

1715 North Westshore Boulevard, Suite 875 Tampa, Florida 33607 tel: 813 281-2900

fax: 813 288-8787

October 26, 2010

Mr. John Morris, P.G. Florida Department of Environmental Protection 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Subject:

West Pasco Class III Landfill

Permit NO: 26254-001-SO

Ground Water Quality Monitoring Plan Evaluation

Dear Mr. Morris:

Camp Dresser & McKee Inc. (CDM) is pleased to provide two (2) copies of the attached Ground Water Quality Monitoring Plan Evaluation for the West Pasco Class III Landfill to the Florida Department of Environmental Protection (FDEP) for review.

Please let me know if you have any questions or require additional information.

Sincerely,

David Rojas P.G.

Camp Dresser & McKee Inc.

Attachment

cc: John Power, Pasco County

Candia Mulhern, Pasco County

Aamod Sonawane, CDM

File



Pasco County, Florida

Groundwater Monitoring Plan Evaluation Semester II 2006 ~ Semester I 2010 West Pasco Class III Landfill

October 2010





Groundwater Monitoring Plan Evaluation for Semester II 2006 ~ Semester I 2010 West Pasco Class III Landfill

October 2010



CERTIFICATION

I hereby certify that I have examined the site, and being familiar with the provisions of 62-701, F.A.C., attest that this evaluation has been prepared in accordance with good engineering practices.

Engineer: David R. Rojas
Signature:
No.FG2362
Professional Geologist * * * *
Registration Number: PG2362 FOF
FLORIDA OF THE PROPERTY OF THE
State: Florida Florida
Date: <u>October 26, 2010</u>

ENVIRONMENTAL PROTECTION
OCT 27 2010
SOUTHWEST DISTRICT

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Section One

Section 1 Introduction



1.1 Background

The West Pasco Class III Landfill (site) is located at 14230 Hayes Road, Spring Hill, Florida in northwest Pasco County, approximately 2.5 miles north of State Road 52. Other facilities that are part of the Pasco County Solid Waste System which are located on the property include the Resource Recovery Facility and the West Pasco Class I Landfill. **Figure 1-1** is a site plan showing the property boundary northwest of the site, adjacent roadways, the arrangement of the four five-acre disposal cells, and other features. The property, which is located in Spring Hill, Florida, is approximately 800 acres in size. The site is permitted to operate under Chapters 62-4 and 62-701, Florida Administrative Code (F.A.C.).

Construction and Demolition (C&D) debris that is received at the Resource Recovery Facility is directed to the Class III disposal cells. The filling of Cell #1 began in June of 1990 and reached its first lift level in May of 2002. The site is designed to include a second lift after all four cells are filled to the first level. The filling of the first lift in Cell #2 began in June of 2002. Cell #2 is the only cell being filled with debris at this time.

The landfill is equipped with a geosynthetic liner and leachate collection system. Collected leachate is directed to one of two underground storage tanks referred to as Tanks 1 and 2. The leachate received by the tanks is piped directly to the Shady Hills Advanced Wastewater Treatment Facility.

1.2 Water Quality Monitoring Plan

Routine groundwater monitoring at the facility is performed in accordance with Specific Conditions E.1, E.3, and E.4 of Permit No. 26254-001-SO/T3. Monitor wells 2MW-7 and 4MW-7 are designated as background groundwater quality monitoring locations. Wells 4MW-21 and 4MW-22 are designated as detection wells. Proposed monitor well 4MW-23 is designated in the permit to also be a detection well, but the well is not required to be installed and monitored until 30 days prior to initiation of debris disposal in Cells #3 or #4. Groundwater samples are collected from monitor wells 2MW-7, 4MW-7, 4MW-21, and 4MW-22 as specified in Specific Condition E.3 of the permit. In addition, groundwater samples are collected from monitor wells 4MW-3A, 4MW-8, and 4MW-9.

Groundwater monitoring is performed semi-annually in accordance with Specific Condition E.4.c. In Specific Condition E.3 of the permit, monitor wells 2MW-3A, 4MW-3A, 2MW-8, 4MW-9, 4MW-9, and 2MW-10 are designated as piezometers. Locations of wells are shown on Figure 1-1. In accordance with Specific Condition E.4.a, groundwater level measurements are collected from all active monitor wells during all sampling events.





Table 1-1 is a construction summary of all active monitor wells. Groundwater samples are collected and analyzed by Pasco County personnel in accordance with quality assurance requirements specified in Specific Condition E.1 of the permit.

1.3 Report Contents and Organization

The period over which this Water Quality Monitoring Plan Evaluation Report (WQMPER) covers is from Semester II of 2006 through Semester I of 2010 as specified by Specific Condition E.11 of the permit. As required by Specific Condition E.11 of the permit and Chapter 62-701.510(9)(b), this report includes the following:

- Tabular and graphical displays of data and data analyses including trend analyses of water quality parameters that are consistently detected.
- Comparisons of water level and groundwater quality data between background and detection/compliance monitoring wells.
- Correlations of related parameters.
- Compilation and interpretation of groundwater level data and contour maps including results of gradient monitoring.
- Other interpretations or recommendations based on the review and analyses of the data.
- An evaluation of the monitoring program.

The report is divided into three sections. Section 1 includes an overview of the Pasco County Class III monitoring program. Section 2 presents and discusses groundwater level data and the results of the groundwater and leachate monitoring, and interpretations of the data. Section 3 presents conclusions and recommendations based on the evaluations.



Table 1-1. Construction Summary of Existing Monitor Wells West Pasco Class III Landfill

Well I.D.	Loc	ation	Ground E	levation	Top of (Casing			Screened S	ection		Top of LS	Total Depth
well I.D.	Latitude North	Longitude West	(ft NAVD)	(ft NGVD)	(ft NAVD)	(ft NGVD)	Well Type (dia.)	Length	Depth (ft bls)	Elevation (ft NGVD)	Lithology	(ft bls)	(ft bls)
		•				Surficial Ac	uifer				-		
2MW-3	28° 22' 26"	82° 34' 18"	45.80	46.79	49.02	50.01	Screened (2")	5	9.5 - 14.5	37.29 to 32.29	\$D	23.0	15.0
2MW-7	28° 22' 19"	82° 34' 07"	48.97	49.96	51.76	52.75	Screened (2")	6	6.0 - 12.0	43.96 to 37.96	SD	30.0	12.0
2MW-8	28° 22' 23"	82° 34' 15"	48.43	49.42	50.98	51.97	Screened (2")	5	7.0 - 12.0	42.42 to 37.42	SD & Cly SD	25.0	13.0
2MW-9	28° 22' 28"	82° 34' 06"	49.20	50.19	51.30	52.29	Screened (2")	7	4.0 - 11.0	46.19 to 39.19	SD	28.0	11.0
2MW-10	28° 22' 25"	82° 34' 13"	47.82	48.81	51.64	52.63	Screened (2")	7	5.0 - 12.0	43.81 to 36.81	\$D	25.0	12.0
				•		Floridan Ad	uifer						
4MW-3A	28° 22' 31"	82° 34' 03"	49.55 (conc)	50.54 (conc)	51.93	52.92	Screened (2")	28	22.0 - 50.0	28.54 to 0.54	LS	22.0	50.0
4MW-7	28° 22' 19"	82° 34' 07"	48.76	49.75	51.63	52.62	Screened (2")	25	22.0 - 47.0	27.75 to 2.75	CL & L\$	30.0	50.0
4MW-8	28° 22' 23"	82° 34' 15"	48.78	49.77	50.88	51.87	Screened (4")	33	32.0 - 65.0	17.77 to -15.23	LS	25.0	65.0
4MW-9	28° 22' 28"	82° 34' 06"	49.35	50.34	51.79	52.78	Screened (4")	30	30.0 - 60.0	20.34 to -9.66	CL & LS	28.0	60.0
4MW-21	28° 22' 22"	82° 34' 14"	Not Measured	49.10	Not Measured	51.46	Screened (2")	15	24.2 - 39.2	24.90 to 9.90	CL & SD	>40.0	40.0
4MW-22	28° 22' 25"	82° 34′ 10″	Not Measured	50.85	Not Measured	53.44	Screened (2")	15	30.3 - 45.3	20.55 to 5.55	CL & LS	29.0	46.0

NOTES:

Lithology of Screened interval and Top of Limestone are based on cross-section interpretation or information from boring logs.

Elevation Data in NAVD are from Pasco County Engineering Sves Survey dated 1/22/07.

Elevation Data in NGVD for all wells except 4MW-21 & 4MW-22 are from Pasco County Engineering Sves Survey dated 1/22/07 converted to NGVD.

Elevation Data in NGVD for 4MW-21 & 4MW-22 are from Pasco County Engineering Sves Survey dated 12/1/08.



Section Two

Section 2 Groundwater Level Data and Water Quality



2.1 Groundwater Levels

Water level measurements were collected during the sampling events conducted during the 2006 – 2010 reporting period. These measurements are presented in **Table A-1 (Appendix A).** Monitor wells 2MW-3A, 2MW-7, 2MW-8, 2MW-9, and 2MW-10 are screened in the surficial aquifer and have remained dry since 1995. Monitor wells 4MW-3A, 4MW-7, 4MW-8, and 4MW-9 are screened in the Floridan aquifer. Groundwater contour maps of the Floridan aquifer at the facility during the 2006 – 2010 reporting period are **Figures A-1 through A-8 (Appendix A)**.

The direction of the groundwater water flow in the Floridan aquifer is generally from southwest to northeast. Based on the gradients determined for each monitoring event for this reporting period, the average hydraulic gradient during the monitoring period was 0.0017. The maximum gradient was 0.0019 and the lowest was 0.0014. The gradient for each event was estimated using a three-point solution with water level data from wells 4MW-3A, 4MW-7, and 4MW-8 (Table A-1).

The average horizontal seepage velocity was estimated using the two-dimensional form of Darcy's Law below:

$$V_s = \frac{K_H i}{n_e}$$

where: V_s = Horizontal seepage velocity (feet/day)

 K_H = Horizontal hydraulic conductivity (feet/day)

i = Hydraulic gradient

 n_e = Effective porosity

A hydraulic conductivity value of 9.0 feet/day and an effective porosity of 15% (from the March 2008 WQMP prepared by CDM) were used to calculate the horizontal seepage rate. These data indicate that the average groundwater seepage velocity is approximately 0.10 foot/day or just over 37 feet/year.

Hydrographs are presented in **Figure A-9** (**Appendix A**). Seasonal variations in the water levels are evident with highest water levels occurring in the second semester of 2009 and lowest water levels occurring in the first and second semesters of 2007. There are no significant rising or falling trends in water levels other than the seasonal trends.



2.2 Groundwater Quality

2.2.1 Groundwater Data

Groundwater quality sampling and analyses were conducted from Semester I of 2006 through Semester II of 2010 (the 2006-2010 reporting period). **Tables B-1 through B-11 (Appendix B)** present the results of routine (semi-annual) groundwater quality monitoring performed in accordance with the permit for the facility.

2.2.2 Comparisons to Groundwater Quality Criteria

The groundwater quality results of the sampling activities performed during the 2006 – 2010 reporting period were compared to established criteria including Primary Drinking Water Standard (PDWS) and Secondary Drinking Water Standard (SDWS) Maximum Contaminant Levels (MCLs) established in Chapter 62-550, F.A.C., and, for those analytes for which MCLs have not been established, Groundwater Cleanup Target Levels (GCTLs) established in Chapter 62-777, F.A.C. Exceedances of these criteria are summarized and evaluated in the following subsections. All of the parameters detected at concentration exceeding groundwater quality criteria in groundwater samples collected during the 2006 – 2010 reporting period are presented in Table 2-1.

Exceedances of Primary Drinking Water Standard MCLs

PDWS MCLs for various inorganic compounds are established in Table 1 of Chapter 62-550, F.A.C. Concentrations of one parameter exceeded the MCL in groundwater samples collected during the 2006 - 2010 reporting period. This parameter is selenium. The occurrence of this parameter is discussed below.

Selenium

Selenium was only detected at concentrations above the 0.05 mg/L MCL in the groundwater samples collected from monitor wells 4MW-3A, 4MW-7, and 4MW-9 in Semester II of 2008. The reported concentrations of 0.059 mg/L, 0.061 mg/L, and 0.064 mg/L, respectively, are between the MDL of 0.05 mg/L and the practical quantitation limit (PQL) and so, only represent estimated values. All three estimated concentrations are very similar and monitor well 4MW-7 is a background well. Selenium was not detected in any of the other samples collected from these wells or in any of the samples collected from other monitoring wells during the 2006-2010 reporting period. Therefore, these exceedances of the MCL are considered anomalous and are not considered violations of the water quality criterion.

Exceedances of Secondary Drinking Water Standard MCLs

SDWS MCLs are established in Table 4 of Chapter 62-550, F.A.C. Values of pH were below the acceptable range in all four samples collected from one monitor well during the 2006 – 2010 reporting period. In addition, the concentration of iron detected in one of the groundwater samples collected from one well during the 2006 – 2010 reporting period exceeded the MCL. The occurrence of these parameters is discussed below.



Table 2-1. Parameters Detected at Concentrations Exceeding Groundwater Quality Criteria From September 2006 to February 2010

							Date of	Date of Sample				
				2006	~	2007	36	2008	000	0000	0040	
				3th quarter	1st quarter	3rd quarter	1st quarter	3rd quarter	1st morter	2rd curator	2010	Max. Conc.
Weli	Parameter	Units	Criteria	9/28/06	3/27/07	8/21/07	3/4/08	8/28/08	3/17/09	9/1/09	2/10/10	Detected Since Nov-07
et)	PH	SU	6.5 - 8.5	7.61	7.63	7.54	7.61	7.05	7.09	6.86	7.36	7.63
Ą€-W	Ammonia	l/gm	2.8	0.25	0.12	0.10	0.13	0.13	5.38	0.08	1.14	5.38
ozəi	Iron	l/gm	0.3	0.18	0.21	0.17	0.19	0.001	0.121	0.074	0.070	0.21
a)	Selenium	mg/l	0.05	0.0042 U	0.0042 U	0.05 U	0.001 U	0.059	0.001 U	0.001 U	0.0075 U	0.059 1
(pu	H	SU	6.5 - 8.5	7.63	7.60	7.48	7.58	7.00	7.20	6.93	7.61	7.63
noat Z-M	Ammonia	l/gm	2.8	0.41	0.04 U	0.04 U	0.04 U	0.04 U	60.0	0.04 U	0.04 U	0.41
чск	Iron	l/gm	0.3	0.14	0.11	0.10	0.05	0.001 U	0.001 U	0.003	0.002 U	0.14
	Selenium	l/gm	0.05	0.0042 U	0.0042 U	0.05 U	0.001 U	0.061	0.001 U	0.001 U	0.0075 U	0.061
et)	PH	SU	6.5 - 8.5	7.61	7.66	7.42	7.50	86.9	7.04	6.95	7.43	7.66
8-W	Ammonia	mg/l	2.8	0.56	0.04 U	0.04	0.04 U	0.04 U	0.03	0.04 U	60.0	0.56
ozej,	Iron	mg/l	0.3	0.01	90.0	0.02	0.02	0.001 U	0.001 U	0.001 U	0.002 U	90.0
	Selenium	mg/l	0.05	0.0042 U	0.0042 U	0.05 U	O.001	0.05 U	0.001 U	0.001 U	0.0075 U	0.05 U
et)	H	SU	6.5 - 8.5	7.59	79.7	7.26	7.54	68.9	7.02	6.92	7.44	7.67
9-W	Ammonia	l/gm	2.8	0.38	0.04 U	90.0	0.04 U	0.04 U	0.09	0.04 U	0.18	0.38
ozəj	Iron	l/gm	0.3	0.01	0.02	0.02	0.03	0.001 U	0.001 U	0.001 U	0.002 U	0.03
	Selenium	l/gm	0.05	0.0042 U	0.0042 U	0.05 U	0.001 U	0.064 1	0.001 U	0.001 U	0.0075 U	0.064 1
(u	H	SU	6.5 - 8.5	N/A	N/A	N/A	N/A	N/A	5.29	5.10	5.77	5.77
N-21	Ammonia	l/gm	2.8	N/A	N/A	N/A	N/A	N/A	0.11	0.04 U	0.15	0.15
Dete	Iron	mg/l	0.3	N/A	N/A	N/A	N/A	N/A	0.054	0.045	0.051	0.054
	Selenium	mg/l	0.05	N/A	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.0075 U	0.0075 U
(u	ЬН	SU	6.5 - 8.5	N/A	N/A	N/A	N/A	N/A	7.01	6.88	7.19	7.19
oito	Ammonia	l/gm	2.8	N/A	N/A	N/A	N/A	N/A	0.03 U	0.04 U	0.12	0.12
VM4 ətəC	Iron	l/gm	0.3	N/A	N/A	N/A	N/A	N/A	0.001 U	0.047	1.17	1.17
1)	Selenium	l/gm	0.05	N/A	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.0075 U	0.0075 U
-												

NOTE:

- Criteria for pH & iron are Secondary Drinking Water Standard Maximum Concentration Levels (MCLs) established in Table 4 of Chapter 62-550, F.A.C.

- Criterion for selenium is the Primary Drinking Water Standard MCL established in Table 1 of Chapter 62-550, F.A.C.

- Criterion for ammonia is the Groundwater Cleanup Target Level (GCTL) established in Table 1 of Chapter 62-777, F.A.C.

- Concentrations highlighted with yellow represent detections that exceed the established groundwater criteria

- N/A = Not Analyzed

- U = Analyte was not detected. Concentration presented is the method detection level (MDL).
- I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

pH

Measured pH values were consistently below the MCL lower value of 6.5 Standard Units (S.U.) in all four samples collected from monitor well 4MW-21 during the 2006 – 2010 reporting period. Measured values in samples from 4MW-21 varied from 5.10 S.U. to 5.77 S.U. during this monitoring period. The pH values measured during the routine monitoring sampling events are consistent with the 5.64 S.U. pH measured during the initial sampling event associated with this monitor well, which was performed in December 2008. The pH values in the samples collected from all other monitoring wells (including 4MW-8, which is only ~125 feet northwest of 4MW-21) during the reporting period were within the acceptable range. The low pH of groundwater in this well is interpreted to be associated with the lithology and natural chemistry of the interval monitored at this location.

Iron

Iron was detected at a concentration that exceeded the MCL of 0.3 mg/L in one of the four samples collected from monitor well 4MW-22 during the 2006 – 2010 reporting period. A concentration of 1.17 mg/L iron was detected in the groundwater sample collected from monitor well 4MW-22 in Semester I of 2010, however, iron was not detected in this well during the initial sampling event performed on this well in December 2009 or the first routine sampling event performed during the Semester I 2009 sampling event. Although 0.047 mg/L was detected in the sample collected during the Semester II 2009 sampling event, this concentration is significantly below the MCL. Therefore, the concentration reported in the sample collected during the first semester of 2010 is considered anomalous.

Exceedances of Groundwater Cleanup Target Levels

GCTLs for various compounds are established in Chapter 62-777, F.A.C. Several of the parameters listed in Chapter 62-777, F.A.C. have GCTLs which reference MCLs. Only one parameter was detected in groundwater samples collected during the 2006 - 2010 reporting period at concentrations exceeding a GCTL that does not reference an MCL. This parameter is ammonia. The occurrence of this parameters is discussed below.

Ammonia

Ammonia was only detected at a concentration above the GCTL of 2.8 mg/L in one groundwater sample collected from monitor well 4MW-3A in Semester I of 2009. The reported concentration was 5.38 mg/L in this sample. Although 1.14 mg/L ammonia was detected in the groundwater sample collected from this well in Semester I of 2010, concentrations of ammonia detected in this well during the other six sampling events of the 2006-2010 reporting period, were at or below 0.25 mg/L. Therefore, the concentration reported in the sample collected during the first semester of 2009 is considered anomalous.



2.2.3 Trends and Correlations

Figures B-1 through B-13 (Appendix B) are time versus concentration graphs for parameters that were consistently detected in groundwater samples collected during the 2006 – 2010 reporting period. These parameters were detected in at least 50 per cent of the groundwater samples collected from individual monitoring wells. The values represented on Figures B-1 through B-13 for the analytical results of parameters that were not detected are one half of the laboratory method detection levels (MDLs) identified in the laboratory reports. Primarily because more than one laboratory was subcontracted by the Pasco County Laboratory to perform analyses during the 2006 – 2010 reporting period, the MDLs for several of the parameters changed from one sampling event to another.

The only parameters detected in concentrations that exceeded the GCTL or MCL during this monitoring period were ammonia and iron with exceedances during a single sampling event in only one well, selenium with estimated exceedances during a single sampling event in three wells, and pH which was below the MCL lower value of 6.5 Standard Units (S.U.) in all four samples collected from one monitor well.

Evaluation of these data, including the consideration of data outliers and effects of detection limits, indicates that there are no significant trends in the concentrations of many of these parameters over the monitoring period. In general, the time versus concentration graphs indicate that the overall quality of groundwater remained generally stable during this monitoring period.

Seasonal trends in total dissolved solids (TDS) are evident, with higher concentrations of TDS during the second semester sampling events, but the highest concentrations are well below the GCTL. The time versus parameter value graph for conductivity also indicates some seasonal variation, with higher conductivities during the second semester sampling events, and a slight overall increasing trend for all of the wells, including the background well 4MW-7. In general, the values and trends of monitored parameters and analytes measured in the background well 4MW-7 throughout the 2006-2010 reporting period were similar to the values measured in the other monitor wells at the site designated as Floridan Aquifer wells.

Ammonia was detected at a concentration that exceeded the GCTL of $2.8\,\text{mg/L}$ in one of the samples collected from monitor well 4MW-3A. The concentrations of ammonia detected in other samples collected from this well during the 2006-2010 reporting period were significantly below the GCTL. No trends or correlations were identified between the ammonia concentrations and field parameter or other analytic data from this well. Although this sample was collected when water levels were at their lowest level during the 2006-2010 reporting period, the ammonia concentration detected in the first semester of 2009 is inconsistent with the historic trend of iron concentrations detected in this well.

Iron was detected at a concentration that exceeded the MCL of 0.3 mg/L in one of the four samples collected from monitor well 4MW-22, which was installed in November



2008. Iron was not detected in samples collected from the well until the second semester of 2009. The concentration of iron detected during this event was significantly below the MCL. With the exception of a slight increase in turbidity, no correlations were identified between the iron concentration detected in the first semester of 2010 and field parameter or other analytic data from this well. Although there is an increasing trend in iron concentrations associated with this well, the concentration detected in the first semester of 2010 is inconsistent with the historic trend of iron concentrations detected in this well.

Throughout the 2006-2010 reporting period, selenium was only detected at concentrations above the 0.05 mg/L MCL in the groundwater samples collected from three monitor wells during one of the sampling events. All three reported concentrations are similar and are estimated values. Selenium was not detected in any of the other samples collected from these wells or in any of the samples collected from other monitoring wells during the 2006-2010 reporting period. The event when selenium was detected correlates with the highest conductivity readings obtained from these three wells during the 2006-2010 reporting period.

Measured pH values were consistently below the MCL lower value of 6.5 Standard Units (S.U.) in all four samples collected from monitor well 4MW-21 during the 2006 – 2010 reporting period. The low pH of groundwater in this well is interpreted to be associated with the lithology and natural chemistry of the interval monitored at this location. Although it is at the same elevation as the limestone being monitored by the other monitor wells at the site designated as "Floridan" wells, the depth interval monitored by this well contains predominantly sand and clay. The difference in water quality in samples collected from monitor well 4MW-21 compared to the water quality in samples collected from the other Floridan Aquifer monitor wells is likely because the well is screened in siliciclastic sediments. This is also reflected by other trends such as the elevated nitrate and dissolved oxygen and low TDS and conductivity readings observed in this well compared to the other Floridan Aquifer wells.

2.3 Leachate Quality

2.3.1 Leachate Data

Leachate quality sampling and analyses were conducted annually from Semester I of 2007 through Semester I of 2010 (the 2006-2010 reporting period) in accordance with the permit for the facility.

2.3.2 Comparisons to Leachate Quality Criteria

The leachate quality results of the sampling activities performed during the 2006 – 2010 reporting period were compared to established criteria including toxicity characteristic values presented in Table 1 of 40 CFR Part 261.24, PDWS and SDWS MCLs established in Chapter 62-550, F.A.C., and, for those analytes for which MCLs have not been established, GCTLs established in Chapter 62-777, F.A.C. All of the parameters and analytes detected in leachate samples collected during the 2006 – 2010



reporting period are presented in **Table B-12** (**Appendix B**). None of the analytes in any of the leachate samples exceeded the maximum concentrations for the toxicity characteristic listed in Table 1 of 40 CFR Part 261.24. In addition, there were no exceedances of GCTLs for those analytes for which MCLs have not been established.

Parameters that were consistently detected at concentrations exceeding MCLs in the leachate samples collected during the 2006 – 2010 reporting period included total ammonia, TDS, arsenic, sodium, and benzene. In addition, occasional concentrations of chloride, cadmium, xylene, and bis(2-ethylhexyl)phthalate exceeded MCLs.



Section Three

Section 3 Conclusions and Recommendations

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3.1 Conclusions

The following conclusions are based on evaluation of the data presented in this WQMPER:

- The monitor wells at the site that are completed in the interval that would contain the surficial aquifer have remained dry since 1995.
- The direction of groundwater movement in the Floridan Aquifer is generally from southwest to northeast in the vicinity of the site. Based on the gradients determined for each monitoring event for this reporting period, the average hydraulic gradient during the monitoring period was 0.0017. The maximum gradient was 0.0019 and the lowest was 0.0014. The average groundwater seepage velocity is approximately 0.10 foot/day or just over 37 feet/year.
- Groundwater levels vary seasonally. The highest water levels occurred in Semester II of 2009 and the lowest water levels occurred in Semester I of 2009. There are no significant rising or falling trends in water levels other than the seasonal trends.
- Concentrations of one parameter exceeded PDWS MCLs in groundwater samples collected during the 2006 2010 reporting period. This parameter is selenium. Estimated concentrations of selenium were detected above the MCL of 0.05 mg/L in groundwater samples collected from monitor wells 4MW-3A, 4MW-7, and 4MW-9 in Semester I of 2008. All three estimated concentrations are very similar and 4MW-7 is a background well. For these reasons and because these were the only detections of selenium in groundwater during the 2006-2010 reporting period, these exceedances are considered anomalous and are not considered violations of water quality criterion.
- Concentrations of two parameters exceeded SDWS MCLs in groundwater samples collected during the 2006 2010 reporting period. These parameters are pH and iron.
- Measured pH values were consistently below the MCL lower value of 6.5 Standard Units (S.U.) in all of the samples collected from monitor well 4MW-21 during the 2006 2010 reporting period. The low pH of groundwater in this well, which is what would be expected in the Surficial aquifer if present, is interpreted to be associated with the lithology and natural chemistry of the interval monitored at this location and not an indication of any release associated with the landfill.
- Iron was detected above the 0.3 mg/L MCL only in the groundwater sample collected from monitor well 4MW-22 during the Semester I 2010 routine monitoring event. The concentration detected is inconsistent with the historic trend of iron concentrations detected in this well and therefore is considered anomalous.



- Only one parameter was detected in groundwater samples collected during the 2006 2010 reporting period at concentrations exceeding a GCTL that does not reference an MCL. This parameter is ammonia. Ammonia was only detected above the 2.8 mg/L GCTL in the groundwater sample collected from monitor well 4MW-3A during the Semester I 2009 routine monitoring event. The concentration detected is inconsistent with the historic trend of ammonia concentrations detected in this well and therefore is considered anomalous.
- There are few correlations between groundwater levels and concentrations or between concentrations of related parameters. The absence of correlations and the low concentrations of typical landfill leachate indicator parameters such as TDS, chlorides, and sodium indicate that exceedances of MCLs are likely not associated with leachate from the closed landfill and may be attributed to the natural variations in geochemistry of the uppermost aquifer.
- None of the analytes detected in any of the leachate samples collected during the 2006 2010 reporting period exceeded the maximum concentrations for the toxicity characteristic. Therefore, continued annual leachate sampling in accordance with Specific Condition E.9 of the permit is appropriate.
- Evaluation of the data from this monitoring period indicates that the monitoring system, routine sampling frequency, and parameters analyzed are sufficient to detect a discharge of leachate from the landfill.

3.2 Recommendations

Anomalous detections of exceedances should be confirmed by re-sampling in accordance with Chapter 62-701.510 (7)(a) and Specific Condition E.7 of the permit. No modifications to the water quality or water level monitoring program are recommended based on evaluations of the data and the above conclusions. Continued monitoring in accordance with the applicable permit conditions is recommended.



Appendix



Appendix A

Groundwater Level Elevation Table Groundwater Contour Maps & Hydrographs

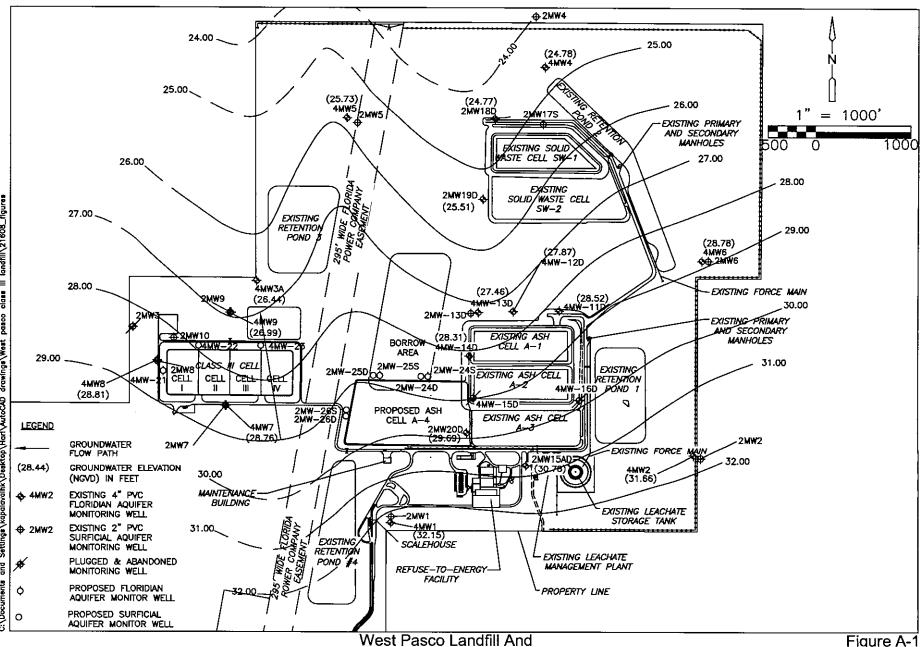
Table A-1. Water Level Elevations From All Monitor Wells From September 2006 To February 2010

			V	Water Level Measu	rements (FT NGVD	*)			
Ī	2006	200)7	20	800	20	2009		
Monitor Well	9/28/06	3/27/07	8/21/07	3/4/08	8/27/08	3/17/09	8/31/09	2/9/10	
2MW-3A	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
2MW-7	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
2MW-8	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
2MW-9	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
2MW-10	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
4MW-3A	26.44	23.37	22.98	23.54	26.04	22.18	27.79	26.82	
4MW-7	28.76	25.43	25.45	25.68	28.39	24.32	29.62	28.93	
4MW-8	28.83	25.39	25.44	25.54	28.41	24.13	29.43	28.95	
4MW-9	26.99	23.86	23.67	24.10	26.67	22.80	28.30	27.45	
4MW-21		This well was	23.88	29.17	28.85				
4MW-22		This well was	not installed until F	ebruary 2009		22.73	28.22	27.47	
Hydraulic Gradient	0.0017	0.0015	0.0019	0.0016	0.0019	0.0016	0.0014	0.0017	

Note:

The hydraulic gradient was estimated using a three-point solution with water level elevations from monitor wells 4MW-7, 4MW-8, and 4MW-3A *National Geodetic Vertical Datum of 1929 (NGVD 29)

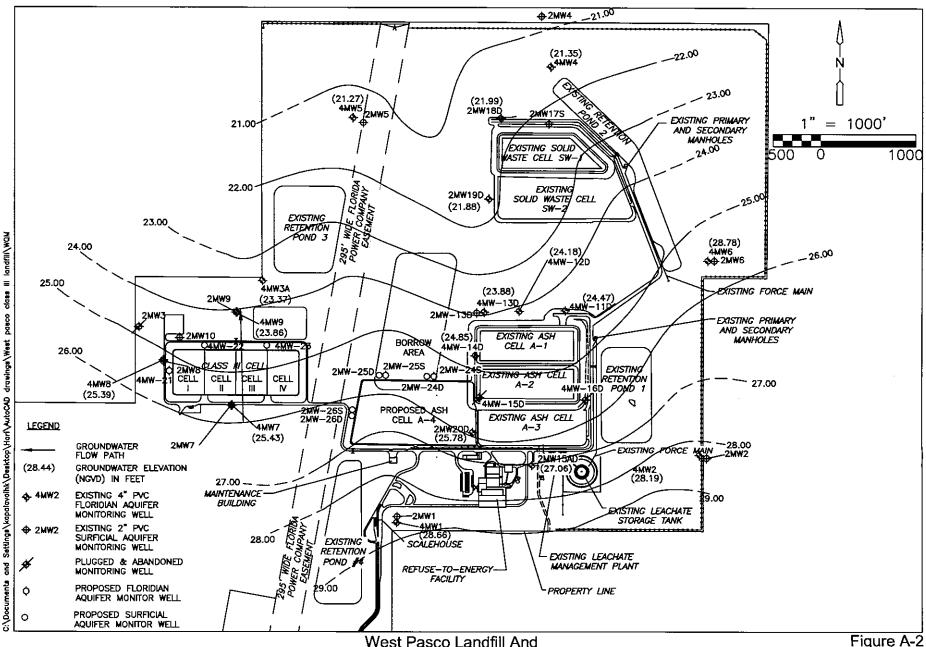
FLORIDA DEPARTMENTON
ENVIRONMENTAL PROTECTION
OCT 27 2010
SOUTHWEST DISTRICT
TAMPA



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Resource Recovery Facility F
Pasco County Board Of County Commissioners
Utilities Services Branch, Pasco County, Florida

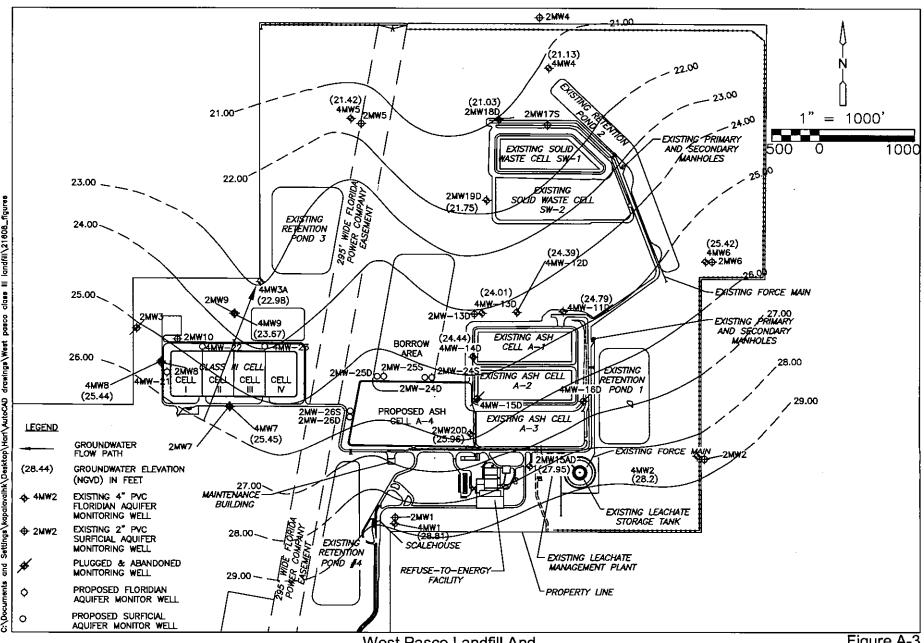
Figure A-1
Floridan Aquifer Groundwater Contour Map
s Semester II, 2006
a Based On Water Level Measurements
Obtained By Pasco County





West Pasco Landfill And Resource Recovery Facility Pasco County Board Of County Commissioners Utilities Services Branch, Pasco County, Florida

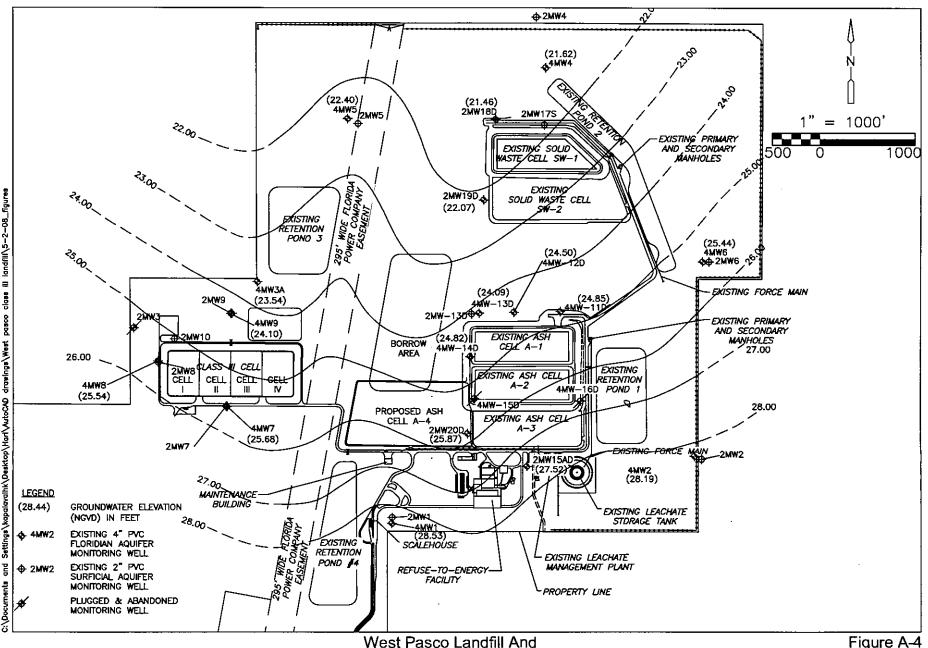
Figure A-2
Florida Aquifer Groundwater Contour Map
Semester II, 2007
Based On Water Level Measurements
Obtained By Pasco County





West Pasco Landfill And Resource Recovery Facility Pasco County Board Of County Commissioners Utilities Services Branch, Pasco County, Florida

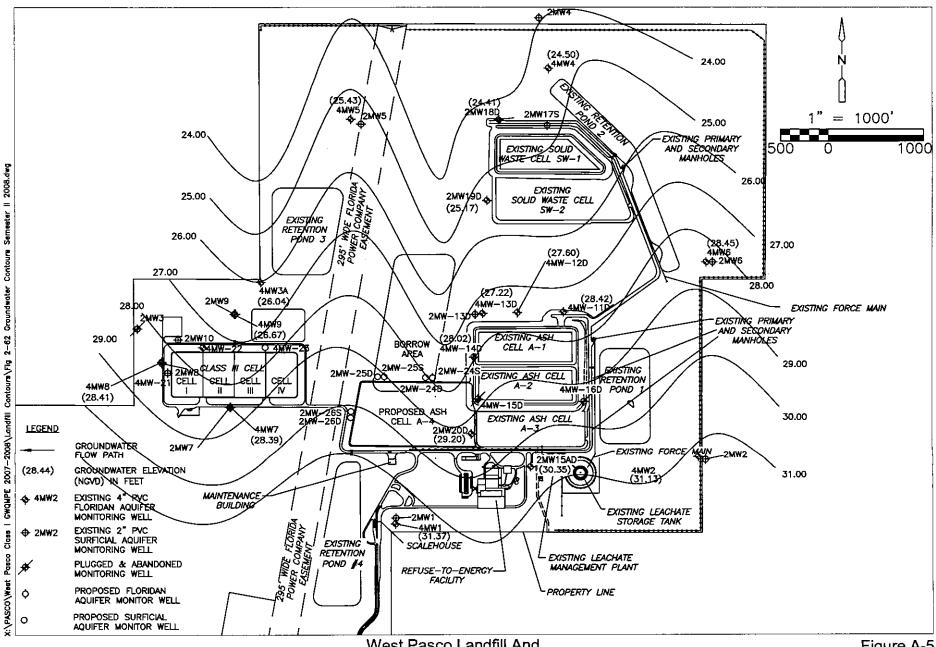
Figure A-3 Florida Aquifer Groundwater Contour Map Semester II, 2007 Based On Water Level Measurements Obtained By Pasco County





Resource Recovery Facility
Pasco County Board Of County Commissioners
Utilities Services Branch, Pasco County, Florida

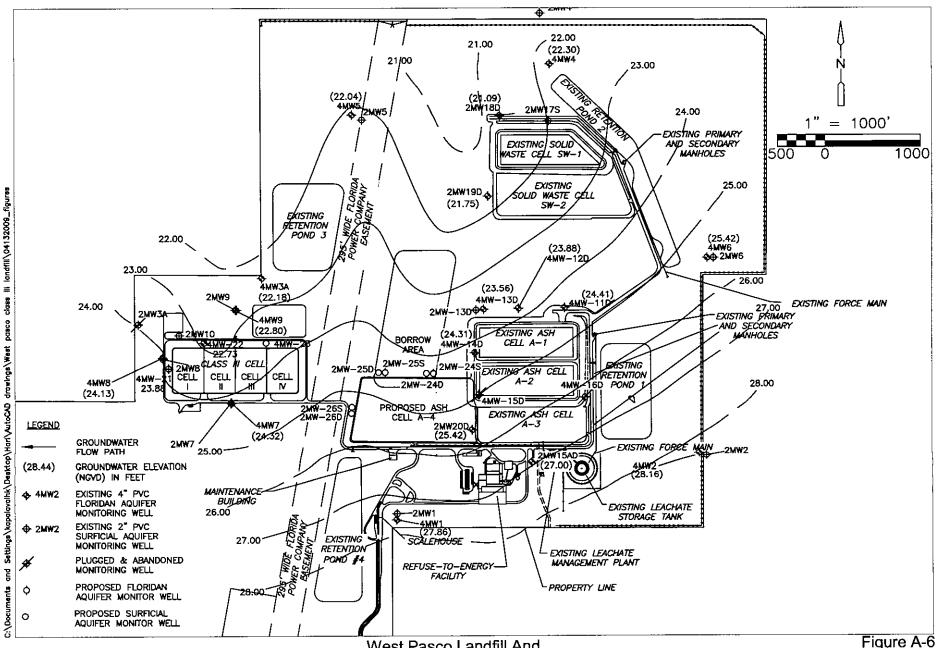
Figure A-4 Florida Aquifer Groundwater Contour Map Semester I, 2008 Based on Water Level Measurements Obtained By Pasco County



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West Pasco Landfill And Resource Recovery Facility Pasco County Board Of County Commissioners Utilities Services Branch, Pasco County, Florida

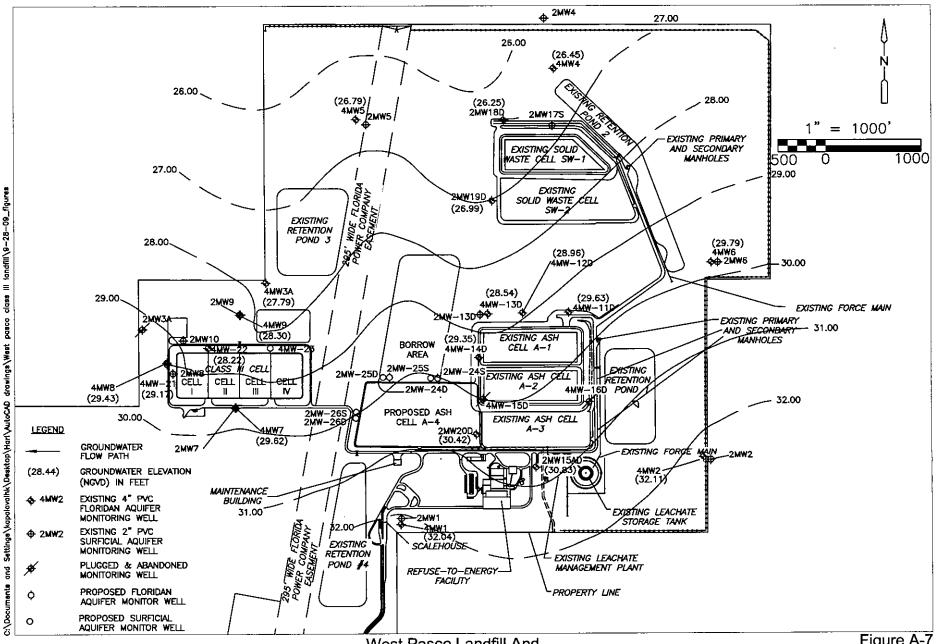
Figure A-5 Floridan Aquifer Groundwater Contour Map Semester II, 2008 Based On Water Level Measurements Obtained By Pasco County





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Figure A-6 Floridan Aquifer Groundwater Contour Map Semester I, 2009 Based On Water Level Measurements Obtained By Pasco County





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Resource Recovery Facility
Pasco County Board Of County Commissioners
Utilities Services Branch, Pasco County, Florida

Figure A-7
Floridan Aquifer Groundwater Contour Map
Semester II, 2009
Water Level Measurements Obtained By
Pasco County Utilities

DWG: C:\cdmxm\nunesal\d0157492\FIG A-8.dwg USER: nunesal DATE: Oct 26, 2010 9:04am XREFS: R000STPL IMAGES:
PW_XM1\Documents\6104\62249\03 Reports and Studies\09 CADD Figures and Graphics\

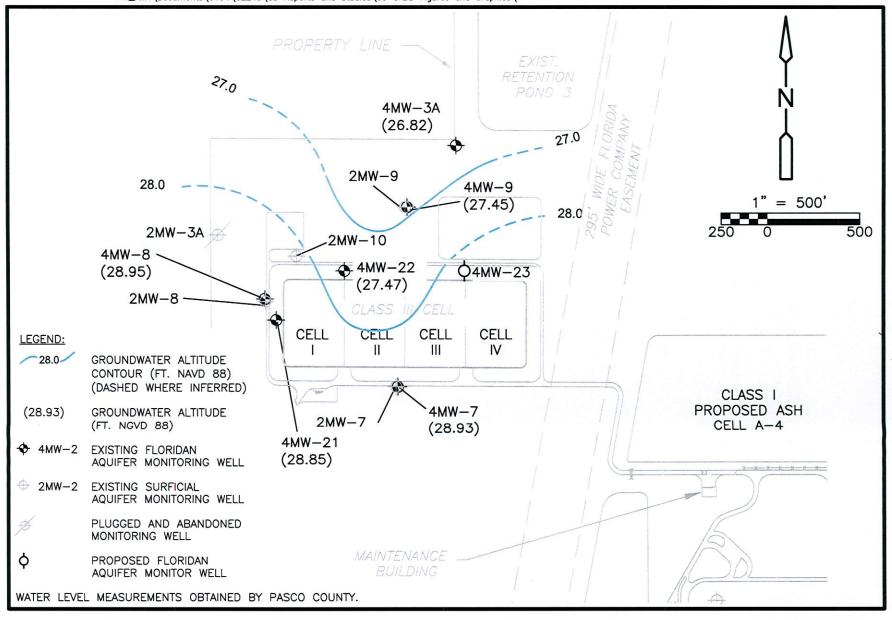
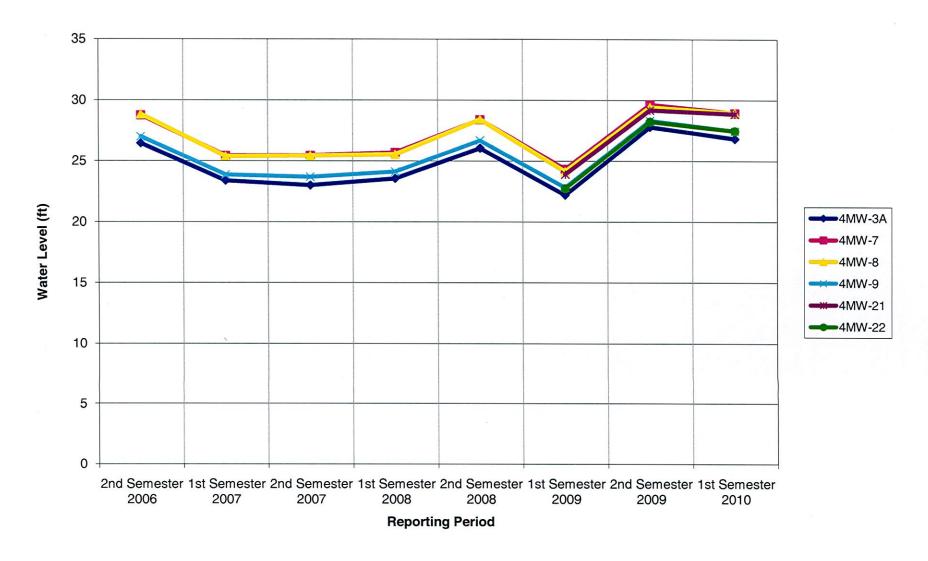




Figure A-9 Hydrographs



Appendix B

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

OCT 27 2010

SOUTHWEST DISTRICT TAMPA

Appendix B

Summary of Groundwater and Leachate Quality Results & Parameter vs. Time Graphs for Groundwater Data

Table B-1
Summary of Field Parameters and Detected Analytes: Semester II 2006-Semester I 2010: Monitor Well: 2MW-3A

Well Name: 2MW-3A

Classification of Groundwater: Surficial

		2006	20	007	20	800	20	009	2010
Parameter	Units	9/28/06	3/28/07	8/21/07	3/4/08	8/28/08	3/17/09	9/1/09	2/9/10
Conductivity	umhos/cm	NA	NA	NA	NA	NA	NA	NA	NA
pH	s.u.	NA ·	NA	NA	NA	NA	NA	NA	NA
Temperature	°C	NA	NA	NA	NA	NA NA	NA	NA	NA
Dissolved Oxygen	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity	NTU	NA	NA	NA	NA	NA	NA	NA	NA
Total Ammonia	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chlorides	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	NA	NA	. NA	NA	NA	NA	NA	NA
Nitrate	mg/l	NA	NA	NA ·	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
TDS	mg/l	NA	NA NA	NA	NA .	NA	NA	NA	NA
Water Level	Feet NGVD	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Arsenic	mg/l	NA	NA	NA	NA ·	NA	NA	NA	NA
Barium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/l	NA	NA	NA	NA ·	NA	NA	NA	NA
Nickel	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/l	NA	NA	NA	NA	NA	NA .	NA	NA NA
Zinc	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:



U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-2
Summary of Field Parameters and Detected Analytes: Semester II 2006-Semester I 2010: Monitor Well: 2MW-7

Test Site ID #: 4051A16325 Well Name: 2MW-7 Classification of Groundwater: Surficial

	[2006	20	07	20	08	20	09	2010	
Parameter	Units	9/28/06	3/27/07	8/21/07	3/4/08	8/28/08	3/17/09	9/1/09	2/10/10	
Conductivity	umhos/cm	NA	NA	NA	NA	NΑ	NA	NA	NA	
рН	S.U.	NA	NA	NA	NA	NA	NA	NA	NA	
Temperature	°C	NΑ	NA	NA	NA	NA	NA	NA	NA	
Dissolved Oxygen	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Turbidity	NTU	NΑ	NA	NA	NA	NA	NA	NA	NA	
Total Ammonia	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Chlorides	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Iron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate	mg/l	NA	NA	NA	NA NA	NA	NA	NA	NA	
Sodium	mg/l	NA NA	, NA	NA	NA	NA	NA	NA	NA	
TDS	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Water Level	Feet NGVD	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
Arsenic	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Cobalt	mg/l	NA	NA	NA	NA	NA	NA .	NA	NA	
Copper	mg/l	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	
Nickel	mg/l	NA	NA	NA	NA	NA	NA	NA NA	NA	
Selenium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium	mg/l	NA NA	NA	NA	NA	NA	NA	NA	NA	
Zinc	mg/l	NA	NA	NA	NA	NA	NA	NA NA	NA	
Antimony	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	
Thallium	mg/l	NA	NA	NA ·	NA	NA	NA	NA	NA	
Acetone	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Disulfide	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	ug/l	NA	NA	NA	NA	NA	NA	NA '	NA	

NOTE:

U = Analyte was not detected. Concentration presented is the method detection level (MOL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-3
Summary of Field Parameters and Detected Analytes: Semester II 2006-Semester I 2010: Monitor Well: 2MW-8

Well Name: 2MW-8

Classification of Groundwater: Surficial

		2006	20	007	20	008	20	009	2010
Parameter	Units	9/28/06	3/27/07	8/21/07	3/4/08	8/28/08	3/17/09	8/31/09	2/9/10
Conductivity	umhos/cm	NA	NA	NA	NA	NA	NA	NA	NA
pН	ş.u.	NA	NA	NA	NA	NA	NA	NA	NA
Temperature	°C	NA	NA	NA	NA	NA NA	NA	NA	NA
Dissolved Oxygen	mg/l	NA	NA	NA	NA	NA	NA	NA	NA.
Turbidity	NTU	NA	NA	NA	NA	NA	NA	NA	NA
Total Ammonia	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chlorides	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/l	NA	NA	NA NA	NA	NA	NA	NA	NA
Mercury	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	mg/l	NA NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
TDS	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Water Level	Feet NGVD	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Arsenic	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/l	NA NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/l	NA NA	NA NA	NA	NA	NA	NA	NA	NA
Copper	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/l	NA .	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/l	NA	NA	NA	NΑ	NA	NA	NA	NA
Antimony	mg/l	NA	NA	NA	NA	NA NA	NA	NA	NA NA
Thallium	mg/l	NA	NA	NA	NA	NA	NA	NA	· NA
Acetone	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/l	NA	NA	NA	NA	NA	NA	NA	NA.
Toluene	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:

N/A = Not Analyzed

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

Table B-4
Summary of Field Parameters and Detected Analytes : Semester II 2006-Semester I 2010 : Monitor Well: 2MW-9

Well Name: 2MW-9 Classification of Groundwater: Surficial

		.2006	20	07	20	800	20	009	2010
Parameter	Units	9/28/06	3/28/07	8/21/07	3/4/08	8/27/08	3/17/09	8/31/09	2/2/10
Conductivity	umhos/cm	NA	NA	NA	NA NA	NA	NA	NA	NA
pH	s.u.	NA	NA	NA	NA NA	NA	NA	NA	NA
Temperature	°C	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	mg/l	NA .	NA NA	NA	NA	NA	NA	NA	NA NA
Turbidity	NTU	NA	NA	NA	NA	NA	NA	NA	NA
Total Ammonia	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chlorides	mg/l	NA	NA	NA	NA NA	NA NA	NA	NA	NA
Iron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	NA	NA	NA	NA NA	NA	NA	NA	NA
Nitrate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
TDS	mg/l	NA ·	NA	NA	NA	NA	NA	· NA	NA
Water Level	Feet NGVD	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Arsenic	mg/l	NA	NA	NA	NA	NA	NA .	NA	NA
Barium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/l	NA	NA	NA	NA	NA	NA .	NA	NA
Copper	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	NA	NA	NA_	NA	NA	NA	NA	NA
Nickel	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/l	NA	NA	NA	NA	NA NA	NA	NA	NA
Zinc	mg/l	NANA	NA ·	NA	NA	NA	NA	NA	NA
Antimony	mg/l	NA	NA	NA	NA NA	NA	NA	NA	NA
Thallium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	NA	NA	NA NA	NA	NA	NA	NA	NA
Carbon Disulfide	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:

N/A = Not Analyzed

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).



Table B-5
Summary of Field Parameters and Detected Analytes : Semester II 2006-Semester I 2010 : Monitor Well: 2MW-10

Well Name: 2MW-10

Classification of Groundwater: Surficial

	Ī	2006	20	07	20	08	20	009	2010
Parameter	Units	9/28/06	3/28/07	8/21/07	3/4/08	8/28/08	3/17/09	8/31/09	2/9/10
Conductivity	umhos/cm	NA	NA	NA	NA	NA	NA	NA	NA
pH	s.u.	NA :	NA	NA	NA .	NA	NA	NA	NA
Temperature	°C	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity	NTÜ	NA	NA	NA	NA	NA	NA	NA	NA
Total Ammonia	mg/l	· NA	NA	NA	NA	NA	NA	NA	NA '
Chlorides	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	NA	NA	NA	NA	NA'	· NA	NA	NA
Nitrate	mg/l	NA	NA NA	NA	NA	NA	NA	NA	NA NA
Sodium	mg/l	NA	NA	NA	NA	NA	NA NA	NA	NA
TDS	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Water Level	Feet NGVD	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Arsenic	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/i	NA	NA	NA	NA	NA	NA	· NA	NA
Chromium	mg/l	NA	NA	NA	NA	NA	NA NA	NA	NA :
Cobalt	mg/l	NA	NA	NA	NA	NA	NA_	NA	NA
Copper	mg/l	NA	NA	NA .	NA	NA	NA	NA	NA
Nickel	mg/l	NA	NA	NA	NA	NA	NA	NA NA	NA
Selenium	mg/l	NA	NA	NA	NA	NA NA	NA	NA	NA
Vanadium	mg/l	NA	NA	NA	NΑ	NA	NA	NA	NA
Zinc	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/l	NA	NA	NA	. NA	NA	NA	NA	NA
Thallium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/l	NA	NA	NA	NA	NA	NA NA	NA	NA
Carbon Disulfide	ug/l	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/l	NA	NA	NA	NA	NA	NA	NA	NA

NOTE:

N/A = Not Analyzed

I = Analyte concentration is within the method dection accuracy. The reponed value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).



U = Analyte was not detected. Concentration presented is the method detection level (MDL).

Table B-6
Summary of Field Parameters and Detected Analytes : Semester II 2006-Semester I 2010 : Monitor Well: 4MW-3A

Well Name: 4MW-3A

Classification of Groundwater: Floridan

		2006	20	07	20	08	20	09	2010
Parameter	Units	9/28/06	3/28/07	8/21/07	3/5/08	8/28/08	3/17/09	9/1/09	2/9/10
Conductivity	umhos/cm	361	333	350	337	379	350	368	373
pH	s.u.	7.61	7.63	7.54	7.61	7.05	7.09	6.86	7.36
Temperature	°C	24.10	23.81	25.06	22.64	24.26	23.25	24.21	22.38
Dissolved Oxygen	mg/l	0.84	4.01	5.23	0.94	1.17	1.16	1.27	0.80
Turbidity	NTU	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Ammonia	mg/l	0.25	0.12	0.10	0.13	0.13	5.38	0.08	1.14
Chlorides	mg/l	23.5	37.8	17.7	18.6	18.6	13.2	20.0	17.9
Iron	mg/l	0.18	0.21	0.17	0.19	0.001 U	0.121	0.074	0.070
Mercury	mg/l	0.0005 U	0.0005 U	0.0005	0.0005 U	0.0005 U	0.0002 U	0.0002 U	0.0002 U
Nitrate	mg/l	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.27	0.43
Sodium	mg/l	8.68	8.39	8.41	7.78	7.88	7.09	7.41	8.19
TDS	mg/l	216	262	238	232	220	210	260	228
Water Level	Feet NGVD	26.44	23.37	22.98	23.54	26.04	22.18	27.79	26.82
Arsenic	mg/l	0.0028 U	0.0028 U	0.05 Ü	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0050 U
Barium	mg/l	0.012	0.010	0.011 I	0.01 U	0.011 I	0.0085 I	0.0130 1	0.0115
Beryllium	mg/l	0.00016 U	0.00016 U	0.0001 U	0.0005 U				
Cadmium	mg/l	0.00036 U	0.00036 U	0.001 U	0.001 I	0.001 U	0.001 U	0.001 U	0.0005 U
Chromium	mg/l	0.0011 1	0.00065 U	0.01 U	0.01 U	0.01 U	0.004 U	0.004 U	0.0025 U
Cobalt	mg/t	0.0010 U	0.0010 U	0.01 U	0.01 U	0.01 U	0.0100 U	0.0100 U	0.0050 U
Copper	mg/l	0.0021 U	0.0021 U	0.01 U	0.005 U	0.005 U	0.0038 I	0.003 U	0.0025 U
Nickel	mg/l	0.015	0.0015 U	0.02 U	0.001 U	0.001 Ü	0.001 U	0.001 U	0.0025 U
Selenium	mg/l	0.0042 U	0.0042 U	0.05 U	0.001 U	0.059	0.001 U	0.001 U	0.0075 U
Vanadium	mg/l	0.0016 U	0.0016 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0005 U
Zinc	mg/l	0.0032 U	0.0041 I	0.005 U	0.003 U	0.003 U	0.0030 U	0.0030 U	0.0100 U
Antimony	mg/l	0.00040 U	0.00040 U	0.005 ป	0.001 U	0.05 U	0.001 U	0.001 U	0.0005 U
Thallium	mg/l	0.00012 U	0.00012 U	0.005 U	0.001 Ü	0.005 U	0.001 U	0.001 U	0.0005 U
Acetone	ug/l	2.5 U	2.5 U	9.9 U	1.9 U	2.2	1.9 Ü	1.9 U	5.0 U
Carbon Disulfide	ug/l	0.81 U	0.81 Ü	0.85 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 U
Toluene	ug/l	0.15 U	0.15 U	0.51 U	0.10 U	0.10 U	0.10 U	0.10 U	0.50 U

NOTE:

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-8 Summary of Field Parameters and Detected Analytes: Semester II 2006-Semester I 2010: Monitor Well: 4MW-8

Well Name: 4MW-8

Classification of Groundwater: Floridan

		2006	20	07	20	800	20	09	2010
Parameter	Units	9/28/06	3/27/07	8/21/07	3/5/08	8/28/08	3/18/09	8/31/09	2/10/10
Conductivity	umhos/cm	306	304	320	323	346	344	332	345
pH	s.u.	7.61	7.66	7.42	7.50	6.98	7.04	6.95	7.43
Temperature	°C	23.40	23.72	24.16	21.74	24.21	23.62	25.11	21.83
Dissolved Oxygen	mg/l	0.90	1.41	1.33	1.31	1.48	1.64	1.51	0.78
Turbidity	NTU	4.3	1.3	0.0	0.0	0.0	0.0	2.4	0.9
Total Ammonia	mg/l	0.56	0.04 U	0.04	0.04 U	0.04 U	0.03	0.04 U	0.09
Chlorides	mg/l	8.57	10.2	6.43	10.6	10.6	7.72	9.07	10.7
Iron	mg/l	0.01	0.06	0.02	0.02	0.001 U	0.001 U	0.001 U	0.002 U
Mercury	mg/l	0.0005 U	0.0005 U	0.0006	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0002 U
Nitrate	mg/l	0.44	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.06
Sodium	mg/l	3.91	3.59	4.60	4.72	4.15	4.15	3.89	4.35
TDS	mg/l	178	260	192	154	280	230	190	192
Water Level	Feet NGVD	28.83	25.39	25.44	25.54	28.41	24.13	29.43	28.95
Arsenic	mg/l	0.0028 U	0.0028 U	0.05 U	0.0010 U	0.0010 U	0.0010 Ü	0.0010 U	0.0050 U
Barium	mg/l	0.0071 l	0.0072 1	0.01 U	· 0.01 U	0.0085 I	0.0078 I	0.0085 I	0.0080 I
Beryllium	mg/l	0.00016 U	0.00016 U	0.0001 U	0.0005 U				
Cadmium	mg/l	0.00036 U	0.00036 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 U
Chromium	mg/l	0.00065 U	0.00065 U	0.01 U	0.01 U	0.01 U	0.004 U	0.004 U	0.0025 U
Cobalt	mg/l	0.0010 U	0.0010 U	0.01 ປ	0.01 U	0.01 U	0.0100 U	0.0100 U	0.0050 U
Copper	mg/l	0.0021 U	0.0021 U	0.01 U	0.005 U	0.005 U	0.0055	0.003 U	0.0025 U
Nickel	mg/l	0.0015 U	0.0015 U	0.02 U	0.001 Ū	0.001 U	0.001 U	0.001 U	0.0025 U
Selenium	mg/l	0.0042 U	0.0042 U	0.05 U	0.001 U	0.05 U	0.001 Ü	0.001 U	0.0075 U
Vanadium	mg/l	0.0016 U	0.0016 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0005 U
Zinc	mg/l	0.0032 U	0.0038 I	0.005 U	0.003 U	0.003 U	0.0030 U	0.0030 U	0.0100 U
Antimony	mg/l	0.00040 U	0.00040 U	0.005 ປ	0.001 U	0.05 U	0.001 U	0.001 U	0.0005 U
Thallium	mg/l	0.00012 U	0.00012 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	0.0005 U
Acetone	ug/l	2.5 U	2.5 U	9.9 U	1.9 U	1.9 Ü	1.9 U	1.9 U	5.0 U
Carbon Disulfide	ug/l	0.81 U	0.81 U	0.85 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 U
Toluene	ug/l	0.15 U	0.15 U	0.51 U	0.10 U	0.10 U	0.10 U	0.10 U	0.50 U

NOTE:

N/A = Not Analyzed

U = Analyte was not detected. Concentration presented is the method detection level (MDL),

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-9 Summary of Field Parameters and Detected Analytes: Semester II 2006-Semester I 2010: Monitor Well: 4MW-9

Well Name: 4MW-9 Classification of Groundwater: Floridan 2006 2007 2008 2009 2010 Parameter Units 9/28/06 3/28/07 8/21/07 3/4/08 8/27/08 3/18/09 2/9/10 8/31/09 Conductivity 361 umhos/cm 352 372 361 393 391 377 391 рН 7.59 7.67 7.26 s.u. 7.54 6.89 7.02 6.92 7.44 °C Temperature 24.30 23.70 24.59 23.92 25.05 23.07 24.68 22.83 Dissolved Oxygen mq/ 0.77 1.39 1.40 1.03 1.54 1.45 1.09 1.02 Turbidity NTU 3.5 0.0 0.0 0.0 0.4 0.0 7.2 0.0 Total Ammonia mg/l 0.38 0.04 0.06 0.04 0.04 Ū 0.09 U 0.04 0.18 Chlorides ma/l 25.5 23.5 15.6 21.3 32.3 15.2 18.5 22.5 ron 0.01 0.02 0.02 0.03 mg/ 0.001 0.001 U 0.001 U 0.002 Mercury 0.0005 U 0.0005 mq/l 0.0005 0.0005 0.0005 u 0.0005 U 0.0005 U 0.0002 u Nitrate 0.68 0.02 mg/l 0.40 0.02 0.70 0.04 0.63 0.40 Sodium mq/l 6.04 5.85 6.31 6.41 6.70 6.68 6.78 7.78 TDS mg/l 232 276 254 220 270 180 230 242 Water Level Feet NGVD 26.99 23.86 23.67 24.10 26.67 22.80 28.30 27,45 Arsenic 0.0028 u 0.0028 U U ma/l 0.05 0.0010 0.0010 U 0.0010 U 0.0010 U 0.0050 Barium mg/l 0.0087 0.0078 0.01 U 0.01 U 0.0098 0.008 0.011 0.0091 Beryllium mg/l 0.00016 U 0.00016 U 0.0001 Ū 0.0005 0.0001 U 0.0001 U 0.0001 U 0.0005 Ü Cadmium 0.00036 0.00036 0.001 U mg/i 0.001 U 0.001 U 0.001 П 0.001 0.0005 Chromium mq/l 0.00065 u 0.00078 0.01 U 0.01 0.01 U 0.004 U 0.004 U 0.0025 Cobalt 0.0010 mg/l 0.0010 U U 0.01 0.01 U 0.01 U 0.0100 U 0.0100 Ü 0.0050 U Copper mg/l 0.0021 0.0021 Ü 0.01 U 0.005 U 0.005 Ü 0.0051 0.003 0.0025 U Nickel 0.0015 Ū ma/l 0.0015 Ű 0.02 Ü 0.001 Ü 0.001 Ū 0.001 u 0.001 0.0025 Ű Selenium 0.0042 U 0.0042 0.05 mg/t U U 0.001 U 0.064 0.001 Ū 0.001 U 0.0075 U Vanadium 0.0016 mg/l 0.0016 U 0.01 U 0.01 U 0.01 0.01 0.01 U 0.0005 U Zinc 0.0044 0.0041 mg/l 0.005 Ü 0.003 U 0.003 U 0.0030 U 0.0030 Ü 0.0100 U Antimony 0.00040 U 0.00040 mg/L U 0.005 U 0.001 U 0.055 0.001 U 0.001 Ū U 0.0005 Thallium 0.00012 U 0.00024 mg/l 0.005 U 0.001 U 0.005 U 0.001 U 0.001 C 0.0005 U Acetone ug/l 2.5 ΙI Ū 2.5 9.9 Ü 1.9 Ū 1.9 υ 1.9 1.9 U 5.0 U Carbon Disulfide ug/l 0.81 U 0.81 U

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NOTE:

Toluene

N/A = Not Analyzed

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ug/l

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-10
Summary of Field Parameters and Detected Analytes: Semester II 2006 - Semester I 2010: Monitor Well 4MW-21

Well Name: 4MW-21

Classification of Groundwater: Floridan

		2006	2007	2008	20	009	2010
Parameter	Units		This well was not installed u	Intil February 2009	3/18/09	8/31/09	2/9/10
Conductivity	umhos/cm	The state of the s			121	122	135
pH	s.u.				5.29	5.10	5.77
Temperature	°C				25.49	26.85	21.93
Dissolved Oxygen	mg/l				5.56	5.98	6.14
Turbidity	NTU	1			0.0	6.2	2.4
Total Ammonia	mg/l	- 'x	1		0.11	0.04 U	0.15
Chlorides	mg/l				15.9	13.1	14.2
Iron	mg/l				0.054	0.045	0.051
Mercury	mg/l				0.0005 U	0.0005 U	0.0002 U
Nitrate	mg/l				6.63	7.16	6.62
Sodium	mg/l				4.04	3.85	4.51
TDS	mg/l				90	130	112
Water Level	Feet NGVD				23.88	29.17	28.85
Arsenic	mg/l				0.0010 U	0.0010 U	0.0050 U
Barium	mg/l				0.0062	0.0082 I	0.0098 I
Beryllium	mg/l	 Applicate by 		15 au - 17 au - 2 au 2	0.0001 U	0.0003 I	0.0005 U
Cadmium	mg/l				0.0019 I	0.0027 I	0.0017
Chromium	mg/l				0.004 U	0.004 U	0.0038 I
Cobalt	mg/l			4	0.0100 U	0.0100 U	0.0050 U
Copper	mg/l		and the second		0.0058 I	0.0041 I	0.0025 U
Nickel	mg/l				0.0014 I	0.0033 I	0.0025 U
Selenium	mg/l				0.001 U	0.001 U	0.0075 U
Vanadium	mg/l				0.01 U	0.01 U	0.0005 U
Zinc	mg/l		ego hatta e		0.023	0.0030 U	0.0101 I
Antimony	mg/l				0.001 U	0.001 U	0.0005 U
Thallium	mg/l		for a day for	P4 (1)	0.001 U	0.001 U	0.0005 U
Acetone	ug/l				1.9 U	1.9 U	5.0 U
Carbon Disulfide	ug/l				0.14 U	0.14 U	0.50 U
Toluene	ug/l			*	0.10 U	0.13 I	0.50 U

NOTE:

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-11
Summary of Field Parameters and Detected Analytes: Semester II 2006 - Semester I 2010: Monitor Well 4MW-22

Well Name: 4MW-22

Classification of Groundwater: Floridan

	A	2006	2007	2008	20	09	2010
Parameter	Units		This well was not installe	d until February 2009	3/18/09	8/31/09	2/9/10
Conductivity	umhos/cm				426	458	432
рН	s.u.				7.01	6.88	7.19
Temperature	°C				24.57	26.15	22.09
Dissolved Oxygen	mg/l	4			1.66	3.42	1.05
Turbidity	NTU			*	0.0	7.6	11.0
Total Ammonia	mg/l				0.03 U	0.04 U	0.12
Chlorides	mg/l				15.1	38.2	18.6
Iron	mg/l		7		0.001 U	0.047	1.17
Mercury	mg/l	7 70			0.0005 U	0.0005 U	0.0002 U
Nitrate	mg/l				1.70	2.48	0.26
Sodium	mg/l				7.82	10.1	7.12
TDS	mg/l				240	330	252
Water Level	Feet NGVD				22.73	28.22	27.47
Arsenic	mg/l				0.0010 U	0.0011 I	0.0050 U
Barium	mg/l				0.015 I	0.019 I	0.0168
Beryllium	mg/l				0.0001 U	0.0001 U	0.0005 U
Cadmium	mg/l				0.001 U	0.001 U	0.0005 U
Chromium	mg/l				0.004 U	0.004 U	0.0025 U
Cobalt	mg/l				0.0100 U	0.0100 U	0.0096 I
Copper	mg/l	Arra Jana Sala			0.0064 I	0.0047 I	0.0025 U
Nickel	mg/l	er Kapatien	16		0.001 U	0.0014 I	0.0025 U
Selenium	mg/l			e	0.001 U	0.001 U	0.0075 U
Vanadium	mg/l		Garage Alexander		0.010 U	0.010 U	0.0005 U
Zinc	mg/l				0.0030 U	0.0030 U	0.0100 U
Antimony	mg/l				0.001 U	0.001 U	0.0005 U
Thallium	mg/l				0.001 U	0.001 U	0.0005 U
Acetone	ug/l				1.9 U	1.9 U	5.0 U
Carbon Disulfide	ug/l			, 4	0.14 U	0.14 U	0.50 U
Toluene	ug/l				0.10 U	0.10 U	0.50 U

NOTE:

U = Analyte was not detected. Concentration presented is the method detection level (MDL).

I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Table B-12 Summary of Field Parameters and Detected Analytes : Semester II 2006-Semester I 2010 : Leachate

					2007		2008		2009		2010	
			gulatory Crite		3/7	/07	2/27	7/08	2/2	5/09	2/10	0/10
Parameter	Units	Toxicity	MCL	GCTL	Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2
Conductivity	umhos/cm		1 - 1		3070	6530	3000	591	3330	4900	2980	2450
pH	s.u.		6.5 - 8.5		6.93	7.39	6.89	6.99	6.70	7.32	6.91	7.31
Temperature	°C	-			23.60	24.00	20.54	17.94	23.01	22.36	19.23	16.40
Dissolved Oxygen	mg/l				0.32	0.22	3.11	6.60	0.21	2.58	0.05	3.75
Bicarbonate	mg/l				1420	3300	1484	256	1670	2960	1386	1616
Total Ammonia	mg/l			2.8	34.4	127.0	55.5	12.8	136	240	64.0	97.5
Chlorides	mg/l		250	250	231	433	162	47.2	231	735	208	169
Sulfide	mg/l				6.8	6.1	1.2	0.1 U	1.6	0.64	38.5	1.6
Total Phenois	mg/l			10,000	0.050	0.030	0.030	0.005 U	0.009	0.037	0.0052 U	0.0052 U
Cyanide, Total Nitrate	mg/l		0.2 10	0.2 10	0.003 I 0.02 U	0.068	0.006 I 0.02 U	0.016 I 3.54	0.005 U 0.02 U	0.048	0.005 U 0.02 U	0.005 U 0.02 U
TDS	mg/l mg/l		500	500	2480	4840	2124	322	2330	3890	2050	0.02 U
Color	PCU		15	300	Clear	Black	Yellow	Amber	Orange	Orange	Cloudy	Orange
RESERVED A PROPERTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY.	MATERIAL STREET, STREE		PROPERTY OF THE PARTY OF		CONTRACTOR OF STREET		The second second second second		A STATE OF THE PARTY OF THE PAR	The Part of the Pa	RESIDENCE THE PARTY OF THE PART	Control of the last of the las
Antimony	mg/l	5.0	0.006	0.006	0.0004 U	0.0092	0.0010 U	0.0010 U	0.0010 U	0.0290	0.0009 1	0.0045
Arsenic Barium	mg/l	5.0 100	0.01 2.0	0.01 2.0	0.18 0.15	0.076 0.040	0.26 0.20	0.0033 I 0.01 U	0.22	0.025	0.190	0.0107
Beryllium	mg/l	100	0.004	0.004	0.15 0.00031 I	0.040 0.00016 U	0.20 0.0001 U	0.01 U 0.0001 U	0.26 0.0001 U	0.040 0.0003 I	0.232 0.0005 U	0.0477
Cadmium	mg/l mg/l	1.0	0.004	0.004	0.00063	0.00016 U	0.016	0.0001 U	0.0053	0.0003 I	0.0005 U 0.0005 U	0.0005 U 0.0005 U
Chromium	mg/l	5.0	0.003	0.003	0.075	0.046	0.080	0.001 I	0.0033	0.040	0.0639	0.0003 0
Cobalt	mg/l	0.0	0.14	0.14	0.0022	0.0086	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.3560	0.0138
Copper	mg/l		1.0	1.0	0.0021 U	0.0021 U	0.0054 I	0.005 U	0.005 U	0.0043 I	0.0025 U	0.0025 U
Iron	mg/l		0.3	0.3	0.035	5.94	0.290	1.74	0.001 U	2.29	0.002 U	0.002 U
Lead	mg/l	5.0	0.015	0.015	0.0026 U	0.0026 U	0.001 U	0.0013 I	0.001 U	0.001 U	0.005 U	0.005 U
Nickel	mg/l	II. 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.1	0.1	0.0087	0.0230	0.0010 U	0.0010 U	0.0010 U	0.0130	0.0025 U	0.0088
Silver	mg/l	5.0	0.1	0.1	0.0042	0.0041 I	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0025 U	0.0025 U
Sodium	mg/l		160	160	213	1610	200	50.5	195	1510	176	515
Thallium	mg/l		0.002	0.002	0.00021 I	0.00025 I	0.00100 U	0.00100 U	0.00050 U	0.00050 U	0.00100 U	0.00100 U
Tin	mg/l	Brigation in a	Section 15	4.2	0.0058 U	0.030	0.100 U	0.100 U	0.120 I	0.001 U	0.025 U	0.025 U
Vanadium	mg/l	74		49	0.0067 1	0.021	0.010 U	0.010 U	0.010 U	0.013 I	0.005 U	0.009 1
Zinc .	mg/l		5.0	5.0	0.0130 I	0.0065 I	0.0030 U	0.0055 I	0.0078	0.0260	0.0100 U	0.0100 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/l		0.2	0.2	0.020	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acetone	ug/l		6300	6300	24	16	1.9 U	1.9 U	5.1 I	7.6	6.2	6.5 1
Benzene	ug/l	500	1.0	1.0	3.8	1.4	8.9	0.36 I	3.1	0.36	5.1	0.63 I
Carbon Disulfide	ug/l		700	700	0.81 U	2.2	4.0	0.14 U	11	2.8	6.2	0.50 U
Chlorobenzene	ug/l	100,000	100	100	0.17 U	1.40	0.04 U	0.04 U	0.04 U	1.60	0.50 U	2.80
cis-1,2-Dichloroethene	ug/l		70	70	0.92 U	0.92 U	0.08 U	0.08 U	0.34	0.08 U	0.50 U	0.50 U
Ethylbenzene	ug/l		30	30	1.8	1.1	3.4	0.17 I	3.0	0.13 U	9.1	1.0
Methyl-tert-butyl ether (MTBE)	ug/l			20	NA	NA	NA	NA	NA	NA	6.8	0.0005 U
Toluene	ug/l		40 20	40	10.0	3.9	7.3	0.41	0.86	0.18 I	9.2	1.6
Xylene	ug/l		20	20	4.8	3.4	4.0	0.82	1.8	0.99	27.5	6.4
Acenaphthene	ug/l		E 1	20	0.97	0.39	1.5 U	1.5 U	2.1	1.2 U	8.2 U	8.2 U
Bis(2-ethylhexyl)phthalate (DEHP)	ug/l		6.0	6.0	3.5	3.6 I	6.8	3.8 I	1.9 U	1.9 U	7.7 U	7.8 U
o-Cresol (2-Methylphenol)	ug/l	200,000		35	4.1	2.4 1	2.3 U	2.3 U	1.5 U	1.5 U	7.0 U	7.1 U
Dibenzofuran	ug/l	7.500	7,-	28	0.49	0.44 U	1.6 U	1.6 U	1.2 U	1.2 U	6.6 U	6.4 U
1,4-Dichlorobenzene	ug/l	7,500	75	75	0.54 U	0.54 U	0.13 U	0.13 U	0.13 U	2.0	7.4 U	7.5 U
Diethyl phthalate Di-n-butyl phthalate	ug/l ug/l			5600 700	1.7 I 10	1.1 I 5.3	1.6 U	1.6 U 2.5 U	1.4 U 1.8 U	1.4 U	4.9 U	5.0 U
Fluorene	ug/l			280	0.36 U	0.36 U	1.7 U	1.7 U	1.8 U	1.8 U	3.9 U 5.4 U	3.9 U 5.5 U
2-Methylnaphthalene	ug/l			28	0.82 I	0.60 I		1.6 U		1.2 U		
							1.6 U		1.2 U		9.5 U	9.6 U

NOTE

- Criteria for Toxicity Characteristic established in Table 1 of 40 CFR Part 261.24
- Criteria for Primary and Secondary Drinking Water Standard Maximum Concentration Levels (MCLs) established in Tables 1-6 of Chapter 62-550, F.A.C.
- Criteria for GCTLs established in Table 1 of Chapter 62-777, F.A.C.
- Concentrations highlighted with yellow represent detections that exceed the established MCL or GCTL groundwater criteria
- N/A = Not Analyzed
- U = Analyte was not detected. Concentration presented is the method detection level (MDL).
- I = Analyte concentration is within the method dection accuracy. The reported value is between the laboratory MDL and the laboratory practical quantitation limit (PQL).

Figure B-1 Conductivity

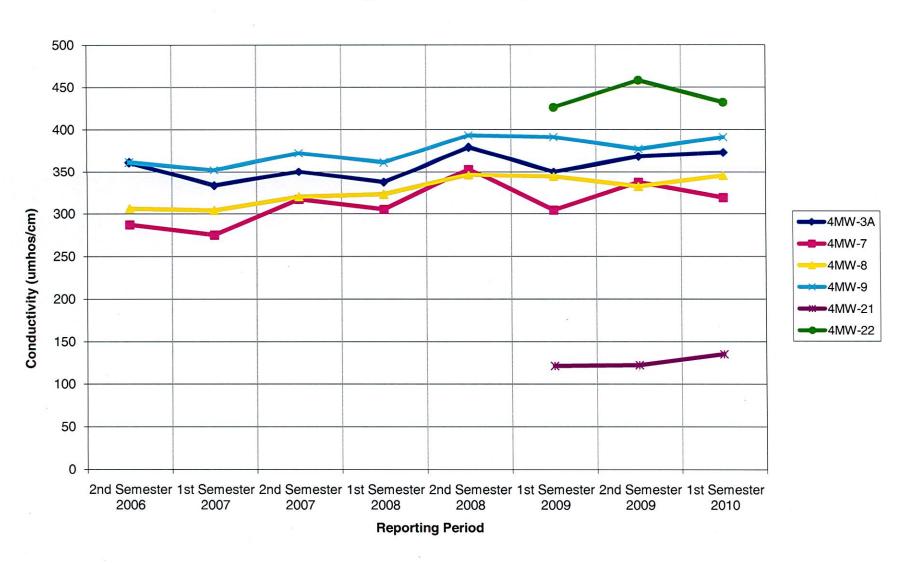


Figure B-2 pH

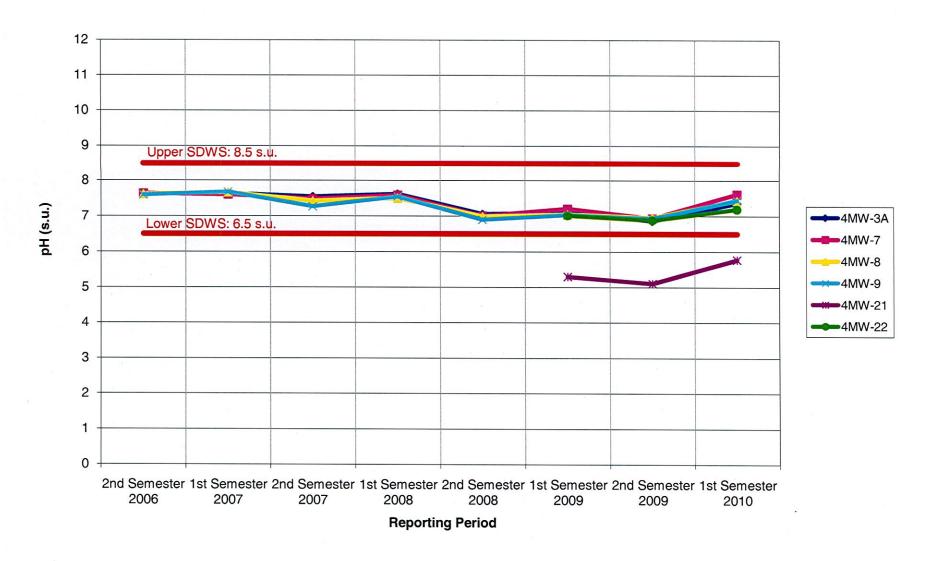


Figure B-3 Total Ammonia

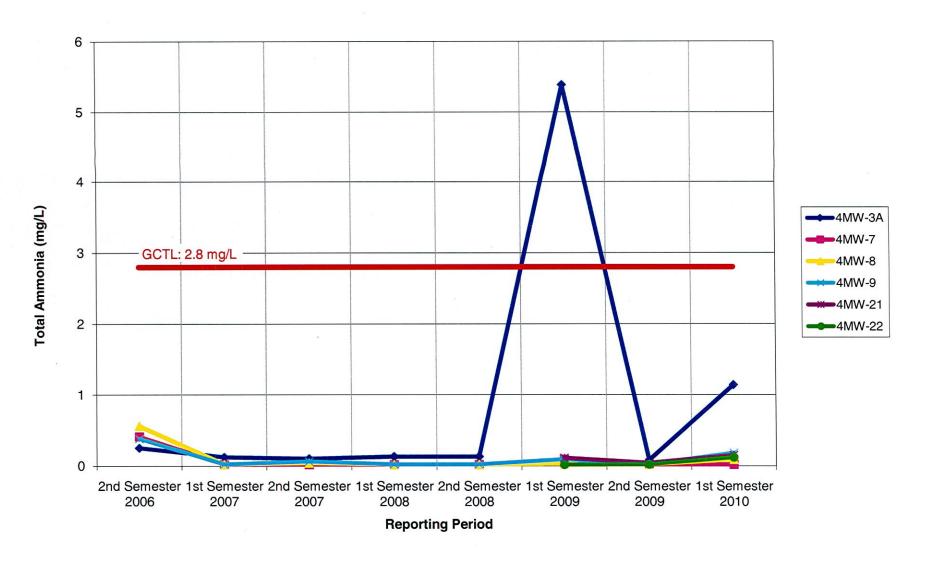


Figure B-4 Chlorides

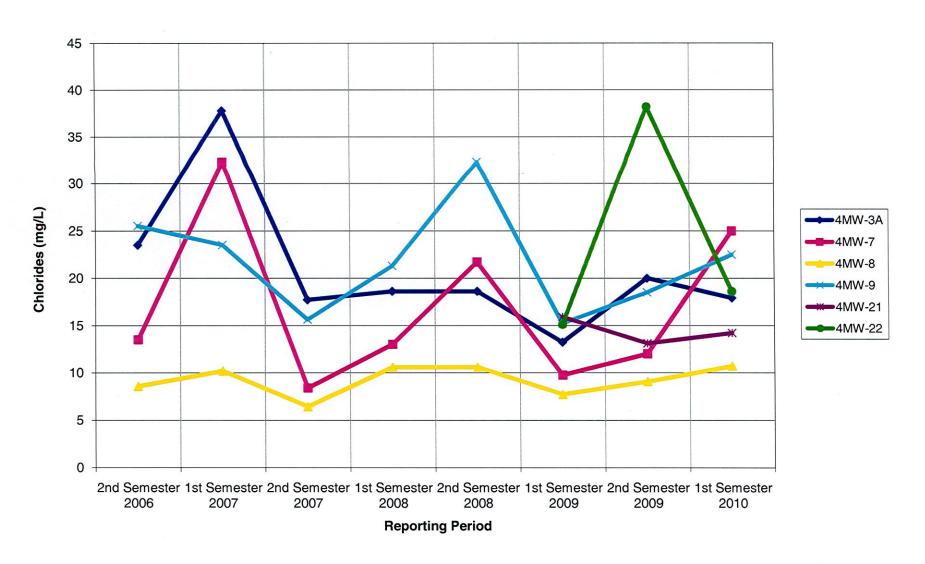


Figure B-5 Iron

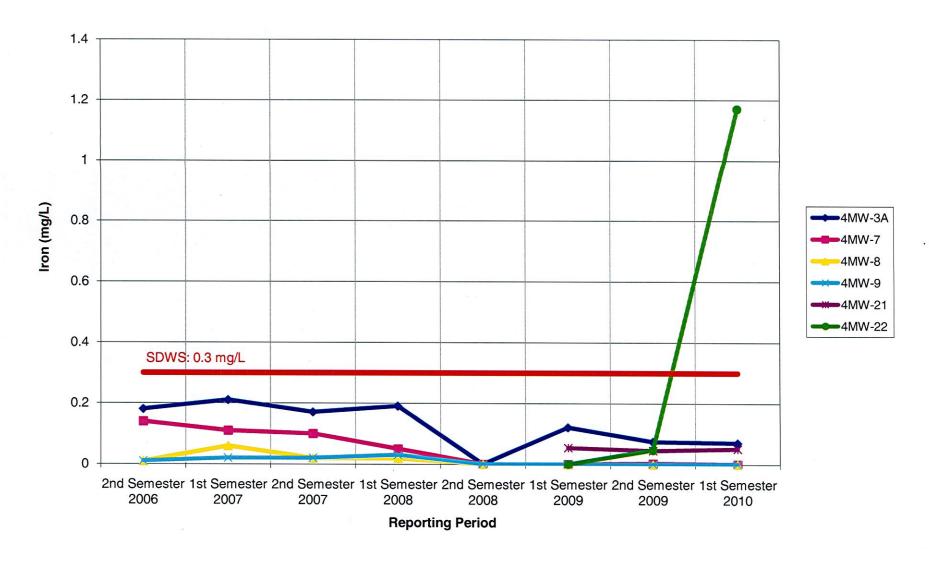


Figure B-6 Nitrate

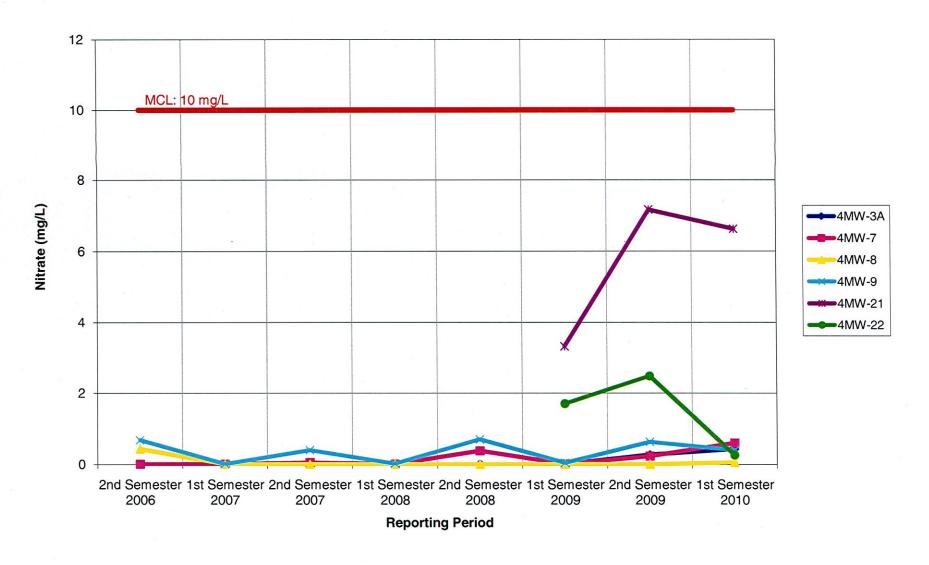


Figure B-7 Sodium

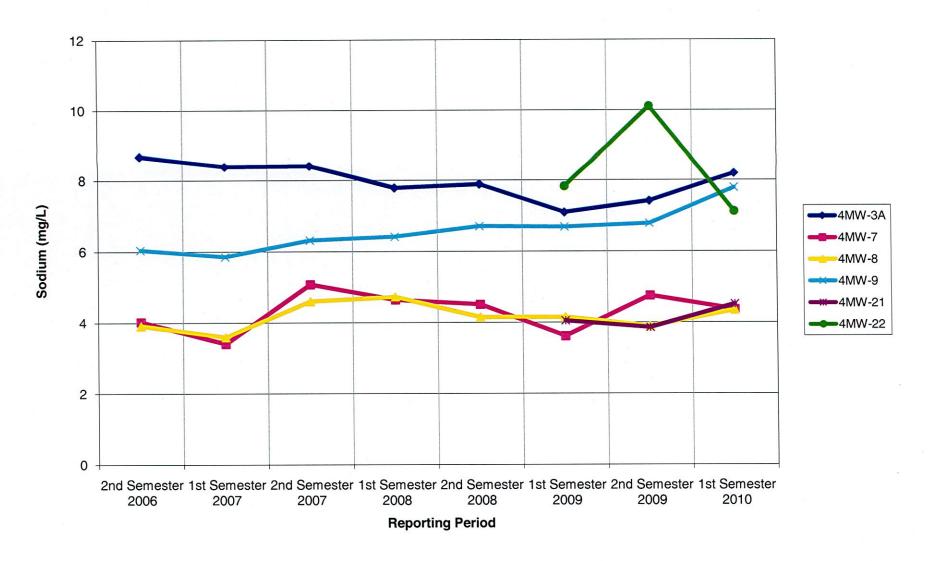


Figure B-8 Total Dissolved Solids

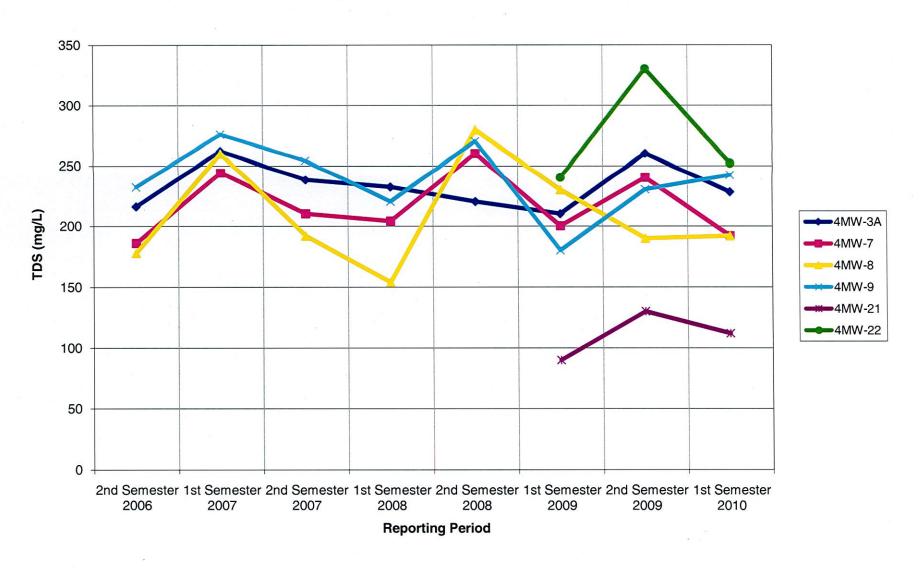


Figure B-9 Barium

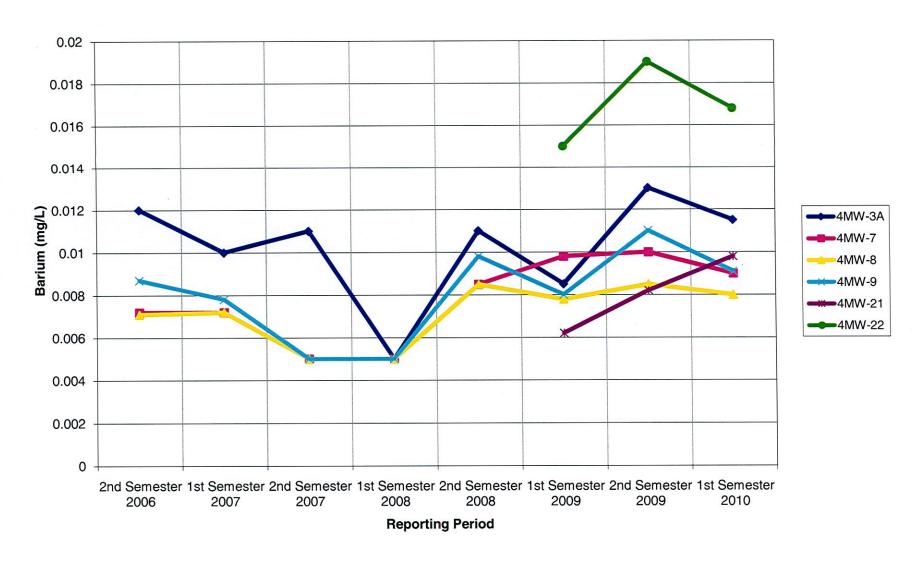


Figure B-10 Cadmium

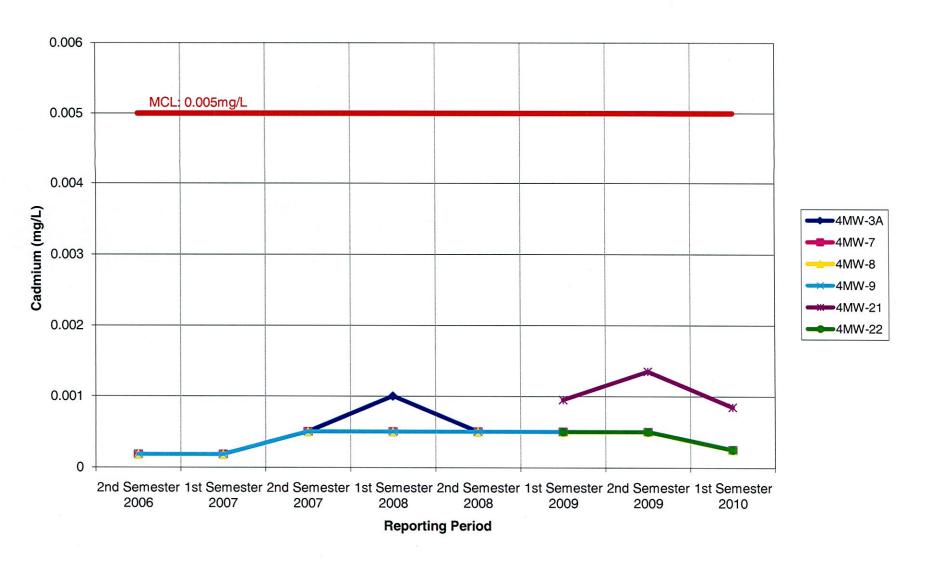


Figure B-11 Copper

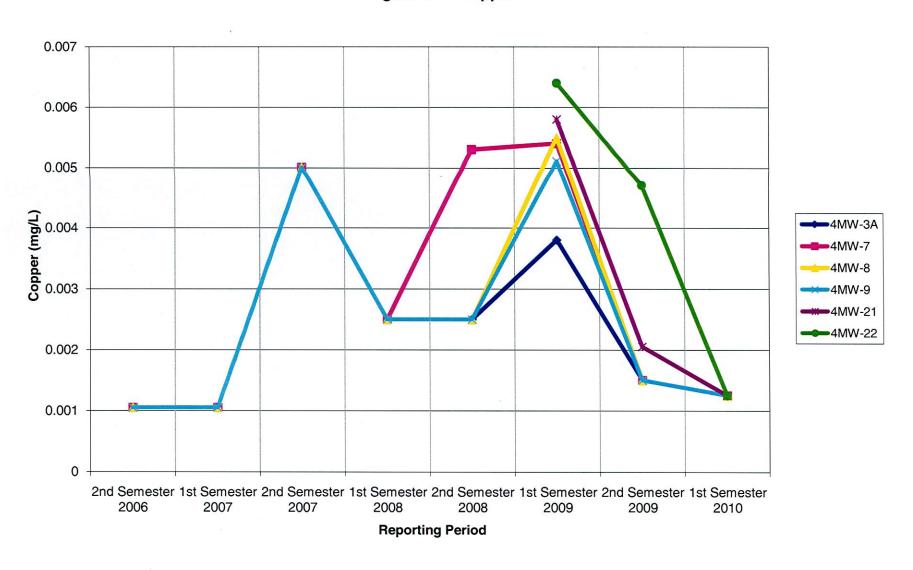


Figure B-12 Nickel

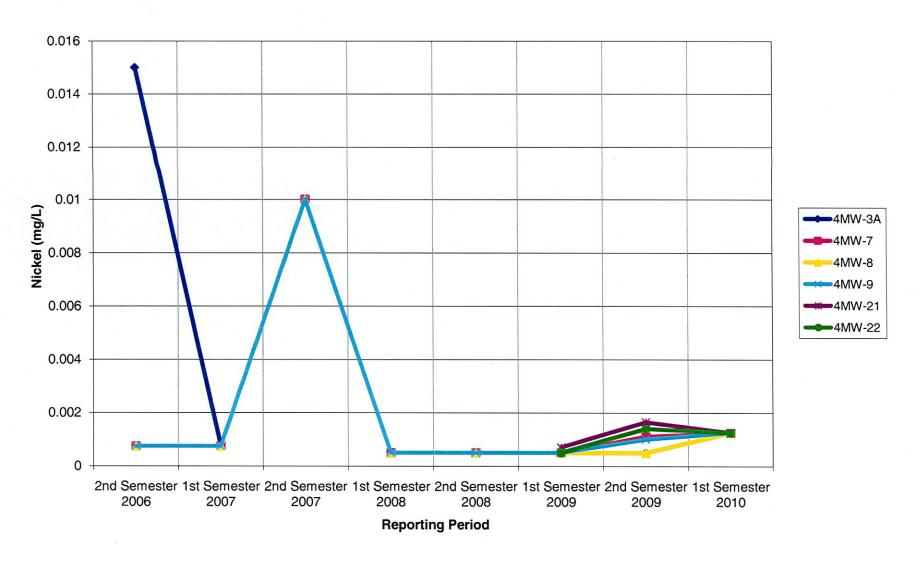


Figure B-13 Selenium

