JRM
2/18/04

HARTMAN & ASSOCIATES, INC.

engineers, hydrogeologists, surveyors & management consultants
A Tetra Tech Company

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December 18, 2003

D.E.P.
DEC 19 2003
Southwest District Tampa

HAI #99.0331.007
File 13.2

Via UPS Ground

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Subject: **Groundwater Monitoring Results**
Enterprise Recycling & Disposal Facility
Angelo's Aggregate Materials, Ltd.
FDEP Permit Nos. 177982-001-SC, 177982-002-SO
Pasco County, Florida

Dear Mr. Morris:

On behalf of Angelo's Aggregate Materials, Inc., Hartman & Associates, Inc. (HAI) is submitting for your review the groundwater monitoring results for the re-sampling of monitor well MW-7B at the subject site in Dade City, Florida, see Figure 1. HAI personnel were at the subject site on November 5, 2003 to the sample the above well. Copies of the field sampling sheet, chain of custody documentation, and laboratory analytical results for MW-7B are attached in Appendix A for your review.

Monitor well MW-7B was re-sampled due to the presence of phenol during the initial groundwater monitoring at the site, at a level of 11 ug/L. Phenol was detected at a concentration of 10 ug/L during the re-sampling of MW-7B. The State Groundwater Cleanup Target Level (GCTL) for phenol is 10 ug/L. The laboratory analytical results also showed a field pH exceedance of 10.84 and a laboratory analysis pH exceedance of 9.8 STD MW-7B. The previous sampling event showed a field pH exceedance of 11.05 STD.

According to Groundwater Chemicals (2nd Edition) by John H. Montgomery, phenol is typically found in antiseptics, disinfectants, epoxy and phenolic resins (in wood), as a solvent for refining lubricating oils, and as a laboratory reagent. Since the operation of the landfill has not yet commenced on this property, we believe the presence of phenol to be a pre-existing condition at monitor well MW-7B. Some of the potential sources of phenol near the site are the closed East Pasco County Landfill to the north, the Larkin Cemetery (due west of the site), and the Seaboard Coast Line Railroad (due west of the site, near SR 35A). Although those sites are not close, it should be noted that groundwater can potentially flow at rapid rates from distant contamination sources via fracture or conduit in the karst limestones of the Floridan aquifer. The next sampling event will occur in January 2004.

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DEC 1 9 2003
Southwest District Tampa

We trust this submittal will satisfy the Department's requirements. Please call us if you have any questions.

Very truly yours,

Hartman & Associates, Inc.

W. Bruce Lafrenz
Senior Hydrogeologist/Associate

WBL/MAG/cr/99.0331.007/JmorrisMW-7B.doc

cc: Dominic Iafrate, Angelo's Recycled Materials, Inc., Warren, MI
Craig Bryan, Angelo's Aggregate Materials, Inc., Largo, FL
Miguel A. Garcia, HAI

FIGURES

APPENDIX A

HARTMAN & ASSOCIATES

FIELD LOG

D.E.P.
DEC 19 2003
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HAI # 99.0331.007-2 NAME: WJB/HLC

PROJECT NAME: Enterprise Rd L.A. DATE: 11/5/03

PROJECT LOCATION: Dade City, Fla.

TIME	COMMENTS
0830	Arrived on site, began set-up at MW-8. Deconed equipment according to DEP SOP procedures, determined purge volume, installed new poly tubing. Calibrated field meter (Horiba U-10) as follows:
	parameter — standard / Actual
	ph — 4.00 / 3.99
	cond — 4.49 / 4.50 ms/cm
	turb — 0 / 0 NTU's
	D.O. — 8.41 / 8.74 mg/L
	temp — 24°C / 23.6°C
0907	Began purge (See Water Sampling Log for details)
0929	Well purged dry after ~ .75 gals. Will allow to recover and sample. Left well to recover and proceeded to MW-7B and began setup.
1005	Began purge (See Water Sampling Log for details) Parameters did not stabilized during 1st 3 consecutive readings. Continued to purge well ~~[illegible]~~ until parameters were within SOP required readings.
1220	Completed Sampling. Samples on ice. Left site for Lunch
1310	Back on site on MW-8 to pull sample
1330	Completed sampling MW-8, Samples on ice, proceeded to MW-10 location. Well purge dry immediately last event and W.L. was lower this time. Used bailer to purge well. Well went dry after ~ .3 gals.
1420	Attempted to sample well MW-10. During last sampling event, attempted purging well with a peristaltic pump, was unsuccessful due to depth ~~of~~ to water which was 37.72' btoc. Peristaltic pump was unable to lift water from that deep. Inserted a 1.5" groundhog and was unable to stabilize pumping rate with drawdown (well pumped dry almost

n:\hydro\qaqc\fieldlog.xls

HARTMAN & ASSOCIATES

FIELD LOG

HAI # 99.0331.007-2 NAME: WJB/HLC

PROJECT NAME: Enterprise Rd. L.F. DATE: 11/5/03

PROJECT LOCATION: Dade City, Fla

TIME	COMMENTS
	immediately). Based on attempts during last event, we attempted purging/sampling this event using a new 12" bailer, following procedures in DEP-SOP-001/01, FC 2200, par 2.1. After 3 passes with the bailer, well was dry. Allowed to recover 20 minutes and checked WL, had recovered only ~~.07'~~ .09' (9 hundredths) Given estimated time to recover (~7 hrs) and ~~amount of~~ volume required to fill sample jars (~.75 gal), we would spend ~21 hours attempting to sample well MW-10. Talked it over with Project Manager (Jennifer Deal) and decided not to sample MW-10 due to insufficient volume of GW in well and slow recovery time once purged dry.
	Proceeded to completed Water level Readings before Sampling next well.
1515	Completed Round of water levels on all wells.
1530	Left site

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DEC 1 9 2003
Southwest District Tampa

FIELD LOG

HAI # 99.0331.007-2 NAME: WDB/HLC

PROJECT NAME: Enterprise Rd L.F. DATE: 11/5/03

PROJECT LOCATION: Dade City, FL

Well # Water level (ft. BTOC)

~~TIME~~	COMMENTS
MW-1	38.44
MW-1B	98.86
MW-5A	8.02
MW-5B	10.19 (No standing water)
MW-6	13.03
MW-7A	16.81
MW-7B	17.73
MW-8	24.13
MW-9	DRY
MW-10	35.79
MW-11	28.25
P-2	22.82
P-4	8.12
P-5	AB
P-6	18.63
P-8	59.89
P-10	57.08
P-11	43.42
P-13	AB
TP	6.43 76.43(NGVD)
Rain Gauge	0.00"

n:\hydro\qaqc\fieldlog.xls

FLORIDA

HARTMAN & ASSOCIATES, INC
engineers, hydrogeologists, surveyors, & management consultants
201 EAST PINE STREET - SUITE 1000 - ORLANDO, FL 32801
TELEPHONE (407) 839-3955 - FAX (407) 839-3790

Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-7B	SAMPLE ID: MW-7B	DATE: 11/5/03
SITE NAME: Enterprise Rd LF.		SITE LOCATION: Dade City, FL	

PURGE DATA

WELL DIAMETER (in): 2" PVC	TOTAL WELL DEPTH (ft): 63.88	DEPTH TO WATER (ft): 17.73	WELL CAPACITY (gal/ft): 46.15

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH − DEPTH TO WATER) x WELL CAPACITY = 1 vol = 7.38, 5 vols = 36.92

= (63.88' −) x .16 =

PURGE METHOD: Peristaltic Pump	PURGING INITIATED AT: 1005	PURGING ENDED AT: 1210
	PURGE RATE (gpm): ~.20 gpm	TOTAL VOLUME PURGED (gal): 19.25

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	* TEMP. (°C)	ms/cm COND. (mmhos)	TURBIDITY (NTU)	DO mg/L	ODOR	COLOR
1 vol	7.38	11.39	24.8	.186	0	1.26	none	clear
	9.25	11.30	25.1	.173	0	1.10	"	"
11.25	~~11.25~~	11.19	24.8	.161	0	1.09	"	"
	13.25	11.12	25.3	.155	0	1.26	"	"
	15.25	11.00	25.4	.145	0	1.52	"	"
	17.25	10.89	25.5	.139	0	1.50	"	"
	19.25	10.84	25.3	.136	0	1.55	"	"

SAMPLING DATA

SAMPLED BY / AFFILIATION: WTB/HLC HAI Inc.	SAMPLER(S) SIGNATURE(S): [signature]	
SAMPLING METHOD(S): Peristaltic Pump / organic Trap	SAMPLING INITIATED AT:	SAMPLING ENDED AT: 1220
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
1	HDP	250 ml	HNO3	None	—	FE, HG, NA
1	HDP	250 ml	H2SO4	"	—	Ammonia
1	HDP	500 ml	None			Alk, Chloride, Nitrate, PH, TDS
1	AG	1 lit	None			8270-AE

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

1005 Began purge, W.L. 17.73' BTOC, purge rate .20gpm tubing ~ 18.5' BTOC
1007 W.L. 17.92' BTOC
1009 W.L. 17.94' BTOC, drawdown stabilized, began measuring purge volume
12 W.L. 17.94' BTOC, tubing ~ 18.5' BTOC
22 W.L. 17.94' BTOC
00 W.L. 17.92' BTOC

· temperature readings rose and fell in correlation to sun going in and out of clouds.

Environmental Conservation Laboratories, Inc.
10207 General Drive
Orlando, Florida 32824-8529
407 / 826-5314
Fax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

CLIENT : Hartman & Assoc., Inc.
ADDRESS: 201 E. Pine St.
Suite 1000
Orlando, FL 32801

REPORT # : ORL29393.2
DATE SUBMITTED: November 6, 2003
DATE REPORTED : November 24, 2003

ATTENTION: Jennifer Deal

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

REFERENCE: 99.0331.007-2

ENTERPRISE ROAD L.F.

11/05/03

ORL29393.2-1 : MW-7B @ 12:20

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. This data has been produced in accordance with NELAC Standards (July, 1999). This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

PROJECT MANAGER _____
Ronald Wambles

RESULTS OF ANALYSIS

EPA METHOD 8270 - ACID SVOAS	MW-7B	Units
4-Chloro-3-methylphenol	10 U	ug/L
2-Chlorophenol	10 U	ug/L
2,4-Dichlorophenol	10 U	ug/L
2,4-Dimethylphenol	10 U	ug/L
2,4-Dinitrophenol	10 U	ug/L
2-Methyl-4,6-Dinitrophenol	10 U	ug/L
2-Nitrophenol	10 U	ug/L
4-Nitrophenol	10 U	ug/L
Pentachlorophenol	10 U	ug/L
Phenol	**10**	ug/L
2,4,6-Trichlorophenol	10 U	ug/L
2-Methylphenol	10 U	ug/L
3 & 4-Methylphenol	20 U	ug/L
2,4,5-Trichlorophenol	10 U	ug/L

Surrogate:	% RECOV	LIMITS
Phenol -D5	70	12-122
2-Fluorophenol	88	30-114
2,4,6-Tribromophenol	92	55-159
Date Prepared	11/07/03	
Date Analyzed	11/11/03 17:23	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

TOTAL METALS	METHOD	MW-7B	Units
Iron	200.7	0.050 U	mg/L
Date Analyzed		11/11/03 18:28	
Mercury	245.1	0.00020 U	mg/L
Date Analyzed		11/11/03 16:20	
Sodium	200.7	**5.0**	mg/L
Date Analyzed		11/11/03 18:28	

EPA METHOD 300 - Anions by IC	MW-7B	Units
Chloride	**4.5**	mg/L
Nitrate-N	**0.88**	mg/L
Date Analyzed	11/06/03 19:04	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

MISCELLANEOUS	METHOD	MW-7B	Units
Alkalinity (as CaCO3)	310.1	**36**	mg/L
Date Analyzed		11/10/03 09:10	
Ammonium	350.1	**0.34**	mg/L
Date Analyzed		11/10/03 11:59	
Bicarbonate (as CaCO3)	4500-CO2/B.	**16**	mg/L
Date Analyzed		11/10/03 09:10	
pH	150.1	**9.8** Q	S.U.
Date Analyzed		11/06/03 12:18	
Total Dis. Solids	160.1	**76**	mg/L
Date Analyzed		11/10/03 19:30	

Q = Estimated value; analyte analyzed after acceptable holding time.

RESULTS OF ANALYSIS

EPA METHOD 8270 - ACID SVOAS	LAB BLANK	Units
4-Chloro-3-methylphenol	10 U	ug/L
2-Chlorophenol	10 U	ug/L
2,4-Dichlorophenol	10 U	ug/L
2,4-Dimethylphenol	10 U	ug/L
2,4-Dinitrophenol	10 U	ug/L
2-Methyl-4,6-Dinitrophenol	10 U	ug/L
2-Nitrophenol	10 U	ug/L
4-Nitrophenol	10 U	ug/L
Pentachlorophenol	10 U	ug/L
Phenol	10 U	ug/L
2,4,6-Trichlorophenol	10 U	ug/L
2-Methylphenol	10 U	ug/L
3 & 4-Methylphenol	20 U	ug/L
2,4,5-Trichlorophenol	10 U	ug/L

Surrogate:	% RECOV	LIMITS
Phenol -D5	47	12-122
2-Fluorophenol	68	30-114
2,4,6-Tribromophenol	91	55-159
Date Prepared	11/07/03	
Date Analyzed	11/11/03 16:49	

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES
REPORT # : ORL29393.2
DATE REPORTED: November 24, 2003
REFERENCE : 99.0331.007-2
PROJECT NAME : ENTERPRISE ROAD L.F.

D.E.P.
DEC 1 9 2003
Southwest District Tampa

RESULTS OF ANALYSIS

TOTAL METALS	METHOD	LAB BLANK	Units
Iron	200.7	0.050 U	mg/L
Date Analyzed		11/11/03 16:10	
Mercury	245.1	0.00020 U	mg/L
Date Analyzed		11/11/03 15:10	
Sodium	200.7	0.50 U	mg/L
Date Analyzed		11/11/03 16:10	

EPA METHOD 300 - Anions by IC	LAB BLANK	Units
Chloride	1.0 U	mg/L
Nitrate-N	0.10 U	mg/L
Date Analyzed	11/06/03 11:11	

MISCELLANEOUS	METHOD	LAB BLANK	Units
Alkalinity (as CaCO3)	310.1	2.0 U	mg/L
Date Analyzed		11/10/03 09:10	
Ammonium	350.1	0.020 U	mg/L
Date Analyzed		11/10/03 11:38	
Total Dis. Solids	160.1	2.0 U	mg/L
Date Analyzed		11/10/03 19:30	

U = Compound was analyzed for but not detected to the level shown.

LABORATORY CERTIFICATIONS

Laboratory Certification: NELAC:E83182

All analyses reported with this project were analyzed by the facility indicated unless identified below.

PARAMETER	LAB CERT #'s
Iron,	NELAC:E87610
MERCURY, EPA METHOD 245.1	NELAC:E87610
Sodium,	NELAC:E87610

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
EPA Method 8270				
Phenol	33/ 33/ 38	23-102	<1	44
2-Chlorophenol	68/ 68/ 70	42-124	<1	41
1,4-Dichlorobenzene	80/ 76/ 79	23-127	5	43
N-Nitrosodi-N-Propylamine	93/ 91/ 94	35-122	2	43
1,2,4-Trichlorobenzene	77/ 78/ 79	47-129	1	43
4-Chloro-3-methylphenol	76/ 76/ 78	40-139	<1	25
Acenaphthene	87/ 91/ 88	49-122	4	28
4-Nitrophenol	26/ 26/ 27	10-159	<1	52
2,4-Dinitrotoluene	79/ 81/ 78	48-139	2	21
Pentachlorophenol	51/ 51/ 49	25-149	<1	42
Pyrene	80/ 78/ 74	50-146	2	32
TOTAL METALS				
Iron, 200.7	97/101/102	48-144	4	23
Mercury, 245.1	90/ 88/100	70-136	2	12
Sodium, 200.7	104/111/ 95	29-171	6	21
EPA Method 300				
Chloride	93/ 92/100	51-149	1	26
Nitrate-N	100/ 98/107	40-152	2	23
MISCELLANEOUS				
Alkalinity (as CaCO3), 310.1	97/ 97/ 96	80-119	<1	4
Ammonium, 350.1	87*/ 83*/102	90-110	5	20
pH, 150.1	NA/ NA/100	95-109	NA	NA
Total Dis. Solids, 160.1	NA/ NA/ 97	73-121	NA	NA

* = Recovery fails low.
< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
NA = Not applicable
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

QSARF # 12901

ENVIRONMENTAL CONSERVATION LABORATORIES

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ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER	PAGE	OF
Enterprise Road LF	99.0331.0001-2		1	1

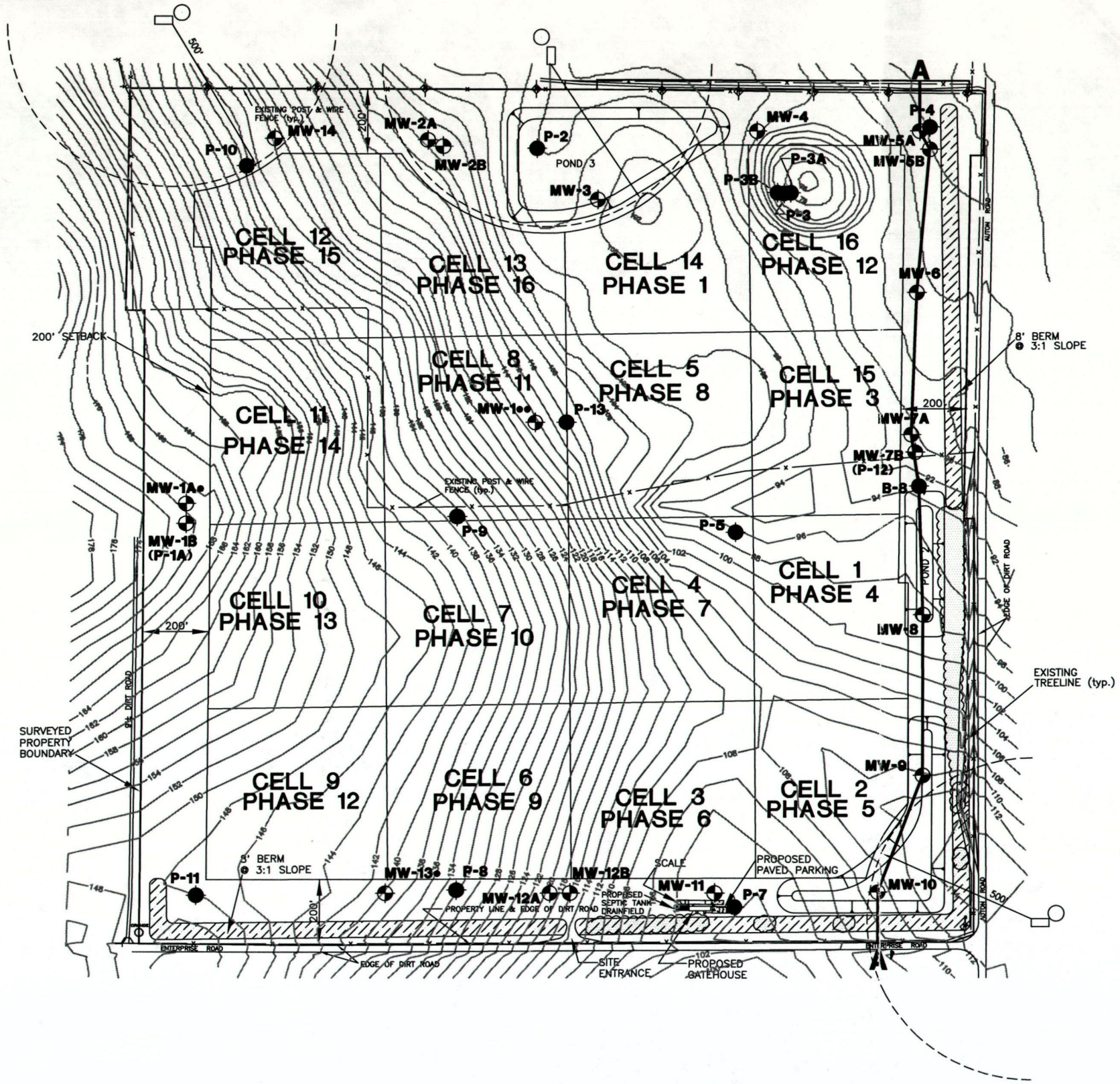
PROJECT LOC. (State): FL
SAMPLER(s) NAME: W. J. Bangle
PHONE: 407-839-3955
FAX: 407-839-2066
CLIENT NAME: Hartman & Assoc, Inc.
CLIENT PROJECT MANAGER: Jennifer Deal
CLIENT ADDRESS (CITY, STATE, ZIP): 201 E. Pine St, Suite 1000, Orlando, FL 32801

☒ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: _____

SAMPLE STATION	DATE	TIME	GRAB	COMP.	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	DF Water Fe, Hg, NA	Ammonium	Alk, Chloride, Nitrate, pH, TDS	8270-AE	COD					REMARKS
															NUMBER OF CONTAINERS SUBMITTED									
MW-7B	11/5/03	1220	X		MW-7B		X								1	1	1	—	1					
MW-8		1330	X		MW-8		X								1	1	1	—						
SW		1530	X		SW	X														1				
EQB		1545	X		EQB									X	1	1	1	—						
5																								
6																								
7																								
8																								
9																								
10																								
12																								
13																								
14																								

SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☒ ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
	11/3/03	13:35		11/3/03	13:35		11/6/03	0800
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
							11/6	1030
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
				11/5/03	1700		11/6	1701

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☒ Orlando	11/6/03	11:00	☒ YES ☐ NO	ORL 29293	



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LEGEND

- MW-2 – PROPOSED SURFICIAL AQUIFER DETECTION MONITOR WELL LOCATION
- MW-1B – PROPOSED FLORIDAN AQUIFER DETECTION MONITOR WELL LOCATION
- P-2 – EXISTING PIEZOMETER LOCATION
- ○ – PRIVATE POTABLE WELL LOCATION
- MW-13• – PERIODIC DRY SURFICIAL AQUIFER MONITOR WELL LOCATION
- MW-1•• – BACKGROUND SURFICIAL AQUIFER MONITOR WELL TO BE ABANDONED PRIOR TO CELL 8 LANDFILLING
- A A' – NORTH TO SOUTH CROSS-SECTION

R:\CAD\DWG\19999-331.07\PROGRPT\33107n04 6/30/03

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201 EAST PINE STREET – SUITE 1000 – ORLANDO, FL 32801
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MONITOR WELL AND PIEZOMETER LOCATION MAP
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 1