40	**Easting:** 318,688.56	**Elevation:** 44.42	**Seam No.:** 129/130
67	**Northing:** 1,468,319.10	**Easting:** 318,664.25	**Elevation:** 44.13	**Seam No.:** 138/139
68	**Northing:** 1,468,170.50	**Easting:** 318,643.40	**Elevation:** 43.65	**Seam No.:** 131/132
69	**Northing:** 1,468,249.00	**Easting:** 318,620.53	**Elevation:** 45.24	**Seam No.:** 132/141
70	**Northing:** 1,468,225.90	**Easting:** 318,610.75	**Elevation:** 44.72	**Seam No.:** 141/133
71	**Northing:** 1,467,968.90	**Easting:** 318,601.28	**Elevation:** 44.34	**Seam No.:** 133/135
72	**Northing:** 1,468,021.10	**Easting:** 318,579.10	**Elevation:** 43.87	**Seam No.:** 135/136
73	**Northing:** 1,468,369.10	**Easting:** 318,576.00	**Elevation:** 44.22	**Seam No.:** 142/144
74	**Northing:** 1,468,073.60	**Easting:** 318,556.72	**Elevation:** 44.91	**Seam No.:** 145/136

Destruct Number	Location Information				
75	**Northing:** 1,467,924.10	**Easting:** 318,535.80	**Elevation:** 44.97	**Seam No.:**	147/145
76	**Northing:** 1,467,902.20	**Easting:** 318,522.97	**Elevation:** 44.79	**Seam No.:**	146/147
77	**Northing:** 1,467,822.10	**Easting:** 318,514.78	**Elevation:** 43.73	**Seam No.:**	146/148
78	**Northing:** 1,468,023.60	**Easting:** 318,491.30	**Elevation:** 43.58	**Seam No.:**	150/148
79	**Northing:** 1,467,802.00	**Easting:** 318,448.88	**Elevation:** 43.54	**Seam No.:**	151/152
80	**Northing:** 1,467,924.60	**Easting:** 318,470.03	**Elevation:** 44.32	**Seam No.:**	150/159
81	**Northing:** 1,467,833.90	**Easting:** 318,448.90	**Elevation:** 43.23	**Seam No.:**	159/161
	Northing: 1,467,852.60	**Easting:** 318,448.40	**Elevation:** 43.41	**Seam No.:**	159/161
	Northing: 1,467,863.10	**Easting:** 318,448.60	**Elevation:** 43.60	**Seam No.:**	159/161
	Northing: 1,467,892.00	**Easting:** 318,448.38	**Elevation:** 44.00	**Seam No.:**	159/161
	Northing: 1,467,874.50	**Easting:** 318,448.47	**Elevation:** 43.90	**Seam No.:**	159/161
82	**Northing:** 1,467,870.20	**Easting:** 318,404.38	**Elevation:** 42.91	**Seam No.:**	166/163
83	**Northing:** 1,467,935.00	**Easting:** 318,415.50	**Elevation:** 42.72	**Seam No.:**	169/163
84	**Northing:** 1,468,110.50	**Easting:** 318,541.80	**Elevation:** 44.42	**Seam No.:**	145/178
85	**Northing:** 1,468,178.00	**Easting:** 318,496.97	**Elevation:** 43.03	**Seam No.:**	181/183
86	**Northing:** 1,468,187.60	**Easting:** 318,555.66	**Elevation:** 43.55	**Seam No.:**	136/183
87	**Northing:** 1,468,242.60	**Easting:** 318,527.16	**Elevation:** 44.66	**Seam No.:**	185/187
88	**Northing:** 1,468,308.80	**Easting:** 318,514.22	**Elevation:** 43.49	**Seam No.:**	189/190
89	**Northing:** 1,468,374.10	**Easting:** 318,510.22	**Elevation:** 43.97	**Seam No.:**	193/194

SEAM INSTALLATION

SECTION D

SECONDARY

PASCO COUNTY

CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Page 1 of

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By Carlos Lopez
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test	30	PSI
Air Pressure Hold Time	5	Minutes
Allowable Air Pressure Loss	4	PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-8-10	1 / 2	70	10:00 AM	DANIEL LOPEZ	WE-A075	13	800		4-8-10	Air Test	10:45 30	10:50 30	-	PASS
	2 / 3	70	10:15 AM								10:46 30	10:51 30	-	
	3 / 4	70	10:08 AM	SARGELIO MENDEZ	WE-A052	8	800				10:48 30	10:53 30	-	
	4 / 5	69	10:17 AM								10:50 30	10:55 30	-	
	5 / 6	30	10:24 AM								10:50 30	10:55 30	-	
	6 / 8	68	10:32 AM								11:29 30	11:34 28	2	
	6 / 7	5	10:47 AM								11:09 30	11:14 29	1	
	6 / 7	17	10:49 AM								11:09 30	11:14 30	-	
	8 / 7	43	10:54 AM								11:30 30	11:35 30	-	
	8 / 9	21	10:35 AM								11:09 30	11:14 29	1	
	8 / 9	4	10:36 AM	DANIEL LOPEZ	WE-A075	13	800				11:10 30	11:15 28	2	
	7 / 9	65	10:38 AM								11:31 30	11:36 30	-	
	9 / 10	69	10:45 AM								11:32 30	11:37 30	-	
	10 / 11	70	10:55 AM								11:33 30	11:38 30	-	
	11 / 12	73	11:05 AM								11:51 30	11:56 30	-	
	12 / 13	76	10:57 AM	RAFAEL ORDONEZ	WE-A047	8	750				11:52 30	11:57 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By Carlos Lopez

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4.8.10	13/14	75	11:10 AM	RAFAEL ORDONEZ	WE-A047	8	750		4.8.10	AIR TEST	11:53 / 30	11:58 / 30	-	Pass
	14/15	29	11:35 AM								12:55 / 30	1:00 / 30	-	
	14/16	45	11:41 AM								12:55 / 30	1:00 / 30	-	
	15/16	21	11:10 AM	SARBELIO MENDEZ	WE-A052	8	800				12:55 / 30	1:00 / 30	-	
	15/17	27	11:15 AM								12:56 / 30	1:01 / 30	-	
	16/17	47	11:21 AM								12:56 / 30	1:01 / 30	-	
	17/18	74	11:30 AM								1:10 / 30	1:15 / 30	-	
	18/19	73	11:20 AM	DANIEL LOPEZ	WE-A075	13	800				1:11 / 30	1:16 / 29	1	
	19/20	73	11:33 AM								1:12 / 30	1:17 / 30	-	
	20/21	74	11:45 AM								1:13 / 30	1:18 / 30	-	
	21/22	73	1:36 PM								2:08 / 30	2:13 / 30	-	
	22/23	73	1:50 PM								2:09 / 30	2:14 / 28	2	
	23/24	72	2:00 PM								2:10 / 30	2:15 / 29	1	
	24/25	72	2:08 PM								2:22 / 30	2:27 / 28	2	
	25/26	72	1:55 PM	RAFAEL ORDONEZ	WE-A047	8	750				2:23 / 30	2:28 / 29	1	
	26/27	72	2:11 PM								2:25 / 30	2:30 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Page 3 of _____

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-8-10	27/28	71	2:26 PM	RAFAEL ORDONEZ	WE-A047	13	750		4-8-10	Air Test	2:41 / 30	2:46 / 28	2	Pass
	28/30	15	2:20 PM	SARBELIO MENDEZ	WE-A052	13	800				2:42 / 30	2:47 / 30	-	
	28/29	55	2:22 PM								2:42 / 30	2:47 / 30	-	
	29/30	21	2:10 PM								2:42 / 30	2:47 / 30	-	
	30/31	15	2:32 PM								2:52 / 30	2:57 / 28	2	
	29/31	55	2:34 PM								2:52 / 30	2:57 / 30	-	
	31/32	70	2:30 PM	DANIEL LOPEZ	WE-A075	13	800				2:55 / 30	3:00 / 30	-	
	32/33	75	2:37 PM								2:56 / 30	3:01 / 30	-	
	33/34	46	2:53 PM								3:00 / 30	3:05 / 30	-	
	33/34	41	2:56 PM								3:19 / 30	3:24 / 28	2	
4.9.10	35/37	202	10:05 AM	DANIEL LOPEZ	WE-A075	14	800		4.9.10		11:10 / 30	11:15 / 28	2	
	35/37	132	10:17 AM								11:25 / 30	11:30 / 30	-	
	37/38	21	10:33 AM								11:15 / 30	11:20 / 30	-	
	35/38	178	10:40 AM								11:30 / 30	11:35 / 30	-	
	35/36	21	10:55 AM								11:30 / 30	11:35 / 29	1	
	36/38	126	10:57 AM								11:40 / 30	11:45 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

EXL = EXIST. LINER

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
4.9.10	36/38	28	11:10 AM	DANIEL LOPEZ	WE 4075	14	800	
	1/EXL	17	11:42 AM	CIRINO MARTINEZ	ET. A061		500	530
	2/EXL	22	11:35 AM					
	3/EXL	22	11:26 AM					
	4/EXL	22	11:19 AM					
	5/EXL	22	11:06 AM					
	6/EXL	22	10:57 AM					
	7/EXL	22	10:42 AM					
	9/EXL	22	10:34 AM					
	10/EXL	22	10:21 AM					
	11/EXL	22	10:18 AM					
	12/EXL	22	10:15 AM					
4.8.9	13/EXL	22	3:06 PM				500	480
	14/EXL	22	2:56 PM					
	16/EXL	22	2:46 PM					
	17/EXL	22	2:36 PM					

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
		11:40	11:45		
4.9.10	Air Test	30	30		
4.12.10	Vacuum Test	:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-8-10	18 Ext	22	2:16 PM	CIRINO MARTINEZ	EG.A061		500	480	4.12.10	V30x	:	:		Pass
	19 Ext	22	2:10 PM								:	:		
4.09.10	20 Ext	22	11:59								:	:		
	21 Ext	22	11:54 AM								:	:		
	22 Ext	22	11:47 AM								:	:		
	23 Ext	22	11:21 AM								:	:		
	24 Ext	22	11:29 AM								:	:		
	25 Ext	22	11:20 PM								:	:		
4-8-10	26 Ext	22	3:20 PM	NICOLAS VIEGEN	EG.A040		490	420			:	:		
	27 Ext	22	3:30 PM								:	:		
4.09.10	28 Ext	22	10:15 AM	JOSE PACESTANO	EG.A040		480	500			:	:		
	29 Ext	22	10:20 AM								:	:		
	31 Ext	22	10:25 AM								:	:		
	32 Ext	22	10:37 AM								:	:		
	33 Ext	22	10:48 AM								:	:		
	37 Ext	22	10:58 AM								:	:		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
04 9.10	1 / 36	17	1:35 pm	DANIEL LOPEZ	WE-A075	12	800		4.9.10	AIR TEST	3:07 / 30	3:12 / 30	—	PASS
	2 / 36	22	1:32 pm								3:08 / 30	3:13 / 29	1	
	3 / 36	22	1:30 pm								3:00 / 30	3:05 / 30	—	
	4 / 36	22	1:28 pm								2:59 / 30	3:04 / 29	1	
	5 / 36	22	1:25 pm								2:55 / 30	3:00 / 30	—	
	6 / 36	22	1:22 pm								2:46 / 30	2:51 / 28	2	
	8 / 36	22	1:19 pm								2:45 / 30	2:50 / 30	—	
	9 / 36	5	1:18 pm								2:43 / 30	2:48 / 30	—	
	9 / 35	15	1:17 pm								2:41 / 30	2:46 / 30	—	
	10 / 35	22	1:15 pm								2:31 / 30	2:36 / 28	2	
	11 / 35	22	1:13 pm								2:30 / 30	2:35 / 30	—	
	12 / 35	22	1:11 pm								2:27 / 30	2:32 / 29	1	
	13 / 35	22	1:08 pm								2:25 / 30	2:30 / 30	—	
	14 / 35	22	1:05 pm								2:22 / 30	2:27 / 30	—	
	15 / 35	22	1:20 pm								2:16 / 30	2:21 / 30	—	
	17 / 35	22	1:15 pm								2:00 / 30	2:05 / 29	1	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4.9.10	18 / 35	22	1:10 PM	SARBELIO MENDEZ	WE A052	7	800		4.9.10	AIR TEST	2:00 / 30	2:05 / 28		Pass
	19 / 35	22	1:04 PM								1:50 / 30	1:55 / 30		
	20 / 35	22	1:00 PM								1:50 / 30	1:55 / 30		
	21 / 35	22	12:55 PM								1:00 / 30	1:05 / 30		
	22 / Cap 30	22	1:30 PM	JOSE PALESTIANO	ET A040		480	500	4.12	V BOX	:	:		
	35 / Cap 30	22	1:40 PM						1	1	:	:		
	23 / 35	22	11:37 AM	SARBELIO MENDEZ	WE A052	7	800		4.9.10	AIR TEST	12:50 / 30	12:55 / 30		
	24 / 35	22	11:34 AM								12:50 / 30	12:55 / 29		
	25 / 35	22	11:30 AM								1:05 / 30	1:10 / 30		
	26 / 35	22	11:26 AM								1:07 / 30	1:12 / 30		
	27 / 35	22	11:22 AM								1:10 / 30	1:15 / 30		
	28 / 35	22	11:18 AM								1:12 / 30	1:17 / 28		
	30 / 35	9	11:16 AM								1:20 / 30	1:25 / 30		
	30 / 35	11	11:14 AM								1:20 / 30	1:25 / 28		
	31 / 35	22	11:10 AM								1:24 / 30	1:29 / 28		
	32 / 35	22	11:05 AM								1:35 / 30	1:40 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Job # 03083171

Superintendent:

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Secondary — Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.9.10	33/35	22	11:03 AM	SARBELIO MENDEZ	WE-A052	7	800		4.9.10	AIR TEST	1:35 / 30	1:40 / 29	1	PASS
	34/35	12	11:00 AM								1:38 / 30	1:43 / 28	2	
4.12.10	37/37	335	10:00 AM	SARBELIO MENDEZ	WE-A052	8	800		4.12.10		11:35 / 30	11:40 / 28	2	
	38/39	181	10:48 AM								11:35 / 30	11:40 / 30	—	
	39/41	21	11:16 AM	SARBELIO MENDEZ	WE-A052	8	800				1:14 / 30	1:19 / 28	2	
	38/41	41	11:21 AM								1:34 / 30	1:39 / 29	1	
	38/40	102	11:32 AM								1:34 / 30	1:39 / 30	—	
	40/41	21	11:27 AM								1:35 / 30	1:40 / 30	—	
	40/42	111	11:50 AM	DANIEL LOPEZ	WE-A075	15	800				1:38 / 30	1:43 / 30	—	
	41/42	15	11:47 AM								1:23 / 30	1:28 / 30	—	
	42/44	21	11:42 AM								1:25 / 30	1:30 / 30	—	
	41/44	25	11:39 AM								1:14 / 30	1:19 / 30	—	
	39/44	12	11:37 AM								1:09 / 30	1:14 / 30	—	
	44/45	21	11:30 AM								1:09 / 30	1:14 / 30	—	
	43/45	21	11:25 AM								1:00 / 30	1:05 / 30	—	
	39/45	28	11:35 AM								1:00 / 30	1:05 / 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

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Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Secondary — Cell [x] Pond [ ] Pad [ ] Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4.12.10	43 / 39	143	10:38 AM	DANIEL LOPEZ	WE-A075	15	800		4.12.10	AIR TEST	11:53 / 30	11:58 / 30	-	Pass
	43 / 39	332	11:01 AM								11:53 / 30	11:58 / 30	-	
	43 / 46	475	11:05 AM	RAFAEL ORDONEZ	WE A047	8	800				12:45 / 30	12:50 / 30	-	
	45 / 46	12	12:45 PM								1:03 / 30	1:08 / 30	-	
	45 / 47	16	12:50 PM								1:05 / 30	1:10 / 30	-	
	44 / 47	38	12:54 PM								1:20 / 30	1:25 / 30	-	
	42 / 47	127	1:00 PM								1:36 / 30	1:41 / 30	-	
	46 / 47	21	11:58 AM	SARBELIO MENDEZ	WE A052	8	800				1:03 / 30	1:08 / 30	-	
	47 / 48	183	2:10 PM								2:57 / 30	3:02 / 30	-	
	46 / 48	138	1:50 PM								2:13 / 30	2:18 / 30	-	
	46 / 49	347	12:40 PM								1:58 / 30	2:03 / 30	-	
	49 / 48	21	1:44 PM								1:58 / 30	2:03 / 30	-	
	49 / 50	165	2:00 PM	DANIEL LOPEZ	WE-A075	15	800				2:20 / 30	2:25 / 30	-	
	50 / 51	21	2:15 PM	RAFAEL ORDONEZ	WE A047	8	800				2:20 / 30	2:25 / 30	-	
	49 / 51	51	2:15 PM	DANIEL LOPEZ	WE-A075	15	800				2:47 / 30	2:52 / 30	-	
	49 / 51	129	2:18 PM								2:48 / 30	2:53 / 30	-	

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COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

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Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-12-10	48 / 51	322	2:30 PM	DANIEL LOPEZ	WE-A075	15	800		4-12-10	Air Test	3:00 / 30	3:05 / 29	1	Pass
	50 / 52	160	2:35 PM	RAFAEL ORDONEZ	WE A047	8	800				3:11 / 30	3:16 / 30	-	
	51 / 52	350	2:58 PM								3:50 / 30	3:55 / 30	-	
	51 / 54	152	3:47 PM								4:12 / 30	4:17 / 30	-	
	52 / 54	21	3:22 PM	DANIEL LOPEZ	WE-A075	15	800				3:44 / 30	3:49 / 30	-	
	53 / 55	21	3:40 PM								3:45 / 30	3:50 / 30	-	
	52 / 53	509	3:00 PM	SARBELIO MENDEZ	WE-A052	8	800				4:30 / 30	4:35 / 30	-	
	54 / 55	154	4:18 PM						4-13-10		7:40 / 30	7:45 / 30	-	
	53 / 56	19	3:47 PM	DANIEL LOPEZ	WE A075	15	800		4-12-10		4:17 / 30	4:22 / 30	-	
	55 / 56	160	3:44 PM								4:14 / 30	4:19 / 30	-	
4-13-10	53 / 57	487	11:00 AM	DANIEL LOPEZ	WE A091	15	800		4-13-10		1:10 / 30	1:15 / 30	-	
	56 / 57	21	11:43 AM								1:10 / 30	1:15 / 28	2	
	56 / 59	158	11:57 AM								1:29 / 30	1:34 / 30	-	
	56 / 58	32	11:54 AM								1:11 / 30	1:16 / 30	-	
	57 / 58	486	11:26 AM	RAFAEL ORDONEZ	WE 047	9	800				1:11 / 30	1:16 / 30	-	
	58 / 59	21	11:50 AM								1:29 / 30	1:34 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

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Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [X] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-13-10	59/61	159	1:27 PM	SARBELIO MENDEZ	WE-A075	16	800		4-13-10	Air Test	1:45 / 30	1:50 / 30	-	PASS
	58/61	160	1:15 PM								1:38 / 30	1:43 / 30	-	
	58/60	361	12:50 PM								1:38 / 30	1:43 / 30	-	
	60/61	21	1:10 PM	RAFAEL ORDONEZ	WE-A047	9	800				1:38 / 30	1:43 / 30	-	
	60/62	194	1:05 PM	DANIEL LOPEZ	WE-A091	15	800				1:53 / 30	1:58 / 30	-	
	62/63	19	1:23 PM	RAFAEL ORDONEZ	WE-A047	9	800				1:53 / 30	1:58 / 30	-	
	63/60	158	1:24 PM	DANIEL LOPEZ	WE-A091	15	800				1:53 / 30	1:58 / 30	-	
	61/63	308	1:32 PM								2:08 / 30	2:10 / 28	2	
	60/62	194	1:46 PM	RAFAEL ORDONEZ	WE-A047	9	800				2:21 / 30	2:26 / 30	-	
	63/66	326	2:18 PM								3:07 / 30	3:12 / 30	-	
	63/65	118	3:13 PM								3:40 / 30	3:45 / 30	-	
	63/64	31	3:30 PM								3:50 / 30	3:55 / 30	-	
	65/66	21	3:06 PM								3:10 / 30	3:15 / 30	-	
	64/65	21	3:19 PM	SARBELIO MENDEZ	WE-A075	16	800				3:49 / 30	3:54 / 29	1	
	64/68	31	3:23 PM								3:52 / 30	3:57 / 30	-	
	68/65	120	3:10 PM								3:40 / 30	3:45 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
4-13-10	66/68	121	2:56 PM	SARBELIO MENDEZ	WE A075	16	800	
	66/67	400	2:16 PM					
	67/60	21	2:33 PM					
	67/70	230	2:47 PM	DANIEL LOPEZ	WE A091	15	800	
	69/70	21	3:10 PM					
	67/69	161	3:15 PM					
	68/69	276	3:27 PM					
4-14-10	70/71	229	11:19 AM	SARBELIO MENDEZ	WE A075	15	800	
	69/71	287	11:38 AM					
	69/72	151	1:10 PM					
	71/72	21	1:03 PM					
	73/74	21	1:37 PM					
	72/73	151	1:42 PM					
	71/73	6	1:41 PM					
	71/74	510	11:45 AM	DANIEL LOPEZ	WE A091	15	800	
	74/75	510	12:48 PM	RAFAEL ORDONEZ	WE A047	8	850	

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-13-10	AIR TEST	3:10 / 30	3:15 / 30	-	PASS
		2:50 / 30	2:55 / 30	-	
		3:00 / 30	3:05 / 30	-	
		3:35 / 30	3:35 / 30	-	
		3:30 / 30	3:35 / 30	-	
		3:30 / 30	3:35 / 30	-	
		3:33 / 30	3:38 / 30	-	
4-14-10		2:33 / 30	2:38 / 30	-	
		2:33 / 30	2:38 / 30	-	
		2:11 / 30	2:16 / 30	-	
		2:10 / 30	2:15 / 30	-	
		2:14 / 30	2:19 / 30	-	
		2:10 / 30	2:15 / 30	-	
		2:10 / 30	2:15 / 30	-	
		2:37 / 30	2:42 / 30	-	
		2:35 / 30	2:40 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
4.14.10	73 / 75	7	1:55 PM	RAFAEL ORDONEZ	WE A047	8	850	
	73 / 76	152	2:06 PM					
	75 / 76	21	2:01 PM					
	76 / 79	114	2:28 PM	DANIEL LOPEZ	WE A091	15	800	
	76 / 78	32	2:14 PM					
	75 / 78	482	1:40 PM					
	75 / 77	31	1:35 PM					
	77 / 78	21	1:30 PM					
	77 / 81	31	2:10 PM	SARBELIO MENDEZ	WE A075	15	800	
	78 / 81	482	2:14 PM					
	78 / 80	32	2:31 PM	RAFAEL ORDONEZ	WE A047	8	850	
	79 / 80	118	2:38 PM					
	78 / 79	21	2:24 PM	DANIEL LOPEZ	WE A091	15	800	
	80 / 81	21	2:28 PM	RAFAEL ORDONEZ	WE A047	8	850	
	80 / 83	153	3:30 PM					
	81 / 83	81	3:16 PM					

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.14.10	AIR TEST	3:30 30	3:15 30	—	PASS
		3:10 30	3:15 30	—	
		3:12 30	3:07 30	—	
		3:13 30	3:18 30	—	
		3:12 30	3:17 30	—	
		2:40 30	2:45 30	—	
		3:32 30	3:37 30	—	
		3:30 30	3:35 28	2	
		3:30 30	3:35 30	—	
		3:30 30	3:35 30	—	
		3:23 30	3:28 30	—	
		3:17 30	3:22 30		
		3:17 30	3:22 30	—	
		3:23 30	3:28 30	—	
		4:00 30	4:05 28	L	
		3:58 30	4:03 30	—	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
4.14.10	82/83	21	3:10 PM	RAFAEL OROZCO	WE-A047	8	850	
	81/82	435	2:55 PM	DANIEL LOPEZ	WE-A091	15	800	
	82/86	76	3:20 PM	FRANCISCO MEDINA	WE A075	12	800	
	85/86	21	3:34 PM					
	82/85	357	3:38 PM					
	83/85	160	3:44 PM	DANIEL LOPEZ	WE-A091	15	800	
	83/84	73	4:10 PM					
	84/85	21	4:13 PM	RAFAEL OROZCO	WE-A047	8	850	
4.15.10	86/87	76	11:35 AM	DANIEL LOPEZ	WE-A091	15	800	
	85/87	450	11:39 AM					
	85/88	77	1:33 PM	SARBELIO MENDEZ	WE-A095	15	800	
	84/88	73	1:40 PM					
	87/88	21	1:28 PM	SARBELIO MENDEZ	WE-A075	15	800	
	88/89	155	1:58 PM					
	87/89	7	1:57 PM					
	89/90	21	1:50 PM					

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4.14.10	Air Test	3:58 30	4:03 30	-	Pass
		3:58 30	4:03 30	-	
		3:40 30	3:45 30	-	
		3:40 30	3:45 30	-	
		4:10 30	4:15 30	-	
		4:10 30	4:15 30	-	
		4:20 30	4:25 30	-	
		4:20 30	4:25 30	-	
4.15.10		2:17 30	2:22 30		
		2:21 30	2:26 30		
		3:20 30	3:25 30		
		3:26 30	3:31 30		
		3:20 30	3:25 30		
		3:22 30	3:27 30		
		3:22 30	3:27 28		
		3:28 30	3:33 29		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
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Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
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Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-15-10	B7/90	10	12:10 PM	SARBELIO MENDEZ	Wg-A075	15	800		4-15-10	Air Test	3:22 30	3:27 30	-	Pass
	87/90	496	11:35 PM								2:23 30	2:28 30	-	
	90/91	514	12:45 PM	RAFAEL ORDONEZ	Wg-A047	8	850				2:26 30	2:31 30	-	
	89/91	8	2:15 PM								3:30 30	3:35 28	2	
	89/92	156	2:17 PM								3:30 30	3:35 30	-	
	91/92	21	2:00 PM								3:30 30	3:35 30	-	
	92/93	24	2:33 PM	DADLER LOPEZ	Wg-A075	15	800				3:40 30	3:45 30	-	
	93/94	21	2:30 PM								3:33 30	3:38 30	-	
	92/94	129	2:14 PM								3:40 30	3:45 30	-	
	91/94	9	2:13 PM								3:48 30	3:53 30	-	
	94/95	21	2:05 PM								3:48 30	3:53 30	-	
	91/95	260	1:35 PM								4:00 30	4:05 30	-	
	91/95	240	1:15 PM								4:00 30	4:05 30	-	
	95/96	247	2:30 PM	SARBELIO MENDEZ	Wg-A075	15	800				4:20 30	4:25 30	-	
	95/96	44	2:47 PM								4:20 30	4:25 30	-	
	96/97	21	2:45 PM	RAFAEL ORDONEZ	Wg-A047	8	850				4:21 30	4:26 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
4-15-10	95/97	200	3:55 PM	RAFAEL ORDONEZ	WE A047	B	850	
	94/97	140	3:22 PM					
	93/97	25	3:45 PM					
	97/98	369	3:22 PM	DANIEL LOPEZ	WE A091	15	800	
	96/98	90	3:10 PM					
	96/99	211	2:53 PM	53				
	98/99	21	3:20 PM					
	99/100	207	3:27 PM	SARBELIO MENDEZ	WE A075	15	800	
	98/100	307	3:43 PM					
	100/101	21	4:05 PM	RAFAEL ORDONEZ	WE A047	B	850	
	98/101	106	3:57 PM	DANIEL LOPEZ	WE A091	15	800	
	98/102	43	4:09 PM					
	101/102	21	3:52 PM	RAFAEL ORDONEZ	WE A047	B	850	
4-16-10	100/104	403	9:30 AM	SARBELIO MENDEZ	WE A075	15	800	
	103/104	21	10:16 AM					
	100/103	109	10:20 AM					

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
4-15-10	Air Test	3:55 / 30	4:00 / 30	-	Pass
		3:50 / 30	3:55 / 30	-	
		3:45 / 30	3:50 / 28	2	
		3:56 / 30	4:01 / 30	-	
		4:22 / 30	4:27 / 30	-	
		4:22 / 30	4:27 / 30	-	
4-16-10		8:30 / 30	8:35 / 30	-	
		8:30 / 30	8:35 / 30	-	
		8:30 / 30	8:35 / 30	-	
		8:33 / 30	8:38 / 30	-	
		8:33 / 30	8:48 / 30	-	
		8:45 / 30	8:50 / 30	-	
		8:45 / 30	8:50 / 30	-	
		11:27 / 30	11:32 / 30		
		11:27 / 30	11:32 / 30		
		11:27 / 30	11:32 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
04.16.10	101/103	108	10:26 AM	SARBELIO MENDEZ	WE A075	15	800		4.16.10	Air Test	11:05 / 30	11:10 / 30		
	102/103	44	10:35 AM								11:05 / 30	11:10 / 30		
	103/106	268	11:10 AM	RAFAEL ORDONEZ	WE A047	B	850				11:07 / 30	1:12 / 30		
	104/106	157	10:44 AM								11:33 / 30	11:38 / 30		
	104/105	245	10:10 AM								11:33 / 30	11:38 / 30		
	105/106	21	10:45 AM								11:35 / 30	11:40 / 30		
	105/109	81	10:55 AM	DANIEL LOPEZ	WE A091	15	800				11:52 / 30	11:57 / 30		
	108/109	21	10:45 AM								11:52 / 30	11:57 / 28		
	105/108	160	10:50 AM								11:35 / 30	11:40 / 30		
	106/108	297	11:09 AM								12:50 / 30	12:55 / 30		
	107/108	21	11:59 AM								12:57 / 30	12:56 / 30		
	107/106	126	1:05 PM								1:16 / 30	1:22 / 30		
	107/111	128	12:17 PM	SARBELIO MENDEZ	WE A075	15	800				1:00 / 30	1:05 / 30		
	108/111	21	12:15 PM								12:51 / 30	12:56 / 30		
	110/111	21	1:00 PM	DANIEL LOPEZ	WE A091	15	800				1:05 / 30	1:10 / 28		
	110/108	435	11:42 AM	SARBELO MENDEZ	WE A075	15	800				12:48 / 30	12:53 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [X] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
4-16-10	109/110	82	11:35 AM	SARBELIO MENDEZ	WE A075	15	800		04.16.10	Air Test	11:55 30	12:00 30	-	PASS
5.04.10	110/112	498	10:01 AM	RAFAEL OROZCO	WE A040	8	850		5.4.10		1:10 30	1:15 29	1	
	110/113	30	11:06 AM								1:38 30	1:43 29	1	
	111/113	156	11:11 AM								1:38 30	1:43 30	-	
	112/113	21	10:40 AM	SARBELIO MENDEZ	WE 4068	16	800				1:10 30	1:15 30	-	
	113/115	154	10:54 AM								1:39 30	1:44 30	-	
	113/114	29	10:47 AM								1:39 30	1:44 30	-	
	112/114	490	10:00 AM								1:11 30	1:16 30	-	
	116/117	21	10:25 AM	DANIEL LOPEZ	WE A091	15	800				11:40 30	11:45 30	-	
	114/116	7	10:23 AM								11:40 30	11:45 30	-	
	114/117	89	10:33 AM								11:42 30	11:47 30	-	
	114/117	399	10:54 AM								1:13 30	1:18 30	-	
	115/117	22	11:42 AM	RAFAEL OROZCO	WE A040	8	850				1:54 30	1:59 30	-	
	117/118	21	11:36 AM								1:54 30	1:59 30	-	
	115/118	127	11:48 AM								1:54 30	1:59 30	-	
	114/115	21	1:11 PM								1:39 30	1:44 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5-3-10	116/117	21	10:25 AM	DANIEL LOPEZ	WE A091	15	800		5-3-10	Air Test	11:40 / 30	11:45 / 30	-	Pass
	116/119	20	11:15 AM	SARBELIO MENDEZ	WE A068	16	800				11:43 / 30	11:48 / 30	-	
	117/119	307	11:17 AM								1:14 / 30	1:19 / 30	-	
	117/120	23	1:30 PM	RAFAEL ORDONEZ	WE A040	8	850				2:00 / 30	2:05 / 30	-	
	118/120	127	1:36 PM								2:00 / 30	2:05 / 30	-	
	119/120	21	1:23 PM								2:01 / 30	2:06 / 30	-	
	121/122	21	11:30 AM	DANIEL LOPEZ	WE A091	15	800				11:57 / 30	11:56 / 30	-	
	121/119	40	11:40 AM								11:57 / 30	11:56 / 30	-	
	122/119	485	11:44 AM								1:15 / 30	1:20 / 30	-	
	122/123	21	1:55 PM	RAFAEL ORDONEZ	WE A040	8	850				2:45 / 30	2:50 / 30	-	
	120/122	42	2:05 PM								2:45 / 30	2:50 / 30	-	
	120/123	109	2:09 PM								2:45 / 30	2:50 / 30	-	
	123/125	110	1:40 PM	SARBELIO MENDEZ	WE A068	16	800				2:50 / 30	2:55 / 30	-	
	122/125	42	1:37 PM								2:50 / 30	2:55 / 30	-	
	122/124	484	1:08 PM								2:30 / 30	2:35 / 30	-	
	121/124	34	1:04 PM								2:10 / 30	2:15 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
5.4.10	126 / 127	21	1:30 PM	DANIEL LOPEZ	WEA091	15	800	
	124 / 126	74	1:50 PM					
	127 / 124	211	2:03 PM					
	124 / 125	21	2:00 PM	SARBELIO MENDEZ	WEA068	16	800	
	127 / 125	74	2:05 PM					
	128 / 125	76	2:27 PM					
	127 / 128	21	2:25 PM					
½	127 / 124	233	2:10 PM	DANIEL LOPEZ	WEA091	15	800	
5.11.10	126 / 129	71	11:13 AM	SARBELIO MENDEZ	WEA068	16	800	
	127 / 129	435	11:18 AM					
	129 / 130	505	11:25 AM	DANIEL LOPEZ	WEA091	15	800	
	130 / 131	505	11:55 AM	SARBELIO MENDEZ	WEA068	16	800	
	131 / 132	505	1:00 PM	RAFAEL ORDONEZ	WEA040	8	850	
	132 / 133	426	1:00 PM	DANIEL LOPEZ	WEA091	15	800	
	133 / 134	37	1:16 PM	SARBELIO MENDEZ	WEA068	16	800	
	133 / 135	438	1:19 PM					

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5.4.10	Vacuum	2:24 / 30	2:29 / 30	-	Pass
		2:24 / 30	2:29 / 30	-	
		2:34 / 30	2:39 / 30	-	
		2:34 / 30	2:39 / 30	-	
		2:55 / 30	3:00 / 30	-	
		2:55 / 30	3:00 / 30	-	
		2:55 / 30	3:00 / 30	-	
		2:34 / 30	2:39 / 30	-	
5.11.10	Air Test	3:40 / 30	3:45 / 30		
		3:55 / 30	4:00 / 30	-	
		3:58 / 30	4:03 / 28	2	
		4:00 / 30	4:05 / 30	-	
		4:20 / 30	4:25 / 30	-	
		4:21 / 30	4:26 / 30		
		3:41 / 30	3:46 / 30		
		4:22 / 30	4:27 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Secondary: Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5.11.10	134 / 135	21	1:12 PM	SARBELIO MENDEZ	WE A068	16	800		5.11.10	AIR TEST	3:41 / 30	3:46 / 30	-	PASS
	134 / 136	37	1:50 PM	DANIEL LOPEZ	WE A091	15	800				3:42 / 30	3:47 / 30	-	
	135 / 136	482	1:53 PM								4:23 / 30	4:28 / 30	-	
	129 / 137	21	2:03 PM	RAFAEL ORDONEZ	WE A040	8	850				3:55 / 30	4:00 / 30	-	
	137 / 127	82	2:00 PM	SARBELIO MENDEZ	WE A068	18	850				4:32 / 30	4:37 / 30	-	
	137 / 128	77	2:05 PM								4:32 / 30	4:37 / 30	-	
	137 / 138	147	2:15 PM								4:35 / 30	4:40 / 30	-	
	137 / 138	5	2:14 PM								4:35 / 30	4:40 / 30	-	
	137 / 130	6	2:13 PM								4:30 / 30	4:35 / 30	-	
	130 / 138	21	2:15 PM	RAFAEL ORDONEZ	WE A040	8	850				4:30 / 30	4:35 / 30	-	
	131 / 139	21	2:23 PM								4:44 / 30	4:49 / 30	-	
	130 / 139	5	2:34 PM	SARBELIO MENDEZ	WE A068	16	800				4:~~34~~ / 30	4:49 / 30	-	
	138 / 139	155	2:35 PM								4:36 / 30	4:41 / 30	-	
	140 / 139	152	2:36 PM	DANIEL LOPEZ	WE A091	15	800				4:38 / 30	4:43 / 30	-	
	132 / 139	8	2:35 PM								4:45 / 30	4:50 / 30	-	
	132 / 140	20	2:40 PM	RAFAEL ORDONEZ	WE A040	8	850				4:45 / 30	4:50 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Job # 03083171

Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**

Extrusion LF Weld Total To Date [ ]

Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
5.11.10	133 / 141	21	2:57 PM	RAFAEL ORDONEZ	WE A040	8	850	
	132 / 141	37	2:55 PM	DANIEL LOPEZ	WE A091	15	800	
	140 / 141	51	2:57 PM					
	140 / 141	21	3:10 PM					
	140 / 141	74	3:13 PM	SARBELIO MENDEZ	WE A068	16	800	
	141 / 142	112	3:01 PM					
	141 / 135	27	2:57 PM					
	141 / 135	40	2:59 PM					
	135 / 143	21	3:15 PM	RAFAEL ORDONEZ	WE A040	8	850	
	143 / 142	21	3:23 PM					
	136 / 144	21	3:30 PM					
	135 / 144	30	3:38 PM	SARBELIO MENDEZ	WE A068	16	800	
	144 / 142	110	3:27 PM					
5.12.10	136 / 145	17	10:38 AM	RAFAEL ORDONEZ	WE A040	8	850	
	136 / 145	181	10:45 AM					
	146 / 147	21	11:07 AM	SARBELIO MENDEZ	WE A068	16	800	

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5.11.10	AIR TEST	4:56 / 30	5:01 / 30	-	Pass
		4:48 / 30	4:53 / 30	-	
		4:48 / 30	4:53 / 30	-	
5.12.10		7:22 / 30	7:27 / 30	-	
		7:22 / 30	7:27 / 28	-	
		7:25 / 30	7:30 / 30	-	
5.11.10		4:55 / 30	5:00 / 30	-	
5.12.10		7:25 / 30	7:30 / 30	-	
		7:25 / 30	7:30 / 30	-	
		7:25 / 30	7:30 / 29	1	
		7:33 / 30	7:38 / 30	-	
		7:30 / 30	7:35 / 30	-	
		7:30 / 30	7:35 / 30	-	
		10:52 / 30	10:57 / 29	1	
		11:27 / 30	11:32 / 30		
		11:23 / 30	11:28 / 30		

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Page 23 of _____

Project Name: Pasco County
Job # 03083171
Superintendent:
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By
Secondary Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
5.12.10	145/146	152	10:38 AM	SABELIO MENDEZ	WE.A068	16	800	
	145/147	60	10:45 AM					
	145/147	208	10:54 AM					
	146/148	150	10:58 AM	DANIEL LOPEZ	WE A096	15	800	
	147/148	153	11:10 AM					
	148/149	21	11:25 AM	DANIEL LOPEZ	WE A096	15	800	
	147/149	57	11:28 AM				800	
	149/150	52	11:37 AM	SABELIO MENDEZ	WE A068	16	800	
	148/150	303	11:18 AM					
	150/151	60	11:35 AM	RAFAEL ORDONEZ	WE A040	8	850	
	151/152	60	11:47 AM					
	152/153	60	11:58 AM					
	153/154	61	11:50 AM	DANIEL LOPEZ	WE A096	15	800	
	154/155	36	12:05 PM					
	155/156	12	12:23 PM	RAFAEL ORDONEZ	WE A040	8	850	
	156/157	11	12:15 PM	RAFAEL ORDONEZ	WE A040	8	850	

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
5.12.10	Air Test	10:57 / 30	11:02 / 30	-	PASS
		11:11 / 30	11:16 / 30	-	
		11:11 / 30	11:16 / 30	-	
		11:23 / 30	11:28 / 30	-	
		11:23 / 30	11:28 / 30	-	
		11:47 / 30	11:52 / 29	1	
		11:47 / 30	11:52 / 30	-	
		11:48 / 30	11:53 / 30	-	
		11:48 / 30	11:53 / 29	1	
		1:10 / 30	1:15 / 30	-	
		1:11 / 30	1:16 / 30	-	
		1:12 / 30	1:17 / 30	-	
		1:13 / 30	1:18 / 30	-	
		1:16 / 30	1:21 / 30	-	
		1:25 / 30	1:30 / 30	-	
		1:25 / 30	1:30 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
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Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5.12.10	157/158	40	12:10 PM	DANIEL LOPEZ	WE A096	15	800		5.12.10	AIR TEST	1:15 30	1:20 30	-	PASS
	155/157	26	12:18 PM								1:25 30	1:30 30	-	
	154/157	5	12:22 PM								1:15 30	1:20 30	-	
	154/158	27	12:23 PM								1:13 30	1:18 30	-	
5.13.10	150/159	199	9:35 AM	SARBELIO MENDEZ	WE A068	16	800		5.13.10		10:25 30	10:30 30	-	
	150/160	87	10:01 AM								10:25 30	10:30 30	-	
	159/160	21	9:54 AM								10:25 30	10:30 30	-	
	160/163	89	10:29 AM	DANIEL LOPEZ	WE A096	15	800				10:45 30	10:50 30	-	
	154/163	19	10:27 AM								10:34 30	10:39 30	-	
	159/161	173	9:50 AM	DANIEL LOPEZ	WE A096	15	800				10:33 30	10:38 30	-	
	161/162	54	11:10 AM	SARBELIO MENDEZ	WE A068	16	800				11:56 30	12:01 30	-	
	162/163	55	11:26 AM								11:57 30	12:02 30	-	
	161/163	113	10:15 AM	DANIEL LOPEZ	WE A096	15	800				10:34 30	10:39 30	-	
	158/163	8	11:30 AM	SARBELIO MENDEZ	WE A068	16	800				11:58 30	12:03 30	-	
	153/163	10	11:38 AM								11:57 30	12:02 29	+	
	153/162	9	11:40 AM								11:56 30	12:01 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
5-13-10	161/152	21	11:41 AM	SARBELIO MENDEZ	EJ. A068	16	800	
	159/151	21	11:44 AM					
	158/164	40	10:14 AM					
	161/165	43	10:20 AM					
	165/166	44	10:27 AM					
	166/167	44	10:34 AM					
	167/168	44	10:45 AM					
	168/169	44	11:01 AM					
	169/170	42	10:49 AM	DANIEL LOPEZ	WA A096	15	800	
	170/171	42	11:00 AM					
	171/172	44	11:05 AM					
	172/173	44	11:15 AM					
	173/174	44	11:26 AM					
	174/175	44	11:27 AM					
	175/176	44	11:35 AM					
	163/164	21	11:47 AM	SARBELIO MENDEZ	WEA068	16	800	

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5-13-10	Air Test	11:55 30	12:00 30	-	Pass
		11:55 30	12:00 30	-	
		11:14 30	11:19 30	-	
		11:15 30	11:20 30	-	
		11:16 30	11:21 30	-	
		11:17 30	11:22 30	-	
		11:18 30	11:23 30	-	
		11:23 30	11:28 30	-	
		11:24 30	11:29 30	-	
		11:25 30	11:30 30	-	
		11:40 30	11:45 30	-	
		11:41 30	11:46 30	-	
		11:43 30	11:48 30	-	
		11:44 30	11:49 30	-	
		11:45 30	11:50 29	1	
		12:00 30	12:05 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Job # 03083171 **Superintendent:**

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Secondary Cell [x] Pond [ ] Pad [ ] **Other**

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

[ ] **Total LF of Welding to Date Combined** **Extrusion LF Weld Total To Date** [ ] **Fusion LF Weld Total To Date:** [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
5.13.10	165 / 163	21	11:49 AM	SARBELIO MENDEZ	GEA068	16	800		5.13.10	AIR TEST	12:00 / 30	12:05 / 30	-	Pass
	166 / 163	21	11:53 AM								1:05 / 30	1:10 / 30	-	
	167 / 163	21	12:03 PM	DANIEL LOPEZ	LGA046	16	800				1:05 / 30	1:10 / 30	-	
	168 / 163	21	12:05 PM								1:08 / 30	1:13 / 30	-	
	169 / 163	21	12:07 PM								1:08 / 30	1:13 / 30	-	
	170 / 163	21	12:09 PM								1:09 / 30	1:14 / 28	2	
	171 / 163	21	11:45 AM								1:09 / 30	1:14 / 30	-	
	172 / 163	21	11:47 AM								1:10 / 30	1:15 / 30	-	
	173 / 163	21	11:49 AM								1:10 / 30	1:15 / 30	-	
	174 / 163	21	11:51 AM								1:20 / 30	1:25 / 30	-	
	175 / 163	21	11:53 AM								1:20 / 30	1:25 / 30	-	
	176 / 163	21	11:56 AM								1:21 / 30	1:26 / 30	-	
7.8.10	176 / 177	20	9:10 AM	SARBELIO MENDEZ	WEA076	16	800		7.8.10		1:20 / 30	1:25 / 30	-	
	176 / 177	14	9:11 AM								1:12 / 30	1:17 / 28	2	
	163/160 / 177	21	9:14 AM								1:12 / 30	1:17 / 30	-	
	150 / 177	19	9:20 AM								1:13 / 30	1:18 / 30	-	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
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[ ] **Total LF of Welding to Date Combined**
Extrusion LF Weld Total To Date [ ]
Fusion LF Weld Total To Date: [ ]

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
7-8-10	180 / 149	19	7:20 AM	SARBELO MENDEZ	WE A076	10	800		7-8-10	AIR TEST	1:14 30	1:19 28	2	PASS
	177 / 178	87	9:10 AM	RAFAEL ORDONEZ	WE A040	10	850				1:13 30	1:18 30	—	
	178 / 180	18	9:40 AM	SARBELO MENDEZ	WE A076	16	800				1:14 30	1:19 30	—	
	178 / 147	18	9:43 AM								1:49 30	1:54 30	—	
	178 / 148	20	9:46 AM								1:49 30	1:54 30	—	
	178 / 179	149	9:27 AM	RAFAEL ORDONEZ	WE A040	10	850				2:23 30	2:28 30	—	
	179 / 181	24	1:20 PM								2:32 30	2:37 30	—	
	179 / 181	61	1:35 PM								2:23 30	2:30 30	—	
	179 / 182	36	1:40 PM								2:25 30	2:30 30	—	
	181 / 182	22	1:10 PM								2:25 30	2:30 30	—	
	182 / 183	36	1:55 PM								2:36 30	2:41 30	—	
	181 / 183	100	2:00 PM								2:36 30	2:41 30	—	
	183 / 184	134	1:20 PM	DANIEL LOPEZ	WE A096	15	800				2:48 30	2:53 29	1	
	184 / 185	130	1:39 PM								2:49 30	2:54 30	—	
	185 / 186	61	2:16 PM								3:20 30	3:25 28	2	
	185 / 187	62	2:12 PM								3:20 30	3:25 30	1	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp	Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
7-8-10	186/187	21	2:05 PM	DANIEL LOPEZ	WEA096	15	800		7-8-10	AIR TEST	3:22 / 30	3:27 / 30	–	Pass
	187/188	58	2:27 PM								3:22 / 30	3:27 / 28	2	
	186/188	58	2:35 PM								3:22 / 30	3:27 / 30	–	
	188/189	117	2:15 PM	RAFAEL ORDONEZ	WEA040	10	850				3:41 / 30	3:46 / 30	–	
	189/190	113	2:40 PM								3:42 / 30	3:47 / 30	–	
	190/191	78	3:00 PM	DANIEL LOPEZ	WEA096	15	800				4:04 / 30	4:09 / 30	–	
	190/192	29	3:05 PM								4:03 / 30	4:08 / 30	–	
	191/192	15	2:50 PM								4:05 / 30	4:10 / 30	–	
	192/193	25	3:15 PM								4:09 / 30	4:14 / 30	–	
	191/193	75	3:18 PM								4:05 / 30	4:40 / 28	2	
	193/194	91	3:30 PM								4:26 / 30	4:31 / 28	2	
	199/144	27	3:12 PM	SARBELIO MENDEZ	WEA076	16	800				4:57 / 30	5:02 / 30	–	
	198/199	27	3:20 PM								4:58 / 30	5:03 / 30	–	
	197/198	27	3:26 PM								5:00 / 30	5:05 / 28	2	
	195/196	10	3:40 PM								5:06 / 30	5:11 / 30	–	
	197/195	22	3:32 PM								5:06 / 30	5:11 / 30	✓	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County
Material Type: 60 MIL TEXTURED
Job Description: cell A4
Reported By

Job # 03083171
Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]
Other

Air Pressure Test 30 PSI
Air Pressure Hold Time 5 Minutes
Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined
Extrusion LF Weld Total To Date
Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
7-8-10	136/178	13	2:13 PM	SARBELIO HENDEZ	UBA076	16	800	
	136/179	21	2:15 PM					
	136/182	21	2:17 PM					
	136/183	21	2:19 PM					
	136/184	21	2:21 PM					
	136/185	21	2:23 PM					
	136/187	20	2:25 PM					
	144/188	14	3:00 PM					
	144/189	21	3:02 PM					
	144/190	21	3:04 PM					
	144/192	21	3:06 PM					
	144/193	21	3:08 PM					
	144/194	15	3:10 PM					
	194/199	21	4:17 PM					
	194/198	21	4:20 PM					
	194/197	21	4:22 PM					

Test Date	Test Type	AT Time In / PSI IN	AT Time Out / PSI OUT	PSI Loss	Test Results
7-8-10	AIR TEST	2:23 / 30	2:28 / 30	-	Pass
		2:23 / 30	2:28 / 30	-	
		2:29 / 30	2:34 / 28	2	
		2:29 / 30	2:34 / 29	1	
		2:49 / 30	2:54 / 30	-	
		2:49 / 30	2:54 / 30	-	
		3:39 / 30	3:44 / 30	-	
		3:41 / 30	3:46 / 30	-	
		3:41 / 30	3:46 / 30	-	
		4:03 / 30	4:08 / 28	2	
		4:09 / 30	4:14 / 30	-	
		4:40 / 30	4:45 / 30	-	
		4:57 / 30	5:02 / 30	-	
		4:57 / 30	5:02 / 30	-	
		5:00 / 30	5:05 / 30	1	
		5:00 / 30	5:05 / 30	1	

COMANCO ENVIRONMENTAL CORPORATION

Seam Control Form

Project Name: Pasco County

Material Type: 60 MIL TEXTURED

Job Description: cell A4

Reported By

Job # 03083171

Superintendent:

Secondary — Cell [x] Pond [ ] Pad [ ]

Other

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 4 PSI

Total LF of Welding to Date Combined

Extrusion LF Weld Total To Date

Fusion LF Weld Total To Date:

Weld Date	Seam No.	Seam Length	Time Welded	Operator Name/ ID	Mach No.	Mach Speed	Mach Temp	Preheat Temp
7-8-10	195 / 194	23	4:24 PM	SABELIO MENDEZ	WEDGE 76	16	800	
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					
	/		:					

Test Date	Test Type	AT Time In PSI IN	AT Time Out PSI OUT	PSI Loss	Test Results
7-8-10	AIR TEST	5:01 30	5:06 30	-	PASS
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		
		:	:		

REPAIR RECORDS / LOCATION SUMMARY

SECTION E
SECONDARY

PASCO COUNTY
CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

COMANCO

Comanco Enviro ntal Corporation
Repair Report

Page 1 of _____

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
1	BO	4.5			P	2 x 4		4.8.10	CIRINO MARTINEZ	ET. A061	Vacuum	Pass	4.12.10
2	SJ	6.7.8			P	2 x 3							
3	SJ	7.8	9		P	2 x 3							
4	SJ	14.15	16		P	2 x 3							
5	SJ	15.16	17		P	2 x 3							
6	BO	6.7			P	2 x 4							
7	MD		7		P	2 x 2							
8	DS.1	6.7			P	2 x 7		4.9.10					
9	DS.2	11.12			P	2 x 7							
10	DS.3	14.15			P	2 x 7							
11	BO	22.23			P	2 x 2							
12	SJ	29.30	31		P	2 x 2		4.8.10	NICOLAS VIRGEN	ET. A040			
13	SJ	28.29	30		P	2 x 2							
14	BO	33.34			P	2 x 10							
15	DS.4	24.25			P	2 x 7		4.9.	CIRINO MTZ	ET. A061			
16	BO	34.35			P	2 x 4		4.9.10	CIRINO MTZ	ET. A061			
17	SJ	33.34	35		P	2 x 3							
18	SJ	32.33	35		P	2 x 3							
19	DS.6	32.35			P	2 x 7							
20	SJ	31.32	35		P	2 x 7							

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Comanco Enviror ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes

CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
21	SJ	30-31	35		P	2 x 3		4.9.10	CIRINO HTZ	EX. 2061	Vacuum	Pass	4.12
22	BO	30-35			P	2 x 3							
23	SJ	28-30	35		P	2 x 2							
24	SJ	27-28	35		P	2 x 2							
25	SJ	26-27	35		P	2 x 2							
26	SJ	25-26	35		P	2 x 2							
27	SJ	24-25	35		P	2 x 2			JOSE PALESTIANO	EX. A040			
28	BO	35-37			P	2 x 4							
29	SJ	23-24	35		P	2 x 2							
30	SJ	21-22	23-35		C	3 x 24							
31	SJ	20-21	35		P	2 x 3							
32	SJ	19-20	35		P	2 x 2							
33	SJ	18-19	35		P	2 x 2							
34	SJ	35-37	38		P	2 x 3		4.9.10	CIRINO HTZ	EX. 2061			
35	SJ	17-18	35		P	2 x 2			JOSE PALESTIANO	EX. A040			
36	SJ	15-17	35		P	2 x 3							
37	SJ	14-15	35		P	2 x 2							
38	SJ	13-14	35		P	2 x 2							
39	SJ	12-13	35		P	2 x 2							
40	SJ	11-12	35		P	2 x 2							

COMANCO

Comanco Enviro[illegible]ntal Corporation

Repair Report

Page 3 of ____

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
41	SJ	10·11	35		P	2 x 2		4.9.10	JOSE [illegible]	ET.A040	Vacuum	Pass	4.12.10
42	SJ	9·10	35		P	2 x 2							
43	SJ	35·36	9		P	2 x 2							
44	SJ	35·36	37		P	2 x 3							
45	SJ	8·9	36		P	2 x 2							
46	SJ	6·8	36		P	2 x 2							
47	SJ	5·6	36		P	2 x 2							
48	SJ	4·5	36		P	2 x 2							
49	SJ	3·4	36		P	2 x 4							
50	SJ	2·3	36		P	2 x 2							
51	SJ	1·2	36		P	2 x 2							
52	BO	36·38			P	2 x 4							
53	AV.5	33·34			P	2 x 7		4.9.10	CIRINO MTZ	ET.A061			
54	BO	1·36			P	2 x 7							
55	BO	35·37			P	2 x 2							
56	AV.7	19·EL			P	2 x 7							
57	AV.8	22 and	Rep.30		P	2 x 7		4.9.10	CIRINO MTZ	ET.A061			
58	DS.10	37·39			P	2 x 7		4.13.10	"	"			4.13
59	BO	37·39			P	2 x 2		4.12.10	CIRINO MTZ	ET.A061			
60	DS.11	39·43			P	2 x 7		4.13	"	"			

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Comanco Enviro: ntal Corporation
Repair Report

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Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other ____

Job Description: cell A4

Damage Codes

CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
61	SJ	37.38	39		P	2 x 5		4.12.10	CICINO MTZ	GT. 4061	Vacuum	Pass	4-13-10
62	SJ	39.42	45		P	3 x 3		4.13.10					
63	SJ	44.45	39		P	2 x 2		4.12.10					
64	SJ	39.41	44		P	3 x 3		4.12.					
65	SJ	38.39	41		P	2 x 3		4.12.10					
66	SJ	42.44	41		P	2 x 4		4.12.10					
67	SJ	41.42	40		P	2 x 4		4.12.10					
68	DS.13	40.41			P	2 x 7		4.13.10					
69	SJ	38.40	41		P	2 x 4		4.12.10					
70	BO	38.40			P	2 x 2		4.12.10					
71	SJ	42.44	47		P	2 x 2		4.12.10					
72	DS.12	44.47			P	2 x 7		4.13.10					
73	SJ	44.45	47		P	2 x 3		4.12.10					
74	SJ	45.46	47		P	2 x 2		4.12.10					
75	SJ	46.47	48		P	2 x 3		4.12.10					
76	SJ	43.45	46		P	2 x 4		4.12.10					
77	SJ	49.48	46		P	2 x 5		4.12.10					
78	DT.14	46.49		DT.14	P	2 x 7		4.13.10					
79	BO	39.43			P	2 x 4		4.13.10					
80	BO	43.46			P	2 x 4		4.13.10					

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Comanco Enviro ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
81	BO	49-50			P	2 x 4		4.13.10	CIRINO HTZ	ET. A061	Vacuum	Pass	4.13.10
82	DS.15	49-50			P	2 x 7		4.13.10					
83	SJ	49-50	57		P	2 x 2		4.13.10					
84	SJ	50-51	52		P	2 x 2		4.13.10					
85	BO	49-51			P	2 x 5		4.13.10					
86	SJ	48-49	51		P	3 x 5		4.12.10					
87	DS.9	35-38			P	2 x 7		4.13.50					
88	BO	50-52			P	2 x 2		4.13.50					
89	MD		53		P	2 x 2		4.13.50					
90	DS.16	50-52			P	2 x 7		4.13.10					
91	MD		52		P	2 x 2		4.13.10					
92	SJ	52-53	55		P	2 x 3		4.13.10					
93	SJ	52-54	55		P	2 x 10		4.13.10					
94	SJ	51-52	54		P	2 x 2		4.13.					
95	SJ	52-55	56		P	2 x 3		4.14.					4.14.10
96	BO	39-43			P	2 x 3		4 13 10					
97	BO	48-51			P	2 x 4							
98	BO	52 53			P	2 x 3							
99	BO	54-55			P	2 x 3							
100	DS.17	51-54	-		P	2 x 7		4.14.10					

COMANCO

Comanco Enviro ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
101	SJ	53-57	56		C	2 x 10		4.14.10	CIRINO MARTINEZ	E7.A0G1	Vacuum	Pass	4.14.10
102	SJ	56-57	58		P	3 x 5							
103	SJ	56-58	59		P	2 x 3							
104	SJ	58-59	61		P	2 x 3							
105	BO	61-63			P	2 x 2							
106	SJ	58-60	61		P	2 x 3							
107	SJ	60-61	63		P	3 x 4							
108	DS.19	53-57			P	2 x 7		4.13.10					
109	SJ	61-62	63		P	3 x 4							
110	DS.20	57-58			P	2 x 7		4.13.10					
111	BO	57-58			P	2 x 3		4.13.10					
112	BO	58-60			P	2 x 4		4.14.10					
113	BO	60-62			P	2 x 8							
114	MD		56		P	2 x 2							
115	DS.21	56-59			P	2 x 7							
116	DS.22	58-61			P	2 x 7							
117	DS.18	52-53			P	2 x 7							
118	DS.23	60-63			P	2 x 7							
119	BO	64-66			P	2 x 4							
120	BO	67-70			P	2 x 4							4.21.10

COMANCO

Comanco Enviro[illegible]ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
121	SJ.24	62.66			P	2 x 7		4.14.10	CRINO MARTINEZ	GT. A061	VACUM	PASS	4.14.10
122	SJ	62-63	66		P	3 x 5							
123	SJ	66.67	68		P	2 x 3							
124	SJ	67.68	69		P	2 x 3							
125	SJ	65-66	68		P	2 x 2							
126	SJ	65.66	63		P	2 x 2							
127	SJ	63.64	65		P	2 x 4							
128	SJ	64.65	68		P	2 x 3							
129	BO	61.63			P	2 x 11							
130	SJ	67 70	69		P	2 x 3		4.14.10					4.[illegible].10
131	BO	70.71			P	2 x 3		4.15.10					4.16.10
132	BO	74.75			P	2 x 3							
133	SJ	69.70	71		P	3 x 3							
134	MD		69		P	2 x 2							
135	MD		71		P	7 x 7							
136	MD		71		P	2 x 2							
137	MD		71		P	2 x 5							
138	MD		71		P	7 x 7							
139	SJ	69.71	72		P	3 x 3							
140	SJ	71. 72	73		P	2 x 3							

COMANCO

Comanco Enviro ntal Corporation
Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
141	SJ	71-73	74		P	2 x 3		4.15.10	CIRINO MARTINEZ	EX-40G1	Vacuum	Pass	4.15.10
142	SJ	73-74	75		P	2 x 3							
143	SJ	73-75	76		P	2 x 3							
144	SJ	76-78	79		P	3 x 4							
145	SJ	78-79	80		P	2 x 3							
146	SJ	78-80	81		P	2 x 3							
147	SJ	75-76	78		P	2 x 3							
148	SJ	80-81	B3		P	2 x 3							
149	SJ	81-82	B3		P	2 x 3							
150	SJ	75-77	78		P	2 x 3							
151	SJ	77-78	81		P	2 x 4							
152	BO	77-81			P	2 x 2							
153	BO	77-81			P	2 x 3							
154	BO	77-75			P	2 x 4							
155	SJ	82-85	B6		P	3 x 4							4.21.
156	SJ	82-83	B6		P	2 x 3							4.16.10
157	SJ	84-85	B3		P	2 x 3							
158	DS-25	64-65			P	2 x 7							
159	DS-26	65-66			P	2 x 7							
160	DS-32	76-79			P	2 x 7							

COMANCO

Comanco Enviro: :ntal Corporation

Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
161	DS.33	78.80			P	2 x 7		4.15.10	CIRINO MARTINEZ	E. AOGI	Vacuum	Pass	4.16
162	DS.31	73.74			P	2 x 7							
163	DS.27	67.68			P	2 x 7							
164	DS.30	74.75			P	2 x 7							
165	DS.28	70.71			P	2 x 7							
166	DS.29	71.74			P	2 x 7							
167	DS.34	79.81			P	2 x 7							
168	DS.36	82.86			P	2 x 7							
169	DS.35	81.83			P	2 x 7							
170	BO	87.90			P	2 x 4							
171	BO	90.91			P	2 x 4		4.16.10					4.21.10
172	SJ	85.86	87		P	3 x 3							↓
173	BO	87.90			P	2 x 7							4.16.10
174	SJ	87.90	89		P	3 x 4							
175	SJ	87.88	89		P	2 x 3							↓
176	SJ	85.87	88		P	3 x 8							4.21.10
177	SJ	89.90	91		P	3 x 4							4.16.10
178	SJ	89.91	92		P	2 x 3							
179	SJ	84.85	88		P	2 x 3							
180	SJ	93.97	94		P	2 x 3							

COMANCO

Comanco Enviroı .ntal Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
181	BO	93 97			P	2 x 4		4.16.10	CIRINO MARTINEZ	EG.4061	Vacuum	Pass	4.16.10
182	SJ	92 93	94		B	3 x 6							
183	SJ	91 92	93		P	3 x 3							
184	SJ	91 94	95		P	3 x 4							
185	SJ	94 95	97		P	2 x 2							
186	SJ	96 97			P	3 x 4							
187	SJ	96 97			P	3 x 3							
188	BO	95 96			P	2 x 2							
189	BO	91 95			P	2 x 2							
190	SJ	99 98	96		P	3 x 3							4.21.10
191	MD		98		P	3 x 6							4.16.10
192	MD		98		P	2 x 2							
193	MD		98		P	4 x 4							
194	MD		98		P	2 x 2							
195	SJ	101 102	98		B	2 x 3							
196	BO	97 98			P	2 x 3							
197	SJ	100 101	98		P	2 x 3							
198	SJ	99 98	100		P	2 x 3							4.21.10
199	MD	98			P	2 x 2							4.16.10
200	MD		98		P	2 x 2							

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Comanco Enviro[illegible]ental Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes					SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit			Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap			Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage		LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others			Air Lance	*E=East	
	AO --Add On	FM --Fishmouth						

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
201	DS-37	85-87			P	2 x 7		4.16.10	CLEMO MARTINEZ	EG. 4061	Vacom	Pass	4.21.10
202	D.38	87.90			P	2 x 7							
203	DS.39	90.91			P	2 x 7							
204	DS.40	91.95			P	2 x 7							
205	DS.42	95.96			P	2 x 7							
206	DS.43	96.98			P	2 x 7							
207	DS 44	99.100			P	2 x 7							
208	SJ	105 108	109		P	3 x 3							
209	SJ	104.105	106		P	4 x 4							
210	SJ	105.106	108		P	2 x 3							
211	SJ	100 103	104		P	3 x 4							
212	SJ	103.104	105		P	2 x 3							
213	SJ	100.101	103		P	2 x 5			JOSE PALESTIANO	EG. 4040			
214	SJ	101.102	103		P	2 x 3							
215	DS.45	100.101			P	2 x 7		4.21.10	CLEMO MARTINEZ	G. 4061			4.21.10
216	DS 41	91.92			P	2 x 7		4.16.10					
217	DS.47	104.106			P	2 x 7		4.21.10					
218	DS 48	105.108			P	2 x 7							
219	DS.49	108.109			P	2 x 7							
220	SJ	109.110	108		P	2 x 3		4.16.10	JOSE PALESTIANO	EG. 4040			4.21.10

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Comanco Enviro: ntal Corporation
Repair Report

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Job # : 03083171

Reported By: _____ **Superintendent:** _____

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
221	SJ	110-111	108		P	3 x 3		4.16.10	JOSE BRESTIANO	ET. A040	Vacuum	Pass	4.21.10
222	SJ	107-108	111		P	3 x 3							
223	SJ	106-107	108		P	3 x 3							
224	DS.46	100-103			P	2 x 7		4.21.10	CIRINO MARTINEZ	ET. A061			4.21.10
225	DS.50	108-110			P	2 x 7							
226	BO	100 104			P	2 x 3							
227	BO	102-103			P	2 x 3							
228	BO	91.45			P	2 x 5		4.16.10					4.16.10
229	BO	B6 B7			P	2 x 7		4.16.10					4.21.10
230	BO	B1 B2			P	2 x 4		4.21.10					"
231	BO	B1 B2			P	2 x 2		4.15.10					4.16.10
232	BO	71 74			P	2 x 2		4.21.10					"
233	BO	112 114			P	2 x 5		5.4.10	CIRINO NTZ	ET. A061			5.4.10
234	LC	114-116			P	2 x 12							
235	SJ	114-116	117		P	2 x 2							
236	MD		116		P	2 x 2							
237	SJ	116-117	119		P	2 x 2							
238	MD		116		P	2 x 2							
239	BO	116 119			P	2 x 2							
240	BO	114-117			P	2 x 5							

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Comanco Enviro ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
241	SJ	110-112	113		P	2 x 3		5.4.10	JOSE PACHECO	EQ.A66	Vacuum	Pass	5.4.10
242	SJ	110-111	113		P	2 x 2							
243	SJ	112-113	114		P	2 x 4							
244	SJ	114-115	113		P	2 x 5							
245	SJ	114-115	117		P	3 x 5							
246	SJ	117-118	115		P	3 x 3							5.5.10
247	SJ	117-118	120		P	2 x 3							5.4.10
248	SJ	117-119	120		P	2 x 6							5.5.10
249	SJ	119-120	122		P	2 x 7			SABELO MENDEZ	EQ.A040			5.5.10
250	SJ	122-123	120		P	2 x 2							5.5.10
251	SJ	122-123	125		P	2 x 4							5.5.10
252	SJ	122-124	125		P	2 x 2							5.5.10
253	SJ	124-125	127		P	2 x 3							5.5.10
254	SJ	125-127	128		P	2 x 3							5.5.10
255	BO	119-121			P	2 x 3		5.4.10	CICINO MTZ	EQ.A061			5.4.10
256	SJ	119-121	122		P	2 x 2							5.5.10
257	SJ	121-122	124		P	2 x 2			CICINO MTZ	EQ.A061			5.5.10
258	BO	121-124			P	2 x 7							5.4.10
259	MD		124		P	2 x 3							5.5.10
260	SJ	126-127	124		P	2 x 2		5.4.10	CICINO MTZ	EQ.A061			5.5.10

COMANCO

Comanco Enviro ental Corporation
Repair Report

Reported By: ____ **Superintendent:** ____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** ____

Job Description: cell A4

Damage Codes				SF Patch Material	Test Type	Abbrv.	Repair Types
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit		Vacuum	*S=South	C--Cap Strip
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap		Air Pressure	*N=North	P--Patch
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	LF Welded	Spark	*W=West	B--Extrusion Bead
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others		Air Lance	*E=East	
	AO --Add On	FM --Fishmouth					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
261	BO	110-112			P	2 x 6		5-4-10	JOSE PACESTANO	EJ.A066	Vacuum	PASS	5-4-10
262	DS54	112-114			P	2 x 6			CIRINO MTZ	EJ.A061			5-5-10
263	DS52	110-112			P	2 x 6			CIRINO MTZ	EJ.A061			5-5-10
264	DS53	112-113			P	2 x 6			JOSE PACESTANO	EJ.A066			5-4-10
265	DS51	110-111			P	2 x 6							5-4-10
266	DS55	114-115			P	2 x 6			JOSE PACESTANO	EJ.A066			5-4-10
267	BO	119-122			P	2 x 2			CIRINO MTZ	EJ.A061			5-5-10
268	DS58	117-119			P	2 x 6			CIRINO MTZ	EJ.A061			5-5-10
269	DS56	114-117			P	2 x 6			CIRINO MTZ	EJ.A061			5-5-10
270	DS57	117-119			P	2 x 6			JOSE PACESTANO	EJ.A066			5-5-10
271	DS60	120-123			P	2 x 6			SARAI MENDEZ	EJ.A040			5-5-10
272	DS62	124-125			P	2 x 6		5-5-10	CIRINO MTZ	EJ.A061			5-5-10
273	DS59	119-122			P	2 x 6		5-4-10					5-5-10
274	BO	124-123			P	2 x 8		5-4-10					5-5-10
275	DS63	124-127			P	2 x 6		5-5-10					5-5-10
276	DS61	122-124			P	2 x 6							5-5-10
277	BO	124-126			P	2 x 2							1
278	BO	105-106			P	2 x 3		5-5-10					5-5-10
279	BO	126-127			P	2 x 2		5-12-10				1	5-12-10
280	MJ		129		P	2 x 2		1					

COMANCO

Comanco Enviro ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
281	MD		129		P	2 x 2		5.12	ELVINO MTZ	EG.A061	Vacuum	Pass	5.12.10
282	SJ	124-126	127		P	3 x 4							
283	BO	131-132			P	2 x 5							
284	SJ	133 134	135		P	2 x 2							
285	SJ	134-135	136		P	2 x 2							
286	MD		135		P	2 x 2							
287	BO				P	2 x 2							
288	SJ	127 129	137		P	2 x 4		5.11.10	ELVINO MARTINEZ	EG.A061			
289	SJ	127 128	137		P	2 x 3							
290	SJ	129-137	130		P	3 x 5							
291	SJ	130-137	138		P	2 x 3							
292	BO	137 138			P	2 x 2		5.12.10					
293	SJ	130 138	139		P	2 x 3							
294	SJ	130-131	139		P	3 x 4							
295	SJ	131 132	139		P	2 x 4							
296	SJ	139 140	132		P	2 x 2							
297	SJ	132 140	141		P	4 x 5							
298	SJ	132 133	141		P	4 x 4							
299	SJ	133-141	135		P	2 x 5							
300	SJ	136-144	135		P	3 x 6							

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Comanco Enviro ental Corporation
Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
301	SJ	135.144	143/142		P	3 x 7		5-12-10	SIRINO HARTINEZ	EG-4061	Vacuum	Pass	5-12-10
302	SJ	135-141	142-143		P	3 x 7							
303	BO	140-141			P	2 x 4							
304	BO	140-141			P	2 x 3							
305	MD		128		P	2 x 2							
306	BO		147/144		P	2 x 2							
307	BO	135-141			P	2 x 6							
308	NT-64	127-129			P	2 x 6		5-12-10					
309	NT-65	129-137			P	2 x 6		5-11-10					
310	NT-66	129-130			P	2 x 6		5-12-10					
311	NT-67	130-139			P	2 x 6							
312	NT-68	131-152			P	2 x 6							
313	NT-69	132 141			P	2 x 6							
314	NT-70	141-133			P	2 x 6							
315	NT-71	133-135			P	2 x 6							
316	NT-72	135-136			P	2 x 6							
317	NT-73	142-144			P	2 x 6							
318	BO	134-136			P	2 x 3							
319	BO	132-133			P	2 x 3							
320	BO	136-145			P	2 x 6							

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Comanco Enviro ntal Corporation
Repair Report

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Reported By: _____ **Superintendent:** _____ **Job #:** 03083171

Project Name: Pasco County **Secondary** **Cell** x **Pad** ☐

Material Type: 60 MIL TEXTURED **Pond** ☐ **Other** _____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
321	BO	136-145			P	2 x 5		5 12 10	CIRINO MARTINEZ	E7.A061	Vacuum	Pass	5.12.10
322	SJ	145-146	147		P	2 x 3			NICOLAS VIRGEN				
323	SJ	146-147	148		P	2 x 2			NICOLAS VIRGEN	E7.A040			
324	DS.75	145-147			P	2 x 6							
325	BO	145-147			P	2 x 2							
326	SJ	148-149	147		P	2 x 3							
327	SJ	148-149	150		P	2 x 3							
328	DS.74	136-145			P	2 x 6							
329	MO		148		P	2 x 2							
330	BO	151-152			P	3 x 5			NICOLAS VIRGEN	E7.A040			
331	BO	152-153			P	2 x 3							
332	BO	153-154			P	2 x 3							
333	BO	154-155			P	2 x 3							
334	SJ	155-156	157		P	3 x 3			CIRINO MTZ	E7.A061			
335	SJ	154-155	157		P	2 x 2							
336	SJ	157-158	154		P	2 x 5							
337	DS.76	146-147			P	2 x 6			NICOLAS VIRGEN	E7 A040			
338	DS.77	146-148			P	2 x 6							
339	DS.78	149-150			P	2 x 6							
340	BO	157-158			P	2 x 3							

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Comanco Enviro ntal Corporation
Repair Report

Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** Cell [x] Pad [ ]

Material Type: 60 MIL TEXTURED Pond [ ] Other _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
341	BO	148.150			P	2 x 7	2	5.12.10	CIRINO MAZZUCCI	ET-AF61	Vacuum	Pass	5.12
342	OS. 79	151.152			P	2 x 6	-	1				1	1
343	SJ	150.151	159		P	3 x 5		5.13.10					5.13.10
344	SJ	151.152	159.161		P	2 x 3							
345	SJ	159 161	163		P	3 x 7							
346	SJ	150-	159 160		P	3 x 4							
347	SJ	159 163	160		P	2 x 2							
348	SJ	161.162	163		P	3 x 8							
349	SJ	152.153	161.162		P	3 x 4							
350	SJ	162.163	153		P	2 x 2							
351	SJ	153 154	158.163		P	2 x 2							
352	SJ	158.163	164		P	3 x 4							
353	BO	158.164			P	3 x 8							
354	BO	164.165			P	2 x 2							
355	BO	165.166			P	2 x 3							
356	BO	166.167			P	2 x 6							
357	BO	169.170			P	2 x 4							
358	BO	170.171			P	2 x 4							
359	SJ	164.165	163		P	2 x 3							
360	SJ	165.166	163		P	2 x 3							

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Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes			
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others
	AO --Add On	FM --Fishmouth	

SF Patch Material

LF Welded

Test Type	Abbrv.	Repair Types
Vacuum	*S=South	C--Cap Strip
Air Pressure	*N=North	P--Patch
Spark	*W=West	B--Extrusion Bead
Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
361	SJ	166 167	163		P	3 x 4		5.13.10	CIRINO MARTINEZ	ET-4061	Vacuum	Pass	5.13.10
362	SJ	167-168	163		P	2 x 2							
363	SJ	168 169	163		P	2 x 2							
364	SJ	169-170	163		P	2 x 2							
365	SJ	170 171	163		P	2 x 2							
366	SJ	171-172	163		P	2 x 4							
367	SJ	172-173	163		P	2 x 2							
368	SJ	173-174	163		P	2 x 2		5.13.10					5.17.10
369	SJ	174 175	163		P	2 x 2		5.13.10					5.13.10
370	SJ	175-176	163		P	2 x 2							
371	DS-B0	150-159			P	2 x 6							
372	DS B1	159-161		(FAIL DT) /	P	3 x 68		5.17.10					
373	DS-B2	166-163			P	2 x 6		5.13.10					
374	DS B3	169-163			P	2 x 6							
375	DS-B1A	159-161		DS B1 A (B10)		x							
376	DS-B1B	159-161		DS-B1 B (B11)		x							
377	DS-B1B1	159-161		DS-B1 B1 (B12)		x							
378	DSB1B2	159-161		(PASS DT) DS-B1 B2 (B13)		x							
379	B0	179-181			P	2 x 5		7-8-10	CIRINO MTZ	ET-4061	Vacuum	Pass	7.9.10
380	B0	178-179			P	2 x 2		1	1	1	1	1	1

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Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	B- BAR
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
381	BO	177-178			P	2 x 4		7-8-10	CIRINO HTZ	Ex. A061	VACUUM	PASS	7-9-10
382	BO	176-177			P	2 x 6							
383	BO	176-177			P	2 x 2							
384	SJ	176-177	163		P	2 x 4							
385	SJ	150-177	160-163		C	5 x 11							
386	SJ	177-178	160-150		C	3 x 6							
387	SJ	180-178	147-149		P	3 x 4							
388	SJ	145-147	178		P	2 x 2							
389	DS-84	145-148			P	2 x 6							
390	SJ	136-178	145		C	3 x 17							
391	SJ	178-179	136		P	2 x 2							
392	SJ	179-182	136		P	2 x 2							
393	SJ	182-183	136		P	2 x 2							
394	DS-86	136-183			P	2 x 6							
395	SJ	183-184	136		P	2 x 2							
396	SJ	179-181	182		P	2 x 2							
397	SJ	181-182	183		P	2 x 2							
398	PB		179		P	9 x 18		7-9-10	JOSE BALLESTAND	Ex. A006			
399	DS-85	181-183			P	2 x 6		7-8-10	CIRINO HTZ	Ex. A061			
400	SJ	184-185	136		P	2 x 2			NICOLAS VIRGEN	Ex. A006			

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Repair Report

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Reported By: _____ **Superintendent:** _____ **Job # :** 03083171

Project Name: Pasco County **Secondary** **Cell** [x] **Pad** [ ]

Material Type: 60 MIL TEXTURED **Pond** [ ] **Other** _____

Job Description: cell A4

Damage Codes				
CR --Crease	BO --Burn Out	PB --Pipe Boot	CF --Custom Fit	
DS --Destruct Sample	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	
SI --Subgrade Irregularity	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	
SJ --Seam Joint	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	
	AO --Add On	FM --Fishmouth		

SF Patch Material	Test Type	Abbrv.	Repair Types
	Vacuum	*S=South	C--Cap Strip
	Air Pressure	*N=North	P--Patch
LF Welded	Spark	*W=West	B--Extrusion Bead
	Air Lance	*E=East	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
401	SJ	185-186	136		P	2 x 2	T	7-8-10	NICOLAS VIEGEN	EX-A006	Vacuum	Pass	7-9-10
402	DS-87	185-187			P	2 x 6							
403	SJ	185-186	187		P	2 x 2							
404	SJ	186-187	188		P	2 x 2							
405	SJ	187-188	130		P	3 x 5							
406	SJ	136-144	188		P	2 x 3							
407	SJ	188-189	144		P	2 x 3							
408	SJ	189-190	144		P	2 x 2							
409	SJ	190-192	144		P	2 x 2							
410	SJ	192-190	191		P	2 x 6							
411	SJ	191-192	193		P	2 x 6							
412	SJ	192-193	144		P	2 x 2							
413	SJ	193-194	144		P	2 x 40		7-9-10	JOSE PALESTIANO	EX-A006			
414	SJ	144-194	199		P	2 x 3							
415	SJ	194-198	199		P	2 x 2							
416	SJ	197-198	194		P	2 x 2			CIRINO MTZ	EX-A061			
417	SJ	144-195	197		P	2 x 5							
418	WR		194		P	2 x 15							
419	SJ	195-196	197		P	2 x 2							
420	DS-89	193-194			P	2 x 6							

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Repair Location Summary

Job Number: 03083171 **Job Name:** West Pasco Ash **Superintendent:** Arnulfo Martinez

Cell: cell A4 **Layer:** Secondary

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
1	1,468,324.20	319,641.84	55.50	4, 5
2	1,468,281.50	319,608.88	48.46	6, 7, 8
3	1,468,259.60	319,607.97	49.87	7, 8, 9
4	1,468,127.90	319,634.53	48.58	14, 15, 16
5	1,468,106.40	319,633.16	48.06	15, 16, 17
6	1,468,281.10	319,628.70	50.61	6, 7
7	1,468,273.40	319,670.62	62.83	7, 7
8	1,468,280.60	319,647.25	56.41	6, 7
9	1,468,192.50	319,652.40	56.97	11, 12
10	1,468,128.10	319,620.84	48.54	14, 15
11	1,467,974.20	319,678.88	50.83	22, 23
12	1,467,821.60	319,622.88	47.87	29, 30, 31
13	1,467,843.50	319,622.88	48.17	28, 29, 30
14	1,467,756.00	319,655.16	49.05	33, 34
15	1,467,931.20	319,638.88	48.70	24, 25
16	1,467,739.00	319,608.72	50.20	34, 35
17	1,467,756.20	319,608.50	49.07	33, 34, 35
18	1,467,778.10	319,608.10	48.63	32, 33, 35
19	1,467,784.60	319,607.80	48.40	35, 32
20	1,467,800.00	319,608.00	48.25	31, 32, 35
21	1,467,822.50	319,607.66	47.97	30, 31, 35
22	1,467,832.20	319,607.56	48.89	35, 30
23	1,467,844.00	319,607.25	48.29	28, 30, 35
24	1,467,865.90	319,607.06	48.69	27, 28, 35
25	1,467,887.80	319,606.78	48.98	26, 27, 35
26	1,467,910.40	319,606.60	49.41	25, 26, 35
27	1,467,932.00	319,606.25	49.02	24, 25, 35
28	1,467,942.40	319,584.60	48.75	35, 37

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
29	1,467,953.60	319,606.16	48.28	23, 24, 35
30	1,467,975.20	319,606.10	48.05	22, 23, 35
	1,467,997.60	319,606.10	48.08	21, 22, 35
31	1,468,019.40	319,605.78	48.02	20, 21, 35
32	1,468,041.10	319,605.97	48.71	19, 20, 35
33	1,468,062.20	319,606.16	49.26	18, 19, 35
34	1,468,074.90	319,583.75	49.47	35, 37, 38
35	1,468,085.00	319,605.44	49.16	17, 18, 35
36	1,468,106.80	319,605.28	48.63	15, 17, 35
37	1,468,128.50	319,605.34	48.23	14, 15, 35
38	1,468,150.00	319,605.00	47.85	13, 14, 35
39	1,468,172.20	319,604.97	48.05	12, 13, 35
40	1,468,193.80	319,604.66	48.49	11, 12, 35
41	1,468,215.90	319,604.50	48.94	10, 11, 35
42	1,468,237.90	319,604.12	49.70	9, 10, 35
43	1,468,253.50	319,604.28	49.40	9, 35, 36
44	1,468,253.20	319,582.38	49.43	35, 36, 38
45	1,468,259.90	319,603.90	49.24	8, 9, 36
46	1,468,281.80	319,604.22	48.43	6, 8, 36
47	1,468,303.60	319,604.06	47.92	5, 6, 36
48	1,468,325.50	319,603.90	47.74	4, 5, 36
49	1,468,347.20	319,603.53	48.05	3, 4, 36
50	1,468,369.10	319,603.38	48.42	2, 3, 36
51	1,468,390.90	319,603.25	48.76	1, 2, 36
52	1,468,379.50	319,581.16	48.55	36, 38
53	1,467,756.00	319,640.97	48.70	33, 34
54	1,468,408.00	319,602.97	50.20	1, 36
55	1,467,739.80	319,586.78	49.93	35, 37
56	1,468,054.40	319,679.75	51.24	19, 19
57	1,467,985.20	319,605.56	47.35	22, 35
58	1,467,911.40	319,562.90	49.11	37, 39
59	1,467,928.80	319,562.78	48.89	37, 39
60	1,468,061.00	319,540.22	48.94	39, 43
61	1,468,074.20	319,562.20	49.76	37, 38, 39
62	1,468,215.20	319,538.97	48.73	39, 43, 45
63	1,468,243.60	319,538.84	49.28	39, 45, 44
64	1,468,256.20	319,538.56	49.05	39, 41, 44
65	1,468,256.10	319,560.34	48.96	38, 39, 41
66	1,468,282.10	319,538.10	48.45	41, 44, 42
67	1,468,297.60	319,538.30	48.10	41, 40, 42
68	1,468,297.60	319,551.47	48.19	40, 41

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
69	1,468,297.50	319,560.06	48.24	38, 40, 41
70	1,468,352.60	319,559.78	48.18	38, 40
71	1,468,281.60	319,516.34	48.31	47, 42, 44
72	1,468,259.80	319,516.70	48.59	44, 47
73	1,468,243.50	319,516.94	48.98	45, 47, 44
74	1,468,227.00	319,516.97	48.84	46, 47, 45
75	1,468,226.40	319,495.03	48.79	46, 47, 48
76	1,468,215.00	319,517.28	48.63	45, 43, 46
77	1,468,087.50	319,496.38	48.87	48, 49, 46
78	1,467,962.80	319,497.20	47.86	46, 49
79	1,467,740.10	319,543.22	49.95	39, 43
80	1,467,739.90	319,521.34	50.03	43, 46
81	1,467,740.80	319,477.70	50.30	49, 50
82	1,467,765.90	319,477.47	48.57	49, 50
83	1,467,906.10	319,475.70	48.92	49, 50, 51
84	1,467,906.00	319,453.78	48.76	50, 51, 52
85	1,467,957.50	319,474.94	47.79	49, 51
86	1,468,087.10	319,474.38	48.68	48, 49, 51
87	1,468,109.80	319,583.72	48.63	35, 38
88	1,467,741.20	319,455.72	50.59	50, 52
89	1,467,779.80	319,432.88	48.06	53
90	1,467,853.60	319,454.47	47.78	50, 52
91	1,468,134.00	319,433.20	47.55	52
92	1,468,250.40	319,429.20	48.66	52, 53, 55
93	1,468,256.20	319,429.00	48.53	52, 54, 55
94	1,468,256.40	319,450.90	48.65	51, 52, 54
95	1,468,250.00	319,407.34	48.44	53, 56, 55
96	1,468,072.20	319,540.12	48.69	39, 43
97	1,468,409.10	319,471.80	50.67	48, 51
98	1,468,201.80	319,429.72	47.86	52, 53
99	1,468,264.80	319,429.10	48.35	54, 55
100	1,468,311.80	319,450.53	47.42	51, 54
101	1,468,219.40	319,407.25	47.75	53, 56, 57
	1,468,229.60	319,407.22	48.29	53, 56
102	1,468,218.40	319,385.44	48.10	56, 57, 58
103	1,468,254.20	319,385.50	48.05	58, 59, 56
104	1,468,254.20	319,363.50	48.22	58, 59, 61
105	1,468,260.20	319,341.62	48.10	61, 63
106	1,468,095.40	319,365.00	46.78	58, 60, 61
107	1,468,095.10	319,343.62	48.13	60, 61, 63
108	1,467,961.60	319,409.38	46.96	53, 57

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
109	1,467,936.90	319,344.75	47.88	60, 62, 63
110	1,467,864.90	319,388.66	47.28	57, 58
111	1,467,741.80	319,389.94	49.05	57, 58
112	1,467,742.20	319,368.38	49.88	58, 60
113	1,467,742.60	319,346.50	50.34	60, 62
114	1,468,380.20	319,386.44	47.81	57
115	1,468,310.90	319,384.56	47.08	56, 59
116	1,468,111.60	319,365.12	47.78	58, 61
117	1,468,161.80	319,430.03	47.10	53, 52
118	1,467,963.10	319,344.44	47.34	63, 60
119	1,467,742.90	319,324.50	50.10	62, 66
120	1,467,742.60	319,280.94	50.43	67, 70
121	1,467,864.00	319,323.50	47.43	62, 66
122	1,467,936.80	319,323.03	47.72	62, 63, 66
123	1,468,136.10	319,299.78	47.19	66, 67, 68
124	1,468,135.90	319,277.75	46.86	67, 68, 69
125	1,468,258.40	319,297.90	47.96	65, 66, 68
126	1,468,259.00	319,319.90	48.11	63, 65, 66
127	1,468,377.80	319,318.38	47.53	63, 64, 65
128	1,468,377.90	319,296.72	47.43	64, 65, 68
129	1,468,399.50	319,340.44	48.10	63, 61
	1,468,404.20	319,340.40	49.72	61, 63
	1,468,409.40	319,340.30	50.26	61, 63
130	1,467,972.90	319,279.03	46.95	67, 70, 69
131	1,467,743.10	319,259.03	49.94	70, 71
132	1,467,743.60	319,215.53	49.79	74, 75
133	1,467,972.50	319,256.97	46.89	69, 70, 71
134	1,468,039.80	319,258.75	47.32	69
135	1,468,131.80	319,240.22	46.86	71
136	1,468,139.20	319,243.84	46.70	71
137	1,468,168.00	319,243.90	46.47	71
138	1,468,181.60	319,244.70	46.82	71
139	1,468,259.60	319,254.06	47.67	69, 72, 71
140	1,468,259.20	319,232.30	47.66	71, 72, 73
141	1,468,251.80	319,232.22	47.93	71, 73, 74
142	1,468,251.80	319,210.66	47.73	73, 74, 75
143	1,468,259.90	319,210.60	47.64	75, 76, 73
144	1,468,295.40	319,188.10	46.69	76, 78, 79
145	1,468,295.10	319,166.47	46.77	78, 79, 80
146	1,468,261.10	319,166.72	47.43	78, 81, 80
147	1,468,259.40	319,188.84	47.42	75, 76, 78

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
148	1,468,260.40	319,144.97	47.32	81, 80, 83
149	1,468,178.10	319,146.40	46.27	81, 82, 83
150	1,467,778.60	319,193.40	47.22	75, 77, 78
151	1,467,778.10	319,171.53	47.14	77, 78, 81
152	1,467,760.00	319,171.78	48.06	77, 81
153	1,467,756.40	319,171.80	48.11	77, 81
	1,467,749.80	319,171.80	49.79	77, 81
	1,467,744.50	319,171.62	49.91	77, 81
154	1,467,744.60	319,193.44	50.05	75, 77
155	1,467,820.60	319,127.47	46.16	82, 86, 85
156	1,468,178.60	319,124.62	46.19	82, 83, 85
157	1,468,340.40	319,122.62	46.10	83, 84, 85
158	1,468,377.60	319,303.78	47.67	64, 65
159	1,468,258.40	319,305.97	47.83	65, 66
160	1,468,312.00	319,188.20	46.43	76, 79
161	1,468,273.90	319,166.47	47.03	78, 80
162	1,468,251.60	319,220.34	47.74	73, 74
163	1,468,013.00	319,278.60	47.04	67, 69
164	1,467,917.20	319,214.03	47.77	74, 75
165	1,467,817.20	319,258.22	46.74	70, 71
166	1,467,867.10	319,236.25	47.15	71, 74
167	1,467,819.90	319,171.30	46.20	78, 81
168	1,467,792.00	319,127.66	46.60	82, 86
169	1,467,819.90	319,149.38	46.16	81, 82
170	1,467,746.50	319,084.12	49.67	87, 90
171	1,467,746.40	319,062.38	49.79	90, 91
172	1,467,820.50	319,105.70	46.04	86, 87, 85
173	1,468,234.40	319,080.30	47.00	87, 90
174	1,468,250.10	319,080.22	47.33	89, 90, 87
175	1,468,259.80	319,079.72	47.01	87, 88, 89
176	1,468,261.00	319,101.50	46.94	85, 87, 88
177	1,468,248.90	319,058.03	47.13	89, 90, 91
178	1,468,259.80	319,057.84	46.87	91, 92, 89
179	1,468,339.90	319,100.62	45.81	84, 85, 88
180	1,468,387.60	319,012.78	46.66	93, 94, 97
181	1,468,413.20	319,012.44	49.94	97, 93
182	1,468,388.00	319,034.62	46.72	92, 93, 94
183	1,468,259.60	319,036.06	46.92	91, 92, 94
184	1,468,246.60	319,036.38	47.07	91, 94, 95
185	1,468,246.40	319,014.47	47.15	94, 95, 97
186	1,468,044.80	319,016.40	46.39	95, 96, 97

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
187	1,468,044.50	318,994.72	46.28	96, 97, 98
188	1,467,995.00	319,017.22	45.52	96, 95
189	1,467,986.90	319,038.97	45.73	95, 91
190	1,467,954.80	318,995.47	46.08	96, 98, 99
191	1,468,403.40	318,980.78	47.70	98
192	1,468,396.80	318,978.90	46.73	98
193	1,468,388.20	318,979.25	46.46	98
194	1,468,384.10	318,974.16	46.29	98
195	1,468,372.00	318,969.44	46.04	98, 102, 101
196	1,468,413.90	318,990.40	49.98	97, 98
197	1,468,262.60	318,970.34	46.56	98, 100, 101
198	1,467,954.00	318,973.72	45.74	98, 99, 100
199	1,468,408.80	318,989.25	49.65	98
200	1,468,377.40	318,978.44	46.12	98
201	1,467,869.80	319,105.20	46.68	85, 87
202	1,467,818.90	319,083.94	45.99	87, 90
203	1,467,964.50	319,060.84	46.22	90, 91
204	1,468,064.00	319,038.16	46.74	91, 95
205	1,468,016.00	319,016.90	45.36	95, 96
206	1,467,966.20	318,995.53	45.61	96, 98
207	1,467,918.90	318,973.72	46.70	100, 99
208	1,467,830.40	318,909.00	45.11	105, 108, 109
209	1,467,991.10	318,929.84	45.29	104, 105, 106
210	1,467,991.20	318,907.60	45.21	105, 106, 108
211	1,468,149.60	318,950.16	45.30	100, 104, 103
212	1,468,149.40	318,928.78	45.25	104, 106, 103
213	1,468,262.40	318,948.47	46.13	101, 100, 103
214	1,468,371.80	318,947.28	46.07	101, 102, 103
215	1,468,262.40	318,963.03	46.03	101, 100
216	1,468,259.80	319,046.97	46.85	91, 92
217	1,468,018.60	318,929.47	45.34	104, 106
218	1,467,917.60	318,908.30	46.37	105, 108
219	1,467,830.20	318,899.30	45.02	108, 109
220	1,467,830.10	318,887.16	44.92	108, 109, 110
221	1,468,264.20	318,882.90	46.06	108, 110, 111
222	1,468,288.10	318,882.70	45.48	107, 108, 111
223	1,468,288.80	318,904.47	45.53	106, 107, 108
224	1,468,167.50	318,949.97	45.00	100, 103
225	1,468,067.10	318,885.06	46.32	108, 110
226	1,467,748.00	318,952.94	49.94	100, 104
227	1,468,415.00	318,946.60	49.62	102, 103

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
228	1,467,746.40	319,040.72	49.82	91, 95
229	1,467,746.10	319,106.20	49.88	86, 87
230	1,467,745.20	319,149.75	50.08	81, 82
231	1,467,750.00	319,150.06	50.09	81, 82
232	1,467,743.40	319,237.25	50.03	71, 74
233	1,467,749.50	318,844.22	49.74	112, 114
	1,467,753.80	318,844.38	49.43	112, 114
234	1,467,764.00	318,821.70	46.74	114, 116
	1,467,754.90	318,822.20	49.75	114, 116
	1,467,750.20	318,822.16	50.09	114, 116
235	1,467,770.10	318,821.78	46.05	114, 116, 117
236	1,467,757.50	318,804.34	48.82	116
237	1,467,770.00	318,799.88	46.02	116, 117, 119
238	1,467,750.40	318,804.12	50.11	116
239	1,467,749.20	318,800.20	50.21	116, 119
240	1,467,869.40	318,821.10	45.38	114, 117
	1,467,869.60	318,820.97	45.39	114, 117
241	1,468,234.00	318,861.38	46.04	110, 112, 113
242	1,468,264.00	318,861.22	46.25	110, 111, 113
243	1,468,233.40	318,839.56	46.08	112, 113, 114
244	1,468,265.80	318,839.30	46.14	114, 115, 113
245	1,468,265.60	318,817.72	46.10	114, 115, 117
246	1,468,291.80	318,817.16	45.38	117, 118, 115
247	1,468,291.40	318,795.28	45.46	120, 118, 117
248	1,468,263.10	318,795.72	46.04	119, 120, 117
249	1,468,263.10	318,773.78	45.75	119, 120, 122
250	1,468,309.90	318,773.00	45.19	122, 123, 120
251	1,468,309.20	318,751.50	44.93	122, 123, 125
252	1,468,265.60	318,752.12	45.83	124, 125, 122
253	1,468,265.60	318,730.06	45.67	124, 125, 127
254	1,468,342.00	318,729.47	44.47	127, 128, 125
255	1,467,749.80	318,778.50	49.90	119, 121
256	1,467,790.00	318,777.66	45.44	119, 121, 122
257	1,467,789.60	318,755.80	45.13	121, 124, 122
258	1,467,754.80	318,756.47	49.96	121, 124
	1,467,750.10	318,756.90	49.75	124, 121
259	1,467,751.80	318,744.20	49.78	124
260	1,467,822.20	318,733.75	44.51	124, 126, 127
261	1,467,749.40	318,866.10	49.90	110, 112
262	1,467,819.80	318,843.34	45.11	112, 114
263	1,468,168.60	318,862.44	44.97	110, 112

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
264	1,468,233.50	318,850.16	45.98	112, 113
265	1,468,264.00	318,872.38	46.02	110, 111
266	1,468,265.80	318,828.88	46.15	115, 114
267	1,468,184.90	318,774.90	44.90	119, 122
268	1,468,117.60	318,797.20	45.43	117, 119
269	1,468,168.90	318,818.62	44.70	114, 117
270	1,468,291.50	318,806.90	45.36	118, 117
271	1,468,365.20	318,773.00	45.07	120, 123
272	1,468,265.60	318,742.44	45.64	124, 125
273	1,468,218.80	318,774.20	45.46	119, 122
274	1,468,033.20	318,732.28	44.78	124, 127
275	1,467,920.10	318,733.06	45.75	124, 127
276	1,467,871.10	318,755.30	44.99	122, 124
277	1,467,750.20	318,734.66	49.79	126, 124
278	1,467,748.50	318,909.62	49.77	105, 109
279	1,467,755.10	318,712.47	50.10	126, 129
280	1,467,751.90	318,706.72	50.03	129
281	1,467,751.10	318,700.78	50.06	129
282	1,467,822.00	318,712.03	44.46	126, 127, 129
283	1,467,751.90	318,647.03	50.01	131, 132
284	1,467,788.40	318,602.50	44.88	133, 134, 135
285	1,467,788.10	318,580.56	44.78	134, 135, 136
286	1,467,791.10	318,589.94	44.68	135
287	1,468,412.20	318,575.44	49.55	144, 142
288	1,468,255.20	318,708.06	45.74	127, 129, 137
289	1,468,341.40	318,707.38	44.21	137, 127, 128
290	1,468,255.40	318,686.38	45.78	129, 130, 137
291	1,468,264.60	318,686.06	45.43	137, 130, 138
292	1,468,272.10	318,686.12	45.39	137, 138
293	1,468,265.90	318,664.00	45.41	130, 138, 139
294	1,468,256.40	318,663.70	45.46	130, 131, 139
295	1,468,256.80	318,642.34	45.54	131, 132, 139
296	1,468,267.50	318,642.20	45.23	140, 139, 132
297	1,468,267.50	318,620.25	45.16	140, 141, 132
298	1,468,226.10	318,620.53	44.77	132, 133, 141
299	1,468,226.20	318,598.90	44.90	133, 135, 141
300	1,468,270.00	318,576.10	44.95	135, 136, 144
301	1,468,304.40	318,576.34	44.14	135, 143, 144
	1,468,309.00	318,576.60	43.99	143, 142, 144
302	1,468,307.40	318,598.22	44.20	141, 142, 143
	1,468,303.80	318,598.03	44.15	141, 135, 143

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
303	1,468,318.90	318,620.16	44.07	140, 141
304	1,468,344.60	318,619.66	43.82	140, 141
305	1,468,399.60	318,710.94	45.94	128
306	1,468,419.10	318,575.30	50.01	142, 144
	1,468,413.40	318,575.44	49.80	142, 144
307	1,468,260.20	318,598.38	45.16	135, 141
308	1,468,120.10	318,709.72	44.97	127, 129
309	1,468,255.10	318,697.84	45.59	129, 137
310	1,468,020.40	318,688.56	44.42	129, 130
311	1,468,319.10	318,664.25	44.13	138, 139
312	1,468,170.50	318,643.40	43.65	131, 132
313	1,468,249.00	318,620.53	45.24	132, 141
314	1,468,225.90	318,610.75	44.72	141, 133
315	1,467,968.90	318,601.28	44.34	133, 135
316	1,468,021.10	318,579.10	43.87	135, 136
317	1,468,369.10	318,576.00	44.22	142, 144
318	1,467,752.80	318,581.34	49.91	134, 136
319	1,467,752.50	318,625.25	49.91	132, 133
320	1,467,752.40	318,559.66	50.05	136, 145
	1,467,757.20	318,559.30	50.06	136, 145
321	1,467,776.40	318,558.94	44.97	136, 145
322	1,467,902.20	318,535.62	44.74	145, 146, 147
323	1,467,902.80	318,514.20	44.74	146, 147, 148
324	1,467,924.10	318,535.80	44.97	147, 145
325	1,467,964.20	318,535.66	44.35	145, 147
326	1,468,054.80	318,513.06	44.45	148, 147, 149
327	1,468,054.00	318,491.28	44.28	148, 149, 150
328	1,468,073.60	318,556.72	44.91	145, 136
329	1,467,928.00	318,497.80	44.69	148
330	1,467,753.90	318,449.70	50.09	151, 152
331	1,467,753.20	318,427.50	49.86	153, 152
332	1,467,754.00	318,405.34	49.99	153, 154
333	1,467,754.10	318,383.53	49.83	154, 155
334	1,467,772.20	318,361.94	48.56	155, 156, 157
335	1,467,789.20	318,383.28	43.58	154, 155, 157
336	1,467,793.60	318,387.62	43.64	157, 158, 154
337	1,467,902.20	318,522.97	44.79	146, 147
338	1,467,822.10	318,514.78	43.73	146, 148
339	1,468,023.60	318,491.30	43.58	150, 148
340	1,467,794.20	318,348.00	49.88	158, 157
341	1,467,753.40	318,493.38	50.10	148, 150

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
342	1,467,802.00	318,448.88	43.54	151, 152
343	1,467,813.60	318,470.90	43.54	150, 151, 159
344	1,467,813.80	318,449.10	43.49	151, 152, 159, 161
345	1,467,987.90	318,447.50	43.15	159, 161, 163
346	1,468,010.50	318,469.62	43.08	150, 159, 160
347	1,468,010.60	318,451.78	42.95	159, 160, 163
348	1,467,872.20	318,426.44	43.18	161, 162, 163
349	1,467,814.20	318,427.38	43.65	152, 153, 161, 162
350	1,467,814.20	318,416.88	43.53	163, 162, 153
351	1,467,814.60	318,405.03	43.11	153, 154, 158, 163
352	1,467,815.10	318,394.75	43.05	158, 163, 164
353	1,467,816.50	318,351.62	49.99	164, 158
	1,467,816.00	318,356.16	50.05	164, 158
354	1,467,838.00	318,355.72	50.11	164, 165
355	1,467,859.80	318,360.16	50.07	165, 166
356	1,467,881.50	318,364.28	50.04	166, 167
	1,467,881.50	318,368.50	50.17	166, 167
357	1,467,947.20	318,376.38	49.96	169, 170
358	1,467,968.90	318,380.50	50.06	170, 171
359	1,467,836.90	318,398.44	42.79	164, 165, 163
360	1,467,858.40	318,402.38	42.75	163, 165, 166
361	1,467,880.60	318,406.30	42.74	166, 167, 163
362	1,467,902.50	318,409.88	42.79	163, 167, 168
363	1,467,924.10	318,413.75	42.51	168, 169, 163
364	1,467,946.10	318,418.00	42.58	163, 169, 170
365	1,467,968.00	318,421.78	42.52	170, 171, 163
366	1,467,989.80	318,425.78	42.35	163, 171, 172
367	1,468,011.60	318,429.70	42.34	173, 172, 163
368	1,468,033.90	318,433.84	42.23	163, 173, 174
369	1,468,055.80	318,438.10	42.28	174, 175, 163
370	1,468,077.10	318,442.30	42.24	175, 176, 163
371	1,467,924.60	318,470.03	44.32	150, 159
372	1,467,828.00	318,448.90	43.36	159, 161
	1,467,896.20	318,448.44	44.00	161, 159
	1,467,874.50	318,448.47	43.90	159, 161
373	1,467,870.20	318,404.38	42.91	166, 163
374	1,467,935.00	318,415.50	42.72	169, 163
375	1,467,892.00	318,448.38	44.00	159, 161
376	1,467,863.10	318,448.60	43.60	159, 161
377	1,467,852.60	318,448.40	43.41	159, 161
378	1,467,833.90	318,448.90	43.23	159, 161

Repair Number	Location Information			
	Northing	Easting	Elevation	Panels
379	1,468,160.00	318,415.25	49.75	181, 179
380	1,468,138.40	318,410.80	49.81	178, 179
381	1,468,116.80	318,407.47	50.15	177, 178
382	1,468,094.80	318,408.50	50.04	176, 177
	1,468,095.10	318,403.97	50.12	176, 177
383	1,468,093.90	318,428.66	43.71	176, 177
384	1,468,093.10	318,445.40	42.49	177, 176, 163
385	1,468,092.50	318,468.40	43.40	177, 150, 160, 163
386	1,468,113.00	318,492.60	44.20	177, 178, 180
	1,468,106.60	318,491.00	44.40	150, 180, 177, 149
387	1,468,111.80	318,512.38	44.20	180, 178, 147, 149
388	1,468,111.00	318,534.72	44.42	147, 145, 178
389	1,468,110.50	318,541.80	44.42	145, 178
390	1,468,117.80	318,556.30	44.50	178, 136
	1,468,098.20	318,558.10	44.84	136
	1,468,109.40	318,556.40	44.56	145, 178, 136
391	1,468,131.40	318,556.38	44.17	136, 178, 179
392	1,468,153.50	318,556.16	43.57	179, 182, 136
393	1,468,175.40	318,555.88	43.40	182, 183, 136
394	1,468,187.60	318,555.66	43.55	136, 183
395	1,468,197.40	318,555.56	43.85	183, 184, 136
396	1,468,155.40	318,516.60	43.42	179, 181, 182
397	1,468,177.10	318,518.34	43.22	181, 182, 183
398	1,468,156.80	318,441.53	42.44	179
399	1,468,178.00	318,496.97	43.03	181, 183
400	1,468,218.90	318,555.06	44.26	184, 185, 136
401	1,468,241.40	318,554.72	44.80	185, 187, 136
402	1,468,242.60	318,527.16	44.66	185, 187
403	1,468,244.00	318,490.70	44.27	185, 186, 187
404	1,468,265.90	318,492.16	43.79	186, 187, 188
405	1,468,263.20	318,554.40	44.79	187, 188, 136
406	1,468,269.50	318,554.47	44.64	136, 144, 188
407	1,468,285.20	318,554.50	44.18	188, 189, 144
408	1,468,307.20	318,554.47	43.86	189, 190, 144
409	1,468,329.00	318,554.40	43.30	190, 192, 144
410	1,468,330.10	318,525.00	43.10	190, 191, 192
411	1,468,352.10	318,525.78	43.34	191, 192, 193
412	1,468,351.00	318,554.06	43.48	192, 193, 144
413	1,468,377.20	318,572.94	44.21	144
	1,468,373.20	318,543.34	44.10	193, 194
	1,468,372.60	318,554.22	44.16	193, 194, 144

AS-BUILT

SECTION F
SECONDARY

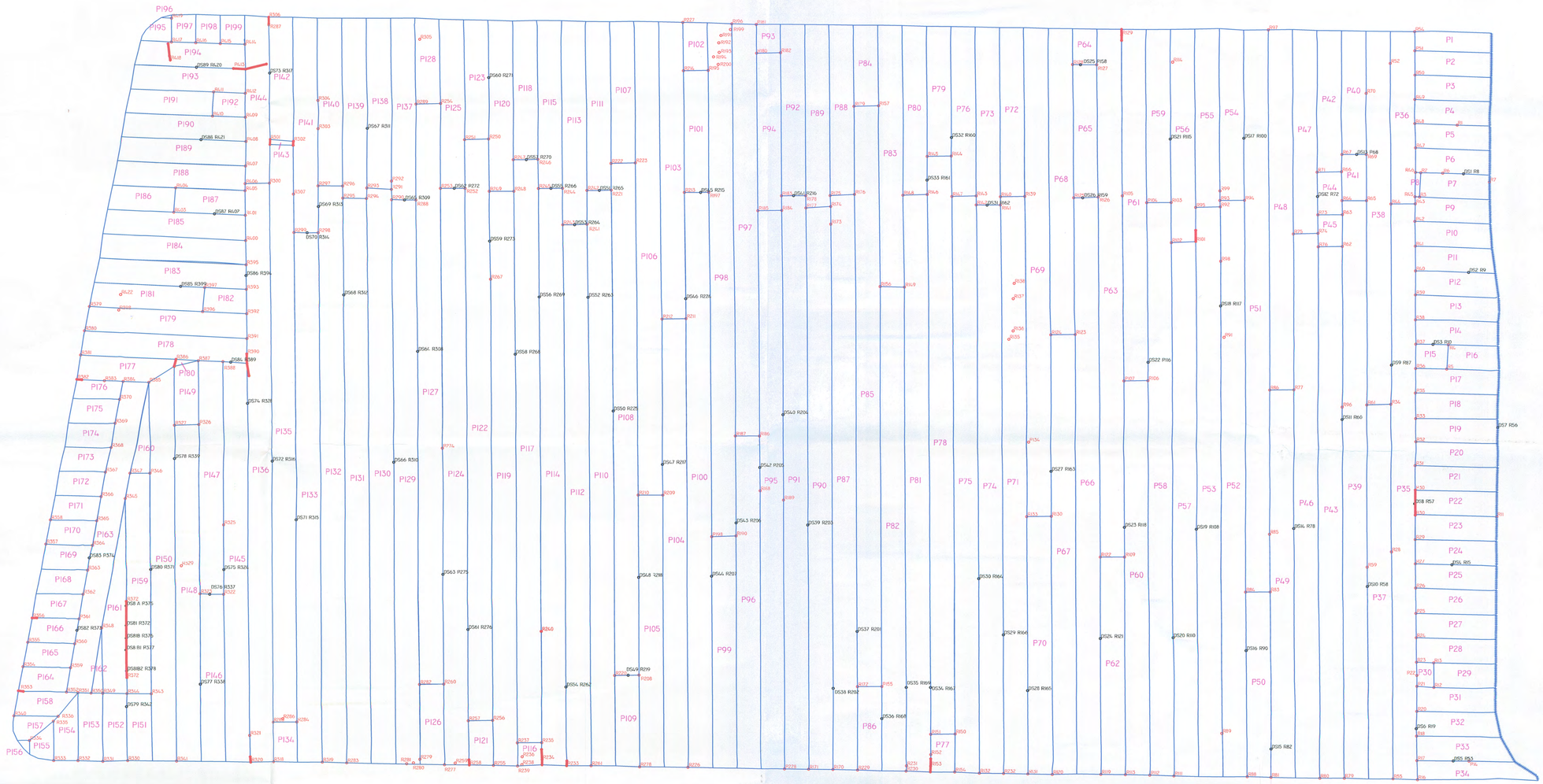
PASCO COUNTY
CELL 4A

JOB# 03083171

COMANCO®

COMANCO ENVIRONMENTAL CORPORATION

NORTH



LEGEND

P PANEL NUMBER	—	CAP
R REPAIR NUMBER	○	PATCH
DT DESTRUCTIVE TEST NUMBER	○	DESTRUCTIVE TEST
	⫴	EXTRUSION WELD

ASH CELL A-4
60 MIL TEXTURED
AS BUILT
SECONDARY

WEST PASCO CLASS I LANDFILL
PASCO COUNTY,FLORIDA

COMANCO®
ENVIRONMENTAL CORPORATION
4301 STERLING COMMERCE DR.
PLANT CITY, FL 33566-7372
TELEPHONE: (813) 988-8829
FAX: (813) 496-7305

DRAWN BY: WDS	CHKD. BY: SH	DWG. NO:	
DATE: 7-20-10	APPRVD. BY: DD		
PLOT SCALE: 1" = 50'	FILE NAME: PASCO COUNTY		
PROJECT NO.: 03083171	CELL A-4		

Appendix E
Installer's (Comanco) Report

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

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Table Title/Figure # Cell

Table Header 1	Table Header 2
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Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

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Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

MORTENSEN ENGINEERING, INC.

October 29, 2010
Project No. 10-10-07289

TO: RIPA & Associates, Inc.
1409 Tech Boulevard, Suite 1
Tampa, Florida 33619

Attention: Mr. Alan Taylor

SUBJECT: ***Well Abandonment Services***
Four (4) 2 to 4-Inch Diameter Monitoring Wells
West Pasco Class 1 Landfill Cell A-4
Pasco County, Florida

Dear Alan:

In accordance with your request and direction, Mortensen Engineering, Inc. (MEI) has completed the abandonment of four (4) 2 to 4-inch diameter monitoring wells (2MW-20D, MW-11A, MW-11B, and DMW-5) at the above referenced site, within the construction footprint of the new Ash Cell A-4, under SWFWMD direction.

A copy of the completed well abandonment permits, rock variance, well grouting inspection reports, and well completion reports are attached. **A licensed water well contractor working for MEI, abandoned the subject monitoring wells under the direction of and in compliance with SWFWMD (Chapter 40D-3.531) and the FDEP (Rule 62-532.440, F.A.C.) well abandonment regulations.**

Thank you for this opportunity to be of service to you. If you have any questions with this submittal, please do not hesitate to call us.

Sincerely,
MORTENSEN ENGINEERING, INC.

Cary M. Richardson
Licensed Water Well Contractor
No. 9371

CMR/418/07289b.rep

Attachments: **Well Abandonment Permits**
Rock Variance
Well Grouting Inspection Reports
Well Completion Reports

6408 West Linebaugh Avenue, Suite 111
Tampa, Florida 33625 (813) 908-5555 Fax (813) 908-3588
meltampa@tampabay.rr.com www.meltampa.com

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

- [x] Southwest
- [ ] Northwest
- [ ] St. Johns River
- [ ] South Florida
- [ ] Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. **803570**
Florida Unique I.D.
Permit Stipulations Required (See attached)
04
62-524 Quad # **Q3521** Delineation #
CUP/WUP Application No.

ABOVE THIS LINE - FOR OFFICIAL USE ONLY

Fold at this line in order that address is visible through envelope window

1. **PASCO COUNTY** — **FACILITIES MANAGEMENT DEPT 7220** — **NEW PORT RICHEY FL** — **34653- 0000**
   Owner, Legal Name of Entity if Corporation — *Address* — *City* — *Zip* — *Telephone Number*
2. **14230 HAYS RD, N/A**
   Well Location _ Address, Road Name or number, City
   Parcel # (Pin) **1724250000002000000**
3. **CARY M RICHARDSON** — **9371** — **(813) 908-5555**
   Well Drilling Contractor — License No. — Telephone No.
   6408 WEST LINEBAUGH AVE
   Address
   TAMPA — **FL** — **33625**
   City — State — Zip
4. ____ 1/4 of (smallest) ____ 1/4 of (biggest) Section **25**
   (Indicate Well on Chart)
5. Township **24** Range **17**

NW NE SW SE

6. **PASCO**
   County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells **1** Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) ____
   ____ (See Back) Irrigation (Type) Public Water Supply (type) ____ (See Back) List Other **PLUGGED**
   Distance from septic system ____ ft. Description of facility ____ Estimated start of construction date **3/22/2010**
8. Application for: ____ New Construction ____ Repair/Modify ✓ Abandonment ____ (Reason for Abandonment)
   Abandonment Reason = Construction of Ash Cell A-4
9. Estimated: Well Depth **47** Casing Depth ____ Screen Interval from ____ to ____
   Casing Material: ~~XXXXXX~~ / ~~XX~~ / PVC Casing Diameter **2** (smallest) Seal Material **Cement**
10. If applicable: Proposed Grouting Interval From **0** to **47** Seal Material **Cement**
    From ____ to ____ Seal Material ____
    From ____ to ____ Seal Material ____
11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
    Blk-Steel / Galvanized / PVC Other (specify:) ____
12. Method of Construction: ____ Rotary ____ Cable Tool ____ Combination
    ____ Auger ✓ Other (specify:) **Plugged by approved method**
13. Indicate total No. of wells on site **4**. List number of unused wells on site **4**.
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ____ Yes
    (IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
    District well I.D. No. ____
    Latitude **28° 22' 16.20"** Longitude **82° 33' 40.75"**
    Data obtained from GPS ____ or map ____ or survey ____ *(map datum NAD 27__ NAD 83__)*

Date Stamp
Received: Monday, March 22, 2010

Draw a map of well location and indicate well site with an "X" identify known roads and landmarks: provide distances between well and landmarks.

North / West / East / South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed — **9371** — **Digitally Signed** — ____
Signature of Contractor — License No. — Owner's or Agent's Signature — Date

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By: **Automatically Issued** Issue Date: **3/22/2010** Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ **.00** Receipt No.: ____ Check No.: ____

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 41.10 - 410 (1) REV. 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

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Permit No. **803571**
Florida Unique I.D.
Permit Stipulations Required (See attached)
04
62-524 Quad # **Q3521** Delineation #
CUP/WUP Application No.

ABOVE THIS LINE FOR OFFICIAL USE ONLY

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1. **PASCO COUNTY** | **FACILITIES MANAGEMENT DEPT 7220** | **NEW PORT RICHEY FL** | **34653- 0000**
Owner, Legal Name of Entity if Corporation | *Address* | *City* | *Zip* | *Telephone Number*

2. **14230 HAYS RD, N/A**
Well Location _ Address, Road Name or number, City
Parcel # (Pin) **1724250000002000000**

3. **CARY M RICHARDSON** | **9371** | **(813) 908-5555**
Well Drilling Contractor | License No. | Telephone No.

6408 WEST LINEBAUGH AVE
Address

4. ____ smallest 1/4 of ____ biggest 1/4 of Section **25**
(Indicate Well on Chart)

TAMPA | **FL** | **33625**
City | State | Zip

5. Township **24** Range **17**

6. **PASCO**
County | Subdivision Name | Lot | Block | Unit

NW NE SW SE

7. Number of proposed wells **1** Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) ____
____ (See Back) Irrigation (Type) Public Water Supply (type) ____ (See Back) List Other **PLUGGED**
Distance from septic system ____ ft. Description of facility ____ Estimated start of construction date **3/22/2010**

8. Application for: ____ New Construction ____ Repair/Modify **✓** Abandonment ____ (Reason for Abandonment)
Abandonment Reason = Construction of Ash Cell A-4

Date Stamp

9. Estimated: Well Depth **43** Casing Depth ____ Screen Interval from ____ to ____
Casing Material: Blk-Steel / Gal / PVC Casing Diameter **4** smallest Seal Material **Cement**

10. If applicable: Proposed Grouting Interval From **0** to **43** Seal Material **Cement**
From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____

Received: Monday, March 22, 2010

Draw a map of well location and indicate well site with an "X" identify known roads and landmarks: provide distances between well and landmarks.

North
West
East
South

11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
Blk-Steel / Galvanized / PVC Other (specify:) ____

12. Method of Construction: ____ Rotary ____ Cable Tool ____ Combination
____ Auger **✓** Other (specify:) **Plugged by approved method**

13. Indicate total No. of wells on site **4**, List number of unused wells on site **4**.

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? **✓** No ____ Yes
(IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
District well I.D. No. ____
Latitude **28° 22' 17.96"** Longitude **82° 33' 48.96"**
Data obtained from GPS ____ or map ____ or survey ____ (*map datum NAD 27* ____ *NAD 83* ____)

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed | **9371**
Signature of Contractor | License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature | Date

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By: **Automatically Issued** Issue Date: **3/22/2010** Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ **.00** Receipt No.: ____ Check No.: ____

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 41.10 - 410 (1) REV. 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

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The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. **803572**
Florida Unique I.D. _____
Permit Stipulations Required (See attached)
04
62-524 Quad # **Q3521** Delineation # _____
CUP/WUP Application No. _____

ABOVE THIS LINE - FOR OFFICIAL USE ONLY

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1. **PASCO COUNTY** | **FACILITIES MANAGEMENT DEPT 7220** | **NEW PORT RICHEY FL** | **34653- 0000**
Owner, Legal Name of Entity if Corportation | *Address* | *City* | *Zip* | *Telephone Number*

2. **14230 HAYS RD, N/A**
Well Location _ Address, Road Name or number, City
Parcel # (Pin) **1724250000002000000**

3. **CARY M RICHARDSON** | **9371** | **(813) 908-5555**
Well Drilling Contractor | License No. | Telephone No.

6408 WEST LINEBAUGH AVE
Address

4. ____ 1/4 of ____ 1/4 of Section **25**
smallest | biggest
(Indicate Well on Chart)

TAMPA | **FL** | **33625**
City | State | Zip

5. Township **24** Range **17**

6. **PASCO**
County | Subdivision Name | Lot | Block | Unit

NW NE SW SE

7. Number of proposed wells **1** Check the use of well: (See back of permit for additional choices) _____ Domestic Monitor (type) _____
_____ Irrigation (Type) (See Back) Public Water Supply (type) _____ (See Back) List Other **PLUGGED**
Distance from septic system _____ ft. Description of facility _____ Estimated start of construction date **3/22/2010**

8. Application for: _____ New Construction _____ Repair/Modify ✓ Abandonment _____ (Reason for Abandonment)
Abandonment Reason = Construction of Ash Cell A-4

Date Stamp
Received: Monday, March 22, 2010

9. Estimated: Well Depth **60** Casing Depth _____ Screen Interval from ____ to ____
Casing Material: Blk-Steel / Gal / PVC Casing Diameter **4** smallest Seal Material **Cement**

10. If applicable: Proposed Grouting Interval
From **0** to **60** Seal Material **Cement**
From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____

11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
Blk-Steel / Galvanized / PVC Other (specify:) ____

12. Method of Construction: ____ Rotary ____ Cable Tool ____ Combination
____ Auger ✓ Other (specify:) **Plugged by approved method**

13. Indicate total No. of wells on site **4**. List number of unused wells on site **4**.

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ___ Yes
(IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
District well I.D. No. ____
Latitude **28° 22' 17.94"** Longitude **82° 33' 48.68"**
Data obtained from GPS ____ or map ____ or survey ____ (*map datum NAD 27* ___ *NAD 83* ___)

Draw a map of well location and indicate well site with an "X" identify known roads and landmarks: provide distances betwen well and landmarks.

North
West
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed | **9371**
Signature of Contractor | License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature | Date

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Approval Granted By: **Automatically Issued** Issue Date: **3/22/2010** Hydrologist Approval _____ Initials

Owner Number: _____ Fee Received: $ **.00** Receipt No.: _____ Check No.: _____

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FORM 41.10 - 410 (1) REV. 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
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☐ Suwannee River

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Permit No. 803573
Florida Unique I.D.
Permit Stipulations Required (See attached)
04
62-524 Quad # Q3521 Delineation #
CUP/WUP Application No.

ABOVE THIS LINE FOR OFFICIAL USE ONLY

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1. PASCO COUNTY — FACILITIES MANAGEMENT DEPT 7220 — NEW PORT RICHEY FL — 34653- 0000
   Owner, Legal Name of Entity if Corportation — Address — City — Zip — Telephone Number
2. 14230 HAYS RD, N/A
   Well Location _ Address, Road Name or number, City
   Parcel # (Pin) 1724250000002000000
3. CARY M RICHARDSON — 9371 — (813) 908-5555
   Well Drilling Contractor — License No. — Telephone No.

6408 WEST LINEBAUGH AVE
Address

TAMPA — FL — 33625
City — State — Zip

4. ____ 1/4 of ____ 1/4 of Section 25
   (smallest / biggest) (Indicate Well on Chart)
5. Township 24 Range 17

6. PASCO
   County — Subdivision Name — Lot — Block — Unit

NW NE SW SE

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type)
   ____ Irrigation (Type) (See Back) Public Water Supply (type) ____ (See Back) List Other PLUGGED
   Distance from septic system ____ ft. Description of facility ____ Estimated start of construction date 3/22/2010
8. Application for: ____ New Construction ____ Repair/Modify ✓ Abandonment ____ (Reason for Abandonment)
   Abandonment Reason = Construction of Ash Cell A-4
9. Estimated: Well Depth 151 Casing Depth ____ Screen Interval from ____ to ____
   Casing Material: ~~XXXXXX~~ / ~~XX~~ / PVC Casing Diameter 4 (smallest) Seal Material Cement
10. If applicable: Proposed Grouting Interval
    From 0 to 151 Seal Material Cement
    From ____ to ____ Seal Material ____
    From ____ to ____ Seal Material ____
11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
    Blk-Steel / Galvanized / PVC Other (specify:) ____
12. Method of Construction: ____ Rotary ____ Cable Tool ____ Combination
    ____ Auger ✓ Other (specify:) **Plugged by approved method**
13. Indicate total No. of wells on site 4. List number of unused wells on site 4.
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ____ Yes
    (IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
    District well I.D. No. ____
    Latitude 28° 22' 14.83" Longitude 82° 33' 52.96"
    Data obtained from GPS ____ or map ____ or survey ____ (*map datum NAD 27 ____ NAD 83 ____*)

Date Stamp
Received: Monday, March 22, 2010

Draw a map of well location and indicate well site with an "X" identify known roads and landmarks: provide distances betwen well and landmarks.

North / West / East / South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed — 9371 — Digitally Signed
Signature of Contractor — License No. — Owner's or Agent's Signature — Date

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Approval Granted By: Automatically Issued Issue Date: 3/22/2010 Hydrologist Approval ____ (Initials)
Owner Number: ____ Fee Received: $ .00 Receipt No.: ____ Check No.: ____

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FORM 41.10 - 410 (1) REV. 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

Cary Richardson

From: Eric Eshom [Eric.Eshom@swfwmd.state.fl.us]
Sent: Tuesday, March 23, 2010 3:10 PM
To: caryr@tampabay.rr.com
Subject: RE: Rock Variance

Cary, Sorry for the short delay regarding the rock variance. I spoke with Mr. Tony Gilboy on this issue and he felt it would be OK to place the 10 feet of rock in the bottom of these wells and then grout them up to land surface.

We can make up a Stip. #19 for each of the permit numbers you have provided to us for abandonment purposes and FAX them to your office.

Let me know of your needs.

Eric Eshom, P.G.
Resource Regulation Dept./Well Const.
Southwest Florida Water Management District
2379 Broad Street, Brooksville, FL 34604
Phone: (352) 796-7211 ext. 4448
FAX: (352) 754-6882
email: eric.eshom@swfwmd.state.fl.us

From: caryr@tampabay.rr.com
Sent: Monday, March 22, 2010 3:18 PM
To: Eric Eshom
Subject: Rock Variance

Eric,

I have three (3) 4-inch diameter monitoring wells located within 25-24-17 in Pasco County, which were associated with monitoring groundwater for a Pasco County landfill and are now needed to be abandoned because of the construction of a new ash cell. The permits for the 3 monitoring wells are as follows: 803573, 803572, and 803571.....I am assuming they were constructed in a similar manor as to newly required wells that we will be constructing in the future.....with approximately 10 feet of an open hole section at the bottom of the well.....therefore I am proposing to rock these open hole sections (approx. 10 feet in depth) for all 3 wells and then grouting the rest from bottom to top. Please let me know if this is acceptable.

Thanks for your time.

Cary M. Richardson
Project Manager

MORTENSEN ENGINEERING, INC.
6408 W. Linebaugh Avenue, Suite 111
Tampa, FL 33625

(813) 908-5555 (office)
(813) 908-3588 (fax)
(813) 390-0767 (cell)
www.meitampa.com<http://www.meitampa.com>
caryr@tampabay.rr.com<mailto:caryr@tampabay.rr.com>

IMPORTANT NOTICE: All E-mail sent to or from this address are public record and archived. The Southwest Florida Water Management District does not allow use of District equipment and E-mail facilities for non-District business purposes.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL GROUTING/ABANDONMENT FORM

GROUTING _____ ABANDONMENT X

Permit No. 803570.01 Drilling Contractor Cory Richardson License No. _____
1/4 _____ 1/4 _____ SEC. 25 TWP. 24 RGE. 17 Latitude 28 22 16.50 Longitude 82 35 32.50
Data obtained from: GPS X or Map _____ or Survey _____: Datum NAD 27 _____ NAD 83 _____
Property Owner Pasco Co
Address of Well 14230 Hays Rd Shady Hills
County Pasco QWIP No. _____ WUP No. _____
DID No. _____

WELL SPECIFICATIONS

T.D. of Well (to be verified by inspector) 47 Water Level 23
Casing: Double ____or Single X; Diameters 2 ;Depth _____ : Measured ____ , Estimated ____ , Logged ____
Material: (check) Black Steel ___ , Galv. ___ , PVC X, Other _____
Drill Method (check) Rotary ___ , Cable Tool ___ , Combination ___ , Other _____
Was well information verified from driller's log? Yes ___ No ___ (Explain in comments)
Special Construction Stipulation? No ____ Yes ____ , Stipulation No. _____ Was Special Condition met? Yes ___ No ___
Old Permit? No ___ Yes ___ Permit No. _____ Well Depth _____ Casing Depth _____ Diameter _____
(For public supply) Approved Public Supply Plan match location? Yes ____ No ____
(For 62-524) Yes ____ No ____ Well location same as surveyed location? Yes ____ No ____

2MW20D

GROUT SPECIFICATIONS AND INSPECTION

Date	3-24-10			
BENTONITE INTERVAL				
Type (check) : chips ___ , pellets/tablets ____ : Size: 3/4 ___ , 1/2 ____ , 3/8 ____ ; Bentonite Slurry ____				
Estimated Bags of Bentonite				
Actual Bags of Bentonite				
** Special additives				
% of water with slurry				
CEMENT INTERVAL	47' to Surface			
Cement Type (check):	Type I ___ Type II ___ Type I / II X			
* Estimated No. of sacks X /yards __	1			
Actual No. of sacks X /yards __	1.5			
% Bentonite added				
Gallons water per sack X /yard __	5.5			
Grout Method (types)	Tremie			
Total Time on Site	2 hr			

COMMENTS

Observed bridging at 2' and 20' while tremie grouting 47' w/1.5 sacks neat cement. Resistance to surface was observed. JM

X Driller or ___ Contractor Signature _____ Date 3-24-10
Observer Signature _____ Date 3-24-10
Work was satisfactorily completed in accordance with 40D-3, F.A.C.? Yes X No __ Water samples taken? Yes __ No __
Compliance Tracking No. _____

Authorized Signature _____ Date _____
(Not official unless signed by SWFWMD Supervisor or designated representative)

41.10-410(06/01)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL GROUTING/ABANDONMENT FORM

GROUTING ____ ABANDONMENT X

Permit No. 803571.01 Drilling Contractor Cory Richardson License No. 9571
1/4 ____ 1/4 ____ SEC. 25 TWP. 24 RGE. 17 Latitude 28 22 11.9N Longitude 82 33 48.8W
Data obtained from: GPS X or Map ____ or Survey ____: Datum NAD 27 ____ NAD 83 ____
Property Owner Pasco County
Address of Well 14230 Hays Rd
County ____ QWIP No. ____ WUP No. ____
DID No. ____

WELL SPECIFICATIONS

T.D. of Well (to be verified by inspector) 43 Water Level ____
Casing: Double ____ or Single X; Diameters 4" ;Depth ____ : Measured ____ , Estimated ____ , Logged ____
Material: (check) Black Steel ____ , Galv. ____ , PVC X , Other ____
Drill Method (check) Rotary ____ , Cable Tool ____ , Combination ____ , Other ____
Was well information verified from driller's log? Yes ____ No ____ (Explain in comments)
Special Construction Stipulation? No ____ Yes ____ , Stipulation No. ____ Was Special Condition met? Yes ____ No ____
Old Permit? No ____ Yes ____ Permit No. ____ Well Depth ____ Casing Depth ____ Diameter ____
(For public supply) Approved Public Supply Plan match location? Yes ____ No ____
(For 62-524) Yes ____ No ____ Well location same as surveyed location? Yes ____ No ____

11A

GROUT SPECIFICATIONS AND INSPECTION

Date	3-24-10			
BENTONITE INTERVAL				
Type (check) : chips ____ , pellets/tablets ____ : Size: 3/4 ____ , 1/2 ____ , 3/8 ____ ; Bentonite Slurry ____				
Estimated Bags of Bentonite				
Actual Bags of Bentonite				
** Special additives				
% of water with slurry				
CEMENT INTERVAL	43 To Surface			
Cement Type (check):	Type I ____ Type II ____ Type I / II X			
* Estimated No. of sacks X /yards ____	3			
Actual No. of sacks X /yards ____	3.5			
% Bentonite added				
Gallons water per sack X /yard ____	5.5			
Grout Method (types)	Tremie			
Total Time on Site	2 hr			

COMMENTS

Observed a bubble test of the monitor well Tagged @ 43' w/ 3.5 Sacks of neat cement. Desired fill to surface was observed. JBH

X Driller or ____ Contractor Signature ____ Date 3-24-10
Observer Signature ____ Date 3-24-10
Work was satisfactorily completed in accordance with 40D-3, F.A.C.? Yes X No ____ Water samples taken? Yes ____ No ____
Compliance Tracking No. ____

Authorized Signature ____ Date ____
(Not official unless signed by SWFWMD Supervisor or designated representative)

41.10-410(06/01)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL GROUTING/ABANDONMENT FORM

GROUTING ____ ABANDONMENT X

Permit No. 803574.01 Drilling Contractor Cory Richardson License No. 9271
1/4 ____ 1/4 ____ SEC. 25 TWP. 24 RGE. 17 Latitude 28 23 17.90 Longitude 82 33 48.70
Data obtained from: GPS X or Map ____ or Survey ____: Datum NAD 27 ____ NAD 83 ____
Property Owner Pasco County
Address of Well 14230 Hays Rd Shady Hills
County Pasco QWIP No. ____ WUP No. ____
DID No. ____

WELL SPECIFICATIONS

T.D. of Well (to be verified by inspector) 60' Water Level ____
Casing: Double ____ or Single X; Diameters 4" ;Depth ____ : Measured ____ , Estimated ____ , Logged ____
Material: (check) Black Steel ____ , Galv. ____ , PVC X , Other ____
Drill Method (check) Rotary ____ , Cable Tool ____ , Combination ____ , Other ____
Was well information verified from driller's log? Yes ____ No ____ (Explain in comments)
Special Construction Stipulation? No ____ Yes ____ , Stipulation No. ____ Was Special Condition met? Yes ____ No ____
Old Permit? No ____ Yes ____ Permit No. ____ Well Depth ____ Casing Depth ____ Diameter ____
(For public supply) Approved Public Supply Plan match location? Yes ____ No ____
(For 62-524) Yes ____ No ____ Well location same as surveyed location? Yes ____ No ____

1 of 1

GROUT SPECIFICATIONS AND INSPECTION

Date	3-24-10			
BENTONITE INTERVAL				
Type (check) : chips ____ , pellets/tablets ____ : Size: 3/4 ____ , 1/2 ____ , 3/8 ____ ; Bentonite Slurry ____				
Estimated Bags of Bentonite				
Actual Bags of Bentonite				
** Special additives				
% of water with slurry				
CEMENT INTERVAL	60' to Surface			
Cement Type (check):	Type I ____ Type II ____ Type I / II X			
* Estimated No. of sacks X /yards ____	4.2			
Actual No. of sacks X /yards ____	4.5			
% Bentonite added				
Gallons water per sack X /yard ____	5.5			
Grout Method (types)	Tremie			
Total Time on Site	2hr			

COMMENTS

Observed 4" casing tremied with Type II @ 60' w/ 4.5 sacks neat cement. Reduction to surface was observed. JM

X Driller or ____ Contractor Signature ____ Date 3-24-10
Observer Signature ____ Date 3-24-10
Work was satisfactorily completed in accordance with 40D-3, F.A.C.? Yes X No ____ Water samples taken? Yes ____ No ____
Compliance Tracking No. ____

Authorized Signature ____ Date ____
(Not official unless signed by SWFWMD Supervisor or designated representative)

41.10-410(06/01)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WELL GROUTING/ABANDONMENT FORM

GROUTING ____ ABANDONMENT X

Permit No. 803513.01 Drilling Contractor Cory Crowder License No. 2371
1/4 ____ 1/4 ____ SEC. 25 TWP. 24 RGE. 17 Latitude 28 22 19.90 Longitude 82 33 52.68
Data obtained from: GPS X or Map ____ or Survey ____: Datum NAD 27 ____ NAD 83 ____
Property Owner Pasco County
Address of Well 14230 Hays Rd Shady Hills
County Pasco QWIP No. ____ WUP No. ____
DID No. ____

WELL SPECIFICATIONS

T.D. of Well (to be verified by inspector) 151' Water Level ____
Casing: Double ____ or Single X; Diameters 4" ;Depth ____ : Measured ____ , Estimated ____ , Logged ____
Material: (check) Black Steel ___ , Galv. ___ , PVC X , Other ____
Drill Method (check) Rotary ___ , Cable Tool ___ , Combination ___ , Other ____
Was well information verified from driller's log? Yes ___ No ___ (Explain in comments)
Special Construction Stipulation? No ____ Yes ____ , Stipulation No. ____ Was Special Condition met? Yes ___ No ___
Old Permit? No ___ Yes ___ Permit No. ____ Well Depth ____ Casing Depth ____ Diameter ____
(For public supply) Approved Public Supply Plan match location? Yes ____ No ____
(For 62-524) Yes ____ No ____ Well location same as surveyed location? Yes ____ No ____

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GROUT SPECIFICATIONS AND INSPECTION

Date	3-24-10			
BENTONITE INTERVAL				
Type (check) : chips ___ , pellets/tablets ____ : Size: 3/4 ___ , 1/2 ____ , 3/8 ____ ; Bentonite Slurry ____				
Estimated Bags of Bentonite				
Actual Bags of Bentonite				
** Special additives				
% of water with slurry				
CEMENT INTERVAL	151 TO Surface			
Cement Type (check):	Type I ___ Type II ___ Type I / II X			
* Estimated No. of sacks X /yards __	10.50			
Actual No. of sacks X /yards __	12			
% Bentonite added				
Gallons water per sack X /yard __	5.5			
Grout Method (types)	Tremie			
Total Time on Site	2 hr			

COMMENTS

Observed abandonment of 4" pvc. Tremie Tagged @ 151' fill 12 Sacks neat cement. Poured return to surface was observed. SM

X Driller or ___ Contractor Signature ____ Date 3-24-10
Observer Signature ____ Date 3-24-10
Work was satisfactorily completed in accordance with 40D-3, F.A.C.? Yes X No __ Water samples taken? Yes __ No __
Compliance Tracking No. ____

Authorized Signature ____ Date ____
(Not official unless signed by SWFWMD Supervisor or designated representative)

41.10-410(06/01)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 803570.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	1.5	0	47
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 16.2", Longitude: -82° 33' 40.75"

DATE STAMP
Mar 26 2010
Official Use Only

Sketch of well location on property
Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____ mg/l
Conductivity _____ umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 03/24/2010 Florida Unique I.D.: _____
Parcel # (Pin): 172425000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other PLUGGED

DRILL METHOD:
[ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [X] Other Plugged

Measured Static Water Level: 20.80 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole
[ ] Screen

Casing Diameter and Depth (ft.)

Depth (feet) — From — To

DRILL CUTTINGS LOG
Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Color | Grain Size | Type of Material

Diameter: 2
From: 0
To: 47
Plugged by approved method

Diameter: _____
From: _____
To: _____

Liner [ ] or Casing [ ]
Diameter: _____
From: _____
To: _____

2MW20D

Driller's Name (print or type): Cary Richardson

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 803571.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	3.5	0	43
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 17.96", Longitude: -82° 33' 48.96"

DATE STAMP
Mar 26 2010
Official Use Only

Sketch of well location on property

Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____mg/l
Conductivity ____umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 03/24/2010 Florida Unique I.D.: _____
Parcel # (Pin): 172425000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other PLUGGED

DRILL METHOD:
[ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [X] Other Plugged

Measured Static Water Level: 15.70 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole [ ] Screen	Depth (feet)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter and Depth (ft.)	From	To	*Color* | *Grain Size* | *Type of Material*
Diameter: 4 From: 0 To: 43			Plugged by approved method
Diameter: _____ From: _____ To: _____			
Liner [ ] or Casing [ ] Diameter: _____ From: _____ To: _____			

MW11A

Driller's Name (print or type): Cary Richardson

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 803572.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	4.5	0	60
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 17.94", Longitude: -82° 33' 48.68"

DATE STAMP
Mar 26 2010
Official Use Only

Sketch of well location on property

Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____ mg/l
Conductivity _____ umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 03/24/2010 Florida Unique I.D.: _____
Parcel # (Pin): 172425000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other PLUGGED
DRILL METHOD:
[ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [X] Other Plugged

Measured Static Water Level: 16.40 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole [ ] Screen	Depth (feet)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter and Depth (ft.)	From	To	*Color* | *Grain Size* | *Type of Material*
Diameter: 4 From: 0 To: 60			Plugged by approved method
Diameter: _____ From: _____ To: _____			
Liner [ ] or Casing [ ] Diameter: _____ From: _____ To: _____			

MW11B

Driller's Name (print or type): Cary Richardson

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 803573.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	12	0	151
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 14.83", Longitude: -82° 33' 52.96"

DATE STAMP
Mar 26 2010
Official Use Only

Sketch of well location on property

Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS _____ mg/l
Conductivity _____umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 03/24/2010 Florida Unique I.D.: _____
Parcel # (Pin): 172425000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other PLUGGED
DRILL METHOD:
[ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [X] Other Plugged

Measured Static Water Level: 15.70 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole [ ] Screen	Depth (feet)		DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Casing Diameter and Depth (ft.)	From	To	*Color* | *Grain Size* | *Type of Material*
Diameter: 4 From: 0 To: 151			Plugged by approved method
Diameter: _____ From: _____ To: _____			
Liner [ ] or Casing [ ] Diameter: _____ From: _____ To: _____			

DMW5

Driller's Name (print or type): Cary Richardson

MORTENSEN ENGINEERING, INC.

October 29, 2010
Project No. 10-10-07289

TO: RIPA & Associates, Inc.
1409 Tech Boulevard, Suite 1
Tampa, Florida 33619

Attention: Mr. Alan Taylor

SUBJECT: ***Monitoring Well Installation Services***
Ten (10) 2 to 4-Inch Diameter Monitoring Wells
West Pasco Class 1 Landfill Cell A-4
Pasco County, Florida

Dear Alan:

In accordance with your request and direction, Mortensen Engineering, Inc. (MEI) has completed the installation of ten (10) 2 to 4-inch diameter monitoring wells at the above referenced site, under Camp Dresser & McKee, Inc. (CDM) direction and guidance.

A copy of the completed SWFWMD well construction permits, the SWFWMD well completion reports, the FDEP well completion reports, and MEI soil boring logs. **A licensed water well contractor working for MEI, supervised the installation of the subject monitoring wells in compliance with CDM's Water Quality Monitoring Plan (December 2008) and email revision (April 2010).**

Thank you for this opportunity to be of service to you. If you have any questions with this submittal, please do not hesitate to call us.

Sincerely,
MORTENSEN ENGINEERING, INC.

Cary M. Richardson
Licensed Water Well Contractor
No. 9371

CMR/418/07289c.rep

Attachments: **SWFWMD Well Construction Permits**
SWFWMD Well Completion Reports
FDEP Well Completion Reports
MEI Soil Boring Logs

6408 West Linebaugh Avenue, Suite 111
Tampa, Florida 33625 (813) 908-5555 Fax (813) 908-3588
meitampa@tampabay.rr.com www.meitampa.com

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

THIS FORM MUST BE FILLED OUT COMPLETELY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

Permit No. **805238**
Florida Unique I.D. _____
Permit Stipulations Required (See attached)
23, 39
62-524 Quad # **03621** Delineation # _____
CUP/WUP Application No. _____

1. **PASCO COUNTY** | **7530 OSTEEN RD** | **NEW PORT RICHEY FL** | **34653- 5000**
Owner, Legal Name of Entity if Corporation | *Address* | *City* | *Zip* | *Telephone Number*

2. **14330 HAYS RD, Spring Hill**
Well Location _ Address, Road Name or number, City
Parcel # (Pin) **1724250000002000000**

3. **GARY M RICHARDSON** | **9371** | **(813) 909-2505**
Well Drilling Contractor | License No. | Telephone No.

6428 WEST LINEBAUGH AVE
Address

TAMPA | **FL** | **33625**
City | State | Zip

4. _____ ft. of _____ ft. of Section **25**

5. Township: **24** Range: **17**

6. **PASCO**
County | Subdivision Name | Lot | Block | Unit

NW NE SW SE

7. Number of proposed wells **1** Check the use of well: *(Use back of permit for additional choices)* _____ Domestic Monitor (type) **✓**
(Size Mon.) Irrigation (Type) Public Water Supply (type) (Size Mon.) List Other
Distance from septic system _____ ft. Description of facility **PASCO COUNTY** Estimated start of construction date **6/1/2010**

8. Application for: **✓** New Construction _____ Repair/Modify _____ Abandonment _____ (Reason for Abandonment)

Date Stamp

9. Estimated: Well Depth **150** Casing Depth **140** Screen Interval from _____ to
Casing Material: **BK-Steel** / **GALV** / PVC Casing Diameter **4** (in inches) Seal Material **Cement**

10. If applicable: Proposed Grouting Interval From **0** to **140** Seal Material **Cement**
From _____ to _____ Seal Material _____
From _____ to _____ Seal Material _____

Received: Wednesday, May 26, 2010

11. Telescope Casing ____ or Liner ____ (check one) Diameter _____
BK-Steel / Galvanized / PVC Other (specify:) _____

12. Method of Construction: **✓** Rotary ____ Cable Tool ____ Combination
____ Auger ____ Other (specify) _____

13. Indicate total No. of wells on site **0** ... List number of unused wells on site **0**

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? **✓** No ___ Yes
(IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. _____
District well I.D. No. _____
Latitude **28° 22' 12.81"** Longitude **82° 33' 47.13"**
Date obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27___ NAD 83___)

Draw a map of well location and indicate well site with an "X" (identify known roads and landmarks, provide distances between well and landmarks.

North
West
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit is attached (required, has been or will be obtained) prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon the well, or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed | **9371** | **Digitally Signed** | _____
Signature of Contractor | License No. | Owner's or Agent's Signature | Date

Approval Granted By: **JOSHUA MADDEN STATUS: ISSUED** Issue Date: **5/27/2010** Hydrologist Approval: _____ (Initials)

Owner Number: _____ Fee Received: $ **80.00** Receipt No.: **IN10773225** Check No.: _____

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 41.10 - 410 (1) REV 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT COMPLETELY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 805240
Florida Unique I.D. _____
Permit Stipulations Required (See attached)
23, 39
82-524 Quad # 03621 Delineation # _____
CUP/WUP Application No. _____

Fold at this line to enter text address in window through envelope window

1. PASCO COUNTY — 7530 OSTEEN RD — NEW PORT RICHEY FL — 34653- 6000
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. 14220 HAYS RD, Hudson
Well Location _ Address, Road Name or number, City
Parcel # (Pin) 17242500000020000000

3. GARY M RICHARDSON — 9371 — (813) 908-9555
Well Drilling Contractor — License No. — Telephone No.

6406 WEST LINEBAUGH AVE
Address

TAMPA — FL — 33625
City — State — Zip

4. ___ (NW/NE/SW/SE) of ___ (NW/NE/SW/SE) of Section 25

5. Township 24 Range 17 (Indicate West or East)

NW NE SW SE

6. PASCO
County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ___ Domestic Monitor (type) ✓
(See Back) Irrigation (Type) Public Water Supply (type) (See Back) List Other
Distance from septic system ___ ft. Description of facility Pasco co landfill Estimated start of construction date 5/28/2010

8. Application for: ✓ New Construction ___ Repair/Modify ___ Abandonment ___ (Reason for Abandonment)

Date Stamp

Received: Wednesday, May 05, 2010

9. Estimated: Well Depth 77 Casing Depth 67 Screen Interval from ___ to ___
Casing Material: Steel / Galvanized / PVC Casing Diameter 4 (inches) Seal Material Cement

10. If applicable: Proposed Grouting Interval From 0 to 67 Seal Material Cement
From ___ to ___ Seal Material ___
From ___ to ___ Seal Material ___

11. Telescope Casing ___ or Liner ___ (check one) Diameter ___
Blk-Steel / Galvanized / PVC Other (specify): ___

12. Method of Construction: ✓ Rotary Cable Tool Combination
Auger Other (specify) ___

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ___ Yes
IF YES, COMPLETE THE FOLLOWING: CUP/WUP No. ___
District well I.D. No. ___
Latitude 28° 22' 12.79" Longitude 82° 33' 46.94"
Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

Draw a map of well location and indicate well site with an "X" (check) known roads and landmarks; provide distances between well and landmarks.

North

West — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or withdrawal exemption will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental, if applicable. I agree to provide a well construction report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed — 9371
Signature of Contractor — License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes. For exemption or property identification this well, or I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature — Date

Approval Granted By: JOSHUA MADDEN STATUS: ISSUED Issue Date: 5/27/2010 Hydrologist Approval ___ (Initials)

Owner Number: ___ Fee Received: $ 50.00 Receipt No.: IN10773210 Check No.: ___

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 40 10 - 410 (1) REV 10/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT COMPLETELY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable

Permit No. 805242
Florida Unique I.D.
Permit Stipulations Required (See attached)
23, 39
62-524 Quad # D3621 Delineation #
CUP/WUP Application No.

1. PASCO COUNTY — 7530 OSTEEN RD — NEW PORT RICHEY FL — 34653- 6000
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. 19236 HATS RD. N/A
Well Location _ Address, Road Name or number, City
Parcel # (Pin) 172425000000020000

3. GARY M RICHARDSON — 9371 — (813) 996-5555
Well Drilling Contractor — License No. — Telephone No.

6406 WEST LINEBAUGH AVE
Address

TAMPA — FL — 33625
City — State — Zip

4. ___ 1/4 of ___ 1/4 of Section 25 (Indicate West or East)

5. Township 24 Range 17

6. PASCO
County — Subdivision Name — Lot — Block — Unit

NW NE SW SE

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ___ Domestic Monitor (type) ✓
___ Irrigation (Type) Public Water Supply (type) ___ List Other
Distance from septic system ___ ft. Description of facility ___ Estimated start of construction date 5/28/2010

8. Application for: ✓ New Construction ___ Repair/Modify ___ Abandonment (Reason for Abandonment)

9. Estimated: Well Depth 42 Casing Depth 27 Screen Interval from 27 to 42
Casing Material: Stainless Steel / Steel / PVC Casing Diameter 2 (inches) Seal Material Cement

10. If applicable: Proposed Grouting Interval From 0 to 21 Seal Material Cement
From 21 to 25 Seal Material Bentonite
From ___ to ___ Seal Material ___

Date Stamp
Received: Wednesday, May 26, 2010

11. Telescope Casing ___ or Liner ___ (check one) Diameter ___
Blk-Steel / Galvanized / PVC Other (specify:)

12. Method of Construction: ___ Rotary ___ Cable Tool ___ Combination
✓ Auger ___ Other (specify:)

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ___ Yes
(IF YES, COMPLETE THE FOLLOWING) CUP/WUP No.
District well I.D. No.
Latitude 28° 22' 12.65" Longitude 82° 33' 47.14"
Date obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

Draw a map of well location and indicate well site with at least 2 identifiable roads and landmarks; provide distances between well and landmarks.

North

West — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or withdrawal exemption, if required, has been obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that all well construction, modification or abandonment will be performed in accordance with all applicable requirements, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed — 9371
Signature of Contractor — License No.

I certify that I am the owner of this property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes. In addition, if property ownership of the well is transferred, I agree to transfer the permit to the new owner. If I am not the owner, that the information provided is accurate and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature — Date

Approval Granted By: Automatically Issued — Issue Date: 5/26/2010 — Hydrologist Approval ___ (Initials)

Owner Number: ___ Fee Received: $ 50.00 — Receipt No.: IN10773982 — Check No.: ___

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 40 10 - 410 (1) REV 1/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT COMPLETELY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 805243
Florida Unique I.D.
Permit Stipulations Required (See attached)
23, 39
62-524 Quad # 03821 Delineation #
CUP/WUP Application No.

1. PASCO COUNTY — 7530 OSTEEN RD — NEW PORT RICHEY FL — 34653- 9000
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. 14220 HAYS RD, N/A
Well Location _ Address, Road Name or number, City
Parcel # (Pin) 17242500000020000000

3. CARY M RICHARDSON — 9371 — (813) 909-0595
Well Drilling Contractor — License No. — Telephone No.

6420 WEST LINEBAUGH AVE
Address

TAMPA — FL — 33625
City — State — Zip

4. ___ 1/4 of ___ 1/4 of Section 25
Indicate: Well or Quad

5. Township 24 Range 17

NW NE SW SE

6. PASCO
County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ___ Domestic Monitor (type) ✓
(Size Mon.) Irrigation (Type) Public Water Supply (type) (Size Mon.) List Other
Distance from septic system ___ ft. Description of facility ___ Estimated start of construction date 5/26/2010

8. Application for: ✓ New Construction ___ Repair/Modify ___ Abandonment ___ (Reason for Abandonment)

Date Stamp

8. Estimated: Well Depth 18 Casing Depth 8 Screen Interval from 8 to 18
Casing Material: BLACKSTEEL / GALV / PVC Casing Diameter 2 (inches) Seal Material Cement

10. If applicable: Proposed Grouting Interval From ___ to ___ Seal Material ___
From ___ to ___ Seal Material ___
From ___ to ___ Seal Material ___

Received: Wednesday, May 26, 2010

11. Telescope Casing ___ or Liner ___ (check one) Diameter ___
Blk-Steel / Galvanized / PVC Other (specify): ___

12. Method of Construction: ___ Rotary ___ Cable Tool ___ Combination
✓ Auger ___ Other (specify):

Draw a map of well location and indicate well's site with at 2 identifiable known roads and landmarks; provide distances between well and landmarks.

North

West — East

South

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ___ Yes
IF YES, COMPLETE THE FOLLOWING: CUP/WUP No. ___
District well I.D. No. ___
Latitude 28° 22' 12.75" Longitude 82° 30' 47.00"
Date obtained from GPS ___ or map ___ or survey ___ (map datum: NAD 27 ___ NAD 83 ___)

16. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or additional modification, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental(s), if applicable. I agree to provide a print and digital copy of the Driller's Log within 30 days after drilling or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes. In addition, if a property ownership file exists, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed — 9371
Signature of Contractor — License No.

Digitally Signed
Owner's or Agent's Signature — Date

Approval Granted By: Automatically Issued — Issue Date: 5/26/2010 — Hydrologist Approval ___ (Initials)

Owner Number: ___ Fee Received: $ 50.00 — Receipt No.: IN10772408 — Check No.: ___

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 40 10 - 410 (1) REV 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT CORRECTLY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 806582
Florida Unique I.D.
Permit Stipulations Required (See attached)
33, 39
62-524 Quad # 03821 Delineation #
CUP/WUP Application No.

1. PASCO COUNTY — FACILITIES MANAGEMENT DEPT 7530 — NEW PORT RICHEY FL — 34653- 5000
Owner, (Legal) Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. 14220 HAYS RD, N/A
Well Location _ Address, Road Name or number, City
Parcel # (Pin) 17242500000020000000

3. CARY M RICHARDSON — 9371 — (813) 908-9185
Well Drilling Contractor — License No. — Telephone No.

6406 WEST LINEBAUGH AVE
Address

TAMPA — FL — 33625
City — State — Zip

4. ____ 1/4 of ____ 1/4 of Section 25
Indicate West or Coast

5. Township 24 Range 17

NW NE SW SE

6. PASCO
County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells 3 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) ✓
____ Irrigation (Type) Public Water Supply (type) ____ List Other
Distance from septic system ____ ft. Description of facility ____ Estimated start of construction date 8/3/2010

8. Application for: ✓ New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

Date Stamp

9. Estimated: Well Depth 30 Casing Depth 10 Screen Interval from 10 to 30
Casing Material: Steel / Gal / PVC Casing Diameter 2 (inches) Seal Material Cement

Received: Thursday, July 29, 2010

10. If applicable: Proposed Grouting Interval From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____

Draw a map of well location and indicate well site with an "X" (at least two known roads and landmarks, provide distance between well and landmarks.

11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
Blk-Steel / Galvanized / PVC Other (specify:) ____

North

12. Method of Construction: ____ Rotary ____ Cable Tool ____ Combination
✓ Auger ____ Other (specify:)

West East

13. Indicate total No. of wells on site 4 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ✓ No ____ Yes
(If YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
District well I.D. No. ____
Latitude 28° 22' 36.18" Longitude 82° 33' 43.11"
Date obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or affidavit has been received. If needed, I will apply for additional permits for commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental agencies, if applicable. I agree to properly grout and seal the well as required by the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed — 9371
Signature of Contractor — License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon the well, or I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature — Date

Approval Granted By: Automatically Issued — Issue Date: 7/29/2010 — Hydrologist Approval ____ (Initials)

Owner Number: ____ Fee Received: $ 50.00 Receipt No.: IN10930648 Check No.: ____

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

FORM 40 10 - 410 (1) REV 12/01

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☑ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT ADDRESS ON BACK OF PERMIT FORM

THIS FORM MUST BE FILLED OUT CORRECTLY

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. **806614**
Florida Unique I.D.
Permit Stipulations Required (See attached)
23, 39
62-524 Quad # **G3621** Delineation #
CUP/WUP Application No.

1. **PASCO COUNTY** — **FACILITIES MANAGEMENT DEPT 7330** — **NEW PORT RICHEY FL** — **34653- 5000**
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. **14224 HAYS RD. N/A**
Well Location _ Address, Road Name or number, City
Parcel # (Pin) **17245000000020000000**

3. **CARY M RICHARDSON** — **9371** — **(813) 909-9109**
Well Drilling Contractor — License No. — Telephone No.

9408 WEST LINEBAUGH AVE
Address

TAMPA — **FL** — **33626**
City — State — Zip

4. **1st** of **1st** of Section **25**
(Indicate NW or SW)

5. Township **24** Range **17**

NW NE SW SE

6. **PASCO**
County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells **3** Check the use of well: (Use back of permit for additional choices) ____ Domestic Monitor (type) **✓**
(Use Back) Irrigation (Type) Public Water Supply (type) (Use Back) List Other

Distance from septic system ____ ft. Description of facility ____ Estimated start of construction date **8/2/2010**

8. Application for: **✓** New Construction ____ Repair/Modify ____ Abandonment (Reason for Abandonment)

9. Estimated: Well Depth **47** Casing Depth **37** Screen Interval from **37** to **47**
Casing Material: **Schedule 80** / **SCH** / PVC Casing Diameter **2** (inches) Seal Material **Cement**

10. If applicable: Proposed Grouting Interval From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____
From ____ to ____ Seal Material ____

Date Stamp
Received: Friday, July 30, 2010

11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
Blk-Steel / Galvanized / PVC Other (specify:) ____

12. Method of Construction: **✓** Rotary ____ Cable Tool ____ Combination
____ Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site **4** List number of unused wells on site **0**

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? **✓** No ____ Yes
(IF YES, COMPLETE THE FOLLOWING) CUP/WUP No. ____
District well I.D. No. ____
Latitude **28° 22' 26.15"** Longitude **82° 33' 43.56"**
Date obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North
West
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code and that a water use permit or withdrawal exemption permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Digitally Signed — **9371**
Signature of Contractor — License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes. In addition to property description, the well, or I certify that I am the agent for the owner that the information provided is accurate and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Digitally Signed
Owner's or Agent's Signature — Date

Approval Granted By: **Automatically Issued** Issue Date: **7/30/2010** Hydrologist Approval ____ (Initials)

Owner Number: ____ Fee Received: $ **80.00** Receipt No.: **IN10093427** Check No.: ____

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from the date of issue.*

FORM 40 10 - 410 (1) REV 12/04

WHITE: ORIGINAL FILE
YELLOW: DRILLING CONTRACTOR
PINK: OWNER

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STIPULATION NUMBER 39 - WELL AND DRILLHOLE ABANDONMENT

It will be the **water well contractor's** responsibility to have any incomplete well or drillhole attempted under this permit properly abandoned.

Any incomplete or abandoned well or drillhole as described in 40D-3, Florida Administrative Code (F.A.C.), shall be abandoned as follows:

A. The well shall be examined from land surface to the original depth of construction for debris or obstructions (any debris or obstruction shall be removed prior to abandonment).

B. The well shall be plugged from bottom to top by an approved method of grouting with either Portland neat cement grout or an approved Bentonite product as specified in 40D-3.517 2. (b), F.A.C.

It will be the **owner's** responsibility to have any well completed under this permit, or any existing well on this property, which meets the definition of an abandoned well as defined in Chapter 40D-3.021(1), F.A.C., properly abandoned in accordance with Chapter 40D-3.531, F.A.C.

It will be the **owner's** responsibility to have any inactive well, which does not meet the above criteria and is no threat to the water resource properly capped in an air and watertight manner with a threaded, welded or bolted cover or valve. If the pump and well seal are water tight, the pump may be left in place. If practical, a protective cover two (2) feet in height shall be placed around the well casing.

A. Wells with a diameter of six (6) inches or more without pumping equipment shall have the well casing extended a minimum of two (2) feet above land surface.

B. Wells with a diameter of less than six (6) inches without pumping equipment shall be securely set in a concrete slab and have either the well casing extended a minimum height of two (2) feet above land surface or a protective cover centered over the well casing. The concrete slab shall be a minimum of four (4) inches in thickness by two (2) feet by two (2) feet square. The protective cover shall be set in the concrete slab and extend a minimum of two (2) feet above land surface.

In flood prone areas all wells shall extend a minimum of one (1) foot above the 100 year flood elevation, if practical, in accordance with Chapter 40D-3.521(4), F.A.C.

Any plugging operations shall be permitted separately from this permit by the Southwest Florida Water Management District and be witnessed by a designated District representative. Arrangement for a District representative shall be made with the local District Field Services office a minimum of 24 hours in advance of these operations. A District representative will be available for assignment during normal working hours (8:00 AM - 4:30 PM), Monday through Friday. Travel time must be taken into consideration. Exemptions may be made for extenuating circumstances. For scheduling, please contact the Field Service Supervisor in the Brooksville office at (352) 796-7211.

Permit Number: 805238

(11/03)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STIPULATION # 23 - TEST/MONITOR WELL

A. This well is to be used as a test/monitor well. If it is to be converted into a production well, an additional permit shall be obtained.

B. There shall be no injection of fluids into the monitor well without prior written approval from the Florida Department of Environmental Protection (DEP) or the District. This includes, but is not limited to treated ground water, or the introduction of microbes for in-situ aquifer restoration.

C. The well shall be constructed in such a manner to prevent the unauthorized interchange of water between different water bearing zones (i.e., breaching of confining beds, clays or hardpan intervals) as per Chapter 62-532.500 (2)(C), Florida Administrative Code (F.A.C.).

D. Prior written approval from the District shall be required if the monitor well will be pumped for use in hydrodynamic control and/or contaminant plume management, if quantities reach or exceed requirement of a Water Use Permit.

E. All monitor wells constructed at any facility which has been designated as a ground water contamination site, or a possible ground water contamination site, shall adhere to the construction standards set forth by the DEP and other applicable rules.

F. In the event the well needs to be abandoned, an abandonment permit shall be obtained prior to commencing with abandonment operations.

G. An observer from our Regulation Department is required on all abandonments to ensure compliance with applicable 40D-3 regulations. Please contact the Field Service Supervisor in the Brooksville Office at (352) 796-7211 for additional information.

Permit No. 805238

COPY TO OWNER TO BE PROVIDED BY CONTRACTOR

(11/03)

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 805238.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	36	0	146
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 12.81", Longitude: -82° 33' 47.12"

DATE STAMP
Jul 08 2010
Official Use Only

Sketch of well location on property
Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____ mg/l
Conductivity _____ umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 06/07/2010 Florida Unique I.D.: _____
Parcel # (Pin): 172425000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other OBSERVATION OR MONITOR WE

DRILL METHOD:
[X] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [ ] Other _____

Measured Static Water Level: 17.00 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[X] Open Hole
[ ] Screen

Casing Diameter and Depth (ft.)

Diameter: 4
From: 0
To: 146

Diameter: _____
From: _____
To: _____

Liner [ ] or Casing [ ]
Diameter: _____
From: _____
To: _____

Depth (feet)

From	To	DRILL CUTTINGS LOG (Color | Grain Size | Type of Material)
0	12	tan fine sand
12	14.5	brown very fine sand and clay
14.5	24	gray very fine sandy clay
24	25	white very fine limestone
25	35	gray very fine sandy clay
35	37	tan very fine sand and clay
37	40.5	gray very fine sandy clay
37	156	white very fine limestone

4MW-27D

Driller's Name (print or type): Charles Ralle

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 805240.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	58.5	0	67
Bentonite:			
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 12.79", Longitude: -82° 33' 46.94"

DATE STAMP
Jul 08 2010
Official Use Only

Sketch of well location on property
Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____ mg/l
Conductivity _____umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 06/11/2010 Florida Unique I.D.: _____
Parcel # (Pin): 1724250000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other OBSERVATION OR MONITOR WE
DRILL METHOD:
[X] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [ ] Other _____

Measured Static Water Level: 17.40 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[X] Open Hole
[ ] Screen

Casing Diameter and Depth (ft.)

Diameter: 4
From: 0
To: 67

Diameter: _____
From: _____
To: _____

Liner [ ] or Casing [ ]
Diameter: _____
From: _____
To: _____

Depth (feet)

From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
0	11	brown fine sand
11	14.5	brown very fine sand and clay
14.5	18	white very fine limestone
18	77	white very fine limestone

4MW-27

Driller's Name (print or type): Charles Ralle

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 805242.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	3	0	23
Bentonite:	1	23	25
(Other)			

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 12.83", Longitude: -82° 33' 47.14"

DATE STAMP
Jul 08 2010
Official Use Only

Sketch of well location on property
Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS _____ mg/l
Conductivity _____umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 06/24/2010 Florida Unique I.D.: _____
Parcel # (Pin): 1724250000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other OBSERVATION OR MONITOR WE
DRILL METHOD:
[X] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [ ] Auger [ ] Other _____

Measured Static Water Level: 18.00 Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole
[X] Screen

Casing Diameter and Depth (ft.)

Depth (feet) From To

DRILL CUTTINGS LOG
Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones.
Color | Grain Size | Type of Material

Diameter: 2
From: 0
To: 23

0 11.5 brown fine sand
11.5 17.5 white very fine sandy clay
17.5 24 gray very fine sand, limestone and clay

Diameter: 2
From: 23
To: 25

24 42 white very fine clayey limestone

Liner [ ] or Casing [ ]
Diameter: _____
From: _____
To: _____

2MW-27D

Driller's Name (print or type): Charles Ralle

WELL COMPLETION REPORT (Please complete in black ink or type.)

PERMIT #: 805243.1 CUP/WUP#: _____ DID#: _____
Indicate the number of wells drilled/abandoned for this report: 1
Indicate the number of wells permitted but not drilled/abandoned that are being cancelled: _____

WATER WELL CONTRACTOR'S
SIGNATURE Digitally Signed License # 9371
I certify that the information provided in this report is accurate and true.

Grout	No. of Bags	From (ft.)	To (ft.)
Neat Cement:	0.5	0	4
Bentonite:			
(Other)	4	4	8

WELL LOCATION: County PASCO
_____ 1/4 of _____ 1/4 of Section 25, Township 24, Range 17
Latitude: 28° 22' 12.75", Longitude: -82° 33' 47.2"

DATE STAMP
Jul 08 2010
Official Use Only

Sketch of well location on property

Give distances from septic tank and house, or other reference points

CHEMICAL ANALYSIS WHEN REQUIRED
Iron: ____ppm Sulfate: ____ppm
Chlorides: ____ ppm TDS ____ mg/l
Conductivity _____umhos/cm
[ ] Lab Test [ ] Field Test Kit

Pump Type
[ ] Centrifugal [ ] Jet [ ] Submersible [ ] Turbine
Horsepower: _____ Capacity: _____ GPM: _____
Pump Depth: _____ft. Intake Depth: _____ft.

Form LEG-R.005.00(10/05)

OWNER'S NAME: PASCO COUNTY
COMPLETION DATE: 06/25/2010 Florida Unique I.D.: _____
Parcel # (Pin): 1724250000002000000
WELL USE:
[ ] Public Supply [ ] Irrigation [ ] Domestic [ ] Monitor
[ ] Injection [X] Other OBSERVATION OR MONITOR WE

DRILL METHOD:
[ ] Rotary [ ] Cable Tool [ ] Combination
[ ] Jet [X] Auger [ ] Other _____

Measured Static Water Level: _____ Measured Pumping Water Level: _____
After ____Hours at _____GPM. Measuring Pt. (Describe): _____
Which is _____ft. [ ] above [X] below land surface
Casing: [ ] Black Steel [ ] Galvanized [X] PVC [ ] Other: _____

[ ] Open Hole
[X] Screen

Casing Diameter and Depth (ft.)

Diameter: 2
From: 0
To: 4

Diameter: 2
From: 4
To: 8

Liner [ ] or Casing [ ]
Diameter: _____
From: _____
To: _____

Depth (feet) From	To	DRILL CUTTINGS LOG Examine cuttings every 20 ft. or at formation changes. Note cavities, depth to producing zones. *Color | Grain Size | Type of Material*
0	12	brown fine sand
12	18	orange very fine sandy clay

2MW-27S

Driller's Name (print or type): Charles Ralle

WCP File of Record Report

Permit #:	806582	**Status:**	Completed	**Application Received:**	07/29/2010
Reference #:		**Type:**	New Construction	**Issue Date:**	07/29/2010
Well Use:	MONITOR	**Const. Date:**	08/02/2010	**Suspense Date:**	10/27/2010

Owner Information: 806582

Name	Address	City/State/Zip
PASCO COUNTY	FACILITIES MANAGEMENT DEPT 7220	NEW PORT RICHEY, FL 34653

Contractor Information: 806582

Name	License #	Address	City/State/Zip
CARY M RICHARDSON	9371	6408 WEST LINEBAUGH AVE SUITE 111	

Well Information: 806582

Diameter	Drill Method	Depth	Primary Casing	Material	Casing Depth	Casing Diameter	Contamination
2	AUGER	20		Cement	10		

Well Location: 806582

Site ID	Address	City/State	Lat	Long	Section	Township	Range
762635	14230 HAYS RD	N/A	28° 22" 26.18'	82° 33" 43.11'	25	24	17
762636	14230 HAYS RD	N/A	28° 22" 26.18'	82° 33" 43.11'	25	24	17
762637	14230 HAYS RD	N/A	28° 22" 26.18'	82° 33" 43.11'	25	24	17

Well Completion Information: 806582

Completion Date	Static Water Level	Finish Code	Drill Method	Status	Well Depth	Casing Diameter	Casing From Depth	Casing To Depth	Casing Material
08/04/2010	19	SCREENED OR SANDPOINT	AUGER	Complete	26	2		11	PVC
08/20/2010	0	SCREENED OR SANDPOINT	AUGER	Complete	15	2		5	PVC
08/27/2010	0	SCREENED OR SANDPOINT	AUGER	Complete	20	2		10	PVC

Permit #:	806614	**Status:**	Completed	**Application Received:**	07/30/2010
Reference #:		**Type:**	New Construction	**Issue Date:**	07/30/2010
Well Use:	MONITOR	**Const. Date:**	08/02/2010	**Suspense Date:**	10/28/2010

Owner Information: 806614

Name	Address	City/State/Zip
PASCO COUNTY	FACILITIES MANAGEMENT DEPT 7220	NEW PORT RICHEY, FL 34653

Contractor Information: 806614

Name	License #	Address	City/State/Zip
CARY M RICHARDSON	9371	6408 WEST LINEBAUGH AVE SUITE 111	

Well Information: 806614

Diameter	Drill Method	Depth	Primary Casing Material	Casing Depth	Casing Diameter	Contamination
2	ROTARY	47	Cement	37		

Well Location: 806614

Site ID	Address	City/State	Lat	Long	Section	Township	Range
762680	14230 HAYS RD	N/A	28° 22" 26.15'	82° 33" 43.56'	25	24	17
762681	14230 HAYS RD	N/A	28° 22" 26.15'	82° 33" 43.56'	25	24	17
762682	14230 HAYS RD	N/A	28° 22" 26.15'	82° 33" 43.56'	25	24	17

Well Completion Information: 806614

Completion Date	Static Water Level	Finish Code	Drill Method	Status	Well Depth	Casing Diameter	Casing From Depth	Casing To Depth	Casing Material
08/03/2010	19	SCREENED OR SANDPOINT	ROTARY	Complete	44	2		34	PVC
08/19/2010	16	SCREENED OR SANDPOINT	ROTARY	Complete	32	2		17	PVC
08/26/2010	22	SCREENED OR SANDPOINT	ROTARY	Complete	52	2		42	PVC

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-24S	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/4/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806582
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 21.6"		Longitude (to nearest 0.1 seconds) 82 33' 43.4"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☒ Hollow Stem Auger ☐ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Shallow
Top of Casing Elevation (NVGD or NAVD) 50.4 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 47.4 (+/-) NGVD		

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	11

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		11	26	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	9	9	26	Surface Pore
Silica Sand	30/65	1	7	9	Surface Pore
Portland Cement	-	1	0	7	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/1/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 80 Minutes			
Pumping Rate 0.18 gal/min	Maximum Drawdown Dry	Well Purged Dry ☒ yes ☐ no	Pumping Condition ☐ continuous ☒ intermittent
Turbidity (if Measured): Start:198NTU	End:8.46NTU		Stabilized Water Level (BLS) N/A
Water appearance (color and odor) at start of development: Brown No odor detected			
Water appearance (color and odor) at end of development: Clear No odor detected			

Report Prepared By: Cary M. Richardson	Date 10/13/2010
Title/Company Project Manager Mortensen Engineering, Inc.	License # 9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-24D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-24D	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/2 & 8/3/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806614
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 21.6"		Longitude (to nearest 0.1 seconds) 82 33' 43.6"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson			Contractor License # 9371
Company Name Mortensen Engineering, Inc.			
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)			Aquifer Monitored Intermediate
Top of Casing Elevation (NVGD or NAVD) 50.6 (+/-) NGVD		Ground Surface Elevation (NVGD or NAVD) 47.4 (+/-) NGVD	

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	34

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		34	44	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	6	32	44	Tremie
Bentonite Chips	3/8-inch	0.5	30	32	Tremie
Portland Cement	-	5.5	0	30	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/1/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 21 Minutes			
Pumping Rate 2.5 gal/min	Maximum Drawdown 0.5 feet	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☒ continuous ☐ intermittent
Turbidity (if Measured): Start:1.2NTU	End:0.73NTU		Stabilized Water Level (BLS) 19.4 feet
Water appearance (color and odor) at start of development: Clear No odor detected			
Water appearance (color and odor) at end of development: Clear No odor detected			

Report Prepared By: Cary M. Richardson	Date 10/13/2010
Title/Company Project Manager Mortensen Engineering, Inc.	License # 9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-24D.

DEP Form # 62-520.900(3)
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Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-25S	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/20/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806582
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 21.7"		Longitude (to nearest 0.1 seconds) 82 33' 49.7"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☒ Hollow Stem Auger ☐ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Shallow
Top of Casing Elevation (NVGD or NAVD) 47.8 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 45.3 (+/-) NGVD		

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	4.5

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		4.5	14.5	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	6	2.5	14.5	Surface Pore
Silica Sand	30/65	1	1.5	2.5	Surface Pore
Portland Cement	-	0.5	0	1.5	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/1/2010	Well Development Method: ☐ Surge/Pump ☐ Pump ☐ Compressed Air ☒ Other (explain)		
Development Duration DRY	DRY		
Pumping Rate DRY	Maximum Drawdown DRY	Well Purged Dry ☐ yes ☐ no	Pumping Condition ☐ continuous ☐ intermittent
Turbidity (if Measured): Start:	End:		Stabilized Water Level (BLS)
Water appearance (color and odor) at start of development: DRY			
Water appearance (color and odor) at end of development: DRY			

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-25D.

DEP Form # 62-520.900(3)
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Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-25D	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/18 & 8/19/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806614
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 21.7"		Longitude (to nearest 0.1 seconds) 82 33' 49.5"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Intermediate
Top of Casing Elevation (NVGD or NAVD) 47.9 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 45.2 (+/-) NGVD		

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	17

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		17	32	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	7	16	32	Tremie
Bentonite Chips	3/8-inch	0.5	14	16	Tremie
Portland Cement	-	3	0	14	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/1/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 69 Minutes			
Pumping Rate 2.0 gal/min	Maximum Drawdown 0.5 feet	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☒ continuous ☐ intermittent

Turbidity (if Measured):		Stabilized Water Level (BLS)
Start:2.44NTU	End:0.64NTU	16.7 feet

Water appearance (color and odor) at start of development:
Clear
No odor detected
Water appearance (color and odor) at end of development:
Clear
No odor detected

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-25D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-26S	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/27/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806582
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 18.8"		Longitude (to nearest 0.1 seconds) 82 33' 52.7"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson			Contractor License # 9371
Company Name Mortensen Engineering, Inc.			
Construction Method: ☒ Hollow Stem Auger ☐ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)			Aquifer Monitored Shallow
Top of Casing Elevation (NVGD or NAVD) 54.2 (+/-) NGVD		Ground Surface Elevation (NVGD or NAVD) 51.1 (+/-) NGVD	

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	10

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		10	20	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	8	8	20	Surface Pore
Silica Sand	30/65	1	7	8	Surface Pore
Portland Cement	-	1	0	7	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/1/2010	Well Development Method: ☐ Surge/Pump ☐ Pump ☐ Compressed Air ☒ Other (explain)		
Development Duration DRY	DRY		
Pumping Rate DRY	Maximum Drawdown DRY	Well Purged Dry ☐ yes ☐ no	Pumping Condition ☐ continuous ☐ intermittent
Turbidity (if Measured):			Stabilized Water Level (BLS) DRY
Start:	End:		
Water appearance (color and odor) at start of development:			
DRY			
Water appearance (color and odor) at end of development:			
DRY			

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-26D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____ (Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-26D	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 8/25 & 8/26/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 806614
Well Purpose ☐ Background ☐ Intermediate ☐ Compliance ☒ Other (explain) Detection			
Latitude (to nearest 0.1 seconds) 28 22' 18.9"		Longitude (to nearest 0.1 seconds) 82 33' 52.7"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Intermediate
Top of Casing Elevation (NVGD or NAVD) 54.1 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 51.2 (+/-) NGVD		

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	42

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		42	52	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	4	40	52	Tremie
Bentonite Chips	3/8-inch	1	37	40	Tremie
Portland Cement	-	6	0	37	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 9/3/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 68 Minutes			
Pumping Rate 2.5 gal/min	Maximum Drawdown 4.9 feet	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☐ continuous ☒ intermittent

Turbidity (if Measured):		Stabilized Water Level (BLS)
Start:2.18NTU	End:4.35NTU	26.4 feet

Water appearance (color and odor) at start of development:
Clear
No odor detected
Water appearance (color and odor) at end of development:
Clear
No odor detected

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 2MW-26D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-27S	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 6/25/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 805243
Well Purpose ☒ Background ☐ Intermediate ☐ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) 28 22' 12.8"		Longitude (to nearest 0.1 seconds) 82 33' 47.4"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☒ Hollow Stem Auger ☐ Solid Stem Auger ☐ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Shallow
Top of Casing Elevation (NVGD or NAVD) 50.4 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 47.5 (+/-) NGVD		
Casing					
Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	
PVC	2-inch		0	8	
Screen					
Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		8	18	.006
Annulus					
Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	6	6	18	Surface Pore
Silica Sand	30/65	1	4	6	Surface Pore
Portland Cement	-	1	0	6	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date DRY	Well Development Method: ☐ Surge/Pump ☐ Pump ☐ Compressed Air ☒ Other (explain)		
Development Duration DRY	DRY		
Pumping Rate DRY	Maximum Drawdown DRY	Well Purged Dry ☐ yes ☐ no	Pumping Condition ☐ continuous ☐ intermittent
Turbidity (if Measured):			Stabilized Water Level (BLS) N/A
Start:	End:		
Water appearance (color and odor) at start of development:			
Water appearance (color and odor) at end of development:			

Report Prepared By: Cary M. Richardson	Date 10/13/2010
Title/Company Project Manager Mortensen Engineering, Inc.	License # 9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 4MW-27D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 2MW-27D	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 6/23 & 6/24/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 805242
Well Purpose ☒ Background ☐ Intermediate ☐ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) 28 22' 12.7"		Longitude (to nearest 0.1 seconds) 82 33' 47.3"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Intermediate
Top of Casing Elevation (NVGD or NAVD) 50.3 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 47.2 (+/-) NGVD		

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	2-inch		0	27

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
PVC	2-inch		27	42	.006

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Silica Sand	30/45	6.5	25	42	Tremie
Bentonite Chips	3/8-inch	0.5	23	25	Tremie
Portland Cement	-	3	0	23	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 6/15/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 60 Minutes			
Pumping Rate 1.0 gal/min	Maximum Drawdown 2.75 feet	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☒ continuous ☐ intermittent
Turbidity (if Measured): Start: 133 NTU	End: 3.41 NTU		Stabilized Water Level (BLS) 20.8 feet
Water appearance (color and odor) at start of development: Cloudy No odor detected			
Water appearance (color and odor) at end of development: Clear No odor detected			

Report Prepared By: Cary M. Richardson	Date 10/13/2010
Title/Company Project Manager Mortensen Engineering, Inc.	License # 9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 4MW-27D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 4MW-27	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 6/8, 6/9, 6/10, & 6/11/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 805240
Well Purpose ☒ Background ☐ Intermediate ☐ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) 28 22' 12.7"		Longitude (to nearest 0.1 seconds) 82 33' 47.2"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson			Contractor License # 9371
Company Name Mortensen Engineering, Inc.			
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)			Aquifer Monitored Upper Floridan
Top of Casing Elevation (NVGD or NAVD) 49.6 (+/-) NGVD		Ground Surface Elevation (NVGD or NAVD) 46.8 (+/-) NGVD	

Casing

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To
PVC	4-inch		0	67

Screen

Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
Open Hole	4-inch		67	77	N/A

Annulus

Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Portland Cement		59.5	0	67	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 6/15/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 60 Minutes			
Pumping Rate 2.5 gal/min	Maximum Drawdown No Drawdown	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☒ continuous ☐ intermittent

Turbidity (if Measured):		Stabilized Water Level (BLS)
Start: 14 NTU	End: 0.99 NTU	17.4

Water appearance (color and odor) at start of development:
Cloudy
No odor detected
Water appearance (color and odor) at end of development:
Clear
No odor detected

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 4MW-27D.

DEP Form # 62-520.900(3)
Form Title MONITORING WELL COMPLETION REPORT
Effective Date July 12, 2009
DEP Application No. _____
(Filled in by DEP)

Florida Department of Environmental Protection

Bob Martinez Center, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

MONITORING WELL COMPLETION REPORT

PART I: GENERAL INFORMATION

Well ID: 4MW-27D	Site Name: West Pasco Landfill Ash Cell A-4		Well Install Date 6/1, 6/2, 6/3, 6/4, & 6/7/2010
Facility ID	Alternate ID	FLUWID #	WMD Permit # 805238
Well Purpose ☒ Background ☐ Intermediate ☐ Compliance ☐ Other (explain)			
Latitude (to nearest 0.1 seconds) 28 22' 12.7"		Longitude (to nearest 0.1 seconds) 82 33' 47.1"	
Latitude and Longitude collection method: ☐ DGPS ☐ AGPS ☐ MAP ☐ ZIPCODE ☐ DPHO ☐ UNKNOWN ☒ OTHER			

PART II: WELL CONSTRUCTION DETAILS

Contractor Name Cary M. Richardson					Contractor License # 9371
Company Name Mortensen Engineering, Inc.					
Construction Method: ☐ Hollow Stem Auger ☐ Solid Stem Auger ☒ Water/Mud Rotary ☐ Air Rotary ☐ Cable Tool ☐ Direct Push ☐ Sonic ☐ Other (describe)					Aquifer Monitored Floridan
Top of Casing Elevation (NVGD or NAVD) 49.3 (+/-) NGVD			Ground Surface Elevation (NVGD or NAVD) 46.3 (+/-) NGVD		
Casing					
Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	
PVC	4-inch		0	146	
Screen					
Material	Inside Diameter	Outside Diameter	Depth (ft.) From	Depth (ft.) To	Slot Size
Open Hole	4-inch		146	156	N/A
Annulus					
Material including additives for sealant	Size of Material	Amount (# of bags)	Depth (ft.) From	Depth (ft.) To	Installation Method
Portland Cement		40	0	146	Tremie

PART III: WELL DEVELOPMENT DETAILS

Well Development Date 6/14/2010	Well Development Method: ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (explain)		
Development Duration 112 Minutes			
Pumping Rate 2.75 gal/min	Maximum Drawdown 4.75 feet	Well Purged Dry ☐ yes ☒ no	Pumping Condition ☐ continuous ☒ intermittent
Turbidity (if Measured): Start:1299 NTU	End:18.2 NTU		Stabilized Water Level (BLS) 21.5
Water appearance (color and odor) at start of development: Cloudy/milky No odor detected			
Water appearance (color and odor) at end of development: Clear No odor detected			

Report Prepared By:	Date
Cary M. Richardson	10/13/2010
Title/Company	License #
Project Manager Mortensen Engineering, Inc.	9371

PLEASE ATTACH BORING LOG

Remarks
See Attached boring log labeled 4MW-27D.

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES/CR START DATE: 3-23-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW24D

GROUND ELEVATION AT STAKE: 47.00

OFFSET DISTANCE AND DIRECTION FROM STAKE: DRILLED AT STAKE

CHANGE IN GROUND ELEVATION: _____

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED _____ HRS.

MEI MORTENSEN ENGINEERING, INC. SPT LOG

DEPTH	N PER 6"	N ASTM	N CONTS	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
0.0					GY. TO BN-GY. F. SAND (0.0 - 0.5)	
					LT. BN. F SAND (0.5 ———	
3.5	6	15		1	LT. BN. F SAND	
5.0	7 8					
6.0	3					
	5	12		2	LT. BN. F SAND	
7.5	7					
8.5	6				INTERBEDDED, F. LAM. LT. BN. F SAND	
	8			3	AND BN. SLI. SI. F SAND	
10.0	11	19				
11.0	10					
	12	26		4	same as # 3	
12.5	14					
13.5	9				same as # 3 (TOP 0.5)	
	13			5	LT. BN/MOTTLED SI. F SAND (BOTTOM)	
15.0	16	29				
16.0	9					
	13			6	LT. BN/MOTTLED SILTY F. SAND	
17.5	15	28				
18.5	10					
	19	37		7	BN. SLI. SI. F. SAND	
20.0	18					
21.0	10				MOTTLED SILTY F. SAND (TOP 0.5)	
	12	23		8	MOTTLED SANDY CLAY (BOTTOM)	
22.5	11					
23.5	16					
	21			9	BN. SLI. SI. TO SI. F SAND	
25.0	23	44				
26.0						
	10 7	13		10	MOTTLED SA. CLAY	
27.5	6					
28.5	6				LT. BN/MOTTLED SI. F. SAND	
	6 5	11		11	W/ SMALL SEAMS of MOTTLED SA. CLAY	
30.0						

BAGS CEMENT/BENTONITE: _____

T.O.B. DEPTH: _____ L.O.C.: _____ GROUTED BOREHOLE: _____

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES / CR START DATE: 3-23-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW24D

GROUND ELEVATION AT STAKE: _____

OFFSET DISTANCE AND DIRECTION FROM STAKE: _____

CHANGE IN GROUND ELEVATION: _____

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED ____ HRS.

MEI MORTENSEN ENGINEERING, INC. SPT LOG

DEPTH	N PER 6"	N ASTM	N CONTS	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
31.0	5/3			12	F. LAM, INTERBEDDED SI. F. SAND AND MOTTLED SA. CLAY	
32.5	2/5					← ABRUPT 100% L.O.C. @ 32.5'
33.5	12/10/9	19		13	HIGHLY WEATHERED LS	- SET 35' OF 3" CASING TO 33.5' DEEP - 100% L.O.C. again at bottom of casing
35.0						
36.0	5/3	7		14	HIGHLY WEATHERED LS w/ some pockets of CLAY	
37.5	4/9					← Set 5' more casing to 38.5' — Still Losing 50-60% Below CASING bottom
38.5	5/2	7		15	HIGHLY WEATHERED LS	
40.0						40'
41.0	9/9	18		16	HIGHLY WEATHERED LS	
42.5	9/7					← Regained some circ during 41.0 - 43.5' run Losing only 30% ±
43.5	7/5	12		17	HIGHLY WEATHERED LS	
45.0						
46.0	19/10			18	HIGHLY WEATHERED LS	← LOST 100% again @ 46.0'
47.5	11/5	21				← Regained 50% again @ 47.5'
48.5	6/11	17		19	HIGHLY WEATHERED LS	← 100% L.O.C. after the spoon
50.0					T.O.B. 50.0' GROUTED HOLE	

T.O.B. DEPTH: _____ L.O.C.: _____

BAGS CEMENT/BENTONITE: _____

GROUTED BOREHOLE: _____

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES / CR START DATE: 3-25-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW25D

GROUND ELEVATION AT STAKE: 45.00

OFFSET DISTANCE AND DIRECTION FROM STAKE: DRILLED AT STAKE

CHANGE IN GROUND ELEVATION: 6"-8" LOWER AFTER SLOPE WAS CUT

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED ____ HRS.

MEI MORTENSEN ENGINEERING, INC. SPT LOG

DEPTH	N PER 6"	N ASTM	N CONT'S	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
0.0					F. LAM. / MOTTLED FILL SAND @ 0.0	
3.5	16 / 16 / 19	35		1	F. LAMINATED LT. BN, BN AND DK. BN. F. SAND FILL	
5.0						
6.0	7 / 9 / 10	19		2	LT. BN. F SAND	
7.5						
8.5	9 / 14 / 19	33		3	LT. BN. TO WHITE F. SAND	
10.0						
11.0	14 / 22 / 23	45		4	LT. BN. TO WHITE F. SAND	
12.5						
13.5	6 / 6 / 8	14		5	MOTTLED SANDY CLAY	H_2O dropped in hole when sample # 6 was pulled out
15.0						
16.0	5 / 6 / 50	56		6	5-6-50 FOR 6" — GN-GY / MOTTLED CLAY (TOP 1.0) - - - 6A — WEATHERED LIMESTONE (BOTTOM) - - - 6B	
17.5						
18.5	8 / 9 / 13	22		7	HIGHLY WEATHERED LIMESTONE	← SET 20' OF CASING TO 18.5' BGS 20'
20.0						← ABRUPT 100% L.O.C. AT 20.0'
21.0	10 / 20 / 14	34		8	HIGHLY WEATHERED LIMESTONE	
22.5						
23.5	5 / 17 / 29	46		9	HIGHLY WEATHERED LIMESTONE	
25.0						
26.0	5 / 4 / 3	7		10	— MOTTLED CLAY (TOP 0.4) — HIGHLY WEATHERED LIMESTONE (Middle 0.5) - - 10A — WHITE F. SAND (BOTTOM) - - - 10B	← DRILLED LIKE SAND OR CLAY 27.5 - 28.5
27.5						
28.5	6 / 9 / 19	28		11	— TRACE OF SAND (TOP) — MOTTLED CLAY (Middle 0.1) — HIGHLY WEATHERED LIMESTONE (BOTTOM)	
30.0						

BAGS CEMENT/BENTONITE: _____

T.O.B. DEPTH: _____ L.O.C.: _____ GROUTED BOREHOLE: _____

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES/CR START DATE: 3-25-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW25D

GROUND ELEVATION AT STAKE: _____

OFFSET DISTANCE AND DIRECTION FROM STAKE: _____

CHANGE IN GROUND ELEVATION: _____

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED ____ HRS.

MEI MORTENSEN ENGINEERING, INC.
SPT LOG

DEPTH	N PER 6"	N ASTM	N CONT'S	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
31.0	31/33			12	HIGHLY WEATHERED LIMESTONE	
32.5	13/46					
33.5	7/9/17			13	HIGHLY WEATHERED LIMESTONE	
35.0	8					
36.0	11/9			14	HIGHLY WEATHERED LIMESTONE	
37.5	13/22					
					T.O.B. 37.5'	
					GROUTED HOLE	

T.O.B. DEPTH: _____ L.O.C.: _____

BAGS CEMENT/BENTONITE: _____

GROUTED BOREHOLE: _____

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES/CR START DATE: 3-24-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW26D

GROUND ELEVATION AT STAKE: 47.00'

OFFSET DISTANCE AND DIRECTION FROM STAKE: DRILLED AT STAKE

CHANGE IN GROUND ELEVATION: _____

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED ____ HRS.

MEI MORTENSEN ENGINEERING, INC. SPT LOG

DEPTH	N PER 6"	N ASTM	N CONT'S	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
					GY. TO BN-GY. F SAND (0.0-0.5)	
					LT. BN. F SAND (0.5—	
3.5	3	8		1	LT. BN. F SAND	
	4 4					
5.0						
6.0						
	3 4	9		2	LT. BN. F. SAND	
7.5	5					
8.5	4					
	5 8	13		3	LT. BN. F. SAND	
10.0						
11.0						
	5 8	16		4	WHITE F. SAND	
12.5	8					
13.5	8					
	9 11	20		5	WHITE F. SAND	
15.0						
16.0						
	7 8			6	BN/MOTTLED SL. TO SCL. CL. F SAND	
17.5	8	16				
18.5	9				BN/MOTTLED SLI. SL. TO SL. F. SAND (TOP 0.5)	
	7 5	12		7	BN-GY. CL. F SAND (Middle 0.3)	
20.0					GN-GY/MOTTLED SA. CLAY (BOTTOM)	
21.0						
	5 5	12		8	MOTTLED SANDY CLAY	
22.5	7					
23.5	4					← SET 25' of 3" FT CASING TO 23.5' BGS
	3 5	8		9	GN-GY/MOTTLED SA. CLAY	
25.0						25'
26.0	2 3	7		10	GN-GY/MOTTLED SA. CLAY	
27.5	4					
28.5	3					
	3 8	11		11	GN-GY/MOTTLED SA. CLAY w/ some seams of SL. F. SAND IN bottom 0.5' of sample	
30.0						

BAGS CEMENT/BENTONITE: _____

T.O.B. DEPTH: _____ L.O.C.: _____

GROUTED BOREHOLE: _____

MEI PROJECT NO.: _____

PROJECT NAME: PASCO COUNTY LANDFILL

PROJECT LOCATION: ASH CELL A-4

DRILLED BY: ES/CR START DATE: 3-24-10

LOGGED BY: TRF END DATE: _____

BORING NUMBER: 2MW26D

GROUND ELEVATION AT STAKE: _____

OFFSET DISTANCE AND DIRECTION FROM STAKE: _____

CHANGE IN GROUND ELEVATION: _____

▽ _____ AT TIME OF DRILLING IN OFFSET HA ▽ _____ DELAYED _____ HRS.

MEI MORTENSEN ENGINEERING, INC. SPT LOG

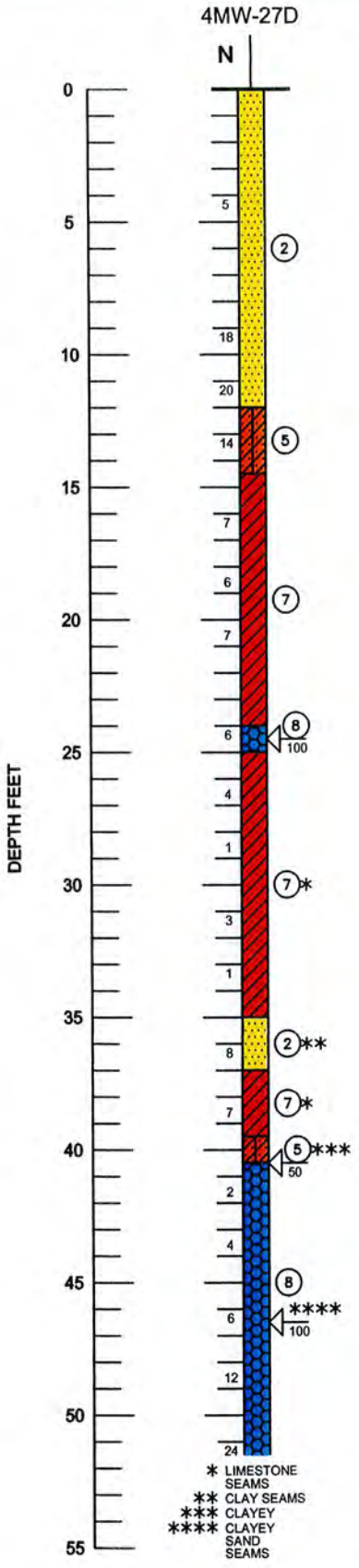
DEPTH	N PER 6"	N ASTM	N CONTS	SAMPLE #	DESCRIPTION OF SOIL	REMARKS / OBSERVATIONS
31.0	7/11			12	INTERBEDDED/F. LAM. CLAY - CLAYEY SAND - SILTY SAND - AND F. SAND	
32.5	11	22				
33.5	7/8/13	21		13	Same as # 12 - thicker sand seams	
35.0						
36.0	12/13	40		14	LT. BN. TO BN. F SAND - SLI. SI. F SAND w/ some small seams of MOTTLED CLAY	
37.5	27					
38.5	5/8/17	25		15	MOTTLED SA-CLAY w/ some thin sand seams	
40.0						
41.0	6/5	11		16	SI. F. SAND w/ some CLAY seams and tr. of WEA. LIMESTONE IN TIP of spoon	← STIFFENED W/ CHATTER AT 43.0'
42.5	6					
43.5	15/9/10	19		17	HIGHLY WEATHERED LS	Began to Lose some circulation (50% ±) AT 45.5'
45.0						
46.0	6/6			18	HIGHLY WEATHERED LS	← 100% L.O.C. AT 48.5'
47.5	7	13				
48.5	0/10/20	30		19	W.O.R. 48.5 - 49.2' HIGHLY WEATHERED LS	
50.5	21			20	24-50 FOR 6" HIGHLY WEATHERED LS	
51.0	24/50					
52.0						
53.5	10/10/12	22		21	HIGHLY WEATHERED LS	
55.0					T.O.B. 55.0' GROUTED HOLE	

T.O.B. DEPTH: _____ L.O.C.: _____

BAGS CEMENT/BENTONITE: _____

GROUTED BOREHOLE: _____

K:\DRAW\SPT-LOG SHEET REV 10-11-07.dwg, Model



LEGEND

1. Gray to dark gray fine SAND to slightly silty fine SAND, trace organics (SP/SP-SM)
2. White to light brown fine SAND to silty fine SAND (SP/SP-SM/SM)
3. Brown or gray to orange-brown fine SAND to silty fine SAND (SP/SP-SM/SM)
4. Dark brown to reddish brown or black slightly silty fine SAND to silty fine SAND (SP-SM/SM)
5. Gray or brown silty to slightly clayey fine SAND (SM/SM-SC)
6. Gray or brown clayey SAND (SC)
7. Gray or brown to gray-green sandy CLAY to CLAY (CL/CH)
8. White or light gray weathered LIMESTONE
9. Light gray to gray or tan cemented SILT to clayey SILT (ML/MH)

SP — Unified Soil Classification group symbol as determined by visual review

N — SPT "N" value in blows/foot

← — Loss of circulation (%)

THE TEST BORING RESULTS HEREON ARE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS AT THE NOTED APPROXIMATE BORING LOCATIONS, AND FOR THEIR NOTED DEPTHS; LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION SHOULD BE ANTICIPATED AND MAY BE ENCOUNTERED PARTICULARLY IN AREAS PREVIOUSLY DISTURBED. THE SOIL PROFILES AND THE OTHER FIELD TEST DATA HEREON ARE BASED ON THE DRILLER'S LOGS AND VISUAL REVIEW OF SELECTED SOIL SAMPLES IN THE LABORATORY. THE DELINEATIONS BETWEEN DIFFERENT SOIL MATERIAL TYPES SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE. THE GENERALIZED SOIL DESCRIPTIONS HEREON REPRESENT OUR INTERPRETATION OF THE SUBSURFACE SOIL CONDITIONS AT THE NOTED BORING LOCATIONS AND ON THE DATES DRILLED.

THE GROUNDWATER LEVEL DATA SHOWN HEREON ALONGSIDE THE SOIL BORING PROFILES REPRESENT SHORT TERM (NOT NECESSARILY STABILIZED) GROUNDWATER LEVELS, MEASURED IN THE BOREHOLES OR IN AN OFFSET BOREHOLE ON THE DATE DRILLED, UNLESS OTHERWISE NOTED. FLUCTUATIONS IN THE SHALLOW GROUNDWATER LEVEL FROM THE LEVELS SHOWN HEREON WILL OCCUR AND SHOULD BE ANTICIPATED THROUGHOUT THE YEAR; LOCAL VARIATIONS FROM THE LEVELS SHOWN HEREON SHOULD ALSO BE ANTICIPATED.

NOTE: Set 34' of temporary surface casing.

MORTENSEN ENGINEERING, INC.

GENERAL GEOTECHNICAL SERVICES
WEST PASCO COUNTY
LANDFILL - ASH CELL A-4
PASCO COUNTY, FLORIDA

SPT BORING SOIL PROFILE AND SOILS LEGEND

CREATED BY: DNH
CHECKED BY: MTG
DATE: FEB 2010
PROJECT NO: 10-10-07289

Appendix F
Well Completion Reports

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

Title				
Text				
Text				
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Text				

Table Title/Figure # Cell

Table Header 1	Table Header 2
Table Text	▪ Table bullet
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text

Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text." Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text."

[Sidebar Bullet]

[Sidebar Bullet]

[Sidebar Bullet]

Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

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NEW PORT RICHEY, FL 34654

25 Oct 2010

Mr. John Morris
Environmental Specialist III
Waste Management Section
Florida Department of
Environmental Protection
13051 N. Telecom Pkwy.
Temple Terrace, FL 33637

RE: West Pasco Class I Landfill
Groundwater Monitoring
New Wells

Dear Mr. Morris

Enclosed please find the first round groundwater monitoring results from monitoring wells 2MW-27S, 2MW-27D, 4MW-27, and 4MW-27D at the West Pasco Class I landfill. These wells were sampled and analyzed for the Appendix I and Appendix II analytes in compliance with 62-701 F.A.C.

If you have any questions please feel free to contact me.

Sincerely,

Candia E. Mulhern
Laboratory Manager

Enc.: 1

cc: MS 4565 Solid Waste Section, Florida DEP, 2600 Blair Stone Rd., Tallahassee, Fl 32399-2400
David Rojas, CDM, Westshore Center Suite 875, 1715 North Westshore BLvd., Tampa, Fl 33607
Robert J. Sigmond, Utilities Fiscal Services/Special Projects Director
John Power, Solid Waste Facility Manager

PART III ANALYTICAL RESULTS

Facility Permit #: 4051C00030

Site: Resource Recovery Class I Landfill Hays Road

Test Site ID #:

Sampling Date/Time: 07/01/2010 @ 11:00

Well Name: 2MW-27S

Report Period: 2010 Quarter II

Classification of Groundwater:

Well Purged: YES

Groundwater Elevation (NGVD): DRY

Well Type: Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered (Y/N)	Analysis Method	Analysis Date/Time	Analysis Results	Analysis Units	Detection Limits	Detection Units
000929	Sodium	Well Wizard Ded. Mon. System	No	EPA 200.7	07/01/10 11:00	DRY	mg/L	0.007	mg/L
001045	Iron	"	No	EPA 200.7		"	mg/L	0.002	mg/L
071900	Mercury	"	No	SM 3112B		"	mg/L	0.0002	mg/L
000400	pH-Field	"	No	SM 4500H+B		"	Std. Units	0.01	Std. Units
000010	Temperature (Field)	"	No	SM 2550B		"	°C	0	°C
000095	Specific Cond. (Field)	"	No	SM 2510B		"	µmhos/cm	0.0	µmhos/cm
000344	D.O. (Field)	"	No	SM 45000G		"	mg/L	0.0	mg/L
082079	Turbidity	"	No	SM 2130B		"	NTU	0.01	NTU
000940	Chloride	"	No	EPA 300.0		"	mg/L	0.13	mg/L
070300	Total Dis. Solids	"	No	SM 2540C		"	mg/L	17.2	mg/L
000610	Ammonia	"	No	SM 4500NH_3H		"	mg/L	0.04	mg/L
000620	Nitrate	"	No	SM 4500NO_3F		"	mg/L	0.02	mg/L
072020	Water Level (MSL)	"	No		07/01/10 11:00	DRY	Feet NGVD		Feet NGVD

PART III ANALYTICAL RESULTS

Facility Permit #: 4051C00030

Site: Resource Recovery Class I Landfill Hays Road

Test Site ID #:

Sampling Date/Time: 07/01/2010 @ 12:30

Well Name: 2MW-27D

Report Period: 2010 Quarter II

Classification of Groundwater:

Well Purged: YES

Groundwater Elevation (NGVD): 20.82

Well Type: Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered (Y/N)	Analysis Method	Analysis Date/Time	Analysis Results	Analysis Units	Detection Limits	Detection Units
000929	Sodium	Well Wizard Ded. Mon. System	No	EPA 200.7	07/08/10 10:00	52.5	mg/L	0.007	mg/L
001045	Iron	"	No	EPA 200.7	07/08/10 10:00	0.153	mg/L	0.002	mg/L
071900	Mercury	"	No	SM 3112B	07/06/10 10:30	<0.0002	mg/L	0.0002	mg/L
000400	pH-Field	"	No	SM 4500H+B	07/01/10 12:30	7.19	Std. Units	0.01	Std. Units
000010	Temperature (Field)	"	No	SM 2550B	07/01/10 12:30	25.84	°C	0	°C
000095	Specific Cond. (Field)	"	No	SM 2510B	07/01/10 12:30	794	µmhos/cm	0.0	µmhos/cm
000344	D.O. (Field)	"	No	SM 45000G	07/01/10 12:30	0.78	mg/L	0.0	mg/L
082079	Turbidity	"	No	SM 2130B	07/01/10 16:10	5.29	NTU	0.01	NTU
000940	Chloride	"	No	EPA 300.0	07/06/10 14:00	151	mg/L	0.13	mg/L
070300	Total Dis. Solids	"	No	SM 2540C	07/02/10 16:45	660	mg/L	17.2	mg/L
000610	Ammonia	"	No	SM 4500NH_3H	07/16/10 9:00	0.05	mg/L	0.04	mg/L
000620	Nitrate	"	No	SM 4500NO_3F	07/09/10 8:00	0.94	mg/L	0.02	mg/L
072020	Water Level (MSL)	"	No		07/01/10 12:30	~~20.82~~ 29.14 ARR	Feet NGVD		Feet NGVD

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0051U**	ug/L	0.021	0.0051	1	07/13/10 14:15	07/14/10 03:18	96-12-8	
1,2-Dibromoethane (EDB)	**0.0064U**	ug/L	0.010	0.0064	1	07/13/10 14:15	07/14/10 03:18	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00047U**	ug/L	0.0095	0.00047	1	07/05/10 16:09	07/09/10 12:19	309-00-2	
alpha-BHC	**0.00028U**	ug/L	0.0095	0.00028	1	07/05/10 16:09	07/09/10 12:19	319-84-6	
beta-BHC	**0.00047U**	ug/L	0.0095	0.00047	1	07/05/10 16:09	07/09/10 12:19	319-85-7	
delta-BHC	**0.00038U**	ug/L	0.0095	0.00038	1	07/05/10 16:09	07/09/10 12:19	319-86-8	
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0095	0.00019	1	07/05/10 16:09	07/09/10 12:19	58-89-9	
Chlordane (Technical)	**0.076U**	ug/L	0.47	0.076	1	07/05/10 16:09	07/09/10 12:19	57-74-9	
Chlorobenzilate	**0.020U**	ug/L	0.095	0.020	1	07/05/10 16:09	07/09/10 12:19	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0095	0.0018	1	07/05/10 16:09	07/09/10 12:19	72-54-8	
4,4'-DDE	**0.00085U**	ug/L	0.0095	0.00085	1	07/05/10 16:09	07/09/10 12:19	72-55-9	
4,4'-DDT	**0.0034U**	ug/L	0.0095	0.0034	1	07/05/10 16:09	07/09/10 12:19	50-29-3	
Dieldrin	**0.00047U**	ug/L	0.0095	0.00047	1	07/05/10 16:09	07/09/10 12:19	60-57-1	
Endosulfan I	**0.00066U**	ug/L	0.0095	0.00066	1	07/05/10 16:09	07/09/10 12:19	959-98-8	
Endosulfan II	**0.00066U**	ug/L	0.0095	0.00066	1	07/05/10 16:09	07/09/10 12:19	33213-65-9	
Endosulfan sulfate	**0.00057U**	ug/L	0.0095	0.00057	1	07/05/10 16:09	07/09/10 12:19	1031-07-8	
Endrin	**0.024**	ug/L	0.0095	0.0016	1	07/05/10 16:09	07/12/10 00:53	72-20-8	J(C2), JN
Endrin aldehyde	**0.0067U**	ug/L	0.0095	0.0067	1	07/05/10 16:09	07/09/10 12:19	7421-93-4	
Heptachlor	**0.0014U**	ug/L	0.0095	0.0014	1	07/05/10 16:09	07/09/10 12:19	76-44-8	
Heptachlor epoxide	**0.00038U**	ug/L	0.0095	0.00038	1	07/05/10 16:09	07/09/10 12:19	1024-57-3	
Methoxychlor	**0.0066U**	ug/L	0.0095	0.0066	1	07/05/10 16:09	07/09/10 12:19	72-43-5	
Pentachloronitrobenzene	**0.014U**	ug/L	0.095	0.014	1	07/05/10 16:09	07/09/10 12:19	82-68-8	
Toxaphene	**0.27U**	ug/L	0.47	0.27	1	07/05/10 16:09	07/09/10 12:19	8001-35-2	
Tetrachloro-m-xylene (S)	89	%	66.5-120.3		1	07/05/10 16:09	07/09/10 12:19	877-09-8	
Decachlorobiphenyl (S)	84	%	41.7-109.1		1	07/05/10 16:09	07/09/10 12:19	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.076U**	ug/L	0.47	0.076	1	07/05/10 16:11	07/09/10 12:19	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.077U**	ug/L	0.47	0.077	1	07/05/10 16:11	07/09/10 12:19	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.47	0.11	1	07/05/10 16:11	07/09/10 12:19	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.47	0.12	1	07/05/10 16:11	07/09/10 12:19	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.26U**	ug/L	0.47	0.26	1	07/05/10 16:11	07/09/10 12:19	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.47	0.14	1	07/05/10 16:11	07/09/10 12:19	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.10U**	ug/L	0.47	0.10	1	07/05/10 16:11	07/09/10 12:19	11096-82-5	
Tetrachloro-m-xylene (S)	90	%	48-111		1	07/05/10 16:11	07/09/10 12:19	877-09-8	
Decachlorobiphenyl (S)	95	%	63-121		1	07/05/10 16:11	07/09/10 12:19	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	07/06/10 15:56	07/13/10 12:39	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	07/06/10 15:56	07/13/10 12:39	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	07/06/10 15:56	07/13/10 12:39	52-85-7	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Methyl parathion	**0.19U**	ug/L	0.48	0.19	1	07/06/10 15:56	07/13/10 12:39	298-00-0	
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.96	0.34	1	07/06/10 15:56	07/13/10 12:39	56-38-2	
Phorate	**0.35U**	ug/L	0.96	0.35	1	07/06/10 15:56	07/13/10 12:39	298-02-2	
4-Chloro3nitrobenzotrifluoride	87	%	34.2-122		1	07/06/10 15:56	07/13/10 12:39		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.22U**	ug/L	0.90	0.22	1	07/05/10 15:00	07/08/10 05:59	94-75-7	
Dinoseb	**0.055U**	ug/L	0.18	0.055	1	07/05/10 15:00	07/08/10 05:59	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	07/05/10 15:00	07/08/10 05:59	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	07/05/10 15:00	07/08/10 05:59	93-76-5	
2,4,5-TP (Silvex)	**0.047U**	ug/L	0.18	0.047	1	07/05/10 15:00	07/08/10 05:59	93-72-1	
2,4-DCPA (S)	75	%	65.5-125.7		1	07/05/10 15:00	07/08/10 05:59	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:10	7440-38-2	
Barium	**42.5**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:10	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:10	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:10	7440-43-9	
Chromium	**2.5 I**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:10	7440-47-3	
Cobalt	**9.8 I**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:10	7440-48-4	
Copper	**2.7 I**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:10	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:10	7439-92-1	
Nickel	**5.1**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:10	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	07/14/10 10:50	07/15/10 05:10	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:10	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	07/14/10 10:50	07/15/10 05:10	7440-31-5	
Vanadium	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:10	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	07/14/10 10:50	07/15/10 05:10	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:02	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	07/07/10 12:05	07/13/10 15:07	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.82U**	ug/L	4.8	0.82	1	07/08/10 17:00	07/09/10 23:57	83-32-9	
Acenaphthylene	**0.91U**	ug/L	4.8	0.91	1	07/08/10 17:00	07/09/10 23:57	208-96-8	
Acetophenone	**1.4U**	ug/L	4.8	1.4	1	07/08/10 17:00	07/09/10 23:57	98-86-2	
2-Acetylaminofluorene	**0.62U**	ug/L	4.8	0.62	1	07/08/10 17:00	07/09/10 23:57	53-96-3	
4-Aminobiphenyl	**2.7U**	ug/L	4.8	2.7	1	07/08/10 17:00	07/09/10 23:57	92-67-1	
Anthracene	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/09/10 23:57	120-12-7	
Benzo(a)anthracene	**0.60U**	ug/L	4.8	0.60	1	07/08/10 17:00	07/09/10 23:57	56-55-3	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(a)pyrene	**0.55U**	ug/L	0.95	0.55	1	07/08/10 17:00	07/09/10 23:57	50-32-8	
Benzo(b)fluoranthene	**0.59U**	ug/L	1.9	0.59	1	07/08/10 17:00	07/09/10 23:57	205-99-2	
Benzo(g,h,i)perylene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/09/10 23:57	191-24-2	
Benzo(k)fluoranthene	**0.49U**	ug/L	3.8	0.49	1	07/08/10 17:00	07/09/10 23:57	207-08-9	
Benzyl alcohol	**0.97U**	ug/L	4.8	0.97	1	07/08/10 17:00	07/09/10 23:57	100-51-6	
4-Bromophenylphenyl ether	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/09/10 23:57	101-55-3	
Butylbenzylphthalate	**0.69U**	ug/L	4.8	0.69	1	07/08/10 17:00	07/09/10 23:57	85-68-7	
4-Chloro-3-methylphenol	**0.59U**	ug/L	19.1	0.59	1	07/08/10 17:00	07/09/10 23:57	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/09/10 23:57	106-47-8	
bis(2-Chloroethoxy)methane	**2.8U**	ug/L	4.8	2.8	1	07/08/10 17:00	07/09/10 23:57	111-91-1	
bis(2-Chloroethyl) ether	**0.72U**	ug/L	3.8	0.72	1	07/08/10 17:00	07/09/10 23:57	111-44-4	
bis(2-Chloroisopropyl) ether	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/09/10 23:57	108-60-1	
2-Chloronaphthalene	**0.76U**	ug/L	4.8	0.76	1	07/08/10 17:00	07/09/10 23:57	91-58-7	
2-Chlorophenol	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/09/10 23:57	95-57-8	
4-Chlorophenylphenyl ether	**0.60U**	ug/L	4.8	0.60	1	07/08/10 17:00	07/09/10 23:57	7005-72-3	
Chrysene	**0.35U**	ug/L	4.8	0.35	1	07/08/10 17:00	07/09/10 23:57	218-01-9	
Diallate	**0.69U**	ug/L	4.8	0.69	1	07/08/10 17:00	07/09/10 23:57	2303-16-4	
Dibenz(a,h)anthracene	**0.62U**	ug/L	1.9	0.62	1	07/08/10 17:00	07/09/10 23:57	53-70-3	
Dibenzofuran	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/09/10 23:57	132-64-9	
1,2-Dichlorobenzene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/09/10 23:57	95-50-1	
1,3-Dichlorobenzene	**0.73U**	ug/L	4.8	0.73	1	07/08/10 17:00	07/09/10 23:57	541-73-1	
1,4-Dichlorobenzene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/09/10 23:57	106-46-7	
3,3'-Dichlorobenzidine	**0.66U**	ug/L	9.5	0.66	1	07/08/10 17:00	07/09/10 23:57	91-94-1	
2,4-Dichlorophenol	**0.53U**	ug/L	1.9	0.53	1	07/08/10 17:00	07/09/10 23:57	120-83-2	
2,6-Dichlorophenol	**0.59U**	ug/L	3.8	0.59	1	07/08/10 17:00	07/09/10 23:57	87-65-0	
Diethylphthalate	**0.49U**	ug/L	4.8	0.49	1	07/08/10 17:00	07/09/10 23:57	84-66-2	
P-Dimethylaminoazobenzene	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/09/10 23:57	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	4.8	1.9	1	07/08/10 17:00	07/09/10 23:57	57-97-6	
3,3'-Dimethylbenzidine	**3.0U**	ug/L	9.5	3.0	1	07/08/10 17:00	07/09/10 23:57	119-93-7	
2,4-Dimethylphenol	**1.5U**	ug/L	4.8	1.5	1	07/08/10 17:00	07/09/10 23:57	105-67-9	
Dimethylphthalate	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/09/10 23:57	131-11-3	
Di-n-butylphthalate	**0.39U**	ug/L	4.8	0.39	1	07/08/10 17:00	07/09/10 23:57	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.1	1.3	1	07/08/10 17:00	07/09/10 23:57	534-52-1	
1,3-Dinitrobenzene	**0.65U**	ug/L	7.6	0.65	1	07/08/10 17:00	07/09/10 23:57	99-65-0	
2,4-Dinitrophenol	**1.5U**	ug/L	19.1	1.5	1	07/08/10 17:00	07/09/10 23:57	51-28-5	
2,4-Dinitrotoluene	**0.51U**	ug/L	1.9	0.51	1	07/08/10 17:00	07/09/10 23:57	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	1.9	1.2	1	07/08/10 17:00	07/09/10 23:57	606-20-2	
Di-n-octylphthalate	**0.86U**	ug/L	4.8	0.86	1	07/08/10 17:00	07/09/10 23:57	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.76U**	ug/L	4.8	0.76	1	07/08/10 17:00	07/09/10 23:57	117-81-7	
Ethyl methanesulfonate	**0.86U**	ug/L	4.8	0.86	1	07/08/10 17:00	07/09/10 23:57	62-50-0	
Fluoranthene	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/09/10 23:57	206-44-0	
Fluorene	**0.53U**	ug/L	4.8	0.53	1	07/08/10 17:00	07/09/10 23:57	86-73-7	
Hexachlorobenzene	**0.76U**	ug/L	0.95	0.76	1	07/08/10 17:00	07/09/10 23:57	118-74-1	
Hexachlorocyclopentadiene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/09/10 23:57	77-47-4	
Hexachloroethane	**0.68U**	ug/L	4.8	0.68	1	07/08/10 17:00	07/09/10 23:57	67-72-1	
Hexachloropropene	**1.3U**	ug/L	4.8	1.3	1	07/08/10 17:00	07/09/10 23:57	1888-71-7	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Indeno(1,2,3-cd)pyrene	**0.70U**	ug/L	1.9	0.70	1	07/08/10 17:00	07/09/10 23:57	193-39-5	
Isodrin	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/09/10 23:57	465-73-6	
Isophorone	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/09/10 23:57	78-59-1	
Isosafrole	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/09/10 23:57	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/09/10 23:57	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.8	1.6	1	07/08/10 17:00	07/09/10 23:57	91-80-5	
3-Methylcholanthrene	**0.99U**	ug/L	4.8	0.99	1	07/08/10 17:00	07/09/10 23:57	56-49-5	
Methyl methanesulfonate	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/09/10 23:57	66-27-3	
2-Methylnaphthalene	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/09/10 23:57	91-57-6	
2-Methylphenol(o-Cresol)	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/09/10 23:57	95-48-7	
3&4-Methylphenol(m&p Cresol)	**0.63U**	ug/L	9.5	0.63	1	07/08/10 17:00	07/09/10 23:57		
2-Naphthylamine	**2.2U**	ug/L	4.8	2.2	1	07/08/10 17:00	07/09/10 23:57	91-59-8	
Naphthalene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/09/10 23:57	91-20-3	
1-Naphthylamine	**0.98U**	ug/L	4.8	0.98	1	07/08/10 17:00	07/09/10 23:57	134-32-7	J(L1)
1,4-Naphthoquinone	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/09/10 23:57	130-15-4	
2-Nitroaniline	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/09/10 23:57	88-74-4	
3-Nitroaniline	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/09/10 23:57	99-09-2	
4-Nitroaniline	**0.66U**	ug/L	3.8	0.66	1	07/08/10 17:00	07/09/10 23:57	100-01-6	
Nitrobenzene	**1.0U**	ug/L	3.8	1.0	1	07/08/10 17:00	07/09/10 23:57	98-95-3	
2-Nitrophenol	**0.77U**	ug/L	4.8	0.77	1	07/08/10 17:00	07/09/10 23:57	88-75-5	
4-Nitrophenol	**1.0U**	ug/L	19.1	1.0	1	07/08/10 17:00	07/09/10 23:57	100-02-7	
5-Nitro-o-toluidine	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/09/10 23:57	99-55-8	
N-Nitrosodiethylamine	**0.70U**	ug/L	3.8	0.70	1	07/08/10 17:00	07/09/10 23:57	55-18-5	
N-Nitrosodimethylamine	**0.93U**	ug/L	1.9	0.93	1	07/08/10 17:00	07/09/10 23:57	62-75-9	
N-Nitroso-di-n-butylamine	**0.53U**	ug/L	3.8	0.53	1	07/08/10 17:00	07/09/10 23:57	924-16-3	
N-Nitroso-di-n-propylamine	**0.90U**	ug/L	3.8	0.90	1	07/08/10 17:00	07/09/10 23:57	621-64-7	
N-Nitrosodiphenylamine	**0.48U**	ug/L	4.8	0.48	1	07/08/10 17:00	07/09/10 23:57	86-30-6	
N-Nitrosomethylethylamine	**0.71U**	ug/L	4.8	0.71	1	07/08/10 17:00	07/09/10 23:57	10595-95-6	
N-Nitrosopiperidine	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/09/10 23:57	100-75-4	
N-Nitrosopyrrolidine	**0.84U**	ug/L	4.8	0.84	1	07/08/10 17:00	07/09/10 23:57	930-55-2	
O,O,O-Triethylphosphorothioate	**0.66U**	ug/L	4.8	0.66	1	07/08/10 17:00	07/09/10 23:57	126-68-1	
Pentachlorobenzene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/09/10 23:57	608-93-5	
Phenacetin	**0.51U**	ug/L	4.8	0.51	1	07/08/10 17:00	07/09/10 23:57	62-44-2	
Phenanthrene	**0.50U**	ug/L	4.8	0.50	1	07/08/10 17:00	07/09/10 23:57	85-01-8	
Phenol	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/09/10 23:57	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/09/10 23:57	106-50-3	
Pronamide	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/09/10 23:57	23950-58-5	
Pyrene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/09/10 23:57	129-00-0	
Safrole	**0.81U**	ug/L	4.8	0.81	1	07/08/10 17:00	07/09/10 23:57	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.67U**	ug/L	4.8	0.67	1	07/08/10 17:00	07/09/10 23:57	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.7U**	ug/L	4.8	3.7	1	07/08/10 17:00	07/09/10 23:57	58-90-2	
Thionazin	**0.58U**	ug/L	4.8	0.58	1	07/08/10 17:00	07/09/10 23:57	297-97-2	
O-Toluidine	**1.0U**	ug/L	4.8	1.0	1	07/08/10 17:00	07/09/10 23:57	95-53-4	
2,4,5-Trichlorophenol	**0.50U**	ug/L	3.8	0.50	1	07/08/10 17:00	07/09/10 23:57	95-95-4	
2,4,6-Trichlorophenol	**0.66U**	ug/L	1.9	0.66	1	07/08/10 17:00	07/09/10 23:57	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/09/10 23:57	99-35-4	J(L1)

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Nitrobenzene-d5 (S)	75	%	10-110		1	07/08/10 17:00	07/09/10 23:57	4165-60-0	
2-Fluorobiphenyl (S)	77	%	18-110		1	07/08/10 17:00	07/09/10 23:57	321-60-8	
Terphenyl-d14 (S)	87	%	10-123		1	07/08/10 17:00	07/09/10 23:57	1718-51-0	
Phenol-d6 (S)	27	%	10-110		1	07/08/10 17:00	07/09/10 23:57	13127-88-3	
2-Fluorophenol (S)	39	%	18-110		1	07/08/10 17:00	07/09/10 23:57	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-110		1	07/08/10 17:00	07/09/10 23:57	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		07/06/10 15:38	107-02-8	J(L1)
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		07/06/10 15:38	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	78-93-3	
Carbon disulfide	**0.80 I**	ug/L	1.0	0.50	1		07/06/10 15:38	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	110-75-8	
Chloroform	**0.88 I**	ug/L	1.0	0.50	1		07/06/10 15:38	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		07/06/10 15:38	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		07/06/10 15:38	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 15:38	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 15:38	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	591-78-6	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D **Lab ID: 3513886001** Collected: 07/01/10 12:30 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	74-88-4	
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		07/06/10 15:38	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		07/06/10 15:38	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 15:38	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		07/06/10 15:38	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		07/06/10 15:38	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		07/06/10 15:38	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		07/06/10 15:38	1330-20-7	
4-Bromofluorobenzene (S)	105	%	70-114		1		07/06/10 15:38	460-00-4	
Dibromofluoromethane (S)	106	%	88-117		1		07/06/10 15:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	94	%	86-125		1		07/06/10 15:38	17060-07-0	
Toluene-d8 (S)	105	%	87-113		1		07/06/10 15:38	2037-26-5	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	07/12/10 12:00	07/12/10 17:15	57-12-5	

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(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 2MW-27D RE **Lab ID: 3513886007** Collected: 07/20/10 14:00 Received: 07/21/10 11:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**2.0U**	mg/L	2.0	2.0	1		07/23/10 14:00		

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PART III ANALYTICAL RESULTS

Facility Permit #: 4051C00030

Site: Resource Recovery Class I Landfill Hays Road

Test Site ID #:

Sampling Date/Time: 07/01/2010 @ 13:38

Well Name: 4MW-27

Report Period: 2010 Quarter II

Classification of Groundwater: Floridan

Well Purged: YES

Groundwater Elevation (NGVD): 56.68

Well Type: Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered (Y/N)	Analysis Method	Analysis Date/Time	Analysis Results	Analysis Units	Detection Limits	Detection Units
000929	Sodium	Well Wizard Ded. Mon. System	No	EPA 200.7	07/08/10 10:00	58.0	mg/L	0.007	mg/L
001045	Iron	"	No	EPA 200.7	07/08/10 10:00	0.211	mg/L	0.002	mg/L
071900	Mercury	"	No	SM 3112B	07/06/10 10:30	<0.0002	mg/L	0.0002	mg/L
000400	pH-Field	"	No	SM 4500H+B	07/01/10 13:38	8.82	Std. Units	0.01	Std. Units
000010	Temperature (Field)	"	No	SM 2550B	07/01/10 13:38	26.26	°C	0	°C
000095	Specific Cond. (Field)	"	No	SM 2510B	07/01/10 13:38	715	µmhos/cm	0.0	µmhos/cm
000344	D.O. (Field)	"	No	SM 45000G	07/01/10 13:38	0.73	mg/L	0.0	mg/L
082079	Turbidity	"	No	SM 2130B	07/01/10 16:10	2.39	NTU	0.01	NTU
000940	Chloride	"	No	EPA 300.0	07/06/10 14:00	127	mg/L	0.13	mg/L
070300	Total Dis. Solids	"	No	SM 2540C	07/02/10 16:45	492	mg/L	17.2	mg/L
000610	Ammonia	"	No	SM 4500NH_3H	07/16/10 9:00	0.09	mg/L	0.04	mg/L
000620	Nitrate	"	No	SM 4500NO_3F	07/09/10 8:00	0.86	mg/L	0.02	mg/L
072020	Water Level (MSL)	"	No		07/01/10 13:38	~~56.68~~ 29.28	Feet NGVD		Feet NGVD

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0050U**	ug/L	0.020	0.0050	1	07/13/10 14:15	07/14/10 03:32	96-12-8	
1,2-Dibromoethane (EDB)	**0.0063U**	ug/L	0.010	0.0063	1	07/13/10 14:15	07/14/10 03:32	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00048U**	ug/L	0.0096	0.00048	1	07/05/10 16:09	07/09/10 12:36	309-00-2	
alpha-BHC	**0.00029U**	ug/L	0.0096	0.00029	1	07/05/10 16:09	07/09/10 12:36	319-84-6	
beta-BHC	**0.00048U**	ug/L	0.0096	0.00048	1	07/05/10 16:09	07/09/10 12:36	319-85-7	
delta-BHC	**0.00038U**	ug/L	0.0096	0.00038	1	07/05/10 16:09	07/09/10 12:36	319-86-8	
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0096	0.00019	1	07/05/10 16:09	07/09/10 12:36	58-89-9	
Chlordane (Technical)	**0.077U**	ug/L	0.48	0.077	1	07/05/10 16:09	07/09/10 12:36	57-74-9	
Chlorobenzilate	**0.020U**	ug/L	0.096	0.020	1	07/05/10 16:09	07/09/10 12:36	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0096	0.0018	1	07/05/10 16:09	07/09/10 12:36	72-54-8	
4,4'-DDE	**0.00086U**	ug/L	0.0096	0.00086	1	07/05/10 16:09	07/09/10 12:36	72-55-9	
4,4'-DDT	**0.0035U**	ug/L	0.0096	0.0035	1	07/05/10 16:09	07/09/10 12:36	50-29-3	
Dieldrin	**0.00048U**	ug/L	0.0096	0.00048	1	07/05/10 16:09	07/09/10 12:36	60-57-1	
Endosulfan I	**0.00067U**	ug/L	0.0096	0.00067	1	07/05/10 16:09	07/09/10 12:36	959-98-8	
Endosulfan II	**0.00067U**	ug/L	0.0096	0.00067	1	07/05/10 16:09	07/09/10 12:36	33213-65-9	
Endosulfan sulfate	**0.00058U**	ug/L	0.0096	0.00058	1	07/05/10 16:09	07/09/10 12:36	1031-07-8	
Endrin	**0.0016U**	ug/L	0.0096	0.0016	1	07/05/10 16:09	07/09/10 12:36	72-20-8	
Endrin aldehyde	**0.0068U**	ug/L	0.0096	0.0068	1	07/05/10 16:09	07/09/10 12:36	7421-93-4	
Heptachlor	**0.0014U**	ug/L	0.0096	0.0014	1	07/05/10 16:09	07/09/10 12:36	76-44-8	
Heptachlor epoxide	**0.00038U**	ug/L	0.0096	0.00038	1	07/05/10 16:09	07/09/10 12:36	1024-57-3	
Methoxychlor	**0.0067U**	ug/L	0.0096	0.0067	1	07/05/10 16:09	07/09/10 12:36	72-43-5	
Pentachloronitrobenzene	**0.014U**	ug/L	0.096	0.014	1	07/05/10 16:09	07/09/10 12:36	82-68-8	
Toxaphene	**0.27U**	ug/L	0.48	0.27	1	07/05/10 16:09	07/09/10 12:36	8001-35-2	
Tetrachloro-m-xylene (S)	89	%	66.5-120.3		1	07/05/10 16:09	07/09/10 12:36	877-09-8	
Decachlorobiphenyl (S)	98	%	41.7-109.1		1	07/05/10 16:09	07/09/10 12:36	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.077U**	ug/L	0.48	0.077	1	07/05/10 16:11	07/09/10 12:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.078U**	ug/L	0.48	0.078	1	07/05/10 16:11	07/09/10 12:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.48	0.11	1	07/05/10 16:11	07/09/10 12:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.48	0.12	1	07/05/10 16:11	07/09/10 12:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.26U**	ug/L	0.48	0.26	1	07/05/10 16:11	07/09/10 12:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.48	0.14	1	07/05/10 16:11	07/09/10 12:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.11U**	ug/L	0.48	0.11	1	07/05/10 16:11	07/09/10 12:36	11096-82-5	
Tetrachloro-m-xylene (S)	86	%	48-111		1	07/05/10 16:11	07/09/10 12:36	877-09-8	
Decachlorobiphenyl (S)	114	%	63-121		1	07/05/10 16:11	07/09/10 12:36	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	07/06/10 15:56	07/13/10 11:58	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	07/06/10 15:56	07/13/10 11:58	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	07/06/10 15:56	07/13/10 11:58	52-85-7	
Methyl parathion	**0.18U**	ug/L	0.48	0.18	1	07/06/10 15:56	07/13/10 11:58	298-00-0	

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(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.95	0.34	1	07/06/10 15:56	07/13/10 11:58	56-38-2	
Phorate	**0.35U**	ug/L	0.95	0.35	1	07/06/10 15:56	07/13/10 11:58	298-02-2	
4-Chloro3nitrobenzotrifluoride	89	%	34.2-122		1	07/06/10 15:56	07/13/10 11:58		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.21U**	ug/L	0.90	0.21	1	07/05/10 15:00	07/08/10 07:45	94-75-7	
Dinoseb	**0.055U**	ug/L	0.18	0.055	1	07/05/10 15:00	07/08/10 07:45	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	07/05/10 15:00	07/08/10 07:45	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	07/05/10 15:00	07/08/10 07:45	93-76-5	
2,4,5-TP (Silvex)	**0.047U**	ug/L	0.18	0.047	1	07/05/10 15:00	07/08/10 07:45	93-72-1	
2,4-DCPA (S)	74	%	65.5-125.7		1	07/05/10 15:00	07/08/10 07:45	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**12.5**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:14	7440-38-2	
Barium	**11.5**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:14	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:14	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:14	7440-43-9	
Chromium	**2.5U**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:14	7440-47-3	
Cobalt	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:14	7440-48-4	
Copper	**2.5U**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:14	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:14	7439-92-1	
Nickel	**3.5 I**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:14	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	07/14/10 10:50	07/15/10 05:14	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:14	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	07/14/10 10:50	07/15/10 05:14	7440-31-5	
Vanadium	**10**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:14	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	07/14/10 10:50	07/15/10 05:14	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**2.9**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:07	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	07/07/10 12:05	07/13/10 15:10	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.83U**	ug/L	4.8	0.83	1	07/08/10 17:00	07/10/10 00:26	83-32-9	
Acenaphthylene	**0.91U**	ug/L	4.8	0.91	1	07/08/10 17:00	07/10/10 00:26	208-96-8	
Acetophenone	**1.4U**	ug/L	4.8	1.4	1	07/08/10 17:00	07/10/10 00:26	98-86-2	
2-Acetylaminofluorene	**0.62U**	ug/L	4.8	0.62	1	07/08/10 17:00	07/10/10 00:26	53-96-3	
4-Aminobiphenyl	**2.7U**	ug/L	4.8	2.7	1	07/08/10 17:00	07/10/10 00:26	92-67-1	
Anthracene	**0.58U**	ug/L	4.8	0.58	1	07/08/10 17:00	07/10/10 00:26	120-12-7	
Benzo(a)anthracene	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/10/10 00:26	56-55-3	
Benzo(a)pyrene	**0.56U**	ug/L	0.96	0.56	1	07/08/10 17:00	07/10/10 00:26	50-32-8	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.60U**	ug/L	1.9	0.60	1	07/08/10 17:00	07/10/10 00:26	205-99-2	
Benzo(g,h,i)perylene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:26	191-24-2	
Benzo(k)fluoranthene	**0.49U**	ug/L	3.8	0.49	1	07/08/10 17:00	07/10/10 00:26	207-08-9	
Benzyl alcohol	**0.98U**	ug/L	4.8	0.98	1	07/08/10 17:00	07/10/10 00:26	100-51-6	
4-Bromophenylphenyl ether	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:26	101-55-3	
Butylbenzylphthalate	**0.69U**	ug/L	4.8	0.69	1	07/08/10 17:00	07/10/10 00:26	85-68-7	
4-Chloro-3-methylphenol	**0.60U**	ug/L	19.2	0.60	1	07/08/10 17:00	07/10/10 00:26	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:26	106-47-8	
bis(2-Chloroethoxy)methane	**2.8U**	ug/L	4.8	2.8	1	07/08/10 17:00	07/10/10 00:26	111-91-1	
bis(2-Chloroethyl) ether	**0.72U**	ug/L	3.8	0.72	1	07/08/10 17:00	07/10/10 00:26	111-44-4	
bis(2-Chloroisopropyl) ether	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:26	108-60-1	
2-Chloronaphthalene	**0.77U**	ug/L	4.8	0.77	1	07/08/10 17:00	07/10/10 00:26	91-58-7	
2-Chlorophenol	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:26	95-57-8	
4-Chlorophenylphenyl ether	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/10/10 00:26	7005-72-3	
Chrysene	**0.36U**	ug/L	4.8	0.36	1	07/08/10 17:00	07/10/10 00:26	218-01-9	
Diallate	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:26	2303-16-4	
Dibenz(a,h)anthracene	**0.62U**	ug/L	1.9	0.62	1	07/08/10 17:00	07/10/10 00:26	53-70-3	
Dibenzofuran	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:26	132-64-9	
1,2-Dichlorobenzene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:26	95-50-1	
1,3-Dichlorobenzene	**0.73U**	ug/L	4.8	0.73	1	07/08/10 17:00	07/10/10 00:26	541-73-1	
1,4-Dichlorobenzene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/10/10 00:26	106-46-7	
3,3'-Dichlorobenzidine	**0.66U**	ug/L	9.6	0.66	1	07/08/10 17:00	07/10/10 00:26	91-94-1	
2,4-Dichlorophenol	**0.54U**	ug/L	1.9	0.54	1	07/08/10 17:00	07/10/10 00:26	120-83-2	
2,6-Dichlorophenol	**0.60U**	ug/L	3.8	0.60	1	07/08/10 17:00	07/10/10 00:26	87-65-0	
Diethylphthalate	**0.49U**	ug/L	4.8	0.49	1	07/08/10 17:00	07/10/10 00:26	84-66-2	
P-Dimethylaminoazobenzene	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:26	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	4.8	1.9	1	07/08/10 17:00	07/10/10 00:26	57-97-6	
3,3'-Dimethylbenzidine	**3.0U**	ug/L	9.6	3.0	1	07/08/10 17:00	07/10/10 00:26	119-93-7	
2,4-Dimethylphenol	**1.5U**	ug/L	4.8	1.5	1	07/08/10 17:00	07/10/10 00:26	105-67-9	
Dimethylphthalate	**0.62U**	ug/L	4.8	0.62	1	07/08/10 17:00	07/10/10 00:26	131-11-3	
Di-n-butylphthalate	**0.39U**	ug/L	4.8	0.39	1	07/08/10 17:00	07/10/10 00:26	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.2	1.3	1	07/08/10 17:00	07/10/10 00:26	534-52-1	
1,3-Dinitrobenzene	**0.65U**	ug/L	7.7	0.65	1	07/08/10 17:00	07/10/10 00:26	99-65-0	
2,4-Dinitrophenol	**1.5U**	ug/L	19.2	1.5	1	07/08/10 17:00	07/10/10 00:26	51-28-5	
2,4-Dinitrotoluene	**0.51U**	ug/L	1.9	0.51	1	07/08/10 17:00	07/10/10 00:26	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	1.9	1.2	1	07/08/10 17:00	07/10/10 00:26	606-20-2	
Di-n-octylphthalate	**0.87U**	ug/L	4.8	0.87	1	07/08/10 17:00	07/10/10 00:26	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.77U**	ug/L	4.8	0.77	1	07/08/10 17:00	07/10/10 00:26	117-81-7	
Ethyl methanesulfonate	**0.87U**	ug/L	4.8	0.87	1	07/08/10 17:00	07/10/10 00:26	62-50-0	
Fluoranthene	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/10/10 00:26	206-44-0	
Fluorene	**0.54U**	ug/L	4.8	0.54	1	07/08/10 17:00	07/10/10 00:26	86-73-7	
Hexachlorobenzene	**0.77U**	ug/L	0.96	0.77	1	07/08/10 17:00	07/10/10 00:26	118-74-1	
Hexachlorocyclopentadiene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:26	77-47-4	
Hexachloroethane	**0.68U**	ug/L	4.8	0.68	1	07/08/10 17:00	07/10/10 00:26	67-72-1	
Hexachloropropene	**1.4U**	ug/L	4.8	1.4	1	07/08/10 17:00	07/10/10 00:26	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.70U**	ug/L	1.9	0.70	1	07/08/10 17:00	07/10/10 00:26	193-39-5	

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(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/10/10 00:26	465-73-6	
Isophorone	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:26	78-59-1	
Isosafrole	**0.58U**	ug/L	4.8	0.58	1	07/08/10 17:00	07/10/10 00:26	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/10/10 00:26	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.8	1.6	1	07/08/10 17:00	07/10/10 00:26	91-80-5	
3-Methylcholanthrene	**1.0U**	ug/L	4.8	1.0	1	07/08/10 17:00	07/10/10 00:26	56-49-5	
Methyl methanesulfonate	**0.96U**	ug/L	4.8	0.96	1	07/08/10 17:00	07/10/10 00:26	66-27-3	
2-Methylnaphthalene	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/10/10 00:26	91-57-6	
2-Methylphenol(o-Cresol)	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:26	95-48-7	
3&4-Methylphenol(m&p Cresol)	**0.63U**	ug/L	9.6	0.63	1	07/08/10 17:00	07/10/10 00:26		
2-Naphthylamine	**2.2U**	ug/L	4.8	2.2	1	07/08/10 17:00	07/10/10 00:26	91-59-8	
Naphthalene	**0.75U**	ug/L	4.8	0.75	1	07/08/10 17:00	07/10/10 00:26	91-20-3	
1-Naphthylamine	**0.99U**	ug/L	4.8	0.99	1	07/08/10 17:00	07/10/10 00:26	134-32-7	J(L1)
1,4-Naphthoquinone	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/10/10 00:26	130-15-4	
2-Nitroaniline	**0.58U**	ug/L	4.8	0.58	1	07/08/10 17:00	07/10/10 00:26	88-74-4	
3-Nitroaniline	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/10/10 00:26	99-09-2	
4-Nitroaniline	**0.66U**	ug/L	3.8	0.66	1	07/08/10 17:00	07/10/10 00:26	100-01-6	
Nitrobenzene	**1.0U**	ug/L	3.8	1.0	1	07/08/10 17:00	07/10/10 00:26	98-95-3	
2-Nitrophenol	**0.78U**	ug/L	4.8	0.78	1	07/08/10 17:00	07/10/10 00:26	88-75-5	
4-Nitrophenol	**1.0U**	ug/L	19.2	1.0	1	07/08/10 17:00	07/10/10 00:26	100-02-7	
5-Nitro-o-toluidine	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:26	99-55-8	
N-Nitrosodiethylamine	**0.70U**	ug/L	3.8	0.70	1	07/08/10 17:00	07/10/10 00:26	55-18-5	
N-Nitrosodimethylamine	**0.93U**	ug/L	1.9	0.93	1	07/08/10 17:00	07/10/10 00:26	62-75-9	
N-Nitroso-di-n-butylamine	**0.53U**	ug/L	3.8	0.53	1	07/08/10 17:00	07/10/10 00:26	924-16-3	
N-Nitroso-di-n-propylamine	**0.90U**	ug/L	3.8	0.90	1	07/08/10 17:00	07/10/10 00:26	621-64-7	
N-Nitrosodiphenylamine	**0.48U**	ug/L	4.8	0.48	1	07/08/10 17:00	07/10/10 00:26	86-30-6	
N-Nitrosomethylethylamine	**0.71U**	ug/L	4.8	0.71	1	07/08/10 17:00	07/10/10 00:26	10595-95-6	
N-Nitrosopiperidine	**0.62U**	ug/L	4.8	0.62	1	07/08/10 17:00	07/10/10 00:26	100-75-4	
N-Nitrosopyrrolidine	**0.85U**	ug/L	4.8	0.85	1	07/08/10 17:00	07/10/10 00:26	930-55-2	
O,O,O-Triethylphosphorothioate	**0.66U**	ug/L	4.8	0.66	1	07/08/10 17:00	07/10/10 00:26	126-68-1	
Pentachlorobenzene	**0.75U**	ug/L	4.8	0.75	1	07/08/10 17:00	07/10/10 00:26	608-93-5	
Phenacetin	**0.51U**	ug/L	4.8	0.51	1	07/08/10 17:00	07/10/10 00:26	62-44-2	
Phenanthrene	**0.50U**	ug/L	4.8	0.50	1	07/08/10 17:00	07/10/10 00:26	85-01-8	
Phenol	**0.52U**	ug/L	4.8	0.52	1	07/08/10 17:00	07/10/10 00:26	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/10/10 00:26	106-50-3	
Pronamide	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/10/10 00:26	23950-58-5	
Pyrene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:26	129-00-0	
Safrole	**0.82U**	ug/L	4.8	0.82	1	07/08/10 17:00	07/10/10 00:26	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.67U**	ug/L	4.8	0.67	1	07/08/10 17:00	07/10/10 00:26	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.7U**	ug/L	4.8	3.7	1	07/08/10 17:00	07/10/10 00:26	58-90-2	
Thionazin	**0.59U**	ug/L	4.8	0.59	1	07/08/10 17:00	07/10/10 00:26	297-97-2	
O-Toluidine	**1.0U**	ug/L	4.8	1.0	1	07/08/10 17:00	07/10/10 00:26	95-53-4	
2,4,5-Trichlorophenol	**0.50U**	ug/L	3.8	0.50	1	07/08/10 17:00	07/10/10 00:26	95-95-4	
2,4,6-Trichlorophenol	**0.66U**	ug/L	1.9	0.66	1	07/08/10 17:00	07/10/10 00:26	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:26	99-35-4	J(L1)
Nitrobenzene-d5 (S)	77	%	10-110		1	07/08/10 17:00	07/10/10 00:26	4165-60-0	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	84	%	18-110		1	07/08/10 17:00	07/10/10 00:26	321-60-8	
Terphenyl-d14 (S)	95	%	10-123		1	07/08/10 17:00	07/10/10 00:26	1718-51-0	
Phenol-d6 (S)	28	%	10-110		1	07/08/10 17:00	07/10/10 00:26	13127-88-3	
2-Fluorophenol (S)	40	%	18-110		1	07/08/10 17:00	07/10/10 00:26	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-110		1	07/08/10 17:00	07/10/10 00:26	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		07/06/10 16:01	107-02-8	J(L1)
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		07/06/10 16:01	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	78-93-3	
Carbon disulfide	**0.74 I**	ug/L	1.0	0.50	1		07/06/10 16:01	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		07/06/10 16:01	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		07/06/10 16:01	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 16:01	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 16:01	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	74-88-4	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 **Lab ID: 3513886002** Collected: 07/01/10 13:38 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		07/06/10 16:01	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		07/06/10 16:01	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:01	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		07/06/10 16:01	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		07/06/10 16:01	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		07/06/10 16:01	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:01	1330-20-7	
4-Bromofluorobenzene (S)	107	%	70-114		1		07/06/10 16:01	460-00-4	
Dibromofluoromethane (S)	107	%	88-117		1		07/06/10 16:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	86-125		1		07/06/10 16:01	17060-07-0	
Toluene-d8 (S)	110	%	87-113		1		07/06/10 16:01	2037-26-5	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	07/12/10 12:00	07/12/10 17:16	57-12-5	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27 RE **Lab ID: 3513886006** Collected: 07/20/10 13:20 Received: 07/21/10 11:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**5.8**	mg/L	1.0	1.0	1		07/23/10 14:00		

REPORT OF LABORATORY ANALYSIS

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PART III ANALYTICAL RESULTS

Facility Permit #: 4051C00030

Site: Resource Recovery Class I Landfill Hays Road

Test Site ID #:

Sampling Date/Time: 07/01/2010 @ 14:00

Well Name: 4MW-27D

Report Period: 2010 Quarter II

Classification of Groundwater: Floridan

Well Purged: YES

Groundwater Elevation (NGVD): 136.00

Well Type: Other

Storet Code	Parameter Monitored	Sampling Method	Field Filtered (Y/N)	Analysis Method	Analysis Date/Time	Analysis Results	Analysis Units	Detection Limits	Detection Units
000929	Sodium	Well Wizard Ded. Mon. System	No	EPA 200.7	07/08/10 10:00	7.91	mg/L	0.007	mg/L
001045	Iron	"	No	EPA 200.7	07/08/10 10:00	0.135	mg/L	0.002	mg/L
071900	Mercury	"	No	SM 3112B	07/06/10 10:30	<0.0002	mg/L	0.0002	mg/L
000400	pH-Field	"	No	SM 4500H+B	07/01/10 14:00	8.13	Std. Units	0.01	Std. Units
000010	Temperature (Field)	"	No	SM 2550B	07/01/10 14:00	25.59	°C	0	°C
000095	Specific Cond. (Field)	"	No	SM 2510B	07/01/10 14:00	294	µmhos/cm	0.0	µmhos/cm
000344	D.O. (Field)	"	No	SM 45000G	07/01/10 14:00	4.51	mg/L	0.0	mg/L
082079	Turbidity	"	No	SM 2130B	07/01/10 16:10	3.46	NTU	0.01	NTU
000940	Chloride	"	No	EPA 300.0	07/06/10 14:00	12.2	mg/L	0.13	mg/L
070300	Total Dis. Solids	"	No	SM 2540C	07/02/10 16:45	200	mg/L	17.2	mg/L
000610	Ammonia	"	No	SM 4500NH_3H	07/16/10 9:00	0.06	mg/L	0.04	mg/L
000620	Nitrate	"	No	SM 4500NO_3F	07/09/10 8:00	<0.02 AMR	mg/L	0.02	mg/L
072020	Water Level (MSL)	"	No		07/01/10 14:00	29.28 ~~136.00~~	Feet NGVD		Feet NGVD

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0048U**	ug/L	0.020	0.0048	1	07/13/10 14:15	07/14/10 03:47	96-12-8	
1,2-Dibromoethane (EDB)	**0.0061U**	ug/L	0.0098	0.0061	1	07/13/10 14:15	07/14/10 03:47	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00049U**	ug/L	0.0098	0.00049	1	07/05/10 16:09	07/09/10 12:53	309-00-2	
alpha-BHC	**0.00029U**	ug/L	0.0098	0.00029	1	07/05/10 16:09	07/09/10 12:53	319-84-6	
beta-BHC	**0.00049U**	ug/L	0.0098	0.00049	1	07/05/10 16:09	07/09/10 12:53	319-85-7	
delta-BHC	**0.00039U**	ug/L	0.0098	0.00039	1	07/05/10 16:09	07/09/10 12:53	319-86-8	
gamma-BHC (Lindane)	**0.00020U**	ug/L	0.0098	0.00020	1	07/05/10 16:09	07/09/10 12:53	58-89-9	
Chlordane (Technical)	**0.079U**	ug/L	0.49	0.079	1	07/05/10 16:09	07/09/10 12:53	57-74-9	
Chlorobenzilate	**0.021U**	ug/L	0.098	0.021	1	07/05/10 16:09	07/09/10 12:53	510-15-6	
4,4'-DDD	**0.0019U**	ug/L	0.0098	0.0019	1	07/05/10 16:09	07/09/10 12:53	72-54-8	
4,4'-DDE	**0.00088U**	ug/L	0.0098	0.00088	1	07/05/10 16:09	07/09/10 12:53	72-55-9	
4,4'-DDT	**0.0035U**	ug/L	0.0098	0.0035	1	07/05/10 16:09	07/09/10 12:53	50-29-3	
Dieldrin	**0.00049U**	ug/L	0.0098	0.00049	1	07/05/10 16:09	07/09/10 12:53	60-57-1	
Endosulfan I	**0.13**	ug/L	0.0098	0.00069	1	07/05/10 16:09	07/09/10 12:53	959-98-8	
Endosulfan II	**0.00069U**	ug/L	0.0098	0.00069	1	07/05/10 16:09	07/09/10 12:53	33213-65-9	
Endosulfan sulfate	**0.00059U**	ug/L	0.0098	0.00059	1	07/05/10 16:09	07/09/10 12:53	1031-07-8	
Endrin	**0.0017U**	ug/L	0.0098	0.0017	1	07/05/10 16:09	07/09/10 12:53	72-20-8	
Endrin aldehyde	**0.0070U**	ug/L	0.0098	0.0070	1	07/05/10 16:09	07/09/10 12:53	7421-93-4	
Heptachlor	**0.0015U**	ug/L	0.0098	0.0015	1	07/05/10 16:09	07/09/10 12:53	76-44-8	
Heptachlor epoxide	**0.00039U**	ug/L	0.0098	0.00039	1	07/05/10 16:09	07/09/10 12:53	1024-57-3	
Methoxychlor	**0.0069U**	ug/L	0.0098	0.0069	1	07/05/10 16:09	07/09/10 12:53	72-43-5	
Pentachloronitrobenzene	**0.015U**	ug/L	0.098	0.015	1	07/05/10 16:09	07/09/10 12:53	82-68-8	
Toxaphene	**0.28U**	ug/L	0.49	0.28	1	07/05/10 16:09	07/09/10 12:53	8001-35-2	
Tetrachloro-m-xylene (S)	90	%	66.5-120.3		1	07/05/10 16:09	07/09/10 12:53	877-09-8	
Decachlorobiphenyl (S)	104	%	41.7-109.1		1	07/05/10 16:09	07/09/10 12:53	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.079U**	ug/L	0.49	0.079	1	07/05/10 16:11	07/09/10 12:53	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.080U**	ug/L	0.49	0.080	1	07/05/10 16:11	07/09/10 12:53	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.12U**	ug/L	0.49	0.12	1	07/05/10 16:11	07/09/10 12:53	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.49	0.12	1	07/05/10 16:11	07/09/10 12:53	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.27U**	ug/L	0.49	0.27	1	07/05/10 16:11	07/09/10 12:53	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.49	0.14	1	07/05/10 16:11	07/09/10 12:53	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.11U**	ug/L	0.49	0.11	1	07/05/10 16:11	07/09/10 12:53	11096-82-5	
Tetrachloro-m-xylene (S)	93	%	48-111		1	07/05/10 16:11	07/09/10 12:53	877-09-8	
Decachlorobiphenyl (S)	120	%	63-121		1	07/05/10 16:11	07/09/10 12:53	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	07/06/10 15:56	07/13/10 11:16	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	07/06/10 15:56	07/13/10 11:16	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	07/06/10 15:56	07/13/10 11:16	52-85-7	
Methyl parathion	**0.19U**	ug/L	0.48	0.19	1	07/06/10 15:56	07/13/10 11:16	298-00-0	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.95	0.34	1	07/06/10 15:56	07/13/10 11:16	56-38-2	
Phorate	**0.35U**	ug/L	0.95	0.35	1	07/06/10 15:56	07/13/10 11:16	298-02-2	
4-Chloro3nitrobenzotrifluoride	82	%	34.2-122		1	07/06/10 15:56	07/13/10 11:16		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.21U**	ug/L	0.90	0.21	1	07/05/10 15:00	07/08/10 08:11	94-75-7	
Dinoseb	**0.054U**	ug/L	0.18	0.054	1	07/05/10 15:00	07/08/10 08:11	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	07/05/10 15:00	07/08/10 08:11	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	07/05/10 15:00	07/08/10 08:11	93-76-5	
2,4,5-TP (Silvex)	**0.047U**	ug/L	0.18	0.047	1	07/05/10 15:00	07/08/10 08:11	93-72-1	
2,4-DCPA (S)	70	%	65.5-125.7		1	07/05/10 15:00	07/08/10 08:11	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:18	7440-38-2	
Barium	**26.0**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:18	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:18	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 05:18	7440-43-9	
Chromium	**5.1**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:18	7440-47-3	
Cobalt	**5.0 I**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:18	7440-48-4	
Copper	**2.9 I**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:18	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:18	7439-92-1	
Nickel	**4.0 I**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:18	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	07/14/10 10:50	07/15/10 05:18	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	07/14/10 10:50	07/15/10 05:18	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	07/14/10 10:50	07/15/10 05:18	7440-31-5	
Vanadium	**35.5**	ug/L	10.0	5.0	1	07/14/10 10:50	07/15/10 05:18	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	07/14/10 10:50	07/15/10 05:18	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:12	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	07/14/10 10:50	07/15/10 10:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	07/07/10 12:05	07/13/10 15:13	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.82U**	ug/L	4.8	0.82	1	07/08/10 17:00	07/10/10 00:55	83-32-9	
Acenaphthylene	**0.90U**	ug/L	4.8	0.90	1	07/08/10 17:00	07/10/10 00:55	208-96-8	
Acetophenone	**1.4U**	ug/L	4.8	1.4	1	07/08/10 17:00	07/10/10 00:55	98-86-2	
2-Acetylaminofluorene	**0.62U**	ug/L	4.8	0.62	1	07/08/10 17:00	07/10/10 00:55	53-96-3	
4-Aminobiphenyl	**2.7U**	ug/L	4.8	2.7	1	07/08/10 17:00	07/10/10 00:55	92-67-1	
Anthracene	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/10/10 00:55	120-12-7	
Benzo(a)anthracene	**0.60U**	ug/L	4.8	0.60	1	07/08/10 17:00	07/10/10 00:55	56-55-3	
Benzo(a)pyrene	**0.55U**	ug/L	0.95	0.55	1	07/08/10 17:00	07/10/10 00:55	50-32-8	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.59U**	ug/L	1.9	0.59	1	07/08/10 17:00	07/10/10 00:55	205-99-2	
Benzo(g,h,i)perylene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:55	191-24-2	
Benzo(k)fluoranthene	**0.49U**	ug/L	3.8	0.49	1	07/08/10 17:00	07/10/10 00:55	207-08-9	
Benzyl alcohol	**0.97U**	ug/L	4.8	0.97	1	07/08/10 17:00	07/10/10 00:55	100-51-6	
4-Bromophenylphenyl ether	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:55	101-55-3	
Butylbenzylphthalate	**0.69U**	ug/L	4.8	0.69	1	07/08/10 17:00	07/10/10 00:55	85-68-7	
4-Chloro-3-methylphenol	**0.59U**	ug/L	19.0	0.59	1	07/08/10 17:00	07/10/10 00:55	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:55	106-47-8	
bis(2-Chloroethoxy)methane	**2.8U**	ug/L	4.8	2.8	1	07/08/10 17:00	07/10/10 00:55	111-91-1	
bis(2-Chloroethyl) ether	**0.71U**	ug/L	3.8	0.71	1	07/08/10 17:00	07/10/10 00:55	111-44-4	
bis(2-Chloroisopropyl) ether	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:55	108-60-1	
2-Chloronaphthalene	**0.76U**	ug/L	4.8	0.76	1	07/08/10 17:00	07/10/10 00:55	91-58-7	
2-Chlorophenol	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:55	95-57-8	
4-Chlorophenylphenyl ether	**0.60U**	ug/L	4.8	0.60	1	07/08/10 17:00	07/10/10 00:55	7005-72-3	
Chrysene	**0.35U**	ug/L	4.8	0.35	1	07/08/10 17:00	07/10/10 00:55	218-01-9	
Diallate	**0.69U**	ug/L	4.8	0.69	1	07/08/10 17:00	07/10/10 00:55	2303-16-4	
Dibenz(a,h)anthracene	**0.62U**	ug/L	1.9	0.62	1	07/08/10 17:00	07/10/10 00:55	53-70-3	
Dibenzofuran	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:55	132-64-9	
1,2-Dichlorobenzene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:55	95-50-1	
1,3-Dichlorobenzene	**0.72U**	ug/L	4.8	0.72	1	07/08/10 17:00	07/10/10 00:55	541-73-1	
1,4-Dichlorobenzene	**0.73U**	ug/L	4.8	0.73	1	07/08/10 17:00	07/10/10 00:55	106-46-7	
3,3'-Dichlorobenzidine	**0.66U**	ug/L	9.5	0.66	1	07/08/10 17:00	07/10/10 00:55	91-94-1	
2,4-Dichlorophenol	**0.53U**	ug/L	1.9	0.53	1	07/08/10 17:00	07/10/10 00:55	120-83-2	
2,6-Dichlorophenol	**0.59U**	ug/L	3.8	0.59	1	07/08/10 17:00	07/10/10 00:55	87-65-0	
Diethylphthalate	**0.49U**	ug/L	4.8	0.49	1	07/08/10 17:00	07/10/10 00:55	84-66-2	
P-Dimethylaminoazobenzene	**0.64U**	ug/L	4.8	0.64	1	07/08/10 17:00	07/10/10 00:55	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	4.8	1.9	1	07/08/10 17:00	07/10/10 00:55	57-97-6	
3,3'-Dimethylbenzidine	**3.0U**	ug/L	9.5	3.0	1	07/08/10 17:00	07/10/10 00:55	119-93-7	
2,4-Dimethylphenol	**1.5U**	ug/L	4.8	1.5	1	07/08/10 17:00	07/10/10 00:55	105-67-9	
Dimethylphthalate	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/10/10 00:55	131-11-3	
Di-n-butylphthalate	**0.39U**	ug/L	4.8	0.39	1	07/08/10 17:00	07/10/10 00:55	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.0	1.3	1	07/08/10 17:00	07/10/10 00:55	534-52-1	
1,3-Dinitrobenzene	**0.65U**	ug/L	7.6	0.65	1	07/08/10 17:00	07/10/10 00:55	99-65-0	
2,4-Dinitrophenol	**1.5U**	ug/L	19.0	1.5	1	07/08/10 17:00	07/10/10 00:55	51-28-5	
2,4-Dinitrotoluene	**0.50U**	ug/L	1.9	0.50	1	07/08/10 17:00	07/10/10 00:55	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	1.9	1.2	1	07/08/10 17:00	07/10/10 00:55	606-20-2	
Di-n-octylphthalate	**0.86U**	ug/L	4.8	0.86	1	07/08/10 17:00	07/10/10 00:55	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.76U**	ug/L	4.8	0.76	1	07/08/10 17:00	07/10/10 00:55	117-81-7	
Ethyl methanesulfonate	**0.86U**	ug/L	4.8	0.86	1	07/08/10 17:00	07/10/10 00:55	62-50-0	
Fluoranthene	**0.51U**	ug/L	4.8	0.51	1	07/08/10 17:00	07/10/10 00:55	206-44-0	
Fluorene	**0.53U**	ug/L	4.8	0.53	1	07/08/10 17:00	07/10/10 00:55	86-73-7	
Hexachlorobenzene	**0.76U**	ug/L	0.95	0.76	1	07/08/10 17:00	07/10/10 00:55	118-74-1	
Hexachlorocyclopentadiene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:55	77-47-4	
Hexachloroethane	**0.68U**	ug/L	4.8	0.68	1	07/08/10 17:00	07/10/10 00:55	67-72-1	
Hexachloropropene	**1.3U**	ug/L	4.8	1.3	1	07/08/10 17:00	07/10/10 00:55	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.70U**	ug/L	1.9	0.70	1	07/08/10 17:00	07/10/10 00:55	193-39-5	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.51U**	ug/L	4.8	0.51	1	07/08/10 17:00	07/10/10 00:55	465-73-6	
Isophorone	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:55	78-59-1	
Isosafrole	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/10/10 00:55	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/10/10 00:55	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.8	1.6	1	07/08/10 17:00	07/10/10 00:55	91-80-5	
3-Methylcholanthrene	**0.99U**	ug/L	4.8	0.99	1	07/08/10 17:00	07/10/10 00:55	56-49-5	
Methyl methanesulfonate	**0.95U**	ug/L	4.8	0.95	1	07/08/10 17:00	07/10/10 00:55	66-27-3	
2-Methylnaphthalene	**0.94U**	ug/L	4.8	0.94	1	07/08/10 17:00	07/10/10 00:55	91-57-6	
2-Methylphenol(o-Cresol)	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:55	95-48-7	
3&4-Methylphenol(m&p Cresol)	**0.63U**	ug/L	9.5	0.63	1	07/08/10 17:00	07/10/10 00:55		
2-Naphthylamine	**2.2U**	ug/L	4.8	2.2	1	07/08/10 17:00	07/10/10 00:55	91-59-8	
Naphthalene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/10/10 00:55	91-20-3	
1-Naphthylamine	**0.98U**	ug/L	4.8	0.98	1	07/08/10 17:00	07/10/10 00:55	134-32-7	J(L1)
1,4-Naphthoquinone	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/10/10 00:55	130-15-4	
2-Nitroaniline	**0.57U**	ug/L	4.8	0.57	1	07/08/10 17:00	07/10/10 00:55	88-74-4	
3-Nitroaniline	**0.94U**	ug/L	4.8	0.94	1	07/08/10 17:00	07/10/10 00:55	99-09-2	
4-Nitroaniline	**0.66U**	ug/L	3.8	0.66	1	07/08/10 17:00	07/10/10 00:55	100-01-6	
Nitrobenzene	**1.0U**	ug/L	3.8	1.0	1	07/08/10 17:00	07/10/10 00:55	98-95-3	
2-Nitrophenol	**0.77U**	ug/L	4.8	0.77	1	07/08/10 17:00	07/10/10 00:55	88-75-5	
4-Nitrophenol	**1.0U**	ug/L	19.0	1.0	1	07/08/10 17:00	07/10/10 00:55	100-02-7	
5-Nitro-o-toluidine	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:55	99-55-8	
N-Nitrosodiethylamine	**0.70U**	ug/L	3.8	0.70	1	07/08/10 17:00	07/10/10 00:55	55-18-5	
N-Nitrosodimethylamine	**0.92U**	ug/L	1.9	0.92	1	07/08/10 17:00	07/10/10 00:55	62-75-9	
N-Nitroso-di-n-butylamine	**0.52U**	ug/L	3.8	0.52	1	07/08/10 17:00	07/10/10 00:55	924-16-3	
N-Nitroso-di-n-propylamine	**0.89U**	ug/L	3.8	0.89	1	07/08/10 17:00	07/10/10 00:55	621-64-7	
N-Nitrosodiphenylamine	**0.48U**	ug/L	4.8	0.48	1	07/08/10 17:00	07/10/10 00:55	86-30-6	
N-Nitrosomethylethylamine	**0.70U**	ug/L	4.8	0.70	1	07/08/10 17:00	07/10/10 00:55	10595-95-6	
N-Nitrosopiperidine	**0.61U**	ug/L	4.8	0.61	1	07/08/10 17:00	07/10/10 00:55	100-75-4	
N-Nitrosopyrrolidine	**0.84U**	ug/L	4.8	0.84	1	07/08/10 17:00	07/10/10 00:55	930-55-2	
O,O,O-Triethylphosphorothioate	**0.66U**	ug/L	4.8	0.66	1	07/08/10 17:00	07/10/10 00:55	126-68-1	
Pentachlorobenzene	**0.74U**	ug/L	4.8	0.74	1	07/08/10 17:00	07/10/10 00:55	608-93-5	
Phenacetin	**0.50U**	ug/L	4.8	0.50	1	07/08/10 17:00	07/10/10 00:55	62-44-2	
Phenanthrene	**0.50U**	ug/L	4.8	0.50	1	07/08/10 17:00	07/10/10 00:55	85-01-8	
Phenol	**0.51U**	ug/L	4.8	0.51	1	07/08/10 17:00	07/10/10 00:55	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	07/08/10 17:00	07/10/10 00:55	106-50-3	
Pronamide	**1.1U**	ug/L	4.8	1.1	1	07/08/10 17:00	07/10/10 00:55	23950-58-5	
Pyrene	**0.65U**	ug/L	4.8	0.65	1	07/08/10 17:00	07/10/10 00:55	129-00-0	
Safrole	**0.81U**	ug/L	4.8	0.81	1	07/08/10 17:00	07/10/10 00:55	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.67U**	ug/L	4.8	0.67	1	07/08/10 17:00	07/10/10 00:55	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.7U**	ug/L	4.8	3.7	1	07/08/10 17:00	07/10/10 00:55	58-90-2	
Thionazin	**0.58U**	ug/L	4.8	0.58	1	07/08/10 17:00	07/10/10 00:55	297-97-2	
O-Toluidine	**1.0U**	ug/L	4.8	1.0	1	07/08/10 17:00	07/10/10 00:55	95-53-4	
2,4,5-Trichlorophenol	**0.50U**	ug/L	3.8	0.50	1	07/08/10 17:00	07/10/10 00:55	95-95-4	
2,4,6-Trichlorophenol	**0.66U**	ug/L	1.9	0.66	1	07/08/10 17:00	07/10/10 00:55	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.8	1.2	1	07/08/10 17:00	07/10/10 00:55	99-35-4	J(L1)
Nitrobenzene-d5 (S)	71	%	10-110		1	07/08/10 17:00	07/10/10 00:55	4165-60-0	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	83	%	18-110		1	07/08/10 17:00	07/10/10 00:55	321-60-8	
Terphenyl-d14 (S)	87	%	10-123		1	07/08/10 17:00	07/10/10 00:55	1718-51-0	
Phenol-d6 (S)	26	%	10-110		1	07/08/10 17:00	07/10/10 00:55	13127-88-3	
2-Fluorophenol (S)	39	%	18-110		1	07/08/10 17:00	07/10/10 00:55	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-110		1	07/08/10 17:00	07/10/10 00:55	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		07/06/10 16:24	107-02-8	J(L1)
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		07/06/10 16:24	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	78-93-3	
Carbon disulfide	**0.70 I**	ug/L	1.0	0.50	1		07/06/10 16:24	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		07/06/10 16:24	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		07/06/10 16:24	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 16:24	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 16:24	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	74-88-4	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D **Lab ID: 3513886003** Collected: 07/01/10 14:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		07/06/10 16:24	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		07/06/10 16:24	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 16:24	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		07/06/10 16:24	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		07/06/10 16:24	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		07/06/10 16:24	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		07/06/10 16:24	1330-20-7	
4-Bromofluorobenzene (S)	105	%	70-114		1		07/06/10 16:24	460-00-4	
Dibromofluoromethane (S)	104	%	88-117		1		07/06/10 16:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	86-125		1		07/06/10 16:24	17060-07-0	
Toluene-d8 (S)	109	%	87-113		1		07/06/10 16:24	2037-26-5	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	07/12/10 12:00	07/12/10 17:19	57-12-5	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: 4MW-27D RE **Lab ID: 3513886005** Collected: 07/20/10 11:48 Received: 07/21/10 11:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**1.0U**	mg/L	1.0	1.0	1		07/23/10 14:00		

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: Trip blank (07/01/10) **Lab ID: 3513886004** Collected: 07/01/10 08:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		07/06/10 14:04	107-02-8	J(L1)
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		07/06/10 14:04	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	78-93-3	
Carbon disulfide	**0.73 I**	ug/L	1.0	0.50	1		07/06/10 14:04	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		07/06/10 14:04	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		07/06/10 14:04	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 14:04	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		07/06/10 14:04	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	74-88-4	
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		07/06/10 14:04	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		07/06/10 14:04	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		07/06/10 14:04	107-12-0	

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ANALYTICAL RESULTS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Sample: Trip blank (07/01/10) **Lab ID: 3513886004** Collected: 07/01/10 08:00 Received: 07/02/10 14:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Styrene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		07/06/10 14:04	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		07/06/10 14:04	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		07/06/10 14:04	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		07/06/10 14:04	1330-20-7	
4-Bromofluorobenzene (S)	105	%	70-114		1		07/06/10 14:04	460-00-4	
Dibromofluoromethane (S)	102	%	88-117		1		07/06/10 14:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%	86-125		1		07/06/10 14:04	17060-07-0	
Toluene-d8 (S)	105	%	87-113		1		07/06/10 14:04	2037-26-5	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2657 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: 8011 EDB DBCP
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 89966 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	0.0051U	0.021	07/13/10 22:54	
1,2-Dibromoethane (EDB)	ug/L	0.0064U	0.010	07/13/10 22:54	

LABORATORY CONTROL SAMPLE: 89967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	.26	0.26	102	60-140	
1,2-Dibromoethane (EDB)	ug/L	.26	0.24	93	60-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89968 89969

Parameter	Units	3513561017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromo-3-chloropropane	ug/L	0.0049 U	.41	.4	0.43	0.43	106	106	60-140	.6	40	
1,2-Dibromoethane (EDB)	ug/L	0.0062 U	.41	.4	0.40	0.40	98	98	60-140	.2	40	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2633 Analysis Method: EPA 8081
QC Batch Method: EPA 3510 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 89493 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	0.0019U	0.010	07/08/10 20:24	
4,4'-DDE	ug/L	0.00090U	0.010	07/08/10 20:24	
4,4'-DDT	ug/L	0.0036U	0.010	07/08/10 20:24	
Aldrin	ug/L	0.00050U	0.010	07/08/10 20:24	
alpha-BHC	ug/L	0.00030U	0.010	07/08/10 20:24	
beta-BHC	ug/L	0.00050U	0.010	07/08/10 20:24	
Chlordane (Technical)	ug/L	0.080U	0.50	07/08/10 20:24	
Chlorobenzilate	ug/L	0.021U	0.10	07/08/10 20:24	
delta-BHC	ug/L	0.00040U	0.010	07/08/10 20:24	
Dieldrin	ug/L	0.00050U	0.010	07/08/10 20:24	
Endosulfan I	ug/L	0.00070U	0.010	07/08/10 20:24	
Endosulfan II	ug/L	0.00070U	0.010	07/08/10 20:24	
Endosulfan sulfate	ug/L	0.00060U	0.010	07/08/10 20:24	
Endrin	ug/L	0.0017U	0.010	07/08/10 20:24	
Endrin aldehyde	ug/L	0.0071U	0.010	07/08/10 20:24	
gamma-BHC (Lindane)	ug/L	0.00020U	0.010	07/08/10 20:24	
Heptachlor	ug/L	0.0015U	0.010	07/08/10 20:24	
Heptachlor epoxide	ug/L	0.00040U	0.010	07/08/10 20:24	
Methoxychlor	ug/L	0.0070U	0.010	07/08/10 20:24	
Pentachloronitrobenzene	ug/L	0.015U	0.10	07/08/10 20:24	
Toxaphene	ug/L	0.28U	0.50	07/08/10 20:24	
Decachlorobiphenyl (S)	%	80	41.7-109.1	07/08/10 20:24	
Tetrachloro-m-xylene (S)	%	92	66.5-120.3	07/08/10 20:24	

LABORATORY CONTROL SAMPLE: 89494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.5	0.45	90	74-122	
4,4'-DDE	ug/L	.5	0.52	103	74-117	
4,4'-DDT	ug/L	.5	0.58	116	81-117	
Aldrin	ug/L	.5	0.43	86	56-112	
alpha-BHC	ug/L	.5	0.43	86	66-110	
beta-BHC	ug/L	.5	0.52	105	77-121	
delta-BHC	ug/L	.5	0.43	86	46-108	
Dieldrin	ug/L	.5	0.49	98	76-122	
Endosulfan I	ug/L	.5	0.50	100	75-122	
Endosulfan II	ug/L	.5	0.53	107	75-126	
Endosulfan sulfate	ug/L	.5	0.51	102	74-118	
Endrin	ug/L	.5	0.55	111	71-122	
Endrin aldehyde	ug/L	.5	0.53	105	76-122	
gamma-BHC (Lindane)	ug/L	.5	0.46	91	64-119	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

LABORATORY CONTROL SAMPLE: 89494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Heptachlor	ug/L	.5	0.49	98	64-116	
Heptachlor epoxide	ug/L	.5	0.51	103	76-120	
Methoxychlor	ug/L	.5	0.57	114	76-129	
Decachlorobiphenyl (S)	%			78	41.7-109.1	
Tetrachloro-m-xylene (S)	%			89	66.5-120.3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89495 89496

Parameter	Units	3513561016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDD	ug/L	0.0019 U	.5	.5	0.48	0.47	97	93	74-122	4	40	
4,4'-DDE	ug/L	0.00088 U	.5	.5	0.55	0.53	111	107	74-117	4	40	
4,4'-DDT	ug/L				0.65	0.62				5	40	
Aldrin	ug/L	0.00049 U	.5	.5	0.47	0.45	93	90	46-112	4	40	
alpha-BHC	ug/L	0.00029 U	.5	.5	0.47	0.44	94	88	66-110	7	40	
beta-BHC	ug/L	0.00049 U	.5	.5	0.57	0.54	113	108	77-121	4	40	
delta-BHC	ug/L	0.00039 U	.5	.5	0.48	0.45	97	91	46-108	6	40	
Dieldrin	ug/L	0.00049 U	.5	.5	0.53	0.50	106	101	76-122	5	40	
Endosulfan I	ug/L	0.00068 U	.5	.5	0.54	0.51	108	103	75-122	5	40	
Endosulfan II	ug/L	0.00068 U	.5	.5	0.56	0.48	112	95	75-126	16	40	
Endosulfan sulfate	ug/L	0.00058 U	.5	.5	0.56	0.54	113	108	74-118	4	40	
Endrin	ug/L	0.0017 U	.5	.5	0.59	0.58	119	117	71-122	2	40	
Endrin aldehyde	ug/L	0.0069 U	.5	.5	0.56	0.52	111	104	76-122	7	40	
gamma-BHC (Lindane)	ug/L	0.00019 U	.5	.5	0.50	0.47	100	94	64-119	7	40	
Heptachlor	ug/L	0.0015 U	.5	.5	0.53	0.51	106	101	64-116	5	40	
Heptachlor epoxide	ug/L	0.00039 U	.5	.5	0.55	0.53	111	106	76-120	4	40	
Methoxychlor	ug/L	0.0068 U	.5	.5	0.63	0.61	125	122	76-129	3	40	
Decachlorobiphenyl (S)	%						98	96	41.7-109			
Tetrachloro-m-xylene (S)	%						97	92	66.5-120			

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2634 Analysis Method: EPA 8082
QC Batch Method: EPA 3510 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 89498 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	0.080U	0.50	07/08/10 20:24	
PCB-1221 (Aroclor 1221)	ug/L	0.081U	0.50	07/08/10 20:24	
PCB-1232 (Aroclor 1232)	ug/L	0.12U	0.50	07/08/10 20:24	
PCB-1242 (Aroclor 1242)	ug/L	0.13U	0.50	07/08/10 20:24	
PCB-1248 (Aroclor 1248)	ug/L	0.28U	0.50	07/08/10 20:24	
PCB-1254 (Aroclor 1254)	ug/L	0.14U	0.50	07/08/10 20:24	
PCB-1260 (Aroclor 1260)	ug/L	0.11U	0.50	07/08/10 20:24	
Decachlorobiphenyl (S)	%	90	63-121	07/08/10 20:24	
Tetrachloro-m-xylene (S)	%	89	48-111	07/08/10 20:24	

LABORATORY CONTROL SAMPLE: 89499

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	2.5	2.2	87	70-130	
PCB-1260 (Aroclor 1260)	ug/L	2.5	2.5	99	70-130	
Decachlorobiphenyl (S)	%			98	63-121	
Tetrachloro-m-xylene (S)	%			84	48-111	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89500 89501

Parameter	Units	3513561017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	0.10U	2.5	2.5	2.5	2.3	101	91	70-130	10	40	
PCB-1260 (Aroclor 1260)	ug/L	0.14U	2.5	2.5	2.6	2.5	106	101	70-130	5	40	
Decachlorobiphenyl (S)	%						66	73	63-121			
Tetrachloro-m-xylene (S)	%						93	87	48-111			

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2625 Analysis Method: EPA 8141
QC Batch Method: EPA 3510 Analysis Description: 8141 GCS, O/P Pesticides
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 88959 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dimethoate	ug/L	0.19U	0.50	07/13/10 03:38	
Disulfoton	ug/L	0.16U	0.50	07/13/10 03:38	
Famphur	ug/L	0.14U	0.50	07/13/10 03:38	
Methyl parathion	ug/L	0.19U	0.50	07/13/10 03:38	
Parathion (Ethyl parathion)	ug/L	0.35U	1.0	07/13/10 03:38	
Phorate	ug/L	0.37U	1.0	07/13/10 03:38	
4-Chloro3nitrobenzotrifluoride	%	96	34.2-122	07/13/10 03:38	

LABORATORY CONTROL SAMPLE: 88960

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dimethoate	ug/L	2	2.0	98	59.8-116.4	
Disulfoton	ug/L	2	2.0	100	66.9-116.2	
Famphur	ug/L	2	2.0	98	56.3-133	J(SS)
Methyl parathion	ug/L	2	1.8	90	67.3-119.6	
Parathion (Ethyl parathion)	ug/L	4	3.7	92	70-130	
Phorate	ug/L	4	3.8	94	58-119.3	
4-Chloro3nitrobenzotrifluoride	%			94	34.2-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 88961 88962

Parameter	Units	3513726022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dimethoate	ug/L	0.18U	2	2	1.9	1.9	93	96	59.8-116	3	40	
Disulfoton	ug/L	0.15U	2	2	1.8	1.9	90	95	66.9-116	5	40	
Famphur	ug/L	0.14U	2	2	1.8	1.8	92	91	56.3-133	1	40	J(SS)
Methyl parathion	ug/L	0.18U	2	2	1.7	1.7	87	87	67.3-119	0	40	
Parathion (Ethyl parathion)	ug/L	0.34U	4	4	3.3	3.5	84	88	70-130	6	40	
Phorate	ug/L	0.35U	4	4	3.4	3.6	84	90	58-119.3	6	40	
4-Chloro3nitrobenzotrifluoride	%						89	94	34.2-122			

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2638 Analysis Method: EPA 8151
QC Batch Method: EPA 8151 Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 89515 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	0.042U	0.19	07/07/10 16:18	
2,4,5-TP (Silvex)	ug/L	0.049U	0.19	07/07/10 16:18	
2,4-D	ug/L	0.22U	0.94	07/07/10 16:18	
Dinoseb	ug/L	0.057U	0.19	07/07/10 16:18	
Pentachlorophenol	ug/L	0.017U	0.028	07/07/10 16:18	
2,4-DCPA (S)	%	75	65.5-125.7	07/07/10 16:18	

LABORATORY CONTROL SAMPLE: 89516

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1.2	0.99	83	66.7-116.7	
2,4,5-TP (Silvex)	ug/L	1.2	1.0	84	65.6-127.9	
2,4-D	ug/L	6	4.5	76	62-135.6	
Dinoseb	ug/L	1.2	0.95	79	44-111.8	
Pentachlorophenol	ug/L	.18	0.14	80	55.5-114	
2,4-DCPA (S)	%			72	65.5-125.7	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89517 89518

Parameter	Units	3513561016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-T	ug/L	0.041U	1.2	1.2	0.95	0.50	79	41	66.7-116	62	40	J(M0), J(R1)
2,4,5-TP (Silvex)	ug/L	0.047U	1.2	1.2	0.98	0.51	81	42	65.6-127	63	40	J(M0), J(R1)
2,4-D	ug/L	0.22U	6	6	4.6	2.8	77	47	62-135.6	49	40	J(M0), J(R1)
Dinoseb	ug/L	0.055U	1.2	1.2	0.84	0.45	70	38	44-111.8	59	40	J(M0), J(R1)
Pentachlorophenol	ug/L	0.016U	.18	.18	0.13	0.067	71	37	55.5-114	62	40	J(M0), J(R1)
2,4-DCPA (S)	%						79	41	65.5-125			J(S0)

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: MPRP/2634 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 92463 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	5.0U	10.0	07/15/10 04:11	
Barium	ug/L	5.0U	10.0	07/15/10 04:11	
Beryllium	ug/L	0.50U	1.0	07/15/10 04:11	
Cadmium	ug/L	0.50U	1.0	07/15/10 04:11	
Chromium	ug/L	2.5U	5.0	07/15/10 04:11	
Cobalt	ug/L	5.0U	10.0	07/15/10 04:11	
Copper	ug/L	2.5U	5.0	07/15/10 04:11	
Lead	ug/L	5.0U	10.0	07/15/10 04:11	
Nickel	ug/L	2.5U	5.0	07/15/10 04:11	
Selenium	ug/L	7.5U	15.0	07/15/10 04:11	
Silver	ug/L	2.5U	5.0	07/15/10 04:11	
Tin	ug/L	25.0U	50.0	07/15/10 04:11	
Vanadium	ug/L	5.0U	10.0	07/15/10 04:11	
Zinc	ug/L	10.0U	20.0	07/15/10 04:11	

LABORATORY CONTROL SAMPLE: 92464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	262	105	80-120	
Barium	ug/L	250	273	109	80-120	
Beryllium	ug/L	25	26.9	108	80-120	
Cadmium	ug/L	25	27.5	110	80-120	
Chromium	ug/L	250	276	110	80-120	
Cobalt	ug/L	250	274	110	80-120	
Copper	ug/L	250	275	110	80-120	
Lead	ug/L	250	268	107	80-120	
Nickel	ug/L	250	270	108	80-120	
Selenium	ug/L	250	258	103	80-120	
Silver	ug/L	25	29.6	118	80-120	
Tin	ug/L	1250	1380	110	80-120	
Vanadium	ug/L	250	273	109	80-120	
Zinc	ug/L	1250	1310	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92552 92553

Parameter	Units	3513865024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	5.0U	250	250	263	261	105	104	75-125	.8	20	
Barium	ug/L	10.2	250	250	292	289	113	112	75-125	1	20	
Beryllium	ug/L	0.50U	25	25	27.2	26.8	109	107	75-125	1	20	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92552 92553

Parameter	Units	3513865024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	ug/L	0.50U	25	25	27.0	26.7	108	107	75-125	1	20	
Chromium	ug/L	5.9	250	250	287	283	112	111	75-125	1	20	
Cobalt	ug/L	5.0U	250	250	280	275	112	110	75-125	2	20	
Copper	ug/L	2.5U	250	250	283	281	113	112	75-125	.7	20	
Lead	ug/L	5.0U	250	250	270	267	107	106	75-125	1	20	
Nickel	ug/L	2.5U	250	250	271	268	108	107	75-125	1	20	
Selenium	ug/L	7.5U	250	250	257	253	102	100	75-125	2	20	
Silver	ug/L	2.5U	25	25	29.7	30.3	116	119	75-125	2	20	
Tin	ug/L	25.0U	1250	1250	1390	1370	111	110	75-125	1	20	
Vanadium	ug/L	7.2 I	250	250	283	280	110	109	75-125	1	20	
Zinc	ug/L	10.0U	1250	1250	1320	1310	105	104	75-125	.8	20	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: MPRP/2633 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 92459 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	0.50U	1.0	07/15/10 08:36	
Thallium	ug/L	0.50U	1.0	07/15/10 08:36	

LABORATORY CONTROL SAMPLE: 92460

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	50	52.8	106	90-110	
Thallium	ug/L	50	50.9	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 92554 92555

Parameter	Units	3513865023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.50U	50	50	51.9	51.2	104	102	70-130	1	20	
Thallium	ug/L	0.50U	50	50	50.4	50.2	101	100	70-130	.5	20	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: MERP/1401 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 90179 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	0.10U	0.20	07/13/10 13:41	

LABORATORY CONTROL SAMPLE: 90180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2	2.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 90181 90182

Parameter	Units	3513958003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.10U	2	2	2.1	2.1	104	103	85-115	.8	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 90183 90184

Parameter	Units	3513886003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.10U	2	2	2.2	2.2	108	110	85-115	1	20	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: OEXT/2665 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV App II
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 90429 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	0.70U	5.0	07/09/10 21:02	
1,2-Dichlorobenzene	ug/L	0.68U	5.0	07/09/10 21:02	
1,3,5-Trinitrobenzene	ug/L	1.2U	5.0	07/09/10 21:02	
1,3-Dichlorobenzene	ug/L	0.76U	5.0	07/09/10 21:02	
1,3-Dinitrobenzene	ug/L	0.68U	8.0	07/09/10 21:02	
1,4-Dichlorobenzene	ug/L	0.77U	5.0	07/09/10 21:02	
1,4-Naphthoquinone	ug/L	1.2U	5.0	07/09/10 21:02	
1-Naphthylamine	ug/L	1.0U	5.0	07/09/10 21:02	
2,3,4,6-Tetrachlorophenol	ug/L	3.8U	5.0	07/09/10 21:02	
2,4,5-Trichlorophenol	ug/L	0.52U	4.0	07/09/10 21:02	
2,4,6-Trichlorophenol	ug/L	0.69U	2.0	07/09/10 21:02	
2,4-Dichlorophenol	ug/L	0.56U	2.0	07/09/10 21:02	
2,4-Dimethylphenol	ug/L	1.6U	5.0	07/09/10 21:02	
2,4-Dinitrophenol	ug/L	1.6U	20.0	07/09/10 21:02	
2,4-Dinitrotoluene	ug/L	0.53U	2.0	07/09/10 21:02	
2,6-Dichlorophenol	ug/L	0.62U	4.0	07/09/10 21:02	
2,6-Dinitrotoluene	ug/L	1.2U	2.0	07/09/10 21:02	
2-Acetylaminofluorene	ug/L	0.65U	5.0	07/09/10 21:02	
2-Chloronaphthalene	ug/L	0.80U	5.0	07/09/10 21:02	
2-Chlorophenol	ug/L	0.68U	5.0	07/09/10 21:02	
2-Methylnaphthalene	ug/L	0.99U	5.0	07/09/10 21:02	
2-Methylphenol(o-Cresol)	ug/L	0.73U	5.0	07/09/10 21:02	
2-Naphthylamine	ug/L	2.3U	5.0	07/09/10 21:02	
2-Nitroaniline	ug/L	0.60U	5.0	07/09/10 21:02	
2-Nitrophenol	ug/L	0.81U	5.0	07/09/10 21:02	
3&4-Methylphenol(m&p Cresol)	ug/L	0.66U	10.0	07/09/10 21:02	
3,3'-Dichlorobenzidine	ug/L	0.69U	10.0	07/09/10 21:02	
3,3'-Dimethylbenzidine	ug/L	3.1U	10.0	07/09/10 21:02	
3-Methylcholanthrene	ug/L	1.0U	5.0	07/09/10 21:02	
3-Nitroaniline	ug/L	0.99U	5.0	07/09/10 21:02	
4,6-Dinitro-2-methylphenol	ug/L	1.3U	20.0	07/09/10 21:02	
4-Aminobiphenyl	ug/L	2.8U	5.0	07/09/10 21:02	
4-Bromophenylphenyl ether	ug/L	0.67U	5.0	07/09/10 21:02	
4-Chloro-3-methylphenol	ug/L	0.62U	20.0	07/09/10 21:02	
4-Chloroaniline	ug/L	1.2U	5.0	07/09/10 21:02	
4-Chlorophenylphenyl ether	ug/L	0.63U	5.0	07/09/10 21:02	
4-Nitroaniline	ug/L	0.69U	4.0	07/09/10 21:02	
4-Nitrophenol	ug/L	1.1U	20.0	07/09/10 21:02	
5-Nitro-o-toluidine	ug/L	1.3U	5.0	07/09/10 21:02	
7,12-Dimethylbenz(a)anthracene	ug/L	2.0U	5.0	07/09/10 21:02	
Acenaphthene	ug/L	0.86U	5.0	07/09/10 21:02	
Acenaphthylene	ug/L	0.95U	5.0	07/09/10 21:02	
Acetophenone	ug/L	1.4U	5.0	07/09/10 21:02	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

METHOD BLANK: 90429 Matrix: Water

Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Anthracene	ug/L	0.60U	5.0	07/09/10 21:02	
Benzo(a)anthracene	ug/L	0.63U	5.0	07/09/10 21:02	
Benzo(a)pyrene	ug/L	0.58U	1.0	07/09/10 21:02	
Benzo(b)fluoranthene	ug/L	0.62U	2.0	07/09/10 21:02	
Benzo(g,h,i)perylene	ug/L	0.68U	5.0	07/09/10 21:02	
Benzo(k)fluoranthene	ug/L	0.51U	4.0	07/09/10 21:02	
Benzyl alcohol	ug/L	1.0U	5.0	07/09/10 21:02	
bis(2-Chloroethoxy)methane	ug/L	3.0U	5.0	07/09/10 21:02	
bis(2-Chloroethyl) ether	ug/L	0.75U	4.0	07/09/10 21:02	
bis(2-Chloroisopropyl) ether	ug/L	0.73U	5.0	07/09/10 21:02	
bis(2-Ethylhexyl)phthalate	ug/L	0.80U	5.0	07/09/10 21:02	
Butylbenzylphthalate	ug/L	0.72U	5.0	07/09/10 21:02	
Chrysene	ug/L	0.37U	5.0	07/09/10 21:02	
Di-n-butylphthalate	ug/L	0.41U	5.0	07/09/10 21:02	
Di-n-octylphthalate	ug/L	0.90U	5.0	07/09/10 21:02	
Diallate	ug/L	0.73U	5.0	07/09/10 21:02	
Dibenz(a,h)anthracene	ug/L	0.65U	2.0	07/09/10 21:02	
Dibenzofuran	ug/L	0.67U	5.0	07/09/10 21:02	
Diethylphthalate	ug/L	0.51U	5.0	07/09/10 21:02	
Dimethylphthalate	ug/L	0.64U	5.0	07/09/10 21:02	
Ethyl methanesulfonate	ug/L	0.90U	5.0	07/09/10 21:02	
Fluoranthene	ug/L	0.54U	5.0	07/09/10 21:02	
Fluorene	ug/L	0.56U	5.0	07/09/10 21:02	
Hexachlorobenzene	ug/L	0.80U	1.0	07/09/10 21:02	
Hexachlorocyclopentadiene	ug/L	1.3U	5.0	07/09/10 21:02	
Hexachloroethane	ug/L	0.71U	5.0	07/09/10 21:02	
Hexachloropropene	ug/L	1.4U	5.0	07/09/10 21:02	
Indeno(1,2,3-cd)pyrene	ug/L	0.73U	2.0	07/09/10 21:02	
Isodrin	ug/L	0.54U	5.0	07/09/10 21:02	
Isophorone	ug/L	0.73U	5.0	07/09/10 21:02	
Isosafrole	ug/L	0.60U	5.0	07/09/10 21:02	
Kepone	ug/L	10.0U	20.0	07/09/10 21:02	
Methapyrilene	ug/L	1.6U	5.0	07/09/10 21:02	
Methyl methanesulfonate	ug/L	1.0U	5.0	07/09/10 21:02	
N-Nitroso-di-n-butylamine	ug/L	0.55U	4.0	07/09/10 21:02	
N-Nitroso-di-n-propylamine	ug/L	0.94U	4.0	07/09/10 21:02	
N-Nitrosodiethylamine	ug/L	0.73U	4.0	07/09/10 21:02	
N-Nitrosodimethylamine	ug/L	0.97U	2.0	07/09/10 21:02	
N-Nitrosodiphenylamine	ug/L	0.50U	5.0	07/09/10 21:02	
N-Nitrosomethylethylamine	ug/L	0.74U	5.0	07/09/10 21:02	
N-Nitrosopiperidine	ug/L	0.64U	5.0	07/09/10 21:02	
N-Nitrosopyrrolidine	ug/L	0.88U	5.0	07/09/10 21:02	
Naphthalene	ug/L	0.78U	5.0	07/09/10 21:02	
Nitrobenzene	ug/L	1.1U	4.0	07/09/10 21:02	
O,O,O-Triethylphosphorothioate	ug/L	0.69U	5.0	07/09/10 21:02	
O-Toluidine	ug/L	1.1U	5.0	07/09/10 21:02	
P-Dimethylaminoazobenzene	ug/L	0.67U	5.0	07/09/10 21:02	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

METHOD BLANK: 90429 Matrix: Water

Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
p-Phenylenediamine	ug/L	10.0U	20.0	07/09/10 21:02	
Pentachlorobenzene	ug/L	0.78U	5.0	07/09/10 21:02	
Phenacetin	ug/L	0.53U	5.0	07/09/10 21:02	
Phenanthrene	ug/L	0.52U	5.0	07/09/10 21:02	
Phenol	ug/L	0.54U	5.0	07/09/10 21:02	
Pronamide	ug/L	1.1U	5.0	07/09/10 21:02	
Pyrene	ug/L	0.68U	5.0	07/09/10 21:02	
Safrole	ug/L	0.85U	5.0	07/09/10 21:02	
Thionazin	ug/L	0.61U	5.0	07/09/10 21:02	
2,4,6-Tribromophenol (S)	%	83	10-110	07/09/10 21:02	
2-Fluorobiphenyl (S)	%	78	18-110	07/09/10 21:02	
2-Fluorophenol (S)	%	42	18-110	07/09/10 21:02	
Nitrobenzene-d5 (S)	%	74	10-110	07/09/10 21:02	
Phenol-d6 (S)	%	31	10-110	07/09/10 21:02	
Terphenyl-d14 (S)	%	95	10-123	07/09/10 21:02	

LABORATORY CONTROL SAMPLE: 90430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	50	38.7	77	10-146.9	
1,2-Dichlorobenzene	ug/L	50	33.1	66	23.5-105.7	
1,3,5-Trinitrobenzene	ug/L	50	53.5	107	41.4-102.4	L3
1,3-Dichlorobenzene	ug/L	50	32.6	65	25.5-94.5	
1,3-Dinitrobenzene	ug/L	50	44.3	89	45.3-116.4	
1,4-Dichlorobenzene	ug/L	50	31.2	62	33.2-90.7	
1,4-Naphthoquinone	ug/L	50	46.0	92	39.3-113.3	
1-Naphthylamine	ug/L	50	56.9	114	37.1-90.4	L3
2,3,4,6-Tetrachlorophenol	ug/L	50	48.3	97	14.3-115.3	
2,4,5-Trichlorophenol	ug/L	50	44.0	88	10-121.3	
2,4,6-Trichlorophenol	ug/L	50	43.3	87	40.3-101.7	
2,4-Dichlorophenol	ug/L	50	40.1	80	35.8-108.5	
2,4-Dimethylphenol	ug/L	50	40.6	81	25-104.5	
2,4-Dinitrophenol	ug/L	50	45.2	90	10-147.1	
2,4-Dinitrotoluene	ug/L	50	48.2	96	47.9-113.6	
2,6-Dichlorophenol	ug/L	50	38.9	78	41.1-101.8	
2,6-Dinitrotoluene	ug/L	50	43.3	87	44.6-111.5	
2-Acetylaminofluorene	ug/L	50	47.9	96	58.3-112.7	
2-Chloronaphthalene	ug/L	50	38.6	77	41.2-101.2	
2-Chlorophenol	ug/L	50	37.7	75	32.1-96.5	
2-Methylnaphthalene	ug/L	50	36.3	73	40-93.6	
2-Methylphenol(o-Cresol)	ug/L	50	33.3	67	36.7-95.1	
2-Naphthylamine	ug/L	50	42.7	85	42.4-98.8	
2-Nitroaniline	ug/L	50	45.7	91	59-103.2	
2-Nitrophenol	ug/L	50	39.9	80	38.4-108.9	
3&4-Methylphenol(m&p Cresol)	ug/L	50	32.5	65	35.2-94.3	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

LABORATORY CONTROL SAMPLE: 90430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3'-Dichlorobenzidine	ug/L	50	44.1	88	30.7-106	
3,3'-Dimethylbenzidine	ug/L	50	60.9	122	10-160.1	
3-Methylcholanthrene	ug/L	50	43.5	87	15.5-121.4	
3-Nitroaniline	ug/L	50	45.9	92	25.3-131.5	
4,6-Dinitro-2-methylphenol	ug/L	50	46.2	92	35.2-130.5	
4-Aminobiphenyl	ug/L	50	47.0	94	50.8-112.6	
4-Bromophenylphenyl ether	ug/L	50	46.0	92	51.9-110.4	
4-Chloro-3-methylphenol	ug/L	50	41.1	82	19.4-128.8	
4-Chloroaniline	ug/L	50	41.0	82	30.1-108.4	
4-Chlorophenylphenyl ether	ug/L	50	44.4	89	49.7-91.5	
4-Nitroaniline	ug/L	50	47.4	95	48.1-112.2	
4-Nitrophenol	ug/L	50	20.3	41	10-121.8	
5-Nitro-o-toluidine	ug/L	50	45.1	90	43-113	
7,12-Dimethylbenz(a)anthracene	ug/L	50	43.1	86	52.5-108.6	
Acenaphthene	ug/L	50	41.5	83	50.3-98.3	
Acenaphthylene	ug/L	50	40.8	82	49-98.1	
Acetophenone	ug/L	50	35.9	72	40.6-94.3	
Anthracene	ug/L	50	43.0	86	55-112.5	
Benzo(a)anthracene	ug/L	50	44.6	89	10-150.1	
Benzo(a)pyrene	ug/L	50	46.5	93	59.7-108.4	
Benzo(b)fluoranthene	ug/L	50	46.6	93	58.4-111.8	
Benzo(g,h,i)perylene	ug/L	50	45.0	90	57.6-115.1	
Benzo(k)fluoranthene	ug/L	50	45.0	90	57.6-112.4	
Benzyl alcohol	ug/L	50	37.2	74	26.1-118	
bis(2-Chloroethoxy)methane	ug/L	50	34.9	70	41.2-96.2	
bis(2-Chloroethyl) ether	ug/L	50	34.0	68	35.3-99.5	
bis(2-Chloroisopropyl) ether	ug/L	50	35.6	71	36.3-91	
bis(2-Ethylhexyl)phthalate	ug/L	50	45.8	92	43.1-118.3	
Butylbenzylphthalate	ug/L	50	45.5	91	57.5-118.2	
Chrysene	ug/L	50	44.1	88	42.4-113.9	
Di-n-butylphthalate	ug/L	50	46.8	94	22.2-139.3	
Di-n-octylphthalate	ug/L	50	44.5	89	57.4-116.9	
Diallate	ug/L	50	46.9	94	44.3-111.7	
Dibenz(a,h)anthracene	ug/L	50	47.3	95	59.1-111.8	
Dibenzofuran	ug/L	50	41.4	83	45.3-108.3	
Diethylphthalate	ug/L	50	47.7	95	51.1-107.5	
Dimethylphthalate	ug/L	50	44.9	90	47.4-110.6	
Ethyl methanesulfonate	ug/L	50	35.6	71	35.9-103.6	
Fluoranthene	ug/L	50	45.5	91	48.2-118.6	
Fluorene	ug/L	50	39.2	78	44.7-106.4	
Hexachlorobenzene	ug/L	50	42.7	85	54-113.2	
Hexachlorocyclopentadiene	ug/L	50	34.4	69	16.5-105.1	
Hexachloroethane	ug/L	50	32.9	66	10-102	
Hexachloropropene	ug/L	50	36.0	72	29.1-84.2	
Indeno(1,2,3-cd)pyrene	ug/L	50	46.6	93	33.7-120.7	
Isodrin	ug/L	50	43.1	86	32.4-130.4	
Isophorone	ug/L	50	38.5	77	42.5-107.7	
Isosafrole	ug/L	50	35.9	72	45.8-99.3	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

LABORATORY CONTROL SAMPLE: 90430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methapyrilene	ug/L	50	29.3	59	17.8-119.5	
Methyl methanesulfonate	ug/L	50	32.3	65	10-107	
N-Nitroso-di-n-butylamine	ug/L	50	40.4	81	15.2-107.9	
N-Nitroso-di-n-propylamine	ug/L	50	40.6	81	19.1-111.6	
N-Nitrosodiethylamine	ug/L	50	36.5	73	10-130.6	
N-Nitrosodimethylamine	ug/L	50	21.2	42	10-132	
N-Nitrosodiphenylamine	ug/L	50	42.7	85	37-104.4	
N-Nitrosomethylethylamine	ug/L	50	31.9	64	10-135	
N-Nitrosopiperidine	ug/L	50	37.0	74	43.3-96.3	
N-Nitrosopyrrolidine	ug/L	50	37.4	75	43.1-97.2	
Naphthalene	ug/L	50	34.0	68	40.1-85.7	
Nitrobenzene	ug/L	50	35.5	71	32.9-115.9	
O,O,O-Triethylphosphorothioate	ug/L	50	38.9	78	48.5-99.9	
O-Toluidine	ug/L	50	33.9	68	21.2-134.1	
P-Dimethylaminoazobenzene	ug/L	50	47.3	95	44.6-142.5	
Pentachlorobenzene	ug/L	50	43.4	87	37.5-128.1	
Phenacetin	ug/L	50	46.9	94	19.3-143.2	
Phenanthrene	ug/L	50	43.3	87	49.2-124.2	
Phenol	ug/L	50	17.0	34	10-158.5	
Pronamide	ug/L	50	47.3	95	10-128.9	
Pyrene	ug/L	50	42.6	85	10-150.1	
Safrole	ug/L	50	41.0	82	10-135.9	
Thionazin	ug/L	50	46.8	94	45-105.7	
2,4,6-Tribromophenol (S)	%			93	10-110	
2-Fluorobiphenyl (S)	%			83	18-110	
2-Fluorophenol (S)	%			44	18-110	
Nitrobenzene-d5 (S)	%			81	10-110	
Phenol-d6 (S)	%			33	10-110	
Terphenyl-d14 (S)	%			94	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 91168 91169

Parameter	Units	3513900001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4,5-Tetrachlorobenzene	ug/L	0.66U	50	50	18.0	18.3	36	37	10-146.9	2	40	
1,2-Dichlorobenzene	ug/L	0.64U	50	50	14.9	14.9	29	29	23.5-105	.2	40	
1,3,5-Trinitrobenzene	ug/L	1.2U	50	50	22.2	19.9	44	40	41.4-102	11	40	J(M0)
1,3-Dichlorobenzene	ug/L	0.72U	50	50	14.0	14.4	28	29	25.5-94.	3	40	
1,3-Dinitrobenzene	ug/L	0.64U	50	50	24.0	24.2	48	48	45.3-116	.6	40	
1,4-Dichlorobenzene	ug/L	1.3 I	50	50	14.7	14.8	27	27	33.2-90.	.9	40	J(M0)
1,4-Naphthoquinone	ug/L	1.1U	50	50	35.3	34.6	71	69	39.3-113	2	40	
1-Naphthylamine	ug/L	0.97U	50	50	12.9	20.2	26	40	37.1-90.	44	40	J(M0), J(R1)
2,3,4,6-Tetrachlorophenol	ug/L	3.6U	50	50	25.2	24.2	50	48	14.3-115	4	40	
2,4,5-Trichlorophenol	ug/L	0.49U	50	50	22.4	22.8	45	46	10-121.3	2	40	
2,4,6-Trichlorophenol	ug/L	0.65U	50	50	22.3	22.8	45	46	40.3-101	2	40	
2,4-Dichlorophenol	ug/L	0.53U	50	50	20.3	21.4	41	43	35.8-108	5	40	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 91168 91169

Parameter	Units	3513900001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-Dimethylphenol	ug/L	1.5U	50	50	20.2	21.6	40	43	25-104.5	7	40	
2,4-Dinitrophenol	ug/L	1.5U	50	50	5.3 I	4.1 I	11	8	10-147.1		40	J(M0)
2,4-Dinitrotoluene	ug/L	0.50U	50	50	23.3	23.6	47	47	47.9-113	1	40	J(M0)
2,6-Dichlorophenol	ug/L	0.59U	50	50	19.1	18.9	38	38	41.1-101	.9	40	J(M0)
2,6-Dinitrotoluene	ug/L	1.2U	50	50	22.1	23.4	44	47	44.6-111	6	40	J(M0)
2-Acetylaminofluorene	ug/L	0.61U	50	50	27.1	26.0	54	52	58.3-112	4	40	J(M0)
2-Chloronaphthalene	ug/L	0.76U	50	50	20.1	20.4	40	41	41.2-101	1	40	J(M0)
2-Chlorophenol	ug/L	0.64U	50	50	18.8	18.4	38	37	32.1-96.	2	40	
2-Methylnaphthalene	ug/L	0.94U	50	50	17.2	17.2	34	34	40-93.6	.4	40	J(M0)
2-Methylphenol(o-Cresol)	ug/L	0.69U	50	50	18.1	17.6	36	35	36.7-95.	3	40	J(M0)
2-Naphthylamine	ug/L	2.1U	50	50	2.3U	2.3U	1	2	42.4-98.		40	J(M0)
2-Nitroaniline	ug/L	0.57U	50	50	23.9	23.8	48	48	59-103.2	.4	40	J(M0)
2-Nitrophenol	ug/L	0.77U	50	50	20.0	21.2	40	42	38.4-108	6	40	
3&4-Methylphenol(m&p Cresol)	ug/L	0.62U	50	50	17.9	17.6	36	35	35.2-94.	2	40	J(M0)
3,3'-Dichlorobenzidine	ug/L	0.65U	50	50	1.1 I	3.1 I	2	6	30.7-106		40	J(M0)
3,3'-Dimethylbenzidine	ug/L	3.0U	50	50	3.1U	3.1U	.2	0	10-160.1		40	J(M0)
3-Methylcholanthrene	ug/L	0.98U	50	50	23.5	22.8	47	46	15.5-121	3	40	
3-Nitroaniline	ug/L	0.94U	50	50	21.5	23.4	43	47	25.3-131	9	40	
4,6-Dinitro-2-methylphenol	ug/L	1.2U	50	50	17.0 I	11.9 I	34	24	35.2-130		40	J(M0)
4-Aminobiphenyl	ug/L	2.7U	50	50	10.2	13.4	20	27	50.8-112	27	40	J(M0)
4-Bromophenylphenyl ether	ug/L	0.63U	50	50	23.4	24.0	47	48	51.9-110	3	40	J(M0)
4-Chloro-3-methylphenol	ug/L	0.59U	50	50	22.3	22.6	45	45	19.4-128	1	40	
4-Chloroaniline	ug/L	1.1U	50	50	19.9	20.3	40	41	30.1-108	2	40	
4-Chlorophenylphenyl ether	ug/L	0.60U	50	50	21.9	21.9	44	44	49.7-91.	.2	40	J(M0)
4-Nitroaniline	ug/L	0.65U	50	50	23.7	24.2	47	48	48.1-112	2	40	J(M0)
4-Nitrophenol	ug/L	1.0U	50	50	13.1 I	8.2 I	26	16	10-121.8		40	
5-Nitro-o-toluidine	ug/L	1.2U	50	50	21.1	21.6	42	43	43-113	3	40	J(M0)
7,12-Dimethylbenz(a)anthracene	ug/L	1.8U	50	50	22.3	22.3	45	45	52.5-108	.05	40	J(M0)
Acenaphthene	ug/L	0.81U	50	50	20.2	20.7	39	40	50.3-98.	2	40	J(M0)
Acenaphthylene	ug/L	0.90U	50	50	21.2	20.8	42	42	49-98.1	2	40	J(M0)
Acetophenone	ug/L	1.4U	50	50	17.8	19.0	36	38	40.6-94.	6	40	J(M0)
Anthracene	ug/L	0.57U	50	50	22.3	21.5	45	43	55-112.5	4	40	J(M0)
Benzo(a)anthracene	ug/L	0.60U	50	50	21.9	21.4	44	43	10-150.1	3	40	
Benzo(a)pyrene	ug/L	0.55U	50	50	23.4	23.4	47	47	59.7-108	.1	40	J(M0)
Benzo(b)fluoranthene	ug/L	0.59U	50	50	22.5	23.6	45	47	58.4-111	5	40	J(M0)
Benzo(g,h,i)perylene	ug/L	0.64U	50	50	22.1	21.6	44	43	57.6-115	2	40	J(M0)
Benzo(k)fluoranthene	ug/L	0.48U	50	50	22.9	21.1	46	42	57.6-112	8	40	J(M0)
Benzyl alcohol	ug/L	0.96U	50	50	20.5	19.8	41	40	26.1-118	3	40	
bis(2-Chloroethoxy)methane	ug/L	2.8U	50	50	17.7	17.4	35	35	41.2-96.	2	40	J(M0)
bis(2-Chloroethyl) ether	ug/L	0.71U	50	50	17.1	16.4	34	33	35.3-99.	5	40	J(M0)
bis(2-Chloroisopropyl) ether	ug/L	0.69U	50	50	18.1	18.0	36	36	36.3-91	.7	40	J(M0)
bis(2-Ethylhexyl)phthalate	ug/L	0.76U	50	50	24.0	23.2	48	46	43.1-118	4	40	
Butylbenzylphthalate	ug/L	0.68U	50	50	23.4	22.3	47	45	57.5-118	5	40	J(M0)
Chrysene	ug/L	0.35U	50	50	21.7	21.3	43	43	42.4-113	2	40	
Di-n-butylphthalate	ug/L	0.73 I	50	50	25.3	24.3	49	47	22.2-139	4	40	
Di-n-octylphthalate	ug/L	0.85U	50	50	23.8	23.3	48	47	57.4-116	2	40	J(M0)

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 91168 91169

Parameter	Units	3513900001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Diallate	ug/L	0.69U	50	50	21.4	21.2	43	42	44.3-111	.8	40	J(M0)
Dibenz(a,h)anthracene	ug/L	0.61U	50	50	23.2	23.3	46	47	59.1-111	.4	40	J(M0)
Dibenzofuran	ug/L	0.63U	50	50	21.5	21.6	43	43	45.3-108	.6	40	J(M0)
Diethylphthalate	ug/L	0.48U	50	50	24.5	23.0	49	46	51.1-107	7	40	J(M0)
Dimethylphthalate	ug/L	0.61U	50	50	22.4	22.8	45	46	47.4-110	2	40	J(M0)
Ethyl methanesulfonate	ug/L	0.85U	50	50	18.3	17.6	37	35	35.9-103	4	40	J(M0)
Fluoranthene	ug/L	0.51U	50	50	23.9	22.2	48	44	48.2-118	7	40	J(M0)
Fluorene	ug/L	0.53U	50	50	21.7	21.3	43	42	44.7-106	2	40	J(M0)
Hexachlorobenzene	ug/L	0.76U	50	50	22.8	22.3	46	45	54-113.2	2	40	J(M0)
Hexachlorocyclopentadiene	ug/L	1.2U	50	50	13.6	13.6	27	27	16.5-105	.3	40	
Hexachloroethane	ug/L	0.67U	50	50	14.3	13.8	29	28	10-102	4	40	
Hexachloropropene	ug/L	1.3U	50	50	14.6	15.3	29	31	29.1-84.	5	40	J(M0)
Indeno(1,2,3-cd)pyrene	ug/L	0.69U	50	50	22.9	22.8	46	46	33.7-120	.3	40	
Isodrin	ug/L	0.51U	50	50	22.2	21.5	44	43	32.4-130	4	40	
Isophorone	ug/L	0.69U	50	50	18.8	19.3	38	39	42.5-107	3	40	J(M0)
Isosafrole	ug/L	0.57U	50	50	18.0	18.9	36	38	45.8-99.	5	40	J(M0)
Methapyrilene	ug/L	1.6U	50	50	17.6	18.1	35	36	17.8-119	3	40	
Methyl methanesulfonate	ug/L	0.95U	50	50	19.2	18.2	38	36	10-107	5	40	
N-Nitroso-di-n-butylamine	ug/L	0.52U	50	50	20.0	20.7	40	41	15.2-107	4	40	
N-Nitroso-di-n-propylamine	ug/L	0.89U	50	50	18.9	18.5	38	37	19.1-111	2	40	
N-Nitrosodiethylamine	ug/L	0.69U	50	50	17.7	17.5	35	35	10-130.6	1	40	
N-Nitrosodimethylamine	ug/L	0.92U	50	50	13.7	13.4	27	27	10-132	2	40	
N-Nitrosodiphenylamine	ug/L	0.47U	50	50	22.0	21.4	43	42	37-104.4	3	40	
N-Nitrosomethylethylamine	ug/L	0.70U	50	50	16.6	15.6	33	31	10-135	6	40	
N-Nitrosopiperidine	ug/L	0.61U	50	50	18.2	18.2	36	36	43.3-96.	.3	40	J(M0)
N-Nitrosopyrrolidine	ug/L	0.83U	50	50	18.8	19.4	38	39	43.1-97.	3	40	J(M0)
Naphthalene	ug/L	0.74U	50	50	15.4	16.1	30	32	40.1-85.	4	40	J(M0)
Nitrobenzene	ug/L	1.0U	50	50	17.4	18.9	35	38	32.9-115	8	40	
O,O,O-Triethylphosphorothioate	ug/L	0.65U	50	50	19.0	18.7	38	37	48.5-99.	1	40	J(M0)
O-Toluidine	ug/L	1.0U	50	50	17.2	17.8	34	36	21.2-134	3	40	
P-Dimethylaminoazobenzene	ug/L	0.63U	50	50	24.2	22.5	48	45	44.6-142	7	40	
Pentachlorobenzene	ug/L	0.74U	50	50	21.0	21.5	42	43	37.5-128	2	40	
Phenacetin	ug/L	0.50U	50	50	26.0	24.1	52	48	19.3-143	8	40	
Phenanthrene	ug/L	0.49U	50	50	21.8	21.9	44	44	49.2-124	.4	40	J(M0)
Phenol	ug/L	0.51U	50	50	13.3	12.4	27	25	10-158.5	7	40	
Pronamide	ug/L	1.1U	50	50	24.5	23.9	49	48	10-128.9	3	40	
Pyrene	ug/L	0.64U	50	50	21.1	20.8	42	42	10-150.1	2	40	
Safrole	ug/L	0.80U	50	50	20.2	22.0	40	44	10-135.9	9	40	
Thionazin	ug/L	0.58U	50	50	24.1	23.8	48	48	45-105.7	1	40	
2,4,6-Tribromophenol (S)	%						46	45	10-110			
2-Fluorobiphenyl (S)	%						41	44	18-110			
2-Fluorophenol (S)	%						29	27	18-110			
Nitrobenzene-d5 (S)	%						39	42	10-110			
Phenol-d6 (S)	%						26	24	10-110			
Terphenyl-d14 (S)	%						45	45	10-123			

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: MSV/1853 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3513886001, 3513886002, 3513886003, 3513886004

METHOD BLANK: 89768 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003, 3513886004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
1,1,1-Trichloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
1,1,2,2-Tetrachloroethane	ug/L	0.18U	0.50	07/06/10 13:18	
1,1,2-Trichloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
1,1-Dichloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
1,1-Dichloroethene	ug/L	0.50U	1.0	07/06/10 13:18	
1,1-Dichloropropene	ug/L	0.50U	1.0	07/06/10 13:18	
1,2,3-Trichloropropane	ug/L	0.36U	0.50	07/06/10 13:18	
1,2,4-Trichlorobenzene	ug/L	0.50U	1.0	07/06/10 13:18	
1,2-Dichloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
1,2-Dichloropropane	ug/L	0.50U	1.0	07/06/10 13:18	
1,3-Dichloropropane	ug/L	0.50U	1.0	07/06/10 13:18	
2,2-Dichloropropane	ug/L	0.50U	1.0	07/06/10 13:18	
2-Butanone (MEK)	ug/L	5.0U	10.0	07/06/10 13:18	
2-Chloroethylvinyl ether	ug/L	0.50U	1.0	07/06/10 13:18	
2-Hexanone	ug/L	5.0U	10.0	07/06/10 13:18	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	10.0	07/06/10 13:18	
Acetone	ug/L	5.0U	10.0	07/06/10 13:18	
Acetonitrile	ug/L	5.0U	10.0	07/06/10 13:18	
Acrolein	ug/L	10.0U	20.0	07/06/10 13:18	
Acrylonitrile	ug/L	5.0U	10.0	07/06/10 13:18	
Allyl chloride	ug/L	0.50U	1.0	07/06/10 13:18	
Benzene	ug/L	0.50U	1.0	07/06/10 13:18	
Bromochloromethane	ug/L	0.50U	1.0	07/06/10 13:18	
Bromodichloromethane	ug/L	0.27U	0.60	07/06/10 13:18	
Bromoform	ug/L	0.50U	1.0	07/06/10 13:18	
Bromomethane	ug/L	0.50U	1.0	07/06/10 13:18	
Carbon disulfide	ug/L	0.77 I	1.0	07/06/10 13:18	
Carbon tetrachloride	ug/L	0.50U	1.0	07/06/10 13:18	
Chlorobenzene	ug/L	0.50U	1.0	07/06/10 13:18	
Chloroethane	ug/L	0.50U	1.0	07/06/10 13:18	
Chloroform	ug/L	0.50U	1.0	07/06/10 13:18	
Chloromethane	ug/L	0.62U	1.0	07/06/10 13:18	
Chloroprene	ug/L	0.50U	1.0	07/06/10 13:18	
cis-1,2-Dichloroethene	ug/L	0.50U	1.0	07/06/10 13:18	
cis-1,3-Dichloropropene	ug/L	0.25U	0.50	07/06/10 13:18	
Dibromochloromethane	ug/L	0.26U	0.50	07/06/10 13:18	
Dibromomethane	ug/L	0.50U	1.0	07/06/10 13:18	
Dichlorodifluoromethane	ug/L	0.50U	1.0	07/06/10 13:18	
Ethyl methacrylate	ug/L	0.50U	1.0	07/06/10 13:18	
Ethylbenzene	ug/L	0.50U	1.0	07/06/10 13:18	
Hexachloro-1,3-butadiene	ug/L	0.50U	1.0	07/06/10 13:18	
Iodomethane	ug/L	0.50U	1.0	07/06/10 13:18	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

METHOD BLANK: 89768 Matrix: Water

Associated Lab Samples: 3513886001, 3513886002, 3513886003, 3513886004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isobutyl Alcohol	ug/L	10.0U	20.0	07/06/10 13:18	
Methacrylonitrile	ug/L	5.0U	10.0	07/06/10 13:18	
Methyl methacrylate	ug/L	5.0U	10.0	07/06/10 13:18	
Methyl-tert-butyl ether	ug/L	0.50U	1.0	07/06/10 13:18	
Methylene Chloride	ug/L	2.5U	5.0	07/06/10 13:18	
Propionitrile	ug/L	5.0U	10.0	07/06/10 13:18	
Styrene	ug/L	0.50U	1.0	07/06/10 13:18	
Tetrachloroethene	ug/L	0.50U	1.0	07/06/10 13:18	
Toluene	ug/L	0.50U	1.0	07/06/10 13:18	
trans-1,2-Dichloroethene	ug/L	0.50U	1.0	07/06/10 13:18	
trans-1,3-Dichloropropene	ug/L	0.25U	0.50	07/06/10 13:18	
trans-1,4-Dichloro-2-butene	ug/L	5.0U	10.0	07/06/10 13:18	
Trichloroethene	ug/L	0.50U	1.0	07/06/10 13:18	
Trichlorofluoromethane	ug/L	0.50U	1.0	07/06/10 13:18	
Vinyl acetate	ug/L	1.0U	2.0	07/06/10 13:18	
Vinyl chloride	ug/L	0.50U	1.0	07/06/10 13:18	
Xylene (Total)	ug/L	0.50U	1.0	07/06/10 13:18	
1,2-Dichloroethane-d4 (S)	%	108	86-125	07/06/10 13:18	
4-Bromofluorobenzene (S)	%	106	70-114	07/06/10 13:18	
Dibromofluoromethane (S)	%	105	88-117	07/06/10 13:18	
Toluene-d8 (S)	%	106	87-113	07/06/10 13:18	

LABORATORY CONTROL SAMPLE: 89769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.0	105	76.8-126.8	
1,1,1-Trichloroethane	ug/L	20	21.0	105	81.9-126.8	
1,1,2,2-Tetrachloroethane	ug/L	20	18.1	90	70.5-131.7	
1,1,2-Trichloroethane	ug/L	20	20.1	100	84.1-122.6	
1,1-Dichloroethane	ug/L	20	21.2	106	66.4-138.6	
1,1-Dichloroethene	ug/L	20	23.0	115	79.3-127.5	
1,1-Dichloropropene	ug/L	20	20.6	103	70.4-138.4	
1,2,3-Trichloropropane	ug/L	20	18.2	91	58.2-134.6	
1,2,4-Trichlorobenzene	ug/L	20	19.1	95	79.1-134.1	
1,2-Dichloroethane	ug/L	20	20.2	101	85.9-121.9	
1,2-Dichloropropane	ug/L	20	20.8	104	82.2-129.1	
1,3-Dichloropropane	ug/L	20	19.4	97	88.1-118.2	
2,2-Dichloropropane	ug/L	20	21.5	107	44-181.7	
2-Butanone (MEK)	ug/L	20	22.3	111	53.8-156.3	
2-Chloroethylvinyl ether	ug/L	20	20.4	102	35.6-148.9	
2-Hexanone	ug/L	20	19.8	99	57.5-155.8	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.2	96	71.8-134.4	
Acetone	ug/L	20	20.9	104	47.2-184.1	
Acetonitrile	ug/L	200	222	111	65.2-133.1	
Acrolein	ug/L	200	331	166	41.8-131.7	1p,2p,J(L0)

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

LABORATORY CONTROL SAMPLE: 89769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acrylonitrile	ug/L	200	227	114	57.8-125.9	
Allyl chloride	ug/L	20	20.1	101	23.6-190.7	
Benzene	ug/L	20	21.1	105	77.3-132.8	
Bromochloromethane	ug/L	20	21.8	109	87.4-122.8	
Bromodichloromethane	ug/L	20	20.4	102	77.2-121.1	
Bromoform	ug/L	20	19.6	98	65.9-133.5	
Bromomethane	ug/L	20	20.8	104	48.2-223.9	
Carbon disulfide	ug/L	20	19.3	97	20.3-195.4	
Carbon tetrachloride	ug/L	20	21.1	105	69-155.5	
Chlorobenzene	ug/L	20	20.2	101	76.9-123.9	
Chloroethane	ug/L	20	23.0	115	46.7-157.8	
Chloroform	ug/L	20	20.9	104	69.7-132	
Chloromethane	ug/L	20	21.6	108	54.4-153.8	
Chloroprene	ug/L	20	19.6	98	31-185.4	
cis-1,2-Dichloroethene	ug/L	20	20.9	105	84-127.9	
cis-1,3-Dichloropropene	ug/L	20	21.3	107	73-121.6	
Dibromochloromethane	ug/L	20	20.8	104	65.4-126.2	
Dibromomethane	ug/L	20	22.3	111	85.3-121.7	
Dichlorodifluoromethane	ug/L	20	20.0	100	63.1-143.7	
Ethyl methacrylate	ug/L	20	19.1	96	34.3-179.4	
Ethylbenzene	ug/L	20	20.1	100	66.4-134.4	
Hexachloro-1,3-butadiene	ug/L	20	18.7	93	74.4-153.6	
Iodomethane	ug/L	20	14.9	75	1-243.3	
Isobutyl Alcohol	ug/L	400	420	105	62.9-136.1	
Methacrylonitrile	ug/L	200	209	105	77.3-132.6	
Methyl methacrylate	ug/L	20	18.7	94	37.4-178.3	
Methyl-tert-butyl ether	ug/L	20	19.2	96	66.3-136.8	
Methylene Chloride	ug/L	20	21.6	108	65.7-137.3	
Propionitrile	ug/L	200	222	111	71-130.3	
Styrene	ug/L	20	20.7	104	76.5-118.5	
Tetrachloroethene	ug/L	20	19.4	97	71-134	
Toluene	ug/L	20	20.0	100	75-129	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	83.3-126.3	
trans-1,3-Dichloropropene	ug/L	20	20.5	102	67.6-130	
trans-1,4-Dichloro-2-butene	ug/L	20	17.4	87	36.1-177.4	
Trichloroethene	ug/L	20	21.3	106	81.1-122.4	
Trichlorofluoromethane	ug/L	20	22.5	112	75.4-124.6	
Vinyl acetate	ug/L	20	20.2	101	72.2-139	
Vinyl chloride	ug/L	20	22.4	112	70.2-136.9	
Xylene (Total)	ug/L	60	59.8	100	82.3-126	
1,2-Dichloroethane-d4 (S)	%			96	86-125	
4-Bromofluorobenzene (S)	%			108	70-114	
Dibromofluoromethane (S)	%			105	88-117	
Toluene-d8 (S)	%			105	87-113	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89770 89771

Parameter	Units	3513883004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	0.50U	20	20	19.7	19.8	98	99	70-130	.7	40	
1,1,1-Trichloroethane	ug/L	0.50U	20	20	23.2	22.4	116	112	70-130	3	40	
1,1,2,2-Tetrachloroethane	ug/L	0.18U	20	20	16.7	17.2	83	86	70-130	3	40	
1,1,2-Trichloroethane	ug/L	0.50U	20	20	18.9	18.8	94	94	70-130	.3	40	
1,1-Dichloroethane	ug/L	0.50U	20	20	23.7	22.9	119	115	70-130	4	40	
1,1-Dichloroethene	ug/L	0.50U	20	20	26.9	25.4	135	127	70-130	6	40	J(M0)
1,1-Dichloropropene	ug/L	0.50U	20	20	23.0	22.4	115	112	70-130	3	40	
1,2,3-Trichloropropane	ug/L	0.36U	20	20	15.5	17.0	77	85	70-130	9	40	
1,2,4-Trichlorobenzene	ug/L	0.50U	20	20	17.8	19.5	89	98	70-130	10	40	
1,2-Dichloroethane	ug/L	0.50U	20	20	20.7	20.1	103	101	70-130	3	40	
1,2-Dichloropropane	ug/L	0.50U	20	20	21.8	21.2	109	106	70-130	3	40	
1,3-Dichloropropane	ug/L	0.50U	20	20	18.3	18.2	91	91	70-130	.5	40	
2,2-Dichloropropane	ug/L	0.50U	20	20	22.1	21.5	110	107	70-130	3	40	
2-Butanone (MEK)	ug/L	5.0U	20	20	14.5	14.1	72	71	70-130	2	40	
2-Chloroethylvinyl ether	ug/L	0.50U	20	20	0.50U	0.50U	0	0	70-130		40	J(M0)
2-Hexanone	ug/L	5.0U	20	20	13.8	14.4	69	72	70-130	5	40	J(M0)
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	20	20	16.0	17.7	80	88	70-130	10	40	
Acetone	ug/L	5.0U	20	20	11.7	11.7	59	59	70-130	.05	40	J(M0)
Acetonitrile	ug/L	5.0U	200	200	173	198	87	99	70-130	13	40	
Acrolein	ug/L	10.0U	200	200	310	307	155	154	70-130	1	40	J(M0)
Acrylonitrile	ug/L	5.0U	200	200	217	219	109	109	70-130	.7	40	
Allyl chloride	ug/L	0.50U	20	20	21.8	21.3	109	107	70-130	2	40	
Benzene	ug/L	3.5	20	20	26.3	25.8	114	112	70-130	2	40	
Bromochloromethane	ug/L	0.50U	20	20	23.8	22.2	119	111	70-130	7	40	
Bromodichloromethane	ug/L	0.27U	20	20	21.6	20.8	108	104	70-130	4	40	
Bromoform	ug/L	0.50U	20	20	17.5	17.6	87	88	70-130	.7	40	
Bromomethane	ug/L	0.50U	20	20	16.7	19.5	83	97	70-130	16	40	
Carbon disulfide	ug/L	0.72 I	20	20	22.7	21.2	110	103	70-130	7	40	
Carbon tetrachloride	ug/L	0.50U	20	20	22.5	22.3	113	112	70-130	.9	40	
Chlorobenzene	ug/L	5.3	20	20	26.8	25.8	108	102	70-130	4	40	
Chloroethane	ug/L	0.50U	20	20	30.9	27.6	155	138	70-130	11	40	J(M0)
Chloroform	ug/L	0.50U	20	20	23.4	22.0	117	110	70-130	6	40	
Chloromethane	ug/L	0.62U	20	20	26.2	24.0	131	120	70-130	9	40	J(M0)
Chloroprene	ug/L	0.50U	20	20	20.6	21.0	103	105	70-130	2	40	
cis-1,2-Dichloroethene	ug/L	3.7	20	20	27.2	26.0	117	112	70-130	4	40	
cis-1,3-Dichloropropene	ug/L	0.25U	20	20	20.9	20.7	105	103	70-130	1	40	
Dibromochloromethane	ug/L	0.26U	20	20	18.9	19.3	94	97	70-130	2	40	
Dibromomethane	ug/L	0.50U	20	20	23.2	22.0	116	110	70-130	6	40	
Dichlorodifluoromethane	ug/L	0.50U	20	20	27.0	25.0	135	125	70-130	8	40	J(M0)
Ethyl methacrylate	ug/L	0.50U	20	20	18.0	17.9	90	89	70-130	.8	40	
Ethylbenzene	ug/L	1.6	20	20	23.9	22.5	111	105	70-130	6	40	
Hexachloro-1,3-butadiene	ug/L	0.50U	20	20	19.4	19.7	97	98	70-130	1	40	
Iodomethane	ug/L	0.50U	20	20	25.4	26.3	127	131	70-130	3	40	J(M0)
Isobutyl Alcohol	ug/L	10.0U	400	400	315	371	79	93	70-130	16	40	
Methacrylonitrile	ug/L	5.0U	200	200	202	209	101	105	70-130	4	40	
Methyl methacrylate	ug/L	5.0U	20	20	18.1	19.2	91	96	70-130	6	40	
Methyl-tert-butyl ether	ug/L	0.50U	20	20	17.9	18.3	90	92	70-130	2	40	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 89770 89771

Parameter	Units	3513883004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Methylene Chloride	ug/L	2.5U	20	20	24.5	21.8	122	109	70-130	11	40	
Propionitrile	ug/L	5.0U	200	200	203	201	101	100	70-130	1	40	
Styrene	ug/L	0.50U	20	20	22.8	21.0	114	105	70-130	8	40	
Tetrachloroethene	ug/L	0.50U	20	20	18.2	17.8	91	89	70-130	3	40	
Toluene	ug/L	0.86 I	20	20	21.6	20.9	103	100	70-130	3	40	
trans-1,2-Dichloroethene	ug/L	0.50U	20	20	23.1	22.0	116	110	70-130	5	40	
trans-1,3-Dichloropropene	ug/L	0.25U	20	20	18.9	18.9	95	94	70-130	.3	40	
trans-1,4-Dichloro-2-butene	ug/L	5.0U	20	20	14.6	15.4	73	77	70-130	5	40	
Trichloroethene	ug/L	0.50U	20	20	22.7	22.1	113	111	70-130	3	40	
Trichlorofluoromethane	ug/L	0.50U	20	20	27.8	25.7	139	129	70-130	8	40	J(M0)
Vinyl acetate	ug/L	1.0U	20	20	16.9	17.7	85	89	70-130	5	40	
Vinyl chloride	ug/L	0.50U	20	20	29.7	26.4	149	132	70-130	12	40	J(M0)
Xylene (Total)	ug/L	8.8	60	60	77.0	72.1	114	105	70-130	7	40	
1,2-Dichloroethane-d4 (S)	%						97	97	86-125			
4-Bromofluorobenzene (S)	%						112	110	70-114			
Dibromofluoromethane (S)	%						110	108	88-117			
Toluene-d8 (S)	%						109	107	87-113			

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: WET/4695 Analysis Method: EPA 9034
QC Batch Method: EPA 9034 Analysis Description: 9034 Sulfide Water
Associated Lab Samples: 3513886005, 3513886006, 3513886007

METHOD BLANK: 96294 Matrix: Water
Associated Lab Samples: 3513886005, 3513886006, 3513886007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	1.0U	1.0	07/23/10 14:00	

LABORATORY CONTROL SAMPLE: 96295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	6	5.8	97	80-120	

MATRIX SPIKE SAMPLE: 96297

Parameter	Units	3513886007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	2.0U	30	30.4	100	80-120	

SAMPLE DUPLICATE: 96296

Parameter	Units	3513886007 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	2.0U	2.0U		20	

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QUALITY CONTROL DATA

Project: Resource Recovery GWM
Pace Project No.: 3513886

QC Batch: WETA/5229 Analysis Method: EPA 9012
QC Batch Method: EPA 9012 Analysis Description: 9012 Cyanide
Associated Lab Samples: 3513886001, 3513886002, 3513886003

METHOD BLANK: 91892 Matrix: Water
Associated Lab Samples: 3513886001, 3513886002, 3513886003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	0.0050U	0.010	07/12/10 17:52	

LABORATORY CONTROL SAMPLE: 91893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.05	0.051	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 91894 91895

Parameter	Units	3513561016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0050 U	.05	.05	0.052	0.051	100	98	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 91896 91897

Parameter	Units	3513886002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0050 U	.05	.05	0.052	0.051	100	99	80-120	1	20	

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QUALIFIERS

Project: Resource Recovery GWM
Pace Project No.: 3513886

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
1p	The continuing calibration for this compound is outside (HIGH) of method control limits. The result is estimated.
2p	The recovery for the LCS was outside method guidance criteria (high) bias. However, the NELAC standards consider the batch in control with up to 4 analytes exceeding the recommended control limits for methods with 71 to 90 analytes in the list.
J(C2)	Estimated Value. Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
J(L0)	Estimated Value. Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
J(L1)	Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
J(M0)	Estimated Value. Matrix spike recovery was outside laboratory control limits.
J(R1)	Estimated Value. RPD value was outside control limits.
J(S0)	Estimated Value. Surrogate recovery outside laboratory control limits.
J(SS)	Estimated Value. This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.
JN	Estimated value, due to poor pattern matching or suspected co-elution with other unidentified peaks. All method QC identification criteria were met.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
V	Indicates that the analyte was detected in both the sample and the associated method blank.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3513886001	2MW-27D	EPA 8011	OEXT/2657	EPA 8011	GCSV/2134
3513886002	4MW-27	EPA 8011	OEXT/2657	EPA 8011	GCSV/2134
3513886003	4MW-27D	EPA 8011	OEXT/2657	EPA 8011	GCSV/2134
3513886001	2MW-27D	EPA 3510	OEXT/2633	EPA 8081	GCSV/2109
3513886002	4MW-27	EPA 3510	OEXT/2633	EPA 8081	GCSV/2109
3513886003	4MW-27D	EPA 3510	OEXT/2633	EPA 8081	GCSV/2109
3513886001	2MW-27D	EPA 3510	OEXT/2634	EPA 8082	GCSV/2110
3513886002	4MW-27	EPA 3510	OEXT/2634	EPA 8082	GCSV/2110
3513886003	4MW-27D	EPA 3510	OEXT/2634	EPA 8082	GCSV/2110
3513886001	2MW-27D	EPA 3510	OEXT/2625	EPA 8141	GCSV/2122
3513886002	4MW-27	EPA 3510	OEXT/2625	EPA 8141	GCSV/2122
3513886003	4MW-27D	EPA 3510	OEXT/2625	EPA 8141	GCSV/2122
3513886001	2MW-27D	EPA 8151	OEXT/2638	EPA 8151	GCSV/2102
3513886002	4MW-27	EPA 8151	OEXT/2638	EPA 8151	GCSV/2102
3513886003	4MW-27D	EPA 8151	OEXT/2638	EPA 8151	GCSV/2102
3513886001	2MW-27D	EPA 3010	MPRP/2634	EPA 6010	ICP/2079
3513886002	4MW-27	EPA 3010	MPRP/2634	EPA 6010	ICP/2079
3513886003	4MW-27D	EPA 3010	MPRP/2634	EPA 6010	ICP/2079
3513886001	2MW-27D	EPA 3010	MPRP/2633	EPA 6020	ICPM/1537
3513886002	4MW-27	EPA 3010	MPRP/2633	EPA 6020	ICPM/1537
3513886003	4MW-27D	EPA 3010	MPRP/2633	EPA 6020	ICPM/1537
3513886001	2MW-27D	EPA 7470	MERP/1401	EPA 7470	MERC/1400
3513886002	4MW-27	EPA 7470	MERP/1401	EPA 7470	MERC/1400
3513886003	4MW-27D	EPA 7470	MERP/1401	EPA 7470	MERC/1400
3513886001	2MW-27D	EPA 3510	OEXT/2665	EPA 8270	MSSV/1561
3513886002	4MW-27	EPA 3510	OEXT/2665	EPA 8270	MSSV/1561
3513886003	4MW-27D	EPA 3510	OEXT/2665	EPA 8270	MSSV/1561
3513886001	2MW-27D	EPA 8260	MSV/1853		
3513886002	4MW-27	EPA 8260	MSV/1853		
3513886003	4MW-27D	EPA 8260	MSV/1853		
3513886004	Trip blank (07/01/10)	EPA 8260	MSV/1853		
3513886005	4MW-27D RE	EPA 9034	WET/4695		
3513886006	4MW-27 RE	EPA 9034	WET/4695		
3513886007	2MW-27D RE	EPA 9034	WET/4695		
3513886001	2MW-27D	EPA 9012	WETA/5229	EPA 9012	WETA/5235
3513886002	4MW-27	EPA 9012	WETA/5229	EPA 9012	WETA/5235
3513886003	4MW-27D	EPA 9012	WETA/5229	EPA 9012	WETA/5235

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CERTIFICATIONS

Project: Resource Recovery GWM
Pace Project No.: 3513886

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Resource Recovery GWM
Pace Project No.: 3513886

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3513886001	2MW-27D	Water	07/01/10 12:30	07/02/10 14:10
3513886002	4MW-27	Water	07/01/10 13:38	07/02/10 14:10
3513886003	4MW-27D	Water	07/01/10 14:00	07/02/10 14:10
3513886004	Trip blank (07/01/10)	Water	07/01/10 08:00	07/02/10 14:10
3513886005	4MW-27D RE	Water	07/20/10 11:48	07/21/10 11:40
3513886006	4MW-27 RE	Water	07/20/10 13:20	07/21/10 11:40
3513886007	2MW-27D RE	Water	07/20/10 14:00	07/21/10 11:40

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SAMPLE ANALYTE COUNT

Project: Resource Recovery GWM
Pace Project No.: 3513886

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3513886001	2MW-27D	EPA 8011	WFH	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	LJM	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	AE1	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9012	TLK	1	PASI-O
3513886002	4MW-27	EPA 8011	WFH	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	LJM	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	AE1	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9012	TLK	1	PASI-O
3513886003	4MW-27D	EPA 8011	WFH	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	LJM	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	AE1	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9012	TLK	1	PASI-O
3513886004	Trip blank (07/01/10)	EPA 8260	JBH	64	PASI-O
3513886005	4MW-27D RE	EPA 9034	AMD	1	PASI-O
3513886006	4MW-27 RE	EPA 9034	AMD	1	PASI-O
3513886007	2MW-27D RE	EPA 9034	AMD	1	PASI-O

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8081**
Description: 8081 GCS Pesticides
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8081. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/2633

J(C2): Estimated Value. Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.

- 2MW-27D (Lab ID: 3513886001)
  - Endrin

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8082**
Description: 8082 GCS PCB
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8141**
Description: 8141 GCS O/P Pesticides
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8141. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: OEXT/2625

J(SS): Estimated Value. This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

- LCS (Lab ID: 88960)
  - Famphur
- MS (Lab ID: 88961)
  - Famphur
- MSD (Lab ID: 88962)
  - Famphur

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8151**
Description: 8151 Chlorinated Herbicides
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8151. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/2638

J(S0): Estimated Value. Surrogate recovery outside laboratory control limits.
- MSD (Lab ID: 89518)
  - 2,4-DCPA (S)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/2638

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513561016

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.
- MSD (Lab ID: 89518)
  - 2,4,5-T
  - 2,4,5-TP (Silvex)
  - 2,4-D
  - Dinoseb
  - Pentachlorophenol

J(R1): Estimated Value. RPD value was outside control limits.
- MSD (Lab ID: 89518)
  - 2,4,5-T

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8151**
Description: 8151 Chlorinated Herbicides
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

QC Batch: OEXT/2638

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513561016

J(R1): Estimated Value. RPD value was outside control limits.

- 2,4,5-TP (Silvex)
- 2,4-D
- Dinoseb
- Pentachlorophenol

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 7470**
Description: 7470 Mercury
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/2665

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 90430)
  - 1,3,5-Trinitrobenzene
  - 1-Naphthylamine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/2665

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513900001

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.

- MS (Lab ID: 91168)
  - 1,4-Dichlorobenzene
  - 1-Naphthylamine
  - 2,4-Dinitrotoluene

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

QC Batch: OEXT/2665

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513900001

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.

- 2,6-Dichlorophenol
- 2,6-Dinitrotoluene
- 2-Acetylaminofluorene
- 2-Chloronaphthalene
- 2-Methylnaphthalene
- 2-Methylphenol(o-Cresol)
- 2-Naphthylamine
- 2-Nitroaniline
- 3,3'-Dichlorobenzidine
- 3,3'-Dimethylbenzidine
- 4,6-Dinitro-2-methylphenol
- 4-Aminobiphenyl
- 4-Bromophenylphenyl ether
- 4-Chlorophenylphenyl ether
- 4-Nitroaniline
- 5-Nitro-o-toluidine
- 7,12-Dimethylbenz(a)anthracene
- Acenaphthene
- Acenaphthylene
- Acetophenone
- Anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Butylbenzylphthalate
- Di-n-octylphthalate
- Diallate
- Dibenz(a,h)anthracene
- Dibenzofuran
- Diethylphthalate
- Dimethylphthalate
- Fluoranthene
- Fluorene
- Hexachlorobenzene
- Hexachloropropene
- Isophorone
- Isosafrole
- N-Nitrosopiperidine
- N-Nitrosopyrrolidine
- Naphthalene
- O,O,O-Triethylphosphorothioate
- Phenanthrene

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

QC Batch: OEXT/2665

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513900001

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.

- bis(2-Chloroethoxy)methane
- bis(2-Chloroethyl) ether
- bis(2-Chloroisopropyl) ether

- MSD (Lab ID: 91169)
  - 1,3,5-Trinitrobenzene
  - 1,4-Dichlorobenzene
  - 2,4-Dinitrophenol
  - 2,4-Dinitrotoluene
  - 2,6-Dichlorophenol
  - 2-Acetylaminofluorene
  - 2-Chloronaphthalene
  - 2-Methylnaphthalene
  - 2-Methylphenol(o-Cresol)
  - 2-Naphthylamine
  - 2-Nitroaniline
  - 3&4-Methylphenol(m&p Cresol)
  - 3,3'-Dichlorobenzidine
  - 3,3'-Dimethylbenzidine
  - 4,6-Dinitro-2-methylphenol
  - 4-Aminobiphenyl
  - 4-Bromophenylphenyl ether
  - 4-Chlorophenylphenyl ether
  - 4-Nitroaniline
  - 7,12-Dimethylbenz(a)anthracene
  - Acenaphthene
  - Acenaphthylene
  - Acetophenone
  - Anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Butylbenzylphthalate
  - Di-n-octylphthalate
  - Diallate
  - Dibenz(a,h)anthracene
  - Dibenzofuran
  - Diethylphthalate
  - Dimethylphthalate
  - Ethyl methanesulfonate
  - Fluoranthene
  - Fluorene
  - Hexachlorobenzene

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

QC Batch: OEXT/2665

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513900001

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.

- Isophorone
- Isosafrole
- N-Nitrosopiperidine
- N-Nitrosopyrrolidine
- Naphthalene
- O,O,O-Triethylphosphorothioate
- Phenanthrene
- bis(2-Chloroethoxy)methane
- bis(2-Chloroethyl) ether
- bis(2-Chloroisopropyl) ether

J(R1): Estimated Value. RPD value was outside control limits.

- MSD (Lab ID: 91169)
  - 1-Naphthylamine

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8260**
Description: 8260 MSV
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
4 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/1853

J(L0): Estimated Value. Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 89769)
  - Acrolein

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/1853

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513883004

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.
- MS (Lab ID: 89770)
  - 1,1-Dichloroethene
  - 2-Chloroethylvinyl ether
  - 2-Hexanone
  - Acetone
  - Acrolein
  - Chloroethane
  - Chloromethane
  - Dichlorodifluoromethane

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 8260**
Description: 8260 MSV
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

QC Batch: MSV/1853

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3513883004

J(M0): Estimated Value. Matrix spike recovery was outside laboratory control limits.

- Trichlorofluoromethane
- Vinyl chloride

- MSD (Lab ID: 89771)
  - 2-Chloroethylvinyl ether
  - Acetone
  - Acrolein
  - Chloroethane
  - Iodomethane
  - Vinyl chloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/1853

1p: The continuing calibration for this compound is outside (HIGH) of method control limits. The result is estimated.

- LCS (Lab ID: 89769)
  - Acrolein

2p: The recovery for the LCS was outside method guidance criteria (high) bias. However, the NELAC standards consider the batch in control with up to 4 analytes exceeding the recommended control limits for methods with 71 to 90 analytes in the list.

- LCS (Lab ID: 89769)
  - Acrolein

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 9034**
Description: 9034 Sulfide Water
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 9034. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Resource Recovery GWM
Pace Project No.: 3513886

Method: **EPA 9012**
Description: 9012 Cyanide, Total
Client: Pasco County Environmental Laboratory
Date: August 10, 2010

General Information:
3 samples were analyzed for EPA 9012. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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NEW PORT RICHEY, FL 34654
PHONE 727-847-8902

NELAC E44123
CONTACTS:
GLORIA KRUEGER
CHRIS CHILDRESS

REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49290	SAMPLE ID 2MW27S @ RESREC		SAMPLE MATRIX	AQU
DATE SAMPLED	7/1/2010			TIME SAMPLED	11:00
DATE RECEIVED	7/1/2010	SAMPLER WMM		RECEIVED BY	CF
TIME RECEIVED	15:45	DELIVERED BY WMM		SAMPLE TYPE	
				SP	

ANALYSIS	METHOD	ANALYSIS DATE	ANALYSIS TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Water Level (NGVD)	DEP-SOP	7/1/2010	11:00	WM	DRY		Ft.	0

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Cynthia E. Thulke

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NELAC Certification # E44123

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NEW PORT RICHEY, FL 34654
PHONE 727-847-8902

NELAC E44123
CONTACTS:
GLORIA KRUEGER
CHRIS CHILDRESS

REPORT OF ANALYSES

Date: 7/26/2010

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

SAMPLE NUMBER	AB49291	SAMPLE ID 2MW27D @ RESREC	SAMPLE MATRIX AQU
DATE SAMPLED	7/1/2010		TIME SAMPLED 12:30
DATE RECEIVED	7/1/2010	SAMPLER WMM	RECEIVED BY CF
TIME RECEIVED	15:45	DELIVERED BY WMM	SAMPLE TYPE SP

ANALYSIS

Color by Observation
Conductivity Field
Dissolved Oxygen Field
pH Field
Temperature Field
Water Level (NGVD)
Iron,Total, ICP
Mercury, Total, CVAA
Sodium (Na)
Ammonia (N)
Nitrate (N)
Total Dissolved Solids

ANALYSIS COMMENTS:

ANALYSIS METHOD	DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Observation	7/1/2010	12:30	WM	CLEAR	D	ObsColor	0
FDEP FT 12	7/1/2010	12:30	WM	794	D	umhos/cm	1
FDEP FT 15	7/1/2010	12:30	WM	0.78	D	mg/L	0.1
FDEP FT 11	7/1/2010	12:30	WM	7.19	D	Std Units	0.10
FDEP FT 14	7/1/2010	12:30	WM	25.84	D	Deg C	0.00
DEP-SOP	7/1/2010	12:30	WM	~~20.82~~ 29.14		Ft.	0
EPA 200.7	7/8/2010	10:00	TER	0.153		mg/L	0.002
SM 3112 B	7/6/2010	10:30	TER	0.0002	U	mg/L	).000
EPA 200.7 (	7/8/2010	10:00	TER	52.5		mg/L	0.007
SM 4500-NH	7/16/2010	9:00	IF	0.05	I	mg/L	0.04
SM 4500-N	7/9/2010	8:00	IF	0.94		mg/L	0.02
SM 2540 C	7/2/2010	16:45	SER	660		mg/L	17.2

LABORATORY DIRECTOR Cynthia E. Thulke

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REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49291	SAMPLE ID 2MW27D @ RESREC		SAMPLE MATRIX	AQU
DATE SAMPLED	7/1/2010			TIME SAMPLED	12:30
DATE RECEIVED	7/1/2010	SAMPLER WMM		RECEIVED BY	CF
TIME RECEIVED	15:45	DELIVERED BY WMM		SAMPLE TYPE	
				SP	

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Chloride	EPA 300.0	7/6/2010	14:00	AS	151		mg/L	0.13
Turbidity	SM 2130 B	7/1/2010	16:10	WM	5.29		NTU's	0

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Cynthia E. Thulke

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REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49292	SAMPLE ID 4MW27 @ RESREC		SAMPLE MATRIX	AQU
DATE SAMPLED	7/1/2010			TIME SAMPLED	13:38
DATE RECEIVED	7/1/2010	SAMPLER WMM		RECEIVED BY	CF
TIME RECEIVED	15:45	DELIVERED BY WMM		SAMPLE TYPE	
				SP	

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Color by Observation	Observation	7/1/2010	13:38	WM	CLEAR	D	ObsColor	0
Conductivity Field	FDEP FT 12	7/1/2010	13:38	WM	715	D	umhos/cm	1
Dissolved Oxygen Field	FDEP FT 15	7/1/2010	13:38	WM	0.73	D	mg/L	0.1
pH Field	FDEP FT 11	7/1/2010	13:38	WM	8.82	D	Std Units	0.10
Temperature Field	FDEP FT 14	7/1/2010	13:38	WM	26.26	D	Deg C	0.00
Water Level (NGVD)	DEP-SOP	7/1/2010	13:38	WM	~~56.68~~ 29.28		Ft.	0
Iron,Total, ICP	EPA 200.7	7/8/2010	10:00	TER	0.211		mg/L	0.002
Mercury, Total, CVAA	SM 3112 B	7/6/2010	10:30	TER	0.0002	U	mg/L	).000
Sodium (Na)	EPA 200.7 (	7/8/2010	10:00	TER	58.0		mg/L	0.007
Ammonia (N)	SM 4500-NH	7/16/2010	9:00	IF	0.09	I	mg/L	0.04
Nitrate (N)	SM 4500-N	7/9/2010	8:00	IF	0.86		mg/L	0.02
Total Dissolved Solids	SM 2540 C	7/2/2010	16:45	SER	492		mg/L	17.2

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Cynthia E. Thulke

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REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49292	SAMPLE ID 4MW27 @ RESREC		SAMPLE MATRIX	AQU
DATE SAMPLED	7/1/2010			TIME SAMPLED	13:38
DATE RECEIVED	7/1/2010	SAMPLER WMM		RECEIVED BY	CF
TIME RECEIVED	15:45	DELIVERED BY WMM		SAMPLE TYPE	
				SP	

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Chloride	EPA 300.0	7/6/2010	14:00	AS	127		mg/L	0.13
Turbidity	SM 2130 B	7/1/2010	16:10	WM	2.39		NTU's	0

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Cynthia E. Thibbeau

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CHRIS CHILDRESS

REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49293	SAMPLE ID 4MW27D @ RESREC	SAMPLE MATRIX AQU
DATE SAMPLED	7/1/2010		TIME SAMPLED 14:00
DATE RECEIVED	7/1/2010	SAMPLER WMM	RECEIVED BY CF
TIME RECEIVED	15:45	DELIVERED BY WMM	SAMPLE TYPE SP

ANALYSIS	METHOD	DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Color by Observation	Observation	7/1/2010	14:00	WM	CLOUDY	D	ObsColor	0
Conductivity Field	FDEP FT 12	7/1/2010	14:00	WM	294	D	umhos/cm	1
Dissolved Oxygen Field	FDEP FT 15	7/1/2010	14:00	WM	4.51	D	mg/L	0.1
pH Field	FDEP FT 11	7/1/2010	14:00	WM	8.13	D	Std Units	0.10
Temperature Field	FDEP FT 14	7/1/2010	14:00	WM	25.59 NR	D	Deg C	0.00
Water Level (NGVD)	DEP-SOP	7/1/2010	14:00	WM	~~136.00~~ 29.26		Ft.	0
Iron,Total, ICP	EPA 200.7	7/8/2010	10:00	TER	0.135		mg/L	0.002
Mercury, Total, CVAA	SM 3112 B	7/6/2010	10:30	TER	0.0002	U	mg/L	).000
Sodium (Na)	EPA 200.7 (	7/8/2010	10:00	TER	7.91		mg/L	0.007
Ammonia (N)	SM 4500-NH	7/16/2010	9:00	IF	0.06	I	mg/L	0.04
Nitrate (N)	SM 4500-N	7/9/2010	8:00	IF	0.02	U	mg/L	0.02
Total Dissolved Solids	SM 2540 C	7/2/2010	16:45	SER	200		mg/L	17.2

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Cynthia E. Thulken

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PHONE 727-847-8902

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REPORT OF ANALYSES

Resource Recovery
Class I Landfill
Hays Road
Shady Hills, Fl
John Power

Date: 7/26/2010

SAMPLE NUMBER	AB49293	SAMPLE ID 4MW27D @ RESREC	SAMPLE MATRIX AQU
DATE SAMPLED	7/1/2010		TIME SAMPLED 14:00
DATE RECEIVED	7/1/2010	SAMPLER WMM	RECEIVED BY CF
TIME RECEIVED	15:45	DELIVERED BY WMM	SAMPLE TYPE SP

ANALYSIS	METHOD	ANALYSIS DATE	TIME	BY	RESULT	QUAL.	UNIT	DET. LIMIT
Chloride	EPA 300.0	7/6/2010	14:00	AS	12.2		mg/L	0.13
Turbidity	SM 2130 B	7/1/2010	16:10	WM	3.46		NTU's	0

ANALYSIS COMMENTS:

LABORATORY DIRECTOR Carolin E. Thulke

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I have copied the PACE report Candia gave us and removed the lab data for all wells other than the initial sampling event performed on monitor wells 2MW-24D, 2MW-24S, 2MW-25D, & 2MW-26D on 9/9/2010. I have also included the data for this sampling event that Candia processed and provided to us in EDD Format. These sheets immediatly follow this cover sheet.

David R Rojas

Pasco County Lab Field and Laboratory Results for Sampling of Monitor Well 2MW-24S Performed on 9/9/2010

TIME SAMPLED	ANALYSIS	RESULTS	UNITS
11:41	pH Field	7.35	Std Units
11:41	Temperature Field	29.13	Deg C
11:41	Conductivity Field	373	umhos/cm
11:41	Dissolved Oxygen Field	1.46	mg/L
11:41	Total Dissolved Solids	260	mg/L
11:41	Color by Observation		ObsColor
11:41	Ammonia (N)	0.04	mg/L
11:41	Nitrate (N)	0.41	mg/L
11:41	Iron (Fe)	95.2	ug/L
11:41	Mercury	0.2	ug/L
11:41	Sodium	10.2	mg/L
11:41	Turbidity Field	0.0	NTU
11:41	Water Level (NGVD)	29.10	Ft.
11:41	Chloride	29.5	mg/L

Pasco County Lab Field and Laboratory Results for Sampling of Monitor Well 2MW-24D Performed on 9/9/2010

TIME SAMPLED	ANALYSIS	RESULTS	UNITS
10:17	pH Field	7.50	Std Units
10:17	Temperature Field	25.85	Deg C
10:17	Conductivity Field	446	umhos/cm
10:17	Dissolved Oxygen Field	0.72	mg/L
10:17	Total Dissolved Solids	260	mg/L
10:17	Color by Observation		ObsColor
10:17	Ammonia (N)	0.04	mg/L
10:17	Nitrate (N)	0.52	mg/L
10:17	Iron (Fe)	248	ug/L
10:17	Mercury	0.2	ug/L
10:17	Sodium	22.8	mg/L
10:17	Turbidity Field	0.0	NTU
10:17	Water Level (NGVD)	28.74	Ft.
10:17	Chloride	46.3	mg/L

Pasco County Lab Field and Laboratory Results for Sampling of Monitor Well 2MW-25D Performed on 9/9/2010

TIME SAMPLED	ANALYSIS	RESULTS	UNITS
13:21	pH Field	7.05	Std Units
13:21	Temperature Field	27.03	Deg C
13:21	Conductivity Field	750	umhos/cm
13:21	Dissolved Oxygen Field	1.43	mg/L
13:21	Total Dissolved Solids	530	mg/L
13:21	Color by Observation		ObsColor
13:21	Ammonia (N)	0.11	mg/L
13:21	Nitrate (N)	0.05	mg/L
13:21	Iron (Fe)	1610	ug/L
13:21	Mercury	0.2	ug/L
13:21	Sodium	41.6	mg/L
13:21	Turbidity Field	1.4	NTU
13:21	Water Level (NGVD)	29.13	Ft.
13:21	Chloride	87.1	mg/L

Pasco County Lab Field and Laboratory Results for Sampling of Monitor Well 2MW-26D Performed on 9/9/2010

TIME SAMPLED	ANALYSIS	RESULTS	UNITS
14:28	pH Field	7.27	Std Units
14:28	Temperature Field	25.40	Deg C
14:28	Conductivity Field	647	umhos/cm
14:28	Dissolved Oxygen Field	0.81	mg/L
14:28	Total Dissolved Solids	450	mg/L
14:28	Color by Observation		ObsColor
14:28	Ammonia (N)	0.04	mg/L
14:28	Nitrate (N)	0.36	mg/L
14:28	Iron (Fe)	279	ug/L
14:28	Mercury	0.2	ug/L
14:28	Sodium	36.2	mg/L
14:28	Turbidity Field	2.0	NTU
14:28	Water Level (NGVD)	29.72	Ft.
14:28	Chloride	77.9	mg/L

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November 03, 2010

Ms. Candia E. Mulhern
Pasco County Environmental Laboratory
8864 Government Drive
New Port Richey, FL 34654

RE: Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Dear Ms. Mulhern:
Enclosed are the analytical results for sample(s) received by the laboratory between August 24, 2010 and October 04, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sakina Mckenzie

sakina.mckenzie@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH 0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3516696001	4 MW-3A	Water	08/23/10 09:20	08/24/10 11:50
3516696002	4 MW-9	Water	08/23/10 10:46	08/24/10 11:50
3516696003	4MW-22	Water	08/23/10 13:30	08/24/10 11:50
3516696004	4 MW-8	Water	08/24/10 10:40	08/26/10 12:35
3516696005	4MW-21	Water	08/24/10 11:46	08/26/10 12:35
3516696006	4 MW-7	Water	08/24/10 13:10	08/26/10 12:35
3516696007	2MW-24D	Water	09/09/10 10:17	09/13/10 07:10
3516696008	2MW-24S	Water	09/09/10 11:41	09/13/10 07:10
3516696009	2MW-25D	Water	09/09/10 13:21	09/13/10 07:10
3516696010	2MW-26D	Water	09/09/10 14:28	09/13/10 07:10
3516696011	Trip Blank (9/9/10)	Water	09/09/10 08:00	09/13/10 07:10
3516696012	4MW4 WELL	Water	09/28/10 09:45	10/01/10 07:00
3516696013	WELL 2MW-19D	Water	09/28/10 10:39	10/01/10 07:00
3516696014	2MW-18D	Water	09/28/10 11:07	10/01/10 07:00
3516696015	2MW-17S	Water	09/28/10 12:38	10/01/10 07:00
3516696016	4MW1 WELL	Water	09/27/10 09:25	10/01/10 07:00
3516696017	4MW2 WELL	Water	09/27/10 10:49	10/01/10 07:00
3516696018	2MW2 WELL	Water	09/27/10 11:44	10/01/10 07:00
3516696019	4MW6 WELL	Water	09/27/10 13:54	10/01/10 07:00
3516696020	4MW5 WELL	Water	09/29/10 10:01	10/04/10 07:00
3516696021	4MW27D	Water	09/29/10 12:28	10/04/10 07:00
3516696022	4MW27	Water	09/29/10 12:14	10/04/10 07:00
3516696023	2MW27D	Water	09/29/10 12:46	10/04/10 07:00
3516696024	WELL 2MW-15DA	Water	09/29/10 13:17	10/04/10 07:00
3516696025	4MW-11D	Water	09/29/10 13:55	10/04/10 07:00
3516696026	4MW-12D	Water	09/29/10 14:37	10/04/10 07:00
3516696027	4MW-13D WELL	Water	09/29/10 15:00	10/04/10 07:00
3516696028	4MW-14D WELL	Water	09/29/10 15:46	10/04/10 07:00
3516696029	2MW-24S RE	Water	09/29/10 10:15	10/04/10 07:00
3516696030	2MW-24D RE	Water	09/29/10 10:50	10/04/10 07:00
3516696031	2MW-25D RE	Water	09/29/10 12:15	10/04/10 07:00
3516696032	2MW-26D RE	Water	09/29/10 13:00	10/04/10 07:00

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SAMPLE ANALYTE COUNT

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3516696001	4 MW-3A	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696002	4 MW-9	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696003	4MW-22	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696004	4 MW-8	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696005	4MW-21	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696006	4 MW-7	EPA 8011	JLR	2	PASI-O
		EPA 6010	TAP	15	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 8260	JBH	49	PASI-O
3516696007	2MW-24D	EPA 8011	JLR	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	JLY	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	EAO	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9034	AMD	1	PASI-O
		EPA 9012	TLK	1	PASI-O
3516696008	2MW-24S	EPA 8011	JLR	2	PASI-O

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SAMPLE ANALYTE COUNT

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	JLY	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	EAO	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9034	AMD	1	PASI-O
		EPA 9012	TLK	1	PASI-O
3516696009	2MW-25D	EPA 8011	JLR	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	JLY	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	EAO	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9034	AMD	1	PASI-O
		EPA 9012	TLK	1	PASI-O
3516696010	2MW-26D	EPA 8011	JLR	2	PASI-O
		EPA 8081	JLY	23	PASI-O
		EPA 8082	JLY	9	PASI-O
		EPA 8141	JLY	7	PASI-O
		EPA 8151	JLY	6	PASI-O
		EPA 6010	TAP	14	PASI-O
		EPA 6020	DRS	2	PASI-O
		EPA 7470	SK1	1	PASI-O
		EPA 8270	EAO	105	PASI-O
		EPA 8260	JBH	64	PASI-O
		EPA 9034	AMD	1	PASI-O
		EPA 9012	TLK	1	PASI-O
3516696011	Trip Blank (9/9/10)	EPA 8260	JBH	64	PASI-O
3516696012	4MW4 WELL	EPA 8011	JLR	2	PASI-O

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8011**
Description: 8011 GCS EDB and DBCP
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
31 samples were analyzed for EPA 8011. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8011 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/3065

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3517831001

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 114830)
  - 1,2-Dibromoethane (EDB)
- MSD (Lab ID: 114831)
  - 1,2-Dibromoethane (EDB)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8081**
Description: 8081 GCS Pesticides
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 8081. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/3073

J(C2): Estimated Value. Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.

- 2MW-24S (Lab ID: 3516696008)
  - delta-BHC

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8082**
Description: 8082 GCS PCB
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8141**
Description: 8141 GCS O/P Pesticides
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 8141. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: EPA 8151
Description: 8151 Chlorinated Herbicides
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 8151. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
31 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
31 samples were analyzed for EPA 6020. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 7470**
Description: 7470 Mercury
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 8270. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/3069

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- LCS (Lab ID: 114950)
  - 1-Naphthylamine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/3069

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3517703002

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 114952)
  - Dibenz(a,h)anthracene

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8270**
Description: 8270 MSSV SemiVOA App. II
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8260**
Description: 8260 MSV
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
32 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/2032

J(S0): Estimated Value. Surrogate recovery outside laboratory control limits.

- MSD (Lab ID: 108421)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/2200

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3518938014

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 124179)
  - Acetone
- MSD (Lab ID: 124180)
  - Acetone

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8260**
Description: 8260 MSV
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

QC Batch: MSV/2032

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3516696003

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 108420)
  - Carbon tetrachloride
  - Trichlorofluoromethane
- MSD (Lab ID: 108421)
  - 1,1-Dichloroethene
  - Carbon tetrachloride
  - Trichlorofluoromethane

QC Batch: MSV/2035

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3516551014

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 108890)
  - 2-Butanone (MEK)
  - Acetone
  - Chloroethane
- MSD (Lab ID: 108891)
  - Acetone

QC Batch: MSV/2118

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3517868003

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 116339)
  - 2-Chloroethylvinyl ether
  - Acetone
  - Vinyl acetate
  - trans-1,4-Dichloro-2-butene
- MSD (Lab ID: 116340)
  - 2-Chloroethylvinyl ether
  - Vinyl acetate

QC Batch: MSV/2198

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3516696012

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 124092)
  - Acetone
  - Carbon disulfide
- MSD (Lab ID: 124093)
  - Acetone

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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 8260**
Description: 8260 MSV
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 9034**
Description: 9034 Sulfide Water
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 9034. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Ormond Beach, FL 32174
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PROJECT NARRATIVE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Method: **EPA 9012**
Description: 9012 Cyanide, Total
Client: Pasco County Environmental Laboratory
Date: November 03, 2010

General Information:
4 samples were analyzed for EPA 9012. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0049U**	ug/L	0.020	0.0049	1	09/14/10 15:00	09/15/10 16:01	96-12-8	
1,2-Dibromoethane (EDB)	**0.0062U**	ug/L	0.010	0.0062	1	09/14/10 15:00	09/15/10 16:01	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 00:54	309-00-2	
alpha-BHC	**0.00029U**	ug/L	0.0095	0.00029	1	09/15/10 16:13	09/16/10 00:54	319-84-6	
beta-BHC	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 00:54	319-85-7	
delta-BHC	**0.016**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 00:54	319-86-8	
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0095	0.00019	1	09/15/10 16:13	09/16/10 00:54	58-89-9	
Chlordane (Technical)	**0.076U**	ug/L	0.48	0.076	1	09/15/10 16:13	09/16/10 00:54	57-74-9	
Chlorobenzilate	**0.020U**	ug/L	0.095	0.020	1	09/15/10 16:13	09/16/10 00:54	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0095	0.0018	1	09/15/10 16:13	09/16/10 00:54	72-54-8	
4,4'-DDE	**0.00086U**	ug/L	0.0095	0.00086	1	09/15/10 16:13	09/16/10 00:54	72-55-9	
4,4'-DDT	**0.0034U**	ug/L	0.0095	0.0034	1	09/15/10 16:13	09/16/10 00:54	50-29-3	
Dieldrin	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 00:54	60-57-1	
Endosulfan I	**0.00067U**	ug/L	0.0095	0.00067	1	09/15/10 16:13	09/16/10 00:54	959-98-8	
Endosulfan II	**0.00067U**	ug/L	0.0095	0.00067	1	09/15/10 16:13	09/16/10 00:54	33213-65-9	
Endosulfan sulfate	**0.00057U**	ug/L	0.0095	0.00057	1	09/15/10 16:13	09/16/10 00:54	1031-07-8	
Endrin	**0.0016U**	ug/L	0.0095	0.0016	1	09/15/10 16:13	09/16/10 00:54	72-20-8	
Endrin aldehyde	**0.0068U**	ug/L	0.0095	0.0068	1	09/15/10 16:13	09/16/10 00:54	7421-93-4	
Heptachlor	**0.0014U**	ug/L	0.0095	0.0014	1	09/15/10 16:13	09/16/10 00:54	76-44-8	
Heptachlor epoxide	**0.00038U**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 00:54	1024-57-3	
Methoxychlor	**0.0067U**	ug/L	0.0095	0.0067	1	09/15/10 16:13	09/16/10 00:54	72-43-5	
Pentachloronitrobenzene	**0.014U**	ug/L	0.095	0.014	1	09/15/10 16:13	09/16/10 00:54	82-68-8	
Toxaphene	**0.27U**	ug/L	0.48	0.27	1	09/15/10 16:13	09/16/10 00:54	8001-35-2	
Tetrachloro-m-xylene (S)	90	%	66.5-120.3		1	09/15/10 16:13	09/16/10 00:54	877-09-8	
Decachlorobiphenyl (S)	97	%	41.7-109.1		1	09/15/10 16:13	09/16/10 00:54	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.076U**	ug/L	0.48	0.076	1	09/15/10 16:18	09/16/10 00:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.077U**	ug/L	0.48	0.077	1	09/15/10 16:18	09/16/10 00:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.48	0.11	1	09/15/10 16:18	09/16/10 00:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.48	0.12	1	09/15/10 16:18	09/16/10 00:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.26U**	ug/L	0.48	0.26	1	09/15/10 16:18	09/16/10 00:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.48	0.14	1	09/15/10 16:18	09/16/10 00:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.11U**	ug/L	0.48	0.11	1	09/15/10 16:18	09/16/10 00:54	11096-82-5	
Tetrachloro-m-xylene (S)	90	%	48-111		1	09/15/10 16:18	09/16/10 00:54	877-09-8	
Decachlorobiphenyl (S)	99	%	63-121		1	09/15/10 16:18	09/16/10 00:54	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.47	0.18	1	09/15/10 15:30	09/26/10 17:59	60-51-5	
Disulfoton	**0.15U**	ug/L	0.47	0.15	1	09/15/10 15:30	09/26/10 17:59	298-04-4	
Famphur	**0.14U**	ug/L	0.47	0.14	1	09/15/10 15:30	09/26/10 17:59	52-85-7	
Methyl parathion	**0.18U**	ug/L	0.47	0.18	1	09/15/10 15:30	09/26/10 17:59	298-00-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.95	0.34	1	09/15/10 15:30	09/26/10 17:59	56-38-2	
Phorate	**0.35U**	ug/L	0.95	0.35	1	09/15/10 15:30	09/26/10 17:59	298-02-2	
4-Chloro3nitrobenzotrifluoride	70	%	34.2-122		1	09/15/10 15:30	09/26/10 17:59		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.21U**	ug/L	0.89	0.21	1	09/16/10 13:00	09/17/10 09:01	94-75-7	
Dinoseb	**0.054U**	ug/L	0.18	0.054	1	09/16/10 13:00	09/17/10 09:01	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	09/16/10 13:00	09/17/10 09:01	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	09/16/10 13:00	09/17/10 09:01	93-76-5	
2,4,5-TP (Silvex)	**0.047U**	ug/L	0.18	0.047	1	09/16/10 13:00	09/17/10 09:01	93-72-1	
2,4-DCPA (S)	75	%	65.5-125.7		1	09/16/10 13:00	09/17/10 09:01	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:17	7440-38-2	
Barium	**14.9**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:17	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:17	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:17	7440-43-9	
Chromium	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:17	7440-47-3	
Cobalt	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:17	7440-48-4	
Copper	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:17	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:17	7439-92-1	
Nickel	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:17	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	09/27/10 14:00	09/28/10 17:17	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:17	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	09/27/10 14:00	09/28/10 17:17	7440-31-5	
Vanadium	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:17	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	09/27/10 14:00	09/28/10 17:17	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:20	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	09/20/10 12:30	09/21/10 13:33	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.82U**	ug/L	4.7	0.82	1	09/14/10 20:20	09/15/10 17:37	83-32-9	
Acenaphthylene	**0.90U**	ug/L	4.7	0.90	1	09/14/10 20:20	09/15/10 17:37	208-96-8	
Acetophenone	**1.4U**	ug/L	4.7	1.4	1	09/14/10 20:20	09/15/10 17:37	98-86-2	
2-Acetylaminofluorene	**0.62U**	ug/L	4.7	0.62	1	09/14/10 20:20	09/15/10 17:37	53-96-3	
4-Aminobiphenyl	**2.7U**	ug/L	4.7	2.7	1	09/14/10 20:20	09/15/10 17:37	92-67-1	
Anthracene	**0.57U**	ug/L	4.7	0.57	1	09/14/10 20:20	09/15/10 17:37	120-12-7	
Benzo(a)anthracene	**0.60U**	ug/L	4.7	0.60	1	09/14/10 20:20	09/15/10 17:37	56-55-3	
Benzo(a)pyrene	**0.55U**	ug/L	0.95	0.55	1	09/14/10 20:20	09/15/10 17:37	50-32-8	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.59U**	ug/L	1.9	0.59	1	09/14/10 20:20	09/15/10 17:37	205-99-2	
Benzo(g,h,i)perylene	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	191-24-2	
Benzo(k)fluoranthene	**0.48U**	ug/L	3.8	0.48	1	09/14/10 20:20	09/15/10 17:37	207-08-9	
Benzyl alcohol	**0.97U**	ug/L	4.7	0.97	1	09/14/10 20:20	09/15/10 17:37	100-51-6	
4-Bromophenylphenyl ether	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	101-55-3	
Butylbenzylphthalate	**0.68U**	ug/L	4.7	0.68	1	09/14/10 20:20	09/15/10 17:37	85-68-7	
4-Chloro-3-methylphenol	**0.59U**	ug/L	19.0	0.59	1	09/14/10 20:20	09/15/10 17:37	59-50-7	
4-Chloroaniline	**1.1U**	ug/L	4.7	1.1	1	09/14/10 20:20	09/15/10 17:37	106-47-8	
bis(2-Chloroethoxy)methane	**2.8U**	ug/L	4.7	2.8	1	09/14/10 20:20	09/15/10 17:37	111-91-1	
bis(2-Chloroethyl) ether	**0.71U**	ug/L	3.8	0.71	1	09/14/10 20:20	09/15/10 17:37	111-44-4	
bis(2-Chloroisopropyl) ether	**0.69U**	ug/L	4.7	0.69	1	09/14/10 20:20	09/15/10 17:37	108-60-1	
2-Chloronaphthalene	**0.76U**	ug/L	4.7	0.76	1	09/14/10 20:20	09/15/10 17:37	91-58-7	
2-Chlorophenol	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	95-57-8	
4-Chlorophenylphenyl ether	**0.60U**	ug/L	4.7	0.60	1	09/14/10 20:20	09/15/10 17:37	7005-72-3	
Chrysene	**0.35U**	ug/L	4.7	0.35	1	09/14/10 20:20	09/15/10 17:37	218-01-9	
Diallate	**0.69U**	ug/L	4.7	0.69	1	09/14/10 20:20	09/15/10 17:37	2303-16-4	
Dibenz(a,h)anthracene	**0.62U**	ug/L	1.9	0.62	1	09/14/10 20:20	09/15/10 17:37	53-70-3	
Dibenzofuran	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	132-64-9	
1,2-Dichlorobenzene	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	95-50-1	
1,3-Dichlorobenzene	**0.72U**	ug/L	4.7	0.72	1	09/14/10 20:20	09/15/10 17:37	541-73-1	
1,4-Dichlorobenzene	**0.73U**	ug/L	4.7	0.73	1	09/14/10 20:20	09/15/10 17:37	106-46-7	
3,3'-Dichlorobenzidine	**0.65U**	ug/L	9.5	0.65	1	09/14/10 20:20	09/15/10 17:37	91-94-1	
2,4-Dichlorophenol	**0.53U**	ug/L	1.9	0.53	1	09/14/10 20:20	09/15/10 17:37	120-83-2	
2,6-Dichlorophenol	**0.59U**	ug/L	3.8	0.59	1	09/14/10 20:20	09/15/10 17:37	87-65-0	
Diethylphthalate	**0.48U**	ug/L	4.7	0.48	1	09/14/10 20:20	09/15/10 17:37	84-66-2	
P-Dimethylaminoazobenzene	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.8U**	ug/L	4.7	1.8	1	09/14/10 20:20	09/15/10 17:37	57-97-6	
3,3'-Dimethylbenzidine	**3.0U**	ug/L	9.5	3.0	1	09/14/10 20:20	09/15/10 17:37	119-93-7	
2,4-Dimethylphenol	**1.5U**	ug/L	4.7	1.5	1	09/14/10 20:20	09/15/10 17:37	105-67-9	
Dimethylphthalate	**0.61U**	ug/L	4.7	0.61	1	09/14/10 20:20	09/15/10 17:37	131-11-3	
Di-n-butylphthalate	**0.39U**	ug/L	4.7	0.39	1	09/14/10 20:20	09/15/10 17:37	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.0	1.3	1	09/14/10 20:20	09/15/10 17:37	534-52-1	
1,3-Dinitrobenzene	**0.64U**	ug/L	7.6	0.64	1	09/14/10 20:20	09/15/10 17:37	99-65-0	
2,4-Dinitrophenol	**1.5U**	ug/L	19.0	1.5	1	09/14/10 20:20	09/15/10 17:37	51-28-5	
2,4-Dinitrotoluene	**0.50U**	ug/L	1.9	0.50	1	09/14/10 20:20	09/15/10 17:37	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	1.9	1.2	1	09/14/10 20:20	09/15/10 17:37	606-20-2	
Di-n-octylphthalate	**0.85U**	ug/L	4.7	0.85	1	09/14/10 20:20	09/15/10 17:37	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.76U**	ug/L	4.7	0.76	1	09/14/10 20:20	09/15/10 17:37	117-81-7	
Ethyl methanesulfonate	**0.85U**	ug/L	4.7	0.85	1	09/14/10 20:20	09/15/10 17:37	62-50-0	
Fluoranthene	**0.51U**	ug/L	4.7	0.51	1	09/14/10 20:20	09/15/10 17:37	206-44-0	
Fluorene	**0.53U**	ug/L	4.7	0.53	1	09/14/10 20:20	09/15/10 17:37	86-73-7	
Hexachlorobenzene	**0.76U**	ug/L	0.95	0.76	1	09/14/10 20:20	09/15/10 17:37	118-74-1	
Hexachlorocyclopentadiene	**1.2U**	ug/L	4.7	1.2	1	09/14/10 20:20	09/15/10 17:37	77-47-4	
Hexachloroethane	**0.67U**	ug/L	4.7	0.67	1	09/14/10 20:20	09/15/10 17:37	67-72-1	
Hexachloropropene	**1.3U**	ug/L	4.7	1.3	1	09/14/10 20:20	09/15/10 17:37	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.69U**	ug/L	1.9	0.69	1	09/14/10 20:20	09/15/10 17:37	193-39-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.51U**	ug/L	4.7	0.51	1	09/14/10 20:20	09/15/10 17:37	465-73-6	
Isophorone	**0.69U**	ug/L	4.7	0.69	1	09/14/10 20:20	09/15/10 17:37	78-59-1	
Isosafrole	**0.57U**	ug/L	4.7	0.57	1	09/14/10 20:20	09/15/10 17:37	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 17:37	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.7	1.6	1	09/14/10 20:20	09/15/10 17:37	91-80-5	
3-Methylcholanthrene	**0.99U**	ug/L	4.7	0.99	1	09/14/10 20:20	09/15/10 17:37	56-49-5	
Methyl methanesulfonate	**0.95U**	ug/L	4.7	0.95	1	09/14/10 20:20	09/15/10 17:37	66-27-3	
2-Methylnaphthalene	**0.94U**	ug/L	4.7	0.94	1	09/14/10 20:20	09/15/10 17:37	91-57-6	
2-Methylphenol(o-Cresol)	**0.69U**	ug/L	4.7	0.69	1	09/14/10 20:20	09/15/10 17:37	95-48-7	
3&4-Methylphenol(m&p Cresol)	**0.63U**	ug/L	9.5	0.63	1	09/14/10 20:20	09/15/10 17:37		
2-Naphthylamine	**2.2U**	ug/L	4.7	2.2	1	09/14/10 20:20	09/15/10 17:37	91-59-8	
Naphthalene	**0.74U**	ug/L	4.7	0.74	1	09/14/10 20:20	09/15/10 17:37	91-20-3	
1-Naphthylamine	**0.98U**	ug/L	4.7	0.98	1	09/14/10 20:20	09/15/10 17:37	134-32-7	L3
1,4-Naphthoquinone	**1.1U**	ug/L	4.7	1.1	1	09/14/10 20:20	09/15/10 17:37	130-15-4	
2-Nitroaniline	**0.57U**	ug/L	4.7	0.57	1	09/14/10 20:20	09/15/10 17:37	88-74-4	
3-Nitroaniline	**0.94U**	ug/L	4.7	0.94	1	09/14/10 20:20	09/15/10 17:37	99-09-2	
4-Nitroaniline	**0.65U**	ug/L	3.8	0.65	1	09/14/10 20:20	09/15/10 17:37	100-01-6	
Nitrobenzene	**1.0U**	ug/L	3.8	1.0	1	09/14/10 20:20	09/15/10 17:37	98-95-3	
2-Nitrophenol	**0.77U**	ug/L	4.7	0.77	1	09/14/10 20:20	09/15/10 17:37	88-75-5	
4-Nitrophenol	**1.0U**	ug/L	19.0	1.0	1	09/14/10 20:20	09/15/10 17:37	100-02-7	
5-Nitro-o-toluidine	**1.2U**	ug/L	4.7	1.2	1	09/14/10 20:20	09/15/10 17:37	99-55-8	
N-Nitrosodiethylamine	**0.69U**	ug/L	3.8	0.69	1	09/14/10 20:20	09/15/10 17:37	55-18-5	
N-Nitrosodimethylamine	**0.92U**	ug/L	1.9	0.92	1	09/14/10 20:20	09/15/10 17:37	62-75-9	
N-Nitroso-di-n-butylamine	**0.52U**	ug/L	3.8	0.52	1	09/14/10 20:20	09/15/10 17:37	924-16-3	
N-Nitroso-di-n-propylamine	**0.89U**	ug/L	3.8	0.89	1	09/14/10 20:20	09/15/10 17:37	621-64-7	
N-Nitrosodiphenylamine	**0.47U**	ug/L	4.7	0.47	1	09/14/10 20:20	09/15/10 17:37	86-30-6	
N-Nitrosomethylethylamine	**0.70U**	ug/L	4.7	0.70	1	09/14/10 20:20	09/15/10 17:37	10595-95-6	
N-Nitrosopiperidine	**0.61U**	ug/L	4.7	0.61	1	09/14/10 20:20	09/15/10 17:37	100-75-4	
N-Nitrosopyrrolidine	**0.83U**	ug/L	4.7	0.83	1	09/14/10 20:20	09/15/10 17:37	930-55-2	
O,O,O-Triethylphosphorothioate	**0.65U**	ug/L	4.7	0.65	1	09/14/10 20:20	09/15/10 17:37	126-68-1	
Pentachlorobenzene	**0.74U**	ug/L	4.7	0.74	1	09/14/10 20:20	09/15/10 17:37	608-93-5	
Phenacetin	**0.50U**	ug/L	4.7	0.50	1	09/14/10 20:20	09/15/10 17:37	62-44-2	
Phenanthrene	**0.49U**	ug/L	4.7	0.49	1	09/14/10 20:20	09/15/10 17:37	85-01-8	
Phenol	**0.51U**	ug/L	4.7	0.51	1	09/14/10 20:20	09/15/10 17:37	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 17:37	106-50-3	
Pronamide	**1.1U**	ug/L	4.7	1.1	1	09/14/10 20:20	09/15/10 17:37	23950-58-5	
Pyrene	**0.64U**	ug/L	4.7	0.64	1	09/14/10 20:20	09/15/10 17:37	129-00-0	
Safrole	**0.81U**	ug/L	4.7	0.81	1	09/14/10 20:20	09/15/10 17:37	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.66U**	ug/L	4.7	0.66	1	09/14/10 20:20	09/15/10 17:37	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.7U**	ug/L	4.7	3.7	1	09/14/10 20:20	09/15/10 17:37	58-90-2	
Thionazin	**0.58U**	ug/L	4.7	0.58	1	09/14/10 20:20	09/15/10 17:37	297-97-2	
O-Toluidine	**1.0U**	ug/L	4.7	1.0	1	09/14/10 20:20	09/15/10 17:37	95-53-4	
2,4,5-Trichlorophenol	**0.49U**	ug/L	3.8	0.49	1	09/14/10 20:20	09/15/10 17:37	95-95-4	
2,4,6-Trichlorophenol	**0.65U**	ug/L	1.9	0.65	1	09/14/10 20:20	09/15/10 17:37	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.7	1.2	1	09/14/10 20:20	09/15/10 17:37	99-35-4	
Nitrobenzene-d5 (S)	62	%	10-110		1	09/14/10 20:20	09/15/10 17:37	4165-60-0	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	64	%	18-110		1	09/14/10 20:20	09/15/10 17:37	321-60-8	
Terphenyl-d14 (S)	85	%	10-123		1	09/14/10 20:20	09/15/10 17:37	1718-51-0	
Phenol-d6 (S)	23	%	10-110		1	09/14/10 20:20	09/15/10 17:37	13127-88-3	
2-Fluorophenol (S)	37	%	18-110		1	09/14/10 20:20	09/15/10 17:37	367-12-4	
2,4,6-Tribromophenol (S)	65	%	10-110		1	09/14/10 20:20	09/15/10 17:37	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		09/18/10 05:19	107-02-8	
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		09/18/10 05:19	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	78-93-3	
Carbon disulfide	**0.91 I**	ug/L	1.0	0.50	1		09/18/10 05:19	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		09/18/10 05:19	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		09/18/10 05:19	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 05:19	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 05:19	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	74-88-4	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24D **Lab ID: 3516696007** Collected: 09/09/10 10:17 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		09/18/10 05:19	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		09/18/10 05:19	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:19	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		09/18/10 05:19	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		09/18/10 05:19	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		09/18/10 05:19	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:19	1330-20-7	
4-Bromofluorobenzene (S)	103	%	70-114		1		09/18/10 05:19	460-00-4	
Dibromofluoromethane (S)	99	%	88-117		1		09/18/10 05:19	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%	86-125		1		09/18/10 05:19	17060-07-0	
Toluene-d8 (S)	104	%	87-113		1		09/18/10 05:19	2037-26-5	
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**1.0U**	mg/L	1.0	1.0	1		09/14/10 09:30	18496-25-8	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	09/21/10 10:10	09/23/10 17:07	57-12-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0049U**	ug/L	0.020	0.0049	1	09/14/10 15:00	09/15/10 16:16	96-12-8	
1,2-Dibromoethane (EDB)	**0.0062U**	ug/L	0.010	0.0062	1	09/14/10 15:00	09/15/10 16:16	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 01:45	309-00-2	
alpha-BHC	**0.00029U**	ug/L	0.0095	0.00029	1	09/15/10 16:13	09/16/10 01:45	319-84-6	
beta-BHC	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 01:45	319-85-7	
delta-BHC	**0.0035 I**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 01:45	319-86-8	J(C2)
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0095	0.00019	1	09/15/10 16:13	09/16/10 01:45	58-89-9	
Chlordane (Technical)	**0.076U**	ug/L	0.48	0.076	1	09/15/10 16:13	09/16/10 01:45	57-74-9	
Chlorobenzilate	**0.020U**	ug/L	0.095	0.020	1	09/15/10 16:13	09/16/10 01:45	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0095	0.0018	1	09/15/10 16:13	09/16/10 01:45	72-54-8	
4,4'-DDE	**0.00086U**	ug/L	0.0095	0.00086	1	09/15/10 16:13	09/16/10 01:45	72-55-9	
4,4'-DDT	**0.0034U**	ug/L	0.0095	0.0034	1	09/15/10 16:13	09/16/10 01:45	50-29-3	
Dieldrin	**0.00048U**	ug/L	0.0095	0.00048	1	09/15/10 16:13	09/16/10 01:45	60-57-1	
Endosulfan I	**0.00067U**	ug/L	0.0095	0.00067	1	09/15/10 16:13	09/16/10 01:45	959-98-8	
Endosulfan II	**0.00067U**	ug/L	0.0095	0.00067	1	09/15/10 16:13	09/16/10 01:45	33213-65-9	
Endosulfan sulfate	**0.00057U**	ug/L	0.0095	0.00057	1	09/15/10 16:13	09/16/10 01:45	1031-07-8	
Endrin	**0.0016U**	ug/L	0.0095	0.0016	1	09/15/10 16:13	09/16/10 01:45	72-20-8	
Endrin aldehyde	**0.0067U**	ug/L	0.0095	0.0067	1	09/15/10 16:13	09/16/10 01:45	7421-93-4	
Heptachlor	**0.0014U**	ug/L	0.0095	0.0014	1	09/15/10 16:13	09/16/10 01:45	76-44-8	
Heptachlor epoxide	**0.00038U**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 01:45	1024-57-3	
Methoxychlor	**0.0067U**	ug/L	0.0095	0.0067	1	09/15/10 16:13	09/16/10 01:45	72-43-5	
Pentachloronitrobenzene	**0.014U**	ug/L	0.095	0.014	1	09/15/10 16:13	09/16/10 01:45	82-68-8	
Toxaphene	**0.27U**	ug/L	0.48	0.27	1	09/15/10 16:13	09/16/10 01:45	8001-35-2	
Tetrachloro-m-xylene (S)	85	%	66.5-120.3		1	09/15/10 16:13	09/16/10 01:45	877-09-8	
Decachlorobiphenyl (S)	70	%	41.7-109.1		1	09/15/10 16:13	09/16/10 01:45	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.076U**	ug/L	0.48	0.076	1	09/15/10 16:18	09/16/10 01:45	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.077U**	ug/L	0.48	0.077	1	09/15/10 16:18	09/16/10 01:45	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.48	0.11	1	09/15/10 16:18	09/16/10 01:45	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.48	0.12	1	09/15/10 16:18	09/16/10 01:45	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.26U**	ug/L	0.48	0.26	1	09/15/10 16:18	09/16/10 01:45	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.48	0.14	1	09/15/10 16:18	09/16/10 01:45	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.10U**	ug/L	0.48	0.10	1	09/15/10 16:18	09/16/10 01:45	11096-82-5	
Tetrachloro-m-xylene (S)	85	%	48-111		1	09/15/10 16:18	09/16/10 01:45	877-09-8	
Decachlorobiphenyl (S)	70	%	63-121		1	09/15/10 16:18	09/16/10 01:45	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	09/15/10 15:30	09/26/10 20:04	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	09/15/10 15:30	09/26/10 20:04	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	09/15/10 15:30	09/26/10 20:04	52-85-7	
Methyl parathion	**0.19U**	ug/L	0.48	0.19	1	09/15/10 15:30	09/26/10 20:04	298-00-0	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.96	0.34	1	09/15/10 15:30	09/26/10 20:04	56-38-2	
Phorate	**0.35U**	ug/L	0.96	0.35	1	09/15/10 15:30	09/26/10 20:04	298-02-2	
4-Chloro3nitrobenzotrifluoride	81	%	34.2-122		1	09/15/10 15:30	09/26/10 20:04		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.22U**	ug/L	0.90	0.22	1	09/16/10 13:00	09/17/10 09:28	94-75-7	
Dinoseb	**0.055U**	ug/L	0.18	0.055	1	09/16/10 13:00	09/17/10 09:28	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	09/16/10 13:00	09/17/10 09:28	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	09/16/10 13:00	09/17/10 09:28	93-76-5	
2,4,5-TP (Silvex)	**0.047U**	ug/L	0.18	0.047	1	09/16/10 13:00	09/17/10 09:28	93-72-1	
2,4-DCPA (S)	80	%	65.5-125.7		1	09/16/10 13:00	09/17/10 09:28	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:28	7440-38-2	
Barium	**13.7**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:28	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:28	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:28	7440-43-9	
Chromium	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:28	7440-47-3	
Cobalt	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:28	7440-48-4	
Copper	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:28	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:28	7439-92-1	
Nickel	**3.3 I**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:28	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	09/27/10 14:00	09/28/10 17:28	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:28	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	09/27/10 14:00	09/28/10 17:28	7440-31-5	
Vanadium	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:28	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	09/27/10 14:00	09/28/10 17:28	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:25	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	09/20/10 12:30	09/21/10 13:41	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.85U**	ug/L	4.9	0.85	1	09/14/10 20:20	09/15/10 18:09	83-32-9	
Acenaphthylene	**0.94U**	ug/L	4.9	0.94	1	09/14/10 20:20	09/15/10 18:09	208-96-8	
Acetophenone	**1.4U**	ug/L	4.9	1.4	1	09/14/10 20:20	09/15/10 18:09	98-86-2	
2-Acetylaminofluorene	**0.64U**	ug/L	4.9	0.64	1	09/14/10 20:20	09/15/10 18:09	53-96-3	
4-Aminobiphenyl	**2.8U**	ug/L	4.9	2.8	1	09/14/10 20:20	09/15/10 18:09	92-67-1	
Anthracene	**0.59U**	ug/L	4.9	0.59	1	09/14/10 20:20	09/15/10 18:09	120-12-7	
Benzo(a)anthracene	**0.62U**	ug/L	4.9	0.62	1	09/14/10 20:20	09/15/10 18:09	56-55-3	
Benzo(a)pyrene	**0.57U**	ug/L	0.99	0.57	1	09/14/10 20:20	09/15/10 18:09	50-32-8	

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Ormond Beach, FL 32174
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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.61U**	ug/L	2.0	0.61	1	09/14/10 20:20	09/15/10 18:09	205-99-2	
Benzo(g,h,i)perylene	**0.67U**	ug/L	4.9	0.67	1	09/14/10 20:20	09/15/10 18:09	191-24-2	
Benzo(k)fluoranthene	**0.50U**	ug/L	4.0	0.50	1	09/14/10 20:20	09/15/10 18:09	207-08-9	
Benzyl alcohol	**1.0U**	ug/L	4.9	1.0	1	09/14/10 20:20	09/15/10 18:09	100-51-6	
4-Bromophenylphenyl ether	**0.66U**	ug/L	4.9	0.66	1	09/14/10 20:20	09/15/10 18:09	101-55-3	
Butylbenzylphthalate	**0.71U**	ug/L	4.9	0.71	1	09/14/10 20:20	09/15/10 18:09	85-68-7	
4-Chloro-3-methylphenol	**0.61U**	ug/L	19.8	0.61	1	09/14/10 20:20	09/15/10 18:09	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	4.9	1.2	1	09/14/10 20:20	09/15/10 18:09	106-47-8	
bis(2-Chloroethoxy)methane	**2.9U**	ug/L	4.9	2.9	1	09/14/10 20:20	09/15/10 18:09	111-91-1	
bis(2-Chloroethyl) ether	**0.74U**	ug/L	4.0	0.74	1	09/14/10 20:20	09/15/10 18:09	111-44-4	
bis(2-Chloroisopropyl) ether	**0.72U**	ug/L	4.9	0.72	1	09/14/10 20:20	09/15/10 18:09	108-60-1	
2-Chloronaphthalene	**0.79U**	ug/L	4.9	0.79	1	09/14/10 20:20	09/15/10 18:09	91-58-7	
2-Chlorophenol	**0.67U**	ug/L	4.9	0.67	1	09/14/10 20:20	09/15/10 18:09	95-57-8	
4-Chlorophenylphenyl ether	**0.62U**	ug/L	4.9	0.62	1	09/14/10 20:20	09/15/10 18:09	7005-72-3	
Chrysene	**0.37U**	ug/L	4.9	0.37	1	09/14/10 20:20	09/15/10 18:09	218-01-9	
Diallate	**0.72U**	ug/L	4.9	0.72	1	09/14/10 20:20	09/15/10 18:09	2303-16-4	
Dibenz(a,h)anthracene	**0.64U**	ug/L	2.0	0.64	1	09/14/10 20:20	09/15/10 18:09	53-70-3	
Dibenzofuran	**0.66U**	ug/L	4.9	0.66	1	09/14/10 20:20	09/15/10 18:09	132-64-9	
1,2-Dichlorobenzene	**0.67U**	ug/L	4.9	0.67	1	09/14/10 20:20	09/15/10 18:09	95-50-1	
1,3-Dichlorobenzene	**0.75U**	ug/L	4.9	0.75	1	09/14/10 20:20	09/15/10 18:09	541-73-1	
1,4-Dichlorobenzene	**0.76U**	ug/L	4.9	0.76	1	09/14/10 20:20	09/15/10 18:09	106-46-7	
3,3'-Dichlorobenzidine	**0.68U**	ug/L	9.9	0.68	1	09/14/10 20:20	09/15/10 18:09	91-94-1	
2,4-Dichlorophenol	**0.55U**	ug/L	2.0	0.55	1	09/14/10 20:20	09/15/10 18:09	120-83-2	
2,6-Dichlorophenol	**0.61U**	ug/L	4.0	0.61	1	09/14/10 20:20	09/15/10 18:09	87-65-0	
Diethylphthalate	**0.50U**	ug/L	4.9	0.50	1	09/14/10 20:20	09/15/10 18:09	84-66-2	
P-Dimethylaminoazobenzene	**0.66U**	ug/L	4.9	0.66	1	09/14/10 20:20	09/15/10 18:09	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	4.9	1.9	1	09/14/10 20:20	09/15/10 18:09	57-97-6	
3,3'-Dimethylbenzidine	**3.1U**	ug/L	9.9	3.1	1	09/14/10 20:20	09/15/10 18:09	119-93-7	
2,4-Dimethylphenol	**1.6U**	ug/L	4.9	1.6	1	09/14/10 20:20	09/15/10 18:09	105-67-9	
Dimethylphthalate	**0.63U**	ug/L	4.9	0.63	1	09/14/10 20:20	09/15/10 18:09	131-11-3	
Di-n-butylphthalate	**0.41U**	ug/L	4.9	0.41	1	09/14/10 20:20	09/15/10 18:09	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.8	1.3	1	09/14/10 20:20	09/15/10 18:09	534-52-1	
1,3-Dinitrobenzene	**0.67U**	ug/L	7.9	0.67	1	09/14/10 20:20	09/15/10 18:09	99-65-0	
2,4-Dinitrophenol	**1.6U**	ug/L	19.8	1.6	1	09/14/10 20:20	09/15/10 18:09	51-28-5	
2,4-Dinitrotoluene	**0.52U**	ug/L	2.0	0.52	1	09/14/10 20:20	09/15/10 18:09	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	2.0	1.2	1	09/14/10 20:20	09/15/10 18:09	606-20-2	
Di-n-octylphthalate	**0.89U**	ug/L	4.9	0.89	1	09/14/10 20:20	09/15/10 18:09	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.79U**	ug/L	4.9	0.79	1	09/14/10 20:20	09/15/10 18:09	117-81-7	
Ethyl methanesulfonate	**0.89U**	ug/L	4.9	0.89	1	09/14/10 20:20	09/15/10 18:09	62-50-0	
Fluoranthene	**0.53U**	ug/L	4.9	0.53	1	09/14/10 20:20	09/15/10 18:09	206-44-0	
Fluorene	**0.55U**	ug/L	4.9	0.55	1	09/14/10 20:20	09/15/10 18:09	86-73-7	
Hexachlorobenzene	**0.79U**	ug/L	0.99	0.79	1	09/14/10 20:20	09/15/10 18:09	118-74-1	
Hexachlorocyclopentadiene	**1.3U**	ug/L	4.9	1.3	1	09/14/10 20:20	09/15/10 18:09	77-47-4	
Hexachloroethane	**0.70U**	ug/L	4.9	0.70	1	09/14/10 20:20	09/15/10 18:09	67-72-1	
Hexachloropropene	**1.4U**	ug/L	4.9	1.4	1	09/14/10 20:20	09/15/10 18:09	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.72U**	ug/L	2.0	0.72	1	09/14/10 20:20	09/15/10 18:09	193-39-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.53U**	ug/L	4.9	0.53	1	09/14/10 20:20	09/15/10 18:09	465-73-6	
Isophorone	**0.72U**	ug/L	4.9	0.72	1	09/14/10 20:20	09/15/10 18:09	78-59-1	
Isosafrole	**0.59U**	ug/L	4.9	0.59	1	09/14/10 20:20	09/15/10 18:09	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 18:09	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.9	1.6	1	09/14/10 20:20	09/15/10 18:09	91-80-5	
3-Methylcholanthrene	**1.0U**	ug/L	4.9	1.0	1	09/14/10 20:20	09/15/10 18:09	56-49-5	
Methyl methanesulfonate	**0.99U**	ug/L	4.9	0.99	1	09/14/10 20:20	09/15/10 18:09	66-27-3	
2-Methylnaphthalene	**0.98U**	ug/L	4.9	0.98	1	09/14/10 20:20	09/15/10 18:09	91-57-6	
2-Methylphenol(o-Cresol)	**0.72U**	ug/L	4.9	0.72	1	09/14/10 20:20	09/15/10 18:09	95-48-7	
3&4-Methylphenol(m&p Cresol)	**0.65U**	ug/L	9.9	0.65	1	09/14/10 20:20	09/15/10 18:09		
2-Naphthylamine	**2.2U**	ug/L	4.9	2.2	1	09/14/10 20:20	09/15/10 18:09	91-59-8	
Naphthalene	**0.77U**	ug/L	4.9	0.77	1	09/14/10 20:20	09/15/10 18:09	91-20-3	
1-Naphthylamine	**1.0U**	ug/L	4.9	1.0	1	09/14/10 20:20	09/15/10 18:09	134-32-7	L3
1,4-Naphthoquinone	**1.2U**	ug/L	4.9	1.2	1	09/14/10 20:20	09/15/10 18:09	130-15-4	
2-Nitroaniline	**0.59U**	ug/L	4.9	0.59	1	09/14/10 20:20	09/15/10 18:09	88-74-4	
3-Nitroaniline	**0.98U**	ug/L	4.9	0.98	1	09/14/10 20:20	09/15/10 18:09	99-09-2	
4-Nitroaniline	**0.68U**	ug/L	4.0	0.68	1	09/14/10 20:20	09/15/10 18:09	100-01-6	
Nitrobenzene	**1.1U**	ug/L	4.0	1.1	1	09/14/10 20:20	09/15/10 18:09	98-95-3	
2-Nitrophenol	**0.80U**	ug/L	4.9	0.80	1	09/14/10 20:20	09/15/10 18:09	88-75-5	
4-Nitrophenol	**1.1U**	ug/L	19.8	1.1	1	09/14/10 20:20	09/15/10 18:09	100-02-7	
5-Nitro-o-toluidine	**1.3U**	ug/L	4.9	1.3	1	09/14/10 20:20	09/15/10 18:09	99-55-8	
N-Nitrosodiethylamine	**0.72U**	ug/L	4.0	0.72	1	09/14/10 20:20	09/15/10 18:09	55-18-5	
N-Nitrosodimethylamine	**0.96U**	ug/L	2.0	0.96	1	09/14/10 20:20	09/15/10 18:09	62-75-9	
N-Nitroso-di-n-butylamine	**0.54U**	ug/L	4.0	0.54	1	09/14/10 20:20	09/15/10 18:09	924-16-3	
N-Nitroso-di-n-propylamine	**0.93U**	ug/L	4.0	0.93	1	09/14/10 20:20	09/15/10 18:09	621-64-7	
N-Nitrosodiphenylamine	**0.49U**	ug/L	4.9	0.49	1	09/14/10 20:20	09/15/10 18:09	86-30-6	
N-Nitrosomethylethylamine	**0.73U**	ug/L	4.9	0.73	1	09/14/10 20:20	09/15/10 18:09	10595-95-6	
N-Nitrosopiperidine	**0.63U**	ug/L	4.9	0.63	1	09/14/10 20:20	09/15/10 18:09	100-75-4	
N-Nitrosopyrrolidine	**0.87U**	ug/L	4.9	0.87	1	09/14/10 20:20	09/15/10 18:09	930-55-2	
O,O,O-Triethylphosphorothioate	**0.68U**	ug/L	4.9	0.68	1	09/14/10 20:20	09/15/10 18:09	126-68-1	
Pentachlorobenzene	**0.77U**	ug/L	4.9	0.77	1	09/14/10 20:20	09/15/10 18:09	608-93-5	
Phenacetin	**0.52U**	ug/L	4.9	0.52	1	09/14/10 20:20	09/15/10 18:09	62-44-2	
Phenanthrene	**0.51U**	ug/L	4.9	0.51	1	09/14/10 20:20	09/15/10 18:09	85-01-8	
Phenol	**0.53U**	ug/L	4.9	0.53	1	09/14/10 20:20	09/15/10 18:09	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 18:09	106-50-3	
Pronamide	**1.1U**	ug/L	4.9	1.1	1	09/14/10 20:20	09/15/10 18:09	23950-58-5	
Pyrene	**0.67U**	ug/L	4.9	0.67	1	09/14/10 20:20	09/15/10 18:09	129-00-0	
Safrole	**0.84U**	ug/L	4.9	0.84	1	09/14/10 20:20	09/15/10 18:09	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.69U**	ug/L	4.9	0.69	1	09/14/10 20:20	09/15/10 18:09	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.8U**	ug/L	4.9	3.8	1	09/14/10 20:20	09/15/10 18:09	58-90-2	
Thionazin	**0.60U**	ug/L	4.9	0.60	1	09/14/10 20:20	09/15/10 18:09	297-97-2	
O-Toluidine	**1.1U**	ug/L	4.9	1.1	1	09/14/10 20:20	09/15/10 18:09	95-53-4	
2,4,5-Trichlorophenol	**0.51U**	ug/L	4.0	0.51	1	09/14/10 20:20	09/15/10 18:09	95-95-4	
2,4,6-Trichlorophenol	**0.68U**	ug/L	2.0	0.68	1	09/14/10 20:20	09/15/10 18:09	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.9	1.2	1	09/14/10 20:20	09/15/10 18:09	99-35-4	
Nitrobenzene-d5 (S)	59	%	10-110		1	09/14/10 20:20	09/15/10 18:09	4165-60-0	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	62	%	18-110		1	09/14/10 20:20	09/15/10 18:09	321-60-8	
Terphenyl-d14 (S)	77	%	10-123		1	09/14/10 20:20	09/15/10 18:09	1718-51-0	
Phenol-d6 (S)	24	%	10-110		1	09/14/10 20:20	09/15/10 18:09	13127-88-3	
2-Fluorophenol (S)	36	%	18-110		1	09/14/10 20:20	09/15/10 18:09	367-12-4	
2,4,6-Tribromophenol (S)	62	%	10-110		1	09/14/10 20:20	09/15/10 18:09	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**6.0 I**	ug/L	10.0	5.0	1		09/18/10 05:43	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		09/18/10 05:43	107-02-8	
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		09/18/10 05:43	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	78-93-3	
Carbon disulfide	**0.53 I**	ug/L	1.0	0.50	1		09/18/10 05:43	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		09/18/10 05:43	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		09/18/10 05:43	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 05:43	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 05:43	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	74-88-4	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-24S **Lab ID: 3516696008** Collected: 09/09/10 11:41 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		09/18/10 05:43	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		09/18/10 05:43	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 05:43	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		09/18/10 05:43	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		09/18/10 05:43	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		09/18/10 05:43	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		09/18/10 05:43	1330-20-7	
4-Bromofluorobenzene (S)	103	%	70-114		1		09/18/10 05:43	460-00-4	
Dibromofluoromethane (S)	96	%	88-117		1		09/18/10 05:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	86-125		1		09/18/10 05:43	17060-07-0	
Toluene-d8 (S)	107	%	87-113		1		09/18/10 05:43	2037-26-5	
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**1.0U**	mg/L	1.0	1.0	1		09/14/10 09:30	18496-25-8	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	09/21/10 10:10	09/23/10 17:10	57-12-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0050U**	ug/L	0.020	0.0050	1	09/14/10 15:00	09/15/10 16:31	96-12-8	
1,2-Dibromoethane (EDB)	**0.0063U**	ug/L	0.010	0.0063	1	09/14/10 15:00	09/15/10 16:31	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00047U**	ug/L	0.0095	0.00047	1	09/15/10 16:13	09/16/10 02:37	309-00-2	
alpha-BHC	**0.00028U**	ug/L	0.0095	0.00028	1	09/15/10 16:13	09/16/10 02:37	319-84-6	
beta-BHC	**0.00047U**	ug/L	0.0095	0.00047	1	09/15/10 16:13	09/16/10 02:37	319-85-7	
delta-BHC	**0.00038U**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 02:37	319-86-8	
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0095	0.00019	1	09/15/10 16:13	09/16/10 02:37	58-89-9	
Chlordane (Technical)	**0.076U**	ug/L	0.47	0.076	1	09/15/10 16:13	09/16/10 02:37	57-74-9	
Chlorobenzilate	**0.020U**	ug/L	0.095	0.020	1	09/15/10 16:13	09/16/10 02:37	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0095	0.0018	1	09/15/10 16:13	09/16/10 02:37	72-54-8	
4,4'-DDE	**0.00085U**	ug/L	0.0095	0.00085	1	09/15/10 16:13	09/16/10 02:37	72-55-9	
4,4'-DDT	**0.0034U**	ug/L	0.0095	0.0034	1	09/15/10 16:13	09/16/10 02:37	50-29-3	
Dieldrin	**0.00047U**	ug/L	0.0095	0.00047	1	09/15/10 16:13	09/16/10 02:37	60-57-1	
Endosulfan I	**0.00066U**	ug/L	0.0095	0.00066	1	09/15/10 16:13	09/16/10 02:37	959-98-8	
Endosulfan II	**0.00066U**	ug/L	0.0095	0.00066	1	09/15/10 16:13	09/16/10 02:37	33213-65-9	
Endosulfan sulfate	**0.00057U**	ug/L	0.0095	0.00057	1	09/15/10 16:13	09/16/10 02:37	1031-07-8	
Endrin	**0.0016U**	ug/L	0.0095	0.0016	1	09/15/10 16:13	09/16/10 02:37	72-20-8	
Endrin aldehyde	**0.0067U**	ug/L	0.0095	0.0067	1	09/15/10 16:13	09/16/10 02:37	7421-93-4	
Heptachlor	**0.0014U**	ug/L	0.0095	0.0014	1	09/15/10 16:13	09/16/10 02:37	76-44-8	
Heptachlor epoxide	**0.00038U**	ug/L	0.0095	0.00038	1	09/15/10 16:13	09/16/10 02:37	1024-57-3	
Methoxychlor	**0.0066U**	ug/L	0.0095	0.0066	1	09/15/10 16:13	09/16/10 02:37	72-43-5	
Pentachloronitrobenzene	**0.014U**	ug/L	0.095	0.014	1	09/15/10 16:13	09/16/10 02:37	82-68-8	
Toxaphene	**0.27U**	ug/L	0.47	0.27	1	09/15/10 16:13	09/16/10 02:37	8001-35-2	
Tetrachloro-m-xylene (S)	86	%	66.5-120.3		1	09/15/10 16:13	09/16/10 02:37	877-09-8	
Decachlorobiphenyl (S)	73	%	41.7-109.1		1	09/15/10 16:13	09/16/10 02:37	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.076U**	ug/L	0.47	0.076	1	09/15/10 16:18	09/16/10 02:37	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.077U**	ug/L	0.47	0.077	1	09/15/10 16:18	09/16/10 02:37	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.47	0.11	1	09/15/10 16:18	09/16/10 02:37	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.47	0.12	1	09/15/10 16:18	09/16/10 02:37	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.26U**	ug/L	0.47	0.26	1	09/15/10 16:18	09/16/10 02:37	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.47	0.14	1	09/15/10 16:18	09/16/10 02:37	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.10U**	ug/L	0.47	0.10	1	09/15/10 16:18	09/16/10 02:37	11096-82-5	
Tetrachloro-m-xylene (S)	84	%	48-111		1	09/15/10 16:18	09/16/10 02:37	877-09-8	
Decachlorobiphenyl (S)	74	%	63-121		1	09/15/10 16:18	09/16/10 02:37	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	09/15/10 15:30	09/26/10 20:45	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	09/15/10 15:30	09/26/10 20:45	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	09/15/10 15:30	09/26/10 20:45	52-85-7	
Methyl parathion	**0.19U**	ug/L	0.48	0.19	1	09/15/10 15:30	09/26/10 20:45	298-00-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.96	0.34	1	09/15/10 15:30	09/26/10 20:45	56-38-2	
Phorate	**0.35U**	ug/L	0.96	0.35	1	09/15/10 15:30	09/26/10 20:45	298-02-2	
4-Chloro3nitrobenzotrifluoride	82	%	34.2-122		1	09/15/10 15:30	09/26/10 20:45		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.21U**	ug/L	0.89	0.21	1	09/16/10 13:00	09/17/10 10:47	94-75-7	
Dinoseb	**0.054U**	ug/L	0.18	0.054	1	09/16/10 13:00	09/17/10 10:47	88-85-7	
Pentachlorophenol	**0.016U**	ug/L	0.027	0.016	1	09/16/10 13:00	09/17/10 10:47	87-86-5	
2,4,5-T	**0.040U**	ug/L	0.18	0.040	1	09/16/10 13:00	09/17/10 10:47	93-76-5	
2,4,5-TP (Silvex)	**0.046U**	ug/L	0.18	0.046	1	09/16/10 13:00	09/17/10 10:47	93-72-1	
2,4-DCPA (S)	97	%	65.5-125.7		1	09/16/10 13:00	09/17/10 10:47	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**17.8**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:39	7440-38-2	
Barium	**34.1**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:39	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:39	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:39	7440-43-9	
Chromium	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:39	7440-47-3	
Cobalt	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:39	7440-48-4	
Copper	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:39	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:39	7439-92-1	
Nickel	**4.3 I**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:39	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	09/27/10 14:00	09/28/10 17:39	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:39	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	09/27/10 14:00	09/28/10 17:39	7440-31-5	
Vanadium	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:39	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	09/27/10 14:00	09/28/10 17:39	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:31	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	09/20/10 12:30	09/21/10 13:44	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.82U**	ug/L	4.8	0.82	1	09/14/10 20:20	09/15/10 18:40	83-32-9	
Acenaphthylene	**0.91U**	ug/L	4.8	0.91	1	09/14/10 20:20	09/15/10 18:40	208-96-8	
Acetophenone	**1.4U**	ug/L	4.8	1.4	1	09/14/10 20:20	09/15/10 18:40	98-86-2	
2-Acetylaminofluorene	**0.62U**	ug/L	4.8	0.62	1	09/14/10 20:20	09/15/10 18:40	53-96-3	
4-Aminobiphenyl	**2.7U**	ug/L	4.8	2.7	1	09/14/10 20:20	09/15/10 18:40	92-67-1	
Anthracene	**0.58U**	ug/L	4.8	0.58	1	09/14/10 20:20	09/15/10 18:40	120-12-7	
Benzo(a)anthracene	**0.60U**	ug/L	4.8	0.60	1	09/14/10 20:20	09/15/10 18:40	56-55-3	
Benzo(a)pyrene	**0.56U**	ug/L	0.96	0.56	1	09/14/10 20:20	09/15/10 18:40	50-32-8	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.59U**	ug/L	1.9	0.59	1	09/14/10 20:20	09/15/10 18:40	205-99-2	
Benzo(g,h,i)perylene	**0.65U**	ug/L	4.8	0.65	1	09/14/10 20:20	09/15/10 18:40	191-24-2	
Benzo(k)fluoranthene	**0.49U**	ug/L	3.8	0.49	1	09/14/10 20:20	09/15/10 18:40	207-08-9	
Benzyl alcohol	**0.98U**	ug/L	4.8	0.98	1	09/14/10 20:20	09/15/10 18:40	100-51-6	
4-Bromophenylphenyl ether	**0.64U**	ug/L	4.8	0.64	1	09/14/10 20:20	09/15/10 18:40	101-55-3	
Butylbenzylphthalate	**0.69U**	ug/L	4.8	0.69	1	09/14/10 20:20	09/15/10 18:40	85-68-7	
4-Chloro-3-methylphenol	**0.59U**	ug/L	19.2	0.59	1	09/14/10 20:20	09/15/10 18:40	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	4.8	1.2	1	09/14/10 20:20	09/15/10 18:40	106-47-8	
bis(2-Chloroethoxy)methane	**2.8U**	ug/L	4.8	2.8	1	09/14/10 20:20	09/15/10 18:40	111-91-1	
bis(2-Chloroethyl) ether	**0.72U**	ug/L	3.8	0.72	1	09/14/10 20:20	09/15/10 18:40	111-44-4	
bis(2-Chloroisopropyl) ether	**0.70U**	ug/L	4.8	0.70	1	09/14/10 20:20	09/15/10 18:40	108-60-1	
2-Chloronaphthalene	**0.77U**	ug/L	4.8	0.77	1	09/14/10 20:20	09/15/10 18:40	91-58-7	
2-Chlorophenol	**0.65U**	ug/L	4.8	0.65	1	09/14/10 20:20	09/15/10 18:40	95-57-8	
4-Chlorophenylphenyl ether	**0.60U**	ug/L	4.8	0.60	1	09/14/10 20:20	09/15/10 18:40	7005-72-3	
Chrysene	**0.35U**	ug/L	4.8	0.35	1	09/14/10 20:20	09/15/10 18:40	218-01-9	
Diallate	**0.70U**	ug/L	4.8	0.70	1	09/14/10 20:20	09/15/10 18:40	2303-16-4	
Dibenz(a,h)anthracene	**0.62U**	ug/L	1.9	0.62	1	09/14/10 20:20	09/15/10 18:40	53-70-3	
Dibenzofuran	**0.64U**	ug/L	4.8	0.64	1	09/14/10 20:20	09/15/10 18:40	132-64-9	
1,2-Dichlorobenzene	**0.65U**	ug/L	4.8	0.65	1	09/14/10 20:20	09/15/10 18:40	95-50-1	
1,3-Dichlorobenzene	**0.73U**	ug/L	4.8	0.73	1	09/14/10 20:20	09/15/10 18:40	541-73-1	
1,4-Dichlorobenzene	**0.74U**	ug/L	4.8	0.74	1	09/14/10 20:20	09/15/10 18:40	106-46-7	
3,3'-Dichlorobenzidine	**0.66U**	ug/L	9.6	0.66	1	09/14/10 20:20	09/15/10 18:40	91-94-1	
2,4-Dichlorophenol	**0.54U**	ug/L	1.9	0.54	1	09/14/10 20:20	09/15/10 18:40	120-83-2	
2,6-Dichlorophenol	**0.59U**	ug/L	3.8	0.59	1	09/14/10 20:20	09/15/10 18:40	87-65-0	
Diethylphthalate	**0.49U**	ug/L	4.8	0.49	1	09/14/10 20:20	09/15/10 18:40	84-66-2	
P-Dimethylaminoazobenzene	**0.64U**	ug/L	4.8	0.64	1	09/14/10 20:20	09/15/10 18:40	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	4.8	1.9	1	09/14/10 20:20	09/15/10 18:40	57-97-6	
3,3'-Dimethylbenzidine	**3.0U**	ug/L	9.6	3.0	1	09/14/10 20:20	09/15/10 18:40	119-93-7	
2,4-Dimethylphenol	**1.5U**	ug/L	4.8	1.5	1	09/14/10 20:20	09/15/10 18:40	105-67-9	
Dimethylphthalate	**0.61U**	ug/L	4.8	0.61	1	09/14/10 20:20	09/15/10 18:40	131-11-3	
Di-n-butylphthalate	**0.39U**	ug/L	4.8	0.39	1	09/14/10 20:20	09/15/10 18:40	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.2	1.3	1	09/14/10 20:20	09/15/10 18:40	534-52-1	
1,3-Dinitrobenzene	**0.65U**	ug/L	7.7	0.65	1	09/14/10 20:20	09/15/10 18:40	99-65-0	
2,4-Dinitrophenol	**1.5U**	ug/L	19.2	1.5	1	09/14/10 20:20	09/15/10 18:40	51-28-5	
2,4-Dinitrotoluene	**0.51U**	ug/L	1.9	0.51	1	09/14/10 20:20	09/15/10 18:40	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	1.9	1.2	1	09/14/10 20:20	09/15/10 18:40	606-20-2	
Di-n-octylphthalate	**0.86U**	ug/L	4.8	0.86	1	09/14/10 20:20	09/15/10 18:40	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.77U**	ug/L	4.8	0.77	1	09/14/10 20:20	09/15/10 18:40	117-81-7	
Ethyl methanesulfonate	**0.86U**	ug/L	4.8	0.86	1	09/14/10 20:20	09/15/10 18:40	62-50-0	
Fluoranthene	**0.52U**	ug/L	4.8	0.52	1	09/14/10 20:20	09/15/10 18:40	206-44-0	
Fluorene	**0.54U**	ug/L	4.8	0.54	1	09/14/10 20:20	09/15/10 18:40	86-73-7	
Hexachlorobenzene	**0.77U**	ug/L	0.96	0.77	1	09/14/10 20:20	09/15/10 18:40	118-74-1	
Hexachlorocyclopentadiene	**1.2U**	ug/L	4.8	1.2	1	09/14/10 20:20	09/15/10 18:40	77-47-4	
Hexachloroethane	**0.68U**	ug/L	4.8	0.68	1	09/14/10 20:20	09/15/10 18:40	67-72-1	
Hexachloropropene	**1.4U**	ug/L	4.8	1.4	1	09/14/10 20:20	09/15/10 18:40	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.70U**	ug/L	1.9	0.70	1	09/14/10 20:20	09/15/10 18:40	193-39-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.52U**	ug/L	4.8	0.52	1	09/14/10 20:20	09/15/10 18:40	465-73-6	
Isophorone	**0.70U**	ug/L	4.8	0.70	1	09/14/10 20:20	09/15/10 18:40	78-59-1	
Isosafrole	**0.58U**	ug/L	4.8	0.58	1	09/14/10 20:20	09/15/10 18:40	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 18:40	143-50-0	
Methapyrilene	**1.6U**	ug/L	4.8	1.6	1	09/14/10 20:20	09/15/10 18:40	91-80-5	
3-Methylcholanthrene	**1.0U**	ug/L	4.8	1.0	1	09/14/10 20:20	09/15/10 18:40	56-49-5	
Methyl methanesulfonate	**0.96U**	ug/L	4.8	0.96	1	09/14/10 20:20	09/15/10 18:40	66-27-3	
2-Methylnaphthalene	**0.95U**	ug/L	4.8	0.95	1	09/14/10 20:20	09/15/10 18:40	91-57-6	
2-Methylphenol(o-Cresol)	**0.70U**	ug/L	4.8	0.70	1	09/14/10 20:20	09/15/10 18:40	95-48-7	
3&4-Methylphenol(m&p Cresol)	**7.8 I**	ug/L	9.6	0.63	1	09/14/10 20:20	09/15/10 18:40		
2-Naphthylamine	**2.2U**	ug/L	4.8	2.2	1	09/14/10 20:20	09/15/10 18:40	91-59-8	
Naphthalene	**0.75U**	ug/L	4.8	0.75	1	09/14/10 20:20	09/15/10 18:40	91-20-3	
1-Naphthylamine	**0.99U**	ug/L	4.8	0.99	1	09/14/10 20:20	09/15/10 18:40	134-32-7	L3
1,4-Naphthoquinone	**1.1U**	ug/L	4.8	1.1	1	09/14/10 20:20	09/15/10 18:40	130-15-4	
2-Nitroaniline	**0.58U**	ug/L	4.8	0.58	1	09/14/10 20:20	09/15/10 18:40	88-74-4	
3-Nitroaniline	**0.95U**	ug/L	4.8	0.95	1	09/14/10 20:20	09/15/10 18:40	99-09-2	
4-Nitroaniline	**0.66U**	ug/L	3.8	0.66	1	09/14/10 20:20	09/15/10 18:40	100-01-6	
Nitrobenzene	**1.0U**	ug/L	3.8	1.0	1	09/14/10 20:20	09/15/10 18:40	98-95-3	
2-Nitrophenol	**0.78U**	ug/L	4.8	0.78	1	09/14/10 20:20	09/15/10 18:40	88-75-5	
4-Nitrophenol	**1.0U**	ug/L	19.2	1.0	1	09/14/10 20:20	09/15/10 18:40	100-02-7	
5-Nitro-o-toluidine	**1.2U**	ug/L	4.8	1.2	1	09/14/10 20:20	09/15/10 18:40	99-55-8	
N-Nitrosodiethylamine	**0.70U**	ug/L	3.8	0.70	1	09/14/10 20:20	09/15/10 18:40	55-18-5	
N-Nitrosodimethylamine	**0.93U**	ug/L	1.9	0.93	1	09/14/10 20:20	09/15/10 18:40	62-75-9	
N-Nitroso-di-n-butylamine	**0.53U**	ug/L	3.8	0.53	1	09/14/10 20:20	09/15/10 18:40	924-16-3	
N-Nitroso-di-n-propylamine	**0.90U**	ug/L	3.8	0.90	1	09/14/10 20:20	09/15/10 18:40	621-64-7	
N-Nitrosodiphenylamine	**0.48U**	ug/L	4.8	0.48	1	09/14/10 20:20	09/15/10 18:40	86-30-6	
N-Nitrosomethylethylamine	**0.71U**	ug/L	4.8	0.71	1	09/14/10 20:20	09/15/10 18:40	10595-95-6	
N-Nitrosopiperidine	**0.61U**	ug/L	4.8	0.61	1	09/14/10 20:20	09/15/10 18:40	100-75-4	
N-Nitrosopyrrolidine	**0.84U**	ug/L	4.8	0.84	1	09/14/10 20:20	09/15/10 18:40	930-55-2	
O,O,O-Triethylphosphorothioate	**0.66U**	ug/L	4.8	0.66	1	09/14/10 20:20	09/15/10 18:40	126-68-1	
Pentachlorobenzene	**0.75U**	ug/L	4.8	0.75	1	09/14/10 20:20	09/15/10 18:40	608-93-5	
Phenacetin	**0.51U**	ug/L	4.8	0.51	1	09/14/10 20:20	09/15/10 18:40	62-44-2	
Phenanthrene	**0.50U**	ug/L	4.8	0.50	1	09/14/10 20:20	09/15/10 18:40	85-01-8	
Phenol	**0.52U**	ug/L	4.8	0.52	1	09/14/10 20:20	09/15/10 18:40	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 18:40	106-50-3	
Pronamide	**1.1U**	ug/L	4.8	1.1	1	09/14/10 20:20	09/15/10 18:40	23950-58-5	
Pyrene	**0.65U**	ug/L	4.8	0.65	1	09/14/10 20:20	09/15/10 18:40	129-00-0	
Safrole	**0.82U**	ug/L	4.8	0.82	1	09/14/10 20:20	09/15/10 18:40	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.67U**	ug/L	4.8	0.67	1	09/14/10 20:20	09/15/10 18:40	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.7U**	ug/L	4.8	3.7	1	09/14/10 20:20	09/15/10 18:40	58-90-2	
Thionazin	**0.59U**	ug/L	4.8	0.59	1	09/14/10 20:20	09/15/10 18:40	297-97-2	
O-Toluidine	**1.0U**	ug/L	4.8	1.0	1	09/14/10 20:20	09/15/10 18:40	95-53-4	
2,4,5-Trichlorophenol	**0.50U**	ug/L	3.8	0.50	1	09/14/10 20:20	09/15/10 18:40	95-95-4	
2,4,6-Trichlorophenol	**0.66U**	ug/L	1.9	0.66	1	09/14/10 20:20	09/15/10 18:40	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	4.8	1.2	1	09/14/10 20:20	09/15/10 18:40	99-35-4	
Nitrobenzene-d5 (S)	56	%	10-110		1	09/14/10 20:20	09/15/10 18:40	4165-60-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	67	%	18-110		1	09/14/10 20:20	09/15/10 18:40	321-60-8	
Terphenyl-d14 (S)	85	%	10-123		1	09/14/10 20:20	09/15/10 18:40	1718-51-0	
Phenol-d6 (S)	22	%	10-110		1	09/14/10 20:20	09/15/10 18:40	13127-88-3	
2-Fluorophenol (S)	34	%	18-110		1	09/14/10 20:20	09/15/10 18:40	367-12-4	
2,4,6-Tribromophenol (S)	69	%	10-110		1	09/14/10 20:20	09/15/10 18:40	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		09/18/10 06:06	107-02-8	
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		09/18/10 06:06	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	78-93-3	
Carbon disulfide	**0.86 I**	ug/L	1.0	0.50	1		09/18/10 06:06	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		09/18/10 06:06	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		09/18/10 06:06	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 06:06	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 06:06	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	74-88-4	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-25D **Lab ID: 3516696009** Collected: 09/09/10 13:21 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		09/18/10 06:06	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		09/18/10 06:06	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:06	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		09/18/10 06:06	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		09/18/10 06:06	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		09/18/10 06:06	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:06	1330-20-7	
4-Bromofluorobenzene (S)	104	%	70-114		1		09/18/10 06:06	460-00-4	
Dibromofluoromethane (S)	96	%	88-117		1		09/18/10 06:06	1868-53-7	
1,2-Dichloroethane-d4 (S)	93	%	86-125		1		09/18/10 06:06	17060-07-0	
Toluene-d8 (S)	106	%	87-113		1		09/18/10 06:06	2037-26-5	
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**1.0U**	mg/L	1.0	1.0	1		09/14/10 09:30	18496-25-8	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	09/21/10 10:10	09/23/10 17:11	57-12-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromo-3-chloropropane	**0.0048U**	ug/L	0.020	0.0048	1	09/14/10 15:00	09/15/10 16:46	96-12-8	
1,2-Dibromoethane (EDB)	**0.0061U**	ug/L	0.0099	0.0061	1	09/14/10 15:00	09/15/10 16:46	106-93-4	
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	**0.00049U**	ug/L	0.0097	0.00049	1	09/15/10 16:13	09/16/10 02:54	309-00-2	
alpha-BHC	**0.00029U**	ug/L	0.0097	0.00029	1	09/15/10 16:13	09/16/10 02:54	319-84-6	
beta-BHC	**0.00049U**	ug/L	0.0097	0.00049	1	09/15/10 16:13	09/16/10 02:54	319-85-7	
delta-BHC	**0.00039U**	ug/L	0.0097	0.00039	1	09/15/10 16:13	09/16/10 02:54	319-86-8	
gamma-BHC (Lindane)	**0.00019U**	ug/L	0.0097	0.00019	1	09/15/10 16:13	09/16/10 02:54	58-89-9	
Chlordane (Technical)	**0.078U**	ug/L	0.49	0.078	1	09/15/10 16:13	09/16/10 02:54	57-74-9	
Chlorobenzilate	**0.021U**	ug/L	0.097	0.021	1	09/15/10 16:13	09/16/10 02:54	510-15-6	
4,4'-DDD	**0.0018U**	ug/L	0.0097	0.0018	1	09/15/10 16:13	09/16/10 02:54	72-54-8	
4,4'-DDE	**0.00087U**	ug/L	0.0097	0.00087	1	09/15/10 16:13	09/16/10 02:54	72-55-9	
4,4'-DDT	**0.0035U**	ug/L	0.0097	0.0035	1	09/15/10 16:13	09/16/10 02:54	50-29-3	
Dieldrin	**0.00049U**	ug/L	0.0097	0.00049	1	09/15/10 16:13	09/16/10 02:54	60-57-1	
Endosulfan I	**0.00068U**	ug/L	0.0097	0.00068	1	09/15/10 16:13	09/16/10 02:54	959-98-8	
Endosulfan II	**0.00068U**	ug/L	0.0097	0.00068	1	09/15/10 16:13	09/16/10 02:54	33213-65-9	
Endosulfan sulfate	**0.00058U**	ug/L	0.0097	0.00058	1	09/15/10 16:13	09/16/10 02:54	1031-07-8	
Endrin	**0.0017U**	ug/L	0.0097	0.0017	1	09/15/10 16:13	09/16/10 02:54	72-20-8	
Endrin aldehyde	**0.0069U**	ug/L	0.0097	0.0069	1	09/15/10 16:13	09/16/10 02:54	7421-93-4	
Heptachlor	**0.0015U**	ug/L	0.0097	0.0015	1	09/15/10 16:13	09/16/10 02:54	76-44-8	
Heptachlor epoxide	**0.00039U**	ug/L	0.0097	0.00039	1	09/15/10 16:13	09/16/10 02:54	1024-57-3	
Methoxychlor	**0.0068U**	ug/L	0.0097	0.0068	1	09/15/10 16:13	09/16/10 02:54	72-43-5	
Pentachloronitrobenzene	**0.015U**	ug/L	0.097	0.015	1	09/15/10 16:13	09/16/10 02:54	82-68-8	
Toxaphene	**0.28U**	ug/L	0.49	0.28	1	09/15/10 16:13	09/16/10 02:54	8001-35-2	
Tetrachloro-m-xylene (S)	83	%	66.5-120.3		1	09/15/10 16:13	09/16/10 02:54	877-09-8	
Decachlorobiphenyl (S)	87	%	41.7-109.1		1	09/15/10 16:13	09/16/10 02:54	2051-24-3	
8082 GCS PCB	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	**0.078U**	ug/L	0.49	0.078	1	09/15/10 16:18	09/16/10 02:54	12674-11-2	
PCB-1221 (Aroclor 1221)	**0.079U**	ug/L	0.49	0.079	1	09/15/10 16:18	09/16/10 02:54	11104-28-2	
PCB-1232 (Aroclor 1232)	**0.11U**	ug/L	0.49	0.11	1	09/15/10 16:18	09/16/10 02:54	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.12U**	ug/L	0.49	0.12	1	09/15/10 16:18	09/16/10 02:54	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.27U**	ug/L	0.49	0.27	1	09/15/10 16:18	09/16/10 02:54	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.14U**	ug/L	0.49	0.14	1	09/15/10 16:18	09/16/10 02:54	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.11U**	ug/L	0.49	0.11	1	09/15/10 16:18	09/16/10 02:54	11096-82-5	
Tetrachloro-m-xylene (S)	82	%	48-111		1	09/15/10 16:18	09/16/10 02:54	877-09-8	
Decachlorobiphenyl (S)	87	%	63-121		1	09/15/10 16:18	09/16/10 02:54	2051-24-3	
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Dimethoate	**0.18U**	ug/L	0.48	0.18	1	09/15/10 15:30	09/26/10 21:27	60-51-5	
Disulfoton	**0.15U**	ug/L	0.48	0.15	1	09/15/10 15:30	09/26/10 21:27	298-04-4	
Famphur	**0.14U**	ug/L	0.48	0.14	1	09/15/10 15:30	09/26/10 21:27	52-85-7	
Methyl parathion	**0.19U**	ug/L	0.48	0.19	1	09/15/10 15:30	09/26/10 21:27	298-00-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8141 GCS O/P Pesticides	Analytical Method: EPA 8141 Preparation Method: EPA 3510								
Parathion (Ethyl parathion)	**0.34U**	ug/L	0.97	0.34	1	09/15/10 15:30	09/26/10 21:27	56-38-2	
Phorate	**0.36U**	ug/L	0.97	0.36	1	09/15/10 15:30	09/26/10 21:27	298-02-2	
4-Chloro3nitrobenzotrifluoride	85	%	34.2-122		1	09/15/10 15:30	09/26/10 21:27		
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	**0.22U**	ug/L	0.92	0.22	1	09/16/10 13:00	09/17/10 11:14	94-75-7	
Dinoseb	**0.056U**	ug/L	0.18	0.056	1	09/16/10 13:00	09/17/10 11:14	88-85-7	
Pentachlorophenol	**0.017U**	ug/L	0.028	0.017	1	09/16/10 13:00	09/17/10 11:14	87-86-5	
2,4,5-T	**0.041U**	ug/L	0.18	0.041	1	09/16/10 13:00	09/17/10 11:14	93-76-5	
2,4,5-TP (Silvex)	**0.048U**	ug/L	0.19	0.048	1	09/16/10 13:00	09/17/10 11:14	93-72-1	
2,4-DCPA (S)	85	%	65.5-125.7		1	09/16/10 13:00	09/17/10 11:14	19719-28-9	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**5.5 I**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:43	7440-38-2	
Barium	**20.5**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:43	7440-39-3	
Beryllium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:43	7440-41-7	
Cadmium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	09/28/10 17:43	7440-43-9	
Chromium	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:43	7440-47-3	
Cobalt	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:43	7440-48-4	
Copper	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:43	7440-50-8	
Lead	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:43	7439-92-1	
Nickel	**4.5 I**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:43	7440-02-0	
Selenium	**7.5U**	ug/L	15.0	7.5	1	09/27/10 14:00	09/28/10 17:43	7782-49-2	
Silver	**2.5U**	ug/L	5.0	2.5	1	09/27/10 14:00	09/28/10 17:43	7440-22-4	
Tin	**25.0U**	ug/L	50.0	25.0	1	09/27/10 14:00	09/28/10 17:43	7440-31-5	
Vanadium	**5.0U**	ug/L	10.0	5.0	1	09/27/10 14:00	09/28/10 17:43	7440-62-2	
Zinc	**10.0U**	ug/L	20.0	10.0	1	09/27/10 14:00	09/28/10 17:43	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3010								
Antimony	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:36	7440-36-0	
Thallium	**0.50U**	ug/L	1.0	0.50	1	09/27/10 14:00	10/19/10 09:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.10U**	ug/L	0.20	0.10	1	09/20/10 12:30	09/21/10 13:47	7439-97-6	
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Acenaphthene	**0.86U**	ug/L	5.0	0.86	1	09/14/10 20:20	09/15/10 19:12	83-32-9	
Acenaphthylene	**0.94U**	ug/L	5.0	0.94	1	09/14/10 20:20	09/15/10 19:12	208-96-8	
Acetophenone	**1.4U**	ug/L	5.0	1.4	1	09/14/10 20:20	09/15/10 19:12	98-86-2	
2-Acetylaminofluorene	**0.65U**	ug/L	5.0	0.65	1	09/14/10 20:20	09/15/10 19:12	53-96-3	
4-Aminobiphenyl	**2.8U**	ug/L	5.0	2.8	1	09/14/10 20:20	09/15/10 19:12	92-67-1	
Anthracene	**0.60U**	ug/L	5.0	0.60	1	09/14/10 20:20	09/15/10 19:12	120-12-7	
Benzo(a)anthracene	**0.63U**	ug/L	5.0	0.63	1	09/14/10 20:20	09/15/10 19:12	56-55-3	
Benzo(a)pyrene	**0.58U**	ug/L	0.99	0.58	1	09/14/10 20:20	09/15/10 19:12	50-32-8	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Benzo(b)fluoranthene	**0.62U**	ug/L	2.0	0.62	1	09/14/10 20:20	09/15/10 19:12	205-99-2	
Benzo(g,h,i)perylene	**0.68U**	ug/L	5.0	0.68	1	09/14/10 20:20	09/15/10 19:12	191-24-2	
Benzo(k)fluoranthene	**0.51U**	ug/L	4.0	0.51	1	09/14/10 20:20	09/15/10 19:12	207-08-9	
Benzyl alcohol	**1.0U**	ug/L	5.0	1.0	1	09/14/10 20:20	09/15/10 19:12	100-51-6	
4-Bromophenylphenyl ether	**0.67U**	ug/L	5.0	0.67	1	09/14/10 20:20	09/15/10 19:12	101-55-3	
Butylbenzylphthalate	**0.72U**	ug/L	5.0	0.72	1	09/14/10 20:20	09/15/10 19:12	85-68-7	
4-Chloro-3-methylphenol	**0.62U**	ug/L	19.9	0.62	1	09/14/10 20:20	09/15/10 19:12	59-50-7	
4-Chloroaniline	**1.2U**	ug/L	5.0	1.2	1	09/14/10 20:20	09/15/10 19:12	106-47-8	
bis(2-Chloroethoxy)methane	**2.9U**	ug/L	5.0	2.9	1	09/14/10 20:20	09/15/10 19:12	111-91-1	
bis(2-Chloroethyl) ether	**0.75U**	ug/L	4.0	0.75	1	09/14/10 20:20	09/15/10 19:12	111-44-4	
bis(2-Chloroisopropyl) ether	**0.73U**	ug/L	5.0	0.73	1	09/14/10 20:20	09/15/10 19:12	108-60-1	
2-Chloronaphthalene	**0.80U**	ug/L	5.0	0.80	1	09/14/10 20:20	09/15/10 19:12	91-58-7	
2-Chlorophenol	**0.68U**	ug/L	5.0	0.68	1	09/14/10 20:20	09/15/10 19:12	95-57-8	
4-Chlorophenylphenyl ether	**0.63U**	ug/L	5.0	0.63	1	09/14/10 20:20	09/15/10 19:12	7005-72-3	
Chrysene	**0.37U**	ug/L	5.0	0.37	1	09/14/10 20:20	09/15/10 19:12	218-01-9	
Diallate	**0.72U**	ug/L	5.0	0.72	1	09/14/10 20:20	09/15/10 19:12	2303-16-4	
Dibenz(a,h)anthracene	**0.65U**	ug/L	2.0	0.65	1	09/14/10 20:20	09/15/10 19:12	53-70-3	
Dibenzofuran	**0.67U**	ug/L	5.0	0.67	1	09/14/10 20:20	09/15/10 19:12	132-64-9	
1,2-Dichlorobenzene	**0.68U**	ug/L	5.0	0.68	1	09/14/10 20:20	09/15/10 19:12	95-50-1	
1,3-Dichlorobenzene	**0.76U**	ug/L	5.0	0.76	1	09/14/10 20:20	09/15/10 19:12	541-73-1	
1,4-Dichlorobenzene	**0.77U**	ug/L	5.0	0.77	1	09/14/10 20:20	09/15/10 19:12	106-46-7	
3,3'-Dichlorobenzidine	**0.69U**	ug/L	9.9	0.69	1	09/14/10 20:20	09/15/10 19:12	91-94-1	
2,4-Dichlorophenol	**0.56U**	ug/L	2.0	0.56	1	09/14/10 20:20	09/15/10 19:12	120-83-2	
2,6-Dichlorophenol	**0.62U**	ug/L	4.0	0.62	1	09/14/10 20:20	09/15/10 19:12	87-65-0	
Diethylphthalate	**0.51U**	ug/L	5.0	0.51	1	09/14/10 20:20	09/15/10 19:12	84-66-2	
P-Dimethylaminoazobenzene	**0.67U**	ug/L	5.0	0.67	1	09/14/10 20:20	09/15/10 19:12	60-11-7	
7,12-Dimethylbenz(a)anthracene	**1.9U**	ug/L	5.0	1.9	1	09/14/10 20:20	09/15/10 19:12	57-97-6	
3,3'-Dimethylbenzidine	**3.1U**	ug/L	9.9	3.1	1	09/14/10 20:20	09/15/10 19:12	119-93-7	
2,4-Dimethylphenol	**1.6U**	ug/L	5.0	1.6	1	09/14/10 20:20	09/15/10 19:12	105-67-9	
Dimethylphthalate	**0.64U**	ug/L	5.0	0.64	1	09/14/10 20:20	09/15/10 19:12	131-11-3	
Di-n-butylphthalate	**0.41U**	ug/L	5.0	0.41	1	09/14/10 20:20	09/15/10 19:12	84-74-2	
4,6-Dinitro-2-methylphenol	**1.3U**	ug/L	19.9	1.3	1	09/14/10 20:20	09/15/10 19:12	534-52-1	
1,3-Dinitrobenzene	**0.68U**	ug/L	8.0	0.68	1	09/14/10 20:20	09/15/10 19:12	99-65-0	
2,4-Dinitrophenol	**1.6U**	ug/L	19.9	1.6	1	09/14/10 20:20	09/15/10 19:12	51-28-5	
2,4-Dinitrotoluene	**0.53U**	ug/L	2.0	0.53	1	09/14/10 20:20	09/15/10 19:12	121-14-2	
2,6-Dinitrotoluene	**1.2U**	ug/L	2.0	1.2	1	09/14/10 20:20	09/15/10 19:12	606-20-2	
Di-n-octylphthalate	**0.89U**	ug/L	5.0	0.89	1	09/14/10 20:20	09/15/10 19:12	117-84-0	
bis(2-Ethylhexyl)phthalate	**0.80U**	ug/L	5.0	0.80	1	09/14/10 20:20	09/15/10 19:12	117-81-7	
Ethyl methanesulfonate	**0.89U**	ug/L	5.0	0.89	1	09/14/10 20:20	09/15/10 19:12	62-50-0	
Fluoranthene	**0.54U**	ug/L	5.0	0.54	1	09/14/10 20:20	09/15/10 19:12	206-44-0	
Fluorene	**0.56U**	ug/L	5.0	0.56	1	09/14/10 20:20	09/15/10 19:12	86-73-7	
Hexachlorobenzene	**0.80U**	ug/L	0.99	0.80	1	09/14/10 20:20	09/15/10 19:12	118-74-1	
Hexachlorocyclopentadiene	**1.3U**	ug/L	5.0	1.3	1	09/14/10 20:20	09/15/10 19:12	77-47-4	
Hexachloroethane	**0.71U**	ug/L	5.0	0.71	1	09/14/10 20:20	09/15/10 19:12	67-72-1	
Hexachloropropene	**1.4U**	ug/L	5.0	1.4	1	09/14/10 20:20	09/15/10 19:12	1888-71-7	
Indeno(1,2,3-cd)pyrene	**0.73U**	ug/L	2.0	0.73	1	09/14/10 20:20	09/15/10 19:12	193-39-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
Isodrin	**0.54U**	ug/L	5.0	0.54	1	09/14/10 20:20	09/15/10 19:12	465-73-6	
Isophorone	**0.73U**	ug/L	5.0	0.73	1	09/14/10 20:20	09/15/10 19:12	78-59-1	
Isosafrole	**0.60U**	ug/L	5.0	0.60	1	09/14/10 20:20	09/15/10 19:12	120-58-1	
Kepone	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 19:12	143-50-0	
Methapyrilene	**1.6U**	ug/L	5.0	1.6	1	09/14/10 20:20	09/15/10 19:12	91-80-5	
3-Methylcholanthrene	**1.0U**	ug/L	5.0	1.0	1	09/14/10 20:20	09/15/10 19:12	56-49-5	
Methyl methanesulfonate	**0.99U**	ug/L	5.0	0.99	1	09/14/10 20:20	09/15/10 19:12	66-27-3	
2-Methylnaphthalene	**0.98U**	ug/L	5.0	0.98	1	09/14/10 20:20	09/15/10 19:12	91-57-6	
2-Methylphenol(o-Cresol)	**0.73U**	ug/L	5.0	0.73	1	09/14/10 20:20	09/15/10 19:12	95-48-7	
3&4-Methylphenol(m&p Cresol)	**1.6** I	ug/L	9.9	0.66	1	09/14/10 20:20	09/15/10 19:12		
2-Naphthylamine	**2.3U**	ug/L	5.0	2.3	1	09/14/10 20:20	09/15/10 19:12	91-59-8	
Naphthalene	**0.78U**	ug/L	5.0	0.78	1	09/14/10 20:20	09/15/10 19:12	91-20-3	
1-Naphthylamine	**1.0U**	ug/L	5.0	1.0	1	09/14/10 20:20	09/15/10 19:12	134-32-7	L3
1,4-Naphthoquinone	**1.2U**	ug/L	5.0	1.2	1	09/14/10 20:20	09/15/10 19:12	130-15-4	
2-Nitroaniline	**0.60U**	ug/L	5.0	0.60	1	09/14/10 20:20	09/15/10 19:12	88-74-4	
3-Nitroaniline	**0.98U**	ug/L	5.0	0.98	1	09/14/10 20:20	09/15/10 19:12	99-09-2	
4-Nitroaniline	**0.69U**	ug/L	4.0	0.69	1	09/14/10 20:20	09/15/10 19:12	100-01-6	
Nitrobenzene	**1.1U**	ug/L	4.0	1.1	1	09/14/10 20:20	09/15/10 19:12	98-95-3	
2-Nitrophenol	**0.81U**	ug/L	5.0	0.81	1	09/14/10 20:20	09/15/10 19:12	88-75-5	
4-Nitrophenol	**1.1U**	ug/L	19.9	1.1	1	09/14/10 20:20	09/15/10 19:12	100-02-7	
5-Nitro-o-toluidine	**1.3U**	ug/L	5.0	1.3	1	09/14/10 20:20	09/15/10 19:12	99-55-8	
N-Nitrosodiethylamine	**0.73U**	ug/L	4.0	0.73	1	09/14/10 20:20	09/15/10 19:12	55-18-5	
N-Nitrosodimethylamine	**0.96U**	ug/L	2.0	0.96	1	09/14/10 20:20	09/15/10 19:12	62-75-9	
N-Nitroso-di-n-butylamine	**0.55U**	ug/L	4.0	0.55	1	09/14/10 20:20	09/15/10 19:12	924-16-3	
N-Nitroso-di-n-propylamine	**0.93U**	ug/L	4.0	0.93	1	09/14/10 20:20	09/15/10 19:12	621-64-7	
N-Nitrosodiphenylamine	**0.50U**	ug/L	5.0	0.50	1	09/14/10 20:20	09/15/10 19:12	86-30-6	
N-Nitrosomethylethylamine	**0.74U**	ug/L	5.0	0.74	1	09/14/10 20:20	09/15/10 19:12	10595-95-6	
N-Nitrosopiperidine	**0.64U**	ug/L	5.0	0.64	1	09/14/10 20:20	09/15/10 19:12	100-75-4	
N-Nitrosopyrrolidine	**0.88U**	ug/L	5.0	0.88	1	09/14/10 20:20	09/15/10 19:12	930-55-2	
O,O,O-Triethylphosphorothioate	**0.69U**	ug/L	5.0	0.69	1	09/14/10 20:20	09/15/10 19:12	126-68-1	
Pentachlorobenzene	**0.78U**	ug/L	5.0	0.78	1	09/14/10 20:20	09/15/10 19:12	608-93-5	
Phenacetin	**0.53U**	ug/L	5.0	0.53	1	09/14/10 20:20	09/15/10 19:12	62-44-2	
Phenanthrene	**0.52U**	ug/L	5.0	0.52	1	09/14/10 20:20	09/15/10 19:12	85-01-8	
Phenol	**0.54U**	ug/L	5.0	0.54	1	09/14/10 20:20	09/15/10 19:12	108-95-2	
p-Phenylenediamine	**10.0U**	ug/L	20.0	10.0	1	09/14/10 20:20	09/15/10 19:12	106-50-3	
Pronamide	**1.1U**	ug/L	5.0	1.1	1	09/14/10 20:20	09/15/10 19:12	23950-58-5	
Pyrene	**0.68U**	ug/L	5.0	0.68	1	09/14/10 20:20	09/15/10 19:12	129-00-0	
Safrole	**0.85U**	ug/L	5.0	0.85	1	09/14/10 20:20	09/15/10 19:12	94-59-7	
1,2,4,5-Tetrachlorobenzene	**0.70U**	ug/L	5.0	0.70	1	09/14/10 20:20	09/15/10 19:12	95-94-3	
2,3,4,6-Tetrachlorophenol	**3.8U**	ug/L	5.0	3.8	1	09/14/10 20:20	09/15/10 19:12	58-90-2	
Thionazin	**0.61U**	ug/L	5.0	0.61	1	09/14/10 20:20	09/15/10 19:12	297-97-2	
O-Toluidine	**1.1U**	ug/L	5.0	1.1	1	09/14/10 20:20	09/15/10 19:12	95-53-4	
2,4,5-Trichlorophenol	**0.52U**	ug/L	4.0	0.52	1	09/14/10 20:20	09/15/10 19:12	95-95-4	
2,4,6-Trichlorophenol	**0.69U**	ug/L	2.0	0.69	1	09/14/10 20:20	09/15/10 19:12	88-06-2	
1,3,5-Trinitrobenzene	**1.2U**	ug/L	5.0	1.2	1	09/14/10 20:20	09/15/10 19:12	99-35-4	
Nitrobenzene-d5 (S)	65	%	10-110		1	09/14/10 20:20	09/15/10 19:12	4165-60-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV SemiVOA App. II	Analytical Method: EPA 8270 Preparation Method: EPA 3510								
2-Fluorobiphenyl (S)	68	%	18-110		1	09/14/10 20:20	09/15/10 19:12	321-60-8	
Terphenyl-d14 (S)	85	%	10-123		1	09/14/10 20:20	09/15/10 19:12	1718-51-0	
Phenol-d6 (S)	25	%	10-110		1	09/14/10 20:20	09/15/10 19:12	13127-88-3	
2-Fluorophenol (S)	38	%	18-110		1	09/14/10 20:20	09/15/10 19:12	367-12-4	
2,4,6-Tribromophenol (S)	66	%	10-110		1	09/14/10 20:20	09/15/10 19:12	118-79-6	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		09/18/10 06:29	107-02-8	
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		09/18/10 06:29	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	78-93-3	
Carbon disulfide	**0.66 I**	ug/L	1.0	0.50	1		09/18/10 06:29	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		09/18/10 06:29	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		09/18/10 06:29	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 06:29	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 06:29	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	74-88-4	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: 2MW-26D **Lab ID: 3516696010** Collected: 09/09/10 14:28 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		09/18/10 06:29	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		09/18/10 06:29	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 06:29	107-12-0	
Styrene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		09/18/10 06:29	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		09/18/10 06:29	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		09/18/10 06:29	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		09/18/10 06:29	1330-20-7	
4-Bromofluorobenzene (S)	102	%	70-114		1		09/18/10 06:29	460-00-4	
Dibromofluoromethane (S)	97	%	88-117		1		09/18/10 06:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	95	%	86-125		1		09/18/10 06:29	17060-07-0	
Toluene-d8 (S)	105	%	87-113		1		09/18/10 06:29	2037-26-5	
9034 Sulfide Water	Analytical Method: EPA 9034								
Sulfide	**1.0U**	mg/L	1.0	1.0	1		09/14/10 09:30	18496-25-8	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.0050U**	mg/L	0.010	0.0050	1	09/21/10 10:10	09/23/10 17:12	57-12-5	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: Trip Blank (9/9/10) **Lab ID: 3516696011** Collected: 09/09/10 08:00 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Acetone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	67-64-1	
Acetonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	75-05-8	
Acrolein	**10.0U**	ug/L	20.0	10.0	1		09/18/10 04:09	107-02-8	
Acrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	107-13-1	
Allyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	107-05-1	
Benzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	71-43-2	
Bromochloromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	74-97-5	
Bromodichloromethane	**0.27U**	ug/L	0.60	0.27	1		09/18/10 04:09	75-27-4	
Bromoform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-25-2	
Bromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	74-83-9	
2-Butanone (MEK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	78-93-3	
Carbon disulfide	**0.50 I**	ug/L	1.0	0.50	1		09/18/10 04:09	75-15-0	V
Carbon tetrachloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	56-23-5	
Chlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	108-90-7	
Chloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-00-3	
2-Chloroethylvinyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	110-75-8	
Chloroform	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	67-66-3	
Chloromethane	**0.62U**	ug/L	1.0	0.62	1		09/18/10 04:09	74-87-3	
Chloroprene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	126-99-8	
Dibromochloromethane	**0.26U**	ug/L	0.50	0.26	1		09/18/10 04:09	124-48-1	
Dibromomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	74-95-3	
trans-1,4-Dichloro-2-butene	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	110-57-6	
Dichlorodifluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-71-8	
1,1-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-34-3	
1,2-Dichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	107-06-2	
1,1-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-35-4	
cis-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	156-59-2	
trans-1,2-Dichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	156-60-5	
1,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	78-87-5	
1,3-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	142-28-9	
2,2-Dichloropropane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	594-20-7	
1,1-Dichloropropene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	563-58-6	
cis-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 04:09	10061-01-5	
trans-1,3-Dichloropropene	**0.25U**	ug/L	0.50	0.25	1		09/18/10 04:09	10061-02-6	
Ethylbenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	100-41-4	
Ethyl methacrylate	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	97-63-2	
Hexachloro-1,3-butadiene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	87-68-3	
2-Hexanone	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	591-78-6	
Iodomethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	74-88-4	
Isobutyl Alcohol	**10.0U**	ug/L	20.0	10.0	1		09/18/10 04:09	78-83-1	
Methacrylonitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	126-98-7	
Methylene Chloride	**2.5U**	ug/L	5.0	2.5	1		09/18/10 04:09	75-09-2	
Methyl methacrylate	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	80-62-6	
4-Methyl-2-pentanone (MIBK)	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	108-10-1	
Methyl-tert-butyl ether	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	1634-04-4	
Propionitrile	**5.0U**	ug/L	10.0	5.0	1		09/18/10 04:09	107-12-0	

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ANALYTICAL RESULTS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Sample: Trip Blank (9/9/10) **Lab ID: 3516696011** Collected: 09/09/10 08:00 Received: 09/13/10 07:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Styrene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	100-42-5	
1,1,1,2-Tetrachloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	630-20-6	
1,1,2,2-Tetrachloroethane	**0.18U**	ug/L	0.50	0.18	1		09/18/10 04:09	79-34-5	
Tetrachloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	127-18-4	
Toluene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	108-88-3	
1,2,4-Trichlorobenzene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	120-82-1	
1,1,1-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	71-55-6	
1,1,2-Trichloroethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	79-00-5	
Trichloroethene	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	79-01-6	
Trichlorofluoromethane	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-69-4	
1,2,3-Trichloropropane	**0.36U**	ug/L	0.50	0.36	1		09/18/10 04:09	96-18-4	
Vinyl acetate	**1.0U**	ug/L	2.0	1.0	1		09/18/10 04:09	108-05-4	
Vinyl chloride	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	75-01-4	
Xylene (Total)	**0.50U**	ug/L	1.0	0.50	1		09/18/10 04:09	1330-20-7	
4-Bromofluorobenzene (S)	104	%	70-114		1		09/18/10 04:09	460-00-4	
Dibromofluoromethane (S)	98	%	88-117		1		09/18/10 04:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	93	%	86-125		1		09/18/10 04:09	17060-07-0	
Toluene-d8 (S)	107	%	87-113		1		09/18/10 04:09	2037-26-5	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3065 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: 8011 EDB DBCP
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 114828 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	0.0050U	0.021	09/15/10 14:47	
1,2-Dibromoethane (EDB)	ug/L	0.0064U	0.010	09/15/10 14:47	

LABORATORY CONTROL SAMPLE: 114829

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	.26	0.34	134	60-140	
1,2-Dibromoethane (EDB)	ug/L	.26	0.33	126	60-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 114830 114831

Parameter	Units	3517831001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromo-3-chloropropane	ug/L	0.18	.41	.39	0.66	0.56	119	99	60-140	16	40	
1,2-Dibromoethane (EDB)	ug/L	0.0061 U	.41	.39	0.56	0.52	138	133	60-140	9	40	J(M1)

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3073 Analysis Method: EPA 8081
QC Batch Method: EPA 3510 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 115307 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	0.0019U	0.010	09/16/10 00:03	
4,4'-DDE	ug/L	0.00090U	0.010	09/16/10 00:03	
4,4'-DDT	ug/L	0.0036U	0.010	09/16/10 00:03	
Aldrin	ug/L	0.00050U	0.010	09/16/10 00:03	
alpha-BHC	ug/L	0.00030U	0.010	09/16/10 00:03	
beta-BHC	ug/L	0.00050U	0.010	09/16/10 00:03	
Chlordane (Technical)	ug/L	0.080U	0.50	09/16/10 00:03	
Chlorobenzilate	ug/L	0.021U	0.10	09/16/10 00:03	
delta-BHC	ug/L	0.00040U	0.010	09/16/10 00:03	
Dieldrin	ug/L	0.00050U	0.010	09/16/10 00:03	
Endosulfan I	ug/L	0.00070U	0.010	09/16/10 00:03	
Endosulfan II	ug/L	0.00070U	0.010	09/16/10 00:03	
Endosulfan sulfate	ug/L	0.00060U	0.010	09/16/10 00:03	
Endrin	ug/L	0.0017U	0.010	09/16/10 00:03	
Endrin aldehyde	ug/L	0.0071U	0.010	09/16/10 00:03	
gamma-BHC (Lindane)	ug/L	0.00020U	0.010	09/16/10 00:03	
Heptachlor	ug/L	0.0015U	0.010	09/16/10 00:03	
Heptachlor epoxide	ug/L	0.00040U	0.010	09/16/10 00:03	
Methoxychlor	ug/L	0.0070U	0.010	09/16/10 00:03	
Pentachloronitrobenzene	ug/L	0.015U	0.10	09/16/10 00:03	
Toxaphene	ug/L	0.28U	0.50	09/16/10 00:03	
Decachlorobiphenyl (S)	%	92	41.7-109.1	09/16/10 00:03	
Tetrachloro-m-xylene (S)	%	84	66.5-120.3	09/16/10 00:03	

LABORATORY CONTROL SAMPLE: 115308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.5	0.47	94	74-122	
4,4'-DDE	ug/L	.5	0.47	93	74-117	
4,4'-DDT	ug/L	.5	0.53	105	81-117	
Aldrin	ug/L	.5	0.43	86	56-112	
alpha-BHC	ug/L	.5	0.46	91	66-110	
beta-BHC	ug/L	.5	0.48	96	77-121	
delta-BHC	ug/L	.5	0.34	68	46-108	
Dieldrin	ug/L	.5	0.51	103	76-122	
Endosulfan I	ug/L	.5	0.51	103	75-122	
Endosulfan II	ug/L	.5	0.52	103	75-126	
Endosulfan sulfate	ug/L	.5	0.49	99	74-118	
Endrin	ug/L	.5	0.52	103	71-122	
Endrin aldehyde	ug/L	.5	0.44	88	76-122	
gamma-BHC (Lindane)	ug/L	.5	0.46	93	64-119	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

LABORATORY CONTROL SAMPLE: 115308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Heptachlor	ug/L	.5	0.46	93	64-116	
Heptachlor epoxide	ug/L	.5	0.48	96	76-120	
Methoxychlor	ug/L	.5	0.51	101	76-129	
Decachlorobiphenyl (S)	%			50	41.7-109.1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115309 115310

Parameter	Units	3516696007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDD	ug/L	0.0018 U	1	1	0.92	0.94	92	94	74-122	2	40	
4,4'-DDE	ug/L	0.00086 U	1	1	0.90	0.92	90	92	74-117	2	40	
4,4'-DDT	ug/L	0.0034 U	1	1	1.0	0.99	102	99	81-117	3	40	
Aldrin	ug/L	0.00048 U	1	1	0.84	0.85	84	85	46-112	1	40	
alpha-BHC	ug/L	0.00029 U	1	1	0.92	0.92	92	92	66-110	.7	40	
beta-BHC	ug/L	0.00048 U	1	1	0.97	0.97	97	97	77-121	.8	40	
delta-BHC	ug/L	0.016	1	1	0.69	0.70	68	69	46-108	2	40	
Dieldrin	ug/L	0.00048 U	1	1	1.0	1.0	100	103	76-122	3	40	
Endosulfan I	ug/L	0.00067 U	1	1	1.0	1.0	100	103	75-122	2	40	
Endosulfan II	ug/L	0.00067 U	1	1	1.0	1.0	102	104	75-126	2	40	
Endosulfan sulfate	ug/L	0.00057 U	1	1	0.97	0.96	97	96	74-118	.5	40	
Endrin	ug/L	0.0016 U	1	1	1.0	1.0	101	103	71-122	2	40	
Endrin aldehyde	ug/L	0.0068 U	1	1	0.88	0.88	88	88	76-122	.5	40	
gamma-BHC (Lindane)	ug/L	0.00019 U	1	1	0.95	0.94	95	94	64-119	2	40	
Heptachlor	ug/L	0.0014 U	1		0.94	0.94	94		64-116			
Heptachlor epoxide	ug/L	0.00038 U	1	1	0.93	0.95	93	95	76-120	2	40	
Methoxychlor	ug/L	0.0067 U	1	1	1.0	1.0	103	103	76-129	.5	40	
Decachlorobiphenyl (S)	%						100	101	41.7-109			
Tetrachloro-m-xylene (S)	%						83	82	66.5-120			

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3074 Analysis Method: EPA 8082
QC Batch Method: EPA 3510 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 115311 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	0.080U	0.50	09/16/10 00:03	
PCB-1221 (Aroclor 1221)	ug/L	0.081U	0.50	09/16/10 00:03	
PCB-1232 (Aroclor 1232)	ug/L	0.12U	0.50	09/16/10 00:03	
PCB-1242 (Aroclor 1242)	ug/L	0.13U	0.50	09/16/10 00:03	
PCB-1248 (Aroclor 1248)	ug/L	0.28U	0.50	09/16/10 00:03	
PCB-1254 (Aroclor 1254)	ug/L	0.14U	0.50	09/16/10 00:03	
PCB-1260 (Aroclor 1260)	ug/L	0.11U	0.50	09/16/10 00:03	
Decachlorobiphenyl (S)	%	93	63-121	09/16/10 00:03	
Tetrachloro-m-xylene (S)	%	91	48-111	09/16/10 00:03	

LABORATORY CONTROL SAMPLE: 115312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	2.5	2.5	99	70-130	
PCB-1260 (Aroclor 1260)	ug/L	2.5	2.2	88	70-130	
Decachlorobiphenyl (S)	%			107	63-121	
Tetrachloro-m-xylene (S)	%			83	48-111	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115313 115314

Parameter	Units	3516696008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	0.076U	5	5	5.0	4.5	100	90	70-130	10	40	
PCB-1260 (Aroclor 1260)	ug/L	0.10U	5	5	4.2	4.4	84	89	70-130	6	40	
Decachlorobiphenyl (S)	%						103	104	63-121			
Tetrachloro-m-xylene (S)	%						80	86	48-111			

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3070 Analysis Method: EPA 8141
QC Batch Method: EPA 3510 Analysis Description: 8141 GCS, O/P Pesticides
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 115229 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dimethoate	ug/L	0.19U	0.50	09/26/10 16:35	
Disulfoton	ug/L	0.16U	0.50	09/26/10 16:35	
Famphur	ug/L	0.14U	0.50	09/26/10 16:35	
Methyl parathion	ug/L	0.19U	0.50	09/26/10 16:35	
Parathion (Ethyl parathion)	ug/L	0.35U	1.0	09/26/10 16:35	
Phorate	ug/L	0.37U	1.0	09/26/10 16:35	
4-Chloro3nitrobenzotrifluoride	%	77	34.2-122	09/26/10 16:35	

LABORATORY CONTROL SAMPLE: 115230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dimethoate	ug/L	2	1.5	74	59.8-116.4	
Disulfoton	ug/L	2	1.5	76	66.9-116.2	
Famphur	ug/L	2	1.4	70	56.3-133	
Methyl parathion	ug/L	2	1.4	72	67.3-119.6	
Parathion (Ethyl parathion)	ug/L	4	3.0	75	70-130	
Phorate	ug/L	4	3.0	75	58-119.3	
4-Chloro3nitrobenzotrifluoride	%			81	34.2-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115231 115232

Parameter	Units	3516696007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dimethoate	ug/L	0.18U	4	4	3.3	3.2	82	80	59.8-116	2	40	
Disulfoton	ug/L	0.15U	4	4	3.3	3.3	82	82	66.9-116	.6	40	
Famphur	ug/L	0.14U	4	4	3.3	3.0	82	74	56.3-133	9	40	
Methyl parathion	ug/L	0.18U	4	4	3.2	3.2	80	79	67.3-119	2	40	
Parathion (Ethyl parathion)	ug/L	0.34U	8	8	6.7	6.5	83	81	70-130	2	40	
Phorate	ug/L	0.35U	8	8	6.3	6.7	79	83	58-119.3	5	40	
4-Chloro3nitrobenzotrifluoride	%						84	87	34.2-122			

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3076 Analysis Method: EPA 8151
QC Batch Method: EPA 8151 Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 115365 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	0.042U	0.19	09/17/10 00:13	
2,4,5-TP (Silvex)	ug/L	0.049U	0.19	09/17/10 00:13	
2,4-D	ug/L	0.22U	0.94	09/17/10 00:13	
Dinoseb	ug/L	0.057U	0.19	09/17/10 00:13	
Pentachlorophenol	ug/L	0.017U	0.028	09/17/10 00:13	
2,4-DCPA (S)	%	86	65.5-125.7	09/17/10 00:13	

LABORATORY CONTROL SAMPLE: 115366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-T	ug/L	1.2	0.89	74	66.7-116.7	
2,4,5-TP (Silvex)	ug/L	1.2	0.97	80	65.6-127.9	
2,4-D	ug/L	6	4.8	80	62-135.6	
Dinoseb	ug/L	1.2	0.79	66	44-111.8	
Pentachlorophenol	ug/L	.18	0.14	75	55.5-114	
2,4-DCPA (S)	%			74	65.5-125.7	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115367 115368

Parameter	Units	3516696008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-T	ug/L	0.040U	2.4	2.4	1.8	1.8	76	74	66.7-116	3	40	
2,4,5-TP (Silvex)	ug/L	0.047U	2.4	2.4	2.1	2.1	89	86	65.6-127	4	40	
2,4-D	ug/L	0.22U	12	12	10.5	10.6	87	89	62-135.6	1	40	
Dinoseb	ug/L	0.055U	2.4	2.4	1.8	1.8	73	75	44-111.8	2	40	
Pentachlorophenol	ug/L	0.016U	.36	.36	0.27	0.25	76	70	55.5-114	7	40	
2,4-DCPA (S)	%						81	84	65.5-125			

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: MPRP/3189 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 120307 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	5.0U	10.0	09/28/10 17:09	
Barium	ug/L	5.0U	10.0	09/28/10 17:09	
Beryllium	ug/L	0.50U	1.0	09/28/10 17:09	
Cadmium	ug/L	0.50U	1.0	09/28/10 17:09	
Chromium	ug/L	2.5U	5.0	09/28/10 17:09	
Cobalt	ug/L	5.0U	10.0	09/28/10 17:09	
Copper	ug/L	2.5U	5.0	09/28/10 17:09	
Iron	ug/L	20.0U	40.0	09/28/10 17:09	
Lead	ug/L	5.0U	10.0	09/28/10 17:09	
Nickel	ug/L	2.5U	5.0	09/28/10 17:09	
Selenium	ug/L	7.5U	15.0	09/28/10 17:09	
Silver	ug/L	2.5U	5.0	09/28/10 17:09	
Sodium	mg/L	0.50U	1.0	09/28/10 17:09	
Tin	ug/L	25.0U	50.0	09/28/10 17:09	
Vanadium	ug/L	5.0U	10.0	09/28/10 17:09	
Zinc	ug/L	10.0U	20.0	09/28/10 17:09	

LABORATORY CONTROL SAMPLE: 120308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	266	106	80-120	
Barium	ug/L	250	267	107	80-120	
Beryllium	ug/L	25	26.6	106	80-120	
Cadmium	ug/L	25	27.3	109	80-120	
Chromium	ug/L	250	272	109	80-120	
Cobalt	ug/L	250	270	108	80-120	
Copper	ug/L	250	257	103	80-120	
Iron	ug/L	2500	2700	108	80-120	
Lead	ug/L	250	266	106	80-120	
Nickel	ug/L	250	270	108	80-120	
Selenium	ug/L	250	255	102	80-120	
Silver	ug/L	25	26.4	106	80-120	
Sodium	mg/L	12.5	12.4	99	80-120	
Tin	ug/L	1250	1330	106	80-120	
Vanadium	ug/L	250	265	106	80-120	
Zinc	ug/L	1250	1330	106	80-120	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 120309 120310

Parameter	Units	3516696008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	5.0U	250	250	267	265	107	106	75-125	.8	20	
Barium	ug/L	13.7	250	250	277	277	105	105	75-125	0	20	
Beryllium	ug/L	0.50U	25	25	26.5	26.5	106	106	75-125	0	20	
Cadmium	ug/L	0.50U	25	25	26.7	27.0	107	108	75-125	1	20	
Chromium	ug/L	2.5U	250	250	270	269	108	107	75-125	.4	20	
Cobalt	ug/L	5.0U	250	250	266	265	106	106	75-125	.4	20	
Copper	ug/L	2.5U	250	250	262	262	105	105	75-125	0	20	
Iron	ug/L	306	2500	2500	3010	3000	108	108	75-125	.3	20	
Lead	ug/L	5.0U	250	250	265	265	106	106	75-125	0	20	
Nickel	ug/L	3.3 I	250	250	267	266	105	105	75-125	.4	20	
Selenium	ug/L	7.5U	250	250	255	252	100	99	75-125	1	20	
Silver	ug/L	2.5U	25	25	27.0	27.0	108	108	75-125	0	20	
Sodium	mg/L	10.4	12.5	12.5	23.6	23.5	106	105	75-125	.4	20	
Tin	ug/L	25.0U	1250	1250	1340	1330	107	106	75-125	.7	20	
Vanadium	ug/L	5.0U	250	250	267	266	106	106	75-125	.4	20	
Zinc	ug/L	10.0U	1250	1250	1310	1310	105	105	75-125	0	20	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: MPRP/3188 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 120303 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	0.50U	1.0	10/19/10 08:49	
Thallium	ug/L	0.50U	1.0	10/19/10 08:49	

LABORATORY CONTROL SAMPLE: 120304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	50	48.9	98	90-110	
Thallium	ug/L	50	48.5	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 120344 120345

Parameter	Units	3516696009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	0.50U	50	50	48.4	48.7	97	97	70-130	.5	20	
Thallium	ug/L	0.50U	50	50	50.6	50.2	101	100	70-130	.6	20	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: MERP/1510 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 117211 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	0.10U	0.20	09/21/10 12:47	

LABORATORY CONTROL SAMPLE: 117212

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2	2.2	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117213 117214

Parameter	Units	3516696007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.10U	2	2	2.3	2.3	114	115	85-115	.7	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117215 117216

Parameter	Units	3516696010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.10U	2	2	2.3	2.2	115	111	85-115	3	20	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: OEXT/3069 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV App II
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 114949 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	0.70U	5.0	09/15/10 16:33	
1,2-Dichlorobenzene	ug/L	0.68U	5.0	09/15/10 16:33	
1,3,5-Trinitrobenzene	ug/L	1.2U	5.0	09/15/10 16:33	
1,3-Dichlorobenzene	ug/L	0.76U	5.0	09/15/10 16:33	
1,3-Dinitrobenzene	ug/L	0.68U	8.0	09/15/10 16:33	
1,4-Dichlorobenzene	ug/L	0.77U	5.0	09/15/10 16:33	
1,4-Naphthoquinone	ug/L	1.2U	5.0	09/15/10 16:33	
1-Naphthylamine	ug/L	1.0U	5.0	09/15/10 16:33	
2,3,4,6-Tetrachlorophenol	ug/L	3.8U	5.0	09/15/10 16:33	
2,4,5-Trichlorophenol	ug/L	0.52U	4.0	09/15/10 16:33	
2,4,6-Trichlorophenol	ug/L	0.69U	2.0	09/15/10 16:33	
2,4-Dichlorophenol	ug/L	0.56U	2.0	09/15/10 16:33	
2,4-Dimethylphenol	ug/L	1.6U	5.0	09/15/10 16:33	
2,4-Dinitrophenol	ug/L	1.6U	20.0	09/15/10 16:33	
2,4-Dinitrotoluene	ug/L	0.53U	2.0	09/15/10 16:33	
2,6-Dichlorophenol	ug/L	0.62U	4.0	09/15/10 16:33	
2,6-Dinitrotoluene	ug/L	1.2U	2.0	09/15/10 16:33	
2-Acetylaminofluorene	ug/L	0.65U	5.0	09/15/10 16:33	
2-Chloronaphthalene	ug/L	0.80U	5.0	09/15/10 16:33	
2-Chlorophenol	ug/L	0.68U	5.0	09/15/10 16:33	
2-Methylnaphthalene	ug/L	0.99U	5.0	09/15/10 16:33	
2-Methylphenol(o-Cresol)	ug/L	0.73U	5.0	09/15/10 16:33	
2-Naphthylamine	ug/L	2.3U	5.0	09/15/10 16:33	
2-Nitroaniline	ug/L	0.60U	5.0	09/15/10 16:33	
2-Nitrophenol	ug/L	0.81U	5.0	09/15/10 16:33	
3&4-Methylphenol(m&p Cresol)	ug/L	0.66U	10.0	09/15/10 16:33	
3,3'-Dichlorobenzidine	ug/L	0.69U	10.0	09/15/10 16:33	
3,3'-Dimethylbenzidine	ug/L	3.1U	10.0	09/15/10 16:33	
3-Methylcholanthrene	ug/L	1.0U	5.0	09/15/10 16:33	
3-Nitroaniline	ug/L	0.99U	5.0	09/15/10 16:33	
4,6-Dinitro-2-methylphenol	ug/L	1.3U	20.0	09/15/10 16:33	
4-Aminobiphenyl	ug/L	2.8U	5.0	09/15/10 16:33	
4-Bromophenylphenyl ether	ug/L	0.67U	5.0	09/15/10 16:33	
4-Chloro-3-methylphenol	ug/L	0.62U	20.0	09/15/10 16:33	
4-Chloroaniline	ug/L	1.2U	5.0	09/15/10 16:33	
4-Chlorophenylphenyl ether	ug/L	0.63U	5.0	09/15/10 16:33	
4-Nitroaniline	ug/L	0.69U	4.0	09/15/10 16:33	
4-Nitrophenol	ug/L	1.1U	20.0	09/15/10 16:33	
5-Nitro-o-toluidine	ug/L	1.3U	5.0	09/15/10 16:33	
7,12-Dimethylbenz(a)anthracene	ug/L	2.0U	5.0	09/15/10 16:33	
Acenaphthene	ug/L	0.86U	5.0	09/15/10 16:33	
Acenaphthylene	ug/L	0.95U	5.0	09/15/10 16:33	
Acetophenone	ug/L	1.4U	5.0	09/15/10 16:33	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

METHOD BLANK: 114949 Matrix: Water

Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Anthracene	ug/L	0.60U	5.0	09/15/10 16:33	
Benzo(a)anthracene	ug/L	0.63U	5.0	09/15/10 16:33	
Benzo(a)pyrene	ug/L	0.58U	1.0	09/15/10 16:33	
Benzo(b)fluoranthene	ug/L	0.62U	2.0	09/15/10 16:33	
Benzo(g,h,i)perylene	ug/L	0.68U	5.0	09/15/10 16:33	
Benzo(k)fluoranthene	ug/L	0.51U	4.0	09/15/10 16:33	
Benzyl alcohol	ug/L	1.0U	5.0	09/15/10 16:33	
bis(2-Chloroethoxy)methane	ug/L	3.0U	5.0	09/15/10 16:33	
bis(2-Chloroethyl) ether	ug/L	0.75U	4.0	09/15/10 16:33	
bis(2-Chloroisopropyl) ether	ug/L	0.73U	5.0	09/15/10 16:33	
bis(2-Ethylhexyl)phthalate	ug/L	0.80U	5.0	09/15/10 16:33	
Butylbenzylphthalate	ug/L	0.72U	5.0	09/15/10 16:33	
Chrysene	ug/L	0.37U	5.0	09/15/10 16:33	
Di-n-butylphthalate	ug/L	0.41U	5.0	09/15/10 16:33	
Di-n-octylphthalate	ug/L	0.90U	5.0	09/15/10 16:33	
Diallate	ug/L	0.73U	5.0	09/15/10 16:33	
Dibenz(a,h)anthracene	ug/L	0.65U	2.0	09/15/10 16:33	
Dibenzofuran	ug/L	0.67U	5.0	09/15/10 16:33	
Diethylphthalate	ug/L	0.51U	5.0	09/15/10 16:33	
Dimethylphthalate	ug/L	0.64U	5.0	09/15/10 16:33	
Ethyl methanesulfonate	ug/L	0.90U	5.0	09/15/10 16:33	
Fluoranthene	ug/L	0.54U	5.0	09/15/10 16:33	
Fluorene	ug/L	0.56U	5.0	09/15/10 16:33	
Hexachlorobenzene	ug/L	0.80U	1.0	09/15/10 16:33	
Hexachlorocyclopentadiene	ug/L	1.3U	5.0	09/15/10 16:33	
Hexachloroethane	ug/L	0.71U	5.0	09/15/10 16:33	
Hexachloropropene	ug/L	1.4U	5.0	09/15/10 16:33	
Indeno(1,2,3-cd)pyrene	ug/L	0.73U	2.0	09/15/10 16:33	
Isodrin	ug/L	0.54U	5.0	09/15/10 16:33	
Isophorone	ug/L	0.73U	5.0	09/15/10 16:33	
Isosafrole	ug/L	0.60U	5.0	09/15/10 16:33	
Kepone	ug/L	10.0U	20.0	09/15/10 16:33	
Methapyrilene	ug/L	1.6U	5.0	09/15/10 16:33	
Methyl methanesulfonate	ug/L	1.0U	5.0	09/15/10 16:33	
N-Nitroso-di-n-butylamine	ug/L	0.55U	4.0	09/15/10 16:33	
N-Nitroso-di-n-propylamine	ug/L	0.94U	4.0	09/15/10 16:33	
N-Nitrosodiethylamine	ug/L	0.73U	4.0	09/15/10 16:33	
N-Nitrosodimethylamine	ug/L	0.97U	2.0	09/15/10 16:33	
N-Nitrosodiphenylamine	ug/L	0.50U	5.0	09/15/10 16:33	
N-Nitrosomethylethylamine	ug/L	0.74U	5.0	09/15/10 16:33	
N-Nitrosopiperidine	ug/L	0.64U	5.0	09/15/10 16:33	
N-Nitrosopyrrolidine	ug/L	0.88U	5.0	09/15/10 16:33	
Naphthalene	ug/L	0.78U	5.0	09/15/10 16:33	
Nitrobenzene	ug/L	1.1U	4.0	09/15/10 16:33	
O,O,O-Triethylphosphorothioate	ug/L	0.69U	5.0	09/15/10 16:33	
O-Toluidine	ug/L	1.1U	5.0	09/15/10 16:33	
P-Dimethylaminoazobenzene	ug/L	0.67U	5.0	09/15/10 16:33	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

METHOD BLANK: 114949 Matrix: Water

Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
p-Phenylenediamine	ug/L	10.0U	20.0	09/15/10 16:33	
Pentachlorobenzene	ug/L	0.78U	5.0	09/15/10 16:33	
Phenacetin	ug/L	0.53U	5.0	09/15/10 16:33	
Phenanthrene	ug/L	0.52U	5.0	09/15/10 16:33	
Phenol	ug/L	0.54U	5.0	09/15/10 16:33	
Pronamide	ug/L	1.1U	5.0	09/15/10 16:33	
Pyrene	ug/L	0.68U	5.0	09/15/10 16:33	
Safrole	ug/L	2.9 I	5.0	09/15/10 16:33	
Thionazin	ug/L	0.61U	5.0	09/15/10 16:33	
2,4,6-Tribromophenol (S)	%	60	10-110	09/15/10 16:33	
2-Fluorobiphenyl (S)	%	64	18-110	09/15/10 16:33	
2-Fluorophenol (S)	%	37	18-110	09/15/10 16:33	
Nitrobenzene-d5 (S)	%	59	10-110	09/15/10 16:33	
Phenol-d6 (S)	%	24	10-110	09/15/10 16:33	
Terphenyl-d14 (S)	%	77	10-123	09/15/10 16:33	

LABORATORY CONTROL SAMPLE: 114950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4,5-Tetrachlorobenzene	ug/L	50	34.2	68	10-146.9	
1,2-Dichlorobenzene	ug/L	50	30.2	60	23.5-105.7	
1,3,5-Trinitrobenzene	ug/L	50	41.9	84	41.4-102.4	
1,3-Dichlorobenzene	ug/L	50	29.7	59	25.5-94.5	
1,3-Dinitrobenzene	ug/L	50	38.4	77	45.3-116.4	
1,4-Dichlorobenzene	ug/L	50	29.7	59	33.2-90.7	
1,4-Naphthoquinone	ug/L	50	46.3	93	39.3-113.3	
1-Naphthylamine	ug/L	50	45.6	91	37.1-90.4	L3
2,3,4,6-Tetrachlorophenol	ug/L	50	36.8	74	14.3-115.3	
2,4,5-Trichlorophenol	ug/L	50	37.0	74	10-121.3	
2,4,6-Trichlorophenol	ug/L	50	38.2	76	40.3-101.7	
2,4-Dichlorophenol	ug/L	50	35.2	70	35.8-108.5	
2,4-Dimethylphenol	ug/L	50	36.6	73	25-104.5	
2,4-Dinitrophenol	ug/L	50	30.2	60	10-147.1	
2,4-Dinitrotoluene	ug/L	50	38.1	76	47.9-113.6	
2,6-Dichlorophenol	ug/L	50	36.4	73	41.1-101.8	
2,6-Dinitrotoluene	ug/L	50	38.6	77	44.6-111.5	
2-Acetylaminofluorene	ug/L	50	40.8	82	58.3-112.7	
2-Chloronaphthalene	ug/L	50	36.7	73	41.2-101.2	
2-Chlorophenol	ug/L	50	30.9	62	32.1-96.5	
2-Methylnaphthalene	ug/L	50	32.6	65	40-93.6	
2-Methylphenol(o-Cresol)	ug/L	50	33.2	66	36.7-95.1	
2-Naphthylamine	ug/L	50	37.9	76	42.4-98.8	
2-Nitroaniline	ug/L	50	37.8	76	59-103.2	
2-Nitrophenol	ug/L	50	34.4	69	38.4-108.9	
3&4-Methylphenol(m&p Cresol)	ug/L	50	29.4	59	35.2-94.3	

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Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

LABORATORY CONTROL SAMPLE: 114950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3'-Dichlorobenzidine	ug/L	50	40.7	81	30.7-106	
3,3'-Dimethylbenzidine	ug/L	50	40.4	81	10-160.1	
3-Methylcholanthrene	ug/L	50	34.3	69	15.5-121.4	
3-Nitroaniline	ug/L	50	38.9	78	25.3-131.5	
4,6-Dinitro-2-methylphenol	ug/L	50	36.5	73	35.2-130.5	
4-Aminobiphenyl	ug/L	50	47.8	96	50.8-112.6	
4-Bromophenylphenyl ether	ug/L	50	39.3	79	51.9-110.4	
4-Chloro-3-methylphenol	ug/L	50	38.6	77	19.4-128.8	
4-Chloroaniline	ug/L	50	35.0	70	30.1-108.4	
4-Chlorophenylphenyl ether	ug/L	50	38.7	77	49.7-91.5	
4-Nitroaniline	ug/L	50	38.1	76	48.1-112.2	
4-Nitrophenol	ug/L	50	19.7 I	39	10-121.8	
5-Nitro-o-toluidine	ug/L	50	40.5	81	43-113	
7,12-Dimethylbenz(a)anthracene	ug/L	50	36.3	73	52.5-108.6	
Acenaphthene	ug/L	50	39.3	79	50.3-98.3	
Acenaphthylene	ug/L	50	39.0	78	49-98.1	
Acetophenone	ug/L	50	37.5	75	40.6-94.3	
Anthracene	ug/L	50	41.7	83	55-112.5	
Benzo(a)anthracene	ug/L	50	39.7	79	10-150.1	
Benzo(a)pyrene	ug/L	50	36.4	73	59.7-108.4	
Benzo(b)fluoranthene	ug/L	50	36.3	73	58.4-111.8	
Benzo(g,h,i)perylene	ug/L	50	36.4	73	57.6-115.1	
Benzo(k)fluoranthene	ug/L	50	39.8	80	57.6-112.4	
Benzyl alcohol	ug/L	50	32.0	64	26.1-118	
bis(2-Chloroethoxy)methane	ug/L	50	37.0	74	41.2-96.2	
bis(2-Chloroethyl) ether	ug/L	50	32.0	64	35.3-99.5	
bis(2-Chloroisopropyl) ether	ug/L	50	32.0	64	36.3-91	
bis(2-Ethylhexyl)phthalate	ug/L	50	38.2	76	43.1-118.3	
Butylbenzylphthalate	ug/L	50	40.5	81	57.5-118.2	
Chrysene	ug/L	50	38.0	76	42.4-113.9	
Di-n-butylphthalate	ug/L	50	41.4	83	22.2-139.3	
Di-n-octylphthalate	ug/L	50	38.2	76	57.4-116.9	
Diallate	ug/L	50	39.2	78	44.3-111.7	
Dibenz(a,h)anthracene	ug/L	50	36.4	73	59.1-111.8	
Dibenzofuran	ug/L	50	39.1	78	45.3-108.3	
Diethylphthalate	ug/L	50	39.6	79	51.1-107.5	
Dimethylphthalate	ug/L	50	39.9	80	47.4-110.6	
Ethyl methanesulfonate	ug/L	50	35.5	71	35.9-103.6	
Fluoranthene	ug/L	50	37.9	76	48.2-118.6	
Fluorene	ug/L	50	40.6	81	44.7-106.4	
Hexachlorobenzene	ug/L	50	40.3	81	54-113.2	
Hexachlorocyclopentadiene	ug/L	50	32.5	65	16.5-105.1	
Hexachloroethane	ug/L	50	29.5	59	10-102	
Hexachloropropene	ug/L	50	30.4	61	29.1-84.2	
Indeno(1,2,3-cd)pyrene	ug/L	50	36.3	73	33.7-120.7	
Isodrin	ug/L	50	40.0	80	32.4-130.4	
Isophorone	ug/L	50	35.8	72	42.5-107.7	
Isosafrole	ug/L	50	36.5	73	45.8-99.3	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

LABORATORY CONTROL SAMPLE: 114950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methapyrilene	ug/L	50	40.9	82	17.8-119.5	
Methyl methanesulfonate	ug/L	50	29.5	59	10-107	
N-Nitroso-di-n-butylamine	ug/L	50	44.5	89	15.2-107.9	
N-Nitroso-di-n-propylamine	ug/L	50	38.9	78	19.1-111.6	
N-Nitrosodiethylamine	ug/L	50	36.5	73	10-130.6	
N-Nitrosodimethylamine	ug/L	50	21.5	43	10-132	
N-Nitrosodiphenylamine	ug/L	50	41.3	83	37-104.4	
N-Nitrosomethylethylamine	ug/L	50	33.4	67	10-135	
N-Nitrosopiperidine	ug/L	50	36.9	74	43.3-96.3	
N-Nitrosopyrrolidine	ug/L	50	41.8	84	43.1-97.2	
Naphthalene	ug/L	50	33.1	66	40.1-85.7	
Nitrobenzene	ug/L	50	33.5	67	32.9-115.9	
O,O,O-Triethylphosphorothioate	ug/L	50	35.3	71	48.5-99.9	
O-Toluidine	ug/L	50	33.7	67	21.2-134.1	
P-Dimethylaminoazobenzene	ug/L	50	44.3	89	44.6-142.5	
Pentachlorobenzene	ug/L	50	37.3	75	37.5-128.1	
Phenacetin	ug/L	50	40.5	81	19.3-143.2	
Phenanthrene	ug/L	50	39.6	79	49.2-124.2	
Phenol	ug/L	50	14.9	30	10-158.5	
Pronamide	ug/L	50	45.5	91	10-128.9	
Pyrene	ug/L	50	39.9	80	10-150.1	
Safrole	ug/L	50	35.0	70	10-135.9	
Thionazin	ug/L	50	41.9	84	45-105.7	
2,4,6-Tribromophenol (S)	%			74	10-110	
2-Fluorobiphenyl (S)	%			69	18-110	
2-Fluorophenol (S)	%			36	18-110	
Nitrobenzene-d5 (S)	%			73	10-110	
Phenol-d6 (S)	%			29	10-110	
Terphenyl-d14 (S)	%			77	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 114951 114952

Parameter	Units	3517703002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4,5-Tetrachlorobenzene	ug/L	0.66U	100	100	55.2	54.7	55	55	10-146.9	.8	40	
1,2-Dichlorobenzene	ug/L	0.64U	100	100	45.8	47.6	46	47	23.5-105	4	40	
1,3,5-Trinitrobenzene	ug/L	1.2U	100	100	75.8	68.0	76	68	41.4-102	11	40	
1,3-Dichlorobenzene	ug/L	0.72U	100	100	44.1	45.0	44	45	25.5-94.	2	40	
1,3-Dinitrobenzene	ug/L	0.64U	100	100	67.3	61.4	67	61	45.3-116	9	40	
1,4-Dichlorobenzene	ug/L	0.73U	100	100	45.2	46.9	45	47	33.2-90.	4	40	
1,4-Naphthoquinone	ug/L	1.1U	100	100	75.9	70.8	76	71	39.3-113	7	40	
1-Naphthylamine	ug/L	0.97U	100	100	89.1	83.1	89	83	37.1-90.	7	40	
2,3,4,6-Tetrachlorophenol	ug/L	3.6U	100	100	66.0	60.0	66	60	14.3-115	9	40	
2,4,5-Trichlorophenol	ug/L	0.49U	100	100	63.8	60.5	64	61	10-121.3	5	40	
2,4,6-Trichlorophenol	ug/L	0.65U	100	100	63.6	59.2	64	59	40.3-101	7	40	
2,4-Dichlorophenol	ug/L	2.2	100	100	61.8	60.0	60	58	35.8-108	3	40	
2,4-Dimethylphenol	ug/L	1.5U	100	100	65.2	63.7	65	64	25-104.5	2	40	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 114951 114952

Parameter	Units	3517703002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-Dinitrophenol	ug/L	1.5U	100	100	24.8 I	20.5 I	25	20	10-147.1		40	
2,4-Dinitrotoluene	ug/L	0.50U	100	100	66.4	61.7	66	62	47.9-113	7	40	
2,6-Dichlorophenol	ug/L	1.4 I	100	100	63.0	59.9	62	58	41.1-101	5	40	
2,6-Dinitrotoluene	ug/L	1.2U	100	100	65.1	60.0	65	60	44.6-111	8	40	
2-Acetylaminofluorene	ug/L	0.61U	100	100	76.4	66.4	76	66	58.3-112	14	40	
2-Chloronaphthalene	ug/L	0.75U	100	100	59.4	57.1	59	57	41.2-101	4	40	
2-Chlorophenol	ug/L	0.64U	100	100	54.3	52.3	54	52	32.1-96.	4	40	
2-Methylnaphthalene	ug/L	0.93U	100	100	53.8	52.6	54	52	40-93.6	2	40	
2-Methylphenol(o-Cresol)	ug/L	0.69U	100	100	62.2	60.1	62	60	36.7-95.	3	40	
2-Naphthylamine	ug/L	2.1U	100	100	71.9	67.1	72	67	42.4-98.	7	40	
2-Nitroaniline	ug/L	0.57U	100	100	67.3	61.5	67	61	59-103.2	9	40	
2-Nitrophenol	ug/L	0.76U	100	100	57.7	59.4	58	59	38.4-108	3	40	
3&4-Methylphenol(m&p Cresol)	ug/L	0.62U	100	100	59.0	56.7	59	56	35.2-94.	4	40	
3,3'-Dichlorobenzidine	ug/L	0.65U	100	100	67.8	64.4	68	64	30.7-106	5	40	
3,3'-Dimethylbenzidine	ug/L	3.0U	100	100	92.2	88.1	92	88	10-160.1	5	40	
3-Methylcholanthrene	ug/L	0.98U	100	100	64.2	58.7	64	59	15.5-121	9	40	
3-Nitroaniline	ug/L	0.93U	100	100	70.8	67.4	71	67	25.3-131	5	40	
4,6-Dinitro-2-methylphenol	ug/L	1.2U	100	100	60.4	50.3	60	50	35.2-130	18	40	
4-Aminobiphenyl	ug/L	2.7U	100	100	89.9	82.2	90	82	50.8-112	9	40	
4-Bromophenylphenyl ether	ug/L	0.63U	100	100	68.1	61.4	68	61	51.9-110	10	40	
4-Chloro-3-methylphenol	ug/L	0.58U	100	100	71.7	65.4	72	65	19.4-128	9	40	
4-Chloroaniline	ug/L	1.1U	100	100	61.4	59.0	61	59	30.1-108	4	40	
4-Chlorophenylphenyl ether	ug/L	0.59U	100	100	63.5	61.0	63	61	49.7-91.	4	40	
4-Nitroaniline	ug/L	0.65U	100	100	70.1	61.6	70	62	48.1-112	13	40	
4-Nitrophenol	ug/L	1.0U	100	100	50.2	39.7 I	50	40	10-121.8		40	
5-Nitro-o-toluidine	ug/L	1.2U	100	100	74.2	65.5	74	66	43-113	12	40	
7,12-Dimethylbenz(a)anthracene	ug/L	1.8U	100	100	68.1	61.5	68	62	52.5-108	10	40	
Acenaphthene	ug/L	0.81U	100	100	62.0	56.6	62	57	50.3-98.	9	40	
Acenaphthylene	ug/L	0.90U	100	100	64.8	61.4	65	61	49-98.1	5	40	
Acetophenone	ug/L	1.4U	100	100	63.2	60.1	63	60	40.6-94.	5	40	
Anthracene	ug/L	0.57U	100	100	74.0	65.9	74	66	55-112.5	12	40	
Benzo(a)anthracene	ug/L	0.59U	100	100	70.6	65.0	71	65	10-150.1	8	40	
Benzo(a)pyrene	ug/L	0.55U	100	100	67.3	61.4	67	61	59.7-108	9	40	
Benzo(b)fluoranthene	ug/L	0.58U	100	100	67.6	62.1	68	62	58.4-111	8	40	
Benzo(g,h,i)perylene	ug/L	0.64U	100	100	65.0	60.0	65	60	57.6-115	8	40	
Benzo(k)fluoranthene	ug/L	0.48U	100	100	72.0	63.7	72	64	57.6-112	12	40	
Benzyl alcohol	ug/L	0.96U	100	100	64.2	61.6	64	61	26.1-118	4	40	
bis(2-Chloroethoxy)methane	ug/L	2.8U	100	100	65.4	59.9	65	60	41.2-96.	9	40	
bis(2-Chloroethyl) ether	ug/L	0.71U	100	100	56.3	53.9	56	54	35.3-99.	4	40	
bis(2-Chloroisopropyl) ether	ug/L	0.69U	100	100	52.8	52.1	53	52	36.3-91	1	40	
bis(2-Ethylhexyl)phthalate	ug/L	0.75U	100	100	68.3	63.8	68	64	43.1-118	7	40	
Butylbenzylphthalate	ug/L	0.68U	100	100	72.6	67.8	73	68	57.5-118	7	40	
Chrysene	ug/L	0.35U	100	100	68.4	61.8	68	62	42.4-113	10	40	
Di-n-butylphthalate	ug/L	0.52 I	100	100	74.9	64.5	74	64	22.2-139	15	40	
Di-n-octylphthalate	ug/L	0.85U	100	100	67.5	62.5	67	63	57.4-116	8	40	
Diallate	ug/L	0.69U	100	100	77.7	69.2	78	69	44.3-111	11	40	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 114951 114952

Parameter	Units	3517703002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dibenz(a,h)anthracene	ug/L	0.61U	100	100	64.4	59.1	64	59	59.1-111	9	40	J(M1)
Dibenzofuran	ug/L	0.63U	100	100	64.9	63.3	65	63	45.3-108	2	40	
Diethylphthalate	ug/L	0.48U	100	100	73.3	65.7	73	66	51.1-107	11	40	
Dimethylphthalate	ug/L	0.60U	100	100	70.1	62.7	70	63	47.4-110	11	40	
Ethyl methanesulfonate	ug/L	0.85U	100	100	63.1	59.3	63	59	35.9-103	6	40	
Fluoranthene	ug/L	0.51U	100	100	70.4	62.2	70	62	48.2-118	12	40	
Fluorene	ug/L	0.53U	100	100	73.6	66.9	74	67	44.7-106	10	40	
Hexachlorobenzene	ug/L	0.75U	100	100	68.1	62.5	68	63	54-113.2	9	40	
Hexachlorocyclopentadiene	ug/L	1.2U	100	100	44.9	47.5	45	48	16.5-105	6	40	
Hexachloroethane	ug/L	0.67U	100	100	43.1	45.5	43	45	10-102	5	40	
Hexachloropropene	ug/L	1.3U	100	100	44.1	47.5	44	48	29.1-84.	7	40	
Indeno(1,2,3-cd)pyrene	ug/L	0.69U	100	100	63.8	60.7	64	61	33.7-120	5	40	
Isodrin	ug/L	0.51U	100	100	72.0	63.1	72	63	32.4-130	13	40	
Isophorone	ug/L	0.69U	100	100	66.0	63.2	66	63	42.5-107	4	40	
Isosafrole	ug/L	0.57U	100	100	59.1	59.8	59	60	45.8-99.	1	40	
Methapyrilene	ug/L	1.6U	100	100	86.9	74.8	87	75	17.8-119	15	40	
Methyl methanesulfonate	ug/L	0.94U	100	100	60.8	58.5	61	58	10-107	4	40	
N-Nitroso-di-n-butylamine	ug/L	0.52U	100	100	79.4	73.3	79	73	15.2-107	8	40	
N-Nitroso-di-n-propylamine	ug/L	0.89U	100	100	66.3	64.0	66	64	19.1-111	3	40	
N-Nitrosodiethylamine	ug/L	0.69U	100	100	63.7	61.5	64	61	10-130.6	3	40	
N-Nitrosodimethylamine	ug/L	0.92U	100	100	49.4	47.2	49	47	10-132	4	40	
N-Nitrosodiphenylamine	ug/L	0.47U	100	100	71.5	63.4	71	63	37-104.4	12	40	
N-Nitrosomethylethylamine	ug/L	0.70U	100	100	61.3	58.4	61	58	10-135	5	40	
N-Nitrosopiperidine	ug/L	0.60U	100	100	63.8	61.5	64	61	43.3-96.	4	40	
N-Nitrosopyrrolidine	ug/L	0.83U	100	100	76.4	75.1	76	75	43.1-97.	2	40	
Naphthalene	ug/L	0.74U	100	100	53.2	53.2	53	53	40.1-85.	.03	40	
Nitrobenzene	ug/L	1.0U	100	100	59.7	55.9	60	56	32.9-115	7	40	
O,O,O-Triethylphosphorothioate	ug/L	0.65U	100	100	55.0	54.3	55	54	48.5-99.	1	40	
O-Toluidine	ug/L	1.0U	100	100	60.5	58.1	60	58	21.2-134	4	40	
P-Dimethylaminoazobenzene	ug/L	0.63U	100	100	86.0	74.3	86	74	44.6-142	15	40	
Pentachlorobenzene	ug/L	0.74U	100	100	66.1	59.4	66	59	37.5-128	11	40	
Phenacetin	ug/L	0.50U	100	100	81.4	68.5	81	69	19.3-143	17	40	
Phenanthrene	ug/L	0.49U	100	100	73.4	64.7	73	65	49.2-124	13	40	
Phenol	ug/L	0.51U	100	100	43.3	40.8	43	40	10-158.5	6	40	
Pronamide	ug/L	1.1U	100	100	80.8	71.2	81	71	10-128.9	13	40	
Pyrene	ug/L	0.64U	100	100	68.4	64.9	68	65	10-150.1	5	40	
Safrole	ug/L	2.8 I	100	100	59.4	58.4	57	56	10-135.9	2	40	
Thionazin	ug/L	0.58U	100	100	73.7	66.3	74	66	45-105.7	11	40	
2,4,6-Tribromophenol (S)	%						64	56	10-110			
2-Fluorobiphenyl (S)	%						58	57	18-110			
2-Fluorophenol (S)	%						42	39	18-110			
Nitrobenzene-d5 (S)	%						63	60	10-110			
Phenol-d6 (S)	%						41	38	10-110			
Terphenyl-d14 (S)	%						68	62	10-123			

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Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: MSV/2118 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010, 3516696011

METHOD BLANK: 116337 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010, 3516696011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
1,1,1-Trichloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
1,1,2,2-Tetrachloroethane	ug/L	0.18U	0.50	09/18/10 02:36	
1,1,2-Trichloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
1,1-Dichloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
1,1-Dichloroethene	ug/L	0.50U	1.0	09/18/10 02:36	
1,1-Dichloropropene	ug/L	0.50U	1.0	09/18/10 02:36	
1,2,3-Trichloropropane	ug/L	0.36U	0.50	09/18/10 02:36	
1,2,4-Trichlorobenzene	ug/L	0.50U	1.0	09/18/10 02:36	
1,2-Dichloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
1,2-Dichloropropane	ug/L	0.50U	1.0	09/18/10 02:36	
1,3-Dichloropropane	ug/L	0.50U	1.0	09/18/10 02:36	
2,2-Dichloropropane	ug/L	0.50U	1.0	09/18/10 02:36	
2-Butanone (MEK)	ug/L	5.0U	10.0	09/18/10 02:36	
2-Chloroethylvinyl ether	ug/L	0.50U	1.0	09/18/10 02:36	
2-Hexanone	ug/L	5.0U	10.0	09/18/10 02:36	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	10.0	09/18/10 02:36	
Acetone	ug/L	5.0U	10.0	09/18/10 02:36	
Acetonitrile	ug/L	5.0U	10.0	09/18/10 02:36	
Acrolein	ug/L	10.0U	20.0	09/18/10 02:36	
Acrylonitrile	ug/L	5.0U	10.0	09/18/10 02:36	
Allyl chloride	ug/L	0.50U	1.0	09/18/10 02:36	
Benzene	ug/L	0.50U	1.0	09/18/10 02:36	
Bromochloromethane	ug/L	0.50U	1.0	09/18/10 02:36	
Bromodichloromethane	ug/L	0.27U	0.60	09/18/10 02:36	
Bromoform	ug/L	0.50U	1.0	09/18/10 02:36	
Bromomethane	ug/L	0.50U	1.0	09/18/10 02:36	
Carbon disulfide	ug/L	0.53 I	1.0	09/18/10 02:36	
Carbon tetrachloride	ug/L	0.50U	1.0	09/18/10 02:36	
Chlorobenzene	ug/L	0.50U	1.0	09/18/10 02:36	
Chloroethane	ug/L	0.50U	1.0	09/18/10 02:36	
Chloroform	ug/L	0.50U	1.0	09/18/10 02:36	
Chloromethane	ug/L	0.62U	1.0	09/18/10 02:36	
Chloroprene	ug/L	0.50U	1.0	09/18/10 02:36	
cis-1,2-Dichloroethene	ug/L	0.50U	1.0	09/18/10 02:36	
cis-1,3-Dichloropropene	ug/L	0.25U	0.50	09/18/10 02:36	
Dibromochloromethane	ug/L	0.26U	0.50	09/18/10 02:36	
Dibromomethane	ug/L	0.50U	1.0	09/18/10 02:36	
Dichlorodifluoromethane	ug/L	0.50U	1.0	09/18/10 02:36	
Ethyl methacrylate	ug/L	0.50U	1.0	09/18/10 02:36	
Ethylbenzene	ug/L	0.50U	1.0	09/18/10 02:36	
Hexachloro-1,3-butadiene	ug/L	0.50U	1.0	09/18/10 02:36	
Iodomethane	ug/L	0.50U	1.0	09/18/10 02:36	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

METHOD BLANK: 116337 Matrix: Water

Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010, 3516696011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isobutyl Alcohol	ug/L	10.0U	20.0	09/18/10 02:36	
Methacrylonitrile	ug/L	5.0U	10.0	09/18/10 02:36	
Methyl methacrylate	ug/L	5.0U	10.0	09/18/10 02:36	
Methyl-tert-butyl ether	ug/L	0.50U	1.0	09/18/10 02:36	
Methylene Chloride	ug/L	2.5U	5.0	09/18/10 02:36	
Propionitrile	ug/L	5.0U	10.0	09/18/10 02:36	
Styrene	ug/L	0.50U	1.0	09/18/10 02:36	
Tetrachloroethene	ug/L	0.50U	1.0	09/18/10 02:36	
Toluene	ug/L	0.50U	1.0	09/18/10 02:36	
trans-1,2-Dichloroethene	ug/L	0.50U	1.0	09/18/10 02:36	
trans-1,3-Dichloropropene	ug/L	0.25U	0.50	09/18/10 02:36	
trans-1,4-Dichloro-2-butene	ug/L	5.0U	10.0	09/18/10 02:36	
Trichloroethene	ug/L	0.50U	1.0	09/18/10 02:36	
Trichlorofluoromethane	ug/L	0.50U	1.0	09/18/10 02:36	
Vinyl acetate	ug/L	1.0U	2.0	09/18/10 02:36	
Vinyl chloride	ug/L	0.50U	1.0	09/18/10 02:36	
Xylene (Total)	ug/L	0.50U	1.0	09/18/10 02:36	
1,2-Dichloroethane-d4 (S)	%	97	86-125	09/18/10 02:36	
4-Bromofluorobenzene (S)	%	100	70-114	09/18/10 02:36	
Dibromofluoromethane (S)	%	98	88-117	09/18/10 02:36	
Toluene-d8 (S)	%	103	87-113	09/18/10 02:36	

LABORATORY CONTROL SAMPLE: 116338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.1	96	76.8-126.8	
1,1,1-Trichloroethane	ug/L	20	20.0	100	81.9-126.8	
1,1,2,2-Tetrachloroethane	ug/L	20	19.9	100	70.5-131.7	
1,1,2-Trichloroethane	ug/L	20	19.1	95	84.1-122.6	
1,1-Dichloroethane	ug/L	20	20.2	101	66.4-138.6	
1,1-Dichloroethene	ug/L	20	21.2	106	79.3-127.5	
1,1-Dichloropropene	ug/L	20	22.3	111	70.4-138.4	
1,2,3-Trichloropropane	ug/L	20	17.9	89	58.2-134.6	
1,2,4-Trichlorobenzene	ug/L	20	20.8	104	79.1-134.1	
1,2-Dichloroethane	ug/L	20	21.0	105	85.9-121.9	
1,2-Dichloropropane	ug/L	20	21.0	105	82.2-129.1	
1,3-Dichloropropane	ug/L	20	19.7	98	88.1-118.2	
2,2-Dichloropropane	ug/L	20	18.3	92	44-181.7	
2-Butanone (MEK)	ug/L	20	19.4	97	53.8-156.3	
2-Chloroethylvinyl ether	ug/L	20	21.1	106	35.6-148.9	
2-Hexanone	ug/L	20	17.8	89	57.5-155.8	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.2	91	71.8-134.4	
Acetone	ug/L	20	21.9	110	47.2-184.1	
Acetonitrile	ug/L	200	201	101	65.2-133.1	
Acrolein	ug/L	200	233	116	41.8-131.7	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

LABORATORY CONTROL SAMPLE: 116338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acrylonitrile	ug/L	200	218	109	57.8-125.9	
Allyl chloride	ug/L	20	19.4	97	23.6-190.7	
Benzene	ug/L	20	22.5	113	77.3-132.8	
Bromochloromethane	ug/L	20	21.5	108	87.4-122.8	
Bromodichloromethane	ug/L	20	21.1	105	77.2-121.1	
Bromoform	ug/L	20	17.8	89	65.9-133.5	
Bromomethane	ug/L	20	23.3	116	48.2-223.9	
Carbon disulfide	ug/L	20	20.9	105	20.3-195.4	
Carbon tetrachloride	ug/L	20	19.3	96	69-155.5	
Chlorobenzene	ug/L	20	20.3	101	76.9-123.9	
Chloroethane	ug/L	20	24.1	120	46.7-157.8	
Chloroform	ug/L	20	20.5	103	69.7-132	
Chloromethane	ug/L	20	20.6	103	54.4-153.8	
Chloroprene	ug/L	20	20.0	100	31-185.4	
cis-1,2-Dichloroethene	ug/L	20	20.1	101	84-127.9	
cis-1,3-Dichloropropene	ug/L	20	20.6	103	73-121.6	
Dibromochloromethane	ug/L	20	18.6	93	65.4-126.2	
Dibromomethane	ug/L	20	21.7	109	85.3-121.7	
Dichlorodifluoromethane	ug/L	20	20.6	103	63.1-143.7	
Ethyl methacrylate	ug/L	20	19.1	95	34.3-179.4	
Ethylbenzene	ug/L	20	21.6	108	66.4-134.4	
Hexachloro-1,3-butadiene	ug/L	20	20.7	104	74.4-153.6	
Iodomethane	ug/L	20	19.6	98	1-243.3	
Isobutyl Alcohol	ug/L	400	374	93	62.9-136.1	
Methacrylonitrile	ug/L	200	202	101	77.3-132.6	
Methyl methacrylate	ug/L	20	21.4	107	37.4-178.3	
Methyl-tert-butyl ether	ug/L	20	20.6	103	66.3-136.8	
Methylene Chloride	ug/L	20	18.7	93	65.7-137.3	
Propionitrile	ug/L	200	196	98	71-130.3	
Styrene	ug/L	20	21.6	108	76.5-118.5	
Tetrachloroethene	ug/L	20	19.3	96	71-134	
Toluene	ug/L	20	20.9	105	75-129	
trans-1,2-Dichloroethene	ug/L	20	21.2	106	83.3-126.3	
trans-1,3-Dichloropropene	ug/L	20	17.6	88	67.6-130	
trans-1,4-Dichloro-2-butene	ug/L	20	16.2	81	36.1-177.4	
Trichloroethene	ug/L	20	22.3	111	81.1-122.4	
Trichlorofluoromethane	ug/L	20	20.5	102	75.4-124.6	
Vinyl acetate	ug/L	20	19.0	95	72.2-139	
Vinyl chloride	ug/L	20	23.2	116	70.2-136.9	
Xylene (Total)	ug/L	60	66.5	111	82.3-126	
1,2-Dichloroethane-d4 (S)	%			97	86-125	
4-Bromofluorobenzene (S)	%			106	70-114	
Dibromofluoromethane (S)	%			104	88-117	
Toluene-d8 (S)	%			108	87-113	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116339 116340

Parameter	Units	3517868003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	0.50U	20	20	18.9	18.7	95	94	70-130	1	40	
1,1,1-Trichloroethane	ug/L	0.50U	20	20	20.1	20.3	101	102	70-130	1	40	
1,1,2,2-Tetrachloroethane	ug/L	0.18U	20	20	19.5	19.1	97	95	70-130	2	40	
1,1,2-Trichloroethane	ug/L	0.50U	20	20	19.6	19.1	98	96	70-130	3	40	
1,1-Dichloroethane	ug/L	1.3	20	20	21.7	21.5	102	101	70-130	.9	40	
1,1-Dichloroethene	ug/L	0.50U	20	20	21.8	21.9	109	109	70-130	.1	40	
1,1-Dichloropropene	ug/L	0.50U	20	20	22.9	22.8	115	114	70-130	.4	40	
1,2,3-Trichloropropane	ug/L	0.36U	20	20	16.6	16.7	83	83	70-130	.5	40	
1,2,4-Trichlorobenzene	ug/L	0.50U	20	20	17.5	20.0	88	100	70-130	13	40	
1,2-Dichloroethane	ug/L	0.50U	20	20	20.6	20.7	103	103	70-130	.3	40	
1,2-Dichloropropane	ug/L	0.50U	20	20	21.1	21.2	106	106	70-130	.5	40	
1,3-Dichloropropane	ug/L	0.50U	20	20	20.0	19.4	100	97	70-130	3	40	
2,2-Dichloropropane	ug/L	0.50U	20	20	14.6	14.7	73	73	70-130	.9	40	
2-Butanone (MEK)	ug/L	5.0U	20	20	15.8	15.6	79	78	70-130	1	40	
2-Chloroethylvinyl ether	ug/L	0.50U	20	20	0.50U	0.50U	0	0	70-130		40	J(M1)
2-Hexanone	ug/L	5.0U	20	20	15.5	15.7	78	79	70-130	1	40	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	20	20	18.3	18.0	91	90	70-130	2	40	
Acetone	ug/L	5.0U	20	20	13.8	15.1	69	75	70-130	9	40	J(M1)
Acetonitrile	ug/L	5.0U	200	200	182	198	91	99	70-130	8	40	
Acrolein	ug/L	10.0U	200	200	194	200	97	100	70-130	3	40	
Acrylonitrile	ug/L	5.0U	200	200	218	226	109	113	70-130	4	40	
Allyl chloride	ug/L	0.50U	20	20	19.4	19.4	97	97	70-130	.004	40	
Benzene	ug/L	2.3	20	20	25.6	26.1	117	119	70-130	2	40	
Bromochloromethane	ug/L	0.50U	20	20	21.5	21.7	108	108	70-130	.7	40	
Bromodichloromethane	ug/L	0.27U	20	20	20.1	20.0	101	100	70-130	.9	40	
Bromoform	ug/L	0.50U	20	20	17.1	17.1	85	86	70-130	.3	40	
Bromomethane	ug/L	0.50U	20	20	16.6	18.8	83	94	70-130	12	40	
Carbon disulfide	ug/L	0.55 I	20	20	20.9	22.0	102	107	70-130	5	40	
Carbon tetrachloride	ug/L	0.50U	20	20	19.5	19.7	97	98	70-130	1	40	
Chlorobenzene	ug/L	5.7	20	20	25.5	25.5	99	99	70-130	.08	40	
Chloroethane	ug/L	0.50U	20	20	24.0	25.9	120	130	70-130	8	40	
Chloroform	ug/L	0.50U	20	20	19.9	20.4	100	102	70-130	2	40	
Chloromethane	ug/L	0.62U	20	20	20.1	21.2	101	106	70-130	5	40	
Chloroprene	ug/L	0.50U	20	20	20.6	21.1	103	105	70-130	2	40	
cis-1,2-Dichloroethene	ug/L	14.7	20	20	34.6	34.8	99	100	70-130	.5	40	
cis-1,3-Dichloropropene	ug/L	0.25U	20	20	19.1	19.5	96	97	70-130	2	40	
Dibromochloromethane	ug/L	0.26U	20	20	18.5	18.1	92	91	70-130	2	40	
Dibromomethane	ug/L	0.50U	20	20	21.1	21.5	106	107	70-130	2	40	
Dichlorodifluoromethane	ug/L	0.50U	20	20	22.7	24.9	114	125	70-130	9	40	
Ethyl methacrylate	ug/L	0.50U	20	20	18.4	18.6	92	93	70-130	1	40	
Ethylbenzene	ug/L	0.50U	20	20	20.6	21.0	103	105	70-130	2	40	
Hexachloro-1,3-butadiene	ug/L	0.50U	20	20	17.9	19.2	89	96	70-130	7	40	
Iodomethane	ug/L	0.50U	20	20	17.3	22.9	86	115	70-130	28	40	
Isobutyl Alcohol	ug/L	10.0U	400	400	326	366	81	91	70-130	12	40	
Methacrylonitrile	ug/L	5.0U	200	200	194	197	97	98	70-130	1	40	
Methyl methacrylate	ug/L	5.0U	20	20	20.6	21.3	103	107	70-130	3	40	
Methyl-tert-butyl ether	ug/L	0.50U	20	20	21.2	21.3	104	105	70-130	.2	40	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116339 116340

Parameter	Units	3517868003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Methylene Chloride	ug/L	2.5U	20	20	18.2	18.9	91	95	70-130	4	40	
Propionitrile	ug/L	5.0U	200	200	183	198	91	99	70-130	8	40	
Styrene	ug/L	0.50U	20	20	20.0	20.3	100	101	70-130	1	40	
Tetrachloroethene	ug/L	0.50U	20	20	16.5	16.4	82	82	70-130	.7	40	
Toluene	ug/L	0.50U	20	20	21.3	21.1	105	104	70-130	1	40	
trans-1,2-Dichloroethene	ug/L	0.50U	20	20	22.0	22.3	109	111	70-130	1	40	
trans-1,3-Dichloropropene	ug/L	0.25U	20	20	17.0	16.8	85	84	70-130	1	40	
trans-1,4-Dichloro-2-butene	ug/L	5.0U	20	20	13.7	14.2	69	71	70-130	3	40	J(M1)
Trichloroethene	ug/L	0.50U	20	20	22.9	22.6	112	111	70-130	1	40	
Trichlorofluoromethane	ug/L	0.50U	20	20	23.4	23.3	117	116	70-130	.4	40	
Vinyl acetate	ug/L	1.0U	20	20	12.7	12.9	63	65	70-130	2	40	J(M1)
Vinyl chloride	ug/L	3.0	20	20	27.1	27.9	121	125	70-130	3	40	
Xylene (Total)	ug/L	0.50U	60	60	61.9	62.6	103	104	70-130	1	40	
1,2-Dichloroethane-d4 (S)	%						94	97	86-125			
4-Bromofluorobenzene (S)	%						104	106	70-114			
Dibromofluoromethane (S)	%						100	103	88-117			
Toluene-d8 (S)	%						103	107	87-113			

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: WET/5315 Analysis Method: EPA 9034
QC Batch Method: EPA 9034 Analysis Description: 9034 Sulfide Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 114803 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	1.0U	1.0	09/14/10 09:30	

LABORATORY CONTROL SAMPLE: 114804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	6	5.3	89	80-120	

MATRIX SPIKE SAMPLE: 114806

Parameter	Units	3516696010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	1.0U	30	28.6	96	80-120	

SAMPLE DUPLICATE: 114805

Parameter	Units	3516696010 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	1.0U	2.0U		20	

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QUALITY CONTROL DATA

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

QC Batch: WETA/6330 Analysis Method: EPA 9012
QC Batch Method: EPA 9012 Analysis Description: 9012 Cyanide
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

METHOD BLANK: 117694 Matrix: Water
Associated Lab Samples: 3516696007, 3516696008, 3516696009, 3516696010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	0.0056 I	0.010	09/24/10 17:10	

LABORATORY CONTROL SAMPLE: 117695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.05	0.046	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117696 117697

Parameter	Units	3516696007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0050 U	.05	.05	0.043	0.047	83	92	80-120	9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117698 117699

Parameter	Units	3517868010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0050 U	.05	.05	0.048	0.043	92	84	80-120	9	20	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J(C2)	Estimated Value. Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
J(D6)	Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
J(M1)	Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
J(S0)	Estimated Value. Surrogate recovery outside laboratory control limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
V	Indicates that the analyte was detected in both the sample and the associated method blank.

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(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3516696001	4 MW-3A	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696002	4 MW-9	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696003	4MW-22	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696004	4 MW-8	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696005	4MW-21	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696006	4 MW-7	EPA 8011	OEXT/2993	EPA 8011	GCSV/2322
3516696007	2MW-24D	EPA 8011	OEXT/3065	EPA 8011	GCSV/2366
3516696008	2MW-24S	EPA 8011	OEXT/3065	EPA 8011	GCSV/2366
3516696009	2MW-25D	EPA 8011	OEXT/3065	EPA 8011	GCSV/2366
3516696010	2MW-26D	EPA 8011	OEXT/3065	EPA 8011	GCSV/2366
3516696012	4MW4 WELL	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696013	WELL 2MW-19D	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696014	2MW-18D	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696015	2MW-17S	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696016	4MW1 WELL	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696017	4MW2 WELL	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696018	2MW2 WELL	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696019	4MW6 WELL	EPA 8011	OEXT/3222	EPA 8011	GCSV/2488
3516696020	4MW5 WELL	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696021	4MW27D	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696022	4MW27	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696023	2MW27D	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696024	WELL 2MW-15DA	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696025	4MW-11D	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696026	4MW-12D	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696027	4MW-13D WELL	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696028	4MW-14D WELL	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696029	2MW-24S RE	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696030	2MW-24D RE	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696031	2MW-25D RE	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696032	2MW-26D RE	EPA 8011	OEXT/3261	EPA 8011	GCSV/2508
3516696007	2MW-24D	EPA 3510	OEXT/3073	EPA 8081	GCSV/2374
3516696008	2MW-24S	EPA 3510	OEXT/3073	EPA 8081	GCSV/2374
3516696009	2MW-25D	EPA 3510	OEXT/3073	EPA 8081	GCSV/2374
3516696010	2MW-26D	EPA 3510	OEXT/3073	EPA 8081	GCSV/2374
3516696007	2MW-24D	EPA 3510	OEXT/3074	EPA 8082	GCSV/2373
3516696008	2MW-24S	EPA 3510	OEXT/3074	EPA 8082	GCSV/2373
3516696009	2MW-25D	EPA 3510	OEXT/3074	EPA 8082	GCSV/2373
3516696010	2MW-26D	EPA 3510	OEXT/3074	EPA 8082	GCSV/2373
3516696007	2MW-24D	EPA 3510	OEXT/3070	EPA 8141	GCSV/2406
3516696008	2MW-24S	EPA 3510	OEXT/3070	EPA 8141	GCSV/2406
3516696009	2MW-25D	EPA 3510	OEXT/3070	EPA 8141	GCSV/2406
3516696010	2MW-26D	EPA 3510	OEXT/3070	EPA 8141	GCSV/2406
3516696007	2MW-24D	EPA 8151	OEXT/3076	EPA 8151	GCSV/2378
3516696008	2MW-24S	EPA 8151	OEXT/3076	EPA 8151	GCSV/2378

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3516696009	2MW-25D	EPA 8151	OEXT/3076	EPA 8151	GCSV/2378
3516696010	2MW-26D	EPA 8151	OEXT/3076	EPA 8151	GCSV/2378
3516696001	4 MW-3A	EPA 3010	MPRP/2945	EPA 6010	ICP/2273
3516696002	4 MW-9	EPA 3010	MPRP/2945	EPA 6010	ICP/2273
3516696003	4MW-22	EPA 3010	MPRP/2945	EPA 6010	ICP/2273
3516696004	4 MW-8	EPA 3010	MPRP/2995	EPA 6010	ICP/2302
3516696005	4MW-21	EPA 3010	MPRP/2995	EPA 6010	ICP/2302
3516696006	4 MW-7	EPA 3010	MPRP/2995	EPA 6010	ICP/2302
3516696007	2MW-24D	EPA 3010	MPRP/3189	EPA 6010	ICP/2416
3516696008	2MW-24S	EPA 3010	MPRP/3189	EPA 6010	ICP/2416
3516696009	2MW-25D	EPA 3010	MPRP/3189	EPA 6010	ICP/2416
3516696010	2MW-26D	EPA 3010	MPRP/3189	EPA 6010	ICP/2416
3516696012	4MW4 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696013	WELL 2MW-19D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696014	2MW-18D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696015	2MW-17S	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696016	4MW1 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696017	4MW2 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696018	2MW2 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696019	4MW6 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696020	4MW5 WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696021	4MW27D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696022	4MW27	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696023	2MW27D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696024	WELL 2MW-15DA	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696025	4MW-11D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696026	4MW-12D	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696027	4MW-13D WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696028	4MW-14D WELL	EPA 3010	MPRP/3262	EPA 6010	ICP/2463
3516696029	2MW-24S RE	EPA 3010	MPRP/3409	EPA 6010	ICP/2561
3516696030	2MW-24D RE	EPA 3010	MPRP/3409	EPA 6010	ICP/2561
3516696031	2MW-25D RE	EPA 3010	MPRP/3409	EPA 6010	ICP/2561
3516696032	2MW-26D RE	EPA 3010	MPRP/3409	EPA 6010	ICP/2561
3516696001	4 MW-3A	EPA 3010	MPRP/2944	EPA 6020	ICPM/1652
3516696002	4 MW-9	EPA 3010	MPRP/2944	EPA 6020	ICPM/1652
3516696003	4MW-22	EPA 3010	MPRP/2944	EPA 6020	ICPM/1652
3516696004	4 MW-8	EPA 3010	MPRP/2994	EPA 6020	ICPM/1669
3516696005	4MW-21	EPA 3010	MPRP/2994	EPA 6020	ICPM/1669
3516696006	4 MW-7	EPA 3010	MPRP/2994	EPA 6020	ICPM/1669
3516696007	2MW-24D	EPA 3010	MPRP/3188	EPA 6020	ICPM/1737
3516696008	2MW-24S	EPA 3010	MPRP/3188	EPA 6020	ICPM/1737
3516696009	2MW-25D	EPA 3010	MPRP/3188	EPA 6020	ICPM/1737
3516696010	2MW-26D	EPA 3010	MPRP/3188	EPA 6020	ICPM/1737
3516696012	4MW4 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3516696013	WELL 2MW-19D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696014	2MW-18D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696015	2MW-17S	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696016	4MW1 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696017	4MW2 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696018	2MW2 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696019	4MW6 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696020	4MW5 WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696021	4MW27D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696022	4MW27	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696023	2MW27D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696024	WELL 2MW-15DA	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696025	4MW-11D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696026	4MW-12D	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696027	4MW-13D WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696028	4MW-14D WELL	EPA 3010	MPRP/3261	EPA 6020	ICPM/1775
3516696029	2MW-24S RE	EPA 3010	MPRP/3408	EPA 6020	ICPM/1802
3516696030	2MW-24D RE	EPA 3010	MPRP/3408	EPA 6020	ICPM/1802
3516696031	2MW-25D RE	EPA 3010	MPRP/3408	EPA 6020	ICPM/1802
3516696032	2MW-26D RE	EPA 3010	MPRP/3408	EPA 6020	ICPM/1802
3516696007	2MW-24D	EPA 7470	MERP/1510	EPA 7470	MERC/1508
3516696008	2MW-24S	EPA 7470	MERP/1510	EPA 7470	MERC/1508
3516696009	2MW-25D	EPA 7470	MERP/1510	EPA 7470	MERC/1508
3516696010	2MW-26D	EPA 7470	MERP/1510	EPA 7470	MERC/1508
3516696007	2MW-24D	EPA 3510	OEXT/3069	EPA 8270	MSSV/1679
3516696008	2MW-24S	EPA 3510	OEXT/3069	EPA 8270	MSSV/1679
3516696009	2MW-25D	EPA 3510	OEXT/3069	EPA 8270	MSSV/1679
3516696010	2MW-26D	EPA 3510	OEXT/3069	EPA 8270	MSSV/1679
3516696001	4 MW-3A	EPA 8260	MSV/2032		
3516696002	4 MW-9	EPA 8260	MSV/2032		
3516696003	4MW-22	EPA 8260	MSV/2032		
3516696004	4 MW-8	EPA 8260	MSV/2035		
3516696005	4MW-21	EPA 8260	MSV/2035		
3516696006	4 MW-7	EPA 8260	MSV/2035		
3516696007	2MW-24D	EPA 8260	MSV/2118		
3516696008	2MW-24S	EPA 8260	MSV/2118		
3516696009	2MW-25D	EPA 8260	MSV/2118		
3516696010	2MW-26D	EPA 8260	MSV/2118		
3516696011	Trip Blank (9/9/10)	EPA 8260	MSV/2118		
3516696012	4MW4 WELL	EPA 8260	MSV/2198		
3516696013	WELL 2MW-19D	EPA 8260	MSV/2198		
3516696014	2MW-18D	EPA 8260	MSV/2198		
3516696015	2MW-17S	EPA 8260	MSV/2198		
3516696016	4MW1 WELL	EPA 8260	MSV/2200		
3516696017	4MW2 WELL	EPA 8260	MSV/2200		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pasco County Resource Recovery
Pace Project No.: 3516696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3516696018	2MW2 WELL	EPA 8260	MSV/2200		
3516696019	4MW6 WELL	EPA 8260	MSV/2198		
3516696020	4MW5 WELL	EPA 8260	MSV/2198		
3516696021	4MW27D	EPA 8260	MSV/2198		
3516696022	4MW27	EPA 8260	MSV/2198		
3516696023	2MW27D	EPA 8260	MSV/2198		
3516696024	WELL 2MW-15DA	EPA 8260	MSV/2198		
3516696025	4MW-11D	EPA 8260	MSV/2198		
3516696026	4MW-12D	EPA 8260	MSV/2198		
3516696027	4MW-13D WELL	EPA 8260	MSV/2198		
3516696028	4MW-14D WELL	EPA 8260	MSV/2198		
3516696029	2MW-24S RE	EPA 8260	MSV/2198		
3516696030	2MW-24D RE	EPA 8260	MSV/2198		
3516696031	2MW-25D RE	EPA 8260	MSV/2198		
3516696032	2MW-26D RE	EPA 8260	MSV/2198		
3516696007	2MW-24D	EPA 9034	WET/5315		
3516696008	2MW-24S	EPA 9034	WET/5315		
3516696009	2MW-25D	EPA 9034	WET/5315		
3516696010	2MW-26D	EPA 9034	WET/5315		
3516696007	2MW-24D	EPA 9012	WETA/6330	EPA 9012	WETA/6379
3516696008	2MW-24S	EPA 9012	WETA/6330	EPA 9012	WETA/6379
3516696009	2MW-25D	EPA 9012	WETA/6330	EPA 9012	WETA/6379
3516696010	2MW-26D	EPA 9012	WETA/6330	EPA 9012	WETA/6379

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

3516696

Page: of

1346056

Section A Required Client Information:

Company: Pasco County Env. Lab
Address: 8864 Rowt Dr.
NPR, FL 34654
Email To:
Phone: 727 847 8902 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Candia Mulham
Copy To:
Purchase Order No.:
Project Name: Resource Recovery (Res. Rec.)
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE:

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: 8011	8260	Sulfide	Cyanide (9012)	Metals Appendix IV 6010/7060/7470	8151	8270	8141	Trip blanks	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	2MW24D @ Res. Rec.	GT	G			9/9/10	1017		19	X		X	X	X			X		2	4	1	1	1	2	2	2	2		-007
2	2MW24S @ Res. Rec.	GT	G			9/9/10	1141		19	X		X	X	X			X		2	4	1	1	1	2	2	2	2		-008
3	2MW25D @ Res. Rec.	GT	G			9/9/10	1321		19	X		X	X	X			X		2	4	1	1	1	2	2	2	2		-009
4	2MW26D @ Res. Rec.	GT	G			9/9/10	1428		19	X		X	X	X			X		2	4	1	1	1	2	2	2	2		-010
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		9/9/10	1545		9/9/10	1545				
				R. Hyde	9/10/10	715	2.8	Y		

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Wilfred Martfeld

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 09/09/10

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Appendix G
Initial Sampling Reports

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

Title				
Text				
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Text				
Text				
Text				

Table Title/Figure # Cell

Table Header 1	Table Header 2
Table Text	▪ Table bullet
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text

Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

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Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976

SURVEYOR'S REPORT

MAP OF RECORD SURVEY:

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER (SEE SHEET INDEX IN TITLE BLOCK)

LEGAL DESCRIPTION:

NOT APPLICABLE. THIS IS NOT A BOUNDARY SURVEY.

INTENT:

THE INTENT OF THIS RECORD SURVEY IS TO SHOW THE RELATIONSHIP OF FIELD MEASURED IMPROVEMENTS TO THE CONSTRUCTION PLANS REFERENCED IN DATA SOURCE 4.

ACCURACY:

1. THE ACCURACY STANDARD USED FOR THIS SURVEY, AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (61G17-6 FAC), IS "COMMERCIAL/HIGH RISK". THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF SURVEY IS 1 FOOT IN 10,000 FEET. THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS 1 FOOT IN 26,668 FEET.

2. PRIMARY CONTROL POINT POSITIONS FOR THIS SURVEY ARE CONTROL POINT #506 AND CONTROL POINT #507, AS SHOWN ON THE CONSTRUCTION PLANS REFERENCED IN DATA SOURCE 4, AND AS SHOWN ON THE MAP OF SURVEY. [SEE LIMITATION #11]

3. CONTROL ELEVATIONS FOR THIS SURVEY ARE BASED ON A LEVEL LOOP USING DIFFERENTIAL LEVELING TECHNIQUES. CLOSURES ACHIEVED IS 0.006' ERROR IN A 0.18 MILE LOOP LENGTH WHICH EXCEEDS THE MINIMUM ACCURACY REQUIREMENT CALCULATED AT A MAXIMUM MIS-CLOSURE OF 0.021 FEET. [SEE LIMITATION #12]

4. HORIZONTAL CONTROL MEASUREMENTS WERE MADE WITH A TRANSIT AND STEEL TAPE, OR DEVICES WITH EQUIVALENT OR HIGHER DEGREES OF ACCURACY.

DATA SOURCES:

1. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALCULATED BEARING BETWEEN CONTROL POINT #506 AND CONTROL POINT #507 [SEE LIMITATION #11], CALCULATED AS BEING S89°55'01"E, AS SHOWN ON THE MAP OF SURVEY.

2. HORIZONTAL COORDINATES (IN U.S. SURVEY FEET) FOR THIS SURVEY ARE BASED UPON THE SITE DATUM FOR THE CONSTRUCTION PLANS REFERENCED IN DATA SOURCE 4. CONTROL POINTS UTILIZED ARE SHOWN AS (a) CONTROL POINT #506, A FOUND 1/2" IRON ROD WITH AN ILLEGIBLE CAP (N=1,467,701.20', E=318,429.90'); and (b) CONTROL POINT #507, A FOUND 1/2" IRON ROD WITH AN ILLEGIBLE CAP (N=1,467,700.33', E=319,029.94'). [SEE LIMITATION #11]

3. ELEVATIONS ARE BASED ON SITE BENCHMARKS SHOWN ON THE CONSTRUCTION PLANS REFERENCED IN DATA SOURCE 4. SITE BENCHMARKS UTILIZED ARE SHOWN ON THE MAP OF SURVEY AS (a) "SITE TBM #1", A FOUND BOX CUT IN HEADWALL, ELEVATION 51.02'; and (b) "SITE TBM #2", A FOUND RAILROAD SPIKE SET IN A POWER POLE, ELEVATION 49.94'. [SEE LIMITATION #12]

4. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF THAT CERTAIN SET OF CONSTRUCTION PLANS PREPARED BY CAMP, DRESSER & McKEE, INC. TITLED "WEST PASCO CLASS I LANDFILL CELL A-4", PROJECT NUMBER 6104-46136, LAST REVISED 6/29/2009, AND ELECTRONIC DRAWING FILE COPIES THEREOF. ALL SHADED BACK INFORMATION IS ACCORDING TO SAID ELECTRONIC DRAWING FILES AND HAS NOT BEEN MODIFIED BESIDES SHADING FOR UNDERLAY PURPOSES.

5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT.

6. THIS SURVEY WAS PREPARED WITHTHE BENEFIT OF A RECORD SURVEY PREPARED BY FLORIDA DESIGN CONSULTANTS, INC. TITLED "PASCO COUNTY LANDFILL CELL A-4", JOB NUMBER 2009-70, LAST REVISED 12/21/2009.

7. EXISTING GROUND ELEVATIONS AT THE POINT OF EXISTING GAS LINE AND PROPOSED FORCEMAIN INTERSECTIONS AT THE SOUTHEAST AND SOUTHWEST CORNER OF THE SITE WERE PROVIDED BY THE CONTRACTOR ON 4/28/2010.

LIMITATIONS:

1. USE OF THIS SURVEY BY ANYONE OTHER THAN THOSE PREPARED FOR/CERTIFIED TO WILL BE THE RE-USERS SOLE RISK WITHOUT LIABILITY TO THE SURVEYOR.

2. THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS AFFECTING THIS PROPERTY THAT MAY OR MAY NOT BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

3. PRINTED DIMENSIONS SHOWN ON THE SURVEY SUPERSEDE SCALED DIMENSIONS. THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.

4. CALCULATED (C) GEOMETRY SHOWN HEREON WAS CALCULATED USING FIELD LOCATED POINTS AND CERTAIN PUBLISHED DATA.

5. SHOWN ANYWHERE ON THIS SURVEY, THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF A PROFESSIONAL OPINION BASED UPON THE SURVEYOR'S BEST KNOWLEDGE, INFORMATION AND BELIEF, AND THAT IT THUS CONSTITUTES NEITHER A GUARANTEE NOR A WARRANTY.

6. THE SHADED BACK INFORMATION SHOWN ON THE MAP OF SURVEY [SEE DATA SOURCE 4] IS FOR INFORMATIONAL PURPOSES ONLY AND WAS NOT MODIFIED FROM IT'S ORIGINAL FORMAT BESIDES SHADING THE INFORMATION FOR UNDERLAY PURPOSES. ALL FEATURES SURVEYED BY FLORIDA DESIGN CONSULTANTS, INC. ARE SHOWN AS SOLID TEXT, LINES AND SYMBOLS WHICH IS NOT SHADED BACK.

7. THIS SURVEYOR CERTIFIES ONLY TO THE RECORD INFORMATION SHOWN ON THE MAP OF SURVEY. ALL SHADED BACK IMPROVEMENTS ARE PER THAT CERTAIN ELECTRONIC DRAWING FILE REFERENCED IN DATA SOURCE 4, AND WERE NOT FIELD VERIFIED EXCEPT AS SHOWN ON THE MAP OF SURVEY.

8. THE LOCATIONS OF THE UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES WERE PERFORMED BY A FIELD SURVEY AND ONLY LOCATED AS SHOWN ON THE MAP OF THE SURVEY. ONLY THE UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES WHICH WERE VISIBLE FROM GROUND LEVEL TO THE SURVEYOR ON THE ACTUAL DAY OF THE FIELD SURVEY WERE LOCATED AND MAPPED. NO EXCAVATIONS OR SUBSURFACE WORK EFFORTS OF ANY KIND WERE PERFORMED BY THE SURVEYOR TO VERIFY THE EXISTENCE OF ANY UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE GAS LINE SHOWN HEREON WAS LOCATED UTILIZING ABOVE GROUND GAS LINE MARKERS.

9. ALL BOUNDARY AND EASEMENT INFORMATION SHOWN HEREON IS SOLELY BASED UPON THOSE CERTAIN MAPS AND ELECTRONIC DRAWING FILES REFERENCED IN DATA SOURCE 4. FLORIDA DESIGN CONSULTANTS, INC. AND THE SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE DOES NOT GUARANTEE THE VALIDITY OF SAID BOUNDARY INFORMATION OTHER THAN CONFORMATION TO SAID MAPS AND ELECTRONIC DRAWING FILES.

10. ORIGINAL FIELD WORK WAS COMPLETED ON 1/19/2010 AND IS CONTAINED IN FIELD BOOK 1526. FIELD WORK FOR REVISION 2 WAS COMPLETED ON 3/3/2010 AND IS CONTAINED IN FIELD BOOK 1526. FIELD WORK FOR REVISION 3 WAS COMPLETED ON 3/15/2010, IS CONTAINED IN FIELD BOOK 1526 AND IS LIMITED TO THE LINER EDGE AND PROPOSED FORCEMAIN LOCATION AS MARKED BY THE CONTRACTOR. FIELD WORK FOR REVISION 4 WAS COMPLETED ON 3/31/2010, IS CONTAINED IN FIELD BOOK 1526 AND IS LIMITED TO THE SPOT GRADES ON THE PROPOSED POND. FIELD WORK FOR REVISION 5 WAS COMPLETED ON 4/7/2010, IS CONTAINED IN FIELD BOOK 1526 AND IS LIMITED TO THE SPOT GRADES ON THE PROPOSED POND BEFORE THE LEACHATE SYSTEM WAS INSTALLED. FIELD WORK FOR REVISION 6 WAS COMPLETED ON 4/13/2010, IS CONTAINED IN FIELD BOOK 1526 AND IS LIMITED TO THE SPOT GRADES ON THE WEST 1/3 OF THE PROPOSED POND. FIELD WORK FOR REVISION 7 WAS COMPLETED ON 4/26/2010, IS CONTAINED IN FIELD BOOK 1526 AND IS LIMITED TO THE EXISTING 12" GAS LINE LOCATIONS AND DIMENSIONS TO THE PLAN FORCEMAIN FROM THE FIELD LOCATED EDGE OF PAVEMENT. REVISION 7 ALSO REMOVED THE PROPOSED FORCEMAIN LOCATION AS MARKED BY THE CONTRACTOR ADDED DURING REVISION 3. REVISION 8 IS LIMITED TO ADDING TIES TO THE GAS LINE AND EXISTING GROUND ELEVATION AT CROSSINGS (NO FIELD WORK PERFORMED). REVISION 9 IS LIMITED TO ADDING CROSSING DETAILS AT EAST AND WEST GAS LINE CROSSINGS (NO FIELD WORK PERFORMED). FIELD WORK FOR REVISION 10 COMMENCED ON 6/10/2010 AND WAS COMPLETED ON 7/8/2010, IS CONTAINED IN FIELD BOOK 1526 PAGES 70-73 AND IS LIMITED TO ADDING FORCEMAIN, LEACHATE DETECTION SYSTEM, LEACHATE COLLECTION SYSTEM LOCATIONS AND GROUNG ELEVATIONS. FIELD WORK FOR REVISION 11 WAS PERFORMED ON 7/22/2010, IS CONTAINED IN FIELD BOOK 1526 PAGE 69 AND IS LIMITED TO ADDING LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS. FIELD WORK FOR REVISION 12 COMMENCED 8/26/2010 AND COMPLETED ON 10/19/2010, IS CONTAINED IN FIELD BOOK 1526 PAGES 68-61 AND IS LIMITED TO ADDING FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM, FINAL GROUND ELEVATIONS AND LIMITS OF SOD. FIELD WORK FOR REVISION 13 WAS PERFORMED ON 10/21/2010 AND IS LIMITED TO ADDING LIMITS OF SOD AT THE NORTHEAST CORNER. FIELD WORK FOR REVISION 14 WAS PERFORMED ON 11/5/2010 AND IS LIMITED TO ADDING SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS.

11. THERE WERE TWO CONTROL POINT #506's ACCORDING TO THE CONSTRUCTION PLANS REFERENCED IN DATA SOURCE 4 [SEE SHEET G-2 "EXISTING CONDITIONS, CONSTRUCTION LIMITS, AND MONITORING WELLS" OF SAID CONSTRUCTION PLANS FOR EXAMPLE]. THE EASTERN MOST CONTROL POINT LABELED AS CONTROL POINT #506 ON SAID CONSTRUCTION PLANS WAS RENUMBERED BY THIS SURVEYOR TO CONTROL POINT #507 FOR IDENTIFICATION PURPOSES ONLY.

12. FLORIDA DESIGN CONSULTANTS, INC. PERFORMED A LEVEL BENCH RUN FROM SITE TBM #1, THROUGH CONTROL POINTS #506 AND #507 (SEE LIMITATION #11), TO SITE TBM #2. IT WAS DISCOVERED THAT THE ELEVATION SHOWN ON THE CONSTRUCTION PLANS [SEE DATA SOURCE #4] FOR CONTROL POINT #506 IS NOT CONSISTENT WITH THE ELEVATIONS SHOWN FOR THE SITE BENCHMARKS UTILIZED AND CONTROL POINT #507. THE ELEVATION SHOWN FOR SAID CONTROL POINT #506 IS 51.59'. BASED ON MEASUREMENTS BY THIS SURVEYOR THE ELEVATION OF SAID CONTROL POINT #506, UTILIZING THE BENCHMARKS AS PROVIDED, IS 50.38'. [SEE ACCURACY #3]

13. THE LOCATION OF AS-BUILT UNDERGROUND UTILITY LINES SHOWN HEREON IS BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND FIELD SURVEY EFFORTS. AS NOTED ABOVE THE UTILITY CONTRACTOR MARKED CONSTRUCTED UNDERGROUND UTILITY LINES WITH EITHER A P.V.C. STANDPIPE OR WOOD STAND WITH A DIMENSION MARKED TO THE TOP OF PIPE IN ORDER FOR THE SURVEYOR TO OBTAIN A HORIZONTAL AND VERTICAL LOCATION ON TOP OF THE CONSTRUCTED UTILITY LINE. THE PIPELINE WAS BACK FILLED PRIOR TO THE RECORD SURVEY EFFORT WITH NO VISIBLE EVIDENCE TO SUPPORT THE ACTUAL PIPELINE LOCATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE STANDPIPE OR WOOD STAND PLACED BY THE CONTRACTOR WAS INSTALLED ACCURATELY ON TOP OF THE PIPE. THE UNDERSIGNED SURVEYOR MAKES NO GUARANTEE AS TO THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITY LINES. TO AVOID DAMAGE TO EXISTING FACILITIES THE LOCATION OF EXISTING PIPELINES MUST BE VERIFIED PRIOR TO ANY EXCAVATION OR UNDERGROUND CONSTRUCTION ACTIVITIES BY USING GOOD CONSTRUCTION PRACTICES AND CONTACTING SUNSHINE STATE ONE CALL IN ACCORDANCE WITH FLORIDA STATUTES 553.851(1979).

BOUNDARY INCONSISTENCIES:

NOT APPLICABLE. THIS IS NOT A BOUNDARY SURVEY.

APPARENT PHYSICAL USE:

THE SUBJECT PROPERTY IS PART OF A SOLID WASTE LANDFILL, IS UNDER CONSTRUCTION AND CONTAINS IMPROVEMENTS NOT SHOWN ON THE MAP OF SURVEY.

EASEMENTS/RIGHT-OF-WAY:

NOT APPLICABLE. THIS IS NOT A BOUNDARY SURVEY.

PREPARED FOR:

RIPA & ASSOCIATES, INC.

CERTIFIED TO:

RIPA & ASSOCIATES, INC.

SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE:

DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

ABBREVIATIONS LEGEND

AC	= Acres	FN&TT	= Found Nail and Tin Tab	℄	= Property Line
A/C	= Air Conditioner	FOP	= Found Open End Iron Pipe	PLS	= Professional Land Surveyor
ADW	= Asphalt Driveway	FPB	= Electric Power Box	POB	= Point of Beginning
ADS	= Advance Drainage Systems	FPC	= Electric Power Company	POC	= Point of Commencement
ASPH	= Asphalt	FPP	= Found Pinched Iron Pipe	POL	= Point on Line
B/C	= Back of Curb	FRRS	= Found Railroad Spike	PRM	= Permanent Reference Monument
BCCM	= Board of County Commissioners Minutes Book	FT	= Feet	PSM	= Professional Surveyor and Mapper
BFPD	= Back Flow Prevention Device	F/T	= Fence Tie	PT	= Point of Tangency \ Point
BLDG	= Building	FXC	= Found X-cut	PVC	= Polyvinyl Chloride Pipe
BNDY	= Boundary	G/A	= Guy Wire Anchor	(R)	= Recorded Data
BO	= Blow Off Valve	GE	= Grate Elevation	RCP	= Reinforced Concrete Pipe
(C)	= Calculated Data	GI	= Grate Inlet	RLS	= Registered Land Surveyor
C/C	= Covered Concrete	GV	= Gas Valve	RNG	= Range
CCCL	= Coastal Construction Control Line	IE	= Invert Elevation	R/W	= Right of Way
CCR	= Certified Corner Record	INV	= Invert	S	= South
CDW	= Concrete Driveway	LB	= Corporate Certification Number	(S)	= Survey Data (See Data Source 5)
CI	= Curb Inlet	LCS	= Leachate Collection System	SCM	= Set Concrete Monument, 4"x4", PRM LB 6707
℄	= Center Line	LDS	= Leachate Detection System	SCM(W)	= Set Concrete Monument, 4"x4", FDC LB 6707 WITNESS PT
CLF	= Chain Link Fence	LF	= Linear Feet	SEC	= Section
CM	= Concrete Monument	LP	= Light Pole	SHW	= Seasonal High Water Elevation
CMP	= Corrugated Metal Pipe	LS	= Licensed Surveyor	SIR	= Set 5/8"Iron Rod and Cap, FDC LB 6707
CO	= Clean out	MAS	= Masonry	SIR(W)	= Set 5/8"Iron Rod and Cap, FDC LB 6707 WITNESS PT
CONC	= Concrete	MES	= Mitered End Section	SMH	= Sanitary Manhole
COR	= Corner	MH	= Manhole	SN&D	= Set Nail and Disk, FDC LB 6707
CPB	= Condo Plat Book	MHW	= Mean High Water	SN&D(W)	= Set Nail and Disk, FDC LB 6707 WITNESS PT
C/S	= Concrete Slab	MOL	= More or Less	SQ	= Square
C/T	= Curb Tie	N	= North	SR	= State Road
DB	= Deed Book	N/C	= No Cap	STY	= Story
DCVA	= Double Check Valve Assembly	N/F	= Not Found	SWFWMD	= Southwest Florida Water Management District
DNR	= Department of Natural Resources	N/S	= Not Set	S/W	= Sidewalk
DEPT	= Department	N/A	= Not Accessible/Not Complete	TBM	= Temporary Benchmark
DIA	= Diameter	NAD	= North American Datum	TBO	= Temporary Blow-off
DIP	= Ductile Iron Pipe	NAVD	= North American Vertical Datum	TOB	= Top of Bank
DMH	= Drainage Manhole	NGS	= National Geodetic Survey	TRAV	= Traverse
E	= East	NGVD	= National Geodetic Vertical Datum	(TYP)	= Typical
ECMP	= Elliptical Corrugated Metal Pipe	NP	= Normal Pool Elevation	TWP	= Township
EL	= Elevation	(NR)	= Non Radial	U/P	= Utility Pole
EOW	= Edge of Water	O/A	= Overall	VCP	= Vitrified Clay Pipe
E/P	= Edge of Pavement	OHW	= Overhead Wire	W	= West
EOP	= End of Pipe	ORB	= Official Record Book	W/	= With
ESMT	= Easement	(PA)	= Property Appraisers Map Data	W/F	= Wood Fence
(F)	= Field Data	PB	= Plat Book	WL	= Water Line
FCM	= Found Concrete Monument	PC	= Point of Curvature	WUP	= Wood Utility Pole
FDOT	= Florida Department of Transportation	PCED	= Pinellas County Engineering Department	W/T	= Wall Tie
FH	= Fire Hydrant	PACED	= Pasco County Engineering Department	WV	= Water Valve
FIR	= Found Iron Rod and Cap	PCSD	= Pinellas County Survey Department	xx°	= Degrees
FL	= Fire Line	PACSD	= Pasco County Survey Department	xx'	= Minutes (Bearings)
FND	= Found	PCP	= Permanent Control Point	xx"	= Seconds (Bearing)
FN&D	= Found Nail and Disk	PG(S)	= Pages	xx'	= Feet (Distances)
FFE	= Finished Floor Elevation	PI	= Point of Intersection		
		PID	= Permanent Identification Number		

LINETYPE LEGEND

- = Boundary Line
- = Center Line
- = Easement Line
- = Edge of Water
- = Jurisdictional Line
- = Right-Of-Way Line
- = Section Line
- = Top Bank or Top of Berm
- = Toe of Slope or Grade Break
- GAS — GAS = Gas Line (See Limitation 8)
- = Proposed Forcemain
- FM — FM = Forcemain
- ST — ST = Storm Sewer Line (See Limitation 12)

SYMBOLS LEGEND

- = Aerial Target
- = Bench Mark
- CPS = Cable TV Paint Stripe
- CB = Cable TV Box
- = Communications Manhole
- = Concrete Light Pole
- = Concrete Post
- = Concrete Utility Pole
- = Drainage Manhole
- = Electric Box
- = Electric Manhole
- EPCPS = Electric Power Paint Stripe
- = Electric Power Pedestal
- = Fire Hydrant
- = Flag Pole
- = Gas Line Marker
- = Gas Filler Cap
- = Gas Valve
- GM = Gas Meter Box
- GLPS = Gas Line Paint Stripe
- = Grate Inlet
- = Telephone Manhole
- = Telephone Pedestal
- = Telephone Marker
- = Guy Anchor
- = Light Pole
- MB = Mail Box
- = Water Service (one whip)
- = Water Service (two whips)
- = Metal Post
- = Monitoring Well
- = Parking Meter
- RWPS = Reclaimed Water Paint Stripe
- RVM = Reclaimed Water Box
- = Sanitary Forcemain Valve
- = Sanitary Sewer Manhole
- = Sanitary Cleanout/Drainage Cleanout
- SANPS = Sanitary Sewer Paint Stripe
- = Section Corner
- = Siamese Connection
- = Sign
- = Sprinkler Control Box
- = Sprinkler Head
- STMPS = Storm Water Paint Stripe
- = Traffic Signal Box
- = Traffic Signal Pole
- VPS = Verizon Paint Stripe
- WPS = Water Line Paint Stripe
- = Water Meter
- = Water Valve
- = Wood Utility Pole
- = Wood Light Pole
- = Wood Post
- ✓ = Per Plan
- X 25.25 = Point of Elevation
- 25.2' = Calculated Dimension from Structure to Boundary / Right-of-Way Line

DOCUMENT LEGEND

(C) = CALCULATED DATA
(F) = FIELD DATA
(P) = PLAN DATA (SEE DATA SOURCE 4)

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER

DRAWN: JEB
CHECKED: JEB
QUALITY CONTROL: DB

FLORIDA DESIGN CONSULTANTS, INC.
ENGINEERS, ENVIRONMENTALISTS, SURVEYORS & PLANNERS
3030 Starkey Blvd. New Port Richey FL, 34655
Tel. (727) 849-7588 - Fax. (727) 848-3648
Certificate of Authorization: LB 6707
State of Florida

SUBJECT: PASCO COUNTY LANDFILL

SHEET DESCRIPTION: **RECORD SURVEY**
REPORT AND LEGENDS

NO.	DATE	REVISIONS	BY	QUALITY CONTROL
14	11-8-2010	ADD SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS	LCS	DB
13	10-25-2010	ADD SOD AREAS	LCS	DB
12	10-20-2010	ADD FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM AND FINAL GROUND ELEVATIONS	LCS	DB
11	7-22-2010	ADD LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS	LCS	DB
10	7-8-2010	ADD FORCEMAIN, LEACHATE DETECTION SYSTEM AND LEACHATE COLLECTION SYSTEM LOCATIONS	LCS	DB
1-9	VARIOUS	SEE LIMITATIONS 10	JEB	DB

SHEET INDEX:
1. SURVEYOR'S REPORT
2-3. MAP OF SURVEY - UTILITIES
4. MAP OF SURVEY - CELL ELEVATIONS
5. MAP OF SURVEY - MONITOR WELLS

ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED.

JOB NUMBER: 2009-70 EPN: N/A
PROJECT DATA BASE: 2009-70-CON
FIELD BOOK NUMBER & PAGES: SEE LIMITATIONS 10
LAST DATE OF ORIGINAL FIELD WORK: SEE LIMITATIONS 10
SCALE: NONE

SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

SHEET 1 OF 5

J:\Construction MGT\Pasco County Cell A-4\Data\Dwgs\Surveys\Record\2009-70_RECORD SURVEY_SYT-map.dwg - Nov 09, 2010 @ 1:11pm - dboggs

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Section 25, Township 24 South, Range 17 East,
County of Pasco, State of Florida

N

0 30 60 120

CONTROL POINT #101
SCM 4"x4"
FDC LB 6707 TRAV PT

CONTROL POINT #102
SCM 4"x4"
FDC LB 6707 TRAV PT

1450.57'(F)

S83°33'24"W(F)

N02°33'27"E(F)

564.24'(F)

746.11'(F)

600.02'(F)
600.04'(P)

592.91'(F)

N85°13'04"E(F)
156.17'(F)

N89°51'16"E(F)

(BEARING BASIS)
S89°55'01"E(P,F)

8"PVC ELECTRICAL CONDUIT W/TOP OF PIPE EL(TYP)

8"PVC ELECTRICAL CONDUIT MARKED BY CONTRACTOR(TYP)

FABRI FORM RIP-RAP

ROCK RIP-RAP

C/S TOP 52.25'

C/S TOP 52.22'

C/S TOP 52.20'

C/S TOP 52.18'

C/S TOP 51.95'

C/S TOP 52.24'

36"CMP SUMP
TOP EL=47.15'
BOTTOM EL=43.17'
48"CMP SKIMMER 1' HIGH
TOP EL=47.70'

36"CMP SUMP
TOP EL=48.93'
BOTTOM EL=44.90'
48"CMP SKIMMER 1' HIGH
TOP EL=49.52'

36"CMP SUMP
TOP EL=50.41'
BOTTOM EL=46.41'
48"CMP SKIMMER 1' HIGH
TOP EL=50.96'

36"CMP SUMP
TOP EL=47.40'
BOTTOM EL=43.42'
48"CMP SKIMMER 1' HIGH
TOP EL=47.99'

36"CMP SUMP
TOP EL=48.91'
BOTTOM EL=44.92'
48"CMP SKIMMER 1' HIGH
TOP EL=49.42'

36"CMP SUMP
TOP EL=50.36'
BOTTOM EL=46.36'
48"CMP SKIMMER 1' HIGH
TOP EL=50.88'

36"CMP SUMP
TOP EL=48.82'
BOTTOM EL=44.80'
48"CMP SKIMMER 1' HIGH
TOP EL=49.34'

36"CMP SUMP
TOP EL=50.52'
BOTTOM EL=46.43'
48"CMP SKIMMER 1' HIGH
TOP EL=51.13'

36"CMP SUMP
TOP EL=49.11'
BOTTOM EL=45.10'
48"CMP SKIMMER 1' HIGH
TOP EL=49.67'

36"CMP SUMP
TOP EL=50.45'
BOTTOM EL=46.47'
48"CMP SKIMMER 1' HIGH
TOP EL=51.03'

PUMP STATION
TOP EL=50.00'
BOTTOM EL=33.69'
E INV=40.42'

VALVE VAULT
TOP EL=50.00'
BOTTOM EL=46.00'

LEACHATE DETECTION SYSTEM 4" DIA MANHOLE
RIM EL=49.96'
E INV= 40.73'
W INV= 40.66'

LEACHATE DETECTION SYSTEM 4" DIA MANHOLE
RIM EL=49.91'
E INV= 40.15'
W INV= 40.40 N/A HOOKED TO PUMP
BOTTOM EL=36.49'

6" LEACHATE DETECTION SYSTEM HEADER PIPE

12" LEACHATE COLLECTION SYSTEM HEADER PIPE

3"PVC

TOP EL 3"PVC(TYP)

TOP EL OF 12" LCS(TYP)

TOP EL OF 8" LDS(TYP)

8" LCS(TYP)

LIMITS OF GRAVEL(TYP)

8" LDS(TYP)

12" LCS(TYP)

6'CLF

6'CLF W/BARB WIRE

26"x43"ERCP

22"x36"ERCP

EXISTING GROUND ABOVE PIPE=48.2' (SEE DATA SOURCE 7)

PROPOSED 8" SANITARY FORCEMAIN
TOP=45.95'(F)(PRORATED)
BOTTOM=43.28'(MINIMUM) 45.41'(C)
(HORIZONTAL)
2.00' CLEARANCE MINIMUM 4.13'(C)
TOP=41.28'
(EXISTING)

EXISTING 12" SAS LINE

WEST END CROSSING DETAIL A
N.T.S.

SEE DETAIL 7 THIS SHEET FOR PROPOSED GAS LINE CROSSING DETAIL

41.28
TOP EXISTING 12" GAS
EXISTING GROUND EL=49.2'
(SEE DATA SOURCE 7)

CONTROL POINT #100
SCM 4"x4"
FDC LB 6707 TRAV PT

SITE TBM #1

SITE TBM #2

CONTROL POINT #506
FIR 1/2"
ILLEGIBLE

CONTROL POINT #507
FIR 1/2"
ILLEGIBLE

THERE WERE TWO CONTROL POINT #506's IN THE PROVIDED PLANS. THIS POINT WAS RENUMBERED TO #507 FOR IDENTIFICATION PURPOSES ONLY. (SEE LIMITATION 11 FOR MORE INFORMATION)

FLORIDA DESIGN CONSULTANTS, INC. PERFORMED A LEVEL BENCH RUN WHICH RESULTED IN A MEASURED ELEVATION FOR CONTROL POINT #506 OF 50.38' (SEE LIMITATION 12 FOR MORE INFORMATION)

SEE DETAIL 4 SHEET 4

GATE

SWALE

INV=46.24', 12"ADS

INV=46.23', 12"ADS

INV=46.74', 12"CMP

INV=45.51', 12"CMP

CONC FLUM

CONC BARB

E/P

WOOD POST SET AT LINER EDGE BY CONTRACTOR (TYP)

APPROXIMATE LINER LOCATION BASED ON ABOVE GROUND MARKERS SET BY CONTRACTOR.

ROCK RIP-RAP

CONTROL POINT #103
SCM 4"x4"
FDC LB 6707 TRAV PT

MATCH LINE SEE BELOW

MATCH LINE SEE ABOVE

MATCH LINE SEE SHEET 3

ASPHALT ROAD

CONTROL POINTS			
PONIT #	NORTHING	EASTING	ELEVATION
100	1,467,688.18'(F)	318,274.28'(F)	50.11'(F)
101	1,468,432.41'(F)	318,221.34'(F)	44.13'(F)
102	1,468,595.19'(F)	319,662.75'(F)	64.77'(F)
103	1,467,701.84'(F)	319,622.85'(F)	51.51'(F)
506	1,467,701.20'(P)	318,429.90'(P)	50.38'(C)
507	1,467,700.33'(P)	319,029.94'(P)	51.59'(F)

NO.	DATE	REVISIONS	BY	QUALITY CONTROL
15	11-11-2010	ADD LEACHATE SYSTEM ELEVATION	DB	DB
14	11-8-2010	ADD SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS	LCS	DB
13	10-25-2010	ADD SOD AREAS	LCS	DB
12	10-20-2010	ADD FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM AND FINAL GROUND ELEVATIONS	LCS	DB
11	7-22-2010	ADD LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS	LCS	DB
1-10	VARIOUS	SEE LIMITATIONS 10	JEB	DB

DRAWN: JEB
CHECKED: JEB
QUALITY CONTROL: DB

FLORIDA DESIGN CONSULTANTS, INC.
ENGINEERS, ENVIRONMENTALISTS, SURVEYORS & PLANNERS
3030 Starkey Blvd. New Port Richey FL, 34655
Tel (727) 849-7588 - Fax (727) 848-3648
Certificate of Authorization: LB 6707
State of Florida

SUBJECT: PASCO COUNTY LANDFILL

SHEET DESCRIPTION: RECORD SURVEY
UTILITIES

SHEET INDEX:
1. SURVEYOR'S REPORT
2-3. MAP OF SURVEY – UTILITIES
4. MAP OF SURVEY – CELL ELEVATIONS
5. MAP OF SURVEY – MONITOR WELLS

ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED.

JOB NUMBER: 2009-70 EPN: N/A
PROJECT DATA BASE: 2009-70-CON
FIELD BOOK NUMBER & PAGES: SEE LIMITATIONS 10
LAST DATE OF ORIGINAL FIELD WORK: SEE LIMITATIONS 10
SCALE: 1" = 60'

SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER

SHEET 2 OF 5

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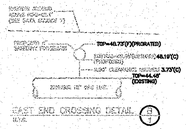
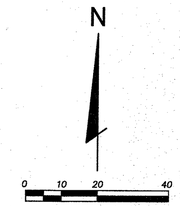
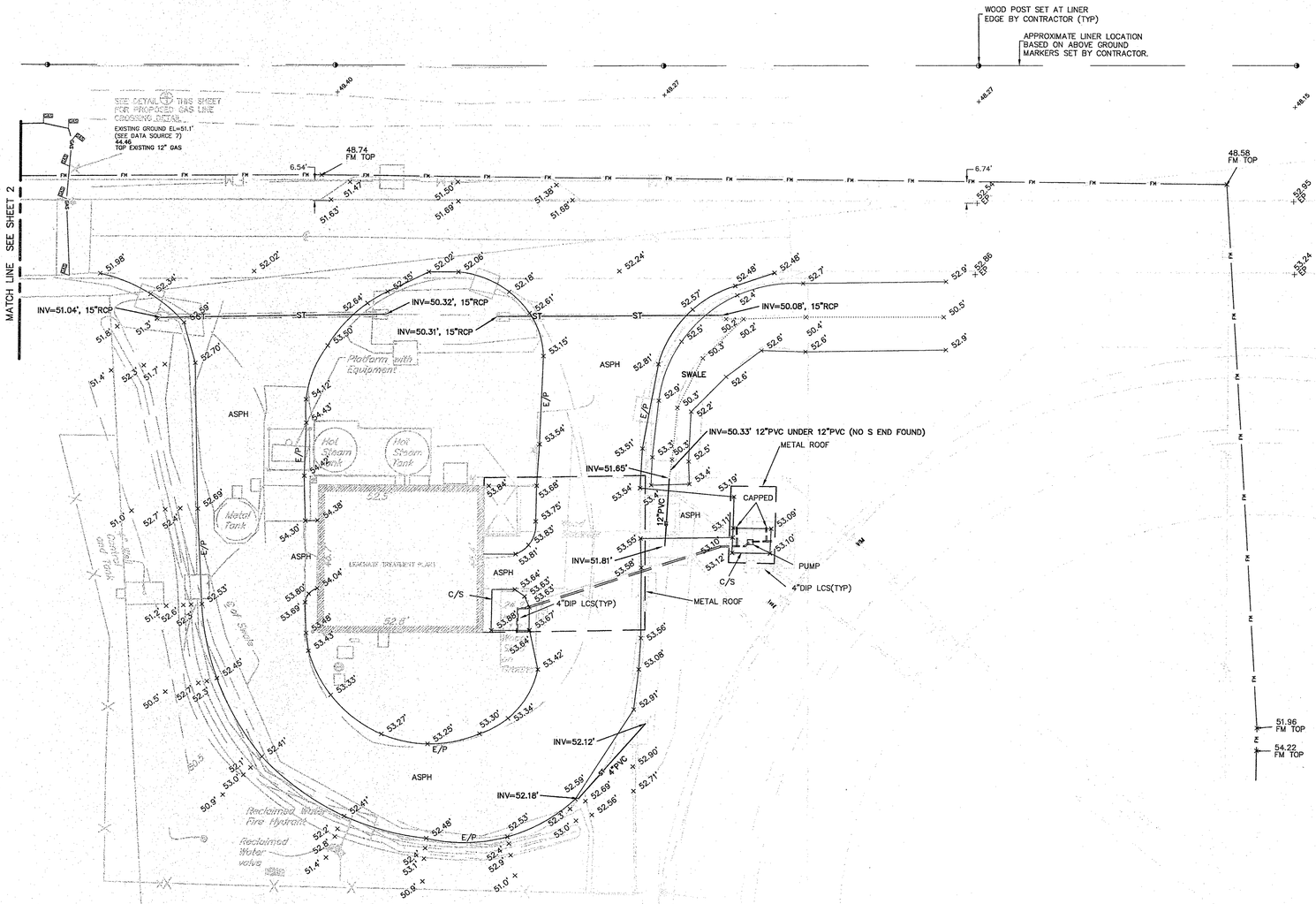
Section 25, Township 24 South, Range 17 East,
County of Pasco, State of Florida







DRAWN	FLORIDA DESIGN CONSULTANTS, INC.	SUBJECT:	SHEET DESCRIPTION:
JEB	ENGINEERS, ENVIRONMENTALISTS, SURVEYORS & PLANNERS	PASCO COUNTY LANDFILL	**RECORD SURVEY**
CHECKED	3030 Starkey Blvd. New Port Richey FL. 34655		UTILITIES
JEB	Tel. (727) 849-7588 - Fax: (727) 848-3648		
QUALITY CONTROL	Certificate of Authorization: LB 6707 State of Florida		
DB			

NO.	DATE	REVISIONS	BY	QUALITY CONTROL
14	11-8-2010	ADD SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS	LCS	DB
13	10-25-2010	ADD SOD AREAS	LCS	DB
12	10-20-2010	ADD FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM AND FINAL GROUND ELEVATIONS	LCS	DB
11	7-22-2010	ADD LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS	LCS	DB
10	7-8-2010	ADD FORCEMAIN, LEACHATE DETECTION SYSTEM AND LEACHATE COLLECTION SYSTEM LOCATIONS	LCS	DB
1-9	VARIOUS	SEE LIMITATIONS 10	JEB	DB

SHEET INDEX.
1. SURVEYOR'S REPORT
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4. MAP OF SURVEY – CELL ELEVATIONS
5. MAP OF SURVEY – MONITOR WELLS

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JOB NUMBER: 2009-70 EPN: N/A
PROJECT DATA BASE: 2009-70-CON
FIELD BOOK NUMBER & PAGES: SEE LIMITATIONS 10
LAST DATE OF ORIGINAL FIELD WORK: SEE LIMITATIONS 10
SCALE: 1" = 20'

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DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

SHEET 3 OF 5

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Section 25, Township 24 South, Range 17 East,
County of Pasco, State of Florida

N

0 30 60 120

CONTROL POINT #101
SCM 4"x4"
FDC LB 6707 TRAV PT

CONTROL POINT #102
SCM 4"x4"
FDC LB 6707 TRAV PT

ROCK RIP-RAP
SEE SHEET 2

LIMITS OF SOD(TYP)

FABRI FORM
RIP-RAP
SEE SHEET 2

1450.57'(F)

S83°33'24"W(F)

ELEVATIONS SHOWN AS THIS ARE GROUND BEFORE THE LCS AND LDS WERE INSTALLED(TYP)

FABRI FORM
RIP-RAP
SEE SHEET 2

ELEVATIONS SHOWN AS THIS ARE GROUND AFTER FILL PLACED ON TOP OF THE LCS AND LDS(TYP)

ROCK RIP-RAP
SEE SHEET 2

8" LEACHATE DETECTION SYSTEM HEADER PIPE

8" LEACHATE COLLECTION SYSTEM HEADER

LEACHATE COLLECTION
SYSTEM 4' DIA MANHOLE
E INV 41.05
W INV 40.90

LEACHATE DETECTION
SYSTEM 4' DIA MANHOLE
E INV 48.55
W INV 48.40

S04°09'19"E(F)

746.11'(F)

N02°33'27"E(F)

LIMITS OF SOD(TYP)

WOOD POST SET AT LINER
EDGE BY CONTRACTOR (TYP)

APPROXIMATE LINER LOCATION
BASED ON ABOVE GROUND
MARKERS SET BY CONTRACTOR.

ROCK RIP-RAP
SEE SHEET 2

CONTROL POINT #100
SCM 4"x4"
FDC LB 6707 TRAV PT

N85°13'04"E(F)
156.17'(F)

(BEARING BASIS)
S89°55'01"E(P,F)

600.02'(F)
600.04'(P)

FABRI FORM
RIP-RAP
SEE SHEET 2

SEE DETAIL "A"
SHEET 4

FABRI FORM
RIP-RAP
SEE SHEET 2

N89°51'16"E(F)

592.91'(F)

CONTROL POINT #103
SCM 4"x4"
FDC LB 6707 TRAV PT

16+00 15+00 14+00 13+00 12+00 11+00 10+00 9+00 8+00 7+00 6+00 5+00

CONTROL POINT #506
FIR 1/2"
ILLEGIBLE

SITE TBM #1

SITE TBM #2

CONTROL POINT #507
FIR 1/2"
ILLEGIBLE

THERE WERE TWO CONTROL POINT #506's IN THE PROVIDED PLANS. THIS POINT WAS RENUMBERED TO #507 FOR IDENTIFICATION PURPOSES ONLY. (SEE LIMITATION 11 FOR MORE INFORMATION)

FLORIDA DESIGN CONSULTANTS, INC. PERFORMED A LEVEL BENCH RUN WHICH RESULTED IN A MEASURED ELEVATION FOR CONTROL POINT #506 OF 50.38' (SEE LIMITATION 12 FOR MORE INFORMATION)

6'CLF W/BARB WIRE

GATE

CONC FLUME

0.8' CONC CURB

E/P

DETAIL "A"
1" = 20'

FABRI FORM
RIP-RAP

FABRI FORM
RIP-RAP

MES

22"x36"ERCP

22"x36"ERCP

6'CLF

CONC WALL

CONC WALL

CONTROL POINTS			
POINT #	NORTHING	EASTING	ELEVATION
100	1,467,688.18'(F)	318,274.28'(F)	50.11'(F)
101	1,468,432.41'(F)	318,221.34'(F)	44.13'(F)
102	1,468,595.19'(F)	319,662.75'(F)	64.77'(F)
103	1,467,701.84'(F)	319,622.85'(F)	51.51'(F)
506	1,467,701.20'(P)	318,429.90'(P)	50.38'(C)
507	1,467,700.33'(P)	319,029.94'(P)	51.59'(P)

DRAWN: JEB
CHECKED: JEB
QUALITY CONTROL: DB

FLORIDA DESIGN CONSULTANTS, INC.
ENGINEERS, ENVIRONMENTALISTS, SURVEYORS & PLANNERS
3030 Starkey Blvd. New Port Richey FL, 34655
Tel: (727) 849-7588 - Fax: (727) 848-3648
Certificate of Authorization: LB 6707
State of Florida

SUBJECT:
PASCO COUNTY LANDFILL

SHEET DESCRIPTION:
RECORD SURVEY
CELL ELEVATIONS

NO.	DATE	REVISIONS	BY	QUALITY CONTROL
14	11-8-2010	ADD SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS	LCS	DB
13	10-25-2010	ADD SOD AREAS	LCS	DB
12	10-20-2010	ADD FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM AND FINAL GROUND ELEVATIONS	LCS	DB
11	7-22-2010	ADD LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS	LCS	DB
10	7-8-2010	ADD FORCEMAIN, LEACHATE DETECTION SYSTEM AND LEACHATE COLLECTION SYSTEM LOCATIONS	LCS	DB
1-9	VARIOUS	SEE LIMITATIONS 10	JEB	DB

SHEET INDEX.
1. SURVEYOR'S REPORT
2-3. MAP OF SURVEY - UTILITIES
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5. MAP OF SURVEY - MONITOR WELLS

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JOB NUMBER: 2009-70 EPM: N/A
PROJECT DATA BASE: 2009-70-CON
FIELD BOOK NUMBER & PAGES: SEE LIMITATIONS 10
LAST DATE OF ORIGINAL FIELD WORK: SEE LIMITATIONS 10
SCALE: 1" = 60'

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Dennis Boggs
DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

SHEET 4 OF 5

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Section 25, Township 24 South, Range 17 East,
County of Pasco, State of Florida

N

0 30 60 120

MONITOR WELL BOLLARDS ARE
4" CONC FILLED METAL(TYP)

MONITOR WELL 2MW-25-D
TOP CASING EL=48.06'
TOP 2"PVC EL=47.87'
C/S EL=45.15'

MONITOR WELL 2MW-25-S
TOP CASING EL=48.09'
TOP 2"PVC EL=47.84'
C/S EL=45.27'

1450.57'(F)

S83°33'24"W(F)

CONTROL POINT #102
SCM 4"x4"
FDC LB 6707 TRAV PT

MONITOR WELL 2MW-24-D
TOP CASING EL=50.79'
TOP 2"PVC EL=50.55'
C/S EL=47.37'

MONITOR WELL 2MW-24-S
TOP CASING EL=50.58'
TOP 2"PVC EL=50.37'
C/S EL=47.43'

CONTROL POINT #101
SCM 4"x4"
FDC LB 6707 TRAV PT

8" LEACHATE DETECTION SYSTEM HEADER PIPE

12" LEACHATE COLLECTION SYSTEM HEADER PIPE

MONITOR WELL 2MW-26-D
TOP CASING EL=54.39'
TOP 2"PVC EL=54.13'
C/S EL=51.19'

MONITOR WELL 2MW-26-S
TOP CASING EL=54.34'
TOP 2"PVC EL=54.16'
C/S EL=51.06'

LEACHATE COLLECTION
SYSTEM 4" DIA MANHOLE
E INV 41.00
W INV 40.90

LEACHATE DETECTION
SYSTEM 4" DIA MANHOLE
E INV 40.50
W INV 40.40

EXISTING GROUND
ABOVE PIPE=49.2'
(SEE DATA SHEET 7)

PROPOSED 6"
SANITARY FORCEMAIN

BOTTOM=43.28'(MINIMUM)
(PROPOSED)

2.00' CLEARANCE MINIMUM

TOP=41.28'
(EXISTING)

EXISTING 12" GAS LINE

WEST END CROSSING DETAIL
N.T.S.

S04°04'07"E(F)

746.11'(F)

SEE DETAIL 4 THIS SHEET
FOR PROPOSED GAS LINE
CROSSING DETAIL

CONTROL POINT #100
SCM 4"x4"
FDC LB 6707 TRAV PT

N85°13'04"E(F)
156.17'(F)

(BEARING BASIS)
S89°55'01"E(P,F)

600.02'(F)
600.04'(P)

N89°51'16"E(F)

592.91'(F)

CONTROL POINT #103
SCM 4"x4"
FDC LB 6707 TRAV PT

8" GAS

ASPHALT

16+00 15+00 14+00 13+00 12+00 3+00 2+00 1+00 0+00

CONTROL POINT #506
FIR 1/2"
ILLEGIBLE

SITE TBM #1

FLORIDA DESIGN CONSULTANTS, INC.
PERFORMED A LEVEL BENCH RUN WHICH
RESULTED IN A MEASURED ELEVATION FOR
CONTROL POINT #506 OF 50.38' (SEE
LIMITATION 12 FOR MORE INFORMATION)

DESIGNATIONS FOR THESE
MONITOR WELLS PROVIDED
BY CARY RICHARDSON

SITE TBM #2

MONITOR WELL 2MW-27S
TOP CASING EL=50.58'
TOP 2"PVC EL=50.44'
C/S EL=47.45'

CONTROL POINT #507
FIR 1/2"
ILLEGIBLE

THERE WERE TWO CONTROL POINT #506's
IN THE PROVIDED PLANS. THIS POINT
WAS RENUMBERED TO #507 FOR
IDENTIFICATION PURPOSES ONLY. (SEE
LIMITATION 11 FOR MORE INFORMATION)

MONITOR WELL 4MW-27D
TOP CASING EL=49.88'
TOP 2"PVC EL=49.28'
C/S EL=46.27'

MONITOR WELL 2MW-27D
TOP CASING EL=50.55'
TOP 2"PVC EL=50.32'
C/S EL=47.22'

MONITOR WELL 4MW-27
TOP CASING EL=50.03'
TOP 4"PVC EL=49.60'
C/S EL=46.77

N02°13'27"E(F)

884.24'(F)

CONTROL POINTS			
PONIT #	NORTHING	EASTING	ELEVATION
100	1,467,688.18'(F)	318,274.28'(F)	50.11'(F)
101	1,468,432.41'(F)	318,221.34'(F)	44.13'(F)
102	1,468,595.19'(F)	319,662.75'(F)	64.77'(F)
103	1,467,701.84'(F)	319,622.85'(F)	51.51'(F)
506	1,467,701.20'(P)	318,429.90'(P)	50.38'(C)
507	1,467,700.33'(P)	319,029.94'(P)	51.59'(F)

DRAWN: JEB
CHECKED: JEB
QUALITY CONTROL: DB

FLORIDA DESIGN CONSULTANTS, INC.
ENGINEERS, ENVIRONMENTALISTS, SURVEYORS & PLANNERS
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Tel. (727) 849-7588 - Fax: (727) 848-3648
Certificate of Authorization: LB 6707
State of Florida

SUBJECT:
PASCO COUNTY LANDFILL

SHEET DESCRIPTION:
RECORD SURVEY
MONITOR WELLS

NO.	DATE	REVISIONS	BY	QUALITY CONTROL
14	11-8-2010	ADD SOD AREAS, LEACHATE SYSTEM, PARKING AND STORM DRAIN PIPE LOCATIONS	LCS	DB
13	10-25-2010	ADD SOD AREAS	LCS	DB
12	10-20-2010	ADD FORCEMAIN, WATER LINE, DRAINAGE STRUCTURES, LEACHATE SYSTEM AND FINAL GROUND ELEVATIONS	LCS	DB
11	7-22-2010	ADD LEACHATE SYSTEM AND STORM DRAIN PIPE LOCATIONS	LCS	DB
10	7-8-2010	ADD FORCEMAIN, LEACHATE DETECTION SYSTEM AND LEACHATE COLLECTION SYSTEM LOCATIONS	LCS	DB
1-9	VARIOUS	SEE LIMITATIONS 10	LEB	DB

SHEET INDEX:
1. SURVEYOR'S REPORT
2-3. MAP OF SURVEY – UTILITIES
4. MAP OF SURVEY – CELL ELEVATIONS
5. MAP OF SURVEY – MONITOR WELLS

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JOB NUMBER: 2009-70 | EPN: N/A
PROJECT DATA BASE: 2009-70-CON
FIELD BOOK NUMBER & PAGES: SEE LIMITATIONS 10
LAST DATE OF ORIGINAL FIELD WORK: SEE LIMITATIONS 10
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DENNIS BOGGS
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 6069
STATE OF FLORIDA

SHEET 5 OF 5

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Appendix H
As-Built Survey

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

Title				
Text				
Text				
Text				
Text				
Text				

Table Title/Figure # Cell

Table Header 1	Table Header 2
Table Text	▪ Table bullet
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text

Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text." Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text."

[Sidebar Bullet]

[Sidebar Bullet]

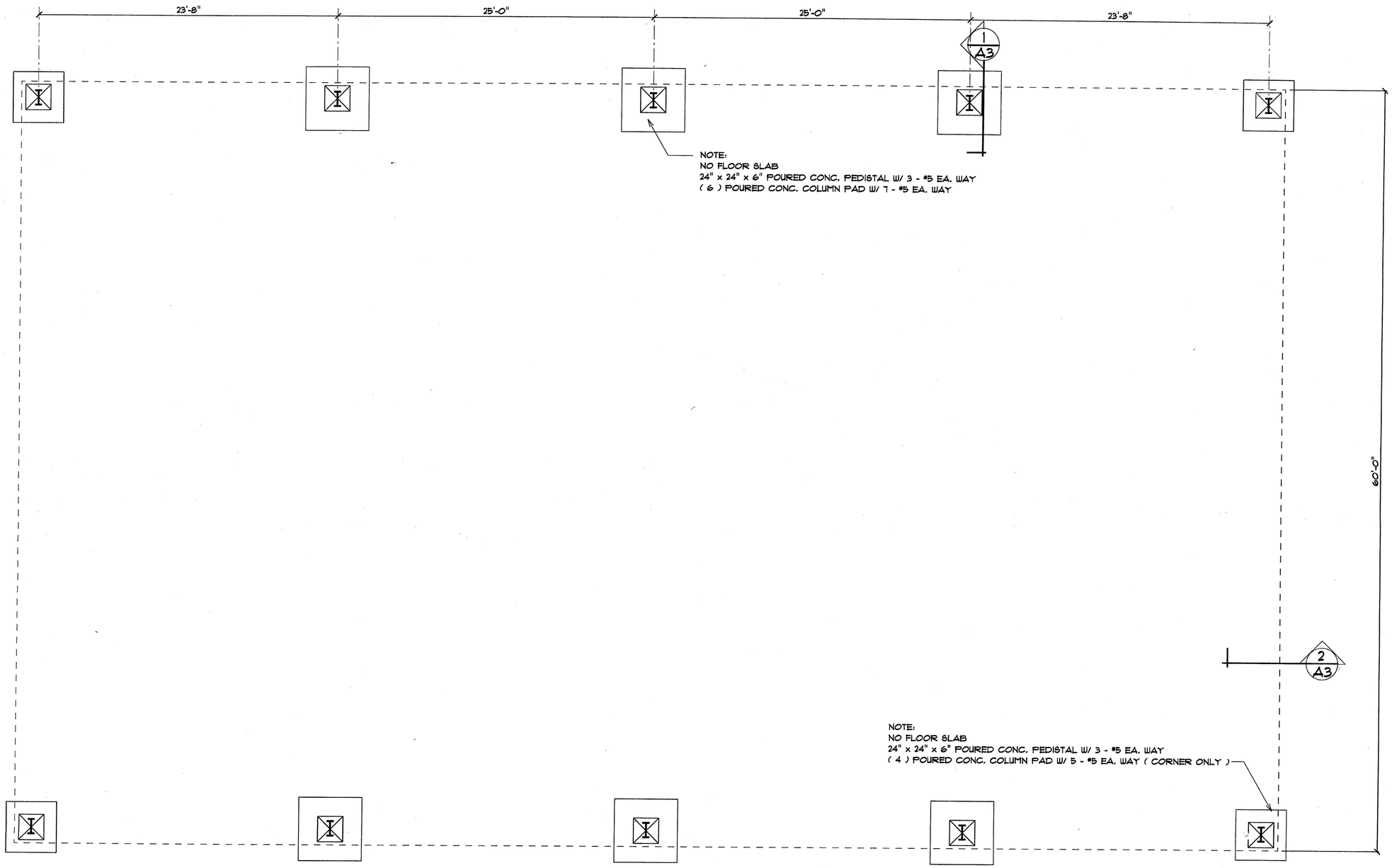
[Sidebar Bullet]

Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976



NOTE:
TOP OF PEDISTAL TO MATCH
EXIST ELEVATION OF ADJACENT
ROAD

FLOOR PLAN

NORTH

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS

J. S. NAGAMIA, P. E.
11104 - N. 61st STREET
TEMPLE TERRACE, FL
TEL: 813 - 988 - 0727 [O & F]

SEAL
I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 2007, CHAPTER 18 W/ 2009 SUP. 120 MPH WINDS.

APR 8 & 2010

J.S. NAGAMIA, P.E. #19241

1/4"

Berlin Drafting, Inc.
7507 WOODLAND OAKS CT
Tampa, Florida 33615
phone [813 - 968 - 8038]

OWNER AND / OR CONTRACTOR TO THOROUGHLY REVIEW PLANS AND REPORT ANY ERRORS OR OMISSIONS TO BERLIN DRAFTING PRIOR TO CONSTRUCTION. FAILURE TO DO SO RELEASES BERLIN DRAFTING AND GREG BERLIN FROM LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS

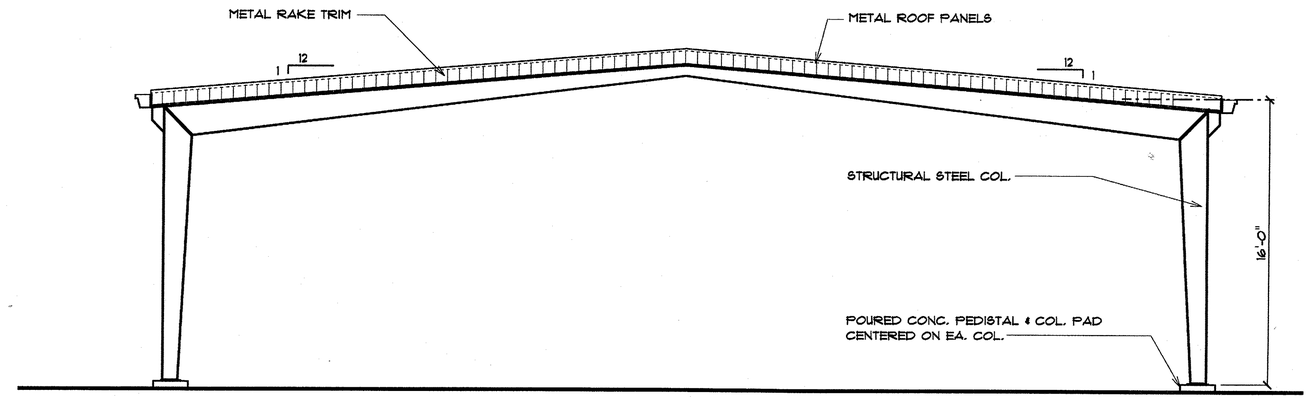
PROJECT NAME: metal building - project no. 813-1025
PASCO COUNTY SOLID WASTE -
EQUIPMENT STORAGE SPRING HILL, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

SHEET TITLE: FLOOR PLAN

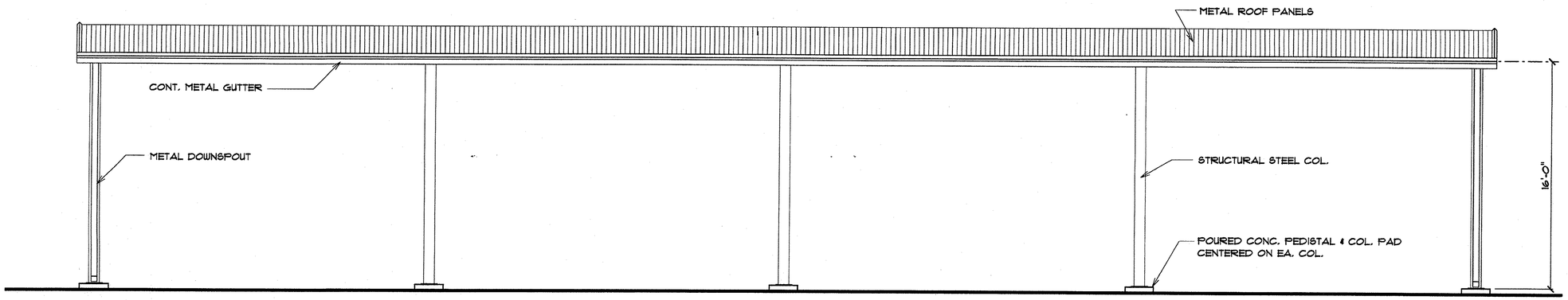
REVISED DATE:	DATE: April 02, 2010	DRAWING NUMBER
JOB NO. 09-047	SCALE: 1/4" = 1'-0"	A1

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS



END ELEVATIONS



SIDE ELEVATIONS

J. S. NAGAMIA, P. E.
11104 - N. 61st STREET
TEMPLE TERRACE, FL
TEL: 813 - 988 - 0727 [O & F]

SEAL

I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 2007, CHAPTER 18 W/ 2009 SUP. 120 MPH WINDS

J.S. NAGAMIA, P.E. APR 2 6 2010 #19241

Berlin Drafting, Inc.
7507 WOODLAND OAKS CT
Tampa, Florida 33615
phone [813 - 968 - 8038]

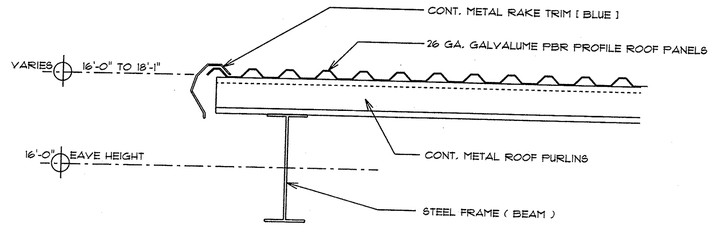
OWNER AND / OR CONTRACTOR TO THOROUGHLY REVIEW PLANS AND REPORT ANY ERRORS OR OMISSIONS TO BERLIN DRAFTING PRIOR TO CONSTRUCTION. FAILURE TO DO SO RELEASES BERLIN DRAFTING AND GREG BERLIN FROM LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS

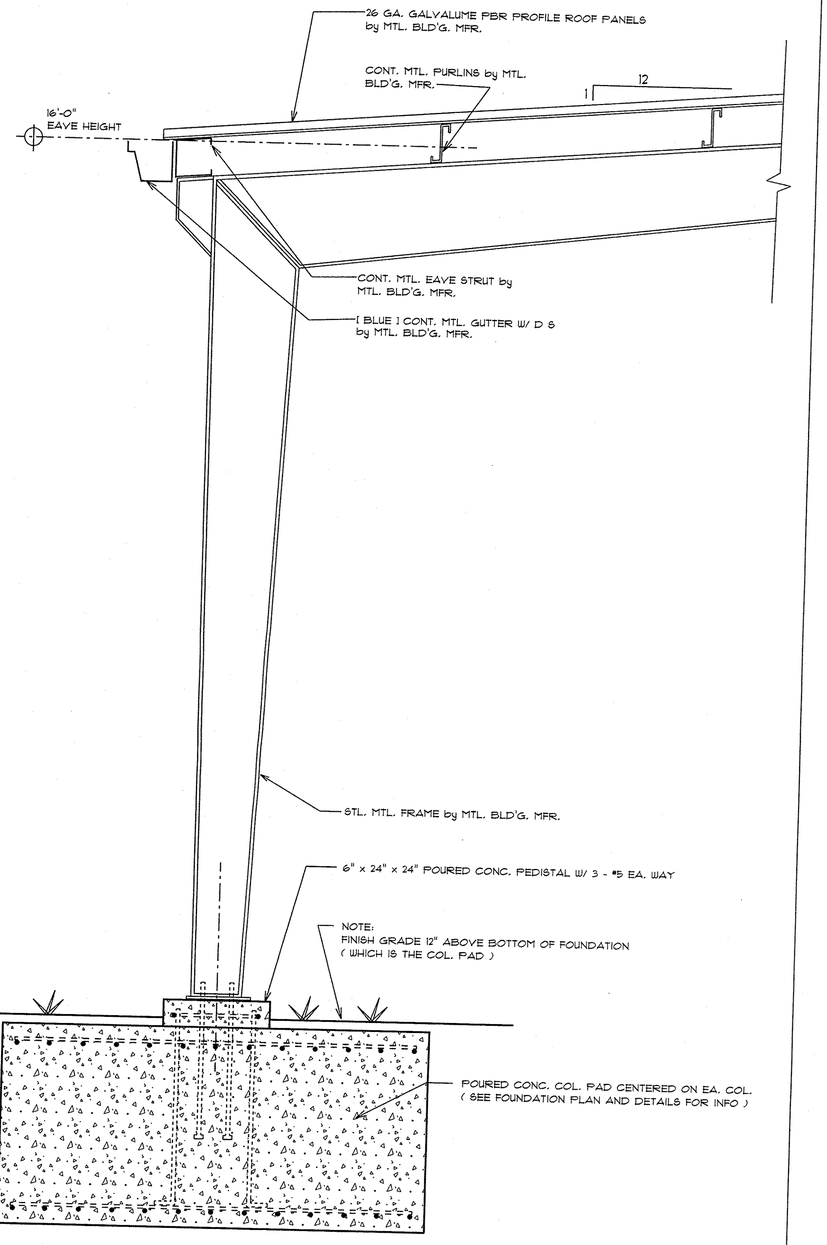
PROJECT NAME: metal building - project no. 813-1025
FASCO COUNTY SOLID WASTE - EQUIPMENT STORAGE SPRING HILL, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

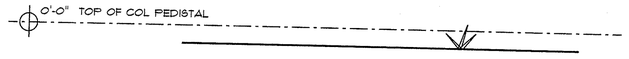
SHEET TITLE: EXTERIOR ELEVATIONS

REVISED DATE:
DATE: March 17, 2010
DRAWING NUMBER: A2
JOB NO. 09-047
SCALE: 1/4" = 1'-0"

1/4"







SECTION 2 / A3

SECTION 1 / A3

NOTE:
TOP OF ALL COL. PAD TO MATCH ELEVATION OF ADJACENT ROAD (PEDISTAL TO BE 6" ABOVE EXIST. ELEV. OF ADJ. ROAD)

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS

1/4"

J. S. NAGAMIA, P. E.
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TEMPLE TERRACE, FL
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SEAL
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PASCO COUNTY SOLID WASTE - EQUIPMENT STORAGE
SPRING HILL, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

SHEET TITLE: WALL SECTIONS

REVISED DATE:	DATE: April 23, 2010	DRAWING NUMBER A3
JOB NO. 04-047	SCALE: 3/4" = 1'-0"	

GENERAL STRUCTURAL NOTES:

All Materials, Workmanship, Design and Construction Shall Conform to the Drawings, Specifications Florida Building Code 2007, Chapter 18. W/ 2009 SUPPLEMENTS

DESIGN LOAD CRITERIA

Roof Live Load _____ 20psf
Floor Live Load _____ 125psf
Roof Dead Load _____ 2.7psf (Collateral: 3.0)

Structural Drawings Shall be Used in Conjunction With Architectural Drawings For Bidding And Construction. Contractor Shall Verify Dimensions and Conditions For Compatibility and Shall Notify Architect of Any Discrepancies Prior to Construction

Contractor Shall Verify All Existing Conditions Prior to Commencing Any Work And Determine The Location of All Adjacent Underground Utilities Prior to Commencing Excavation, and Notify Architect of Discrepancies and Conflicts.

Contractor Shall Provide Temporary Bracing for the Structure and Structural Components until All Final Connections Have Been Completed in Accordance With the Plans.

All Shop Drawings Shall Also be Submitted to The Building Department.

Shop Drawings Review: Dimensions and Quantities are Not Reviewed by The Engineer of Record, Therefore Must be Verified by The Contractor. Contractor Shall Review and Stamp Drawings Prior to Review by Engineer of Record. Submittals Shall Include a Reproducible And One Copy. Reproducible Will be Marked And Returned.

Shop Drawings Submittals Processed by The Engineer Are Not Change Orders. The Purpose of Submittal by The Contractor is to Demonstrate Understanding of the Design Concept, The Materials Intended to be Furnished and Installed, and to Detail The Intended Fabrication And Installation Methods. If Deviations, Discrepancies, or Conflicts Between Shop Drawing Submittal And The Contract Drawings Are Discovered Either Prior to, or After Shop Drawing Submittal Are Processed by The Engineer, The Design Drawings And Specifications Shall Control And be Followed.

CONCRETE

Concrete Shall be Mixed, Proportioned, Conveyed and Place in Accordance With ACI 301. Concrete Shall Attain a 28 Day Strength of F'c = 3,000psi And Shall be Proportioned to Produce a Slump of 6" or Less

Reinforcing Steel Shall Conform To ASTM 1615, Grade 60, Fy = 60,000psi.
Welded Wire Fabric Shall Conform To ASTM A-185.

Reinforcing Steel Shall be Detailed (Including Hooks and Bends) in Accordance With ACI 315-99 and 318-05, Lap All Continuous Reinforcement 48 Bar Diameters or 21" Minimum. Lap Adjacent Mats of Welded Wire Fabric A Minimum of 8" at Sides And Ends.

Concrete Protection (Cover) For Reinforcing Steel Shall be as Follows:
Footings And Other Unformed Surfaces, Earth Face _____ 3"
All Other Surfaces _____ 1- 1/2"

Epoxy-Grouted Items Specified on The Drawings Shall be Grouted With HS-200 Bond Epoxy by Bond-It Fastening Systems, Adhesives Technology Corporation or Equal. Install in Strict Accordance With Manufacturers Recommendations.

STRUCTURAL DESIGN DATA:

DESIGN AND MATERIAL CRITERIA: THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDTION OF THE FLORIDA BUILDING CODE. ALL WORK IS TO TO BE PERFORMED PER CHAPTER 18 OF THE FBC 2007 W/ 2009 SUPPLEMENTS, AND OTHER APPLICABLE CHAPTERS

DESIGN LOADS:

FLOOR LIVE LOAD:.....125 PSF
ROOF LIVE LOAD:.....20 PSF
WIND VELOCITY:.....120 MPH

1. CODES:

1.1 FLORIDA BUILDING CODE CURRENT EDITION
1.2 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE [ACI 318-99]
1.3 AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES [ASCE - 7-02]

2. SOILS:

2.1 MINIMUM ALLOWABLE SOIL PRESSURE: 2000 PSF

3. CONCRETE:

3.1 CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS: 3000 PSI, [NORMAL WEIGHT]
3.2 REINFORCING BARS: ASTM A1615 GR 60, FY = 60,000 PSI
3.3 WELDED WIRE FABRIC: ASTM A185, FY = 65,000 PSI
3.4 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315
3.5 CONCRETE COVER FOR REINFORCEMENT: FOOTING: 3" BOTTOM AND SIDES, BEAMS AND COLUMNS: 1 1/2" FILLED CELLS AND SLAB ON GRADE: CENTERED
3.6 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS
3.7 LAP SPLICES SHALL BE AS FOLLOWS: #5 BARS: 25", #7 BARS: 35" [MIN. LAP 40 x BAR DIA.]
3.8 ANCHOR BOLTS: PER STEEL BUILDING MANUFACTURES DRAWINGS.

4. GENERAL

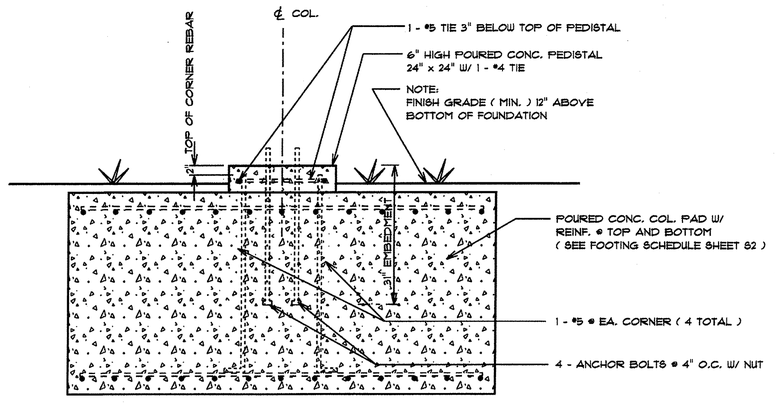
4.1 CONTINUOUS SPREAD FOOTINGS ARE DESIGNED WITH AN ALLOWABLE SOIL PRESSURE OF 2,000 PSI.
4.2 ALL FILL UNDER SLABS AND FOUNDATIONS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY [MODIFIED PROCTER TEST] AT OPTIMUM MOISTURE CONTENT
4.3 PROOF - ROLL ALL EXISTING GRADE AS REQUIRED
4.4 THE CONTRACTOR SHALL COORDINATE THE LOCATION OF INSERTS, WELD PLATES AND ALL OTHER ITEMS TO BE EMBEDED IN THE CONCRETE AS REQUIRED BY OTHER TRADES
4.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND COORDINATING THE DIMENSIONS AND DRAWINGS OF ALL TRADES. ALL STRUCTURAL OPENINGS, THEIR SIZE AND EXACT LOCATIONS, AFFECTED BY MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADE EQUIPMENT, SHALL BE VERIFIED BEFORE PROCEEDING WITH THE STRUCTURAL WORK AFFECTED.
4.6 ANY CONFLICT BETWEEN DRAWINGS AND/OR SPECFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK
4.7 THE STRUCTURAL INTEGRITY OF THE BUILDING SHOWN ON THESE PLANS IS BASED UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF SUPPORTING DURING CONSTRUCTION AND WILL REQUIRE TEMPORARY BRACING UNTILL PERMANENTLY AFFIXED TO STRUCTURE AS DIRECTED. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION, UNLESS THE CONSTRUCTION METHODS AND BRACING ARE INCLUDED IN PLANS AND SPECIFICATIONS, OR HEREBY SUPERVISED BY THE STRUCTURAL ENGINEER. NO CHANGES TO THESE PLANS AND SPECIFICATIONS ARE TO BE MADE UNLESS WRITTEN PREMISSION FROM THE ENGINEER OF RECORD IS OBTAINED. THESE PLANS ARE VALID FOR ONE YEAR FROM DATE OF SIGNATURE.

5.0 PRE-ENGINEERED STEEL BUILDINGS:

5.1 STRUCTURAL DESIGN OF STEEL BUILDING IS NOT PART OF THIS DRAWING. CONSULT WITH THE STEEL BUILDING MANUFACTURER FOR DETAILS OF STEEL CONNECTIONS AND DIMENSIONS. THIS DRAWING IS LIMITED TO CONCRETE FOUNDATION ONLY.

Termite Protection FLORIDA BUILDING CODE - 2007 w/ 2009 Supplements SECTION 1816
1816.1 Shall be provided by registered termiticides, including soil-applied pesticides, baiting systems and pesticides applied to wood, or other approved methods of termite protection. Upon completion of application obtain certificate of compliance issued by building department containing statement " The building has received a complete treatment for the prevention of subterranean termites. " " Treatment is in accordance with rules and laws established by the Florida Department of Agriculture and Consumer Services. "
1816.1.1 If soil treatment is used for subterranean termite prevention: the initial chemical treatment inside the foundation perimeter shall be done after all excavation and backfill is complete.
1812.1.2 If soil area id disturbed after initial chemical treatment those areas will be retreated.
1812.1.3 If soil treatment is used for subterranean termite prevention, epaces in conc. floor for installation of plumbing traps, drains or any purpose shall be created using plastic or metal permenantly placed forms, sufficient depth to eliminate further soil disturbance.
1816.1.4 Soil treatment used for subterranean termite prevention shall be protected with a 6 mil vapor retarder to protect against rainfall dilution. Any work performed after chemical treatment shall be done in a manor to avoid penetrating or disturbing treated soil.
1816.1.5 Concrete overpour or mortar accumulation along exterior perimiter of building shall be removed prior to chemical treatment for subterranean termite prevention.
1816.1.6 Chemical treatment for subterranean termite prevention shall be applied under all exterior concrete or grade within 1 foot of structure sidewalls. Also a vertical chemical barrier shall be applied promptly after construction including landscaping and irrigation / sprinkler installation. Retreat promptly if soil is disturbed.
1816.1.7 If a registered termiticide formulated and registered as a bait system is used for subterranean termite protection: Sections 1816.1.1 through 1816.1.6 do not apply. Application of wood treatment termiticide as directed by label directions, prior to final building approval. Any changes or addition to framing: areas must be treated prior to final building approval.
1816.2.2 If soil treatment is used for subterranean protection, the protective sleeve shall meet the following minimum requirements:

1. The sleeve shall have a nominal thickness of 0.025 inch
2. The sleeve shall be sized for the pipe.
3. The sleeve shall be sealed within the slab using a noncorrosive mechanical clamping device to eliminate the annular space between pipe and pipe sleeve.



SECTION 1/S1

NOTE:
FOR WIND LOADS: REFER TO STEEL BUILDINGS MANUFACTURES SHOP DRAWINGS.

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
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TEMPLE TERRACE, FL
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APR 2 4 2010

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contractor:
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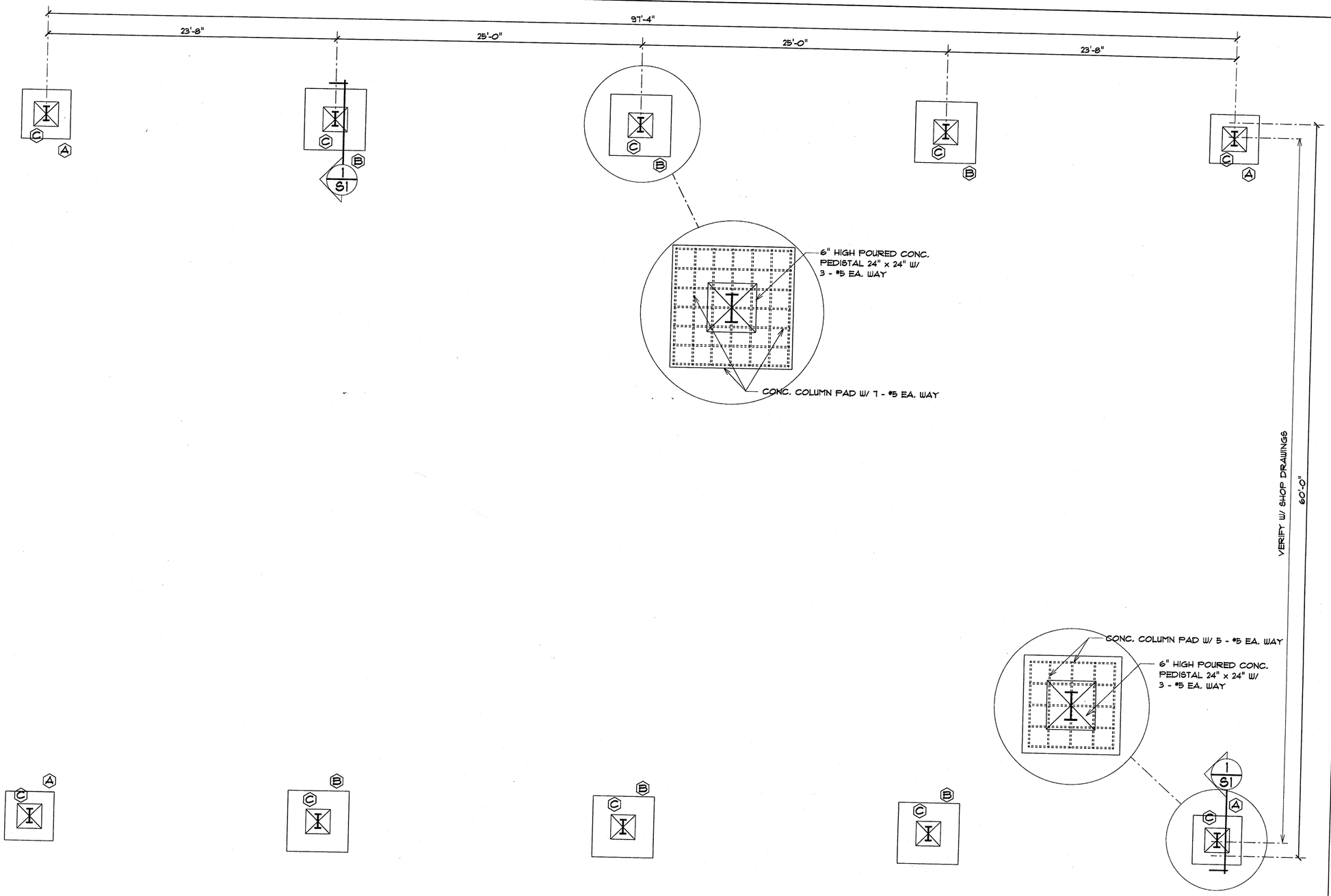
SHEET TITLE: DESIGN DATA

REVISED DATE:
DATE: April 23, 2010
JOB NO. 09-047
SCALE: 1/4" = 1'-0"
DRAWING NUMBER S1



FOOTING SCHEDULE				
MARK	LENGTH	WIDTH	DEPTH	REINFORCING
A	6'-0"	6'-0"	4'-9"	11 - #5 EA. WAY TOP AND BOTTOM
B	8'-6"	8'-0"	4'-9"	13 - #5 EA. WAY TOP AND BOTTOM
C	2'-0"	2'-0"	6"	1 - #4 EA. TIE
D				
E				

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NORTH

FOUNDATION PLAN

NOTE:
TOP OF ALL COL. PADS TO MATCH ELEVATION OF ADJACENT ROAD (PEDISTAL TO BE 6" ABOVE EXIST. ELEV. OF ADJ. ROAD)

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contractor:
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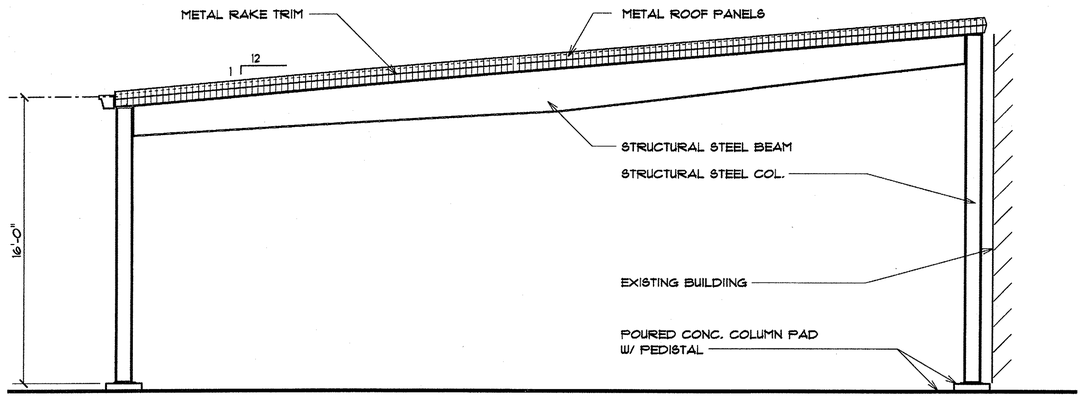
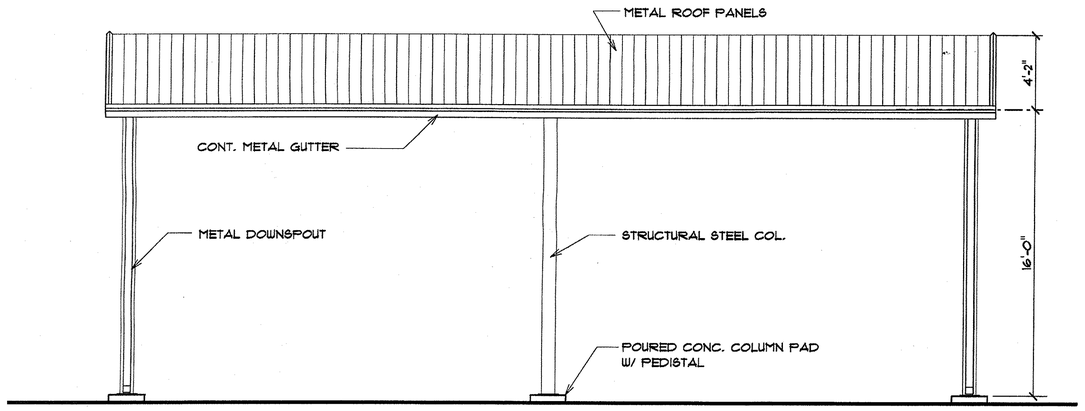
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480
SHEET TITLE: FOUNDATION PLAN
REVISED DATE:
DATE: April 18, 2010
JOB NO. 09-047
SCALE: 1/4" = 1'-0"
DRAWING NUMBER S2



END ELEVATION



SIDE ELEVATION

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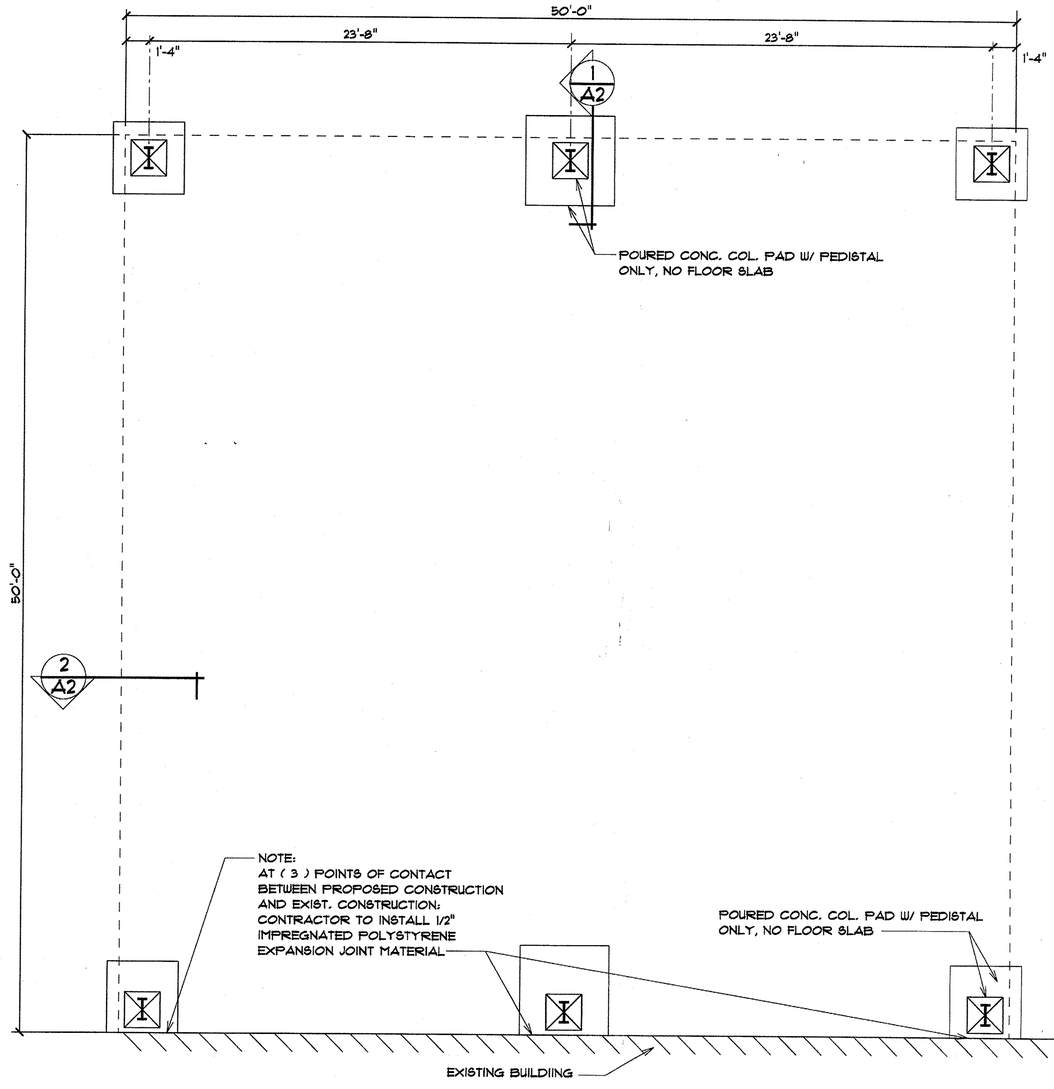

FLOOR PLAN

NORTH

1/4"

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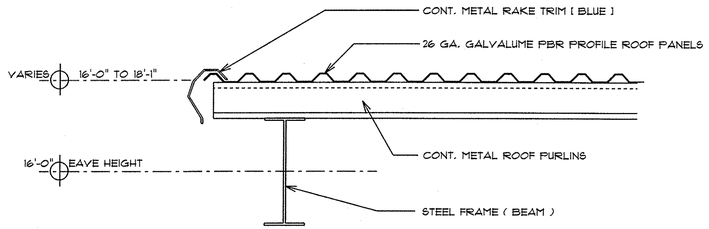
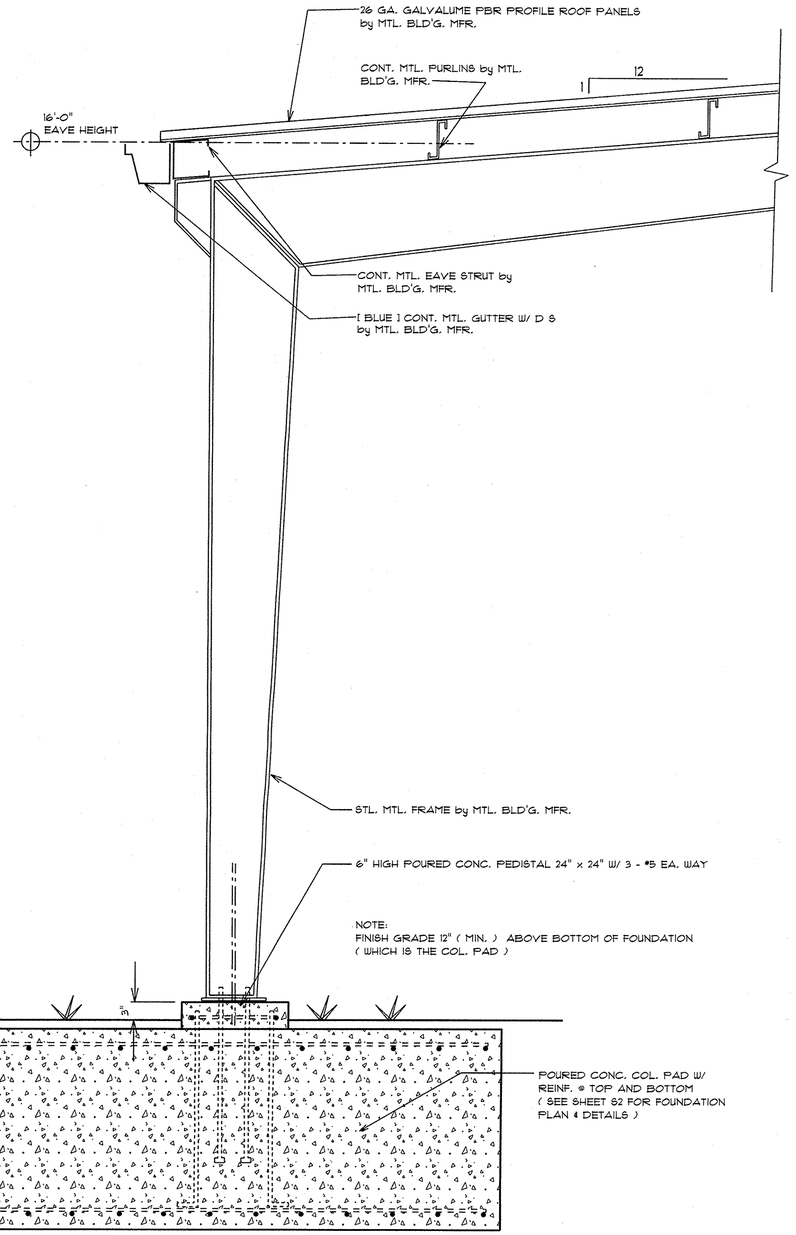
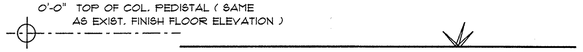
PASCO COUNTY LEACH AID BUILDING
HUDSON, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

SHEET TITLE: FLOOR PLAN

REVISED DATE:
DATE: March 17, 2010
JOB NO. 09-048
SCALE: 1/4" = 1'-0"
DRAWING NUMBER A1







SECTION 2 / A2

SECTION 1 / A2

NOTE:
TOP OF ALL PEDISTALS TO MATCH FINISH FLOOR ELEVATON OF EXIST. ADJ. FLOOR SLAB

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1/4"

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SHEET TITLE: WALL SECTIONS

REVISED DATE:	DATE: April 23, 2010	DRAWING NUMBER
JOB NO. 04-048	SCALE: 3/4" = 1'-0"	A2

Termite Protection
Termite Protection 2004
1. FRC R320.1 - "A permanent sign which identifies the termite treatment provider and need for re-inspection and treatment contract renewal shall be provided. The sign shall be posted near the water heater or electric panel".
2. FRC R320.1.6 - Condensate and roof downspouts shall discharge at least 1'-0" away from the building sidewalls.
3. FRC R320.1.6 - Irrigation/sprinkler systems including all risers and spray heads shall not be installed within 1'-0" of the building sidewall.
4. FRC R320.1.6 - To provide for inspection for termite infestation, between wall covering and final earth grade shall not be less than 6 inches. Exception: Paint or decorative cementitious finish less than 5/8" thick adhered directly to the foundation wall.
5. FRC R320.1.1 - Initial treatment shall be done after all excavation and backfill is complete.
6. FRC R320.1.2 - Soil disturbed after the initial treatment shall be retreated including spaces boxed or formed.
7. FRC R320.1.3 - Boxed areas in concrete floors for subsequent installation of traps, etc., shall be made with permanent metal or plastic forms. Permanent forms must be of a size and depth that will eliminate the disturbance of soil after the initial treatment.
8. FRC R320.1.4 - Minimum 6 mil vapor retarder must be installed to protect against rainfall dilution. If rainfall occurs before vapor retarder placement, retreatment is required.
9. FRC R320.1.5 - Concrete overpour and mortar along the foundation perimeter must be removed before exterior soil treatment.
10. FRC R320.1.6 - Soil treatment must be applied under all exterior concrete or grade within 1'- 0" of the structure sidewalls.
11. FRC R320.1.4 - An exterior vertical chemical barrier must be installed after construction is complete, including landscaping and irrigation. Any soil disturbed after the vertical barrier is applied, shall be retreated.
12. FRC R320.1 - All buildings are required to have pre-construction treatment.
13. FRC R320.1 - A certificate of compliance must be issued to the building department by a licensed pest control company before a certificate of occupancy will be issued. The certificate of compliance shall state: "The building has received a complete treatment for the prevention of subterranean termites. The treatment is in accordance with the rules and laws of the Florida Department of Agriculture and Consumer Services".
14. FRC R320.3 - After all work is completed, loose wood and fill must be removed from below and within 1' - 0" of the building. This includes all grade stakes, tub trap boxes, forms, shoring or other cellulose containing material.
15. FRC 2304.11.10.1 - No wood, vegetation, stumps, cardboard, trash, etc. shall be buried within 15' - 0" of any building or proposed building.
SOIL IS TO BE COMPACTED TO 95% MODIFIED PROCTOR AS DEFINED BY ASTM D 1557-91

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS

GENERAL STRUCTURAL NOTES:

All Materials, Workmanship, Design and Construction Shall Conform to the Drawings, Specifications
FRC Residential 2007, Chapter 3. W/ 2009 SUPPLEMENTS
DESIGN LOAD CRITERIA
Roof Live Load _____ 20psf
Floor Live Load _____ 125psf
Roof Dead Load _____ 15psf
Floor Dead Load _____ 25psf

Structural Drawings Shall be Used in Conjunction With Architectural Drawings For Bidding And Construction. Contractor Shall Verify Dimensions and Conditions For Compatibility and Shall Notify Architect of Any Discrepancies Prior to Construction

Contractor Shall Verify All Existing Conditions Prior to Commencing Any Work And Determine The Location of All Adjacent Underground Utilities Prior to Commencing Excavation, and Notify Architect of Discrepancies and Conflicts.

Contractor Shall Provide Temporary Bracing for the Structure and Structural Components until All Final Connections Have Been Completed in Accordance With the Plans.

Contractor Shall be Responsible for All Safety Precautions And The Methods, Techniques, Sequences or Procedures Required to do The Work.

All Shop Drawings Shall Also be Submitted to The Building Department.
Shop Drawings Review: Dimensions and Quantities are Not Reviewed by The Engineer of Record, Therefore Must be Verified by The Contractor. Contractor Shall Review and Stamp Drawings Prior to Review by Engineer of Record. Submittals Shall Include a Reproducible And One Copy. Reproducible Will be Marked And Returned.
Shop Drawings Submittals Processed by The Engineer Are Not Change Orders. The Purpose of Submittal by The Contractor is to Demonstrate Understanding of the Design Concept, The Materials Intended to be Furnished and Installed, and to Detail The Intended Fabrication And Installation Methods. If Deviations, Discrepancies, or Conflicts Between Shop Drawing Submittal And The Contract Drawings Are Discovered Either Prior to, or After Shop Drawing Submittal Are Processed by The Engineer, The Design Drawings And Specifications Shall Control And be Followed.

GEOTECHNICAL
Foundation Notes: The Structural Engineer And Architect Assume no Responsibility For The Foundation. Allowable Soil Pressure And Pile Capacity Listed Below Are Assumed Design Values. Verification by a Qualified Soils Engineer is Strongly Recommended.

CONCRETE
Concrete Shall be Mixed, Proportioned, Conveyed and Place in Accordance With ACI 301. Concrete Shall Attain a 28 Day Strength of F'c = 3,000psi And Shall be Proportioned to Produce a Slump of 6" or Less

Reinforcing Steel Shall Conform To ASTM 1615, Grade 60, Fy = 60,000psi.
Welded Wire Fabric Shall Conform To ASTM A-185.

Reinforcing Steel Shall be Detailed (Including Hooks and Bends) in Accordance With ACI 315-80 and 318-83, Lap All Continuous Reinforcement 48 Bar Diameters or 21" Minimum. Lap Adjacent Mats of Welded Wire Fabric A Minimum of 8" at Sides And Ends.

Concrete Protection (Cover) For Reinforcing Steel Shall be as Follows:
Footings And Other Unformed Surfaces, Earth Face _____ 3"
All Other Surfaces _____ 1- 1/2"

Epoxy-Grouted Items Specified on The Drawings Shall be Grouted With HS-200 Bond Epoxy by Bond-It Fastening Systems, Adhesives Technology Corporation or Equal. Install in Strict Accordance With Manufacturers Recommendations.

MASONRY
Masonry Shall be Constructed of Grade N, Type II Units, Laid up in Running Bond. Mortar Shall be Type M or S And Shall Attain a Minimum Compressive Strength of 2,000psi at 28 Days. Strength Shall be Verified by Prism Testing. Masonry and walls adjacent to cathedral or vaulted ceilings must extend to the ceiling.

Unless Otherwise Noted, Reinforce Walls With #5 Rebar at Each Corner And at 8 Feet Minimum Vertical Spacing. Rebar Shall Extend From Footing to Lintel And Hooked at Each End. Horizontal Reinforcement, Such as DuroWall, Shall be Used at 16" Vertical Spacing.

Fill All Cells Containing Reinforcement or Embedded Items With Concrete Grout. Provide Clean Out Holes at Bottom of All Cells Containing Reinforcement.

Anchor Chimney at Each Floor And Roof, Unless Otherwise Specified. Anchorage Shall Consist of Two 1/4"X2" Steel Straps Cast at Least 12" into Each Face of The Chimney With a 180 Degree Bend and a 6" Extension Around The Vertical Reinforcing Bars in The Outer Face of The Chimney. Each Strap Shall be Fastened to The Joist or Blocking With a Minimum of 2 ea. 1/2" Bolts.

STEEL
Structural Steel Design, Fabrication And Erection Shall be Based on The Latest Editions of The AISC Specifications and Codes:
1. Specifications For Structural Steel Buildings - Allowable Stress Design
2. Code of Standard Practice For Steel Buildings and Bridges, Amended.
3. Specification For Structural Joints Using ASTM A325 or A490 Bolts.

Structural Steel Including Plates And Rolled Shapes, Shall Conform to ASTM A50, Fy=50ksi. Steel Pipe Shall Conform to ASTM A53, Type E or S Grade B, Fy=35ksi. Structural Tubing Shall Conform to ASTM A500, Grade B, Fy=46ksi. Anchor Bolts and Connection Bolts Shall Conform to ASTM A307.

All Welding Shall be in Conformance With AISC and AWS Standards And Shall be Performed by WABO Certified Welders Using E70 Electrodes. Only Prequalified Welders (As Defined by AWS) Shall be Used.

J. S. NAGAMIA, P. E.
11104 - N. 61st STREET
TEMPLE TERRACE, FL
TEL: 813 - 988 - 0727 [O & F]

1/4"

SEAL

I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FLORIDA CODE 2007 CHAPTER 3, SECTION 105.1.1, W/ 2009 SUPPLEMENTS FOR 120 MPH 3 SECOND GUST & EXPOSURE 'C' WIND ZONE
J.S. NAGAMIA, P.E. APR 2 4 2010 #19241

Berlin Drafting, Inc.
7507 WOODLAND OAKS CT
Tampa, Florida 33615
phone [813 - 968 - 8038]

OWNER AND / OR CONTRACTOR TO THOROUGHLY REVIEW PLANS AND REPORT ANY ERRORS OR OMISSIONS TO BERLIN DRAFTING PRIOR TO CONSTRUCTION. FAILURE TO DO SO RELEASES BERLIN DRAFTING AND GREG BERLIN FROM LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS

PROJECT NAME: metal building - project no. 813-1025
PASCO COUNTY LEACH AID BUILDING
HUDSON, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480
SHEET TITLE: SPECIFICATIONS
REVISED DATE:
DATE: February 03, 2010
JOB NO. 09-048
SCALE: not to scale
DRAWING NUMBER A3

GENERAL STRUCTURAL NOTES:

All Materials, Workmanship, Design and Construction Shall Conform to the Drawings, Specifications Florida Building Code 2007, Chapter 18. W/ 2009 SUPPLEMENTS

DESIGN LOAD CRITERIA

Roof Live Load _____ 20psf
Floor Live Load _____ 125psf
Roof Dead Load _____ 2.7psf (Collateral: 3.0)

Structural Drawings Shall be Used in Conjunction With Architectural Drawings For Bidding And Construction. Contractor Shall Verify Dimensions and Conditions For Compatibility and Shall Notify Architect of Any Discrepancies Prior to Construction

Contractor Shall Verify All Existing Conditions Prior to Commencing Any Work And Determine The Location of All Adjacent Underground Utilities Prior to Commencing Excavation, and Notify Architect of Discrepancies and Conflicts.

Contractor Shall Provide Temporary Bracing for the Structure and Structural Components Until All Final Connections Have Been Completed in Accordance With the Plans.

All Shop Drawings Shall Also be Submitted to The Building Department.

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Shop Drawings Submittals Processed by The Engineer Are Not Change Orders. The Purpose of Submittal by The Contractor is to Demonstrate Understanding of the Design Concept, The Materials Intended to be Furnished and Installed, and to Detail The Intended Fabrication And Installation Methods. If Deviations, Discrepancies, or Conflicts Between Shop Drawing Submittal And The Contract Drawings Are Discovered Either Prior to, or After Shop Drawing Submittal Are Processed by The Engineer, The Design Drawings And Specifications Shall Control And be Followed.

CONCRETE

Concrete Shall be Mixed, Proportioned, Conveyed and Place in Accordance With ACI 301. Concrete Shall Attain a 28 Day Strength of F'c = 3,000psi And Shall be Proportioned to Produce a Slump of 6" or Less

Reinforcing Steel Shall Conform To ASTM 1615, Grade 60, Fy = 60,000psi.
Welded Wire Fabric Shall Conform To ASTM A-185.

Reinforcing Steel Shall be Detailed (Including Hooks and Bends) in Accordance With ACI 315-99 and 318-05, Lap All Continuous Reinforcement 48 Bar Diameters or 21" Minimum. Lap Adjacent Mats of Welded Wire Fabric A Minimum of 8" at Sides And Ends.

Concrete Protection (Cover) For Reinforcing Steel Shall be as Follows:
Footings And Other Unformed Surfaces, Earth Face _____ 3"
All Other Surfaces _____ 1- 1/2"

Epoxy-Grouted Items Specified on The Drawings Shall be Grouted With HS-200 Bond Epoxy by Bond-It Fastening Systems, Adhesives Technology Corporation or Equal. Install in Strict Accordance With Manufactures Recommendations.

STRUCTURAL DESIGN DATA:

DESIGN AND MATERIAL CRITERIA: THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDTION OF THE FLORIDA BUILDING CODE. ALL WORK IS TO TO BE PERFORMED PER CHAPTER 18 OF THE FBC 2007 W/ 2009 SUPPLEMENTS, AND OTHER APPLICABLE CHAPTERS

DESIGN LOADS:

FLOOR LIVE LOAD:.....125 PSF
ROOF LIVE LOAD:.....20 PSF
WIND VELOCITY:.....120 MPH

1. CODES:

1.1 FLORIDA BUILDING CODE CURRENT EDITION
1.2 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE [ACI 318-99]
1.3 AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES [ASCE - 7-02]

2. SOILS:

2.1 MINIMUM ALLOWABLE SOIL PRESSURE: 2000 PSF

3. CONCRETE:

3.1 CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS: 3000 PSI, [NORMAL WEIGHT]
3.2 REINFORCING BARS: ASTM A1615 GR 60, FY = 60,000 PSI
3.3 WELDED WIRE FABRIC: ASTM A185, FY = 65,000 PSI
3.4 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315
3.5 CONCRETE COVER FOR REINFORCEMENT: FOOTING: 3" BOTTOM AND SIDES, BEAMS AND COLUMNS: 1 1/2" FILLED CELLS AND SLAB ON GRADE: CENTERED
3.6 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS
3.7 LAP SPLICES SHALL BE AS FOLLOWS: #5 BARS: 25", #7 BARS: 35" [MIN. LAP 40 x BAR DIA.]
3.8 ANCHOR BOLTS: PER STEEL BUILDING MANUFACTURES DRAWINGS.

4. GENERAL

4.1 CONTINUOUS SPREAD FOOTINGS ARE DESIGNED WITH AN ALLOWABLE SOIL PRESSURE OF 2,000 PSI.
4.2 ALL FILL UNDER SLABS AND FOUNDATIONS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY [MODIFIED PROCTER TEST] AT OPTIMUM MOISTURE CONTENT
4.3 PROOF - ROLL ALL EXISTING GRADE AS REQUIRED
4.4 THE CONTRACTOR SHALL COORDINATE THE LOCATION OF INSERTS, WELD PLATES AND ALL OTHER ITEMS TO BE EMBEDED IN THE CONCRETE AS REQUIRED BY OTHER TRADES
4.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND COORDINATING THE DIMENSIONS AND DRAWINGS OF ALL TRADES. ALL STRUCTURAL OPENINGS, THEIR SIZE AND EXACT LOCATIONS, AFFECTED BY MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADE EQUIPMENT, SHALL BE VERIFIED BEFORE PROCEEDING WITH THE STRUCTURAL WORK AFFECTED.
4.6 ANY CONFLICT BETWEEN DRAWINGS AND/OR SPECFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK
4.7 THE STRUCTURAL INTEGRITY OF THE BUILDING SHOWN ON THESE PLANS IS BASED UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF SUPPORTING DURING CONSTRUCTION AND WILL REQUIRE TEMPORARY BRACING UNTILL PERMANENTLY AFFIXED TO STRUCTURE AS DIRECTED. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION, UNLESS THE CONSTRUCTION METHODS AND BRACING ARE INCLUDED IN PLANS AND SPECIFICATIONS, OR HEREBY SUPERVISED BY THE STRUCTURAL ENGINEER. NO CHANGES TO THESE PLANS AND SPECIFICATIONS ARE TO BE MADE UNLESS WRITTEN PREMISSION FROM THE ENGINEER OF RECORD IS OBTAINED. THESE PLANS ARE VALID FOR ONE YEAR FROM DATE OF SIGNATURE.

5.0 PRE-ENGINEERED STEEL BUILDINGS:

5.1 STRUCTURAL DESIGN OF STEEL BUILDING IS NOT PART OF THIS DRAWING. CONSULT WITH THE STEEL BUILDING MANUFACTURER FOR DETAILS OF STEEL CONNECTIONS AND DIMENSIONS. THIS DRAWING IS LIMITED TO CONCRETE FOUNDATION ONLY.

Termite Protection FLORIDA BUILDING CODE - 2007 w/ 2009 Supplements SECTION 1816
1816.1 Shall be provided by registered termiticides, including soil-applied pesticides, baiting systems and pesticides applied to wood, or other approved methods of termite protection. Upon completion of application obtain certificate of compliance issued by building department containing statement " The building has received a complete treatment for the prevention of subterranean termites. " " Treatment is in accordance with rules and laws established by the Florida Department of Agriculture and Consumer Services. "
1816.1.1 If soil treatment is used for subterranean termite prevention: the initial chemical treatment inside the foundation perimeter shall be done after all excavation and backfill is complete.
1812.1.2 If soil area id disturbed after initial chemical treatment those areas will be retreated.
1812.1.3 If soil treatment is used for subterranean termite prevention, spaces in conc. floor for installation of plumbing traps, drains or any purpose shall be created using plastic or metal permenantly placed forms, sufficient depth to eliminate further soil disturbance.
1816.1.4 Soil treatment used for subterranean termite prevention shall be protected with a 6 mil vapor retarder to protect against rainfall dilution. Any work performed after chemical treatment shall be done in a manor to avoid penetrating or disturbing treated soil.
1816.1.5 Concrete overpour or mortar accumulation along exterior perimiter of building shall be removed prior to chemical treatment for subterranean termite prevention.
1816.1.6 Chemical treatment for subterranean termite prevention shall be applied under all exterior concrete or grade within 1 foot of structure sidewalls. Also a vertical chemical barrier shall be applied promptly after construction including landscaping and irrigation / sprinkler installation. Retreat promptly if soil is disturbed.
1816.1.7 If a registered termiticide formulated and registered as a bait system is used for subterranean termite protection: Sections 1816.1.1 through 1816.1.6 do not apply. Application of wood treatment temiticids as directed by label directions, prior to final building approval. Any changes or addition to framing: areas must be treated prior to final building approval.
1816.2.2 If soil treatment is used for subterranean protection, the protective sleeve shall meet the following minimum requirements:

1. The sleeve shall have a nominal thickness of 0.025 inch
2. The sleeve shall be sized for the pipe.
3. The sleeve shall be sealed within the slab using a noncorrosive mechanical clamping device to eliminate the annular space between pipe and pipe sleeve.

NOTE:
FOR WIND LOADS: REFER TO STEEL BUILDINGS MANUFACTURES SHOP DRAWINGS.

METAL BUILDING NOTES:

1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS

J. S. NAGAMIA, P. E.
11104 - N. 61st STREET
TEMPLE TERRACE, FL
TEL: 813 - 988 - 0727 [O & F]

SEAL

I HEREBY CERTIFY THAT I HAVE REVIEWED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 2007 CHAPTER 18, W/ 2009 SUP. 120 MPH WINDS

J.S. NAGAMIA, P.E. APR 24 2010 #19241

Berlin Architectural Drafting, Inc.
15619 Premiere Drive
Tampa, Florida 33624
phone [813 - 968 - 8038]

OWNER AND / OR CONTRACTOR TO THOROUGHLY REVIEW PLANS AND REPORT ANY ERRORS OR OMISSIONS TO BERLIN ARCH. DRAFTING PRIOR TO CONSTRUCTION. FAILURE TO DO SO RELEASES BERLIN ARCHITECTURAL DRAFTING AND GREG BERLIN FROM LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS

PROJECT NAME: metal building - project no. 813-1025
PASCO COUNTY LEACH AID BUILDING
HUDSON, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

SHEET TITLE: DESIGN DATA

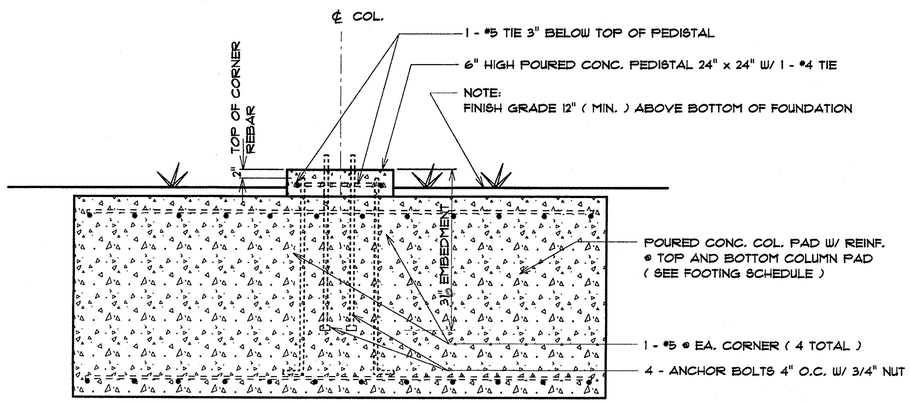
REVISED DATE:
DATE: March 17, 2010
JOB NO. 09-047
SCALE: 1/4" = 1'-0"
DRAWING NUMBER S1

FOOTING SCHEDULE

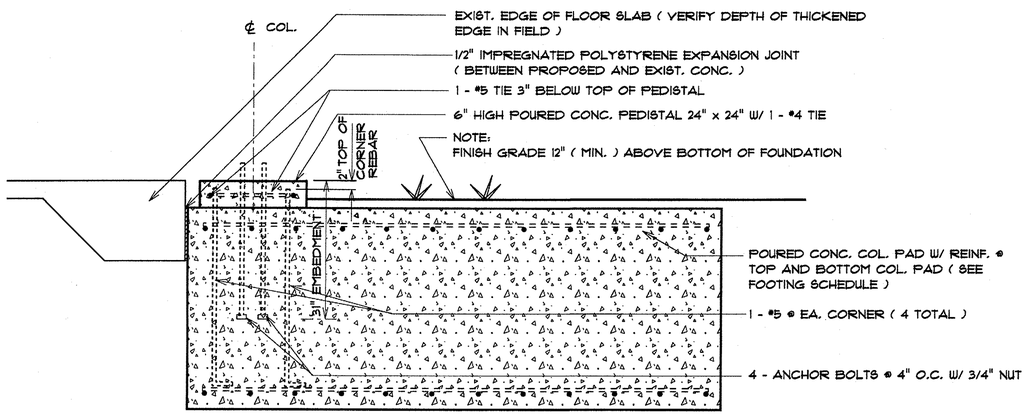
MARK	LENGTH	WIDTH	DEPTH	REINFORCING
A	6'-0"	6'-0"	3'-9"	8 - #5 EA. WAY TOP AND BOTTOM
B	10'-0"	9'-0"	3'-9"	12 - #5 EA. WAY TOP AND BOTTOM
C	2'-0"	2'-0"	6"	1 - #4 TIE
D				
E				

METAL BUILDING NOTES:

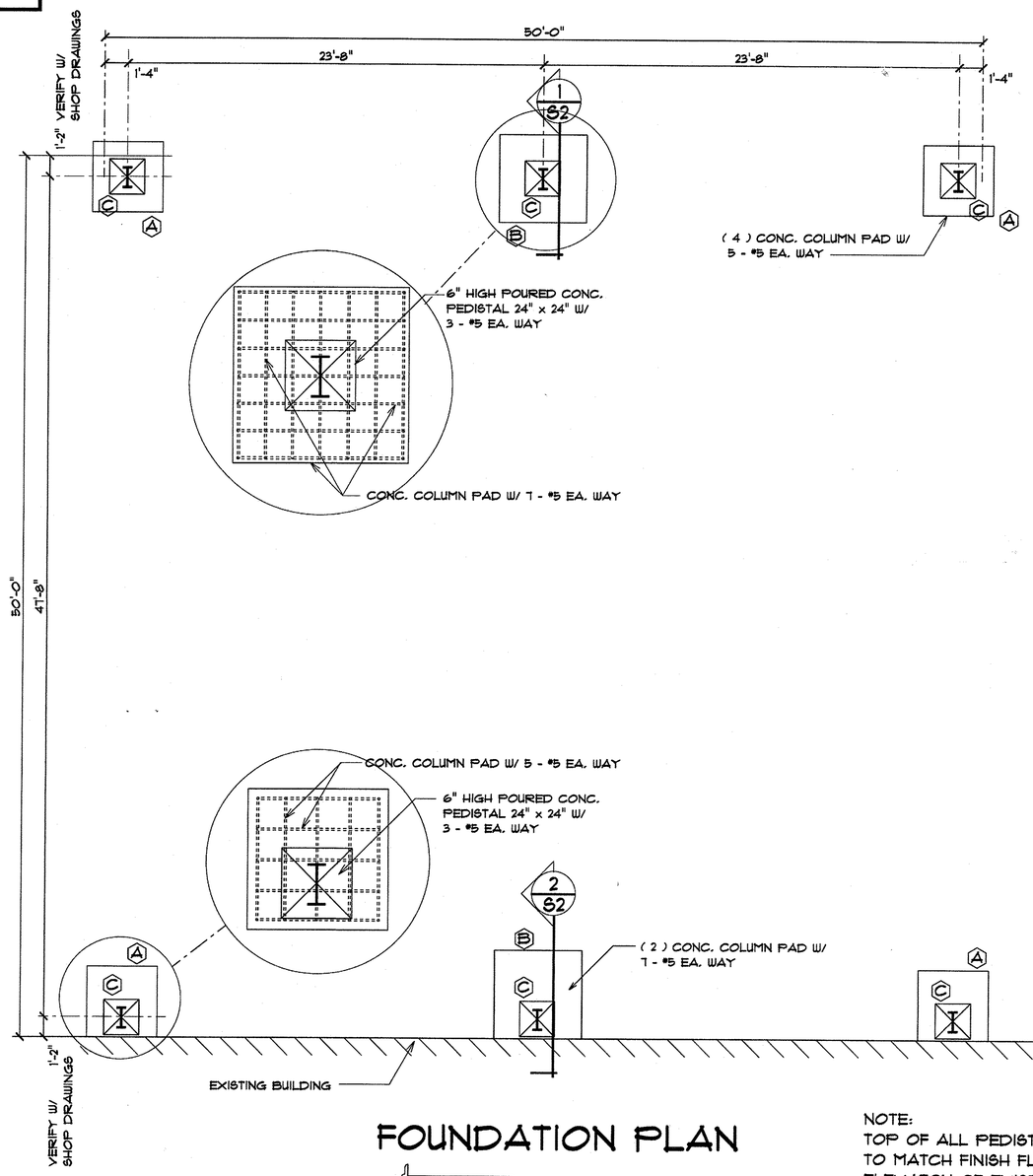
1. METAL BUILDING COMPLETE W/ RIGID FRAME, POST & BEAM, PURLINS, GIRTS, BRACING, SAG RODS, SHEETING, FASTNERS, .. E.T.C. TO BE DESIGNED BY METAL BUILDING MANUFACTURING TO MEET OR EXCEED REQUIRED DESIGN DATA.
2. ALL STRUCTURAL COMPONENTS ARE PRE-ENGINEERED BY METAL BUILDING MANUFACTURE & ERECTED ACCORDING TO THE SHOP DRAWINGS



SECTION 1 / S2



SECTION 2 / S2



FOUNDATION PLAN

NORTH

NOTE:
TOP OF ALL PEDISTALS TO MATCH FINISH FLOOR ELEVATON OF EXIST. ADJ. FLOOR SLAB

J. S. NAGAMIA, P. E.
11104 - N. 61st STREET
TEMPLE TERRACE, FL
TEL: 813 - 988 - 0727 [O & F]

SEAL
I HEREBY CERTIFY THAT I HAVE REVISED THE ATTACHED DESIGN AND FOUND IT TO BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 2007, CHAPTER 18, W/ 2009 SUP. 120 MPH WINDS

J.S. NAGAMIA, P.E. APR 2 4 2010 #19241

Berlin Drafting, Inc.
7507 WOODLAND OAKS CT
Tampa, Florida 33615
phone [813 - 968 - 8038]

PROJECT NAME: metal building - project no. 613-1025
PASCO COUNTY LEACH AID BUILDING
HUDSON, FL.
contractor:
T-M CONSTRUCTION COMPANY
801 DUNBAR AVE. OLDSMAR, FL. 34677 ph. 813-855-5480

SHEET TITLE: FOUNDATION PLAN

REVISED DATE:
DATE: April 23, 2010
JOB NO. 09-048
SCALE: 1/4" = 1'-0"
DRAWING NUMBER S2

OWNER AND / OR CONTRACTOR TO THOROUGHLY REVIEW PLANS AND REPORT ANY ERRORS OR OMISSIONS TO BERLIN DRAFTING PRIOR TO CONSTRUCTION. FAILURE TO DO SO RELEASES BERLIN DRAFTING AND GREG BERLIN FROM LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS

Appendix I
Drawings (Leachate Canopy & Equipment Building)

This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text. This paragraph is formatted in the “Body” style, which serves as the basic formatting for standard narrative text.

Graphic Elements

Title				
Text				
Text				
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Table Title/Figure # Cell

Table Header 1	Table Header 2
Table Text	▪ Table bullet
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text
Table Text	▪ Table Text

Large Pull Quote about something wonderful we do.

Small Pull quote about something wonderful we do.

[Sidebar Header]

Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text." Triple click here to select paragraph. Then begin typing. This text style is "Sidebar Text."

[Sidebar Bullet]

[Sidebar Bullet]

[Sidebar Bullet]

Sidebar Title: Other Key Features

Sidebar bullets: Professional Activities

Sidebar bullets: - M.S. – Environmental Engineering, Northeastern University, 1980

Sidebar bullets: B.S. – Civil Engineering, Northeastern University, 1976