



Florida Onsite Sewage Nitrogen Reduction Strategies Study

Task C.25

C-HS4 Monitoring Data Summary Report No. 1

Progress Report

April 2013

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Environmental Engineers & Scientists

In association with



AET
Applied Environmental Technology

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ENVIRONMENTAL
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TASK C.25 PROGRESS REPORT

C-HS4 Monitoring Data Summary Report No. 1

Prepared for:

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1.0 Background

Task C of the Florida Onsite Sewage Nitrogen Reduction Strategies Study includes monitoring at field sites in Florida to evaluate nitrogen reduction in soil and groundwater, to assess groundwater impacts from various onsite wastewater systems, and to provide data for parameter estimation, verification, and validation of models developed in Task D. The Task C.5 QAPP documents the objectives, monitoring framework, sample frequency and duration, and analytical methods to be used at the field sites. The Task C.23 instrumentation report for the C-HS4 OSTDS system and plume documents the test area design, number and location of monitoring points, and preliminary field parameters from monitoring points for this Hillsborough County, Florida field site, and also includes preliminary sample collection and analyses.

2.0 Purpose

This report documents data that was collected in the first C-HS4 monitoring and sampling event which was conducted January 14 through January 17, 2013. The corresponding sample event report was submitted as C-HS4 Sample Event Report No. 1, April 2013, as a deliverable under Task C.24. The monitoring event consisted of water use measurement from the household water meter, groundwater elevation measured within the standpipe piezometers, measurement of field parameters, and collection of effluent and groundwater samples and their analyses in a NELAC certified laboratory.

3.0 Materials and Methods

3.1 Project Site

The C-HS4 field site is also the B-HS2 passive nitrogen reduction system site located in Hillsborough County, FL adjacent to Eagle Lake and ████████ Creek in a rural area. The Task B.6 installation report for the B-HS2 system documents the experimental system design which was installed in September 2012. The existing onsite sewage treatment and disposal system (OSTDS) consisted of a 1,050 gallon concrete septic tank located adjacent to the soil treatment unit which is a mounded drainfield (P.T.I.TM bundles). The new passive treatment system consists of a replacement 1,050 gallon two chamber con-

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crete primary tank; 300 gallon concrete recirculation tank; 900 gallon concrete Stage 1 unsaturated media filter; 300 gallon concrete pump tank; and 1,500 gallon two chamber concrete Stage 2 saturated media biofilter.

3.2 Monitoring and Sampling Locations and Identification

A sampling grid for groundwater screening was developed downgradient of the soil treatment unit as depicted in Figure 1. A 10-foot by 5-foot grid spacing was staked. Transect lines A through S run east-west, roughly parallel to the groundwater flow direction and increase (higher letter identification) moving southward from the drainfield. Transect lines 0 through 10 run north-south, roughly perpendicular to the groundwater flow direction and increase moving from the west to east. Based on initial screening data, 29 monitoring locations were chosen within the grid for standpipe piezometer installation. Groundwater monitoring points were installed in September and December 2012. Two types of monitoring point were installed using either hand or drilling methods: stainless steel drivepoints and standpipe piezometers. Stainless steel drivepoints consist of 1-foot screens with polypropylene tubing extending to the ground surface. Standpipe piezometers consist of either ¾-inch or 1-inch diameter PVC with a 1-foot or 5-foot screen (0.010-inch slots) and riser extending to the ground surface (refer to the Task C QAPP and Task C.23 C-HS3 Instrumentation Report for additional detail).

Each monitoring location was assigned a unique identification indicating grid location (self explanatory), and depth below ground surface (bottom of the well screen in feet). For example E03-8 is a standpipe piezometer sampler located on the grid at E03 at 8 feet below ground surface. A schematic of the C-HS4 monitoring network is shown in Figure 1. A complete list of all installed standpipe piezometers and sample identification is included in Appendix A. A total of 51 specific monitoring locations were sampled during this first C-HS4 sampling event.

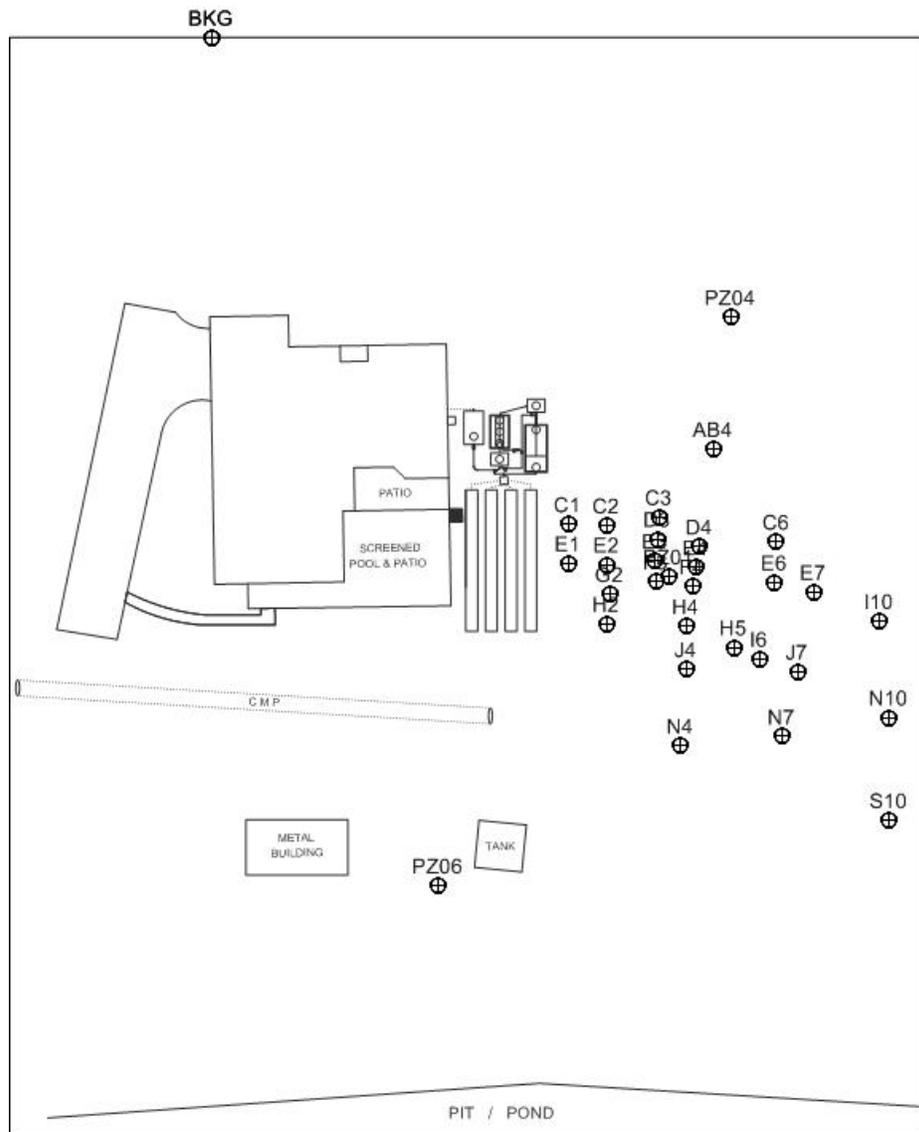


Figure 1
C-HS4 Monitoring Network

3.3 Operational Monitoring

A water meter for the home site was installed March 6, 2012. The water meter for the house site was read and recorded. A weather station (Balm in Wimauma, FL) is located approximately 10 miles from the site. Data from this weather station is available at the following website: <http://fawn.ifas.ufl.edu/>.

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3.4 Groundwater Elevation Measurements

Groundwater level measurements are used to determine hydraulic gradients and directions of groundwater flow. Groundwater levels were measured by inserting into monitoring wells a hand-cranked steel tape graduated in feet, to the nearest 0.01 ft. These measurements are then converted to groundwater surface elevations by using the surveyed elevation of the top of the monitoring well casing. The groundwater level within all the sampled standpipe piezometers was measured for this sampling event.

3.5 Water Quality Sample Collection and Analyses

Groundwater and septic tank effluent (STE) were collected January 14 through January 17, 2013 for water quality analysis. A sample was collected from the septic tank to represent the effluent delivered to the drainfield. A peristaltic pump was used to collect STE directly into the analysis-specific containers. Groundwater samples were obtained using a peristaltic pump, which was attached directly to dedicated standpipe piezometer or drivepoint tubing. Samples were collected after sufficient purging (the sample was clear and pH and conductivity readings had stabilized) had occurred. Field parameters were then recorded.

The analysis-specific containers were supplied by the analytical laboratory and contained appropriate preservatives. The analysis-specific containers were labeled, placed in coolers and transported on ice to the analytical laboratory. Each sample container was secured in packing material as appropriate to prevent damage and spills, and was recorded on chain-of-custody forms supplied by the laboratory. Chain of custody forms were used to document the transfer of samples from field personnel to the analytical laboratory.

In addition, field sample duplicates were collected immediately subsequent to the regular samples. The field duplicate samples taken include:

- STE
- PZ-AB4-08
- PZ-E3-08
- PZ-E7-08
- PZ-H4-15
- PZ-I10-08
- PZ-N10-08

Field parameters (pH, specific conductance, temperature (Temp), and dissolved oxygen (DO)) were measured using portable electronic probes with probe tips placed in an overflowing plastic beaker as groundwater was being pumped. All samples were analyzed by the laboratory for: total alkalinity, total Kjeldahl nitrogen (TKN-N), ammonia nitrogen

(NH₃-N), nitrate/nitrite nitrogen (NO_x-N), and chloride (CL). At some of the locations, chemical oxygen demand (COD), total phosphorus (TP), anions, and cations were included. All analyses were performed by an independent and fully certified analytical laboratory (Southern Analytical Laboratory). Table 1 lists the analytical parameters, analytical methods, and detection limits for these analyses.

Table 1
Analytical Parameters, Method of Analysis, and Detection Limits

Analytical Parameter	Method of Analysis	Method Detection Limit (mg/L)
Total Alkalinity as CaCO ₃	SM 2320B	2 mg/L
Chemical Oxygen Demand (COD)	EPA 410.4	10 mg/L
Total Kjeldahl Nitrogen (TKN-N)	EPA 351.2	0.05 mg/L
Ammonia Nitrogen (NH ₃ -N)	EPA 350.1	0.005 mg/L
Nitrate/Nitrite Nitrogen (NO _x -N)	EPA 300.0	0.02 mg/L
Total Phosphorus	SM 4500P-E	0.01 mg/L
Anions		
Fluoride	EPA 300.0	0.01 mg/L
Chloride	EPA 300.0	0.05 mg/L
Nitrate-N	EPA 300.0	0.01 mg/L
Nitrite-N	EPA 300.0	0.01 mg/L
Orthophosphate-P	EPA 300.0	0.01 mg/L
Sulfate	EPA 300.0	0.20 mg/L
Cations		
Boron	EPA 200.7	0.05 mg/L
Calcium	EPA 200.7	0.01 mg/L
Iron	EPA 200.7	0.02 mg/L
Magnesium	EPA 200.7	0.01 mg/L
Manganese	EPA 200.7	0.001 mg/L
Potassium	EPA 200.7	0.01 mg/L
Sodium	EPA 200.7	0.01 mg/L

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3.6 Data Management

To allow for a better visualization of the data collected at the site the mapping program **Surfer** was utilized. **Surfer** is a grid-based mapping program that interpolates irregularly spaced XYZ data into a regularly spaced grid. Although there are several methods used in Surfer to fill in areas where data is missing, the “natural neighbor” gridding method was used as the output gave the most informative graphs.

4.0 Results

4.1 Operational Data and Site Conditions

Table 2 summarizes the water meter readings and average daily water use for the residence at site C-HS4.

Table 2
Water Meter Readings and Water Usage for C-HS4

Residence	Date Read	Meter Reading	Gallons/day
C-HS4 Residence	3/6/2012	7,790	Installed
	1/1/2013	43,240	117.8
	2/5/2013	47,741	128.6

Daily recorded meteorological data is provided in Appendix B. Table 3 provides the daily averages leading up to and during the sample event.

Table 3
Meteorological Data Daily Averages Measured January 10 through January 17, 2013

Date	Temp Avg 60 cm (°F)	Temp Avg 2m (°F)	Temp Avg 10 m (°F)	Temp Soil Avg -10 cm (°F)	Dewpoint Avg 2m (°F)	Relative Humidity Avg 2m (%)	Rain Total 2m (in)	2m Rain max over 15min (in)	10m Wind avg (mph)	ET (in/d)
10-Jan-13	72.31	72.95	72.57	69.46	66.18	81	0	0	8.71	0.07
11-Jan-13	70.52	71.21	71.02	69.29	65.09	83	0	0	7.35	0.08
12-Jan-13	70.35	71.07	71.11	69.47	64.07	80	0	0	7.04	0.07
13-Jan-13	70.18	70.88	70.89	69.71	63.93	80	0	0	5.8	0.07
14-Jan-13	67.35	68.29	68.85	69.49	61.39	81	0	0	5.08	N/A
15-Jan-13	67.81	68.47	69.11	68.84	62.15	82	0	0	4.32	0.07
16-Jan-13	68.28	69.07	69.63	69.45	61.53	80	0	0	4.27	0.07
17-Jan-13	60.71	61.24	61.49	68.12	57.81	89	0.04	0.01	8.64	0.06

4.2 Groundwater Levels

Water levels were measured at all standpipe piezometers sampled January 14 through January 17, 2013 for this sampling event as summarized in Table 4. Figure 2 illustrates the surficial groundwater contours as measured within the standpipe piezometers.

Table 4
Standpipe Piezometer Groundwater Levels January 16, 2013

Identification	Water Table El ¹ (ft)	Identification	Water Table El ¹ (ft)
PZ01	11.63	PZ-F3-08	DRY
PZ02	20.07	PZ-F3-15	11.83
PZ03	DRY	PZ-F4-08	11.53
BKG-10	17.37	PZ-F4-15	11.51
BKG-15	16.54	PZ-G1	DRY
PZ04	13.04	PZ-G2-12.5	NR
PZ05	NR	PZ-H4-08	11.44
PZ06	13.12	PZ-H4-15	11.37
PZ-AB4-08	11.97	PZ-H5-11.5	11.23
PZ-AB4-15	12.01	PZ-I6-08	11.17
PZ-C1	13.87	PZ-I6-15	11.24
PZ-C2	13.43	PZ-I10-08	11.02
PZ-C3-08	12.45	PZ-I10-15	11.07
PZ-C3-15	12.12	PZ-J4-08	DRY
PZ-C6-08	11.23	PZ-J4-15	11.35
PZ-C6-15	11.23	PZ-J7-08	11.18
PZ-D3-08	12.40	PZ-J7-15	11.15
PZ-D3-15	12.34	PZ-N4-08	11.40
PZ-D4-08	11.60	PZ-N4-15	11.40
PZ-D4-15	11.48	PZ-N7-08	11.21
PZ-E1	13.71	PZ-N7-15	11.18
PZ-E2	12.78	PZ-N10-08	11.12
PZ-E3-08	12.31	PZ-N10-15	11.08
PZ-E3-15	12.24	PZ-S10-08	11.09
PZ-E4-08	11.52		
PZ-E4-15	11.45		
PZ-E5-08	11.30		
PZ-E5-15	11.28		
PZ-E6-08	11.21		
PZ-E6-15	11.23		
PZ-E7-08	11.15		
PZ-E7-15	11.19		

¹Elevation above mean sea level based on NGVD 1929

²Most likely erroneous instrument reading

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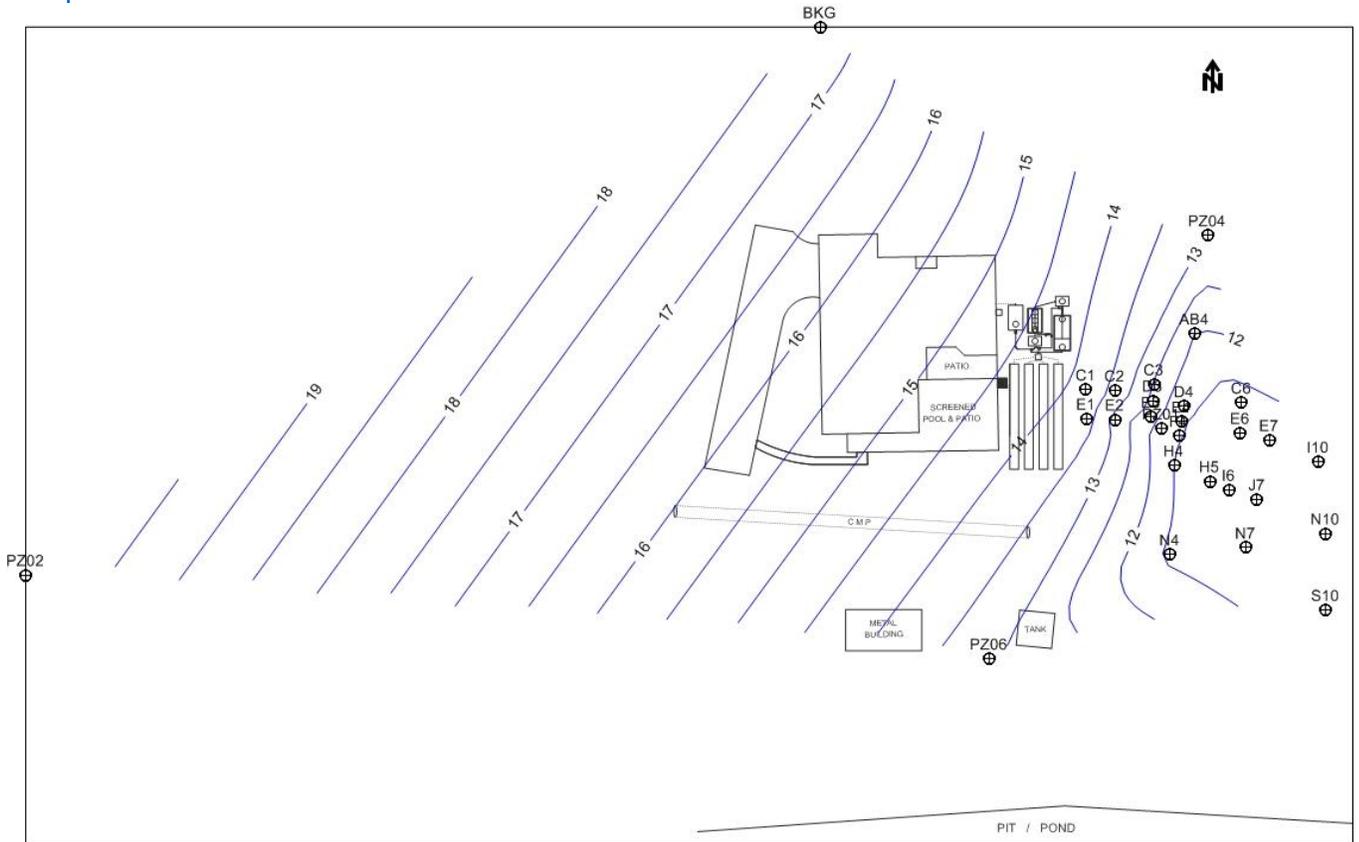


Figure 2
Surficial Groundwater Contours January 16, 2013

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4.3 Water Quality Analyses

4.3.1 Field Parameters

Field parameters (temperature, pH, dissolved oxygen (DO), and specific conductivity) were measured at all the sampling locations prior to sample collection and are provided in Appendix C. Variations in measured values between monitoring points were expected as the chemical composition of the groundwater varied due to the discharge of STE.

4.3.2 Correlations

Correlations between nitrogen parameters were investigated to determine if simple to measure field parameters could continue to be used to locate contaminant plumes. Figure 3 shows a scatter plot of nitrogen vs conductivity for groundwater samples. A strong linear correlation is not observed for conductivity (Figure 3).

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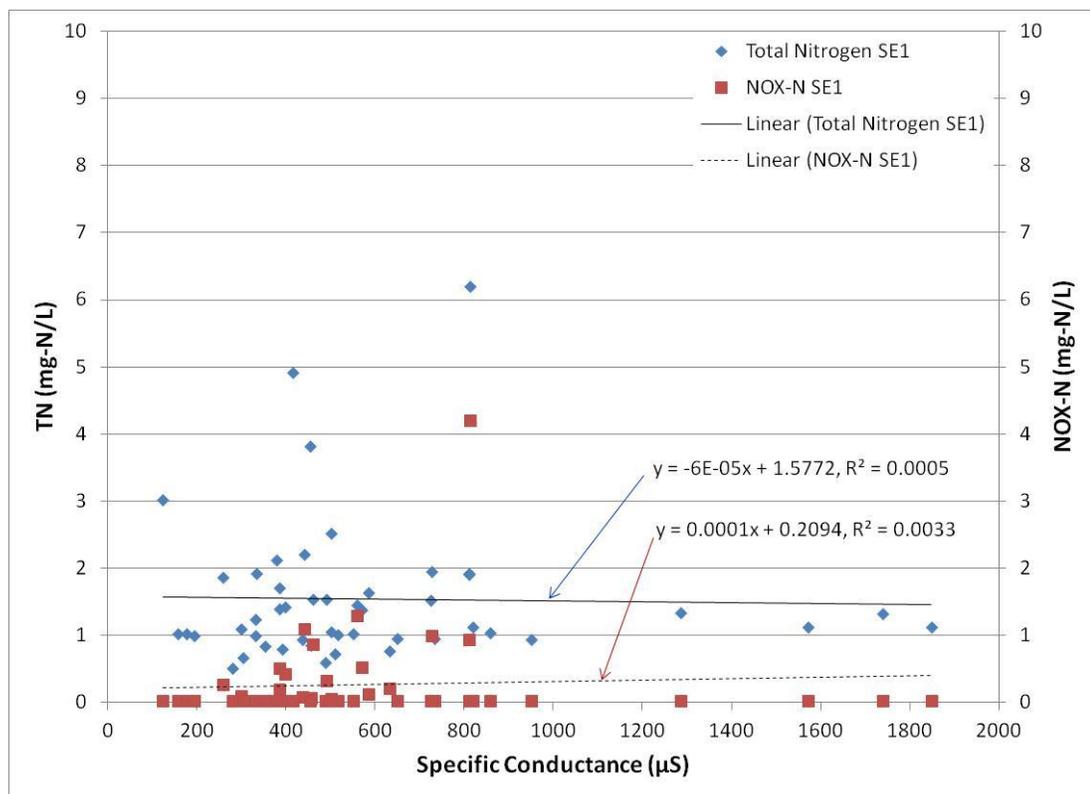


Figure 3
Correlation Between the Specific Conductance (uS) and the Concentrations of Total Nitrogen (mg-N/L) and NOX (mg-N/L)

4.3.3 Analytical Parameters

In addition to measuring field parameters, all samples were analyzed for total alkalinity (as CaCO_3), total Kjeldahl nitrogen (TKN-N), ammonia nitrogen ($\text{NH}_3\text{-N}$), and nitrate/nitrite nitrogen (NOX-N). At some of the locations, total alkalinity, chemical oxygen demand (COD), total phosphorus (TP), anions, and cations were included. By analyzing for the different nitrogen species, a clearer picture is gained on the transformation of nitrogen within the plume. The complete water quality analytical results for Sample Event No. 1 are listed in Table C.1 of Appendix C. The laboratory report containing the raw analytical data is included in Appendix D which includes the chain of custody forms and groundwater sampling logs.

4.3.4 Nitrate/Nitrite Concentrations with Groundwater Depth

The general trend of the nitrogen plume at the site can be somewhat determined with the data collected to date. The piezometers installed at different locations and depths below the ground surface were mapped in **Surfer**. Although **Surfer** is an informative tool for mapping the information from the site, it cannot project a 3-dimensional view of concentrations with depth. Based on the distribution of points with depth, two “slices” were chosen for the groundwater data surrounding the system. A **Surfer** schematic illustrating the “slices” of NOX concentration with depth from January 2013 are presented in Figures 4 and 5. The two slices were separated by groundwater elevation above sea level (NGVD29 datum). Similar slices of TKN concentration with depth are presented in Figures 6 and 7. The maps show contours of the concentrations as estimated using the “natural neighbor” gridding method in **Surfer**TM. This method was used because it did not extend results past data points, as was noted on previous project results.

The shallow piezometer NOX results near the system (Figure 4) appear to show the plume to be confined in a south-southeast direction from the drainfield. The deeper piezometers (Figure 5) indicate relatively low NOX concentrations at this point in time, similar to background levels. However, as evident in the comparison of the NOX and TKN plots of the deeper piezometers (Figures 5 and 7) there seems to be a background concentration of TKN. The specific conductance plots (Figure 8 and 9) are similar to the nitrogen plots.

In addition, the shallow piezometer plots can be compared to data collected prior to the installation of the passive nitrogen reduction system (Figures 10, 11 and 12). A table summarizing the water quality data and laboratory report are provided in Appendix E for the samples collected September 6, 2012. As expected, the plots indicate that the NOX concentration in the area near the drainfield has significantly decreased following the installation of the passive nitrogen reduction system.

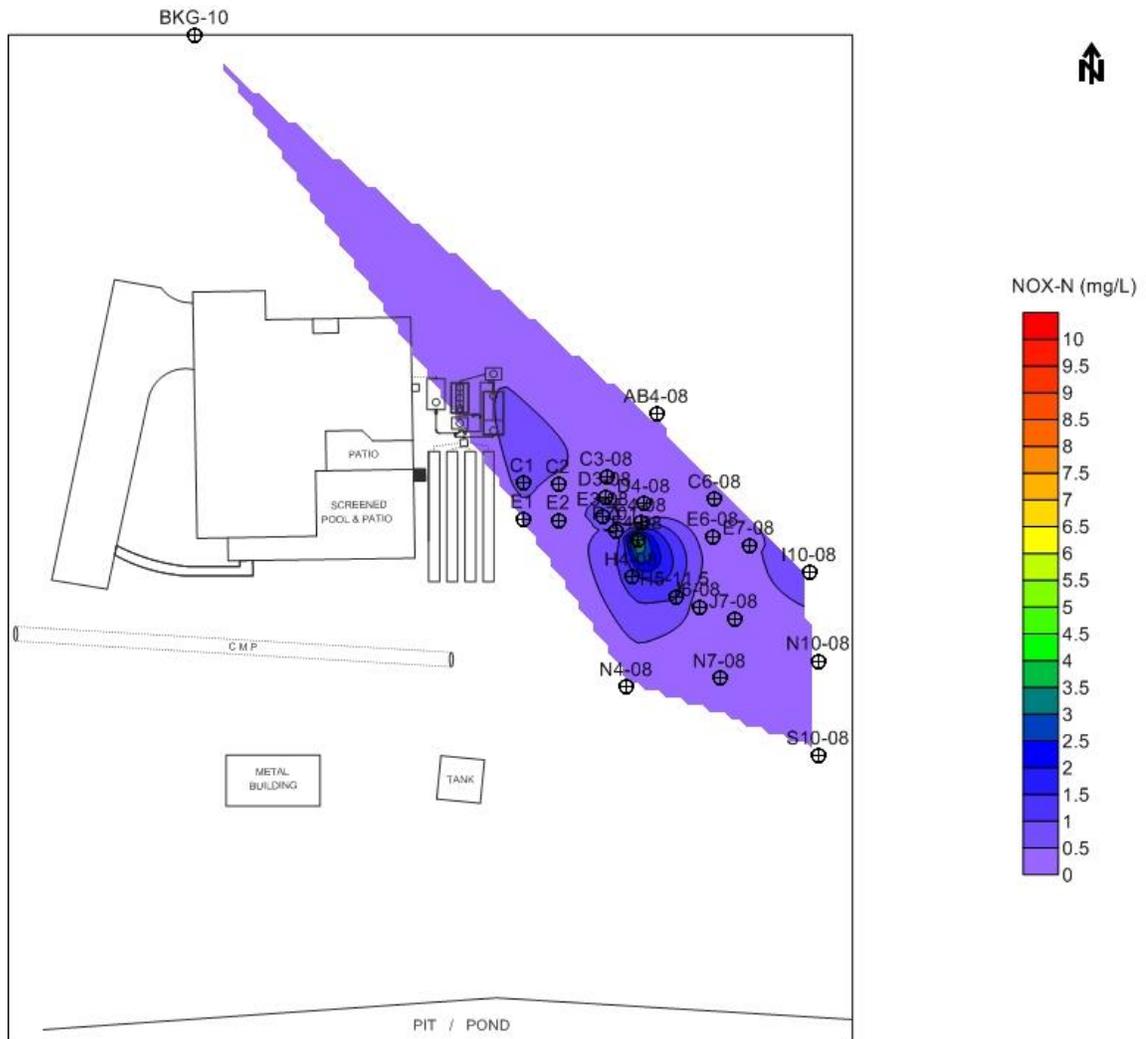


Figure 4
Shallow GW Elev 7.9-17.4 ft above MSL (January 2013 Sample Event 1)
Schematic (using Surfer) illustrating NOX concentrations in the subsurface

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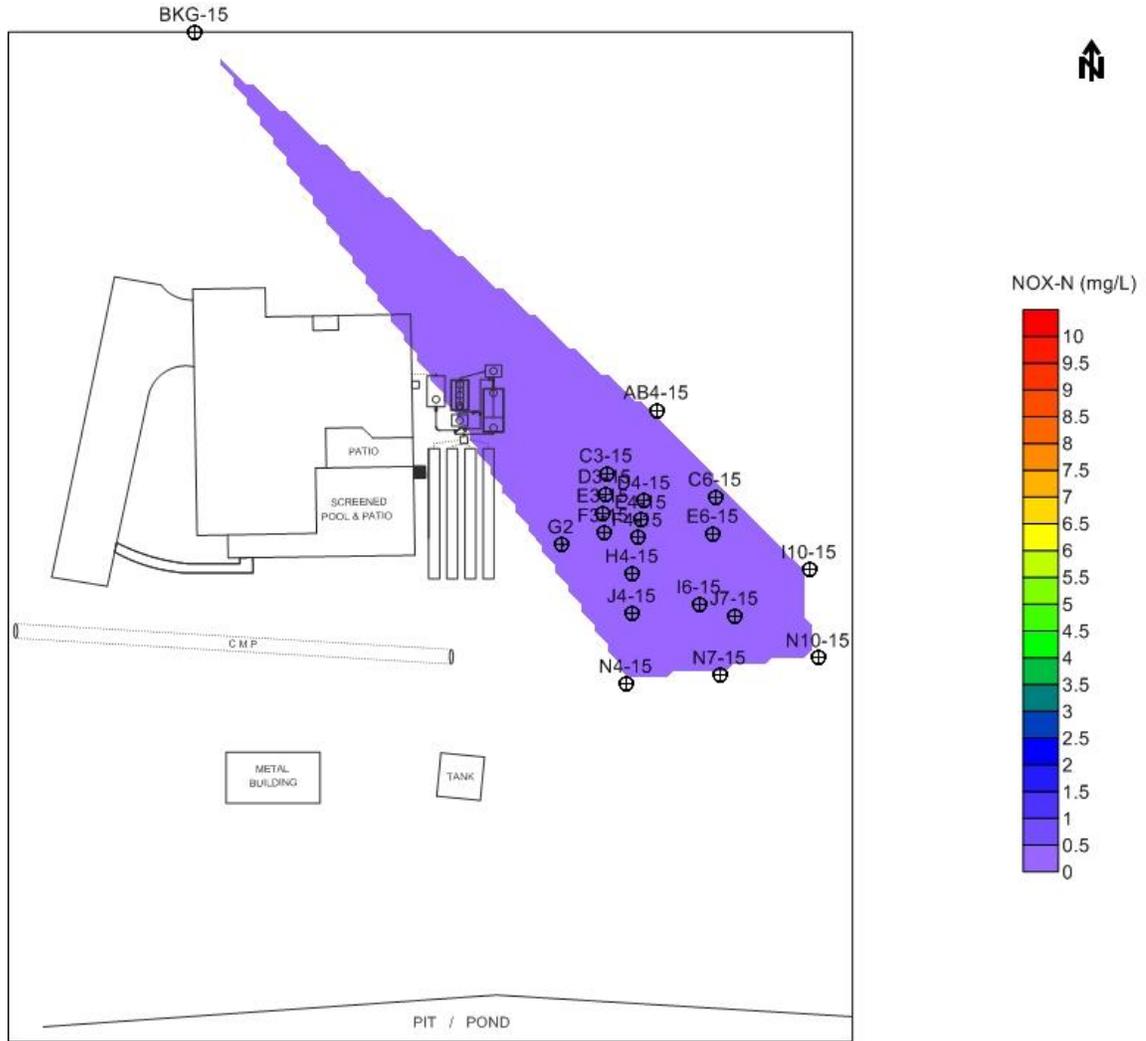


Figure 5
Deep GW Elev 2.6-6.1 ft above MSL (January 2013 Sample Event 1)
Schematic (using Surfer) illustrating NOX concentrations in the subsurface

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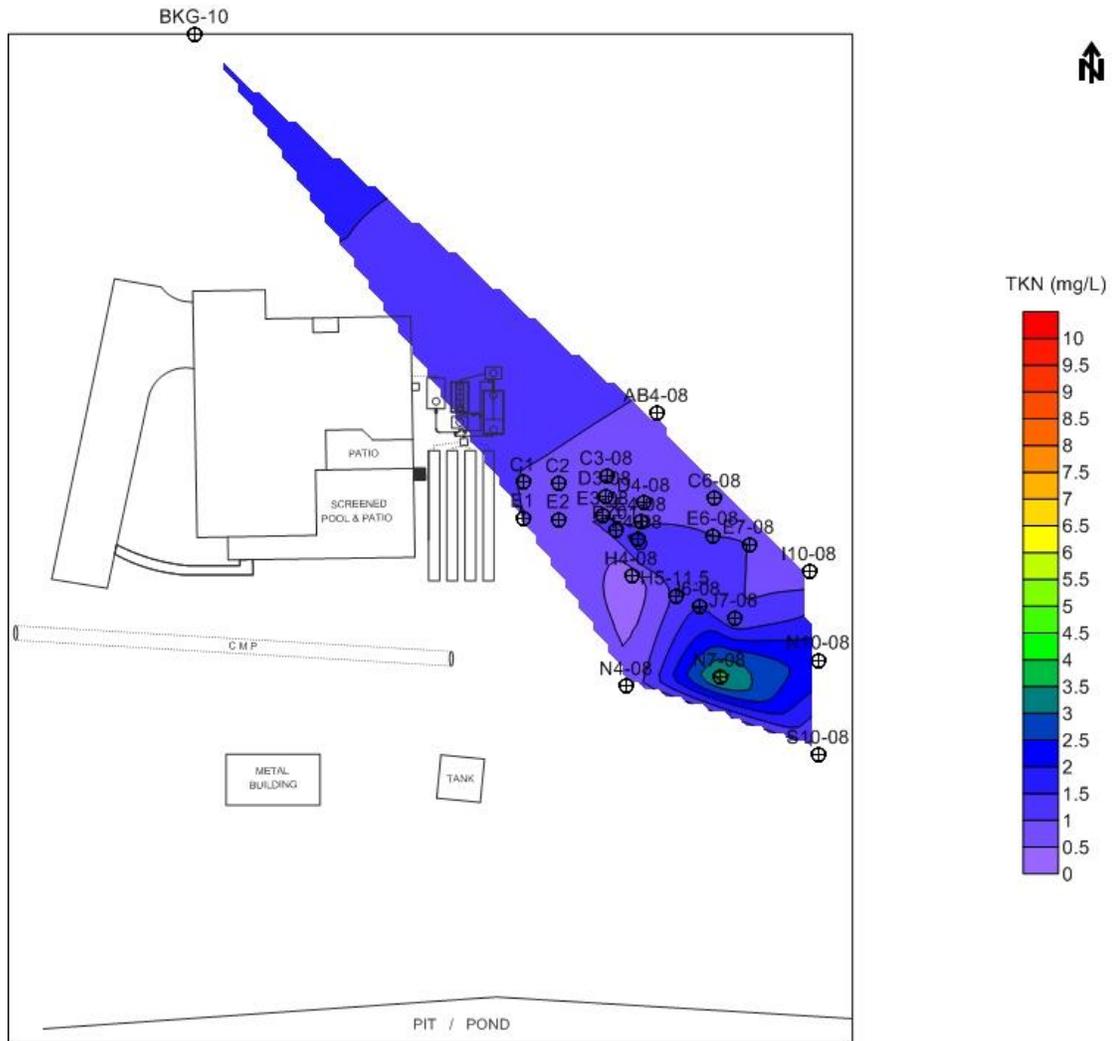


Figure 6
Shallow GW Elev 7.9-17.4 ft above MSL (January 2013 Sample Event 1)
Schematic (using Surfer) illustrating TKN concentrations in the subsurface

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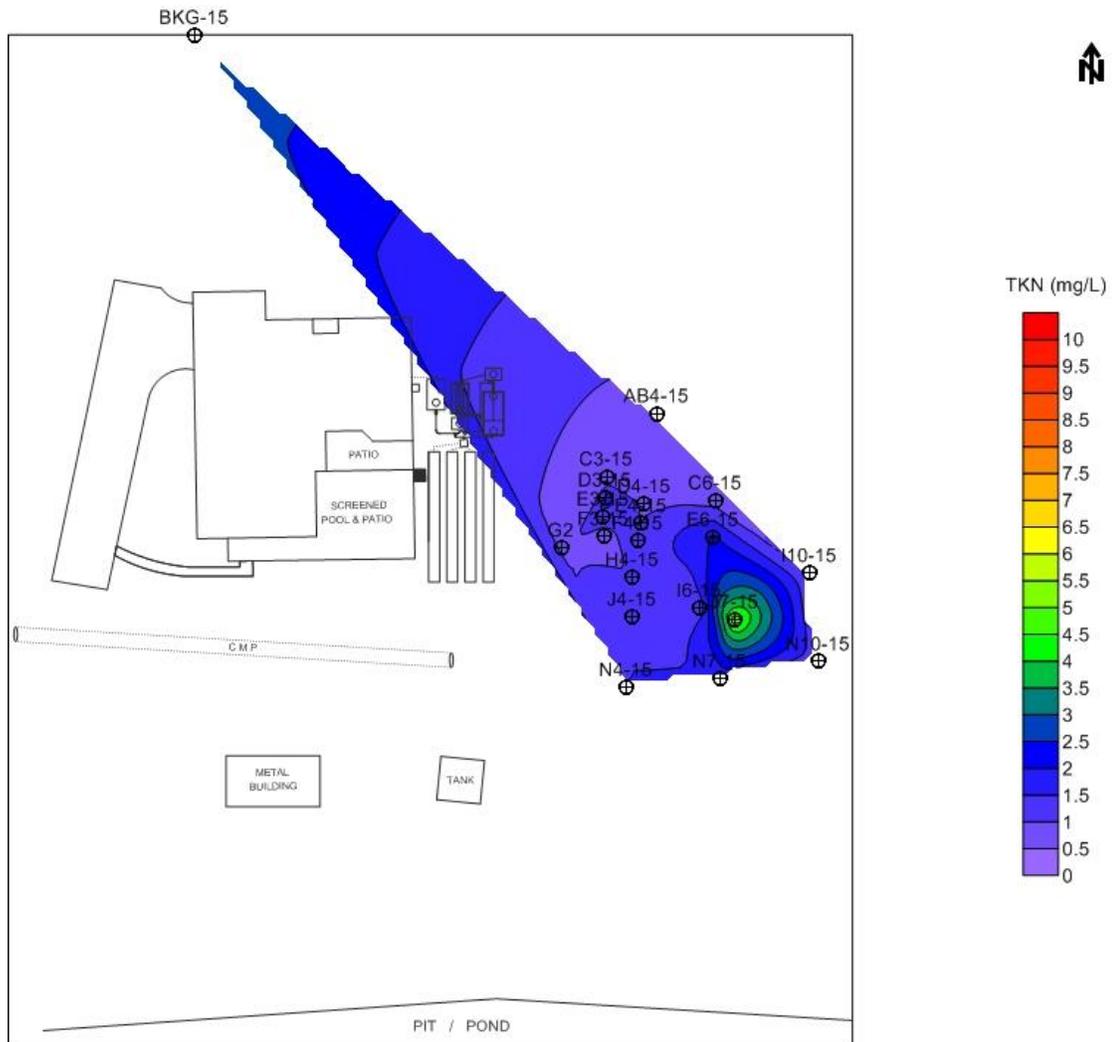


Figure 7
Deep GW Elev 2.6-6.1 ft above MSL (January 2013 Sample Event 1)
Schematic (using Surfer) illustrating TKN concentrations in the subsurface

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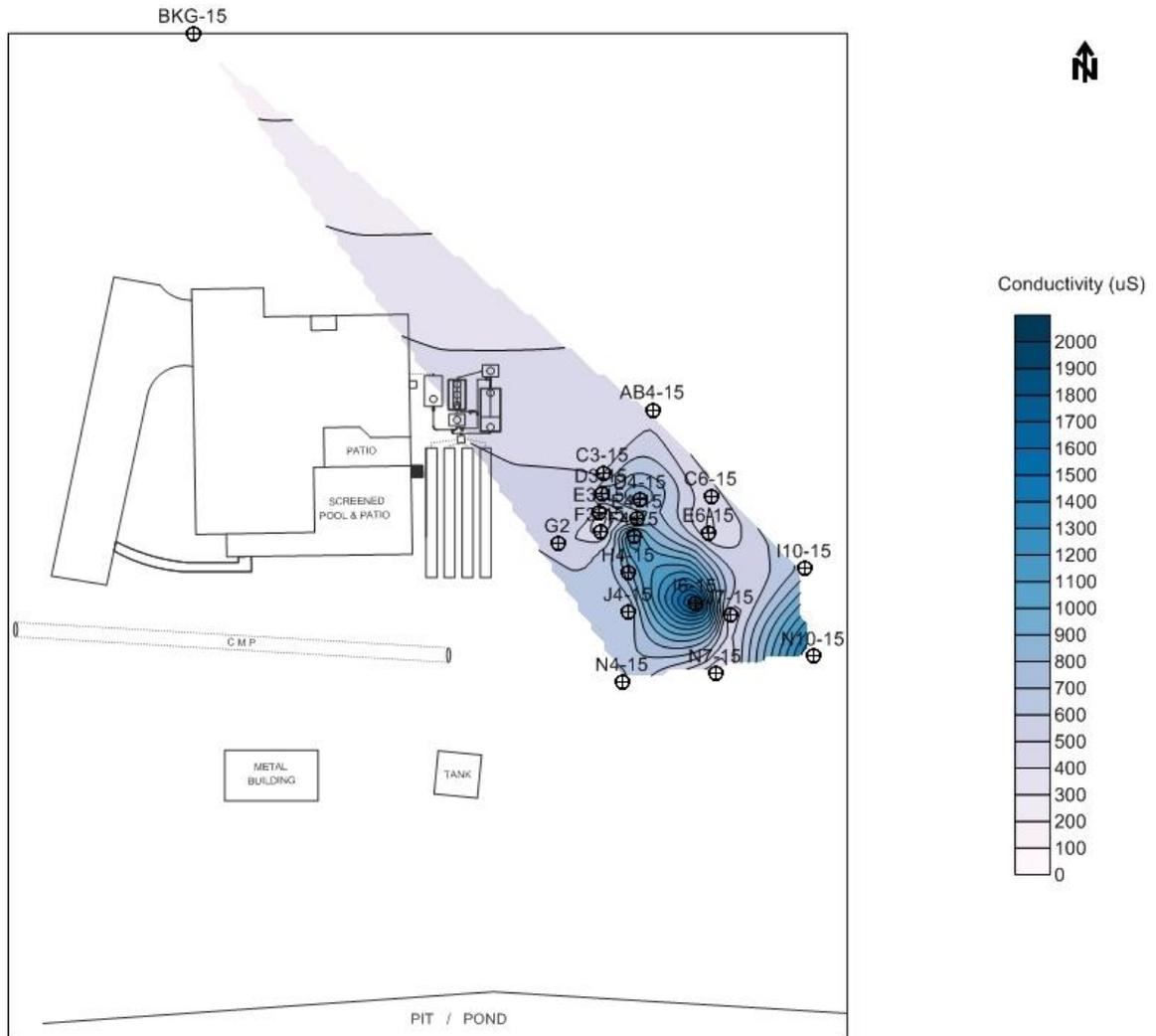


Figure 9
Deep GW Elev 2.6-6.1 ft above MSL (January 2013 Sample Event 1)
Schematic (using Surfer) illustrating Specific Conductance concentrations in the subsurface

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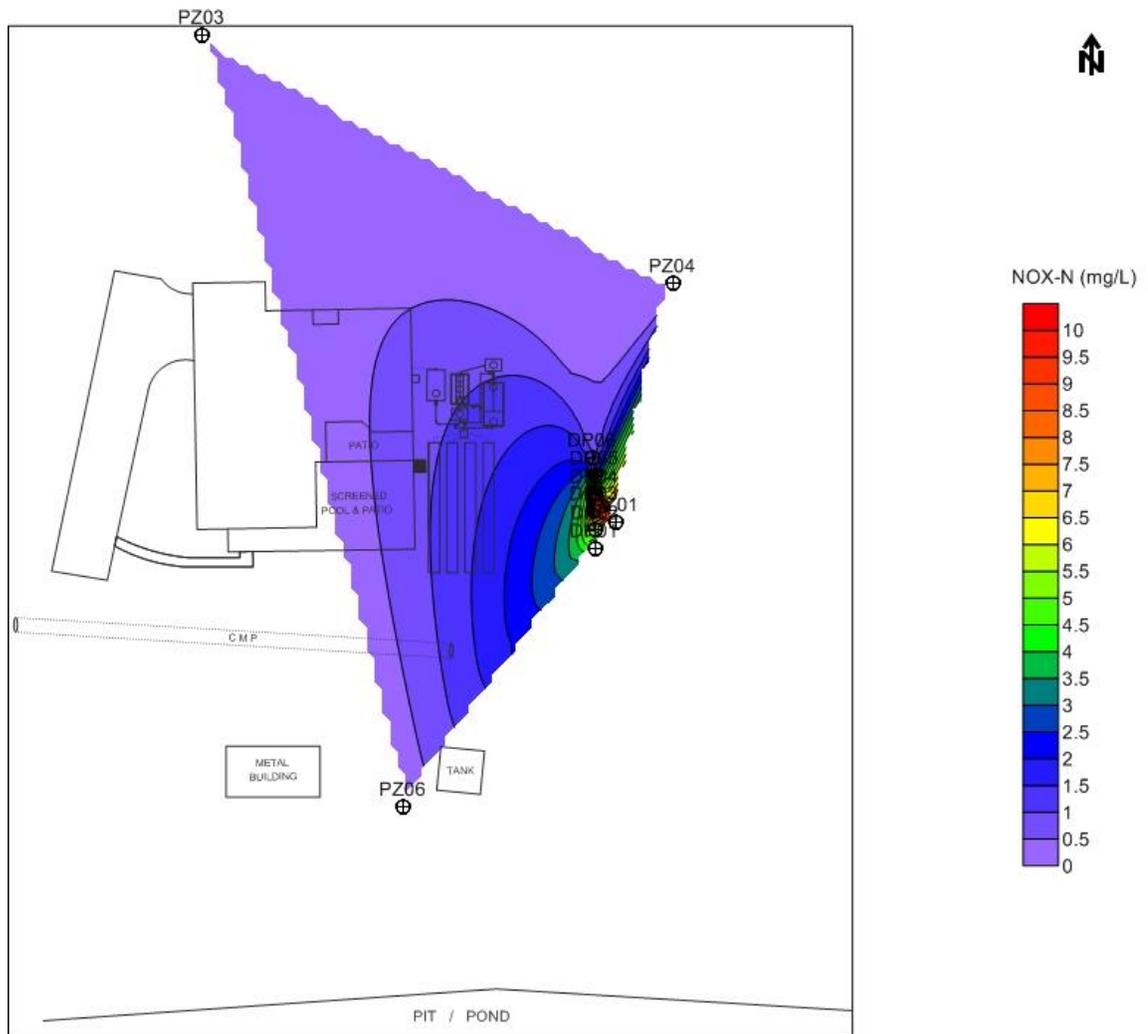


Figure 10
Shallow GW (September 6, 2012)
Schematic (using Surfer) illustrating NOX concentrations in the subsurface

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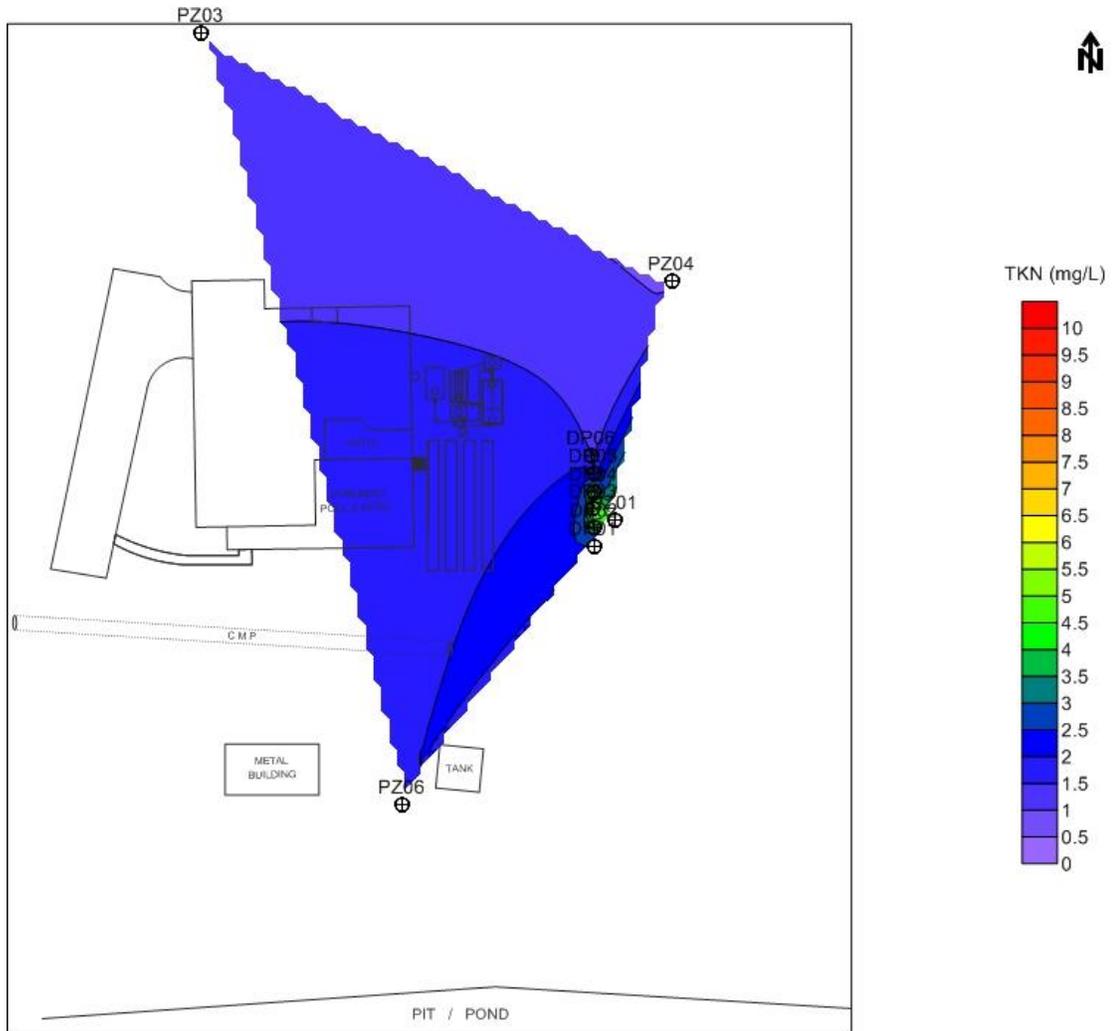


Figure 11
Shallow GW (September 6, 2012)
Schematic (using Surfer) illustrating TKN concentrations in the subsurface

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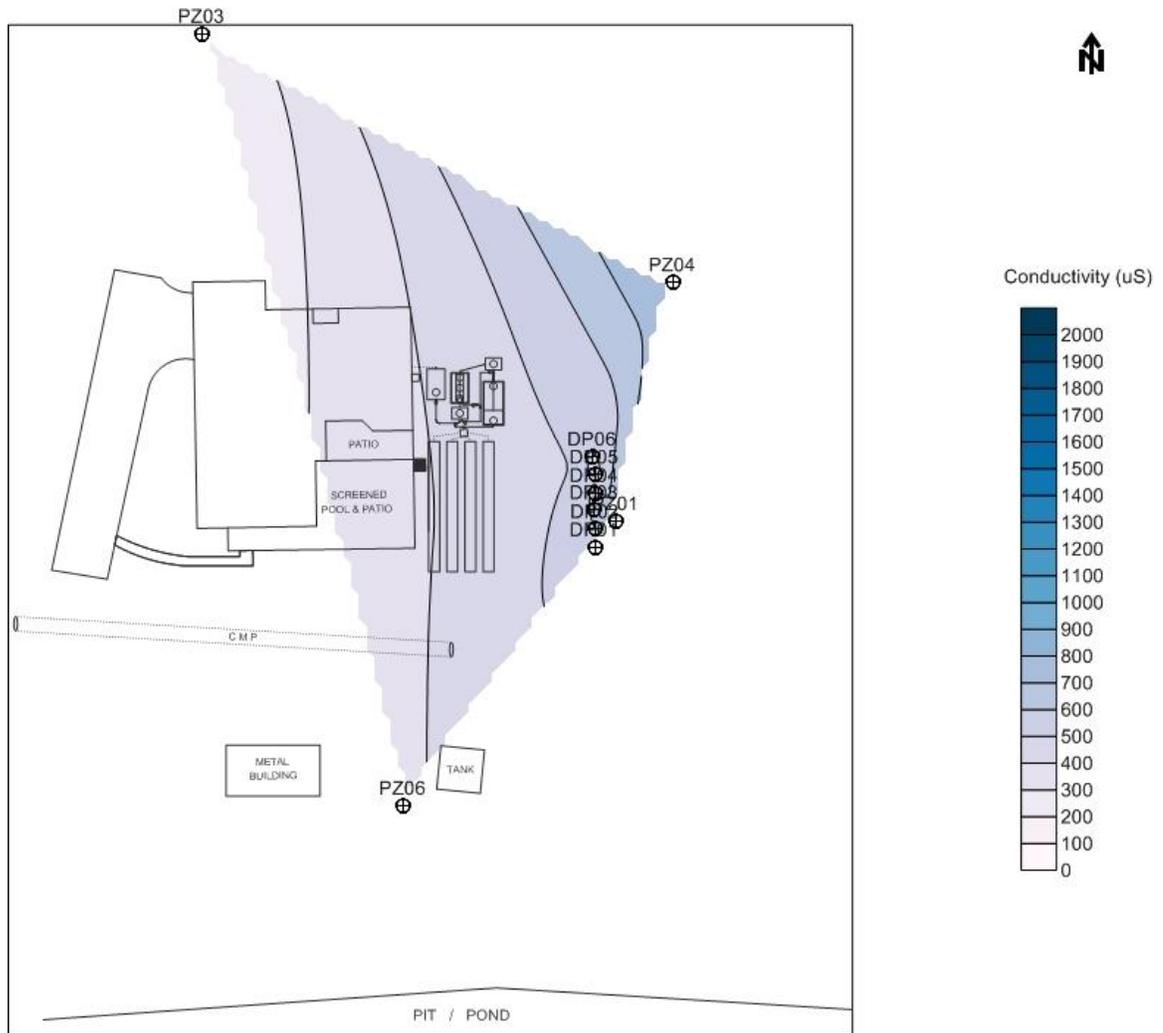


Figure 12
Shallow GW (September 6, 2012)
Schematic (using Surfer) illustrating Specific Conductance concentrations in the subsurface

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5.0 C-HS4 Data Summary Report No. 1: Summary and Recommendations

5.1 Summary

The results of this first sampling event served to identify the general trend of the NOX plume and provide the basis upon which to make adjustments and modifications to future monitoring locations. Results of Sample Event No. 1 indicate that:

- ◆ The nitrogen plume appears to be flowing in a south-southeast direction and similar to the groundwater contours.
- ◆ As expected, the plots indicate that the NOX concentration in the area near the drainfield has significantly decreased following the installation of the passive nitrogen reduction system.

5.2 Conclusions

The project team will continue to evaluate all results including those that result from implementation of the recommendations and make further adaptations as needed (observational method). Following is a list with select recommendations which the next sample event will address:

- ◆ Additional analyses of field parameters will give a better understanding of if and how they may correlate to nitrogen occurrence and reduction.
- ◆ Additional groundwater level monitoring will provide information needed to determine the necessary parameters for model development.
- ◆ Further sampling of all locations will provide a snapshot of the site needed for plume identification and for nitrogen fate and transport determination.

Appendix A: C-HS4 Sample Identification

Table A.1
Site C-HS4 Sample Identification

	Identification	Type of Monitoring Point	Top Elev ¹ (feet)	Bottom Elev ¹ (feet)
1	C-HS3-STE	Wastewater	N/A	N/A
2	PZ01	1" Standpipe Piezometer, 5' screen	19.08	9.48
3	PZ02	1" Standpipe Piezometer, 5' screen	28.72	16.54
4	PZ03	1" Standpipe Piezometer, 5' screen	24.85	19.00
5	PZ04	1" Standpipe Piezometer, 5' screen	18.82	13.02
6	PZ05	1" Standpipe Piezometer, 5' screen	20.79	NR
7	PZ06	1" Standpipe Piezometer, 5' screen	22.17	11.02
8	BKG-10	1" Standpipe Piezometer, 5' screen	24.60	15.22
9	BKG-15	3/4" Standpipe Piezometer, 1' screen	24.60	10.17
10	PZ-AB4-08	1" Standpipe Piezometer, 5' screen	18.65	10.27
11	PZ-AB4-15	3/4" Standpipe Piezometer, 1' screen	18.59	4.09
12	PZ-C1	1" Standpipe Piezometer, 5' screen	22.85	12.70
13	PZ-C2	1" Standpipe Piezometer, 5' screen	21.23	9.73
14	PZ-C3-08	1" Standpipe Piezometer, 5' screen	19.63	11.83
15	PZ-C3-15	3/4" Standpipe Piezometer, 1' screen	19.64	5.09
16	PZ-C6-08	1" Standpipe Piezometer, 5' screen	17.53	9.03
17	PZ-C6-15	3/4" Standpipe Piezometer, 1' screen	17.53	3.13
18	PZ-D3-08	1" Standpipe Piezometer, 5' screen	19.62	11.63
19	PZ-D3-15	3/4" Standpipe Piezometer, 1' screen	19.64	5.08
20	PZ-D4-08	1" Standpipe Piezometer, 5' screen	18.77	10.89
21	PZ-D4-15	3/4" Standpipe Piezometer, 1' screen	18.76	4.21
22	PZ-E1	1" Standpipe Piezometer, 5' screen	22.92	11.42
23	PZ-E2	1" Standpipe Piezometer, 5' screen	21.03	9.33
24	PZ-E3-08	1" Standpipe Piezometer, 5' screen	19.66	11.41
25	PZ-E3-15	3/4" Standpipe Piezometer, 1' screen	19.64	4.98
26	PZ-E4-08	1" Standpipe Piezometer, 5' screen	18.70	10.80
27	PZ-E4-15	3/4" Standpipe Piezometer, 1' screen	18.69	4.31
28	PZ-E5-08	1" Standpipe Piezometer, 5' screen	18.15	10.25
29	PZ-E5-15	3/4" Standpipe Piezometer, 1' screen	18.13	3.56
30	PZ-E6-08	1" Standpipe Piezometer, 5' screen	17.83	9.95

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Table A.1 (continued)
Site C-HS4 Sample Identification

	Identification	Type of Monitoring Point	Top Elev ¹ (feet)	Bottom Elev ¹ (feet)
31	PZ-E6-15	3/4" Standpipe Piezometer, 1' screen	17.85	3.45
32	PZ-E7-08	1" Standpipe Piezometer, 5' screen	17.55	8.87
33	PZ-E7-15	3/4" Standpipe Piezometer, 1' screen	17.55	3.05
34	PZ-F3-08	1" Standpipe Piezometer, 5' screen	19.54	11.59
35	PZ-F3-15	3/4" Standpipe Piezometer, 1' screen	19.55	5.05
36	PZ-F4-08	1" Standpipe Piezometer, 5' screen	18.83	11.13
37	PZ-F4-15	3/4" Standpipe Piezometer, 1' screen	18.88	4.48
38	PZ-G1	1" Standpipe Piezometer, 5' screen	20.72	12.82
39	PZ-G2-12.5	2" Standpipe Piezometer, 7.5' screen	21.03	8.88
40	PZ-H4-08	1" Standpipe Piezometer, 5' screen	19.19	10.91
41	PZ-H4-15	3/4" Standpipe Piezometer, 1' screen	19.22	4.45
42	PZ-H5-11.5	2" Standpipe Piezometer, 7.5' screen	18.58	7.86
43	PZ-I6-08	1" Standpipe Piezometer, 5' screen	18.42	9.37
44	PZ-I6-15	3/4" Standpipe Piezometer, 1' screen	18.42	3.87
45	PZ-I10-08	1" Standpipe Piezometer, 5' screen	16.87	8.95
46	PZ-I10-15	3/4" Standpipe Piezometer, 1' screen	16.92	4.42
47	PZ-J4-08	1" Standpipe Piezometer, 5' screen	19.26	11.32
48	PZ-J4-15	3/4" Standpipe Piezometer, 1' screen	19.25	4.73
49	PZ-J7-08	1" Standpipe Piezometer, 5' screen	17.86	9.41
50	PZ-J7-15	3/4" Standpipe Piezometer, 1' screen	17.87	3.45
51	PZ-N4-08	1" Standpipe Piezometer, 5' screen	19.28	11.00
52	PZ-N4-15	3/4" Standpipe Piezometer, 1' screen	19.30	4.82
53	PZ-N7-08	1" Standpipe Piezometer, 5' screen	18.01	9.46
54	PZ-N7-15	3/4" Standpipe Piezometer, 1' screen	18.03	3.23
55	PZ-N10-08	1" Standpipe Piezometer, 5' screen	16.92	9.17
56	PZ-N10-15	3/4" Standpipe Piezometer, 1' screen	16.83	2.59
57	PZ-S10-08	1" Standpipe Piezometer, 5' screen	17.03	8.78
58	DP01	SST Drivepoint	19.25	
59	DP02	SST Drivepoint	19.24	
60	DP03	SST Drivepoint	19.49	
61	DP04	SST Drivepoint	19.22	
62	DP05	SST Drivepoint	19.25	
63	DP06	SST Drivepoint	19.38	

¹Elevation above mean sea level based on NGVD 1929

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Appendix B: Weather Station Data

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**Table B.1
Daily Recorded Meteorological Data
Wimauma, FL**

Period	60cm Temp avg (F)	60cm Temp min (F)	60cm Temp max (F)	2m Temp avg (F)	2m Temp min (F)	2m Temp max (F)	10m Temp avg (F)	10m Temp min (F)	10m Temp max (F)	Tsoil avg - 10cm (F)	Tsoil min(a vg) - 10cm (F)	Tsoil max(a vg) - 10cm (F)	2m DewPt avg (F)	RelHum avg 2m (pct)	2m Rain tot (in)	2m Rain max over 15min (in)	SolRad avg 2m (w/m^2)	10m Wind avg (mph)	10m Wind min (mph)	10m Wind max (mph)	WDir avg 10m (deg)	ET (in)
1-Dec-12	63.76	52.12	78.49	64.86	53.65	78.67	64.80	53.65	76.96	67.11	65.68	68.45	56.95	78	0	0	145.70	7.05	1.30	19.57	47	0.07
2-Dec-12	67.54	58.41	81.30	68.27	59.29	80.94	68.03	60.04	79.74	67.79	66.65	69.21	59.85	78	0	0	154.15	6.92	0.63	24.23	64	0.07
3-Dec-12	67.51	57.58	81.52	68.30	59.20	81.25	68.53	62.22	79.03	68.58	67.57	69.93	59.80	77	0	0	130.55	6.51	1.53	19.07	73	0.07
4-Dec-12	64.89	53.33	79.57	65.89	54.73	79.21	66.86	57.88	77.38	68.08	66.56	69.44	55.92	74	0	0	157.37	6.53	1.77	16.73	93	0.06
5-Dec-12	65.88	53.82	79.86	66.80	55.71	79.11	67.10	57.90	77.20	68.13	66.58	69.53	58.81	77	0	0	129.37	5.19	0.07	15.50	68	0.06
6-Dec-12	68.13	60.06	80.62	68.79	60.67	80.29	68.76	61.41	78.28	69.19	68.04	70.56	61.71	80	0	0	135.09	5.71	0.90	16.27	73	0.07
7-Dec-12	66.10	59.81	79.43	66.70	60.75	79.09	66.84	60.73	77.56	69.35	68.38	70.70	62.37	87	0	0	117.78	5.31	0.33	13.60	59	0.06
8-Dec-12	70.14	61.65	82.47	70.50	62.37	82.02	70.01	63.37	80.96	70.03	69.01	71.40	65.92	87	0.2	0.05	107.49	4.62	0.30	13.17	106	0.07
9-Dec-12	68.80	59.23	79.83	69.43	60.80	79.20	69.39	63.55	77.95	70.63	69.24	72.19	65.97	90	0.01	0.01	138.07	3.14	0.00	46.07	343	0.06
10-Dec-12	69.98	59.27	82.63	70.65	61.03	82.74	70.49	62.85	81.45	70.08	68.83	71.15	67.87	91	0.67	0.29	74.68	6.92	0.07	22.33	172	0.07
11-Dec-12	71.01	66.13	79.14	71.51	66.67	79.18	71.13	66.61	77.94	70.80	69.89	71.89	70.01	95	0.22	0.15	70.42	4.87	0.00	15.80	190	0.06
12-Dec-12	72.19	64.65	81.50	72.71	65.35	80.91	72.37	65.91	79.56	71.39	70.25	72.61	70.02	92	0.05	0.05	89.79	4.97	0.07	16.33	197	0.06
13-Dec-12	63.81	54.64	70.11	63.92	54.97	70.57	63.35	55.04	70.16	70.91	69.53	71.76	60.22	88	0	0	108.11	8.81	2.10	20.43	10	0.05
14-Dec-12	58.71	54.30	69.13	58.77	54.34	68.77	58.30	54.07	67.06	68.61	67.87	69.46	55.72	90	0	0	116.53	7.91	2.10	16.70	29	0.05
15-Dec-12	62.96	53.94	77.52	63.67	54.45	77.34	63.87	54.66	75.83	68.22	66.96	69.87	59.49	88	0	0	116.81	5.24	0.70	13.90	69	0.06
16-Dec-12	66.67	55.81	80.85	67.48	57.47	80.55	67.86	60.12	78.87	68.30	66.67	69.96	61.95	85	0	0	136.44	4.38	0.07	15.57	122	0.06
17-Dec-12	68.21	55.76	80.56	69.08	57.83	80.80	69.15	61.48	79.27	68.90	67.37	70.34	64.11	86	0	0	139.08	5.34	0.00	18.93	185	0.06
18-Dec-12	68.34	53.82	78.67	69.04	55.38	78.71	68.72	56.26	77.22	69.73	68.90	71.08	64.93	88	0	0	129.79	6.21	0.83	21.53	274	0.06
19-Dec-12	58.20	41.67	79.09	60.13	45.81	78.12	62.03	49.78	78.04	67.20	65.50	68.86	47.66	70	0	0	169.04	3.71	0.07	13.13	79	0.05
20-Dec-12	67.50	50.25	82.13	68.27	52.77	82.08	68.27	55.65	80.53	66.88	65.10	68.76	61.84	82	0.57	0.25	145.48	9.10	1.23	23.43	172	N/A
21-Dec-12	55.83	40.08	68.54	56.44	43.38	69.33	56.05	46.74	68.79	66.71	64.47	68.72	44.50	66	0.02	0.01	168.99	10.85	1.23	28.03	321	0.05
22-Dec-12	47.51	33.93	63.70	48.47	37.27	62.96	48.70	37.36	62.01	62.81	61.54	64.36	29.88	55	0	0	174.82	5.91	0.73	18.07	343	0.04
23-Dec-12	50.14	33.11	70.39	51.17	36.01	69.04	52.34	38.82	67.96	61.24	59.34	63.05	37.26	63	0	0	140.07	3.89	0.07	23.30	50	0.04
24-Dec-12	56.86	46.42	67.15	57.96	47.93	67.69	59.29	51.67	67.12	62.39	61.25	63.54	50.82	78	0	0	64.20	3.85	0.17	14.30	147	0.05
25-Dec-12	62.23	50.79	75.07	63.26	52.25	75.20	64.05	54.37	73.90	63.04	61.39	64.69	57.23	82	0	0	97.29	5.81	0.07	18.77	147	0.06
26-Dec-12	64.62	52.95	78.57	65.18	53.73	78.76	64.95	53.74	77.49	64.66	63.64	65.98	60.46	85	0.22	0.21	81.90	10.88	0.97	31.10	237	0.07
27-Dec-12	50.15	36.85	63.41	50.86	39.90	62.58	50.73	39.80	61.12	62.72	61.12	64.33	43.86	79	0	0	167.74	4.43	0.10	12.97	344	0.04
28-Dec-12	56.32	37.73	72.30	56.80	39.21	71.94	56.66	41.64	70.83	61.62	59.59	63.55	51.27	84	0.34	0.11	114.21	5.56	0.27	14.67	98	0.05
29-Dec-12	66.04	53.82	72.68	66.58	54.48	72.95	66.20	54.46	72.39	64.95	63.57	66.38	63.20	89	0.15	0.06	77.98	11.00	2.37	25.63	262	0.06
30-Dec-12	46.57	37.51	57.13	46.79	38.15	56.64	46.45	37.88	55.09	61.84	60.55	64.11	38.16	73	0	0	160.42	8.63	1.27	22.20	25	0.04
31-Dec-12	56.39	42.12	74.32	57.05	42.56	74.05	57.36	42.60	72.95	61.11	59.14	63.41	49.97	79	0	0	156.33	5.54	0.00	17.33	88	0.05

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Table B.1 (continued)
Monthly Recorded Meteorological Data
Wimauma, FL

Period	60cm Temp avg (F)	60cm Temp min (F)	60cm Temp max (F)	2m Temp avg (F)	2m Temp min (F)	2m Temp max (F)	10m Temp avg (F)	10m Temp min (F)	10m Temp max (F)	Tsoil avg - 10cm (F)	Tsoil min(a vg) - 10cm (F)	Tsoil max(a vg) - 10cm (F)	2m DewPt avg (F)	RelHum avg 2m (pct)	2m Rain tot (in)	2m Rain max over 15min (in)	SolRad avg 2m (w/m^2)	10m Wind avg (mph)	10m Wind min (mph)	10m Wind max (mph)	WDir avg 10m (deg)	ET (in)
1-Jan-13	61.47	48.29	77.20	62.51	49.95	76.91	63.79	53.38	75.63	62.47	60.53	64.69	56.16	82	0	0	142.02	4.40	0.00	18.73	169	0.06
2-Jan-13	65.56	53.60	79.93	66.18	55.29	78.98	66.52	58.66	77.32	63.99	62.17	66.15	62.00	88	0	0	119.87	4.98	0.00	16.00	233	0.06
3-Jan-13	65.74	56.98	78.96	65.85	58.32	78.62	65.59	58.21	77.14	65.88	64.71	67.44	63.11	92	0.13	0.03	79.69	4.68	0.07	18.77	88	0.06
4-Jan-13	58.44	55.35	63.21	58.45	55.26	63.18	58.12	55.13	62.24	65.33	64.76	66.45	57.00	95	0.01	0.01	42.11	7.06	1.53	15.60	35	0.04
5-Jan-13	64.51	55.58	76.53	64.61	55.69	75.63	64.12	55.54	74.25	65.46	64.11	67.08	58.79	82	0	0	117.37	6.33	1.33	15.63	55	0.06
6-Jan-13	67.83	58.68	80.73	68.09	59.70	80.29	67.80	61.30	79.16	67.09	65.50	69.10	65.11	91	0.03	0.02	112.32	5.27	0.00	16.67	89	0.07
7-Jan-13	62.16	59.31	65.71	62.37	59.58	66.06	62.10	58.89	65.95	66.91	66.07	68.07	59.68	91	0	0	36.62	8.07	2.47	20.97	45	0.04
8-Jan-13	69.74	59.72	82.65	70.05	60.35	82.45	69.65	60.48	81.03	67.01	65.26	69.24	64.74	85	0.04	0.02	152.74	7.19	1.10	16.27	79	0.07
9-Jan-13	73.78	65.73	85.10	74.43	66.61	84.94	74.03	67.57	83.41	68.91	67.69	70.50	67.88	82	0	0	128.63	8.68	2.70	22.13	114	0.08
10-Jan-13	72.31	64.72	81.88	72.95	65.70	82.04	72.57	66.24	80.44	69.46	68.41	70.48	66.18	81	0	0	122.46	8.71	1.80	23.67	109	0.07
11-Jan-13	70.52	61.29	82.87	71.21	62.87	82.60	71.02	63.97	80.56	69.29	67.71	70.90	65.09	83	0	0	151.31	7.35	1.17	21.40	121	0.08
12-Jan-13	70.35	60.08	82.78	71.07	61.52	82.62	71.11	63.41	81.00	69.47	68.07	70.92	64.07	80	0	0	141.12	7.04	0.63	23.13	115	0.07
13-Jan-13	70.18	60.57	81.99	70.88	61.70	81.43	70.89	62.29	80.28	69.71	68.16	71.22	63.93	80	0	0	136.40	5.80	0.03	15.83	130	0.07
14-Jan-13	67.35	57.87	80.71	68.29	59.40	80.22	68.85	60.19	79.70	69.49	68.11	70.79	61.39	81	0	0	128.68	5.08	0.00	20.13	127	N/A
15-Jan-13	67.81	53.85	82.06	68.47	55.67	81.37	69.11	59.59	80.10	68.84	67.03	70.68	62.15	82	0	0	144.48	4.32	0.20	16.20	126	0.07
16-Jan-13	68.28	55.94	83.64	69.07	58.14	82.27	69.63	61.81	81.01	69.45	67.87	71.01	61.53	80	0	0	148.89	4.27	0.00	16.67	164	0.07
17-Jan-13	60.71	55.00	72.28	61.24	55.09	72.64	61.49	54.97	71.74	68.12	66.96	69.24	57.81	89	0.04	0.01	49.69	8.64	0.00	26.00	259	0.06
18-Jan-13	52.86	38.45	64.45	52.68	38.91	63.63	52.21	38.87	61.93	65.53	63.97	66.88	46.50	80	0.01	0.01	132.96	9.23	1.60	22.83	21	0.05
19-Jan-13	62.78	52.70	74.79	62.94	52.84	74.39	62.61	52.84	72.79	65.98	64.67	67.46	56.07	79	0	0	122.00	9.38	1.67	23.57	48	0.07
20-Jan-13	64.46	58.23	75.34	64.76	58.35	74.77	64.57	58.37	73.18	66.94	65.86	68.34	60.05	85	0	0	102.85	6.29	1.20	17.03	52	0.06
21-Jan-13	64.42	58.53	75.00	64.79	59.14	74.10	64.46	59.16	73.26	67.48	66.47	68.79	58.94	82	0	0	92.03	4.88	0.07	15.93	355	0.06
22-Jan-13	56.75	46.44	66.49	57.49	49.32	66.56	57.46	50.68	65.19	66.15	65.14	67.46	42.30	60	0	0	104.70	6.62	0.97	19.03	18	0.06
23-Jan-13	54.15	41.77	71.33	55.14	42.90	70.39	55.54	43.51	69.22	64.24	62.53	65.95	36.56	54	0	0	183.92	5.40	0.50	17.10	21	0.06
24-Jan-13	55.37	37.34	73.40	56.31	40.90	72.19	57.07	43.48	70.83	63.56	61.54	65.66	45.08	70	0	0	178.56	5.01	0.23	16.80	356	0.06
25-Jan-13	58.29	41.75	75.70	59.10	42.87	75.06	59.82	47.21	74.01	63.94	61.95	66.15	49.15	74	0	0	179.77	4.11	0.33	14.97	356	0.07
26-Jan-13	58.31	40.81	75.96	59.26	43.27	74.62	60.25	46.71	73.22	64.07	61.90	66.27	51.96	80	0	0	181.40	3.73	0.13	12.70	355	0.07
27-Jan-13	61.96	45.90	78.13	63.08	48.42	78.12	63.94	52.03	76.59	64.56	62.58	66.60	54.13	76	0	0	183.22	6.35	0.90	18.53	74	0.08
28-Jan-13	66.90	54.52	81.03	67.46	56.07	80.64	67.71	58.75	79.23	65.69	64.02	67.59	60.90	82	0	0	129.62	7.19	1.57	19.07	91	0.08
29-Jan-13	68.91	56.46	82.13	69.56	58.14	82.11	69.76	60.13	80.76	67.09	65.48	68.79	63.89	84	0	0	127.84	6.41	1.03	20.60	127	0.08
30-Jan-13	71.00	63.25	82.22	71.48	63.88	81.82	70.98	64.18	79.99	68.27	66.96	69.76	64.99	82	0	0	174.63	12.67	2.73	30.80	173	0.10
31-Jan-13	57.55	40.23	68.67	57.83	43.55	69.26	57.36	45.43	69.04	67.86	65.79	69.01	44.19	66	0.04	0.01	193.88	7.81	0.93	27.57	335	0.07

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Appendix C: Sample Event 1 Water Quality Analytical Results

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Appendix D: Sample Event 1 Laboratory Report

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Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		STE						
Matrix		Wastewater						
SAL Sample Number		1214542-01						
Date/Time Collected		01/17/13 11:38						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH		7.38						
Temperature		23.3 °C						
Conductivity		1361 umhos						
Dissolved Oxygen		0.40 mg/L						

Inorganics

Ammonia as N	mg/L	41	EPA 350.1	1.0	0.24		01/28/13 10:47	25
Nitrate (as N)	mg/L	0.05	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Total Kjeldahl Nitrogen	mg/L	53	EPA 351.2	0.20	0.05	01/26/13 08:15	01/30/13 11:43	20.83
Nitrate+Nitrite (N)	mg/L	0.05 I	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description		STE-DUP						
Matrix		Wastewater						
SAL Sample Number		1214542-02						
Date/Time Collected		01/17/13 11:43						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH		7.38						
Temperature		23.3 °C						
Conductivity		1361 umhos						
Residual Chlorine		0.40 mg/L						

Inorganics

Ammonia as N	mg/L	40	EPA 350.1	1.0	0.24		01/28/13 10:47	25
Nitrate (as N)	mg/L	0.04	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Total Kjeldahl Nitrogen	mg/L	56	EPA 351.2	0.20	0.05	01/26/13 08:15	01/30/13 11:44	20.83
Nitrate+Nitrite (N)	mg/L	0.04 I	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description		PZ-01						
Matrix		Groundwater						
SAL Sample Number		1214542-03						
Date/Time Collected		01/17/13 11:27						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						



Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-01						
Matrix		Groundwater						
SAL Sample Number		1214542-03						
Date/Time Collected		01/17/13 11:27						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH		5.65						
Temperature		21.3 °C						
Conductivity		491 umhos						
Dissolved Oxygen		3.80 mg/L						

Inorganics

Ammonia as N	mg/L	0.048	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	51	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.33	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Phosphorous - Total as P	mg/L	0.086	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:06	1
Total Alkalinity	mg/L	23	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.2	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:15	1
Nitrate+Nitrite (N)	mg/L	0.33	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description		BKG-10						
Matrix		Groundwater						
SAL Sample Number		1214542-06						
Date/Time Collected		01/14/13 10:06						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		4.76						
Temperature		21.6 °C						
Conductivity		334 umhos						
Dissolved Oxygen		6.63 mg/L						

Inorganics

Ammonia as N	mg/L	0.16	EPA 350.1	0.040	0.009		01/25/13 11:08	1
Chemical Oxygen Demand	mg/L	75	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Chloride	mg/L	33	EPA 300.0	0.20	0.050		01/15/13 17:08	1
Fluoride	mg/L	0.21	EPA 300.0	0.040	0.010		01/15/13 17:08	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Orthophosphate as P	mg/L	0.082	EPA 300.0	0.040	0.010		01/15/13 17:08	1
Phosphorous - Total as P	mg/L	1.0	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:52	1
Sulfate	mg/L	52	EPA 300.0	0.60	0.20		01/15/13 17:08	1
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		BKG-10						
Matrix		Groundwater						
SAL Sample Number		1214542-06						
Date/Time Collected		01/14/13 10:06						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		4.76						
Temperature		21.6 °C						
Conductivity		334 umhos						
Dissolved Oxygen		6.63 mg/L						
Total Kjeldahl Nitrogen	mg/L	1.9	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 13:56	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/15/13 17:08	1

Metals

Boron	mg/L	0.070 I	EPA 200.7**	0.10	0.050	01/16/13 08:00	01/16/13 15:04	1
Calcium	mg/L	7.3	EPA 200.7	0.50	0.042	01/16/13 08:00	01/16/13 15:04	1
Iron	mg/L	0.72	EPA 200.7	0.10	0.020	01/16/13 08:00	01/16/13 15:04	1
Magnesium	mg/L	2.1	EPA 200.7	0.50	0.020	01/16/13 08:00	01/16/13 15:04	1
Manganese	mg/L	0.0017 I	EPA 200.7	0.010	0.0010	01/16/13 08:00	01/16/13 15:04	1
Potassium	mg/L	0.42	EPA 200.7	0.050	0.010	01/16/13 08:00	01/16/13 15:04	1
Sodium	mg/L	17	EPA 200.7	0.50	0.13	01/16/13 08:00	01/16/13 15:04	1

Sample Description		BKG-15						
Matrix		Groundwater						
SAL Sample Number		1214542-07						
Date/Time Collected		01/14/13 10:30						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		5.89						
Temperature		23.3 °C						
Conductivity		124 umhos						
Dissolved Oxygen		0.22 mg/L						

Inorganics

Ammonia as N	mg/L	0.54	EPA 350.1	0.040	0.009		01/25/13 11:10	1
Chemical Oxygen Demand	mg/L	87	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Phosphorous - Total as P	mg/L	1.9	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:53	1
Total Alkalinity	mg/L	34	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	3.0	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 13:58	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/15/13 17:08	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-AB4-08						
Matrix		Groundwater						
SAL Sample Number		1214542-11						
Date/Time Collected		01/14/13 10:59						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		6.09						
Temperature		23.1 °C						
Conductivity		331 umhos						
Dissolved Oxygen		1.80 mg/L						

Inorganics

Ammonia as N	mg/L	0.48	EPA 350.1	0.040	0.009		01/25/13 11:12	1
Chemical Oxygen Demand	mg/L	34	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Phosphorous - Total as P	mg/L	0.43	SM 4500P-E	0.040	0.010	01/19/13 09:36	01/23/13 13:25	1
Total Alkalinity	mg/L	4.2 I	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	0.96	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:00	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/15/13 17:08	1

Sample Description		PA-AB4-08-DUP						
Matrix		Groundwater						
SAL Sample Number		1214542-12						
Date/Time Collected		01/14/13 11:04						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		6.09						
Temperature		23.1 °C						
Conductivity		331 umhos						
Dissolved Oxygen		1.80 mg/L						

Inorganics

Ammonia as N	mg/L	0.52	EPA 350.1	0.040	0.009		01/25/13 12:28	1
Chemical Oxygen Demand	mg/L	36	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.07	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Phosphorous - Total as P	mg/L	0.46	SM 4500P-E	0.040	0.010	02/01/13 11:09	02/05/13 13:56	1
Total Alkalinity	mg/L	4.2 I	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	0.96	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:01	1
Nitrate+Nitrite (N)	mg/L	0.07 I	EPA 300.0	0.08	0.02		01/15/13 17:08	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-AB-4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-13						
Date/Time Collected		01/14/13 11:20						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH	7.24
Temperature	23.5 °C
Conductivity	456 umhos
Dissolved Oxygen	3.84 mg/L

Inorganics

Ammonia as N	mg/L	0.50	EPA 350.1	0.040	0.009		01/25/13 11:16	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.04	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Total Kjeldahl Nitrogen	mg/L	0.79	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:03	1
Nitrate+Nitrite (N)	mg/L	0.06 I	EPA 300.0	0.08	0.02		01/15/13 17:08	1

Sample Description	PZ-C1
Matrix	Groundwater
SAL Sample Number	1214542-14
Date/Time Collected	01/17/13 10:16
Collected by	Sean Schmidt
Date/Time Received	01/17/13 13:50

Client Provided Field Data

pH	5.69
Temperature	22.6 °C
Conductivity	810 umhos
Dissolved Oxygen	4.91 mg/L

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		01/28/13 13:26	1
Nitrate (as N)	mg/L	0.93	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Total Kjeldahl Nitrogen	mg/L	0.98	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:16	1
Nitrate+Nitrite (N)	mg/L	0.93	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description	PZ-C2
Matrix	Groundwater
SAL Sample Number	1214542-15
Date/Time Collected	01/17/13 10:46
Collected by	Sean Schmidt
Date/Time Received	01/17/13 13:50



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-C2						
Matrix		Groundwater						
SAL Sample Number		1214542-15						
Date/Time Collected		01/17/13 10:46						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH	5.89
Temperature	23.0 °C
Conductivity	157.3 umhos
Dissolved Oxygen	0.30 mg/L

Inorganics

Ammonia as N	mg/L	0.43	EPA 350.1	0.040	0.009		01/28/13 13:28	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:18	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description	PZ-C3-08
Matrix	Groundwater
SAL Sample Number	1214542-16
Date/Time Collected	01/14/13 11:50
Collected by	Sean Schmidt
Date/Time Received	01/14/13 15:25

Client Provided Field Data

pH	5.15
Temperature	23.0 °C
Conductivity	438 umhos
Dissolved Oxygen	1.05 mg/L

Inorganics

Ammonia as N	mg/L	0.24	EPA 350.1	0.040	0.009		01/23/13 14:19	1
Nitrate (as N)	mg/L	0.08	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/15/13 17:08	1
Total Kjeldahl Nitrogen	mg/L	0.86	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:05	1
Nitrate+Nitrite (N)	mg/L	0.08	EPA 300.0	0.08	0.02		01/15/13 17:08	1

Sample Description	PZ-C3-15
Matrix	Groundwater
SAL Sample Number	1214542-17
Date/Time Collected	01/14/13 12:08
Collected by	Sean Schmidt
Date/Time Received	01/14/13 15:25

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-C3-15						
Matrix		Groundwater						
SAL Sample Number		1214542-17						
Date/Time Collected		01/14/13 12:08						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH	6.82
Temperature	23.9 °C
Conductivity	489 umhos
Dissolved Oxygen	1.36 mg/L

Inorganics

Ammonia as N	mg/L	0.33	EPA 350.1	0.040	0.009		01/23/13 14:21	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Total Kjeldahl Nitrogen	mg/L	0.57	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:06	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/16/13 01:55	1

Sample Description	PZ-C6-08
Matrix	Groundwater
SAL Sample Number	1214542-18
Date/Time Collected	01/15/13 11:37
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	4.23
Temperature	22.5 °C
Conductivity	649 umhos
Dissolved Oxygen	2.35 mg/L

Inorganics

Ammonia as N	mg/L	0.17	EPA 350.1	0.040	0.009		01/25/13 11:18	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	0.93	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 15:53	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description	PZ-C6-15
Matrix	Groundwater
SAL Sample Number	1214542-19
Date/Time Collected	01/15/13 11:57
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-C6-15						
Matrix		Groundwater						
SAL Sample Number		1214542-19						
Date/Time Collected		01/15/13 11:57						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		5.77						
Temperature		23.2 °C						
Conductivity		391 umhos						
Dissolved Oxygen		1.99 mg/L						

Inorganics

Ammonia as N	mg/L	0.18	EPA 350.1	0.040	0.009		01/25/13 11:20	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	0.78	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 15:55	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description		PZ-D3-08						
Matrix		Groundwater						
SAL Sample Number		1214542-20						
Date/Time Collected		01/14/13 12:24						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		5.33						
Temperature		23.0 °C						
Conductivity		385 umhos						
Dissolved Oxygen		0.78 mg/L						

Inorganics

Ammonia as N	mg/L	0.10	EPA 350.1	0.040	0.009		01/23/13 14:23	1
Chemical Oxygen Demand	mg/L	42	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.51	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Phosphorous - Total as P	mg/L	0.46	SM 4500P-E	0.040	0.010	01/16/13 11:09	01/23/13 13:57	1
Total Alkalinity	mg/L	11	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	0.88	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:08	1
Nitrate+Nitrite (N)	mg/L	0.51	EPA 300.0	0.08	0.02		01/16/13 01:55	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-D3-15						
Matrix		Groundwater						
SAL Sample Number		1214542-21						
Date/Time Collected		01/14/13 12:44						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		6.14						
Temperature		23.8 °C						
Conductivity		811 umhos						
Dissolved Oxygen		1.70 mg/L						

Inorganics

Ammonia as N	mg/L	0.91	EPA 350.1	0.040	0.009		01/23/13 13:14	1
Chemical Oxygen Demand	mg/L	59	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Phosphorous - Total as P	mg/L	5.5	SM 4500P-E	0.40	0.10	01/16/13 11:09	01/23/13 15:06	10
Total Alkalinity	mg/L	160	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	1.9	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:10	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/16/13 01:55	1

Sample Description		PZ-D4-08						
Matrix		Groundwater						
SAL Sample Number		1214542-22						
Date/Time Collected		01/15/13 10:22						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		5.25						
Temperature		21.9 °C						
Conductivity		510 umhos						
Dissolved Oxygen		0.70 mg/L						

Inorganics

Ammonia as N	mg/L	0.14	EPA 350.1	0.040	0.009		01/25/13 11:30	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	0.69	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 15:56	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/16/13 17:41	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-D4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-23						
Date/Time Collected		01/15/13 10:41						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		6.87						
Temperature		23.0 °C						
Conductivity		950 umhos						
Dissolved Oxygen		1.05 mg/L						

Inorganics

Ammonia as N	mg/L	0.35	EPA 350.1	0.040	0.009		01/25/13 11:32	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	0.91	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 15:58	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description		PZ-E1						
Matrix		Groundwater						
SAL Sample Number		1214542-24						
Date/Time Collected		01/17/13 09:49						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH		5.70						
Temperature		22.6 °C						
Conductivity		176.6 umhos						
Dissolved Oxygen		3.57 mg/L						

Inorganics

Ammonia as N	mg/L	0.45	EPA 350.1	0.040	0.009		01/28/13 13:30	1
Chemical Oxygen Demand	mg/L	42	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Phosphorous - Total as P	mg/L	1.7	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:07	1
Total Alkalinity	mg/L	18	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:20	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/18/13 17:51	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E2						
Matrix		Groundwater						
SAL Sample Number		1214542-25						
Date/Time Collected		01/17/13 11:08						
Collected by		Sean Schmidt						
Date/Time Received		01/17/13 13:50						

Client Provided Field Data

pH		5.90						
Temperature		21.7 °C						
Conductivity		1945 umhos						
Dissolved Oxygen		4.90 mg/L						

Inorganics

Ammonia as N	mg/L	0.43	EPA 350.1	0.040	0.009		01/28/13 13:32	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/18/13 17:51	1
Total Kjeldahl Nitrogen	mg/L	0.98	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:21	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/18/13 17:51	1

Sample Description		PZ-E3-08						
Matrix		Groundwater						
SAL Sample Number		1214542-26						
Date/Time Collected		01/14/13 13:07						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		5.62						
Temperature		22.7 °C						
Conductivity		728 umhos						
Dissolved Oxygen		0.73 mg/L						

Inorganics

Ammonia as N	mg/L	0.14	EPA 350.1	0.040	0.009		01/23/13 14:47	1
Chemical Oxygen Demand	mg/L	59	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	1.0	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Phosphorous - Total as P	mg/L	0.88	SM 4500P-E	0.040	0.010	01/16/13 11:09	01/23/13 13:59	1
Total Alkalinity	mg/L	30	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	0.95	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:11	1
Nitrate+Nitrite (N)	mg/L	1.0	EPA 300.0	0.08	0.02		01/16/13 01:55	1

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E3-08-DUP						
Matrix		Groundwater						
SAL Sample Number		1214542-27						
Date/Time Collected		01/14/13 13:12						
Collected by		Sean Schmidt						
Date/Time Received		01/14/13 15:25						

Client Provided Field Data

pH		5.62
Temperature		22.7 °C
Conductivity		728 umhos
Dissolved Oxygen		0.73 mg/L

Inorganics

Ammonia as N	mg/L	0.14	EPA 350.1	0.040	0.009		01/23/13 14:48	1
Chemical Oxygen Demand	mg/L	51	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	1.0	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Phosphorous - Total as P	mg/L	0.79	SM 4500P-E	0.040	0.010	01/16/13 11:09	01/23/13 14:00	1
Total Alkalinity	mg/L	31	SM 2320B	8.0	2.0	01/17/13 14:00	01/17/13 16:04	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:20	1
Nitrate+Nitrite (N)	mg/L	1.0	EPA 300.0	0.08	0.02		01/16/13 01:55	1

Sample Description		PZ-E3-15
Matrix		Groundwater
SAL Sample Number		1214542-28
Date/Time Collected		01/14/13 13:30
Collected by		Sean Schmidt
Date/Time Received		01/14/13 15:25

Client Provided Field Data

pH		6.57
Temperature		24.6 °C
Conductivity		331 umhos
Dissolved Oxygen		4.23 mg/L

Inorganics

Ammonia as N	mg/L	0.35	EPA 350.1	0.040	0.009		01/23/13 13:20	1
Chemical Oxygen Demand	mg/L	63	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 01:55	1
Phosphorous - Total as P	mg/L	3.7	SM 4500P-E	0.080	0.020	01/16/13 11:09	01/23/13 14:44	2
Total Alkalinity	mg/L	83	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.2	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:21	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/16/13 01:55	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E4-08						
Matrix		Groundwater						
SAL Sample Number		1214542-29						
Date/Time Collected		01/15/13 09:50						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		5.29						
Temperature		21.6 °C						
Conductivity		632 umhos						
Dissolved Oxygen		0.74 mg/L						

Inorganics

Ammonia as N	mg/L	0.034 I	EPA 350.1	0.040	0.009		01/25/13 11:34	1
Chemical Oxygen Demand	mg/L	44	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Chloride	mg/L	29	EPA 300.0	0.20	0.050		01/16/13 17:41	1
Fluoride	mg/L	0.26	EPA 300.0	0.040	0.010		01/16/13 17:41	1
Nitrate (as N)	mg/L	0.21	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/16/13 17:41	1
Phosphorous - Total as P	mg/L	0.067	SM 4500P-E	0.040	0.010	01/23/13 14:35	01/25/13 11:51	1
Sulfate	mg/L	210	EPA 300.0	0.60	0.20		01/25/13 14:46	1
Total Alkalinity	mg/L	4.2 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.55	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:00	1
Nitrate+Nitrite (N)	mg/L	0.21	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Metals

Boron	mg/L	0.16	EPA 200.7**	0.10	0.050	01/16/13 08:00	01/16/13 15:08	1
Calcium	mg/L	46	EPA 200.7	0.50	0.042	01/16/13 08:00	01/16/13 15:08	1
Iron	mg/L	0.16	EPA 200.7	0.10	0.020	01/16/13 08:00	01/16/13 15:08	1
Magnesium	mg/L	26	EPA 200.7	0.50	0.020	01/16/13 08:00	01/16/13 15:08	1
Manganese	mg/L	0.0045 I	EPA 200.7	0.010	0.0010	01/16/13 08:00	01/16/13 15:08	1
Potassium	mg/L	4.0	EPA 200.7	0.050	0.010	01/16/13 08:00	01/16/13 15:08	1
Sodium	mg/L	16	EPA 200.7	0.50	0.13	01/16/13 08:00	01/16/13 15:08	1

Sample Description		PZ-E4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-30						
Date/Time Collected		01/15/13 10:13						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		6.73						
Temperature		22.7 °C						
Conductivity		517 umhos						

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-30						
Date/Time Collected		01/15/13 10:13						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH	6.73
Temperature	22.7 °C
Conductivity	517 umhos
Dissolved Oxygen	1.02 mg/L

Inorganics

Ammonia as N	mg/L	0.36	EPA 350.1	0.040	0.009		01/25/13 11:36	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	0.99	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:01	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description	PZ-E5-08
Matrix	Groundwater
SAL Sample Number	1214542-31
Date/Time Collected	01/15/13 10:56
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	5.01
Temperature	22.6 °C
Conductivity	552 umhos
Dissolved Oxygen	0.72 mg/L

Inorganics

Ammonia as N	mg/L	0.19	EPA 350.1	0.040	0.009		01/25/13 11:38	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:10	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description	PZ-E5-15
Matrix	Groundwater
SAL Sample Number	1214542-32
Date/Time Collected	01/15/13 11:17
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E5-15						
Matrix		Groundwater						
SAL Sample Number		1214542-32						
Date/Time Collected		01/15/13 11:17						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH	6.73
Temperature	23.4 °C
Conductivity	820 umhos
Dissolved Oxygen	1.15 mg/L

Inorganics

Ammonia as N	mg/L	0.22	EPA 350.1	0.040	0.009		01/25/13 11:40	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/16/13 17:41	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:11	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/16/13 17:41	1

Sample Description	PZ-E6-08
Matrix	Groundwater
SAL Sample Number	1214542-33
Date/Time Collected	01/15/13 12:15
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	4.99
Temperature	22.5 °C
Conductivity	501 umhos
Dissolved Oxygen	2.32 mg/L

Inorganics

Ammonia as N	mg/L	0.16	EPA 350.1	0.040	0.009		01/25/13 11:42	1
Nitrate (as N)	mg/L	0.05	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:13	1
Nitrate+Nitrite (N)	mg/L	0.05 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-E6-15
Matrix	Groundwater
SAL Sample Number	1214542-34
Date/Time Collected	01/15/13 12:36
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E6-15						
Matrix		Groundwater						
SAL Sample Number		1214542-34						
Date/Time Collected		01/15/13 12:36						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH	5.44
Temperature	23.3 °C
Conductivity	380 umhos
Dissolved Oxygen	3.05 mg/L

Inorganics

Ammonia as N	mg/L	0.69	EPA 350.1	0.040	0.009		01/25/13 11:44	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	2.1	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:15	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-E7-08
Matrix	Groundwater
SAL Sample Number	1214542-35
Date/Time Collected	01/15/13 13:51
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	4.98
Temperature	22.9 °C
Conductivity	398 umhos
Dissolved Oxygen	3.18 mg/L

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		01/25/13 11:46	1
Chemical Oxygen Demand	mg/L	36	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Chloride	mg/L	17	EPA 300.0	0.20	0.050		01/17/13 02:28	1
Fluoride	mg/L	0.14	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Nitrate (as N)	mg/L	0.42	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.026 I	SM 4500P-E	0.040	0.010	01/23/13 14:35	01/25/13 11:51	1
Sulfate	mg/L	130	EPA 300.0	0.60	0.20		01/26/13 11:23	1
Total Alkalinity	mg/L	3.2 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:16	1
Nitrate+Nitrite (N)	mg/L	0.42	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Metals

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E7-08						
Matrix		Groundwater						
SAL Sample Number		1214542-35						
Date/Time Collected		01/15/13 13:51						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		4.98						
Temperature		22.9 °C						
Conductivity		398 umhos						
Dissolved Oxygen		3.18 mg/L						
Boron	mg/L	0.15	EPA 200.7**	0.10	0.050	01/16/13 08:00	01/16/13 15:11	1
Calcium	mg/L	29	EPA 200.7	0.50	0.042	01/16/13 08:00	01/16/13 15:11	1
Iron	mg/L	0.25	EPA 200.7	0.10	0.020	01/16/13 08:00	01/16/13 15:11	1
Magnesium	mg/L	14	EPA 200.7	0.50	0.020	01/16/13 08:00	01/16/13 15:11	1
Manganese	mg/L	0.0041 I	EPA 200.7	0.010	0.0010	01/16/13 08:00	01/16/13 15:11	1
Potassium	mg/L	4.3	EPA 200.7	0.050	0.010	01/16/13 08:00	01/16/13 15:11	1
Sodium	mg/L	14	EPA 200.7	0.50	0.13	01/16/13 08:00	01/16/13 15:11	1

Sample Description		PZ-E7-08-DUP						
Matrix		Groundwater						
SAL Sample Number		1214542-36						
Date/Time Collected		01/15/13 13:56						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		4.98						
Temperature		22.9 °C						
Conductivity		398 umhos						
Dissolved Oxygen		3.18 mg/L						

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		01/25/13 11:48	1
Chemical Oxygen Demand	mg/L	36	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Chloride	mg/L	17	EPA 300.0	0.20	0.050		01/17/13 02:28	1
Fluoride	mg/L	0.10	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Nitrate (as N)	mg/L	0.40	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.032 I	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:54	1
Sulfate	mg/L	130	EPA 300.0	0.60	0.20		01/26/13 11:23	1
Total Alkalinity	mg/L	3.2 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:18	1
Nitrate+Nitrite (N)	mg/L	0.40	EPA 300.0	0.08	0.02		01/17/13 02:28	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-E7-08-DUP						
Matrix		Groundwater						
SAL Sample Number		1214542-36						
Date/Time Collected		01/15/13 13:56						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH	4.98
Temperature	22.9 °C
Conductivity	398 umhos
Dissolved Oxygen	3.18 mg/L

Metals

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Boron	mg/L	0.16	EPA 200.7**	0.10	0.050	01/16/13 08:00	01/16/13 15:14	1
Calcium	mg/L	29	EPA 200.7	0.50	0.042	01/16/13 08:00	01/16/13 15:14	1
Iron	mg/L	0.25	EPA 200.7	0.10	0.020	01/16/13 08:00	01/16/13 15:14	1
Magnesium	mg/L	13	EPA 200.7	0.50	0.020	01/16/13 08:00	01/16/13 15:14	1
Manganese	mg/L	0.0041 I	EPA 200.7	0.010	0.0010	01/16/13 08:00	01/16/13 15:14	1
Potassium	mg/L	4.2	EPA 200.7	0.050	0.010	01/16/13 08:00	01/16/13 15:14	1
Sodium	mg/L	14	EPA 200.7	0.50	0.13	01/16/13 08:00	01/16/13 15:14	1

Sample Description	PZ-E7-15
Matrix	Groundwater
SAL Sample Number	1214542-37
Date/Time Collected	01/15/13 13:16
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	7.14
Temperature	23.5 °C
Conductivity	1740 umhos
Dissolved Oxygen	3.93 mg/L

Inorganics

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Ammonia as N	mg/L	0.46	EPA 350.1	0.040	0.009		01/25/13 11:53	1
Chemical Oxygen Demand	mg/L	71	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.16	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:54	1
Total Alkalinity	mg/L	250	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.3	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:20	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
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February 8, 2013
Work Order: 1214542

Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-F3-15						
Matrix		Groundwater						
SAL Sample Number		1214542-39						
Date/Time Collected		01/15/13 08:50						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		6.84
Temperature		22.1 °C
Conductivity		353 umhos
Dissolved Oxygen		4.16 mg/L

Inorganics

Ammonia as N	mg/L	0.32	EPA 350.1	0.040	0.009		01/25/13 11:55	1
Chemical Oxygen Demand	mg/L	49	EPA 410.4	25	10	01/17/13 10:30	01/17/13 13:00	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	1.5	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:55	1
Total Alkalinity	mg/L	93	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.82	EPA 351.2	0.20	0.05	01/15/13 15:46	01/17/13 16:46	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description		PZ-F4-08
Matrix		Groundwater
SAL Sample Number		1214542-40
Date/Time Collected		01/15/13 09:05
Collected by		Sean Schmidt
Date/Time Received		01/15/13 15:15

Client Provided Field Data

pH		5.53
Temperature		20.4 °C
Conductivity		813 umhos
Dissolved Oxygen		5.49 mg/L

Inorganics

Ammonia as N	mg/L	0.014 I	EPA 350.1	0.040	0.009		01/25/13 13:55	1
Chemical Oxygen Demand	mg/L	53	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Chloride	mg/L	35	EPA 300.0	0.20	0.050		01/26/13 11:23	1
Fluoride	mg/L	0.060	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Nitrate (as N)	mg/L	4.2	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.08	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.047	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:56	1
Sulfate	mg/L	280	EPA 300.0	0.60	0.20		01/26/13 11:23	1
Total Alkalinity	mg/L	8.4	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-F4-08						
Matrix		Groundwater						
SAL Sample Number		1214542-40						
Date/Time Collected		01/15/13 09:05						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		5.53						
Temperature		20.4 °C						
Conductivity		813 umhos						
Dissolved Oxygen		5.49 mg/L						
Total Kjeldahl Nitrogen	mg/L	2.0	EPA 351.2	0.20	0.05	01/15/13 15:46	01/17/13 16:48	1
Nitrate+Nitrite (N)	mg/L	4.3	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Metals

Boron	mg/L	0.34	EPA 200.7**	0.10	0.050	01/16/13 08:00	01/16/13 15:18	1
Calcium	mg/L	66	EPA 200.7	0.50	0.042	01/16/13 08:00	01/16/13 15:18	1
Iron	mg/L	0.12	EPA 200.7	0.10	0.020	01/16/13 08:00	01/16/13 15:18	1
Magnesium	mg/L	33	EPA 200.7	0.50	0.020	01/16/13 08:00	01/16/13 15:18	1
Manganese	mg/L	0.0073 I	EPA 200.7	0.010	0.0010	01/16/13 08:00	01/16/13 15:18	1
Potassium	mg/L	6.1	EPA 200.7	0.050	0.010	01/16/13 08:00	01/16/13 15:18	1
Sodium	mg/L	30	EPA 200.7	0.50	0.13	01/16/13 08:00	01/16/13 15:18	1

Sample Description		PZ-F4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-41						
Date/Time Collected		01/15/13 09:32						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		7.14						
Temperature		22.2 °C						
Conductivity		1287 umhos						
Dissolved Oxygen		5.08 mg/L						

Inorganics

Ammonia as N	mg/L	0.44	EPA 350.1	0.040	0.009		01/25/13 13:57	1
Chemical Oxygen Demand	mg/L	61	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.36	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:57	1
Total Alkalinity	mg/L	200	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.3	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:21	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-G2-12.5						
Matrix		Groundwater						
SAL Sample Number		1214542-43						
Date/Time Collected		01/16/13 10:02						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH	4.70
Temperature	22.4 °C
Conductivity	570 umhos
Dissolved Oxygen	1.40 mg/L

Inorganics

Ammonia as N	mg/L	0.046	EPA 350.1	0.040	0.009		01/25/13 13:59	1
Nitrate (as N)	mg/L	0.52	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	0.86	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:23	1
Nitrate+Nitrite (N)	mg/L	0.52	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-H4-08
Matrix	Groundwater
SAL Sample Number	1214542-44
Date/Time Collected	01/15/13 13:33
Collected by	Sean Schmidt
Date/Time Received	01/15/13 15:15

Client Provided Field Data

pH	5.21
Temperature	23.0 °C
Conductivity	559 umhos
Dissolved Oxygen	4.17 mg/L

Inorganics

Ammonia as N	mg/L	0.010 I	EPA 350.1	0.040	0.009		01/25/13 14:01	1
Chemical Oxygen Demand	mg/L	36	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	1.3	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.22	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:58	1
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.15 I	EPA 351.2	0.20	0.05	01/15/13 15:39	01/17/13 16:23	1
Nitrate+Nitrite (N)	mg/L	1.3	EPA 300.0	0.08	0.02		01/17/13 02:28	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-H4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-45						
Date/Time Collected		01/15/13 13:48						
Collected by		Sean Schmidt						
Date/Time Received		01/15/13 15:15						

Client Provided Field Data

pH		7.01
Temperature		23.5 °C
Conductivity		858 umhos
Dissolved Oxygen		5.61 mg/L

Inorganics

Ammonia as N	mg/L	0.53	EPA 350.1	0.040	0.009		01/25/13 14:03	1
Chemical Oxygen Demand	mg/L	69	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	1.6	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 14:59	1
Total Alkalinity	mg/L	150	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/15/13 15:46	01/17/13 16:49	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description		PZ-H4-15-DUP
Matrix		Groundwater
SAL Sample Number		1214542-46
Date/Time Collected		01/15/13 13:53
Collected by		Sean Schmidt
Date/Time Received		01/15/13 15:15

Client Provided Field Data

pH		7.01
Temperature		23.5 °C
Conductivity		858 umhos
Dissolved Oxygen		5.61 mg/L

Inorganics

Ammonia as N	mg/L	0.50	EPA 350.1	0.040	0.009		01/25/13 14:05	1
Chemical Oxygen Demand	mg/L	65	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	1.5	SM 4500P-E	0.040	0.010	01/19/13 09:38	01/24/13 15:00	1
Total Alkalinity	mg/L	150	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/15/13 15:46	01/17/13 16:51	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

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Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-H5-11.5						
Matrix		Groundwater						
SAL Sample Number		1214542-47						
Date/Time Collected		01/16/13 10:48						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH	4.55
Temperature	22.2 °C
Conductivity	441 umhos
Dissolved Oxygen	1.27 mg/L

Inorganics

Ammonia as N	mg/L	0.37	EPA 350.1	0.040	0.009		01/25/13 14:07	1
Nitrate (as N)	mg/L	1.1	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/23/13 14:48	01/25/13 10:25	1
Nitrate+Nitrite (N)	mg/L	1.1	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-I6-08
Matrix	Groundwater
SAL Sample Number	1214542-48
Date/Time Collected	01/16/13 11:10
Collected by	Sean Schmidt
Date/Time Received	01/16/13 15:35

Client Provided Field Data

pH	5.04
Temperature	22.5 °C
Conductivity	385 umhos
Dissolved Oxygen	0.20 mg/L

Inorganics

Ammonia as N	mg/L	0.52	EPA 350.1	0.040	0.009		01/25/13 14:09	1
Chloride	mg/L	21	EPA 300.0	0.20	0.050		01/17/13 02:28	1
Fluoride	mg/L	0.22	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Nitrate (as N)	mg/L	0.20	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Sulfate	mg/L	110	EPA 300.0	0.60	0.20		01/26/13 19:53	1
Total Alkalinity	mg/L	3.2 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.5	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:46	1
Nitrate+Nitrite (N)	mg/L	0.20	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Metals

Boron	mg/L	0.13	EPA 200.7**	0.10	0.050	01/17/13 09:02	01/17/13 16:15	1
Calcium	mg/L	29	EPA 200.7	0.50	0.042	01/17/13 09:02	01/17/13 16:15	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-I6-08						
Matrix		Groundwater						
SAL Sample Number		1214542-48						
Date/Time Collected		01/16/13 11:10						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.04						
Temperature		22.5 °C						
Conductivity		385 umhos						
Dissolved Oxygen		0.20 mg/L						
Iron	mg/L	1.1	EPA 200.7	0.10	0.020	01/17/13 09:02	01/21/13 12:19	1
Magnesium	mg/L	15	EPA 200.7	0.50	0.020	01/17/13 09:02	01/17/13 16:15	1
Manganese	mg/L	0.015	EPA 200.7	0.010	0.0010	01/17/13 09:02	01/17/13 16:15	1
Potassium	mg/L	2.6	EPA 200.7	0.050	0.010	01/17/13 09:02	01/17/13 16:15	1
Sodium	mg/L	14	EPA 200.7	0.50	0.13	01/17/13 09:02	01/17/13 16:15	1

Sample Description		PZ-I6-15						
Matrix		Groundwater						
SAL Sample Number		1214542-49						
Date/Time Collected		01/16/13 11:33						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		6.90						
Temperature		23.4 °C						
Conductivity		1849 umhos						
Dissolved Oxygen		0.18 mg/L						
Inorganics								
Ammonia as N	mg/L	0.38	EPA 350.1	0.040	0.009		01/25/13 14:12	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:48	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description		PZ-I10-08						
Matrix		Groundwater						
SAL Sample Number		1214542-50						
Date/Time Collected		01/16/13 12:15						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#2

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-110-08						
Matrix		Groundwater						
SAL Sample Number		1214542-50						
Date/Time Collected		01/16/13 12:15						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH	5.29
Temperature	22.9 °C
Conductivity	460 umhos
Dissolved Oxygen	0.51 mg/L

Inorganics

Ammonia as N	mg/L	0.045	EPA 350.1	0.040	0.009		01/25/13 14:14	1
Chemical Oxygen Demand	mg/L	34	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.86	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.050	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:08	1
Total Alkalinity	mg/L	13	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.68	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:50	1
Nitrate+Nitrite (N)	mg/L	0.86	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-110-08-DUP
Matrix	Groundwater
SAL Sample Number	1214542-51
Date/Time Collected	01/16/13 12:20
Collected by	Sean Schmidt
Date/Time Received	01/16/13 15:35

Client Provided Field Data

pH	5.29
Temperature	22.9 °C
Conductivity	460 umhos
Dissolved Oxygen	0.51 mg/L

Inorganics

Ammonia as N	mg/L	0.044	EPA 350.1	0.040	0.009		01/25/13 14:24	1
Chemical Oxygen Demand	mg/L	30	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.84	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.055	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:09	1
Total Alkalinity	mg/L	13	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.68	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:51	1
Nitrate+Nitrite (N)	mg/L	0.84	EPA 300.0	0.08	0.02		01/17/13 02:28	1

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Laboratory Report

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-I10-15						
Matrix		Groundwater						
SAL Sample Number		1214542-52						
Date/Time Collected		01/16/13 12:30						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH	6.85
Temperature	23.1 °C
Conductivity	734 umhos
Dissolved Oxygen	0.79 mg/L

Inorganics

Ammonia as N	mg/L	0.55	EPA 350.1	0.040	0.009		01/25/13 14:26	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Total Kjeldahl Nitrogen	mg/L	0.93	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:53	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Sample Description	PZ-J4-15
Matrix	Groundwater
SAL Sample Number	1214542-54
Date/Time Collected	01/16/13 10:29
Collected by	Sean Schmidt
Date/Time Received	01/16/13 15:35

Client Provided Field Data

pH	6.47
Temperature	23.0 °C
Conductivity	585 umhos
Dissolved Oxygen	0.36 mg/L

Inorganics

Ammonia as N	mg/L	0.64	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	65	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.13	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.74	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:10	1
Total Alkalinity	mg/L	100	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.5	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:55	1
Nitrate+Nitrite (N)	mg/L	0.13	EPA 300.0	0.08	0.02		01/17/13 02:28	1



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-J7-08						
Matrix		Groundwater						
SAL Sample Number		1214542-55						
Date/Time Collected		01/16/13 11:48						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.07						
Temperature		22.8 °C						
Conductivity		299 umhos						
Dissolved Oxygen		0.78 mg/L						

Inorganics

Ammonia as N	mg/L	0.18	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	38	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Chloride	mg/L	19	EPA 300.0	0.20	0.050		01/17/13 02:28	1
Fluoride	mg/L	0.11	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Nitrate (as N)	mg/L	0.09	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 02:28	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 02:28	1
Phosphorous - Total as P	mg/L	0.065	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:11	1
Sulfate	mg/L	84	EPA 300.0	0.60	0.20		01/17/13 02:28	1
Total Alkalinity	mg/L	7.4 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	1.0	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:56	1
Nitrate+Nitrite (N)	mg/L	0.09	EPA 300.0	0.08	0.02		01/17/13 02:28	1

Metals

Boron	mg/L	0.11	EPA 200.7**	0.10	0.050	01/17/13 09:02	01/17/13 16:57	1
Calcium	mg/L	22	EPA 200.7	0.50	0.042	01/17/13 09:02	01/17/13 16:57	1
Iron	mg/L	0.35	EPA 200.7	0.10	0.020	01/17/13 09:02	01/21/13 12:22	1
Magnesium	mg/L	11	EPA 200.7	0.50	0.020	01/17/13 09:02	01/17/13 16:57	1
Manganese	mg/L	0.0033 I	EPA 200.7	0.010	0.0010	01/17/13 09:02	01/17/13 16:57	1
Potassium	mg/L	2.0	EPA 200.7	0.050	0.010	01/17/13 09:02	01/17/13 16:57	1
Sodium	mg/L	11	EPA 200.7	0.50	0.13	01/17/13 09:02	01/17/13 16:57	1

Sample Description		PZ-J7-15						
Matrix		Groundwater						
SAL Sample Number		1214542-56						
Date/Time Collected		01/16/13 12:00						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.30						
Temperature		23.5 °C						
Conductivity		415 umhos						

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-J7-15						
Matrix		Groundwater						
SAL Sample Number		1214542-56						
Date/Time Collected		01/16/13 12:00						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.30
Temperature		23.5 °C
Conductivity		415 umhos
Dissolved Oxygen		1.06 mg/L

Inorganics

Ammonia as N	mg/L	0.85	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Total Kjeldahl Nitrogen	mg/L	4.9	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 14:58	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		PZ-N4-08
Matrix		Groundwater
SAL Sample Number		1214542-57
Date/Time Collected		01/16/13 13:58
Collected by		Sean Schmidt
Date/Time Received		01/16/13 15:35

Client Provided Field Data

pH		5.67
Temperature		22.9 °C
Conductivity		280 umhos
Dissolved Oxygen		4.27 mg/L

Inorganics

Ammonia as N	mg/L	0.19	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	34	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Phosphorous - Total as P	mg/L	0.096	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:12	1
Total Alkalinity	mg/L	17	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.49	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 15:00	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/17/13 10:41	1



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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-N4-15						
Matrix		Groundwater						
SAL Sample Number		1214542-58						
Date/Time Collected		01/16/13 14:22						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		6.69						
Temperature		23.1 °C						
Conductivity		726 umhos						
Dissolved Oxygen		0.38 mg/L						

Inorganics

Ammonia as N	mg/L	0.49	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Total Kjeldahl Nitrogen	mg/L	1.5	EPA 351.2	0.20	0.05	01/19/13 09:27	01/23/13 15:01	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		PZ-N7-08						
Matrix		Groundwater						
SAL Sample Number		1214542-59						
Date/Time Collected		01/16/13 13:35						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.96						
Temperature		24.4 °C						
Conductivity		454 umhos						
Dissolved Oxygen		1.04 mg/L						

Inorganics

Ammonia as N	mg/L	3.0	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Total Kjeldahl Nitrogen	mg/L	3.8	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 15:46	20.83
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		PZ-N7-15						
Matrix		Groundwater						
SAL Sample Number		1214542-60						
Date/Time Collected		01/16/13 13:45						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-N7-15						
Matrix		Groundwater						
SAL Sample Number		1214542-60						
Date/Time Collected		01/16/13 13:45						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.73						
Temperature		23.9 °C						
Conductivity		259 umhos						
Dissolved Oxygen		0.31 mg/L						

Inorganics

Ammonia as N	mg/L	0.50	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Nitrate (as N)	mg/L	0.26	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Total Kjeldahl Nitrogen	mg/L	1.6	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:25	1
Nitrate+Nitrite (N)	mg/L	0.26	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		PZ-N10-08						
Matrix		Groundwater						
SAL Sample Number		1214542-61						
Date/Time Collected		01/16/13 13:06						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		6.40						
Temperature		23.5 °C						
Conductivity		502 umhos						
Dissolved Oxygen		0.33 mg/L						

Inorganics

Ammonia as N	mg/L	1.2	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	34	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Phosphorous - Total as P	mg/L	0.33	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:57	1
Total Alkalinity	mg/L	62	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	2.5	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:26	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-N10-08-DUP						
Matrix		Groundwater						
SAL Sample Number		1214542-62						
Date/Time Collected		01/16/13 13:11						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		6.40						
Temperature		23.5 °C						
Conductivity		502 umhos						
Dissolved Oxygen		0.33 mg/L						

Inorganics

Ammonia as N	mg/L	1.2	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	30	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Phosphorous - Total as P	mg/L	0.30	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:58	1
Total Alkalinity	mg/L	62	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	2.3	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:28	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		PZ-N10-15						
Matrix		Groundwater						
SAL Sample Number		1214542-63						
Date/Time Collected		01/16/13 12:45						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		7.11						
Temperature		24.3 °C						
Conductivity		1573 umhos						
Dissolved Oxygen		0.82 mg/L						

Inorganics

Ammonia as N	mg/L	0.48	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Nitrate (as N)	mg/L	0.02 I	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Total Kjeldahl Nitrogen	mg/L	1.1	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:30	1
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 300.0	0.08	0.02		01/17/13 10:41	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		PZ-S10-08						
Matrix		Groundwater						
SAL Sample Number		1214542-64						
Date/Time Collected		01/16/13 13:21						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		5.31
Temperature		24.0 °C
Conductivity		303 umhos
Dissolved Oxygen		0.71 mg/L

Inorganics

Ammonia as N	mg/L	0.12	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	30	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.03 I	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Phosphorous - Total as P	mg/L	0.051	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:14	1
Total Alkalinity	mg/L	6.3 I	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.63	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:31	1
Nitrate+Nitrite (N)	mg/L	0.03 I	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Sample Description		FB-DI
Matrix		Reagent Water
SAL Sample Number		1214542-72
Date/Time Collected		01/16/13 08:20
Collected by		Sean Schmidt
Date/Time Received		01/16/13 15:35

Client Provided Field Data

pH		7.65
Temperature		19.3 °C
Conductivity		1.43 umhos
Dissolved Oxygen		8.60 mg/L

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		01/18/13 14:00	1
Chemical Oxygen Demand	mg/L	10 U	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Chloride	mg/L	0.050 U	EPA 300.0	0.20	0.050		01/17/13 10:41	1
Fluoride	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 10:41	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 10:41	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 10:41	1
Phosphorous - Total as P	mg/L	0.010 U	SM 4500P-E	0.040	0.010	01/19/13 09:36	01/23/13 13:26	1
Sulfate	mg/L	0.20 U	EPA 300.0	0.60	0.20		01/17/13 10:41	1
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1

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Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		FB-DI						
Matrix		Reagent Water						
SAL Sample Number		1214542-72						
Date/Time Collected		01/16/13 08:20						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		7.65						
Temperature		19.3 °C						
Conductivity		1.43 umhos						
Dissolved Oxygen		8.60 mg/L						
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	01/18/13 08:48	01/22/13 12:50	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 10:41	1

Metals

Boron	mg/L	0.050 U	EPA 200.7**	0.10	0.050	01/18/13 12:17	01/18/13 12:42	1
Calcium	mg/L	0.042 U	EPA 200.7	0.50	0.042	01/18/13 12:17	01/18/13 12:42	1
Iron	mg/L	0.020 U	EPA 200.7	0.10	0.020	01/18/13 12:17	01/18/13 12:42	1
Magnesium	mg/L	0.020 U	EPA 200.7	0.50	0.020	01/18/13 12:17	01/22/13 10:19	1
Manganese	mg/L	0.0010 U	EPA 200.7	0.010	0.0010	01/18/13 12:17	01/18/13 12:42	1
Potassium	mg/L	0.010 U	EPA 200.7	0.050	0.010	01/18/13 12:17	01/18/13 12:42	1
Sodium	mg/L	0.13 U	EPA 200.7	0.50	0.13	01/18/13 12:17	01/18/13 12:42	1

Sample Description		FB-TAP						
Matrix		Drinking Water						
SAL Sample Number		1214542-73						
Date/Time Collected		01/16/13 08:15						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						

Client Provided Field Data

pH		7.54						
Temperature		21.6 °C						
Conductivity		846 umhos						
Dissolved Oxygen		4.41 mg/L						

Inorganics

Ammonia as N	mg/L	0.027 I	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	14 I	EPA 410.4	25	10	01/21/13 13:20	01/22/13 15:45	1
Nitrate (as N)	mg/L	0.16	EPA 300.0	0.04	0.01		01/17/13 17:38	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 17:38	1
Phosphorous - Total as P	mg/L	0.038 I	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:19	1
Total Alkalinity	mg/L	160	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.16 I	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:33	1
Nitrate+Nitrite (N)	mg/L	0.16	EPA 300.0	0.08	0.02		01/17/13 17:38	1

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Project Name		Hillsborough County C-HS4 SE#2						
Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Sample Description		EB						
Matrix		Reagent Water						
SAL Sample Number		1214542-74						
Date/Time Collected		01/16/13 08:25						
Collected by		Sean Schmidt						
Date/Time Received		01/16/13 15:35						
<u>Client Provided Field Data</u>								
pH		7.65						
Temperature		18.3 °C						
Conductivity		1.43 umhos						
Dissolved Oxygen		8.60 mg/L						
<u>Inorganics</u>								
Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		01/28/13 10:47	1
Chemical Oxygen Demand	mg/L	10 U	EPA 410.4	25	10	01/18/13 09:45	01/18/13 11:45	1
Chloride	mg/L	0.050 U	EPA 300.0	0.20	0.050		01/17/13 17:38	1
Fluoride	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 17:38	1
Nitrate (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 17:38	1
Nitrite (as N)	mg/L	0.01 U	EPA 300.0	0.04	0.01		01/17/13 17:38	1
Orthophosphate as P	mg/L	0.010 U	EPA 300.0	0.040	0.010		01/17/13 17:38	1
Phosphorous - Total as P	mg/L	0.010 U	SM 4500P-E	0.040	0.010	01/23/13 14:40	01/24/13 15:20	1
Sulfate	mg/L	0.20 U	EPA 300.0	0.60	0.20		01/17/13 17:38	1
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0	01/18/13 12:45	01/18/13 15:13	1
Total Kjeldahl Nitrogen	mg/L	0.05 U	EPA 351.2	0.20	0.05	01/19/13 09:15	01/23/13 14:35	1
Nitrate+Nitrite (N)	mg/L	0.02 U	EPA 300.0	0.08	0.02		01/17/13 17:38	1
<u>Metals</u>								
Boron	mg/L	0.050 U	EPA 200.7**	0.10	0.050	01/18/13 12:17	01/18/13 12:46	1
Calcium	mg/L	0.042 U	EPA 200.7	0.50	0.042	01/18/13 12:17	01/18/13 12:46	1
Iron	mg/L	0.020 U	EPA 200.7	0.10	0.020	01/18/13 12:17	01/18/13 12:46	1
Magnesium	mg/L	0.020 U	EPA 200.7	0.50	0.020	01/18/13 12:17	01/21/13 12:15	1
Manganese	mg/L	0.0010 U	EPA 200.7	0.010	0.0010	01/18/13 12:17	01/18/13 12:46	1
Potassium	mg/L	0.032 I	EPA 200.7	0.050	0.010	01/18/13 12:17	01/23/13 15:41	1
Sodium	mg/L	0.13 U	EPA 200.7	0.50	0.13	01/18/13 12:17	01/18/13 12:46	1

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31514 - Ion Chromatography 300.0 Prep										
Blank (BA31514-BLK1)					Prepared & Analyzed: 01/15/13					
Fluoride	0.010 U	0.040	0.010	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
Orthophosphate as P	0.010 U	0.040	0.010	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Sulfate	0.20 U	0.60	0.20	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
LCS (BA31514-BS1)					Prepared & Analyzed: 01/15/13					
Chloride	3.10	0.20	0.050	mg/L	3.0		103	85-115		
Orthophosphate as P	0.914	0.040	0.010	mg/L	0.90		102	85-115		
Sulfate	8.94	0.60	0.20	mg/L	9.0		99	85-115		
Fluoride	0.898	0.040	0.010	mg/L	0.90		100	85-115		
Nitrate (as N)	1.69	0.04	0.01	mg/L	1.7		99	85-115		
Nitrite (as N)	1.41	0.04	0.01	mg/L	1.4		101	85-115		
LCS Dup (BA31514-BSD1)					Prepared & Analyzed: 01/15/13					
Nitrate (as N)	1.67	0.04	0.01	mg/L	1.7		98	85-115	1	200
Sulfate	8.86	0.60	0.20	mg/L	9.0		98	85-115	0.9	200
Nitrite (as N)	1.41	0.04	0.01	mg/L	1.4		101	85-115	0	200
Fluoride	0.883	0.040	0.010	mg/L	0.90		98	85-115	2	200
Orthophosphate as P	0.928	0.040	0.010	mg/L	0.90		103	85-115	2	200
Chloride	3.08	0.20	0.050	mg/L	3.0		103	85-115	0.6	200
Matrix Spike (BA31514-MS1)					Source: 1300509-01 Prepared & Analyzed: 01/15/13					
Nitrite (as N)	1.42	0.04	0.01	mg/L	1.4	ND	101	85-115		
Sulfate	136 +O	0.60	0.20	mg/L	9.0	237	NR	85-115		
Chloride	44.6 +O	0.20	0.050	mg/L	3.0	356	NR	80-120		
Nitrate (as N)	1.82	0.04	0.01	mg/L	1.7	0.0976	101	85-115		
Orthophosphate as P	0.972	0.040	0.010	mg/L	0.90	0.0714	100	85-115		
Fluoride	1.32	0.040	0.010	mg/L	0.90	0.464	95	85-115		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31514 - Ion Chromatography 300.0 Prep										
Matrix Spike (BA31514-MS2)		Source: 1214542-16			Prepared & Analyzed: 01/15/13					
Nitrite (as N)	1.43	0.04	0.01	mg/L	1.4	ND	102	85-115		
Orthophosphate as P	0.830	0.040	0.010	mg/L	0.90	ND	92	85-115		
Sulfate	117 +O	0.60	0.20	mg/L	9.0	115	22	85-115		
Nitrate (as N)	1.77	0.04	0.01	mg/L	1.7	0.0849	99	85-115		
Fluoride	0.915	0.040	0.010	mg/L	0.90	0.0418	97	85-115		
Chloride	19.0	0.20	0.050	mg/L	3.0	16.0	100	80-120		
Batch BA31515 - Ion Chromatography 300.0 Prep										
Blank (BA31515-BLK1)					Prepared & Analyzed: 01/16/13					
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
LCS (BA31515-BS1)					Prepared & Analyzed: 01/16/13					
Nitrite (as N)	1.43	0.04	0.01	mg/L	1.4		102	85-115		
Nitrate (as N)	1.70	0.04	0.01	mg/L	1.7		100	85-115		
LCS Dup (BA31515-BSD1)					Prepared & Analyzed: 01/16/13					
Nitrite (as N)	1.43	0.04	0.01	mg/L	1.4		102	85-115	0	200
Nitrate (as N)	1.70	0.04	0.01	mg/L	1.7		100	85-115	0	200
Matrix Spike (BA31515-MS1)		Source: 1300254-06			Prepared & Analyzed: 01/16/13					
Nitrite (as N)	141	0.04	0.01	mg/L	140	ND	101	85-115		
Nitrate (as N)	170	0.04	0.01	mg/L	170	ND	100	85-115		
Matrix Spike (BA31515-MS2)		Source: 1300286-04			Prepared & Analyzed: 01/16/13					
Nitrite (as N)	28.7	0.04	0.01	mg/L	28	ND	102	85-115		
Nitrate (as N)	46.9	0.04	0.01	mg/L	34	12.1	102	85-115		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31530 - Digestion for TKN by EPA 351.2

Blank (BA31530-BLK1)					Prepared: 01/15/13 Analyzed: 01/17/13					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BA31530-BS1)					Prepared: 01/15/13 Analyzed: 01/17/13					
Total Kjeldahl Nitrogen	2.67	0.20	0.05	mg/L	2.5		105	90-110		
Matrix Spike (BA31530-MS1)					Source: 1214076-23 Prepared: 01/15/13 Analyzed: 01/17/13					
Total Kjeldahl Nitrogen	3.35	0.20	0.05	mg/L	2.5	1.00	93	90-110		
Matrix Spike (BA31530-MS2)					Source: 1214542-31 Prepared: 01/15/13 Analyzed: 01/18/13					
Total Kjeldahl Nitrogen	3.57	0.20	0.05	mg/L	2.5	1.03	100	90-110		
Matrix Spike Dup (BA31530-MSD1)					Source: 1214076-23 Prepared: 01/15/13 Analyzed: 01/18/13					
Total Kjeldahl Nitrogen	3.65	0.20	0.05	mg/L	2.5	1.00	105	90-110	9	20
Matrix Spike Dup (BA31530-MSD2)					Source: 1214542-31 Prepared: 01/15/13 Analyzed: 01/18/13					
Total Kjeldahl Nitrogen	3.50	0.20	0.05	mg/L	2.5	1.03	98	90-110	2	20

Batch BA31532 - Digestion for TKN by EPA 351.2

Blank (BA31532-BLK1)					Prepared: 01/15/13 Analyzed: 01/18/13					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BA31532-BS1)					Prepared: 01/15/13 Analyzed: 01/17/13					
Total Kjeldahl Nitrogen	2.56	0.20	0.05	mg/L	2.5		101	90-110		
Matrix Spike (BA31532-MS1)					Source: 1214076-17 Prepared: 01/15/13 Analyzed: 01/18/13					
Total Kjeldahl Nitrogen	3.10	0.20	0.05	mg/L	2.5	0.816	90	90-110		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31532 - Digestion for TKN by EPA 351.2

Matrix Spike Dup (BA31532-MSD1)		Source: 1214076-17			Prepared: 01/15/13 Analyzed: 01/17/13					
Total Kjeldahl Nitrogen	3.42	0.20	0.05	mg/L	2.5	0.816	103	90-110	10	20

Batch BA31614 - Digestion for TP by EPA 365.2/SM4500PE

Blank (BA31614-BLK1)		Prepared: 01/16/13 Analyzed: 01/23/13								
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						

LCS (BA31614-BS1)		Prepared: 01/16/13 Analyzed: 01/23/13								
Phosphorous - Total as P	0.815	0.040	0.010	mg/L	0.80	102		90-110		

Matrix Spike (BA31614-MS1)		Source: 1214067-07			Prepared: 01/16/13 Analyzed: 01/23/13					
Phosphorous - Total as P	1.10	0.040	0.010	mg/L	1.0	0.0368	107	90-110		

Matrix Spike Dup (BA31614-MSD1)		Source: 1214067-07			Prepared: 01/16/13 Analyzed: 01/23/13					
Phosphorous - Total as P	1.08	0.040	0.010	mg/L	1.0	0.0368	104	90-110	2	25

Batch BA31615 - Ion Chromatography 300.0 Prep

Blank (BA31615-BLK1)		Prepared & Analyzed: 01/16/13								
Chloride	0.050 U	0.20	0.050	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Orthophosphate as P	0.010 U	0.040	0.010	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Fluoride	0.010 U	0.040	0.010	mg/L						

LCS (BA31615-BS1)		Prepared & Analyzed: 01/16/13								
Nitrite (as N)	1.48	0.04	0.01	mg/L	1.4	106		85-115		
Chloride	3.25	0.20	0.050	mg/L	3.0	108		85-115		
Fluoride	0.844	0.040	0.010	mg/L	0.90	94		85-115		
Nitrate (as N)	1.72	0.04	0.01	mg/L	1.7	101		85-115		
Orthophosphate as P	0.989	0.040	0.010	mg/L	0.90	110		85-115		



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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31615 - Ion Chromatography 300.0 Prep

LCS Dup (BA31615-BSD1)				Prepared & Analyzed: 01/16/13						
Orthophosphate as P	0.914	0.040	0.010	mg/L	0.90		102	85-115	8	200
Chloride	3.09	0.20	0.050	mg/L	3.0		103	85-115	5	200
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115	2	200
Nitrite (as N)	1.41	0.04	0.01	mg/L	1.4		101	85-115	5	200
Fluoride	0.824	0.040	0.010	mg/L	0.90		92	85-115	2	200

Matrix Spike (BA31615-MS1)				Source: 1300565-01		Prepared & Analyzed: 01/16/13				
Orthophosphate as P	0.820	0.040	0.010	mg/L	0.90	ND	91	85-115		
Fluoride	0.853	0.040	0.010	mg/L	0.90	ND	95	85-115		
Chloride	0.050 U,+O	0.20	0.050	mg/L	3.0	1220	NR	80-120		
Nitrate (as N)	1.76	0.04	0.01	mg/L	1.7	ND	104	85-115		
Nitrite (as N)	1.50	0.04	0.01	mg/L	1.4	ND	107	85-115		

Matrix Spike (BA31615-MS2)				Source: 1214542-32		Prepared & Analyzed: 01/16/13				
Nitrate (as N)	1.66	0.04	0.01	mg/L	1.7	ND	98	85-115		
Chloride	20.9	0.20	0.050	mg/L	3.0	17.8	103	80-120		
Fluoride	0.932	0.040	0.010	mg/L	0.90	0.0746	95	85-115		
Nitrite (as N)	1.38	0.04	0.01	mg/L	1.4	ND	99	85-115		
Orthophosphate as P	0.869	0.040	0.010	mg/L	0.90	ND	97	85-115		

Batch BA31616 - Ion Chromatography 300.0 Prep

Blank (BA31616-BLK1)				Prepared & Analyzed: 01/17/13						
Orthophosphate as P	0.010 U	0.040	0.010	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
Sulfate	0.20 U	0.60	0.20	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Fluoride	0.010 U	0.040	0.010	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31616 - Ion Chromatography 300.0 Prep										
LCS (BA31616-BS1)					Prepared & Analyzed: 01/17/13					
Sulfate	8.91	0.60	0.20	mg/L	9.0		99	85-115		
Chloride	3.07	0.20	0.050	mg/L	3.0		102	85-115		
Fluoride	0.815	0.040	0.010	mg/L	0.90		91	85-115		
Nitrite (as N)	1.39	0.04	0.01	mg/L	1.4		99	85-115		
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115		
Orthophosphate as P	0.897	0.040	0.010	mg/L	0.90		100	85-115		
LCS Dup (BA31616-BSD1)					Prepared & Analyzed: 01/17/13					
Orthophosphate as P	0.933	0.040	0.010	mg/L	0.90		104	85-115	4	200
Nitrite (as N)	1.39	0.04	0.01	mg/L	1.4		99	85-115	0	200
Chloride	3.09	0.20	0.050	mg/L	3.0		103	85-115	0.6	200
Sulfate	8.97	0.60	0.20	mg/L	9.0		100	85-115	0.7	200
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115	0	200
Fluoride	0.838	0.040	0.010	mg/L	0.90		93	85-115	3	200
Matrix Spike (BA31616-MS1)					Source: 1214542-45		Prepared & Analyzed: 01/17/13			
Chloride	20.0	0.20	0.050	mg/L	3.0	16.9	103	80-120		
Fluoride	1.05	0.040	0.010	mg/L	0.90	0.101	105	85-115		
Nitrate (as N)	1.66	0.04	0.01	mg/L	1.7	0.0336	96	85-115		
Nitrite (as N)	1.41	0.04	0.01	mg/L	1.4	ND	101	85-115		
Orthophosphate as P	0.844	0.040	0.010	mg/L	0.90	ND	94	85-115		
Sulfate	132 +O	0.60	0.20	mg/L	9.0	132	0	85-115		
Matrix Spike (BA31616-MS2)					Source: 1214542-55		Prepared & Analyzed: 01/17/13			
Nitrate (as N)	1.90	0.04	0.01	mg/L	1.7	0.0885	107	85-115		
Sulfate	94.2	0.60	0.20	mg/L	9.0	84.4	109	85-115		
Orthophosphate as P	0.820	0.040	0.010	mg/L	0.90	ND	91	85-115		
Chloride	23.0	0.20	0.050	mg/L	3.0	19.4	120	80-120		
Fluoride	1.00	0.040	0.010	mg/L	0.90	0.113	99	85-115		
Nitrite (as N)	1.49	0.04	0.01	mg/L	1.4	ND	106	85-115		

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit
Batch BA31617 - Ion Chromatography 300.0 Prep										
Blank (BA31617-BLK1)					Prepared & Analyzed: 01/17/13					
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Orthophosphate as P	0.010 U	0.040	0.010	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
Sulfate	0.20 U	0.60	0.20	mg/L						
Fluoride	0.010 U	0.040	0.010	mg/L						
LCS (BA31617-BS1)					Prepared & Analyzed: 01/17/13					
Nitrate (as N)	1.72	0.04	0.01	mg/L	1.7		101	85-115		
Fluoride	0.895	0.040	0.010	mg/L	0.90		99	85-115		
Chloride	3.18	0.20	0.050	mg/L	3.0		106	85-115		
Orthophosphate as P	0.968	0.040	0.010	mg/L	0.90		108	85-115		
Sulfate	9.08	0.60	0.20	mg/L	9.0		101	85-115		
Nitrite (as N)	1.47	0.04	0.01	mg/L	1.4		105	85-115		
LCS Dup (BA31617-BSD1)					Prepared & Analyzed: 01/17/13					
Nitrate (as N)	1.70	0.04	0.01	mg/L	1.7		100	85-115	1	200
Sulfate	8.99	0.60	0.20	mg/L	9.0		100	85-115	1	200
Nitrite (as N)	1.41	0.04	0.01	mg/L	1.4		101	85-115	4	200
Orthophosphate as P	0.890	0.040	0.010	mg/L	0.90		99	85-115	8	200
Fluoride	0.820	0.040	0.010	mg/L	0.90		91	85-115	9	200
Chloride	3.14	0.20	0.050	mg/L	3.0		105	85-115	1	200
Matrix Spike (BA31617-MS1)					Source: 1214542-72		Prepared & Analyzed: 01/17/13			
Sulfate	9.55	0.60	0.20	mg/L	9.0	ND	106	85-115		
Chloride	3.24	0.20	0.050	mg/L	3.0	ND	108	80-120		
Orthophosphate as P	0.909	0.040	0.010	mg/L	0.90	ND	101	85-115		
Fluoride	0.861	0.040	0.010	mg/L	0.90	ND	96	85-115		
Nitrate (as N)	1.78	0.04	0.01	mg/L	1.7	ND	105	85-115		
Nitrite (as N)	1.42	0.04	0.01	mg/L	1.4	ND	101	85-115		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31617 - Ion Chromatography 300.0 Prep

Matrix Spike (BA31617-MS2)		Source: 1300025-03			Prepared & Analyzed: 01/17/13					
Sulfate	145	0.60	0.20	mg/L	90	53.7	101	85-115		
Orthophosphate as P	8.69	0.040	0.010	mg/L	9.0	0.247	94	85-115		
Fluoride	8.29	0.040	0.010	mg/L	9.0	ND	92	85-115		
Nitrate (as N)	17.8	0.04	0.01	mg/L	17	0.700	101	85-115		
Chloride	277	0.20	0.050	mg/L	30	253	80	80-120		
Nitrite (as N)	14.2	0.04	0.01	mg/L	14	ND	101	85-115		

Batch BA31705 - COD prep

Blank (BA31705-BLK1)					Prepared & Analyzed: 01/17/13					
Chemical Oxygen Demand	10 U	25	10	mg/L						
LCS (BA31705-BS1)					Prepared & Analyzed: 01/17/13					
Chemical Oxygen Demand	46	25	10	mg/L	50		92	90-110		
Matrix Spike (BA31705-MS1)		Source: 1214072-20			Prepared & Analyzed: 01/17/13					
Chemical Oxygen Demand	61	25	10	mg/L	50	12	98	85-115		
Matrix Spike Dup (BA31705-MSD1)		Source: 1214072-20			Prepared & Analyzed: 01/17/13					
Chemical Oxygen Demand	61	25	10	mg/L	50	12	98	85-115	0	32

Batch BA31715 - Ion Chromatography 300.0 Prep

Blank (BA31715-BLK1)					Prepared & Analyzed: 01/17/13					
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31715 - Ion Chromatography 300.0 Prep

LCS (BA31715-BS1)					Prepared & Analyzed: 01/17/13					
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115		
Nitrite (as N)	1.42	0.04	0.01	mg/L	1.4		101	85-115		
LCS Dup (BA31715-BSD1)					Prepared & Analyzed: 01/17/13					
Nitrite (as N)	1.30	0.04	0.01	mg/L	1.4		93	85-115	9	200
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115	0	200
Matrix Spike (BA31715-MS1)					Source: 1300004-10		Prepared & Analyzed: 01/17/13			
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7	ND	99	85-115		
Nitrite (as N)	1.36	0.04	0.01	mg/L	1.4	ND	97	85-115		
Matrix Spike (BA31715-MS2)					Source: 1300619-01		Prepared & Analyzed: 01/17/13			
Nitrite (as N)	1.49	0.04	0.01	mg/L	1.4	ND	106	85-115		
Nitrate (as N)	1.75	0.04	0.01	mg/L	1.7	0.0298	101	85-115		

Batch BA31717 - Ion Chromatography 300.0 Prep

Blank (BA31717-BLK1)					Prepared & Analyzed: 01/18/13					
Sulfate	0.20 U	0.60	0.20	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
Orthophosphate as P	0.010 U	0.040	0.010	mg/L						
Fluoride	0.010 U	0.040	0.010	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
LCS (BA31717-BS1)					Prepared & Analyzed: 01/18/13					
Orthophosphate as P	0.951	0.040	0.010	mg/L	0.90		106	85-115		
Chloride	3.17	0.20	0.050	mg/L	3.0		106	85-115		
Sulfate	8.94	0.60	0.20	mg/L	9.0		99	85-115		
Nitrate (as N)	1.71	0.04	0.01	mg/L	1.7		101	85-115		
Fluoride	0.949	0.040	0.010	mg/L	0.90		105	85-115		
Nitrite (as N)	1.47	0.04	0.01	mg/L	1.4		105	85-115		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31717 - Ion Chromatography 300.0 Prep

LCS Dup (BA31717-BSD1)					Prepared & Analyzed: 01/18/13					
Sulfate	8.93	0.60	0.20	mg/L	9.0		99	85-115	0.1	200
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115	2	200
Fluoride	0.878	0.040	0.010	mg/L	0.90		98	85-115	8	200
Orthophosphate as P	0.931	0.040	0.010	mg/L	0.90		103	85-115	2	200
Nitrite (as N)	1.40	0.04	0.01	mg/L	1.4		100	85-115	5	200
Chloride	3.06	0.20	0.050	mg/L	3.0		102	85-115	4	200

Matrix Spike (BA31717-MS1)					Source: 1214542-74		Prepared & Analyzed: 01/18/13			
Nitrate (as N)	1.71	0.04	0.01	mg/L	1.7	ND	101	85-115		
Orthophosphate as P	0.919	0.040	0.010	mg/L	0.90	ND	102	85-115		
Fluoride	0.832	0.040	0.010	mg/L	0.90	ND	92	85-115		
Sulfate	9.08	0.60	0.20	mg/L	9.0	ND	101	85-115		
Nitrite (as N)	1.39	0.04	0.01	mg/L	1.4	ND	99	85-115		
Chloride	3.09	0.20	0.050	mg/L	3.0	ND	103	80-120		

Matrix Spike (BA31717-MS2)					Source: 1300685-01		Prepared & Analyzed: 01/18/13			
Nitrate (as N)	1.77	0.04	0.01	mg/L	1.7	0.0456	101	85-115		
Orthophosphate as P	0.838	0.040	0.010	mg/L	0.90	ND	93	85-115		
Nitrite (as N)	1.50	0.04	0.01	mg/L	1.4	ND	107	85-115		
Fluoride	0.893	0.040	0.010	mg/L	0.90	0.0349	95	85-115		
Chloride	39.0 +O	0.20	0.050	mg/L	3.0	38.0	33	80-120		
Sulfate	23.7	0.60	0.20	mg/L	9.0	14.4	103	85-115		

Batch BA31735 - alkalinity

Blank (BA31735-BLK1)					Prepared & Analyzed: 01/17/13					
Total Alkalinity	2.0 U	8.0	2.0	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31735 - alkalinity										
Blank (BA31735-BLK2)					Prepared & Analyzed: 01/17/13					
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BA31735-BS1)					Prepared & Analyzed: 01/17/13					
Total Alkalinity	120	8.0	2.0	mg/L	120		100	90-110		
LCS (BA31735-BS2)					Prepared & Analyzed: 01/17/13					
Total Alkalinity	120	8.0	2.0	mg/L	120		100	90-110		
Matrix Spike (BA31735-MS1)					Source: 1214078-06		Prepared & Analyzed: 01/17/13			
Total Alkalinity	120	8.0	2.0	mg/L	120	3.2	97	80-120		
Matrix Spike (BA31735-MS2)					Source: 1214542-27		Prepared & Analyzed: 01/17/13			
Total Alkalinity	160	8.0	2.0	mg/L	120	31	100	80-120		
Matrix Spike Dup (BA31735-MSD1)					Source: 1214078-06		Prepared & Analyzed: 01/17/13			
Total Alkalinity	120	8.0	2.0	mg/L	120	3.2	97	80-120	0	26
Matrix Spike Dup (BA31735-MSD2)					Source: 1214542-27		Prepared & Analyzed: 01/17/13			
Total Alkalinity	160	8.0	2.0	mg/L	120	31	100	80-120	0	26
Batch BA31806 - Digestion for TKN by EPA 351.2										
Blank (BA31806-BLK1)					Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BA31806-BS1)					Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	as at 90.6%	0.20	0.05	mg/L	2.5		89	90-110		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BA31806 - Digestion for TKN by EPA 351.2										
Matrix Spike (BA31806-MS1)		Source: 1214074-26			Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	3.48	0.20	0.05	mg/L	2.5	1.10	94	90-110		
Matrix Spike (BA31806-MS2)		Source: 1214078-15			Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	3.41	0.20	0.05	mg/L	2.5	0.730	106	90-110		
Matrix Spike Dup (BA31806-MSD1)		Source: 1214074-26			Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	3.71	0.20	0.05	mg/L	2.5	1.10	103	90-110	6	20
Matrix Spike Dup (BA31806-MSD2)		Source: 1214078-15			Prepared: 01/18/13 Analyzed: 01/22/13					
Total Kjeldahl Nitrogen	3.40	0.20	0.05	mg/L	2.5	0.730	105	90-110	0.2	20
Batch BA31809 - COD prep										
Blank (BA31809-BLK1)					Prepared & Analyzed: 01/18/13					
Chemical Oxygen Demand	10 U	25	10	mg/L						
LCS (BA31809-BS1)					Prepared & Analyzed: 01/18/13					
Chemical Oxygen Demand	51	25	10	mg/L	50		102	90-110		
Matrix Spike (BA31809-MS1)		Source: 1214542-74			Prepared & Analyzed: 01/18/13					
Chemical Oxygen Demand	51	25	10	mg/L	50	ND	102	85-115		
Matrix Spike Dup (BA31809-MSD1)		Source: 1214542-74			Prepared & Analyzed: 01/18/13					
Chemical Oxygen Demand	51	25	10	mg/L	50	ND	102	85-115	0	32
Batch BA31816 - Ion Chromatography 300.0 Prep										
Blank (BA31816-BLK1)					Prepared & Analyzed: 01/18/13					
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31816 - Ion Chromatography 300.0 Prep

LCS (BA31816-BS1)					Prepared & Analyzed: 01/18/13					
Nitrite (as N)	1.37	0.04	0.01	mg/L	1.4		98	85-115		
Nitrate (as N)	1.66	0.04	0.01	mg/L	1.7		98	85-115		
LCS Dup (BA31816-BSD1)					Prepared & Analyzed: 01/18/13					
Nitrite (as N)	1.38	0.04	0.01	mg/L	1.4		99	85-115	0.7	200
Nitrate (as N)	1.66	0.04	0.01	mg/L	1.7		98	85-115	0	200
Matrix Spike (BA31816-MS1)		Source: 1300311-01			Prepared & Analyzed: 01/18/13					
Nitrite (as N)	1.52	0.04	0.01	mg/L	1.4		109	85-115		
Nitrate (as N)	1.66	0.04	0.01	mg/L	1.7		98	85-115		
Matrix Spike (BA31816-MS2)		Source: 1300025-09			Prepared & Analyzed: 01/18/13					
Nitrate (as N)	16.2	0.04	0.01	mg/L	17	0.127	95	85-115		
Nitrite (as N)	13.4	0.04	0.01	mg/L	14	ND	96	85-115		

Batch BA31822 - Ammonia by SEAL

Blank (BA31822-BLK1)					Prepared & Analyzed: 01/18/13					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA31822-BS1)					Prepared & Analyzed: 01/18/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50		103	90-110		
Matrix Spike (BA31822-MS1)		Source: 1300638-02			Prepared & Analyzed: 01/18/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	0.046	92	90-110		
Matrix Spike (BA31822-MS2)		Source: 1300638-05			Prepared & Analyzed: 01/18/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	0.046	93	90-110		

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31822 - Ammonia by SEAL										
Matrix Spike Dup (BA31822-MSD1)		Source: 1300638-02			Prepared & Analyzed: 01/18/13					
Ammonia as N	0.53	0.040	0.009	mg/L	0.50	0.046	97	90-110	4	10
Matrix Spike Dup (BA31822-MSD2)		Source: 1300638-05			Prepared & Analyzed: 01/18/13					
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	0.046	91	90-110	2	10
Batch BA31834 - alkalinity										
Blank (BA31834-BLK1)		Prepared & Analyzed: 01/18/13								
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Blank (BA31834-BLK2)		Prepared & Analyzed: 01/18/13								
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BA31834-BS1)		Prepared & Analyzed: 01/18/13								
Total Alkalinity	120	8.0	2.0	mg/L	120	100	90-110			
LCS (BA31834-BS2)		Prepared & Analyzed: 01/18/13								
Total Alkalinity	120	8.0	2.0	mg/L	120	100	90-110			
Matrix Spike (BA31834-MS1)		Source: 1214542-61			Prepared & Analyzed: 01/18/13					
Total Alkalinity	180	8.0	2.0	mg/L	120	62	91	80-120		
Matrix Spike (BA31834-MS2)		Source: 1300489-07			Prepared & Analyzed: 01/18/13					
Total Alkalinity	290	8.0	2.0	mg/L	120	170	100	80-120		
Matrix Spike Dup (BA31834-MSD1)		Source: 1214542-61			Prepared & Analyzed: 01/18/13					
Total Alkalinity	180	8.0	2.0	mg/L	120	62	91	80-120	0	26

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31834 - alkalinity

Matrix Spike Dup (BA31834-MSD2)		Source: 1300489-07			Prepared & Analyzed: 01/18/13					
Total Alkalinity	290	8.0	2.0	mg/L	120	170	100	80-120	0	26

Batch BA31904 - Digestion for TKN by EPA 351.2

Blank (BA31904-BLK1)		Prepared: 01/19/13 Analyzed: 01/23/13								
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						

LCS (BA31904-BS1)		Prepared: 01/19/13 Analyzed: 01/23/13								
Total Kjeldahl Nitrogen	2.45	0.20	0.05	mg/L	2.5	97		90-110		

Matrix Spike (BA31904-MS1)		Source: 1214542-06			Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	4.41	0.20	0.05	mg/L	2.5	1.89	100	90-110		

Matrix Spike (BA31904-MS2)		Source: 1214542-28			Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	3.50	0.20	0.05	mg/L	2.5	1.18	91	90-110		

Matrix Spike Dup (BA31904-MSD1)		Source: 1214542-06			Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	4.40	0.20	0.05	mg/L	2.5	1.89	99	90-110	0.4	20

Matrix Spike Dup (BA31904-MSD2)		Source: 1214542-28			Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	3.49	0.20	0.05	mg/L	2.5	1.18	91	90-110	0.3	20

Batch BA31905 - Digestion for TKN by EPA 351.2

Blank (BA31905-BLK1)		Prepared: 01/19/13 Analyzed: 01/23/13								
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BA31905 - Digestion for TKN by EPA 351.2										
LCS (BA31905-BS1)					Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	2.38	0.20	0.05	mg/L	2.5		94	90-110		
Matrix Spike (BA31905-MS1)					Source: 1214542-48 Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	3.82	0.20	0.05	mg/L	2.5	1.46	93	90-110		
Matrix Spike Dup (BA31905-MSD1)					Source: 1214542-48 Prepared: 01/19/13 Analyzed: 01/23/13					
Total Kjeldahl Nitrogen	3.84	0.20	0.05	mg/L	2.5	1.46	94	90-110	0.5	20
Batch BA31907 - Digestion for TP by EPA 365.2/SM4500PE										
Blank (BA31907-BLK1)					Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						
LCS (BA31907-BS1)					Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	0.759	0.040	0.010	mg/L				90-110		
Matrix Spike (BA31907-MS1)					Source: 1300701-07 Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	0.972	0.040	0.010	mg/L		0.0557		90-110		
Matrix Spike (BA31907-MS2)					Source: 1300758-07 Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	1.13	0.040	0.010	mg/L		0.0868		90-110		
Matrix Spike Dup (BA31907-MSD1)					Source: 1300701-07 Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	1.07	0.040	0.010	mg/L		0.0557		90-110	9	25
Matrix Spike Dup (BA31907-MSD2)					Source: 1300758-07 Prepared: 01/19/13 Analyzed: 01/23/13					
Phosphorous - Total as P	1.05	0.040	0.010	mg/L		0.0868		90-110	7	25

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31908 - Digestion for TP by EPA 365.2/SM4500PE

Blank (BA31908-BLK1)					Prepared: 01/19/13 Analyzed: 01/24/13					
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						
LCS (BA31908-BS1)					Prepared: 01/19/13 Analyzed: 01/24/13					
Phosphorous - Total as P	0.850	0.040	0.010	mg/L	0.80		106	90-110		
Matrix Spike (BA31908-MS1)					Source: 1214542-37 Prepared: 01/19/13 Analyzed: 01/24/13					
Phosphorous - Total as P	1.15	0.040	0.010	mg/L	1.0	0.159	99	90-110		
Matrix Spike Dup (BA31908-MSD1)					Source: 1214542-37 Prepared: 01/19/13 Analyzed: 01/24/13					
Phosphorous - Total as P	1.08	0.040	0.010	mg/L	1.0	0.159	92	90-110	7	25

Batch BA32101 - COD prep

Blank (BA32101-BLK1)					Prepared: 01/21/13 Analyzed: 01/22/13					
Chemical Oxygen Demand	10 U	25	10	mg/L						
LCS (BA32101-BS1)					Prepared: 01/21/13 Analyzed: 01/22/13					
Chemical Oxygen Demand	53	25	10	mg/L	50		106	90-110		
Matrix Spike (BA32101-MS1)					Source: 1214542-72 Prepared: 01/21/13 Analyzed: 01/22/13					
Chemical Oxygen Demand	49	25	10	mg/L	50	ND	98	85-115		
Matrix Spike Dup (BA32101-MSD1)					Source: 1214542-72 Prepared: 01/21/13 Analyzed: 01/22/13					
Chemical Oxygen Demand	51	25	10	mg/L	50	ND	102	85-115	4	32

Batch BA32113 - Ion Chromatography 300.0 Prep

Blank (BA32113-BLK1)					Prepared & Analyzed: 01/21/13					
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA32113 - Ion Chromatography 300.0 Prep										
LCS (BA32113-BS1)					Prepared & Analyzed: 01/21/13					
Nitrate (as N)	1.68	0.04	0.01	mg/L	1.7		99	85-115		
LCS Dup (BA32113-BSD1)					Prepared & Analyzed: 01/21/13					
Nitrate (as N)	1.69	0.04	0.01	mg/L	1.7		99	85-115	0.6	200
Matrix Spike (BA32113-MS1)					Source: 1300537-01 Prepared & Analyzed: 01/21/13					
Nitrate (as N)	19.2	0.04	0.01	mg/L	17	1.42	105	85-115		
Matrix Spike (BA32113-MS2)					Source: 1214074-14 Prepared & Analyzed: 01/21/13					
Nitrate (as N)	28.6	0.04	0.01	mg/L	3.4	24.7	115	85-115		
Batch BA32315 - Ammonia by SEAL										
Blank (BA32315-BLK1)					Prepared & Analyzed: 01/23/13					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA32315-BS1)					Prepared & Analyzed: 01/23/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50		101	90-110		
Matrix Spike (BA32315-MS1)					Source: 1300758-07 Prepared & Analyzed: 01/23/13					
Ammonia as N	0.52	0.040	0.009	mg/L	0.50	0.038	96	90-110		
Matrix Spike (BA32315-MS2)					Source: 1300767-07 Prepared & Analyzed: 01/23/13					
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	0.023	95	90-110		
Matrix Spike Dup (BA32315-MSD1)					Source: 1300758-07 Prepared & Analyzed: 01/23/13					
Ammonia as N	0.52	0.040	0.009	mg/L	0.50	0.038	96	90-110	0.2	10

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA32315 - Ammonia by SEAL

Matrix Spike Dup (BA32315-MSD2)		Source: 1300767-07			Prepared & Analyzed: 01/23/13					
Ammonia as N	0.49	0.040	0.009	mg/L	0.50	0.023	94	90-110	2	10

Batch BA32328 - Digestion for TP by EPA 365.2/SM4500PE

Blank (BA32328-BLK1)		Prepared: 01/23/13 Analyzed: 01/25/13								
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						

LCS (BA32328-BS1)		Prepared: 01/23/13 Analyzed: 01/25/13								
Phosphorous - Total as P	0.732	0.040	0.010	mg/L	0.80	91		90-110		

Duplicate (BA32328-DUP1)		Source: 1300516-05			Prepared: 01/23/13 Analyzed: 01/25/13					
Phosphorous - Total as P	2.06	0.080	0.020	mg/L	2.13				3	25

Matrix Spike (BA32328-MS1)		Source: 1300767-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Phosphorous - Total as P	1.02	0.040	0.010	mg/L	1.0	0.0633	95	90-110		

Matrix Spike (BA32328-MS2)		Source: 1300808-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Phosphorous - Total as P	1.09	0.040	0.010	mg/L	1.0	0.0469	104	90-110		

Matrix Spike Dup (BA32328-MSD1)		Source: 1300767-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Phosphorous - Total as P	1.03	0.040	0.010	mg/L	1.0	0.0633	97	90-110	1	25

Matrix Spike Dup (BA32328-MSD2)		Source: 1300808-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Phosphorous - Total as P	0.986	0.040	0.010	mg/L	1.0	0.0469	94	90-110	10	25

Batch BA32329 - Digestion for TP by EPA 365.2/SM4500PE

Blank (BA32329-BLK1)		Prepared: 01/23/13 Analyzed: 01/24/13								
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA32329 - Digestion for TP by EPA 365.2/SM4500PE

LCS (BA32329-BS1)					Prepared: 01/23/13 Analyzed: 01/24/13					
Phosphorous - Total as P	0.833	0.040	0.010	mg/L	0.80		104	90-110		
Matrix Spike (BA32329-MS1)					Source: 1214542-03 Prepared: 01/23/13 Analyzed: 01/24/13					
Phosphorous - Total as P	1.04	0.040	0.010	mg/L	1.0	0.0858	95	90-110		
Matrix Spike (BA32329-MS2)					Source: 1300833-07 Prepared: 01/23/13 Analyzed: 01/24/13					
Phosphorous - Total as P	0.965	0.040	0.010	mg/L	1.0	0.0532	91	90-110		
Matrix Spike Dup (BA32329-MSD1)					Source: 1214542-03 Prepared: 01/23/13 Analyzed: 01/24/13					
Phosphorous - Total as P	1.15	0.040	0.010	mg/L	1.0	0.0858	106	90-110	10	25
Matrix Spike Dup (BA32329-MSD2)					Source: 1300833-07 Prepared: 01/23/13 Analyzed: 01/24/13					
Phosphorous - Total as P	1.08	0.040	0.010	mg/L	1.0	0.0532	103	90-110	11	25

Batch BA32331 - Digestion for TKN by EPA 351.2

Blank (BA32331-BLK1)					Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BA32331-BS1)					Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	2.57	0.20	0.05	mg/L	2.5		101	90-110		
Matrix Spike (BA32331-MS1)					Source: 1300808-07 Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	3.13	0.20	0.05	mg/L	2.5	0.803	92	90-110		
Matrix Spike (BA32331-MS2)					Source: 1300833-07 Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	3.13	0.20	0.05	mg/L	2.5	0.574	101	90-110		

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA32331 - Digestion for TKN by EPA 351.2										
Matrix Spike Dup (BA32331-MSD1)		Source: 1300808-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	ises at 91%	0.20	0.05	mg/L	2.5	0.803	90	90-110	2	20
Matrix Spike Dup (BA32331-MSD2)		Source: 1300833-07			Prepared: 01/23/13 Analyzed: 01/25/13					
Total Kjeldahl Nitrogen	2.88	0.20	0.05	mg/L	2.5	0.574	91	90-110	8	20
Batch BA32405 - Ammonia by SEAL										
Blank (BA32405-BLK1)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA32405-BS1)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	102	90-110			
LCS (BA32405-BS2)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	100	90-110			
LCS (BA32405-BS3)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	101	90-110			
LCS (BA32405-BS4)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	102	90-110			
LCS (BA32405-BS5)		Prepared & Analyzed: 01/25/13								
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	99	90-110			
Duplicate (BA32405-DUP1)		Source: 1300516-04			Prepared & Analyzed: 01/25/13					
Ammonia as N	16.2	0.40	0.095	mg/L	15.7				3	10

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BA32405 - Ammonia by SEAL										
Matrix Spike (BA32405-MS1)		Source: 1214542-06			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.63	0.040	0.009	mg/L	0.50	0.16	94	90-110		
Matrix Spike (BA32405-MS2)		Source: 1214542-30			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.83	0.040	0.009	mg/L	0.50	0.36	95	90-110		
Matrix Spike Dup (BA32405-MSD1)		Source: 1214542-06			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.61	0.040	0.009	mg/L	0.50	0.16	91	90-110	3	10
Matrix Spike Dup (BA32405-MSD2)		Source: 1214542-30			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.83	0.040	0.009	mg/L	0.50	0.36	94	90-110	0.6	10
Batch BA32412 - Ion Chromatography 300.0 Prep										
Blank (BA32412-BLK1)					Prepared & Analyzed: 01/25/13					
Nitrite (as N)	0.01 U	0.04	0.01	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
Nitrate (as N)	0.01 U	0.04	0.01	mg/L						
Sulfate	0.20 U	0.60	0.20	mg/L						
LCS (BA32412-BS1)					Prepared & Analyzed: 01/25/13					
Nitrite (as N)	1.40	0.04	0.01	mg/L	1.4		100	85-115		
Nitrate (as N)	1.70	0.04	0.01	mg/L	1.7		100	85-115		
Sulfate	9.04	0.60	0.20	mg/L	9.0		100	85-115		
Chloride	3.29	0.20	0.050	mg/L	3.0		110	85-115		
LCS Dup (BA32412-BSD1)					Prepared & Analyzed: 01/25/13					
Chloride	3.28	0.20	0.050	mg/L	3.0		109	85-115	0.3	200
Nitrite (as N)	1.40	0.04	0.01	mg/L	1.4		100	85-115	0	200
Sulfate	9.05	0.60	0.20	mg/L	9.0		101	85-115	0.1	200
Nitrate (as N)	1.70	0.04	0.01	mg/L	1.7		100	85-115	0	200

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA32412 - Ion Chromatography 300.0 Prep										
Matrix Spike (BA32412-MS1)		Source: 1300564-01			Prepared & Analyzed: 01/25/13					
Sulfate	91.6	0.60	0.20	mg/L	90	0.875	101	85-115		
Nitrite (as N)	14.6	0.04	0.01	mg/L	14	ND	104	85-115		
Chloride	128	0.20	0.050	mg/L	30	100	93	80-120		
Nitrate (as N)	17.1	0.04	0.01	mg/L	17	ND	101	85-115		
Matrix Spike (BA32412-MS2)		Source: 1214542-29			Prepared & Analyzed: 01/25/13					
Chloride	65.2	0.20	0.050	mg/L	30	33.2	107	80-120		
Nitrite (as N)	14.5	0.04	0.01	mg/L	14	ND	104	85-115		
Sulfate	311	0.60	0.20	mg/L	90	213	109	85-115		
Nitrate (as N)	17.5	0.04	0.01	mg/L	17	0.424	100	85-115		
Batch BA32511 - Ion Chromatography 300.0 Prep										
Blank (BA32511-BLK1)		Prepared & Analyzed: 01/26/13								
Sulfate	0.20 U	0.60	0.20	mg/L						
Chloride	0.050 U	0.20	0.050	mg/L						
LCS (BA32511-BS1)		Prepared & Analyzed: 01/26/13								
Sulfate	8.96	0.60	0.20	mg/L	9.0		100	85-115		
Chloride	2.93	0.20	0.050	mg/L	3.0		98	85-115		
LCS Dup (BA32511-BSD1)		Prepared & Analyzed: 01/26/13								
Chloride	3.03	0.20	0.050	mg/L	3.0		101	85-115	3	200
Sulfate	9.04	0.60	0.20	mg/L	9.0		100	85-115	0.9	200
Matrix Spike (BA32511-MS1)		Source: 1300948-02			Prepared & Analyzed: 01/26/13					
Sulfate	45.3	0.60	0.20	mg/L	9.0	36.5	98	85-115		
Chloride	34.5 +O	0.20	0.050	mg/L	3.0	32.6	63	80-120		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA32511 - Ion Chromatography 300.0 Prep

Matrix Spike (BA32511-MS2)		Source: 1300816-01			Prepared & Analyzed: 01/26/13					
Sulfate	184	0.60	0.20	mg/L	180	190	NR	85-115		
Chloride	75.4	0.20	0.050	mg/L	60	322	NR	80-120		

Batch BA32512 - Ion Chromatography 300.0 Prep

Blank (BA32512-BLK1)					Prepared & Analyzed: 01/26/13					
Sulfate	0.20 U	0.60	0.20	mg/L						
LCS (BA32512-BS1)					Prepared & Analyzed: 01/26/13					
Sulfate	9.04	0.60	0.20	mg/L	9.0		100	85-115		
LCS Dup (BA32512-BSD1)					Prepared & Analyzed: 01/26/13					
Sulfate	9.09	0.60	0.20	mg/L	9.0		101	85-115	0.6	200
Matrix Spike (BA32512-MS1)		Source: 1300949-01			Prepared & Analyzed: 01/26/13					
Sulfate	16.1	0.60	0.20	mg/L	9.0	6.78	104	85-115		

Batch BA32515 - Ammonia by SEAL

Blank (BA32515-BLK1)					Prepared & Analyzed: 01/25/13					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA32515-BS1)					Prepared & Analyzed: 01/25/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50		101	90-110		
Matrix Spike (BA32515-MS1)		Source: 1300808-07			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.52	0.040	0.009	mg/L	0.50	0.022	100	90-110		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA32515 - Ammonia by SEAL										
Matrix Spike (BA32515-MS2)		Source: 1300811-01			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	ND	102	90-110		
Matrix Spike Dup (BA32515-MSD1)		Source: 1300808-07			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	0.022	96	90-110	4	10
Matrix Spike Dup (BA32515-MSD2)		Source: 1300811-01			Prepared & Analyzed: 01/25/13					
Ammonia as N	0.47	0.040	0.009	mg/L	0.50	ND	93	90-110	9	10
Batch BA32602 - Digestion for TKN by EPA 351.2										
Blank (BA32602-BLK1)					Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BA32602-BS1)					Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	2.71	0.20	0.05	mg/L	2.5		107	90-110		
Matrix Spike (BA32602-MS1)		Source: 1300918-07			Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	3.27	0.20	0.05	mg/L	2.5	0.691	102	90-110		
Matrix Spike (BA32602-MS2)		Source: 1300997-07			Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	3.27	0.20	0.05	mg/L	2.5	0.553	107	90-110		
Matrix Spike Dup (BA32602-MSD1)		Source: 1300918-07			Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	3.42	0.20	0.05	mg/L	2.5	0.691	108	90-110	4	20
Matrix Spike Dup (BA32602-MSD2)		Source: 1300997-07			Prepared: 01/26/13 Analyzed: 01/30/13					
Total Kjeldahl Nitrogen	3.27	0.20	0.05	mg/L	2.5	0.553	107	90-110	0.3	20

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA32801 - Ammonia by SEAL

Blank (BA32801-BLK1)					Prepared & Analyzed: 01/28/13					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA32801-BS1)					Prepared & Analyzed: 01/28/13					
Ammonia as N	0.53	0.040	0.009	mg/L	0.50		105	90-110		
Matrix Spike (BA32801-MS1)					Source: 1300833-07 Prepared & Analyzed: 01/28/13					
Ammonia as N	0.52	0.040	0.009	mg/L	0.50	0.015	101	90-110		
Matrix Spike (BA32801-MS2)					Source: 1214542-74 Prepared & Analyzed: 01/28/13					
Ammonia as N	0.50	0.040	0.009	mg/L	0.50	ND	100	90-110		
Matrix Spike Dup (BA32801-MSD1)					Source: 1300833-07 Prepared & Analyzed: 01/28/13					
Ammonia as N	0.53	0.040	0.009	mg/L	0.50	0.015	102	90-110	1	10
Matrix Spike Dup (BA32801-MSD2)					Source: 1214542-74 Prepared & Analyzed: 01/28/13					
Ammonia as N	0.54	0.040	0.009	mg/L	0.50	ND	107	90-110	7	10

Batch BA32819 - Ammonia by SEAL

Blank (BA32819-BLK1)					Prepared & Analyzed: 01/28/13					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BA32819-BS1)					Prepared & Analyzed: 01/28/13					
Ammonia as N	0.53	0.040	0.009	mg/L	0.50		106	90-110		
Matrix Spike (BA32819-MS1)					Source: 1300918-07 Prepared & Analyzed: 01/28/13					
Ammonia as N	0.54	0.040	0.009	mg/L	0.50	0.022	103	90-110		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA32819 - Ammonia by SEAL										
Matrix Spike (BA32819-MS2)		Source: 1300977-02			Prepared & Analyzed: 01/28/13					
Ammonia as N	0.54	0.040	0.009	mg/L	0.50	ND	108	90-110		
Matrix Spike Dup (BA32819-MSD1)		Source: 1300918-07			Prepared & Analyzed: 01/28/13					
Ammonia as N	0.53	0.040	0.009	mg/L	0.50	0.022	102	90-110	0.7	10
Matrix Spike Dup (BA32819-MSD2)		Source: 1300977-02			Prepared & Analyzed: 01/28/13					
Ammonia as N	0.52	0.040	0.009	mg/L	0.50	ND	104	90-110	3	10

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Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31507 - Metals Preparation for EPA Method 200.7

Blank (BA31507-BLK1)					Prepared & Analyzed: 01/16/13					
Sodium	0.13 U	0.50	0.13	mg/L						
Magnesium	0.020 U	0.50	0.020	mg/L						
Boron	0.050 U	0.10	0.050	mg/L						
Calcium	0.042 U	0.50	0.042	mg/L						
Iron	0.020 U	0.10	0.020	mg/L						
Potassium	0.010 U	0.050	0.010	mg/L						
Manganese	0.0010 U	0.010	0.0010	mg/L						

LCS (BA31507-BS1)					Prepared & Analyzed: 01/16/13					
Magnesium	19	0.50	0.020	mg/L	20		96	85-115		
Sodium	19	0.50	0.13	mg/L	20		95	85-115		
Calcium	19	0.50	0.042	mg/L	20		96	85-115		
Potassium	18	0.050	0.010	mg/L	20		91	85-115		
Manganese	0.39	0.010	0.0010	mg/L	0.40		97	85-115		
Boron	0.41	0.10	0.050	mg/L	0.40		103	85-115		
Iron	7.7	0.10	0.020	mg/L	8.0		96	85-115		

Matrix Spike (BA31507-MS1)					Source: 1300022-01		Prepared & Analyzed: 01/16/13			
Boron	0.41	0.10	0.050	mg/L	0.40	ND	103	70-130		
Manganese	0.38	0.010	0.0010	mg/L	0.40	0.018	90	70-130		
Calcium	51	0.50	0.042	mg/L	20	34	81	70-130		
Potassium	18	0.050	0.010	mg/L	20	1.1	87	70-130		
Sodium	29	0.50	0.13	mg/L	20	12	86	70-130		
Magnesium	30	0.50	0.020	mg/L	20	13	85	70-130		
Iron	7.8	0.10	0.020	mg/L	8.0	0.39	92	70-130		

Matrix Spike (BA31507-MS2)					Source: 1300473-01		Prepared & Analyzed: 01/16/13			
Boron	0.43	0.10	0.050	mg/L	0.40	ND	108	70-130		
Sodium	75	0.50	0.13	mg/L	20	52	112	70-130		
Calcium	24	0.50	0.042	mg/L	20	5.1	93	70-130		
Manganese	0.38	0.010	0.0010	mg/L	0.40	0.0015	94	70-130		
Potassium	38	0.050	0.010	mg/L	20	20	91	70-130		
Magnesium	20	0.50	0.020	mg/L	20	0.87	94	70-130		
Iron	7.7	0.10	0.020	mg/L	8.0	0.044	96	70-130		

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31507 - Metals Preparation for EPA Method 200.7

Matrix Spike Dup (BA31507-MSD1)		Source: 1300022-01			Prepared & Analyzed: 01/16/13					
Potassium	19	0.050	0.010	mg/L	20	1.1	89	70-130	2	30
Manganese	0.40	0.010	0.0010	mg/L	0.40	0.018	95	70-130	6	30
Iron	8.1	0.10	0.020	mg/L	8.0	0.39	96	70-130	4	30
Sodium	32	0.50	0.13	mg/L	20	12	97	70-130	8	30
Calcium	53	0.50	0.042	mg/L	20	34	94	70-130	5	30
Magnesium	32	0.50	0.020	mg/L	20	13	95	70-130	6	30
Boron	0.45	0.10	0.050	mg/L	0.40	ND	113	70-130	9	30

Matrix Spike Dup (BA31507-MSD2)		Source: 1300473-01			Prepared & Analyzed: 01/16/13					
Calcium	24	0.50	0.042	mg/L	20	5.1	94	70-130	0.8	30
Magnesium	20	0.50	0.020	mg/L	20	0.87	96	70-130	2	30
Sodium	68	0.50	0.13	mg/L	20	52	79	70-130	9	30
Boron	0.42	0.10	0.050	mg/L	0.40	ND	105	70-130	2	30
Iron	7.7	0.10	0.020	mg/L	8.0	0.044	96	70-130	0.07	30
Manganese	0.37	0.010	0.0010	mg/L	0.40	0.0015	93	70-130	2	30
Potassium	37	0.050	0.010	mg/L	20	20	88	70-130	2	30

Batch BA31706 - Metals Preparation for EPA Method 200.7

Blank (BA31706-BLK1)		Prepared & Analyzed: 01/17/13								
Boron	0.050 U	0.10	0.050	mg/L						
Calcium	0.042 U	0.50	0.042	mg/L						
Manganese	0.0010 U	0.010	0.0010	mg/L						
Magnesium	0.020 U	0.50	0.020	mg/L						
Iron	0.020 U	0.10	0.020	mg/L						
Potassium	0.010 U	0.050	0.010	mg/L						
Sodium	0.13 U	0.50	0.13	mg/L						

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
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Batch BA31706 - Metals Preparation for EPA Method 200.7

Blank (BA31706-BLK2)					Prepared & Analyzed: 01/17/13					
Boron	0.77	0.10	0.050	mg/L						
Potassium	1.1	0.050	0.010	mg/L						
Calcium	1.6	0.50	0.042	mg/L						
Iron	0.020 U	0.10	0.020	mg/L						
Sodium	100,000,000	0.50	0.13	mg/L						
Manganese	0.0010 U	0.010	0.0010	mg/L						
Magnesium	0.45 I	0.50	0.020	mg/L						

LCS (BA31706-BS1)					Prepared & Analyzed: 01/17/13					
Iron	8.0	0.10	0.020	mg/L	8.0		99	85-115		
Sodium	20	0.50	0.13	mg/L	20		102	85-115		
Manganese	0.42	0.010	0.0010	mg/L	0.40		105	85-115		
Magnesium	19	0.50	0.020	mg/L	20		97	85-115		
Potassium	18	0.050	0.010	mg/L	20		88	85-115		
Calcium	19	0.50	0.042	mg/L	20		97	85-115		
Boron	0.38	0.10	0.050	mg/L	0.40		94	85-115		

Matrix Spike (BA31706-MS1)					Source: 1214542-48		Prepared & Analyzed: 01/17/13			
Iron	9.1	0.10	0.020	mg/L	8.0	1.1	100	70-130		
Magnesium	34	0.50	0.020	mg/L	20	15	95	70-130		
Potassium	21	0.050	0.010	mg/L	20	2.6	92	70-130		
Sodium	32	0.50	0.13	mg/L	20	14	89	70-130		
Manganese	0.42	0.010	0.0010	mg/L	0.40	0.015	101	70-130		
Boron	0.58	0.10	0.050	mg/L	0.40	0.13	112	70-130		
Calcium	48	0.50	0.042	mg/L	20	29	95	70-130		

Matrix Spike (BA31706-MS2)					Source: 1300509-01		Prepared & Analyzed: 01/17/13			
Manganese	0.42	0.010	0.0010	mg/L	0.40	0.0066	103	70-130		
Boron	0.78	0.10	0.050	mg/L	0.40	0.30	121	70-130		
Iron	8.0	0.10	0.020	mg/L	8.0	0.061	99	70-130		
Magnesium	50	0.50	0.020	mg/L	20	30	99	70-130		
Sodium	330	0.50	0.13	mg/L	20	300	117	70-130		
Calcium	74	0.50	0.042	mg/L	20	52	108	70-130		
Potassium	39	0.050	0.010	mg/L	20	19	100	70-130		

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
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February 8, 2013
Work Order: 1214542

Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch BA31706 - Metals Preparation for EPA Method 200.7

Matrix Spike Dup (BA31706-MSD1)		Source: 1214542-48			Prepared & Analyzed: 01/17/13					
Iron	9.2	0.10	0.020	mg/L	8.0	1.1	101	70-130	1	30
Manganese	0.42	0.010	0.0010	mg/L	0.40	0.015	102	70-130	0.6	30
Magnesium	35	0.50	0.020	mg/L	20	15	98	70-130	2	30
Potassium	21	0.050	0.010	mg/L	20	2.6	90	70-130	2	30
Boron	0.58	0.10	0.050	mg/L	0.40	0.13	113	70-130	0.2	30
Calcium	49	0.50	0.042	mg/L	20	29	99	70-130	2	30
Sodium	33	0.50	0.13	mg/L	20	14	94	70-130	3	30

Matrix Spike Dup (BA31706-MSD2)		Source: 1300509-01			Prepared & Analyzed: 01/17/13					
Calcium	69	0.50	0.042	mg/L	20	52	80	70-130	8	30
Potassium	37	0.050	0.010	mg/L	20	19	90	70-130	5	30
Manganese	0.41	0.010	0.0010	mg/L	0.40	0.0066	101	70-130	3	30
Boron	0.72	0.10	0.050	mg/L	0.40	0.30	105	70-130	9	30
Sodium	300	0.50	0.13	mg/L	20	300	NR	70-130	9	30
Magnesium	48	0.50	0.020	mg/L	20	30	88	70-130	4	30
Iron	7.9	0.10	0.020	mg/L	8.0	0.061	98	70-130	1	30

Reference (BA31706-SRM1)		Prepared & Analyzed: 01/17/13								
Iron	1.5	0.10	0.020	mg/L	1.5		98	80-120		
Manganese	1.5	0.010	0.0010	mg/L	1.5		102	80-120		

Batch BA31823 - Metals Preparation for EPA Method 200.7

Blank (BA31823-BLK1)		Prepared: 01/18/13 Analyzed: 01/22/13								
Sodium	0.13 U	0.50	0.13	mg/L						
Magnesium	0.020 U	0.50	0.020	mg/L						
Calcium	0.042 U	0.50	0.042	mg/L						
Potassium	0.037 I	0.050	0.010	mg/L						
Boron	0.050 U	0.10	0.050	mg/L						
Manganese	0.0010 U	0.010	0.0010	mg/L						
Iron	0.020 U	0.10	0.020	mg/L						

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	Limit
Batch BA31823 - Metals Preparation for EPA Method 200.7										
LCS (BA31823-BS1)					Prepared & Analyzed: 01/18/13					
Iron	8.2	0.10	0.020	mg/L	8.0		103	85-115		
Manganese	0.40	0.010	0.0010	mg/L	0.40		100	85-115		
Sodium	22	0.50	0.13	mg/L	20		110	85-115		
Boron	0.42	0.10	0.050	mg/L	0.40		105	85-115		
Potassium	21	0.050	0.010	mg/L	20		105	85-115		
Magnesium	22	0.50	0.020	mg/L	20		108	85-115		
Calcium	21	0.50	0.042	mg/L	20		106	85-115		
Matrix Spike (BA31823-MS1)		Source: 1300537-01			Prepared & Analyzed: 01/18/13					
Magnesium	32	0.50	0.020	mg/L	20	15	88	70-130		
Potassium	23	0.050	0.010	mg/L	20	4.5	95	70-130		
Manganese	0.35	0.010	0.0010	mg/L	0.40	ND	89	70-130		
Iron	7.3	0.10	0.020	mg/L	8.0	ND	91	70-130		
Sodium	260	5.0	1.3	mg/L	20	86	854	70-130		
Calcium	78	0.50	0.042	mg/L	20	63	75	70-130		
Boron	0.40	0.10	0.050	mg/L	0.40	0.058	86	70-130		
Matrix Spike (BA31823-MS2)		Source: 1300565-01			Prepared & Analyzed: 01/18/13					
Manganese	0.41	0.010	0.0010	mg/L	0.40	0.036	93	70-130		
Sodium	16,000	500	130	mg/L	20	690	NR	70-130		
Potassium	50	0.050	0.010	mg/L	20		251	70-130		
Calcium	1,800	50	4.2	mg/L	20		NR	70-130		
Boron	0.70	0.10	0.050	mg/L	0.40		176	70-130		
Magnesium	1,800	50	2.0	mg/L	20		NR	70-130		
Iron	8.2	0.10	0.020	mg/L	8.0	0.56	95	70-130		
Matrix Spike Dup (BA31823-MSD1)		Source: 1300537-01			Prepared & Analyzed: 01/18/13					
Iron	7.7	0.10	0.020	mg/L	8.0	ND	96	70-130	6	30
Sodium	240	5.0	1.3	mg/L	20	86	794	70-130	5	30
Manganese	0.37	0.010	0.0010	mg/L	0.40	ND	93	70-130	5	30
Boron	0.41	0.10	0.050	mg/L	0.40	0.058	89	70-130	3	30
Potassium	24	0.050	0.010	mg/L	20	4.5	98	70-130	3	30
Magnesium	34	0.50	0.020	mg/L	20	15	95	70-130	4	30
Calcium	78	0.50	0.042	mg/L	20	63	78	70-130	0.6	30

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

Metals - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BA31823 - Metals Preparation for EPA Method 200.7										
Matrix Spike Dup (BA31823-MSD2)		Source: 1300565-01			Prepared & Analyzed: 01/18/13					
Boron	0.69	0.10	0.050	mg/L	0.40		172	70-130	2	30
Sodium	18,000	500	130	mg/L	20	690	NR	70-130	9	30
Magnesium	1,900	50	2.0	mg/L	20		NR	70-130	6	30
Potassium	52	0.050	0.010	mg/L	20		258	70-130	3	30
Iron	8.1	0.10	0.020	mg/L	8.0	0.56	95	70-130	0.9	30
Manganese	0.40	0.010	0.0010	mg/L	0.40	0.036	91	70-130	1	30
Calcium	1,900	50	4.2	mg/L	20		NR	70-130	4	30

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

February 8, 2013
Work Order: 1214542

*** Qualifiers, Notes and Definitions**

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limits and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with **, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below.

+O Matrix spike source sample was over the recommended range for the method.

Questions regarding this report should be directed to :

Kathryn Nordmark

Telephone (813) 855-1844 FAX (813) 855-2218

Kathryn@southernanalyticalabs.com

Kathryn@southernanalyticalabs.com



SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name: Hazen and Sawyer
 Project Name / Location: Hillsborough County C-HS4 SE#2
 Contact / Phone:

SAL Use Only Sample No.	Sample Description	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	PARAMETER / CONTAINER DESCRIPTION				No. of Containers (Total per each location)	
													Field Temperature	Field pH	Field Conductivity	Field DO		
01	STE			WW		X	1	1										
02	STE-DUP			WW		X	1	1										
03	PZ-01			GW		X			1	1								
04	PZ-02			GW		X	1	1										
05	PZ-03			GW		X	1	1										
06	BKG-10	11/14/13	1006	GW		X				1	1	1	21.6	4.76	337	6.63		
07	BKG-15	11/14/13	1030	GW		X			1	1			23.3	5.89	124	0.22		
08	PZ-04			GW		X	1	1										
09	PZ-05			GW		X	1	1										
10	PZ-06			GW		X	1	1										
11	PZ-AB4-08	11/14/13	1059	GW		X			1	1			23.1	6.09	331	1.80		
12	PZ-AB4-08 DUP	11/14/13	1107	GW		X			1	1			23.1	6.09	331	1.80		

Containers Prepared/Relinquished: <i>J. Chambers</i>	Date/Time: 12-26-12 12:45	Received: <i>Joseph Hin</i>	Date/Time: 12-27-12 1:00pm	Seal intact?	<input checked="" type="radio"/> N NA	Instructions / Remarks:
Relinquished: <i>[Signature]</i>	Date/Time: 11/17/13 1410	Received: <i>[Signature]</i>	Date/Time: 1-14-13	Samples intact upon arrival?	<input checked="" type="radio"/> N NA	
Relinquished: <i>Gourier</i>	Date/Time:	Received: <i>J. Chambers</i>	Date/Time: 1-14-13 15:25	Received on ice? Temp _____	<input checked="" type="radio"/> N NA	
Relinquished: <i>[Signature]</i>	Date/Time:	Received:	Date/Time:	Proper preservatives indicated?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Rec'd within holding time?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Volatiles rec'd w/out headspace?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Proper containers used?	<input checked="" type="radio"/> N NA	

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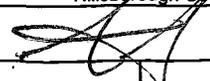
SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name: Hazen and Sawyer Contact / Phone: _____

Project Name / Location: Hillsborough County C-HS4 SE#2

Samplers: (Signature) 

SAL Use Only Sample No.	Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NO _x	1LP, Cool Total Alkalinity, NO _x	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NO _x , F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO	No. of Containers (Total per each location)
13	PZ-AB-4-15	1/14/13	1120	GW	X		1	1					23.5	7.24	456	3.84	
14	PZ-C1			GW	X		1	1									
15	PZ-C2			GW	X		1	1									
16	PZ-C3-08	1/14/13	1150	GW	X		1	1					23.0	5.15	438	1.05	
17	PZ-C3-15	1/14/13	1205	GW	X		1	1					23.9	6.82	489	1.36	
18	PZ-C6-08			GW	X		1	1									
19	PZ-C6-15			GW	X		1	1									
20	PZ-D3-08	1/14/13	1224	GW	X				1	1			23.0	5.33	385	0.78	
21	PZ-D3-15	1/14/13	1244	GW	X				1	1			23.8	6.74	811	1.70	
22	PZ-D4-08			GW	X		1	1									
23	PZ-D4-15			GW	X		1	1									
24	PZ-E1			GW	X				1	1							

Containers Prepared/Relinquished: <i>J. Chambers</i>	Date/Time: 12-26-12 13:00	Received: <i>George HS</i>	Date/Time: 12-27-12 1:00pm	Seal intact? <input checked="" type="radio"/> N NA Samples intact upon arrival? <input checked="" type="radio"/> N NA Received on ice? Temp _____ <input type="radio"/> N NA Proper preservatives indicated? <input checked="" type="radio"/> N NA Rec'd w/in holding time? <input checked="" type="radio"/> N NA Volatiles rec'd w/out headspace? <input type="radio"/> Y <input checked="" type="radio"/> NA Proper containers used? <input checked="" type="radio"/> N NA	Instructions / Remarks:
Relinquished: <i>Ar</i>	Date/Time: 1/14/13	Received: <i>Phill</i>	Date/Time: 1-14-13		
Relinquished: <i>Courier</i>	Date/Time: 1/14/13	Received: <i>J. Chambers</i>	Date/Time: 1-14-13 15:25		
Relinquished:	Date/Time:	Received:	Date/Time:		
Relinquished:	Date/Time:	Received:	Date/Time:		

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SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name: Hazen and Sawyer
 Project Name / Location: Hillsborough County C-HS4 SE#2
 Contact / Phone:

Samplers: (Signature) *[Signature]*

SAL Use Only Sample No.	Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO	No. of Containers (Total per each location)	
13	PZ-AB-4-15			GW	X	1	1											
14	PZ-C1			GW	X	1	1											
15	PZ-C2			GW	X	1	1											
16	PZ-C3-08			GW	X	1	1											
17	PZ-C3-15			GW	X	1	1											
18	PZ-C6-08	11/15/13	1137	GW	X	1	1						22.5	4.23	649	2.35		
19	PZ-C6-15	1	1157	GW	X	1	1						23.2	5.77	391	1.99		
20	PZ-D3-08			GW	X			1	1									
21	PZ-D3-15			GW	X			1	1									
22	PZ-D4-08	11/15/13	1022	GW	X	1	1						21.9	5.25	510	0.70		
23	PZ-D4-15	1	1041	GW	X	1	1						22.0	6.87	950	1.05		
24	PZ-E1			GW	X			1	1									

Containers Prepared/Relinquished:	Date/Time: 12-26-12 13:00	Received: <i>[Signature]</i>	Date/Time: 12-27-12 1:00pm	Seal intact? <input checked="" type="checkbox"/> N N/A Samples intact upon arrival? <input checked="" type="checkbox"/> N N/A Received on ice? Temp _____ <input checked="" type="checkbox"/> N N/A Proper preservatives indicated? <input checked="" type="checkbox"/> N N/A Rec'd w/in holding time? <input checked="" type="checkbox"/> N N/A Volatiles rec'd w/out headspace? Y <input checked="" type="checkbox"/> N N/A Proper containers used? <input checked="" type="checkbox"/> N N/A	Instructions / Remarks:
Relinquished:	Date/Time: 11/15/13	Received: <i>[Signature]</i>	Date/Time: 11/15/13 1575		
Relinquished:	Date/Time:	Received:	Date/Time:		
Relinquished:	Date/Time:	Received:	Date/Time:		
Relinquished:	Date/Time:	Received:	Date/Time:		

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SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name Hazen and Sawyer											Contact / Phone:												
Project Name / Location Hillsborough County C-HS4 SE#2																							
Samplers: (Signature) 											PARAMETER / CONTAINER DESCRIPTION												
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																							
SAL Use Only	Sample No.	Sample Description	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ , TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ , COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ , B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO					No. of Containers (Total per each location)	
	25	PZ-E2			GW	X		1	1														
	26	PZ-E3-08	11/14/13	1307	GW	X				1	1			22.7	5.62	728	0.73						
	27	PZ-E3-08-DUP	11/14/13	1312	GW	X				1	1			22.7	5.62	728	0.73						
	28	PZ-E3-15	11/14/13	1330	GW	X				1	1			24.6	6.57	331	4.23						
	29	PZ-E4-08			GW	X					1	1	1										
	30	PZ-E4-15			GW	X		1	1														
	31	PZ-E5-08			GW	X		1	1														
	32	PZ-E5-15			GW	X		1	1														
	33	PZ-E6-08			GW	X		1	1														
	34	PZ-E6-15			GW	X		1	1														
	35	PZ-E7-08			GW	X					1	1	1										
	36	PZ-E7-08-DUP			GW	X					1	1	1										
Containers Prepared/Relinquished:		Date/Time:	Received:		Date/Time:		Instructions / Remarks: Seal intact? <input checked="" type="radio"/> N NA Samples intact upon arrival? <input checked="" type="radio"/> N NA Received on ice? Temp _____ <input checked="" type="radio"/> N NA Proper preservatives indicated? <input checked="" type="radio"/> N NA Rec'd w/ithin holding time? <input checked="" type="radio"/> N NA Volatiles rec'd w/out headspace? Y N <input checked="" type="radio"/> NA Proper containers used? <input checked="" type="radio"/> N NA																
Relinquished: <i>J. Chambers</i>		12-26-12 13:00	Received: <i>[Signature]</i>		12-27-12 1:00pm																		
Relinquished: <i>[Signature]</i>		11/14/13 1410	Received: <i>[Signature]</i>		1-14-13																		
Relinquished: <i>Courier</i>		1-14-13	Received: <i>J. Chambers</i>		1-14-13 15:25																		
Relinquished:		Date/Time:	Received:		Date/Time:																		

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SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name Hazen and Sawyer										Contact / Phone:													
Project Name / Location Hillsborough County C-HS4 SE#2																							
Samplers: (Signature) 										PARAMETER / CONTAINER DESCRIPTION													
Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																							
SAL Use Only Sample No.	Sample Description				Date	Time	Matrix	Composite Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOX	1LP, Cool Total Alkalinity, NOX	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOX, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO					No. of Containers (Total per each location)
25	PZ-E2						GW	X	1	1													
26	PZ-E3-08						GW	X			1	1											
27	PZ-E3-08-DUP						GW	X			1	1											
28	PZ-E3-15						GW	X			1	1											
29	PZ-E4-08				11/15/13	0950	GW	X				1	1	1	21.6	5.29	632	0.74					
30	PZ-E4-15					1013	GW	X	1	1					22.7	6.73	517	1.62					
31	PZ-E5-08					1056	GW	X	1	1					22.6	5.01	552	0.72					
32	PZ-E5-15					1117	GW	X	1	1					23.4	6.73	820	1.15					
33	PZ-E6-08					1215	GW	X	1	1					22.5	4.99	501	2.32					
34	PZ-E6-15					1236	GW	X	1	1					23.3	5.44	380	3.05					
35	PZ-E7-08					1351	GW	X				1	1	1	22.9	4.98	398	3.18					
36	PZ-E7-08-DUP					1356	GW	X				1	1	1	22.9	4.98	398	3.18					
Containers Prepared/ Relinquished:		Date/Time: 12-26-12 13:00		Received: 		Date/Time: 12-27-12 1:00pm		Seal intact?		<input checked="" type="radio"/> N N/A		Instructions / Remarks:											
Relinquished:		Date/Time: 11/15/13		Received: 		Date/Time: 11/15/13 1515		Samples intact upon arrival?		<input checked="" type="radio"/> N N/A													
Relinquished:		Date/Time:		Received:		Date/Time:		Received on ice? Temp _____		<input checked="" type="radio"/> N N/A													
Relinquished:		Date/Time:		Received:		Date/Time:		Proper preservatives indicated?		<input checked="" type="radio"/> N N/A													
Relinquished:		Date/Time:		Received:		Date/Time:		Rec'd w/in holding time?		<input checked="" type="radio"/> N N/A													
Relinquished:		Date/Time:		Received:		Date/Time:		Volatiles rec'd w/out headspace?		Y N <input checked="" type="radio"/> NA													
Relinquished:		Date/Time:		Received:		Date/Time:		Proper containers used?		<input checked="" type="radio"/> N N/A													

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SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLOSMAR, FL 34677 B13-855-1844 fax B13-855-2218

SAL Project No. 1214542

Client Name Hazen and Sawyer											Contact / Phone:										
Project Name / Location Hillsborough County C-HS4 SE#2																					
Samplers: (Signature) 											PARAMETER / CONTAINER DESCRIPTION										
Matrix Codes: DW-Drinking Water WW-Wastewater SW-SurfaceWater SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																					
SAL Use Only Stamp No.	Sample Description	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO					No. of Containers (Total per each location)
	PZ-E2	11/17/13	1108	GW		X	1	1					21.7	5.90	1945	4.90					
	PZ-E3-08			GW		X			1	1											
	PZ-E3-08-DUP			GW		X			1	1											
	PZ-E3-15			GW		X			1	1											
	PZ-E4-08			GW		X				1	1	1									
	PZ-E4-15			GW		X	1	1													
	PZ-E5-08			GW		X	1	1													
	PZ-E5-15			GW		X	1	1													
	PZ-E6-08			GW		X	1	1													
	PZ-E6-15			GW		X	1	1													
	PZ-E7-08			GW		X				1	1	1									
	PZ-E7-08-DUP			GW		X				1	1	1									

Containers Prepared/ Relinquished:	Date/Time: 12-26-12 13:00	Received: 	Date/Time: 12-27-12 1:00pm
Relinquished:	Date/Time: 11/7/13 1350	Received: 	Date/Time: 11/7/13 1350
Relinquished:	Date/Time:	Received:	Date/Time:
Relinquished:	Date/Time:	Received:	Date/Time:
Relinquished:	Date/Time:	Received:	Date/Time:

Seal intact?	Y	N	NA
Samples intact upon arrival?	<input checked="" type="radio"/>	N	NA
Received on ice? Temp _____	<input checked="" type="radio"/>	N	NA
Proper preservatives indicated?	<input checked="" type="radio"/>	N	NA
Rec'd w/within holding time?	<input checked="" type="radio"/>	N	NA
Volatiles rec'd w/out headspace?	Y	N	NA
Proper containers used?	<input checked="" type="radio"/>	N	NA

Instructions / Remarks:

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SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 121454c

Client Name Hazen and Sawyer										Contact / Phone:											
Project Name / Location Hillsborough County C-HS4 SE#2																					
Samplers: (Signature) 										PARAMETER / CONTAINER DESCRIPTION											
Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																					
SAL Use Only Sample No.	Sample Description	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO					No. of Containers (Total per each location)
37	PZ-E7-15	1/15/12	1316	GW		X			1	1			23.5	7.14	1740	3.93					
38	PZ-F3-08		DPY	GW		X			1	1											
39	PZ-F3-15		0850	GW		X			1	1			22.1	6.84	353	4.16					
40	PZ-F4-08		0905	GW		X				1	1	1	20.4	7.14	813	5.99					
41	PZ-F4-15		0932	GW		X			1	1			22.2	7.14	1287	5.08					
42	PZ-G1			GW		X	1	1													
43	PZ-G2-12.5			GW		X	1	1													
44	PZ-H4-08	1/15/13	1333	GW		X			1	1			23.0	5.21	559	4.17					
45	PZ-H4-15		1346	GW		X			1	1			23.5	7.01	858	5.61					
46	PZ-H4-15-DUP		1353	GW		X			1	1			23.5	7.01	858	5.61					
47	PZ-H5-11.5			GW		X	1	1													
48	PZ-I6-08			GW		X	1				1	1									

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Containers Prepared/Relinquished:	Date/Time: 12-26-12 12:00	Received: 	Date/Time: 12/27/12 1:00pm	Instructions / Remarks: Seal intact? <input checked="" type="radio"/> N N/A Samples intact upon arrival? <input checked="" type="radio"/> N N/A Received on ice? Temp _____ <input checked="" type="radio"/> N N/A Proper preservatives indicated? <input checked="" type="radio"/> N N/A Rec'd w/within holding time? <input checked="" type="radio"/> N N/A Volatiles rec'd w/out headspace? Y N <input checked="" type="radio"/> N/A Proper containers used? <input checked="" type="radio"/> N N/A
Relinquished:	Date/Time: 1/15/13	Received: 	Date/Time: 1/15/13 1515	
Relinquished:	Date/Time:	Received:	Date/Time:	
Relinquished:	Date/Time:	Received:	Date/Time:	
Relinquished:	Date/Time:	Received:	Date/Time:	

SOUTHERN ANALYTICAL LABORATORIES, INC.

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214546

Client Name: Hazen and Sawyer
 Project Name / Location: Hillsborough County C-HS4 SE#2
 Contact / Phone:

Samplers: (Signature) *[Signature]*

SAL Use Only Sample No.	Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	PARAMETER / CONTAINER DESCRIPTION														No. of Containers (Total per each location)		
		Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity		Field DO	
37	PZ-E7-15			GW	X			1	1									
38	PZ-F3-08			GW	X			1	1									
39	PZ-F3-15			GW	X			1	1									
40	PZ-F4-08			GW	X				1	1	1							
41	PZ-F4-15			GW	X			1	1									
42	PZ-G1			GW	X	1	1											
43	PZ-G2-12.5	1/16/13	1002	GW	X	1	1					22.4	4.70	570	1.40			
44	PZ-H4-08			GW	X			1	1									
45	PZ-H4-15			GW	X			1	1									
46	PZ-H4-15-DUP			GW	X			1	1									
47	PZ-H5-11.5	1/16/13	1048	GW	X	1	1					22.2	9.55	441	1.27			
48	PZ-I6-08	1	1110	GW	X	1					1	1	22.5	5.04	385	0.20		

Containers Prepared/Relinquished:	Date/Time: 12-26-12 12:00	Received: <i>[Signature]</i>	Date/Time: 12/27/12 1:00pm	Seal intact? Y N <input checked="" type="radio"/> NA Samples intact upon arrival? <input checked="" type="radio"/> Y N NA Received on ice? Temp _____ <input checked="" type="radio"/> Y N NA Proper preservatives indicated? <input checked="" type="radio"/> Y N NA Rec'd within holding time? <input checked="" type="radio"/> Y N NA Volatiles rec'd w/out headspace? Y N <input checked="" type="radio"/> NA Proper containers used? <input checked="" type="radio"/> Y N NA	Instructions / Remarks:
Relinquished: <i>[Signature]</i>	Date/Time: 1/15/13 1/16/13	Received: <i>[Signature]</i>	Date/Time: 1/16/13 1:535		
Relinquished:	Date/Time:	Received:	Date/Time:		
Relinquished:	Date/Time:	Received:	Date/Time:		
Relinquished:	Date/Time:	Received:	Date/Time:		

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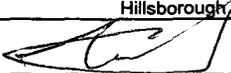
Client Name Hazen and Sawyer											Contact / Phone:						
Project Name / Location Hillsborough County C-HS4 SE#2																	
Samplers: (Signature) 											PARAMETER / CONTAINER DESCRIPTION						
Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Studge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water																	
SAL Use Only Sample No.	Sample Description	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	Field Temperature	Field pH	Field Conductivity	Field DO	No. of Containers (Total per each location)
49	PZ-I6-15	11/16/13	1133	GW		X	1	1					23.4	6.90	1849	0.18	
50	PZ-I10-08		1215	GW		X			1	1			22.9	5.29	460	0.51	
51	PZ-I10-08-DUP		1220	GW		X			1	1			22.9	5.29	460	0.51	
52	PZ-I10-15		1230	GW		X	1	1					23.1	6.88	734	0.79	
53	PZ-J4-08		1020	GW		X				1	1	1	DRY				
54	PZ-J4-15		1029	GW		X			1	1			23.0	6.47	585	0.36	
55	PZ-J7-08		1148	GW		X				1	1	1	22.8	5.07	299	0.79	
56	PZ-J7-15		1200	GW		X	1	1					23.5	5.30	415	1.06	
57	PZ-N4-08		1358	GW		X			1	1			22.9	5.67	280	4.22	
58	PZ-N4-15		1422	GW		X	1	1					23.1	6.69	726	0.38	
59	PZ-N7-08		1335	GW		X	1	1					24.4	5.96	454	1.04	
60	PZ-N7-15		1345	GW		X	1	1					23.9	5.73	259	0.31	
Containers Prepared/Relinquished:		Date/Time:	Received:	Date/Time:	Seal intact? Y N <input checked="" type="radio"/> NA Samples intact upon arrival? <input checked="" type="radio"/> N NA Received on ice? Temp _____ <input checked="" type="radio"/> Y N NA Proper preservatives indicated? <input checked="" type="radio"/> N NA Rec'd w/in holding time? <input checked="" type="radio"/> N NA Volatiles rec'd w/out headspace? Y N <input checked="" type="radio"/> NA Proper containers used? <input checked="" type="radio"/> N NA												
Relinquished:		Date/Time:	Received:	Date/Time:													
Relinquished:		Date/Time:	Received:	Date/Time:													
Relinquished:		Date/Time:	Received:	Date/Time:													
Relinquished:		Date/Time:	Received:	Date/Time:													

SOUTHERN ANALYTICAL LABORATORIES, INC.

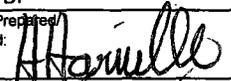
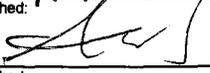
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

SAL Project No. 1214542

Client Name: Hazen and Sawyer Contact / Phone: _____
 Project Name / Location: Hillsborough County C-HS4 SE#2

Samplers: (Signature) 

SAL Use Only	Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water	Date	Time	Matrix	Composite	Grab	250mL P, H ₂ SO ₄ TKN, NH ₃	1LP, Cool NOx	1LP, Cool Total Alkalinity, NOx	250mL P, H ₂ SO ₄ COD, TKN, NH ₃ , TP	1LP, Cool Total Alkalinity, NOx, F, Cl, OP, SO ₄	250mL P, HNO ₃ B, Ca, Fe, Mg, Mn, K, Na	PARAMETER / CONTAINER DESCRIPTION				No. of Containers (Total per each location)	
													Field Temperature	Field pH	Field Conductivity	Field DO		
61	PZ-N10-08	1/16/13	1306	GW		X			1	1			23.5	6.40	502	0.33		
62	PZ-N10-08-DUP		1311	GW		X			1	1			23.5	6.40	502	0.33		
63	PZ-N10-15		1245	GW		X	1	1					24.3	7.11	1573	0.82		
64	PZ-S10-08		1321	GW		X			1	1			24.0	5.31	303	0.71		
65	DP-01			GW		X			1	1								
66	DP-02			GW		X			1	1								
67	DP-03			GW		X			1	1								
68	DP-04-shallow			GW		X			1	1								
69	DP-04-deep			GW		X			1	1								
70	DP-05			GW		X			1	1								
71	DP-06			GW		X			1	1								
72	FB-DI	1/16/13	0820	R		X					1	1	1	19.7	7.65	1.43	8.60	

Containers Prepared/Relinquished: 	Date/Time: <u>1330</u>	Received: <u>George Hin</u>	Date/Time: <u>12/27/12 1:00pm</u>	Seal intact?	Y N <input checked="" type="radio"/>	Instructions / Remarks:
Relinquished: 	Date/Time: <u>1535</u>	Received: <u>K. Nudman</u>	Date/Time: <u>1/16/13 1535</u>	Samples intact upon arrival?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Received on ice? Temp _____	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Proper preservatives indicated?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Rec'd w/in holding time?	<input checked="" type="radio"/> N NA	
Relinquished:	Date/Time:	Received:	Date/Time:	Volatiles rec'd w/out headspace?	Y N <input checked="" type="radio"/>	
Relinquished:	Date/Time:	Received:	Date/Time:	Proper containers used?	<input checked="" type="radio"/> N NA	

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-H54	SITE LOCATION:
WELL NO: P201	DATE: 1/17/13

PURGING DATA

WELL DIAMETER (inches): 0.75"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.45	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (9.60 feet - 7.45 feet) X 0.02 gallons/foot = 0.043 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1120	PURGING ENDED AT: 1126	TOTAL VOLUME PURGED (gallons): 0.36							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	DOOR (describe) OR P
1126	0.36	0.36	0.06	7.80	5.65	21.3	491	3.80	19.4	CLEAR	-57.0
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1127		SAMPLING ENDED AT: 1128		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>		FILTER SIZE: _____ μm				
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N (replaced) <input checked="" type="checkbox"/>				DUPLICATE: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-454	SITE LOCATION:
WELL NO: P206	DATE: 1/17/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 9.05	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (11.15 \text{ feet} - 9.05 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.084 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0915	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
			0.06		NO SAMPLE						
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT:		SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N				TUBING Y <input checked="" type="checkbox"/> N (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS: well purged dry quickly and did not recover, pump at 0.01 gpm.											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: BKG-15	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 0.75	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 8.06	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (14.40 \text{ feet} - 8.06 \text{ feet}) \times 0.02 \text{ gallons/foot} = 0.126 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1014	PURGING ENDED AT: 1029	TOTAL VOLUME PURGED (gallons): 2.25							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe) or ORP
1029	2.25	2.25	0.05	9.25	5.89	23.3	127.0	0.22	594	BROWN	-199.3
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / H+S			SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 1030		SAMPLING ENDED AT: 1031	
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>			TUBING Y <input checked="" type="radio"/> N (replaced) <input type="radio"/>			DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: PZAB408 DUP	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6.68	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (8.42 \text{ feet} - 6.68 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.069 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1043	PURGING ENDED AT: 1058	TOTAL VOLUME PURGED (gallons): 0.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe) or P
1058	0.90	0.90	0.06	8.00	6.09	23.1	331	1.80	65.3	CLOUDY	-108.6
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / H+S			SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1104		SAMPLING ENDED AT: 1108		
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/>		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/>					TUBING Y <input checked="" type="checkbox"/> (Replaced)			DUPLICATE: Y <input checked="" type="checkbox"/>		
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: PZAB415	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 0.75	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6.58	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.67 feet - 6.58 feet) X 0.02 gallons/foot = 0.161 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1110	PURGING ENDED AT: 1119	TOTAL VOLUME PURGED (gallons): 1.35							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μ mhos/cm or μ S/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1119	1.35	1.35	0.45	8.07	7.24	23.5	456	3.84	19.5	CLEAR	ORP
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1120		SAMPLING ENDED AT:		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: AE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μ m				
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

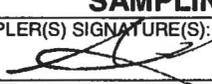
**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-HS4	SITE LOCATION:
WELL NO: P2C1	DATE: 1/17/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 8.98	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (9.95 feet - 8.98 feet) X 0.04 gallons/foot = 0.038 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT: 1000	PURGING ENDED AT: 1015	TOTAL VOLUME PURGED (gallons): 0.30					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μ mhos/cm or μ S/cm	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	QDQB (describe) ORP
1015	0.30	0.30	0.02	9.65	5.69	22.6	810	4.91	11.2	CLEAR	709
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1016		SAMPLING ENDED AT: 1017		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μ m		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/>				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

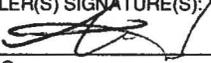
**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1454	SITE LOCATION:
WELL NO: PCC3-15	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 0.75"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.52	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.61 feet - 7.52 feet) X 0.02 gallons/foot = 0.141 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1156	PURGING ENDED AT: 1207	TOTAL VOLUME PURGED (gallons): 1.65							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1207	1.65	1.65	0.15	7.94	6.82	23.9	489	1.36	17.5	CLEAR	-108.5
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1208		SAMPLING ENDED AT: 1209		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N				TUBING Y <input checked="" type="checkbox"/> N (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-H54	SITE LOCATION:
WELL NO: PZCG-08	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6.30	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (8.50 \text{ feet} - 6.30 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.088 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1124	PURGING ENDED AT: 1136	TOTAL VOLUME PURGED (gallons): 0.48							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1136	0.48	0.48	0.04	6.90	4.23	22.5	649	2.35	19.8	CLEAR	ORP
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / H+5				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1137		SAMPLING ENDED AT: 1138	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/>				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-HS4	SITE LOCATION:
WELL NO: PZD3-08	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.22	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (8.00 feet - 7.22 feet) X 0.04 gallons/foot = 0.031 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1216	PURGING ENDED AT: 1223	TOTAL VOLUME PURGED (gallons): 0.78							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (describe)
			0.04	7.54	5.33	23.0	385	0.78	19.6	CLEAR	-5.8
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Erin Schmidt / H+S			SAMPLER(S) SIGNATURE(S):			SAMPLING INITIATED AT: 1224		SAMPLING ENDED AT: 1225	
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N			TUBING Y <input checked="" type="radio"/> N (replaced)			DUPLICATE: Y <input checked="" type="radio"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

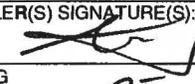
**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1454	SITE LOCATION:
WELL NO: PCD4-08	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.17	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (7.87 feet - 7.17 feet) X 0.04 gallons/foot = 0.028 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1016	PURGING ENDED AT: 1021	TOTAL VOLUME PURGED (gallons): 0.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{hos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) μM or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (describe)
1021	0.90	0.90	0.04	7.50	5.25	21.9	510	0.70	16.5	CLEAR	-18.0
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1022		SAMPLING ENDED AT: 1023	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-154	SITE LOCATION:
WELL NO: PZE1	DATE: 1/17/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 9.21	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (11.31 \text{ feet} - 9.21 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.084 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0833	PURGING ENDED AT: 0948	TOTAL VOLUME PURGED (gallons): 0.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0948	0.90	0.90	0.06	11.15	5.70	22.6	176.6	3.57	247	CLOUDY	ORP -205.6
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: 0949		SAMPLING ENDED AT: 0950		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="radio"/> N <input checked="" type="radio"/>		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input checked="" type="radio"/>				TUBING Y <input checked="" type="radio"/> N (replaced) <input checked="" type="radio"/>				DUPLICATE: Y <input checked="" type="radio"/> N <input checked="" type="radio"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-H54	SITE LOCATION:
WELL NO: PZEZ	DATE: 1/17/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 8.25	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (11.70 feet - 8.25 feet) X 0.04 gallons/foot = 0.138 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1052	PURGING ENDED AT: 1107	TOTAL VOLUME PURGED (gallons): 0.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μ mhos/cm or μ S/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1107	0.90	0.90	0.06	11.65	5.90	21.7	1945	4.90	193	CLOUDY	-154.0
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / A+S			SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: 1108	SAMPLING ENDED AT: 1109		
PUMP OR TUBING DEPTH IN WELL (feet):			TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	FILTER SIZE: _____ μ m			
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/>			DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
REMARKS:									
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)									

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)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1154	SITE LOCATION:
WELL NO: P2E3-08 DUP	DATE: 1/14/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.35	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (8.25 \text{ feet} - 7.35 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.036 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1251	PURGING ENDED AT: 1306	TOTAL VOLUME PURGED (gallons): 0.60							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (describe)
1306	0.60	0.60	0.04	7.78	5.62	22.1	728	0.73	95.2	CLOUDY	-98.2
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1312		SAMPLING ENDED AT: 1313	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N				TUBING Y <input checked="" type="radio"/> N (replaced)				DUPLICATE: Y <input checked="" type="radio"/> N			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1154	SITE LOCATION:
WELL NO: PZET-08	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.18	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (7.82 feet - 7.18 feet) X 0.04 gallons/foot = 0.025 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0944	PURGING ENDED AT: 0949	TOTAL VOLUME PURGED (gallons): 0.10							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0949	0.10	0.10	0.02	7.48	5.29	21.6	632	0.74	9.60	CLEAR	79.0
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 0950		SAMPLING ENDED AT: 0951	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="radio"/> (N)		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> (N) TUBING Y <input checked="" type="radio"/> (replaced)				DUPLICATE: Y <input checked="" type="radio"/> (N)							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: PZEG-08	SAMPLE ID: _____ DATE: 1/9/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6-62	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (7.90 feet - 6-62 feet) X 0.04 gallons/foot = 0.051 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT: 1204	PURGING ENDED AT: 1214	TOTAL VOLUME PURGED (gallons): 0.60					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) $\frac{\text{mg/L}}{\text{or}} \%$ saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe) ORP
1214	0.60	0-60	0.06	6.88	4.99	22.5	501	2-32	9.07	CLEAR	34.7
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt/H75				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: 1215		SAMPLING ENDED AT: 1216			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N) TUBING Y <input checked="" type="checkbox"/> (N) (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> (N)									
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1454	SITE LOCATION:
WELL NO: PZEG-15	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 0.75	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6-62	PURGE PUMP TYPE OR BAILER: AP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.40 feet - 6-62 feet) X 0.02 gallons/foot = 0.155 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1220	PURGING ENDED AT: 1235	TOTAL VOLUME PURGED (gallons): 1.50							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μ mhos/cm or μ S/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe) ORP
1235	1.50	1.50	0.10	6.91	5.47	23.3	380	3.05	46.2	CLOUDY	97.0
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1236		SAMPLING ENDED AT: 1237			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>		FILTER SIZE: _____ μ m					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>				TUBING Y <input checked="" type="radio"/> N (replaced) <input type="radio"/>				DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: P2F3-05	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 0.75	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.72	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.54 feet - 7.72 feet) X 0.02 gallons/foot = _____ gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0837	PURGING ENDED AT: 0849	TOTAL VOLUME PURGED (gallons): 1.20							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0849	1.20	1.20	0.10	8.45	6.84	22.1	353	4.16	19.6	CLEAR	-18%O
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Deen Schmidt / HHS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 0850		SAMPLING ENDED AT: 0851		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)		FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N)				TUBING Y <input checked="" type="checkbox"/> (N) (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> (N)				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

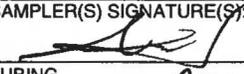
**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1454	SITE LOCATION:
WELL NO: EPZ1415	DATE: 1/15/13

PURGING DATA

WELL DIAMETER (inches): 0.75	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.85	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.80 feet - 7.85 feet) X 0.02 gallons/foot = 0.139 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1340	PURGING ENDED AT: 1347	TOTAL VOLUME PURGED (gallons): 0.70							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe) ORP
1347	0.70	0.70	0.10	8.40	7.01	23.5	858	5.61	17.8	CLEAR	-84.1
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / H45				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1348		SAMPLING ENDED AT: 1349	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)		FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N) TUBING Y <input checked="" type="checkbox"/> (N) (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> (N)							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-H54	SITE LOCATION:
WELL NO: PZ10-15	DATE: 1/16/13

PURGING DATA

WELL DIAMETER (inches): 0.75"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 5.85	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (12.65 feet - 5.85 feet) X 0.02 gallons/foot = 0.136 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1225	PURGING ENDED AT: 1229	TOTAL VOLUME PURGED (gallons): 0.40							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μ mhos/cm or μ S/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1229	0.40	0.40	0.40	6.40	6.83	23.1	734	0.79	3.09	CLEAR	-139.4
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / H54				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1230		SAMPLING ENDED AT: 1231	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="radio"/> (N)		FILTER SIZE: _____ μ m	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> (N)				TUBING Y <input checked="" type="radio"/> (N) (replaced)				DUPLICATE: Y <input checked="" type="radio"/> (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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

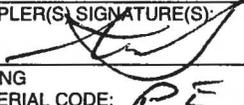
**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1454	SITE LOCATION:
WELL NO: P257-08	DATE:

PURGING DATA

WELL DIAMETER (inches): 6.1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 6.68	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (8.74 feet - 6.68 feet) X 0.04 gallons/foot = 0.0704 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT: 1141	PURGING ENDED AT: 1147	TOTAL VOLUME PURGED (gallons): 0.36					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1147	0.36	0.36	0.06	7.40	5.07	22.8	299	0.78	15.6	CLEAR	1.9
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt/HHS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1148		SAMPLING ENDED AT: 1149			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: PZN408	DATE: 1/16/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 7.88	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (8.28 feet - 7.88 feet) X 0.04 gallons/foot = 0.016 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1352	PURGING ENDED AT: 1357	TOTAL VOLUME PURGED (gallons): 0.10							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1357	0.10	0.10	0.02	8.25	5.67	22.9	280	4.27	15.1	CLEAR	ORP -75.8
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1358		SAMPLING ENDED AT: 1359	
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y (N)		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N) (replaced)				DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
REMARKS:											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-154	SITE LOCATION:
WELL NO: PZN1008	DATE: 1/16/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 5.80	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (7.55 feet - 5.80 feet) X 0.04 gallons/foot = 0.07 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1250	PURGING ENDED AT: 1305	TOTAL VOLUME PURGED (gallons): 0.90							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1305	0.90	0.90	0.06	6.25	6.40	23.5	502	0.33	38.5	CLOUDY	ORP -97.2
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HTS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1306		SAMPLING ENDED AT: 1307		
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N		FILTER SIZE: _____ μm				
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N				TUBING Y <input checked="" type="checkbox"/> N (Replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH						
REMARKS:												
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)												
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)												

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-1754	SITE LOCATION:
WELL NO: PZ N10 08 DUP	DATE: 1/16/13

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 5.80	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (7.55 \text{ feet} - 5.80 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.07 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1250	PURGING ENDED AT: 1305	TOTAL VOLUME PURGED (gallons): 0.80							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1305	0.96	0.90	0.06	6.25	6.40	23.5	502	0.33	38.5	CLEAR	-97.2
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Clean Schmidt / HHS				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1311		SAMPLING ENDED AT: 1312			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>				TUBING Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> (replaced)				DUPLICATE: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

**Form FD 9000-24
GROUNDWATER SAMPLING LOG**

SITE NAME: C-HS4	SITE LOCATION:
WELL NO: PZ N10-15	DATE: 1/16/13

PURGING DATA

WELL DIAMETER (inches): 0.15	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 5.75	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (14.25 feet - 5.75 feet) X 0.02 gallons/foot = 0.17 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT: 1240	PURGING ENDED AT: 1248	TOTAL VOLUME PURGED (gallons): 0.40					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1248	0.40	0.40	0.10	6.02	7.11	24.3	1573	0.82	3.14	CLEAR	0.1
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HHS				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: 1245		SAMPLING ENDED AT: 1246			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N)		FILTER SIZE: _____ μm					
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> (N)				TUBING Y <input checked="" type="checkbox"/> (N)replaced				DUPLICATE: Y <input checked="" type="checkbox"/> (N)					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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)

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: C-HS9	SITE LOCATION:
WELL NO: PZS1008	DATE:

PURGING DATA

WELL DIAMETER (inches): 1"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 5.94	PURGE PUMP TYPE OR BAILER:							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (8.25 feet - 5.94 feet) X 0.04 gallons/foot = 0.092 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1315	PURGING ENDED AT: 1320	TOTAL VOLUME PURGED (gallons): 0.30							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	GDOR (describe)
1320	0.30	0.30	0.06	6.55	5.31	24.0	303	0.71	19.5	CLEAR	-59.6
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" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Sean Schmidt / HYS				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1321		SAMPLING ENDED AT: 1322			
PUMP OR TUBING DEPTH IN WELL (feet):				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: _____ μm			
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N				TUBING Y <input checked="" type="radio"/> N (replaced)				DUPLICATE: Y <input checked="" type="radio"/> N					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

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: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)



Appendix E: September 6, 2012 Water Quality and Laboratory Report

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Table E.1
Water Quality Data Preliminary Sample Event September 6, 2012

Sample IDs	Sample Date/Time	Temp (°C)	pH	Total Alkalinity (mg/L)	DO (mg/L)	Specific Conductance (µS)	COD (mg/L)	TN (mg/L N) ¹	TKN (mg/L N)	Organic N (mg/L N) ²	NH ₃ -N (mg/L N)	NO _x (mg/L N)	TIN (mg/L N) ³	TP (mg/L)	Chloride (mg/L)
CHS4-STE	9/10/12 9:00	26.8	7.0	610	0.4	1463		68.0	68	13.0	55	0.03	55.0	7.1	
CHS4-DP01-7	9/6/12 9:15	26.8	4.0	2	0.51	540	47	5.0	1.8	1.8	0.021	3.2	3.2	0.05	25
CHS4-DP02-7	9/6/12 9:45	26.7	5.5	4.2	0.2	596	31	8.4	3.7	3.7	0.014	4.7	4.7	0.057	24
CHS4-DP03-7	9/6/12 10:30	26.9	4.8	12	1.86	639	67	14.4	5.4	5.4	0.009	9	9.0	0.35	31
CHS4-DP-04	9/6/12 13:20	26.0	5.5	39	1.4	747	72	19.3	4.3	4.3	0.01	15	15.0	0.075	28
CHS4-DP-05	9/6/12 13:45	26.0	4.8	8.4	1.4	350	47	1.5	1.2	1.1	0.09	0.27	0.4	0.064	12
CHS4-DP-06	9/6/12 14:05	26.1	5.1	15	0.6	488	49	2.2	1.4	1.3	0.068	0.75	0.8	0.064	16
CHS4-PZ01-10	9/6/12 11:00	26.8	4.3	2	0.86	669	40	13.4	4.3	4.3	0.018	9.1	9.1	0.044	30
CHS4-PZ01-10 Dup	9/6/12 11:05	26.8	4.3	2	0.86	669	40	12.2	4.2	4.2	0.014	8	8.0	0.044	29
CHS4-PZ03	9/6/12 12:00	26.6	3.5	2	1.2	210	56	1.2	1.2	1.2	0.046	0.02	0.1	0.13	11
CHS4-PZ04	9/6/12 11:45	27.8	3.9	2	7.07	801	44	1.0	0.95	0.9	0.009	0.05	0.1	0.069	25
CHS4-PZ05	9/6/12 14:30	26.1	5.0	9.4	2.4	687	40	11.3	3.3	3.1	0.19	8	8.2	0.062	30
CHS4-PZ06	9/6/12 15:00	26.1	4.8	8.4	4	380	67	2.1	2	1.8	0.16	0.11	0.3	3.1	14

Notes:

¹Total Nitrogen (TN) is a calculated value equal to the sum of TKN and NO_x

²Organic Nitrogen (ON) is a calculated value equal to the difference of TKN and NH₃

³Total Inorganic Nitrogen (TIN) is a calculated value equal to the sum of NH₃ and NO_x

D.O. - Dissolved oxygen

G - Grab sample

Gray-shaded data points indicate values below method detection level (mdl), mdl value used for statistical analyses.

Yellow-shaded data points indicate the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit, value used for statistical

Hazen and Sawyer
10002 Princess Palm Ave, Suite 200
Tampa, FL 33619

September 28, 2012

Work Order: 1210253

Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-DP01-7'						
Matrix		Groundwater						
SAL Sample Number		1210253-01						
Date/Time Collected		09/06/12 09:15						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		4.0						
Temperature		26.8 °C						
Conductivity		540 umhos						
Dissolved Oxygen		0.51 mg/L						

Inorganics

Ammonia as N	mg/L	0.021 I	EPA 350.1	0.040	0.009		09/11/12 14:33	MMF
Chemical Oxygen Demand	mg/L	47	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	25	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	3.2	EPA 353.2	0.20	0.05		09/12/12 11:22	MMF
Phosphorous - Total as P	mg/L	0.050	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 12:59	MMF
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		09/11/12 09:21	TJH
Total Kjeldahl Nitrogen	mg/L	1.8	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:35	MMF

Sample Description		CHS4-DP02-7'						
Matrix		Groundwater						
SAL Sample Number		1210253-02						
Date/Time Collected		09/06/12 09:45						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		4.5						
Temperature		26.7 °C						
Conductivity		596 umhos						
Dissolved Oxygen		0.20 mg/L						

Inorganics

Ammonia as N	mg/L	0.014 I	EPA 350.1	0.040	0.009		09/11/12 14:35	MMF
Chemical Oxygen Demand	mg/L	31	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	24	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	4.7	EPA 353.2	0.20	0.05		09/12/12 11:25	MMF
Phosphorous - Total as P	mg/L	0.057	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:00	MMF
Total Alkalinity	mg/L	4.2 I	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	3.7	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:37	MMF

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September 28, 2012
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Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-DP03-7'						
Matrix		Groundwater						
SAL Sample Number		1210253-03						
Date/Time Collected		09/06/12 10:30						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		4.8						
Temperature		26.9 °C						
Conductivity		639 umhos						
Dissolved Oxygen		1.86 mg/L						

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		09/11/12 14:52	MMF
Chemical Oxygen Demand	mg/L	67	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	31	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	9.0	EPA 353.2	0.20	0.05		09/12/12 11:27	MMF
Phosphorous - Total as P	mg/L	0.35	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:03	MMF
Total Alkalinity	mg/L	12	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	5.4	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 12:15	MMF

Sample Description		CHS4-PZ01-10'						
Matrix		Groundwater						
SAL Sample Number		1210253-04						
Date/Time Collected		09/06/12 11:00						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		4.3						
Temperature		26.8 °C						
Conductivity		669 umhos						
Dissolved Oxygen		0.86 mg/L						

Inorganics

Ammonia as N	mg/L	0.018 I	EPA 350.1	0.040	0.009		09/11/12 14:54	MMF
Chemical Oxygen Demand	mg/L	40	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	30	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	9.1	EPA 353.2	0.20	0.05		09/12/12 11:29	MMF
Phosphorous - Total as P	mg/L	0.044	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:05	MMF
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	4.3	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:39	MMF

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-PZ01-10' Dup						
Matrix		Groundwater						
SAL Sample Number		1210253-05						
Date/Time Collected		09/06/12 11:05						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH	4.3
Temperature	26.8 °C
Conductivity	669 umhos
Dissolved Oxygen	0.86 mg/L

Inorganics

Ammonia as N	mg/L	0.014 I	EPA 350.1	0.040	0.009		09/11/12 14:56	MMF
Chemical Oxygen Demand	mg/L	40	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	29	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	8.0	EPA 353.2	0.20	0.05		09/12/12 11:31	MMF
Phosphorous - Total as P	mg/L	0.044	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:06	MMF
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	4.2	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:41	MMF

Sample Description	CHS4-PZ04
Matrix	Groundwater
SAL Sample Number	1210253-06
Date/Time Collected	09/06/12 11:45
Collected by	Josephine Edeback-Hirst
Date/Time Received	09/06/12 17:00

Client Provided Field Data

pH	3.9
Temperature	27.8 °C
Conductivity	801 umhos
Dissolved Oxygen	7.07 mg/L

Inorganics

Ammonia as N	mg/L	0.009 U	EPA 350.1	0.040	0.009		09/11/12 14:58	MMF
Chemical Oxygen Demand	mg/L	44	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	25	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	0.05	EPA 353.2	0.04	0.01		09/12/12 10:53	MMF
Phosphorous - Total as P	mg/L	0.069	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:07	MMF
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	0.95	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:42	MMF

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-PZ03						
Matrix		Groundwater						
SAL Sample Number		1210253-07						
Date/Time Collected		09/06/12 12:00						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		3.5						
Temperature		26.6 °C						
Conductivity		210 umhos						
Dissolved Oxygen		1.2 mg/L						

Inorganics

Ammonia as N	mg/L	0.046	EPA 350.1	0.040	0.009		09/11/12 15:00	MMF
Chemical Oxygen Demand	mg/L	56	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	11	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	0.02 I	EPA 353.2	0.04	0.01		09/12/12 10:56	MMF
Phosphorous - Total as P	mg/L	0.13	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:08	MMF
Total Alkalinity	mg/L	2.0 U	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	1.2	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:43	MMF

Sample Description		CHS4-DP-06						
Matrix		Groundwater						
SAL Sample Number		1210253-08						
Date/Time Collected		09/06/12 14:05						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH		5.1						
Temperature		26.1 °C						
Conductivity		488 umhos						
Dissolved Oxygen		0.6 mg/L						

Inorganics

Ammonia as N	mg/L	0.068	EPA 350.1	0.040	0.009		09/11/12 15:02	MMF
Chemical Oxygen Demand	mg/L	49	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	16	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	0.75	EPA 353.2	0.04	0.01		09/12/12 10:58	MMF
Phosphorous - Total as P	mg/L	0.064	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:09	MMF
Total Alkalinity	mg/L	15	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	1.4	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:44	MMF

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September 28, 2012

Work Order: 1210253

Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-DP-04						
Matrix		Groundwater						
SAL Sample Number		1210253-09						
Date/Time Collected		09/06/12 13:20						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH	5.5
Temperature	26.0 °C
Conductivity	747 umhos
Dissolved Oxygen	1.4 mg/L

Inorganics

Ammonia as N	mg/L	0.010 I	EPA 350.1	0.040	0.009		09/11/12 15:04	MMF
Chemical Oxygen Demand	mg/L	72	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	28	EPA 300.0	0.20	0.050		09/20/12 16:48	JAG
Nitrate+Nitrite (N)	mg/L	15	EPA 353.2	1.0	0.25		09/12/12 11:38	MMF
Phosphorous - Total as P	mg/L	0.075	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:11	MMF
Total Alkalinity	mg/L	39	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	4.3	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:46	MMF

Sample Description	CHS4-DP-05
Matrix	Groundwater
SAL Sample Number	1210253-10
Date/Time Collected	09/06/12 13:45
Collected by	Josephine Edeback-Hirst
Date/Time Received	09/06/12 17:00

Client Provided Field Data

pH	4.8
Temperature	26.0 °C
Conductivity	350 umhos
Dissolved Oxygen	1.4 mg/L

Inorganics

Ammonia as N	mg/L	0.090	EPA 350.1	0.040	0.009		09/11/12 15:06	MMF
Chemical Oxygen Demand	mg/L	47	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	12	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	0.27	EPA 353.2	0.04	0.01		09/12/12 11:02	MMF
Phosphorous - Total as P	mg/L	0.064	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:12	MMF
Total Alkalinity	mg/L	8.4	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	1.2	EPA 351.2	0.20	0.05	09/10/12 16:20	09/13/12 11:47	MMF

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Laboratory Report

Project Name Hillsborough County C-HS4 SE#1

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	By
Sample Description		CHS4-PZ05						
Matrix		Groundwater						
SAL Sample Number		1210253-11						
Date/Time Collected		09/06/12 14:30						
Collected by		Josephine Edeback-Hirst						
Date/Time Received		09/06/12 17:00						

Client Provided Field Data

pH	5.0
Temperature	26.1 °C
Conductivity	687 umhos
Dissolved Oxygen	2.4 mg/L

Inorganics

Ammonia as N	mg/L	0.19	EPA 350.1	0.040	0.009		09/11/12 15:08	MMF
Chemical Oxygen Demand	mg/L	40	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	30	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	8.0	EPA 353.2	0.20	0.05		09/12/12 11:33	MMF
Phosphorous - Total as P	mg/L	0.062	SM 4500P-E	0.040	0.010	09/12/12 09:55	09/14/12 13:13	MMF
Total Alkalinity	mg/L	9.4	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	3.3	EPA 351.2	0.20	0.05	09/10/12 16:23	09/14/12 12:11	MMF

Sample Description	CHS4-PZ06
Matrix	Groundwater
SAL Sample Number	1210253-12
Date/Time Collected	09/06/12 15:00
Collected by	Josephine Edeback-Hirst
Date/Time Received	09/06/12 17:00

Client Provided Field Data

pH	4.8
Temperature	26.1 °C
Conductivity	380 umhos
Dissolved Oxygen	4.0 mg/L

Inorganics

Ammonia as N	mg/L	0.16	EPA 350.1	0.040	0.009		09/11/12 15:14	MMF
Chemical Oxygen Demand	mg/L	67	EPA 410.4	25	10	09/11/12 09:00	09/11/12 11:10	CDB
Chloride	mg/L	14	EPA 300.0	0.20	0.050		09/18/12 16:55	JAG
Nitrate+Nitrite (N)	mg/L	0.11	EPA 353.2	0.04	0.01		09/12/12 11:07	MMF
Phosphorous - Total as P	mg/L	3.1	SM 4500P-E	0.20	0.050	09/12/12 09:55	09/14/12 13:59	MMF
Total Alkalinity	mg/L	8.4	SM 2320B	8.0	2.0		09/10/12 10:47	TJH
Total Kjeldahl Nitrogen	mg/L	2.0	EPA 351.2	0.20	0.05	09/10/12 16:23	09/14/12 12:13	MMF

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BI21012 - COD prep										
Blank (BI21012-BLK1)					Prepared & Analyzed: 09/11/12					
Chemical Oxygen Demand	10 U	25	10	mg/L						
LCS (BI21012-BS1)					Prepared & Analyzed: 09/11/12					
Chemical Oxygen Demand	47	25	10	mg/L	50		94	90-110		
Matrix Spike (BI21012-MS1)					Source: 1210253-10 Prepared & Analyzed: 09/11/12					
Chemical Oxygen Demand	90	25	10	mg/L	50	47	86	85-115		
Matrix Spike Dup (BI21012-MSD1)					Source: 1210253-10 Prepared & Analyzed: 09/11/12					
Chemical Oxygen Demand	90	25	10	mg/L	50	47	86	85-115	0	32
Batch BI21057 - Digestion for TKN by EPA 351.2										
Blank (BI21057-BLK1)					Prepared: 09/10/12 Analyzed: 09/13/12					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						
LCS (BI21057-BS1)					Prepared: 09/10/12 Analyzed: 09/13/12					
Total Kjeldahl Nitrogen	2.32	0.20	0.05	mg/L	2.5		92	90-110		
Matrix Spike (BI21057-MS1)					Source: 1210131-07 Prepared: 09/10/12 Analyzed: 09/13/12					
Total Kjeldahl Nitrogen	3.05	0.20	0.05	mg/L	2.5	0.697	93	80-120		
Matrix Spike Dup (BI21057-MSD1)					Source: 1210131-07 Prepared: 09/10/12 Analyzed: 09/13/12					
Total Kjeldahl Nitrogen	3.14	0.20	0.05	mg/L	2.5	0.697	97	80-120	3	20
Batch BI21058 - Digestion for TKN by EPA 351.2										
Blank (BI21058-BLK1)					Prepared: 09/10/12 Analyzed: 09/14/12					
Total Kjeldahl Nitrogen	0.05 U	0.20	0.05	mg/L						

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BI21058 - Digestion for TKN by EPA 351.2										
LCS (BI21058-BS1)					Prepared: 09/10/12 Analyzed: 09/14/12					
Total Kjeldahl Nitrogen	2.54	0.20	0.05	mg/L	2.5		100	90-110		
Matrix Spike (BI21058-MS1)					Source: 1210248-02 Prepared: 09/10/12 Analyzed: 09/14/12					
Total Kjeldahl Nitrogen	2.84	0.20	0.05	mg/L	2.5	0.781	81	80-120		
Matrix Spike Dup (BI21058-MSD1)					Source: 1210248-02 Prepared: 09/10/12 Analyzed: 09/14/12					
Total Kjeldahl Nitrogen	3.03	0.20	0.05	mg/L	2.5	0.781	89	80-120	7	20
Batch BI21111 - Ammonia by SEAL										
Blank (BI21111-BLK1)					Prepared & Analyzed: 09/11/12					
Ammonia as N	0.009 U	0.040	0.009	mg/L						
LCS (BI21111-BS1)					Prepared & Analyzed: 09/11/12					
Ammonia as N	0.47	0.040	0.009	mg/L	0.50		94	90-110		
Matrix Spike (BI21111-MS1)					Source: 1210004-07 Prepared & Analyzed: 09/11/12					
Ammonia as N	0.51	0.040	0.009	mg/L	0.50	0.027	97	90-110		
Matrix Spike Dup (BI21111-MSD1)					Source: 1210004-07 Prepared & Analyzed: 09/11/12					
Ammonia as N	0.49	0.040	0.009	mg/L	0.50	0.027	93	90-110	4	10
Batch BI21112 - Ammonia by SEAL										
Blank (BI21112-BLK1)					Prepared & Analyzed: 09/11/12					
Ammonia as N	0.009 U	0.040	0.009	mg/L						

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BI21112 - Ammonia by SEAL										
LCS (BI21112-BS1)					Prepared & Analyzed: 09/11/12					
Ammonia as N	0.48	0.040	0.009	mg/L	0.50		96	90-110		
Matrix Spike (BI21112-MS1)					Source: 1210353-01 Prepared & Analyzed: 09/11/12					
Ammonia as N	0.47	0.040	0.009	mg/L	0.50	ND	95	90-110		
Matrix Spike Dup (BI21112-MSD1)					Source: 1210353-01 Prepared & Analyzed: 09/11/12					
Ammonia as N	0.47	0.040	0.009	mg/L	0.50	ND	93	90-110	2	10
Batch BI21121 - alkalinity										
Blank (BI21121-BLK1)					Prepared & Analyzed: 09/10/12					
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
Blank (BI21121-BLK2)					Prepared & Analyzed: 09/10/12					
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BI21121-BS1)					Prepared & Analyzed: 09/10/12					
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		
LCS (BI21121-BS2)					Prepared & Analyzed: 09/10/12					
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		
Matrix Spike (BI21121-MS1)					Source: 1210037-01 Prepared & Analyzed: 09/10/12					
Total Alkalinity	280	8.0	2.0	mg/L	120	170	86	80-120		
Matrix Spike (BI21121-MS2)					Source: 1210338-01 Prepared & Analyzed: 09/10/12					
Total Alkalinity	280	8.0	2.0	mg/L	120	150	103	80-120		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BI21121 - alkalinity										
Matrix Spike Dup (BI21121-MSD1)		Source: 1210037-01			Prepared & Analyzed: 09/10/12					
Total Alkalinity	290	8.0	2.0	mg/L	120	170	95	80-120	4	26
Matrix Spike Dup (BI21121-MSD2)		Source: 1210338-01			Prepared & Analyzed: 09/10/12					
Total Alkalinity	280	8.0	2.0	mg/L	120	150	103	80-120	0	26
Batch BI21201 - Nitrate 353.2 by seal										
Blank (BI21201-BLK1)					Prepared & Analyzed: 09/12/12					
Nitrate+Nitrite (N)	0.01 U	0.04	0.01	mg/L						
LCS (BI21201-BS1)					Prepared & Analyzed: 09/12/12					
Nitrate+Nitrite (N)	0.779	0.04	0.01	mg/L	0.80		97	90-110		
Matrix Spike (BI21201-MS1)		Source: 1210051-01			Prepared & Analyzed: 09/12/12					
Nitrate+Nitrite (N)	1.25	0.04	0.01	mg/L	1.0	0.315	93	77-119		
Matrix Spike Dup (BI21201-MSD1)		Source: 1210051-01			Prepared & Analyzed: 09/12/12					
Nitrate+Nitrite (N)	1.27	0.04	0.01	mg/L	1.0	0.315	96	77-119	2	20
Batch BI21223 - Digestion for TP by EPA 365.2/SM4500PE										
Blank (BI21223-BLK1)					Prepared: 09/12/12 Analyzed: 09/14/12					
Phosphorous - Total as P	0.010 U	0.040	0.010	mg/L						
LCS (BI21223-BS1)					Prepared: 09/12/12 Analyzed: 09/14/12					
Phosphorous - Total as P	0.839	0.040	0.010	mg/L	0.80		105	90-110		

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Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BI21223 - Digestion for TP by EPA 365.2/SM4500PE										
Matrix Spike (BI21223-MS1)		Source: 1210183-05			Prepared: 09/12/12 Analyzed: 09/14/12					
Phosphorous - Total as P	1.03	0.040	0.010	mg/L	1.0	0.0379	99	75-125		
Matrix Spike Dup (BI21223-MSD1)		Source: 1210183-05			Prepared: 09/12/12 Analyzed: 09/14/12					
Phosphorous - Total as P	1.04	0.040	0.010	mg/L	1.0	0.0379	100	75-125	1	25
Batch BI21241 - alkalinity										
Blank (BI21241-BLK1)					Prepared & Analyzed: 09/11/12					
Total Alkalinity	2.0 U	8.0	2.0	mg/L						
LCS (BI21241-BS1)					Prepared & Analyzed: 09/11/12					
Total Alkalinity	120	8.0	2.0	mg/L	120		95	90-110		
Matrix Spike (BI21241-MS1)		Source: 1210165-01			Prepared & Analyzed: 09/11/12					
Total Alkalinity	290	8.0	2.0	mg/L	120	170	95	80-120		
Matrix Spike Dup (BI21241-MSD1)		Source: 1210165-01			Prepared & Analyzed: 09/11/12					
Total Alkalinity	290	8.0	2.0	mg/L	120	170	95	80-120	0	26
Batch BI21825 - Ion Chromatography 300.0 Prep										
Blank (BI21825-BLK1)					Prepared & Analyzed: 09/18/12					
Chloride	0.050 U	0.20	0.050	mg/L						
LCS (BI21825-BS1)					Prepared & Analyzed: 09/18/12					
Chloride	2.75	0.20	0.050	mg/L	3.0		92	85-115		

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Inorganics - Quality Control

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit
Batch BI21825 - Ion Chromatography 300.0 Prep										
LCS Dup (BI21825-BSD1)					Prepared & Analyzed: 09/18/12					
Chloride	2.77	0.20	0.050	mg/L	3.0		92	85-115	0.7	200
Matrix Spike (BI21825-MS1)					Source: 1210253-06 Prepared & Analyzed: 09/18/12					
Chloride	29.0	0.20	0.050	mg/L	3.0	25.4	120	80-120		
Matrix Spike (BI21825-MS2)					Source: 1210337-02 Prepared & Analyzed: 09/18/12					
Chloride	432	0.20	0.050	mg/L	3.0	10100	NR	80-120		
Batch BI22019 - Ion Chromatography 300.0 Prep										
Blank (BI22019-BLK1)					Prepared & Analyzed: 09/20/12					
Chloride	0.050 U	0.20	0.050	mg/L						
LCS (BI22019-BS1)					Prepared & Analyzed: 09/20/12					
Chloride	2.82	0.20	0.050	mg/L	3.0		94	85-115		
LCS Dup (BI22019-BSD1)					Prepared & Analyzed: 09/20/12					
Chloride	2.81	0.20	0.050	mg/L	3.0		94	85-115	0.4	200
Matrix Spike (BI22019-MS1)					Source: 1211048-01 Prepared & Analyzed: 09/20/12					
Chloride	22.2	0.20	0.050	mg/L	3.0	19.0	107	80-120		
Matrix Spike (BI22019-MS2)					Source: 1210337-02 Prepared & Analyzed: 09/20/12					
Chloride	5,730 +O	0.20	0.050	mg/L	300	10100	NR	80-120		

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*** Qualifiers, Notes and Definitions**

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limits and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with **, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below. Questions regarding this report should be directed to Client Services at 813-855-1844.

+O Matrix spike source sample was over the recommended range for the method.



SOUTHERN ANALYTICAL LABORATORIES, INC.

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Project No. 1210253

Client Name: Hazen and Sawyer
 Project Name / Location: Hillsborough County C-HS4 SE#1
 Contact / Phone: _____

Samplers: (Signature) *[Signature]*

Matrix Codes: DW-Drinking Water WW-Wastewater SW-Surface Water SL-Sludge SO-Soil GW-Groundwater SA-Saline Water O-Other R-Reagent Water		PARAMETER / CONTAINER DESCRIPTION													
Sample Description	Date	Time	Matrix	Composite	Grab	1LP, Cool Cl, Total Alkalinity	250ml P, H ₂ SO ₄ , TKN, NOx, NH ₃ , COD, TP					Field Temperature	Field pH	Field Conductivity	Field DO
01 CHS4-PP01-7'	09/01/12	9:15	GW		X	1	1					26.8	4.0	540	0.51
02 CHS4-DP02-7'	"	9:45	GW		X	1	1					26.7	4.5	596	0.20
03 CHS4-DP03-7'	"	10:30	GW		X	1	1					26.9	4.8	639	1.86
04 CHS4-P201-10'	"	11:00	GW		X	1	1					26.8	4.3	669	0.86
05 CHS4-P201-10'-DUP	"	11:05	GW		X	1	1					26.8	4.3	669	0.86
06 CHS4-P204-	"	11:45	GW		X	1	1					27.8	3.9	801	7.07
07 CHS4-P203	"	12:00	GW		X	1	1					26.6	3.5	210	1.2
08 CHS4-DP-06	"	12:05	GW		X	1	1					26.1	5.1	488	0.6
09 CHS4-DP-04	"	12:20	GW		X	1	1					26.0	5.5	747	1.4
10 CHS4-DP-05	"	13:45	GW		X	1	1					26.0	4.8	350	1.4
11 CHS4-P205	"	14:30	GW		X	1	1					26.1	5.0	687	2.4
12 CHS4-P206	"	14:50	GW		X	1	1					26.1	5.0	380	4.0

Containers Prepared/ Relinquished: <i>[Signature]</i>	Date/Time: 8/28/12	Received: UPS	Date/Time:	Seal intact? Y N <input checked="" type="checkbox"/> Samples intact upon arrival? <input checked="" type="checkbox"/> N NA Received on ice? Temp _____ <input type="checkbox"/> N NA Proper preservatives indicated? <input type="checkbox"/> N NA Rec'd w/in holding time? <input checked="" type="checkbox"/> N NA Volatiles rec'd w/out headspace? Y N <input checked="" type="checkbox"/> Proper containers used? <input checked="" type="checkbox"/> N NA
Relinquished: UPS	Date/Time:	Received: <i>[Signature]</i>	Date/Time: 08/29/12 13:00pm	
Relinquished: <i>[Signature]</i>	Date/Time: 9/6/12 3:15 pm	Received: <i>[Signature]</i>	Date/Time: 09-06-12 1700	
Relinquished:	Date/Time:	Received:	Date/Time:	
Relinquished:	Date/Time:	Received:	Date/Time:	

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