

John E. Manning District One

Cecil L Pendergrass District Two

May 18, 2015

Larry Kiker District Three

Brian Hamman District Four Ms. Jennifer Carpenter

Frank Mann District Five Assistant Director of District Management
Florida Department of Environmental Protection

P.O. Box 2549

Re:

Roger Desjarlais
Fort Myers, FL 33902-2549

County Manager
Richard Wm. Wesch

Fort Myers, FL 33902-23

Richard Wm. Wesch County Attorney

Donna Marie Collins Hearing Examiner Lee County Resource Recovery Facility, PA90-30H Construction & Demolition Debris Recycling Facility

WACS ID No. 93715

First Semi-Annual 2015 Water Quality Monitoring Report

Dear Ms. Carpenter:

Enclosed please find the First Semi-Annual 2015 Water Quality Monitoring (WQM) Report for the Lee County Resource Recovery Facility (RRF) and the Construction & Demolition Debris Recycling Facility (CDDRF). Flowers Chemical Laboratories, Inc. (FCL) sampled the RRF's six (6) shallow monitoring wells, or WTE-1S, WTE-2S, WTE-3SR, WTE-4S, WTE-5S and WTE-6S, which include the CDDRF's three (3) monitoring wells or WTE-2S, WTE-3SR and WTE-4S, on February 17, 2015. Sampling was performed in accordance with the Facility's Ground Water Monitoring Plan (GWMP) dated August 2010 and approved by the Department on October 19, 2010.

The laboratory analytical results from this WQM event were compared to the Department's water quality standards or maximum contaminant levels (MCL) established in Chapter 62-550, F.A.C., and are summarized below.

Ground Water Monitoring Data Discussion

Ground water from (4) of the six (6) shallow monitoring wells sampled, i.e., WTE-1S, WTE-2S, WTE-3S and WTE-6S, exceeded the secondary drinking water standard for Iron which is 0.3 milligrams per liter (mg/L) as established by Rule 62-550, F.A.C. Ground water from (2) of the six (6) shallow wells sampled, i.e., WTE-2S and WTE-5S, exceeded the secondary drinking water standard for Total Dissolved Solids (TDS) which is 500 mg/L as established by Rule 62-550, F.A.C. The concentrations of Iron and TDS in the wells that exceeded the MCL as noted above are provided in Table-1.

Table 1 – Summary of Results for Monitoring Wells which Exceeded the Water

Quality Standards Established in Chapter 62-550, F.A.C.

Parameter (units)	WTE-1S	WTE-2S	WTE- 3SR	WTE-4S	WTE-5S	WTE-6S
Iron (mg/L)	2.98	0.708	2.7	BS	BS	0.568
TDS (mg/L)	BS	654	BS	BS	570	BS

BS-Below Standard

Electronic Data Files

In accordance with the Department's electronic reporting requirements, this WQM Report includes the field and laboratory ADaPT files which are provided as separate electronic files prepared in the Department specified format.

Ground Water Elevations

The ground water elevations at the six (6) shallow (water table aquifer) and six (6) deep (sandstone aquifer) monitoring wells are provided in Table 2 below. The elevations were determined in accordance with the Department's Standard Operating Procedures for Field Activities, DEP-SOP-001/01, and specifically per FS2200, Ground Water Sampling. The data used to determine the ground water elevations, i.e., top of casing elevations and depth to ground water measurements, is provided in the Attachments to this WQM Report.

Table 2 - Ground Water Elevations (ft., NGVD) Measured February 17, 2015

WELL ID	Elevation (ft., NGVD)	WELL ID	Elevation (ft., NGVD)
WTE-1S	17.71	WTE-1D	8.26
WTE-2S	16.86	WTE-2D	15.41
WTE-3SR	15.84	WTE-3DR	14.65
WTE-4S	14.28	WTE-4D	13.19
WTE-5S	16.61	WTE-5D	15.06
WTE-6S	13.67	WTE-6D	12.52

Note: WTE-2S, WTE-3SR and WTE-4S comprise the monitoring well network for the CDDRF

Field Documentation and Report Certification

The attachments to this WQM Report include DEP Form #62-701.900(31), F.A.C., Water Quality Monitoring Certification, DEP Form FD 9000-24, Ground Water Sampling Log for each well sampled, field data sheets and sample chain of custody.

Recommendations/Conclusions

The monitoring results reported herein are consistent with prior monitoring results and background data for the RRF and the CDDRF and are typical for ground water in this geographical region. Based on these monitoring results, no additional ground water monitoring is recommended. The RRF and CDDRF will continue to implement the approved ground water monitoring plan and will report the results to the Department as required.

Please call me at (239) 533-8930 if you have any questions pertaining to this Water Quality Monitoring Report.

Sincerely,

No. 50138

STATE OF
Engineering Manager 5/8/5

Engineering Manager

Solid Waste Division

Attachments

Cc: Bureau of Solid and Hazardous Waste, FDEP

Siting Coordination Office, FDEP

Lindsey J. Sampson, SWD

Keith Howard, SWD

Mike Duff, Covanta

Tyler Huffman, Covanta

File II E107

LIST OF ATTACHMENTS

- Attachment A Ground Water Monitoring Report Certification, DEP Form # 62-701.900(31)
- Attachment B Ground Water Contour Maps (Shallow and Sandstone Wells) and Supporting Data
- Attachment C Ground Water Monitoring Well Inspection and Water Level Measurement Form (Shallow and Sandstone Wells)
- Attachment D Sampling Documentation (Shallow Wells)

Ground Water Sampling Logs, FD 9000-24 Field Data and Calibration Sheets Chain of Custody



PART I GENERAL INFORMATION

Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 DEP Form #: 62-701.900(31), F.A.C

Form Title: Water Quality Monitoring Certification

Effective Date: January 6, 2010

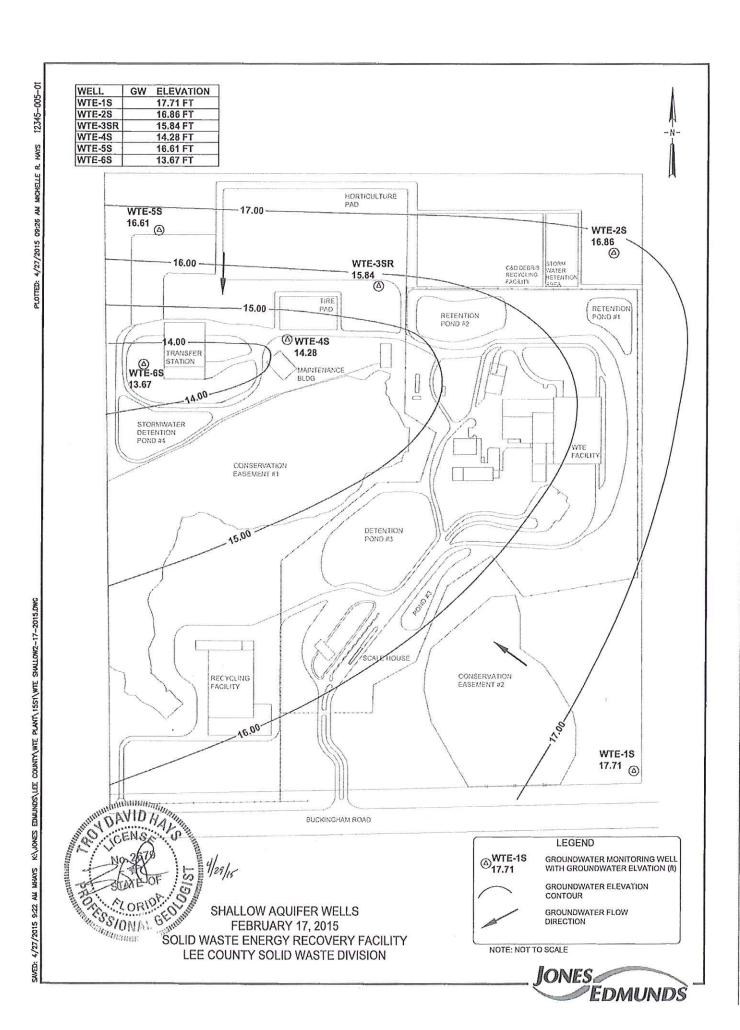
Incorporated in Rule 62-701.510(9), F.A.C.

WATER QUALITY MONITORING CERTIFICATION

(1) Facility Name Lee County Solid Waste Energy Recover	ery Facility	
Address 10500 Buckingham Road		
City Fort Myers	Zip 33905	_ County Lee
Telephone Number (239) 533-8000		
(2) WACS Facility ID 93715		
(3) DEP Permit NumberPA90-30H		
(4) Authorized Representative's Name Lindsey J. Sampson	onTitle	Director
Address 10500 Buckingham Road		
City Fort Myers	Zip <u>33907</u>	County Lee
Telephone Number (239) 533-8000		
Email address (if available) sampson@leegov.com		
I certify under penalty of law that I have personally exadocument and all attachments and that, based on my incomplete information, I believe that the information is true, acceptable for submission of false information including the	quiry of those individuals immedicurate, and complete. I am possibility of fine and imprisonr	ediately responsible for obtaining aware that there are significant nent.
(Date) (Owner	or Authorized Representative	s Signature)
PART II QUALITY ASSURANCE REQUIREMENTS		
Sampling Organization Flowers Chemical Laboratories,	Inc.	
Analytical Lab NELAC / HRS Certification # E83018		
Lab Name Flowers Chemical Laboratories, Inc		
Address P.O. Box 150597, Altamonte Springs, FL 32715-0	0597	
Phone Number (407) 339-5984		
Email address (if available)		

Attachment A-Ground Water Monitoring Report Certification, DEP Form # 62-701.900(31)

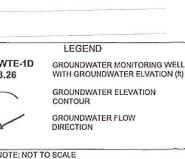
Attachment B –Ground Water Contour Maps (Shallow and Sandstone Wells) and Supporting Data



FEBRUARY 17, 2015 SOLID WASTE ENERGY RECOVERY FACILITY

LEE COUNTY SOLID WASTE DIVISION





NOTE: NOT TO SCALE



(4)

Attachment C – Ground Water Monitoring Well Inspection and Water Level Measurement Form (Shallow and Sandstone Wells)

WASTE-TO-ENERGY (WTE) FACILITY WELL NETWORK Well Inspections & Water Level Measurements

Date:	Well TOC, ft.,		T	DUSTIN RAYBU	T
Well ID	NGVD	Time*	Water, ft.	NGVD	Condition (Y/N)? **
WTE-1S	21.91	8:23	4.2	17.71	Υ
WTE-1D	22.96	8:24	14.7	8.26 ,	Y
WTE-2S	24.18	9:18	7.32	16.86°,	Υ
WTE-2D	23.52	9:19	8.11	15.41	Υ
WTE-3SR	23.98	9:53	8.14	15.84 •	Υ
WTE-3DR	23.91	9:54	9.26	14.65	Υ
WTE-4S	22.48	11:39	8.2	14.28	Υ
WTE-4D	23.81	11:40	10.62	13.19	Υ
WTE-5S	23.81	10:38	7.2	16.61 .	Υ
WTE-5D	24.5	10:39	9.44	15.06	Υ
WTE-6S	23.66	11:13	9.99	13.67	Υ
WTE-6D	22.91	11:14	10.39	12.52	Υ
			,		
Additional Pa	ges Attached (Y	/N)?	NO		

Inspector Signature:

Attachment D - Sampling Documentation (Shallow Wells)

- Ground Water (GW) Sampling Logs, FD 9000-24
- Field Data and Calibration Sheets
- Chain of Custody

Ground Water (GW) Sampling Logs, FD 9000-24

SITE							EE OOUNTY!	ATT.				
	OUNTY-SWERF			I CAMBIE	ID: 259147G		EE COUNTY	DATE	: 2/1	7/2015		
WELL NO:	WTE-1S			SAMPLE	PURGING I							
WELL		ITUB	ING	IWE	LL SCREEN IN		STATIC	4.2	0 PURGE PL	JMP TYPE: R	FPP	
WELL		108	ING	1	PTH: feet		DEPTH(fee					
DIAMETER (in	nches): 2	DIA	METER (inches	· 1/4" foo	•		TOC (feet):		1 OR BAILER	₹:	_	
WELL VOLUM	ME PURGE: 1 WI	LL VO	LUME = (TOT	AL WELL DEPT	H - STATICE	DEPTH TO	WATER) X	WELL CA	PACITY			
(only fill out if			Section (Section Co.)									
The second of th	= (14.6	60 feet -	4.20 feet)	X 0.16		s/foot =	1.66 gal	lons	MOELL MOLL	MC	
EQUIPMENT	VOLUME PURGE	: 1 EQI	JIPMENT VOL.	= PUMP VOLU	JME + (TUBING	CAPACIT	Y X T	OBING LEN	GIH) + FLOV	V CELL VOLU	MC	
(only fill out if							- ellene -	gall	one			
		lons + (llons/foot X	feet) +	PURG	gallons =	PURGING	Olis	TOTAL VOLUME		
INITIAL PUMP OR			FINAL PUMP OR	TUBING VELL (feet): 10.	n		IATED AT: 8:		AT: 8:47	PURGED (ga	1): 2.79)
DELIHIN M	ELL (feet): 10.0	CUM		DEPTH	pΗ	TEMP.	COND.	DISSOLVED	TURBIDIT	Y CO	OR.	ODOR
		VOLU		TO	(standard units)	(°C)	(circle units)	OXYGEN	(NTUs)	(des	orba)	(describe)
		PURG		WATER	(3(3))3(3)	V	µmhoslem-	(circle units)		1		
	100,000	(gallor	135-1111-01	(feet)			or µS/cm	mg/L or		- 1		
TIME	VOLUME PURGED (gallons)	1,9001		WW				% cotyration			NE	NONE
8:39	1.75	1.7	5 0.13	4.22	6.83	20.9	1199.0	0.31	9,25	- 1112	NE	NONE
8:43	0.52	2.2		4.22	6.83	20.9	1199.0	0.31	12.04		NE	NONE
8:47	0.52	2.7		4.22	6.83	20.9	1201.0	0.32	11.17	NC.	NE	NONE
0.47	0.02				7							
				_								
							1000					
								1 - 5 02				
WELL CAPACITY	(Gallons Per Foot) 0.75"	= 0.02,	1" = 0.04; 1.25" =	0.06, 2" = 0.16,	3" = 0.37; 4" = 0.65 5/16" = 0.004, 3/8	5, 5" = 1.02	6" = 1.47, 12	= 5.83				
	IA, CAPACITY (Gal./Ft.)					= 0.006,						
PURGING EQUIPA	VENT CODES: B = Ba	aler, Bi	P = Bladder Pump,	ESP = Electric Subn	SAMPLING		unp, 0-care	(opea.y)				
CAMPIED D	W (DDINT) / AFFILI	ATION		SAMDI EDIS) SIGNATURE(S	D: /	A	SAMPL	ING	SAMPLIN	lG	
	Y (PRINT) / AFFILI AYBURN/FCL	ATION:		SAMPLLING) SIGNATIONE (C	" ((with-	INITIAT	ED AT: 8:48	ENDED A	AT: 8:5	5
	1900 10			TUDINO		100		IELD-FILTE				
PUMP OR TU				TUBING MATERIAL C	ODE: DE				pment Type:			
	/ELL (feet): 10.0	DEU	un Na			olaced		DUPLIC		No		
FIELD DECC	NTAMINATION:	PUI		1	SAMPLE PRE						SAMPLE	PUVP
	SAMPLE CONTAINER S	PECIFICAT	ION	-	SAVILLETAL	CLICATION		INTEN				
				PRESERVAT	TIVE TO	TAL VOL	FINAL	ANALY AND/0		NG EQUIPMENT	FLOW	RATE (Gal/Min)
SAMPLE	#CONTAINERS	MATERIAL CODE	VOLUME	USED	ADDED	IN FIELD (mL)	pH	METH	OD	CODE		
ID CODE	# CONTINUENS	CODE	100014				6,83	SEE C	COC	RFPP		0.13
												
												
				_								
REMARKS												
1												
	10-1-1-0		Clear Glass DE -	Polyathulana DD :	Polypropylene; S =	Sficone: T =	Tefon, O = Oth	er (Specify)				
MATERIAL CODE			ristaltic Pump; B	Baler. BP = Plac	ider Pump, ESP =	Electric Subme	rsible Pump,					
SAMPLING EQUI	PMENT COURS, APP	Davarea I			od (Tubing Gravity Drain							

NOTES 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. Stabilization Criteria: for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: ± 0.2 units Temperature: ± 0.2 °C. Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2);
optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)
2, 2009

SITE	FF 651	UTV OUT DE					SITE		E COUNTY	WIE					
NAME: L WELL NO		NTY-SWERF VTE-2S				SAMPLE					DATE:	2/17/	2015		
WELL NO	J: V	VIE-25					PURGING D.	ATA						DEOD	
WELL			TUBI	NG		WEL feet	L SCREEN INTI	ERVAL DE	20000000	STATIC DEPTH(fe			UMP TYPE	; KFPP	
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(only fill o															
		= (12.0	00 fee	et	7.32	feet) X		s/foot =	0.75 X TUBIN	gallons NG LENGTH	1) + ELOW	CELL VOL	UME		
			1 EQUII	MENT V	OL. = PL	JMP VOLUME +	(TUBING CAPAC	JIIY	X IUDII	NO LENGTI	1) + 1 LOW	OLLE VOL	.ome		
(only fill o	out if app		Q.		. W t V	feet) +	gallons =	0	allons						
		= gallons	+ (S/foot X		gallons -		RGING		PURGING		TOTAL VOLUM	Æ	
INITIAL PUN						L (feet): 10.0			IITIATED 9:	20	ENDED 9:3	34	PURGED	(gal): 1.	
DEPTH	IN WELL	(feet): 10.0	CUMUI		PURGE	DEPTH	pH	TEMP.	COND.	DISSOLV	ED	TURBIDITY	co	LOR	ODOR
		1				то	(standard units)	(°c)	(circle units)	OXYGE	4	(NTUs)	(de	scribe)	(describe)
		1	VOLUN	220	RATE (gpm)	WATER	(83,04,00,12)	(= /	prohosiom	(circle uni	ts)				
			(gallon		/46)	(feet)			or µS/cm	mg/L <u>o</u>					
TIM	/e	VOLUME PURGED (gallons)	19.00	201						% coturat		0.00	AL/	ONE	NONE
9:2		0.75	0.75	5	0.09	7.34	6.87	21.1	1912.0	1.66	_	3.36		ONE	NONE
9:3		0.27	1.02	2	0.09	7.34	6.87	21.1	1912.0	1.66		3.12		ONE	NONE
9:3	34	0.27	1.29	3	0.09	7.34	6.87	21.1	1912.0	1.65		1.36	147	JINL	NONE
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									-	-				-	
									17 101 - 5 00	ě					
WELL CAP	ACITY (Gall	ons Per Foot) 0.75° =	0.02, 1"	= 0.04; 1.	25" = 0.06,	2" = 0.16, 3" = 0.37; "= 0.0026, 5/16" = 0	4" = 0.65; 5" = 1 0.004; 3/8" = 0.006;								
		APACITY (Gal./Ft): 1		3/16" = 0 Bladder Pun		" = 0.0026, 5/16" = 0 Electric Submersible Po			O = Other (Specif						
PURGING	EQUIPMENT	CODES: B = Ball	er, BP=	Bladder Pun	р, сог-	Electic Course a cite i	SAMPLING								
SAMPL	ED BY (F	RINT) / AFFILIA	ATION:		SA	MPLER(S) SIGN	IATURE(S):	(1)	00		SAMPLIN		177-03013	IPLING	0.44
		BURN/FCL				2.2		_(4	stepl-	EIGI D EII	INITIATED		FILTER S	ED AT:	
PUMP (OR TUBI	NG				JBING	or Company C			FIELD-FIL	rekeu: quipment T	No ime:	FILTER	IZL. I	III.II
		(feet): 10.0	120000000000000000000000000000000000000			ATERIAL CODE:				Filliation	DUPLICA		No		
FIELD [AMINATION:	PUM			TUBING	Replaced SAMPLE PRE				DOT EIGH	Ī		SAMPLI	E PUMP
-	SA	MPLE CONTAINER SE	ECIFICATIO	in			0.231227112				INTENDED	1		FLOV	/ RATE (Gal / Min)
						PRESERVATIVE		TOTAL VO	L	FINAL	ANALYSIS AND/OR		G EQUIPMENT	1200	
SAMPLE ID CODE	#(CONTAINERS	CODE	VOLU!	/E	USED	Α.	DDED IN FIEL	D (mL)	pH	METHOD		FPP	-	0.09
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												-		-	
														-	
												-		+	
												+		+	
	l									1					
REMARKS	\$:														
1										1000					
MATERIA		AG = Amber Glass			PE = Polyeth		ylana; S = Silcona;			cify)					
SAMPLIN	G EQUIPME	NT CODES: APP =	After Perist	itis Pump,	B = Baller,	BP = Bladder Pump	ESP = Electric Su								
		RFPP	= Reverse F	low Peristaltic	Pump, S!	M = Straw Method (Tubir	ig Gravity Drain); O	- Unier (open	eg)						

NOTES:1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

^{2.} StabTzation Criteria: for range of variation of last three consecutive readings (see FS 2212, section 3).

pH: ±0.2 units Temperature: ±0.2 °C Specific Conductance: ±5% Dissolved Oxygen: all readings ≤20% saturation (see Table FS 2200-2); optionally, +0.2 mg/L or +10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or +10% (whichever is greater)

SITE						SITI		COUNTY WI	=					
	COUNTY-SWERF				SAMPI	EID: 259147G		COUNTYWI	DAT	E: 2	/17/2015	j .		
WELL NO:	WTE-3SR				JOANNEL	PURGING D								
WELL		TUB	ING		W	ELL SCREEN IN		STATIC	8.1	4 PURG	E PUMP	TYPE	RFPP	
VVELL		1.00			17.57	EPTH: feet		et DEPTH(fe						
DIAMETER	(inches): 2	DIA	METER (inche	s): 1/4	ļ"	MA, MASS		TOC (feet): 23.9	98 OR B	AILER:			
WELL VOLU	(Inches): 2 JME PURGE: 1\	NELL V	OLUME = (T	OTAL	WELL DEPT	H - STATIC D	EPTH TO WA	ATER) X W	ELL CAPAC	YTE				
	if applicable)													
		= (14.00 fe	et -	8.14	feet) X ().16 gallor	ns/foot =	0.94 NG LENGTH	gallons	MCELL	VOLUM	F	
	T VOLUME PURG	E: 1 E	QUIPMENT V	OL. =	PUMP VOLU	JME + (TUBING	CAPACITY	X TUBI	NG LENGT	1) + 1 LO	VVCLLL	VOLUM		
(only fill out	if applicable)					feet) +	galle	ons =	gallons					
William State of the Company of	=	gai	lons + (ieet) .	PURG		PURGING		TOT	TAL VOLU	VE	
INITIAL PUMP OF	R TUBING VELL (feet):10.0				(feet): 10.0			IATED AT: 9:5	5 ENDED	10:12	PL	JRGED	(gal): '	1.66
DEPTHIN	VELL (reer). 10.0	CUM			DEPTH	pH	TEMP.	COND.	DISSOLVED	TURE	BIDITY	COL	6000	ODOR
	1 1	VOLU		Agriculture and a second	то	(standard units)	(°C)	(circle units)	OXYGEN	(N	TUs)	(desc	ribe)	(describe)
	1 1	PURG	ED (gp/	1)	WATER	II "		µmhoslam -	(circle units)					
	VOLUME PURGED	(gallor	ns)		(feet)			or µS/cm	mg/L or			1		
TIME	(gallons)	West.					010	4440.0	44 caturation	4.4	.22	NO	NE	NONE
10:06	1.00	1.0			8.15	7.00	24.8	1143.0	0.41		.07	NO		NONE
10:09	0.33	1.3			8.15	7.01	24.8	1144.0	37.0		.32	NO		NONE
10:12	0.33	1.6	6 0.1	1	8.15	7.00	24.8	1145.0	0.40	14	,32	NO	INL	NONE
											-			
												-		
								l	l					
WELL CAPACIT	Y (Gallons Per Foot): 0.7	75" = 0.02,	1" = 0.04, 1.2	5" = 0.0	6, 2" = 0.16,	3" = 0.37, 4" = 0.65;	5" = 1.02, 6	" = 1.47, 12" = 5.						
TURING INSIDE	DIA CAPACITY (Gal./Ft	1. 1/3" = 0	0006, 3/16" = 0	0014;	1/4" = 0.0026,	5/16" = 0.004; 3/8"	= 0.006; 1/2" =	0.010, 5/3" = 0.0						
PURGING EQUI	PMENT CODES: B =	Baller,	BP = Bladder Pum	E8	SP = Electric Subn	SAMPLING	Paristaltic Pump;	O = Other (Spec	этуј				_	
[=	DI (DOUT) (AFE	LIATIO	NI.	ICAL	IDI ED/S) SI	GNATURE(S):		9.	SAMPL	ING		SAME	LING	
	BY (PRINT) / AFF	LIATIO	N:	SAN	AFLER(S) SI	SIANTONE(O).	(4)	vat fif-	INITIA	TED AT:				10:20
PUMP OR	RAYBURN/FCL			TUE	BING			FIE	LD-FILTERE	ED:	No	FILTER	SIZE:	mm
	WELL (feet): 10.0				TERIAL COD	E: P:E		Fitt	ation Equipr		e:			
	ONTAMINATION	Р	UMP No		TL	IBING Rep	laced		DUPLI	CATE:		No	la se ce ce	
	SAMPLE CONTAINER S		ION			SAMPLE PRES	SERVATION		INTEN				SAMPLE	
					PRESERVATIV	re l	TOTAL VOL	FINAL	ANALY	/SIS	HOLING EO	HOMENT	FLOWE	ATE (Gal / Mir
SAMPLE		WATERIAL CODE	VOLUME		USED	170	ED IN FIELD (mL)	0.0000100	METH	HOD SA	CODE	Ot Inc.		
ID CODE	#CONTAINERS	CODE	VOLONE	+-	COLD			7.00	SEE C	COC	RFPI	Р		0.11
				1										
				_										
				+										
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				+-										
REMARKS: HE	AVY TRUCK TRAFFIC							-						
	A CONTRACTOR OF THE PARTY OF TH													
MATERIAL CO	DES: AG = Amber G	lass; CG	= Clear Glass;	E = Poly	yethylene; PP =	Polypropylene; S = S	dicone; T = Teft:	on; O = Other (Sp.	ecify)					
	UIPMENT CODES: A	PP = After I	Peristaltic Pump,	B = Ba	aler, BP = Blac	ider Pump, ESP = E	lectric Submersible	Pump,						
100000000000000000000000000000000000000	R	PP Revers	e Flow Peristaltic P	ımp,	SM = Straw Metho	d (Tubing Gravity Drain)	O = Other (Sp	ecify)						

NOTES 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SITE								SITE		0011117							1
	COUNTY-SWERF					lover	N = 10		ATION: LEE	COUNT	YWIE	: IDAT	c.	2/17	/2015	_	
WELL NO:	WTE-4S					SAME		259147G\ JRGING D			_	IDAI		2111	72010		
		True	BING			- 6		REEN IN		STA	TIC	8 1	20 PU	RGF I	PUMP TYPI	REPE	,
WELL		108	SING				DEPTH:	feet			TH(fe			1000			
DIAMETER (inchae): 2	DIA	METER	(inches)	· 1/4"		TO 100 TO 100			TOO	(feet)	: 22.4	18 OR	BAIL	ER:		
WELL VOLU	ME PURGE: 1 \	NELL V	OLUME	= (TO	TAL W	ELL DEP	TH - S	STATIC DI	EPTH TO W	ATER)	X W	ELL CAPAC	ITY				
(only fill out if				8													
	- /	13	.40 fee	et -	8.20	f	feet) X	0.16	gallons/fe	oot =	0.8	3 gallon	S				
EQUIPMENT	VOLUME PURG	E: 1 E	QUIPME	NT VO	L. = Pl	JMP VOI	LUME + (TUBING (CAPACITY	X	TUBIN	ig Length	1) + FL	.ow c	CELL VOLU	ME	
(only fill out if	applicable)								0.000								
	=	gallon				ns/foot X		feet) +		ons =		gallons		_	TOTAL VOLUM		
INITIAL PUMP OR				PUMP OR			•		PURG	ING IATED A	T: 11:4	PURGING 1 ENDED	11:55		PURGED (78
DEPTH IN W	ELL (feet): 10.0	100 700				eet): 10.0	J	. 1	TEMP.	CONE		DISSOLVED		URBIDIT	-	LÓR	ODOR
		CUM		PURGE		DEPTH	(****	pH dard units)	(°C)	(circle u	25 I	OXYGEN		(NTUs)		cribe)	(describe)
D)		VOLU	200-2		- 1	WATER	(Stan	dard units)	(0)	umhos/		(circle units)			3,000		A.C
		PURG (gallo	2000	(gpm)		(feet)	1			or µS/		mg/L or					
TIME	VOLUME PURGED (gallons)	(gano	,,,,,			(icci)					20.00	% caturation					
11:49	1.00	1.0	00	0.13		8.23		5.99	25.9	1251	.0	0.69		0.35	N	ONE	NONE
11:52	0.39	1.3		0.13		8.23		3.98	25.9	1251	.0	0.68		0.55	N	ONE	NONE
11:55	0.39	1.7		0.13		8.23	_	3.98	25.9	1251	.0	0.68		0.41	N	ONE	NONE
11.00	0.03	1.,	-	0.10		0,120											
	-	-															
			_														
	-						_										
					-												
	-				-		_										
			_		-												
	(Gallons Per Foot): 0,7		411 000	4000	-0.00	27 - 0 15	2" = 0.27	4" - 0.65	5" = 1.02 6"	= 1.47 1	12" = 5.8	3					
WELL CAPACITY	(Gallons Per Foot): 0,7 DIA. CAPACITY (Gal./Ft.	5" = 0.02,	1"=0.04	1.25	= 0.05,	2 = 0.10,	5/16" = 0	0.00,	= 0.006 1/2" =	0.010 5	/3" = 0.01	16					
DUBONG INSIDE	MENT CODES: B=	Palar	DD = Bladd	ar Pumo	FSP:	Flectric Sul	hmersible Pur	no PP=	Peristaltic Pump.	O = Oth	er (Speci						
PURGINGEQUIP	MENT CODES. B-	Dater,	Dr - 0:332	er reip,	LUI	Dittoile 6 s.	SA	MPLING				***					
SAMPLED B	Y (PRINT) / AFFI	LIATIO	N:		SAMP	LER(S) S	SIGNATU	RE(S):	(1 0	d	SAMPL			SAMP		
	AYBURN/FCL		90,000		94005 SEP 4710 4	CINCHIVE PORTO		N. W. 311		Get file		INITIAT					
PUMP OR T	UBING				TUBIN							D-FILTERE		No	FILTE	RSIZE	: mm
	VELL (feet): 10.0				MATE	RIAL CO		-	200-0000 4		Filtra	tion Equipa			No		
	ONTAMINATION:		UMP	No			UBING	Repl			_				110	EAMO	E PUMP
	AMPLE CONTAINER SE	PECIFICAT	TION				- S	WPLE PRES	ERVATION			INTENS ANALY					
SAMPLE		VATERIAL			F	PRESERVAT	TIVE		TOTAL VOL		FINAL	ANDA	OR	SAMPLI	NG EQUIPMEN	FLOW	RATE (Gal / Min)
ID CODE	#CONTAINERS	CODE	VOLU	ME		USED		ADDE	D IN FIELD (mL)		pН	METH		_	CODE	-	0.13
											6.98	SEE C	JUC		RFPP	-	0.13
																-	
	<u> </u>													_			
REMARKS HEAV	VY TRUCK TRAFFIC																
																_	
MATERIAL COD	ES: AG = Amber G	ass, CG	s = Clear Gla	ss; PE	= Polyeth	tene; PP	= Polypropy	ene S = SI	icone: T = Teffo	n; O = Oti	her (Spec	55 y)					
SAMPLING EQU	IPMENT CODES: AI								ectric Submersitile O = Other (Sp								

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pH: £0.2 units Temperature: £0.2 °C Specific Conductance: £5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater) 2, 2009

SITE						SIT									
	E COUNTY-SWERF				Towns: 5		CATION: LEE	COUNTY	WIE	IDATE:	01	17/2015			Action Control
WELL NO:	WTE-5S				JSAMPLE	ID: 259147G PURGING D				DATE:	21	1/12015		-	
MELL		710	BING		IVA #	LL SCREEN IN		STATI	C	7 20	PURGE	PUMP .	TYPE: E	FPP	
WELL		10	DING		1 2 2	PTH: feet		et DEPTI		7.20	UNOL	. i Oim			
DIAMETER	R (inches): 2	DIA	METER (inch	es): 1/4				TOC (feet):	23.81	OR BAI	LER:			
WELL VO	LUME PURGE: 1	WELL	VOLUME = (OTAL	WELL DEPTH	- STATIC D	EPTH TO W	ATER) X	WELL	CAPACITY	į.				
	t if applicable)									\$150.00 \$10.00 \$10.00					
	= ('.41 feet -					is/foot =		gallons		2511.120			
	NT VOLUME PURG	SE: 1 E	QUIPMENT V	OL. = 1	PUMP VOLUI	ME + (TUBING	CAPACITY	X TI	UBING L	.ENGTH) + I	-LOW (ELL VO	LUME		
(only fill ou	t if applicable)	ons+(gallons/fo	** V	feet) +	,	gallons =	gallons	2						
INITIAL PUMP	9.00	ons + (FINAL PUMP				PURC			URGING		TOTAL VO	LUME		
	WELL (feet): 10.0				(feet): 10,0					NDED 11:0	2		D (Gal	: 2.79	
DEFININ	VVLLL (IEEI), 10.0	CUN			DEPTH	pH	TEMP.	COND.		SOLVED	TURBIC		COLOF		ODOR
		VOL			TO	(standard units)	(°C)	(circle units		XYGEN	(NTU		(describ		describe)
		PUR	S. S		WATER		8.3	µmhos/sm	- (cir	de units)					
	VOLUME PURGED	(gaile			(feet)			<u>or</u> μS/cm	m	ng L <u>or</u>					
TIME	(gallons)									saturation					LONE
10:54	1.75	1.7		_	7.25	6.81	23.9	1576.0	_	1.49	2.8		NON		NONE
10:58	0.52	2.2			7.25	6.81	23.9	1575.0	_	1.48	1.6		NON		NONE
11:02	0.52	2.7	79 0.	3	7,25	6.81	23.9	1575.0		1.48	0.8	/	NON	E 1	NONE
									-			_		-	
									_					-	
									_					-	
									_					_	-
									_					-	
									_					-	
				Val. 11 - 51		E STATES DESCRIPTION	F20 - 1000 1 0							_	
	ITY (Gallons Per Foot) 0.7						5" = 1.02, 6 = 0.006. 1/2" =								
	E DIA, CAPACITY (Gal./Ft JIPMENT CODES: B =		BP = Bladder Purn		2 = Electric Submer		Peristaltic Pump:								
PUNGINGEQU	DIPMENT CODES. B-	Delei,	Br - District Pull	Lor	- Detric Sociale	SAMPLING		O CENTRY	op co.jj						
SAMPLED	BY (PRINT) / AFFI	LIATIO	N:	SAMI	PLER(S) SIGI		-	n Da	S	SAMPLING			MPLING		
	RAYBURN/FCL				3 5	2 5 		Grat Pol-		NITIATED A			IDED AT		
PUMP OR				TUBI						ILTERED:	_ No	FIL	TER SIZ	ZE: r	nm
	WELL (feet): 10.0			MATE	ERIAL CODE:					Equipment					-
FIELD DE	CONTAMINATION:		UMP No	_	TUB		aced			OUPLICATE:	—	N	-	MPLE P	NINO.
	SAMPLE CONTAINER SE	PECIFICA	TION	-		SAMPLE PRESI	ERVATION			INTENDED					ATE (Gal /
SAVPLE		WATERIAL			PRESERVATIVE		TOTAL VOL	FIN	100	NALYSIS AND/C	R SAMP	LING EQUIP	PMENT	М	in)
ID CODE	#CONTAINERS	CODE	VOLUME		USED	ADDE	ED IN FIELD (mL)		H	METHOD	_	CODE		_	10
		_		-				6.	81	SEE COC	-	RFPP	-	0.	13
				_									_		
											-				
				-							-			-	
											-				
551115115															
REMARKS															
MATERIAL CO	DES: AG = Amber Cl	110 CO	= Clear Glass, I	E = Polyet	hulana DD = D	olypropytene; S = Si	icone T = Tes	n O = Other	(Specify)						
			Peristaltic Pump.			Pump, ESP = Ele									
						Tubing Gravity Drain)									

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optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

2, 2009

SITE							SIT	E CATION: LEE	COL	INTV WITE						
WELL NO:	WTE-6S					SAMPLE				JINIT VVIC		TE:	2/17/2	2015		
WELL NO.	WIL-03					Jorum LC	PURGIN									
WELL		TUE	BING			WEI	L SCREEN IN to feet	TERVAL DE		STATIC DEPTH(fe		9.99 PU	IRGE PUN	IP TYPE R	FPP	
DIAMETER (inches): 2	DIA	METER	(inches)	: 1/4"					TOC (feet			BAILER:			
WELL VOLU	ME PURGE: 1 W	ELL VO	DLUME	= (TOT/	AL WE	LL DEPTH -	STATIC DEP	TH TO WATE	R)	X WELL	CAPACITY	•				
(only fill out if				77 5	0.00	(1)	V 0.10	gallons/foo		1.60	gallons					
FOLIIDHENT	= (VOLUME PURGI	19.98	HIPME	et	9.99 = PH	MP VOLUME	+ /TUBING CA	PACITY	X -	TUBING I	LENGTH) +	FLOW	CELL VOL	.UME		
(only fill out if		. 1 L	(OII IIILI													
		ellons +	-		llons/f	oot X	feet) +		ns =	ga	allons PURGIN		l _T	OTAL VOLUME		
INITIAL PUMP OR	TUBING ELL (feet): 14.0		1,57	PUMP OR		feet): 14.0		0.0000		D AT: 11:1		ື D 11:31	1333	URGED (C	al): 2.8	3
DEF ITT IN W	LLL (leet). 14.0	CUV		PURGE		DEPTH	рН	TEMP.	1	COND.	DISSOLVED	1	URBIDITY	co	LOR	ODOR
		VOLU		RATE		то	(standard units)	(°C)	98	irde units)	OXYGEN		(NTUs)	(des	cribe)	(describe)
		PUR	SED	(gpm)	ž	WATER			1 .	mhoslem	(circle units)					
(2300	VOLUME PURGED	(galle	ins)		ř	(feet)			9	or µS/cm	mg/L or					
11:25	(gallons) 1.75	1.7	75	0,18		10,00	7.16	24.8	1	1104.0	1.37		0.52	NC	NE	NONE
11:28	0,54	2.2		0,18	_	10.00	7.16	24.8	1	1104.0	1.37		0.45		NE	NONE
11:31	0.54	2.8	33	0.18		10.00	7.16	24.8	1	1104.0	1.36		0.39	NC	NE	NONE
			_						-		-					
					_				-			-		_		
			-		-				+		-				_	
	-				-				+-							
	-															
WELL CAPACITY	(Gallons Per Foot) 0.75	' = 0.02	1" = 0.04;	1.25" = 0	0.06, 2	"= 0.16, 3" = 0.3	7; 4" = 0.65; 5	" = 1.02, 6" = 1.	17; 12	2" = 5.63				•		
	IA, CAPACITY (Gal/Ft)			6" = 0.0014.	1/4"	= 0,0026, 5/16" =	0.004; 3/8" = 0.0	006. 1/2" = 0.01	0, 5.	3" = 0.016						
PURGING EQUIP	MENT CODES: B = B	afer, B	P = Bladde	r Pump;	ESP = E	lectric Submersible) = Ofie	r (Specify)						
SAMPLED B	Y (PRINT) / AFFIL	ΙΔΤΙΩΝ	6		SAME	LER(S) SIGN		NG DATA	4.		SAME	LING		SAMPI	ING	
1	AYBURN/FCL				0, 1,,,			(4)	fil.				Γ: 11:32) AT: 1	
PUMP OR T	UBING				TUBI						LD-FILTER			FILTER SI	ZE: m	m
	ÆLL (feet): 14.0				MATE	RIAL CODE:		- 4		Filtr	ration Equip	ment Ty ICATE:	rpe:	No		
FIELD DECC	ONTAMINATION: SAMPLE CONTAINER S		JMP	No		TUBING	S Replac				DUFL	IOATE.		110	SAMPLE	PUVP
	SAMPLE CONTAINER'S	PECIFICA	IION		-		SAWFEETA	TOTAL VOL		FINAL		NDED			FLOW	RATE (Gal / Min)
SAMPLE		VATERIAL				PRESERVATIVE	100			56100000	AN	D/OR		EQUIPMENT ODE	1,011	Unit (Carrinary
ID CODE	# CONTAINERS	CODE	VOL	UME		USED	AD	OED IN FIELD (mL		рН 7,16		COC		PP		0.18
	-				-					7.10	011					
		-														
REMARKS																
	S AG = Amber Gla	+ 60	Clay Cla	DC - 0	olyetnyle	00 - Dal	pylene; S = Silcon	a: T=Tefon:	0 = 0=	er (Specify)						
MATERIAL CODE			ristaltio Pum				p, ESP = Electric			7-1-11						
	DED	D - Day are	a Flow Paris	taltic Pumo	SU =	Straw Mathod (Tub)	no Gravity Drain).	O = Other (Specif	(v)							

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Chain of Custodies

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| Flowers Chemical Laboratories, Inc.

Altamonte Springs, FL 32701 Bus: 407-339-5984 Fax: 407-260-6110 481 Newburyport Ave.

Flowers Chemical Labs-North Flowers Chemical

Labs-South

West Park Industrial Plaza 571 N.W. Mercantile Pl., Ste. 111 Port St. Lucie, FL 34986 Bus: 772-343-8006 Fax: 772-343-8089

812 S.W. Harvey Greene Dr. Madison, FL 32340 Bus: 850-973-6878 Fax: 850-973-6878

☐ Flowers Chemical Labs-Keys

3980 Overseas Highway, Ste. 103 Marathon, FL 33050 Bus: 305-743-8598 Fax: 305-743-8598



				5. 181			otal # CoN)1/	N	+		n/		>	N			5.1	Time		0240
		permit		*		COMMENTS	Tick	1	1							# # # #			Date		2/18/15/09/0
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flowe	-WTE Wells	Grav	Loucks	Date:		PRESERVATIVES	1.0	ЭН	×					>					danished By		
www.	Project Name		FCL Project Manager	Requested Due Date 10 Day Standard	d _D	PRESER	°0	S _S H	\times	2		i i in		→ →						8	
TODY	Proje	Olien	<u>克</u>	Requ 10 D	Pick-Up Fee		NE		X	7	8	7	-th	& . o	2				Time	3747	
OF CUSTODY www.flowerslabs.com					1 N		tewater HW - waste	LAB USE ONLY) LAB NO.	91476201						→				Date	3	,
				5 291 5 24	7-15		stewate HW -	(LAB	925											3	
CHAI				100	2.7	ŏ	WW - wa - sludge	MATRIX	GW					>					Accepted By / Affiliation		
SAND	to					Date	ater SL	TIME	87:8	58:6	10:13	11:03	11:32	11:56					Accep		
/OICE	Na			3 1	busin	U	W - drinking w SO - soil/solid	DATE		97	7			7					Time	35.77	
S	Solid			1	Resh	11 11	DW-dr SO-s	DA	2-17-15										Date	2-17-15	
PORT	County Solid Wante				Dushin	B	water	0.	دى	80	SR	S		S	1/2				ation		
AD R	Cores				1		GW - ground water SW - surface water	SAMPLEID	WTE-IS	WIE-25	WTE-3SR	WTE-55	WTE-68	WTE-48	Trio Rlan				d By / Affilia	11	
DOWNLOAD REPORTS. INVOICES AND CHAINS	Lee	SSe		0	Sampled By (PRINT):	Sampler Signature	GW - SW -	N.	-			-		-					Relinquished By / Affiliation	Y	700
0	Oliont	Address		Phone	Samp	Sami	1	TEM NO.	<u>ا ا</u>	27	n	4	2	9		∞	၈	우 ·		D	1

Field Data Sheets

Field SOP2.08 Determination of Field

Field	02-17-15	
INST.	Date:	
	DCR	
	Analyst:	

. mail on			2 11 20							
Employee#:		Time:								
			Field DO	Field Temp	Field Conductivity	Field pH	Field Turb	Field Elevation	Field Temp Field Conductivity Field pH Field Turb Field Elevation Field Water Depth TOC	T0C
Sample#			Field DO	Field Temp	Field Temp Field Conductivity	Field pH	Field Turb	Field Elevation	Field pH Field Turb Field Elevation Field Water Depth TOC	TOC
Unit			mg/L	ပွ	umhos/cm	Ha	UTN	Ħ	#	₽
259147GW1			0.32	20.9	1201.0	6.83	11.17	17.70	4.20	21.9
259147GW2			1.65	21.1	1912.0	6.87	1.36	16.86	7.32	24.18
259147GW3			0.40	24.8	1145.0	7.00	14.32	15.84	8.14	23.98
259147GW6			0.68	25.9	1251.0	6.98	0.41	14.28	8.20	22.48
259147GW4			1.48	23.9	1575.0	6.81	0.87	16.61	7.20	23.81
259147GW5			1.36	24.8	1104.0	7.16	0.39	13.67	66.6	23.66
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
								0.00		
	Quality	Quality Control: VOC	ol: VOC							
	Actual(ug/L)									
LCS1										
	Quality A	Assuran	Assurance : Field							
Spike1		%RSD1								
Surgates		%Rec1								

FCL Field

Calibration Sheet

Sampler:

DUSTIN C RAYBURN

Project:

LEE COUNTY-SWERF

Date:

02/17/15

Sample Site I.D.'s

WTE-1S, WTE-2S, WTE-3SR, WTE-4S, WTE-5S, WTE-6S

Equipment Used:

RFPP

Weather conditions:

SUNNY/COOL

7:50

ChitAL

	Unit	Standard	Reading	Standard	Reading	Standard	Reading
pH	рН	4	4	7	7	10	10
Conductivity	us	1413	1413	25000			
Turbidity	NTU	1		10	10.05		
DO							100.00%

Starting Calibration Values:

Ending Calibration Values:

12:30

	Unit	Standard	Reading
рН	рН	7	7.01
Conductivity	us	1413	1410
Turbidity	NTU	10	10.06%
DO			99.70%