



BOARD OF COUNTY COMMISSIONERS

Kevin Beckner
Victor D. Crist
Ken Hagan
Al Higginbotham
Lesley "Les" Miller, Jr.
Sandra L. Murman
Mark Sharpe

CHIEF ADMINISTRATIVE OFFICER
Helene Marks

CHIEF FINANCIAL ADMINISTRATOR
Bonnie M. Wise

DEPUTY COUNTY ADMINISTRATORS
Lucia E. Garsys
Sharon D. Subadan

Office of the County Administrator
Michael S. Merrill

March 22, 2013

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Waste Management Section
13051 Telecom Parkway
Temple Terrace, FL 33637

**RE: Southeast County Landfill
Laboratory Analytical Results
Initial Assessment Monitoring Plan
Report No. 29 – January 2013**

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (County) is pleased to provide the analytical results from the monthly sampling event conducted as part of our continuation of the Initial Assessment Monitoring Plan (IAMP). The IAMP was developed to address the potential impacts to groundwater from the sinkhole in Phase VI of the Southeast County Landfill (SCLF), which was discovered on December 14, 2010. The monthly sampling event was conducted on January 3-4, 2013, and the samples collected were analyzed by our contracted laboratory, Test America, Inc.

Representative samples were collected from eleven (11) on-site groundwater monitoring wells and two (2) on-site limited use potable supply wells. Samples collected from the groundwater monitoring wells and the on-site supply wells were analyzed for total dissolved solids (TDS), chloride, total ammonia, arsenic, iron, sodium, and five (5) field parameters. The following paragraphs summarize the findings from this sampling event, and the parameter specific results pertinent to the evaluation of potential water quality impacts from the sinkhole at the SCLF.

Mr. John Morris, P.G.

March 22, 2013

Page 2

pH

The surficial aquifer monitoring wells continue to exhibit pH values below the Secondary Drinking Water Standard (SDWS) acceptable range of 6.5 to 8.5 pH units. The pH values in the surficial range from 4.37 to 5.53 pH units. The pH values within the surficial aquifer across the SCLF have historically been observed below the acceptable range, and the observed values are consistent with the historical and background water qualities. The pH values observed in three (3) of the four (4) upper Floridan groundwater monitoring wells and the two (2) supply wells were within the acceptable range, and consistent with historical data for the site. However, the pH observed in TH-72 was 6.44 pH units, which is just below the SDWS.

Turbidity

Turbidity values are generally low in the monitoring wells that have been part of the permit required sampling program at the SCLF. During this sampling event, values ranged from 0.71 to 13.9 Nephelometric Turbidity Units (NTU) in the surficial aquifer wells, and from 0.35 to 12.9 NTU in the upper Floridan wells.

Conductivity

The conductivity values in most of the groundwater monitoring wells sampled are relatively low and have remained consistent with historical values associated with the SCLF. The conductivity values observed in the surficial aquifer ranged from 185 to 532 micromhos per centimeter (umhos/cm). The conductivity values observed in the upper Floridan groundwater monitoring wells at the site are generally low. However, during this sampling event TH-72 continues to exhibit elevated conductivity at a value of 2,430 uhmos/cm.

Total Dissolved Solids (TDS)

The TDS values observed in the surficial aquifer groundwater monitoring wells were all observed below the SDWS of 500 mg/l. The TDS observed in TH-72 was above the SDWS at 1,400 mg/l.

Chloride

Chloride values in the surficial aquifer groundwater monitoring wells ranged in concentration from 29 to 140 mg/l, which are all below the SDWS of 250 mg/l. The chloride value observed in TH-72 continued to be elevated this month with a result of 500 mg/l. Chloride values are historically very low in the upper Floridan aquifer monitoring wells and limited use potable supply wells, and these other wells all continue to exhibit very low chloride values.

Sodium

Sodium values in the surficial aquifer groundwater monitoring wells ranged in concentration from 13 to 32 mg/l, which are all below the SDWS of 160 mg/l. The sodium value observed in TH-72 was 170 mg/l, which is above the PDWS of 160 mg/l.

Arsenic

The arsenic observed in TH-58 during this sampling event was 0.025 mg/l, which is above the Primary Drinking Water Standard (PDWS) of 0.01 mg/l. Arsenic has been present in TH-58 at almost the same concentration for well over ten years. Although significant changes in water quality have recently been observed in TH-58, the arsenic values continued to remain very stable. This observation continues to support the position that the arsenic is not attributable to the landfill or the sinkhole, and is likely naturally occurring within the soils surrounding the well. Arsenic is potentially being mobilized in the anaerobic environment below the lined landfill.

Iron

Total iron concentrations in the seven (7) surficial aquifer wells were all observed above the SDWS of 0.3 mg/l. The elevated iron concentrations observed in the surficial aquifer wells at specific locations across the site are consistent with background water quality, and are likely naturally occurring and/or the result of past strip mining activities. The concentrations of iron in the upper Floridan wells were below the SDWS, except in TH-42 and TH-72, which exhibited concentrations of 0.4 mg/l and 1.3 mg/l, respectively.

Total Ammonia

The upper Floridan well TH-72 continues to exhibit ammonia above the GCTL at a concentration of 15 mg/l. The source of the ammonia observed in the groundwater in the immediate vicinity of the sinkhole is likely attributable to groundwater migrating downward through waste in the sinkhole and the fluids associated with the grout materials introduced into the subsurface to stabilize the area.

Groundwater Elevations and Direction of Flow

The County has collected monthly groundwater and surface water elevation data at sixty-three (63) points across the site, including twenty eight (28) surficial aquifer wells, five (5) upper Floridan (limestone) aquifer wells, twenty three (23) piezometers, and seven (7) surface water sites. The elevation data is collected the day before the IAMP sampling event, which was January 3, 2013. No significant changes to flow patterns were noted in January or over the period of record. The general direction of flow within the surficial aquifer has historically been to the west northwest across the Southeast County Landfill site. The elevations observed within the wells closest to the sinkhole indicate that flow patterns may be affected in the immediate vicinity, which would not be unexpected. The overall direction of flow remains toward the west/northwest across the site.

Mr. John Morris, P.G.
March 22, 2013
Page 4

Conclusions

The water quality observed in the January 2013 sampling event continues to indicate the wells closest to the sinkhole have exhibited changes in water quality. Based on the proximity of the wells and the trends observed, it is apparent that these impacts are likely attributable to the waste within the sinkhole and the fluids introduced during the grouting activities.

The impacts observed in the upper Floridan aquifer monitoring well, TH-72, continue to exhibit elevated concentrations of conductivity, TDS, chloride, ammonia, iron and sodium. These changes in water quality were not unexpected in the upper Floridan / Limestone aquifer monitoring well located immediately adjacent to the sinkhole.

Recommendations

As agreed during our discussions with the FDEP Southwest District, the County will install two additional upper Floridan / Limestone aquifer monitoring wells in the down gradient direction in order to evaluate the potential horizontal extent of the impacts observed in TH-72. The location of these wells is approximately 200-300 feet west/southwest of the sinkhole and TH-72. Once installed the two new wells shall be designated as TH-76 and TH-77.

Furthermore, once these wells are installed, the County intends to implement the approved changes to the monitoring plan. The upper Floridan monitoring wells TH-19, TH-40, and TH-42, the two (2) limited use potable supply wells SUP-1 and SUP-2, and two (2) of the surficial aquifer monitoring wells TH-30, and TH-57 will be removed from the current IAMP sampling. The upper Floridan monitoring wells TH-72, TH-76, and TH-77 will continue to be monitored on a monthly schedule, and the surficial aquifer monitoring wells, TH-28A, TH-58, TH-73, TH-74, and TH-75 will be monitored on a quarterly schedule.

The reporting schedule will remain monthly for now, but the County requests consideration of a quarterly IAMP reporting schedule in the near future.

Enclosed for your review please find a site location map depicting the on-site wells sampled, the water quality data summary table for the November sampling event, a groundwater elevation data table, a groundwater contour and flow diagram, the historical data tables for each well sampled with data from December 2010 through December 2012, and the complete analytical data report from our contracted laboratory, Test America, Inc.

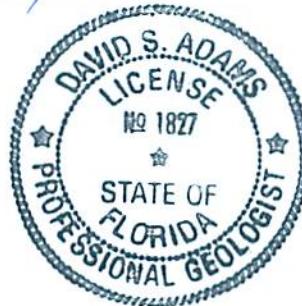
Mr. John Morris, P.G.
March 22, 2013
Page 5

Should you have any questions or require any additional information please feel free to call me at my direct line telephone number, (813) 663-3221.

Respectfully submitted,

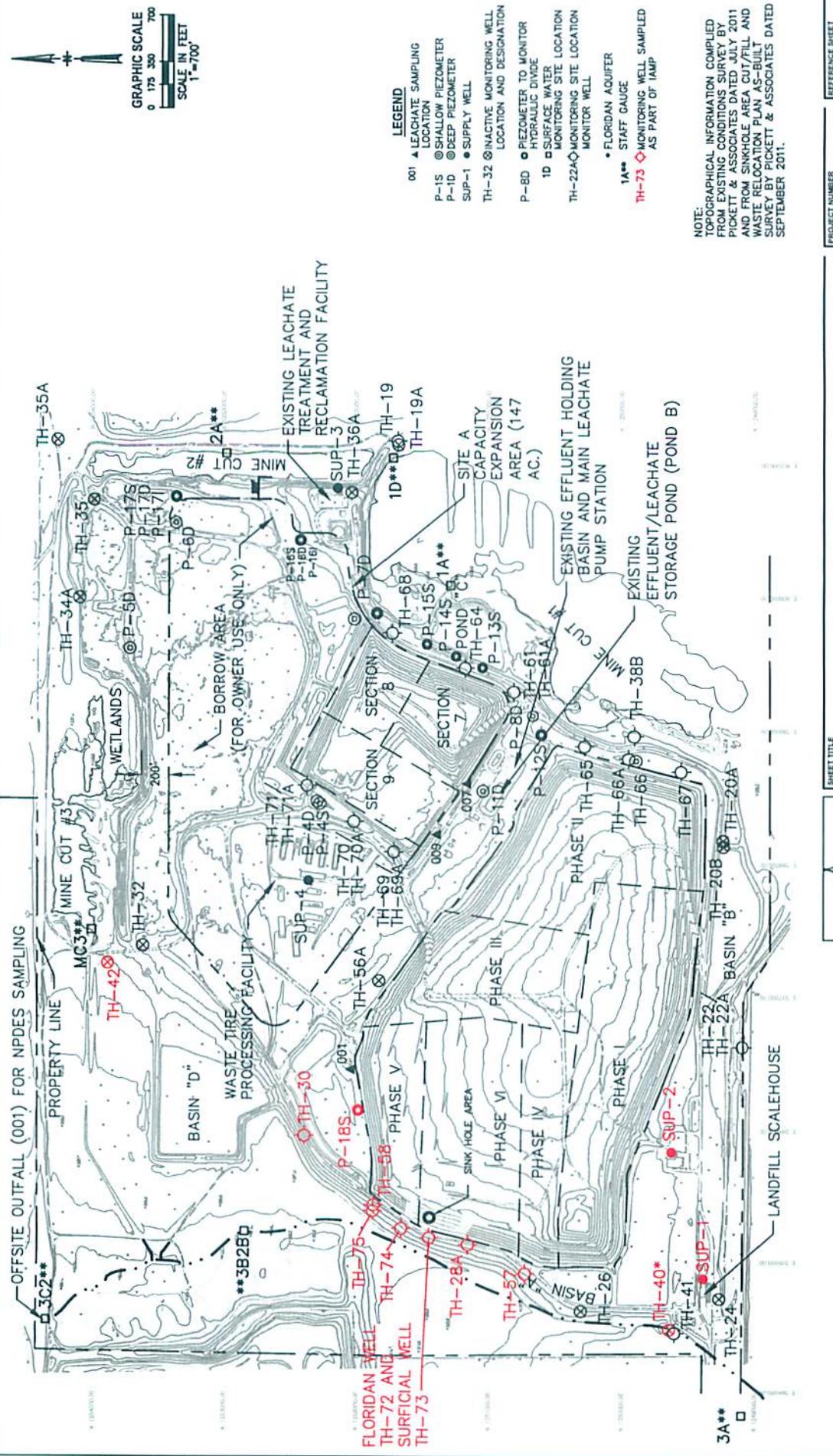
David S. Adams 3/22/2013

David S. Adams, P.G.
Environmental Manager
Public Utilities Department



xc: John Lyons, Director, Public Utilities Department
Patricia Berry, Public Utilities Department
Pamela Greene, Public Utilities Department
Andy Berry, Public Utilities Department
Larry Ruiz, Public Utilities Department
Michelle Van Dyk, Public Utilities Department
Richard Tedder, FDEP Tallahassee
Clark Moore, FDEP Tallahassee
Mary Yeargan, FDEP Southwest District
Jeff Greenwell, FDEP Southwest District
Susan Pelz, FDEP Southwest District
Steve Morgan, FDEP, Southwest District
Andy Schipfer, EPC
Ernest Ely, WMI
Brian Miller, DOH
Rich Siemering, HDR
Joe O'Neill, CDS

G:/enviro/self/ADRs/IAMP Reports/ IAMP Report No.29.doc
Final copy scanned to LFS/Southeast/Sinkhole/SCLF – IAMP Report No 29.pdf



NOTE:
TOPOGRAPHICAL INFORMATION COMPILED
FROM EXISTING CONDITIONS SURVEY BY
PICKETT & ASSOCIATES DATED JULY 2011
AND FROM SINKHOLE AREA CUT/FILL AND
WASTE RELOCATION PLAN AS-BUILT
SURVEY BY PICKETT & ASSOCIATES DATED
SEPTEMBER BY PICKETT & ASSOCIATES DATED
SEPTEMBER 2011.

REFERENCE SHEET	
DRAWING NAME	
EXHIBIT NUMBER	1

PROJECT NUMBER	
SCALE	
DATE	DECEMBER 2011

**MONITORING WELLS, PIEZOMETERS, AND SURFACE
WATER MONITORING LOCATIONS
HILLSBOROUGH COUNTY, FLORIDA**



Hillsborough County Southeast Landfill
Laboratory Analytical Results from Groundwater Monitoring and On-Site Supply Wells
January 3-4, 2013

GENERAL (mg/l) PARAMETERS	Surficial Aquifer Wells							Upper Floridan Aquifer Wells					(MCL) STANDARD	
	TH-28A	TH-30	TH-57	TH-58	TH-73	TH-74	TH-75	TH-19	TH-40	TH-42	TH-72	SUP-1	SUP-2	
conductivity (umhos/cm) (field)	294	532	185	507	237	418	447	435	400	549	2430	372	389	NS
dissolved oxygen (mg/l) (field)	0.4	0.2	0.15	1.52	0.49	0.31	0.37	0.53	0.99	0.44	1.10	0.06	0.06	NS
pH (field)	5.08	4.37	5.01	5.63	4.95	5.43	5.63	7.12	7.14	7.03	6.44	7.37	7.36	(6.5 - 8.5)**
temperature (°C) (field)	26.68	23.78	26.69	25.71	24.84	22.03	21.89	23.43	23.26	23.72	23.09	24.31	24.45	NS
turbidity (NTU) (field)	1.8	1.90	0.71	1.06	2.47	3.03	13.9	0.47	0.35	12.9	0.42	0.02	0.22	NS
total dissolved solids (mg/l)	190	350	140	290	130	280	400	220	180	280	1400	250	270	500**
chloride (mg/l)	59	140	29	47	45	59	60	7.5	7.7	17	500	9.4	11	250**
ammonia nitrogen (mg/l as N)	2.4 j3	2.3	1	0.97	1.1	2.7	1.3	0.31	0.38	0.31	15	0.16	0.13	2.8***
Metals: (mg/l)	TH-28A	TH-30	TH-57	TH-58	TH-73	TH-74	TH-75	TH-19	TH-40	TH-42	TH-72	SUP-1	SUP-2	(MCL) STANDARD
arsenic	0.004 u	0.004 u	0.004 u	0.025	0.004 u	0.004 u	0.0065 i	0.004 u	0.004 u	0.004 u	0.004 u	0.004 u	0.004 u	0.01*
iron	3.8	0.44	0.42	3.3	3.2	20	8.1	0.05 u	0.05 u	0.4	1.3	0.05 u	0.05 u	0.3**
sodium	22	32	13	26	16	20	21	14	17	16	170/3	8.6	8.5	160*

Note: Ref. Groundwater Guidance Concentrations, FDEP 2012
MCL=MAXIMUM CONTAMINANT LEVEL
BDL=BELOW DETECTION LIMIT
NTU=NEPHELOMETRIC TURBIDITY UNITS
i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
u = parameter was analyzed but not detected.
j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
*=DENOTES PRIMARY DRINKING WATER STANDARD
**=DENOTES SECONDARY DRINKING WATER STANDARD
***=DENOTES FLORIDA GUIDANCE CONCENTRATION
5.08 EXCEEDS STANDARD
ug/l=MICROGRAMS PER LITER
mg/l=MILLIGRAMS PER LITER
NS=NO STANDARD

GROUNDWATER AND SURFACE WATER ELEVATIONS FOR SOUTHEAST LANDFILL

January 2, 2013

Measuring Point I.D.	T.O.C. Elevations (NGVD)	01/02/2013 W.L. B.T.O.C.	W.L. (NGVD)	Time
P-4D	140.78	21.81	118.97	11:49 AM
P-4S	140.95	10.00	130.95	11:48 AM
P-5D	151.94	Dry	Dry	11:11 AM
P-6D-A	148.01	27.38	120.63	11:26 AM
P-7D	138.92	17.65	121.27	10:49 AM
P-8D	138.34	17.88	120.46	10:29 AM
P-11D	138.02	17.28	120.76	10:31 AM
P-12S	134.97	14.03	120.94	10:27 AM
P-13S	140.21	18.20	121.01	10:37 AM
P-14S	138.58	17.57	120.99	10:40 AM
P-15S	139.19	18.22	120.97	10:42 AM
P-16S	143.38	16.16	127.22	10:54 AM
P-18I	144.15	23.81	120.34	10:53 AM
P-16D	143.84	23.52	120.32	10:52 AM
P-17S	137.35	15.66	121.68	11:17 AM
P-17I	137.32	16.89	120.43	11:18 AM
P-17D	137.22	16.87	120.35	11:19 AM
P-18S	129.86	18.32	111.54	10:05 AM
P-19	133.36	13.60	119.76	11:23 AM
P-20	132.38	12.66	119.72	11:30 AM
P-21	122.79	3.61	119.18	11:39 AM
P-22	128.35	9.00	119.35	11:41 AM
P-23	143.13	23.39	119.74	11:35 AM
TH-19*	130.27	99.93	30.34	11:01 AM
TH-20A	131.86	9.52	122.34	10:13 AM
TH-20B	132.57	10.50	122.07	10:14 AM
TH-22	128.82	5.10	123.72	8:51 AM
TH-22A	129.27	5.72	123.55	8:50 AM
TH-24A	128.23	5.10	123.13	8:55 AM
TH-28A	131.10	28.43	102.67	9:33 AM
TH-30	128.88	23.99	104.88	9:16 AM
TH-32	129.90	14.80	115.30	10:01 AM
TH-35	145.98	28.48	117.50	11:07 AM
TH-36A	152.70	32.56	120.14	10:57 AM
TH-38A	130.68	9.99	120.69	10:23 AM
TH-38B	131.81	10.85	120.98	10:22 AM
TH-40*	124.99	95.40	29.59	8:38 AM
TH-41*	125.00	99.88	25.32	8:36 AM
TH-42*	116.74	78.85	39.89	9:58 AM
TH-57	128.36	19.08	109.28	8:59 AM
TH-58	127.88	28.19	99.69	9:26 AM
TH-61	138.73	17.30	121.43	10:34 AM
TH-61A	139.45	17.91	121.54	10:35 AM
TH-64	139.84	17.71	121.93	10:38 AM
TH-65	135.40	14.32	121.08	10:22 AM
TH-66	130.58	9.11	121.47	10:20 AM
TH-66A	130.66	9.59	121.07	10:19 AM
TH-67	129.51	6.50	123.01	10:17 AM
TH-68	140.01	18.91	121.10	10:47 AM
TH-69A	144.97	25.13	119.84	11:54 AM
TH-70A	146.63	28.80	119.83	11:51 AM
TH-71A	146.95	28.78	120.19	11:45 AM
TH-72	130.96	100.65	30.31	9:30 AM
TH-73	131.07	31.91	99.16	9:31 AM
TH-74	109.08	9.96	99.12	9:09 AM
TH-75	106.92	7.88	99.04	9:11 AM
SW-3A	3.0'=125.53'	0.30	122.83	8:32 AM
SW-3B2B	3.0'=97.97'	1.48	86.45	9:42 AM
SW-3C2	6.0'=92.33'	1.22	87.55	9:48 AM
Mine Cut #1	4.0'=122.14'	2.84	120.98	10:45 AM
Mine Cut #2	6.0'=123.47'	2.85	120.32	11:04 AM
Mine Cut #3	4.0'=112.27'	2.12	110.38	9:56 AM
Mine Cut #4	5.0'=97.54'	1.52	94.06	9:53 AM

NGVD = National Geodetic Vertical Datum

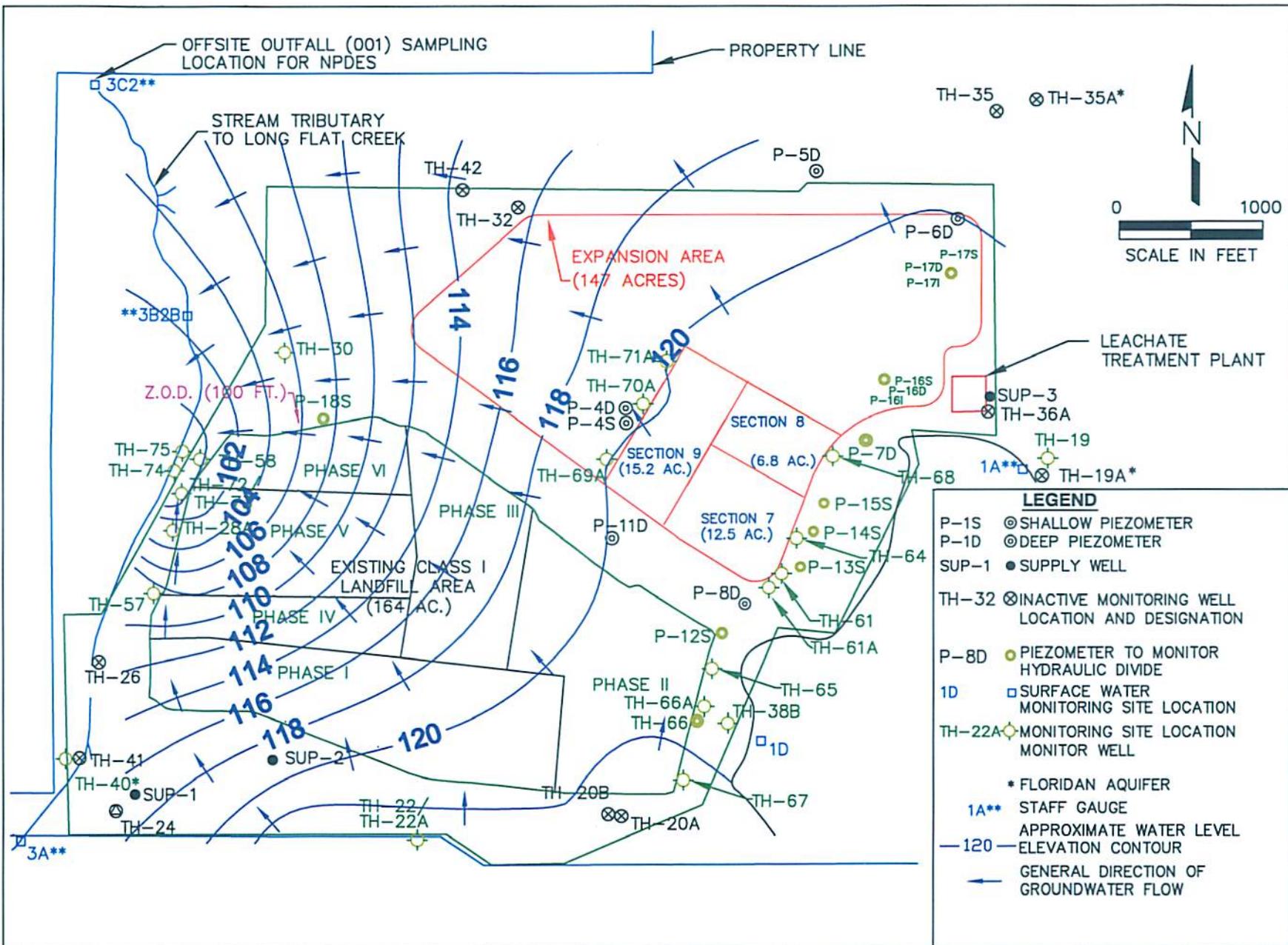
T.O.C. = Top of Casing

B.T.O.C. = Below Top of Casing

* = Floridan Well

ND = No Data

W.L. = Water Level



Southeast County Landfill
Groundwater Elevation Contour Diagram – January 2, 2013

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-19

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	117.30	12.97	392	1.34	7.37	23.2	0.2	250	7.8	0.25	0.0013 u	0.033 u	14
12/28/2010	118.33	11.94	319	0.78	7.4	23.23	0.2	230	7.9	0.23	ND	ND	16
01/04/2011	117.83	12.44	337	0.94	7.33	23.27	0.2	220	8.3	0.27	ND	ND	14
01/13/2011	114.88	15.39	441	0.42	7.41	23.13	0.2	220	8.6	0.24	0.004 u	0.051 i	14
01/20/2011	113.69	16.58	417	0.5	7.36	23.39	0.6	230	8.5	0.28	0.004 u	0.05 u	14
01/27/2011	110.45	19.82	399	0.49	7.51	23.37	0.2	250	8.2	0.23	0.004 u	0.05 u	14
02/03/2011	107.11	23.16	409	0.83	7.49	23.42	0.2	220	8.3	0.22	0.004 u	0.05 u	12
02/10/2011	104.74	25.53	381	0.8	7.56	23.33	0.7	240	8.9	0.29	0.004 u	0.05 u	14
02/14/2011	102.93	27.34	325	0.92	7.58	23.2	0.5	240	8.4	0.25	0.0013 u	0.033 i	15
02/24/2011	104.04	26.23	432	0.82	7.45	23.37	0.6	250	8.3	0.21	0.004 u	0.05 u	14
03/03/2011	105.78	24.49	419	0.35	7.48	23.4	0.1	240	8.3	0.2	0.004 u	0.05 u	14
03/10/2011	107.24	23.03	400	0.33	7.51	23.34	0.2	230	8.1	0.23	0.004 u	0.05 u	13
03/17/2011	106.66	23.61	300	0.29	7.39	23.38	0.3	240	7.8	0.24	0.004 u	0.05 u	14
03/24/2011	107.74	22.53	353	0.35	7.42	23.4	0.2	240	8.4	0.28	0.004 u	0.05 u	14
04/01/2011	109.40	20.87	377	1.3	7.48	23.09	0.2	240	8.8	0.19	0.004 u	0.05 u	14
04/08/2011	106.35	23.92	419	0.39	7.32	23.46	0.3	220	8.2	0.25	0.004 u	0.05 u	14
05/05/2011	110.09	20.18	408	0.5	7.58	23.56	0.1	230	8.2	0.27	0.004 u	0.05 u	14
06/08/2011	113.57	16.70	432	0.8	7.39	23.48	0.56	250	8.4	0.35	0.004 u	0.05 u	14
07/07/2011	108.42	21.85	430	0.37	7.37	23.53	0.33	260	8.1	0.31	0.004 u	0.05 u	14
08/04/2011	99.25	31.02	391	0.3	7.22	23.55	0	250	7.5	0.32	0.004 u	0.05 u	14
09/08/2011	93.66	36.61	397	0.8	7.35	23.47	0.6	220	7.9	0.35	0.004 u	0.05 u	15
10/04/2011	94.58	35.69	335	0.44	7.33	23.46	0.7	210	7.3	0.24	0.004 u	0.05 u	14
11/03/2011	98.51	31.76	393	0.59	7.28	23.35	1.38	220	8	0.28	0.004 u	0.05 u	14
12/08/2011	101.64	28.63	378	0.26	7.3	23.43	0.37	220	7.2	0.26	0.004 u	0.05 u	14
01/05/2012	107.26	23.01	369	0.45	7.29	23.25	0.24	200	8.3	0.25	0.004 u	0.05 u	15
02/10/2012	109.48	20.79	378	0.26	7.5	23.34	0.44	240	8.6	0.23	0.004 u	0.05 u	14
03/07/2012	116.31	13.96	413	0.84	7.25	23.35	0.4	210	8.1	0.19	0.004 u	0.05 u	14
04/05/2012	120.81	9.46	423	0.58	7	23.44	0	190	8.1	0.26	0.004 u	0.05 u	14
05/03/2012	123.35	6.92	402	0.1	6.85	23.46	0	220	8.1	0.48	0.004 u	0.05 u	14
06/07/2012	119.00	11.27	379	2.13	7.21	23.44	0.6	230	8	0.38	0.004 u	0.05 u	14
07/05/2012	104.99	25.28	304	0.63	6.69	23.49	0.42	210	7.9	0.54	0.004 u	0.05 u	14
08/03/2012	97.45	32.82	260	0.26	6.91	23.49	0.58	240	7.9	0.34	0.004 u	0.05 u	14
09/06/2012	90.81	38.97	406	0.23	6.92	23.49	1.21	230	8.4	0.35	0.004 u	0.05 u	14
10/04/2012	89.85	40.42	363	0.33	7.09	23.48	0.39	240	8.1	0.39 j3	0.004 u	0.05 u	13
11/07/2012	98.98	31.29	424	0.35	7.23	23.49	0.63	210	8.1	0.33	0.004 u	0.05 u	14
12/05/2012	101.14	29.13	430	8	7.14	23.47	0.27	190	8.4	0.29 j3	0.004 u	0.05 u	14

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-28A

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	28.90	102.20	209	1.71	5.22	25.3	25.9	110	43	1.4	0.0023	2.6	17
12/28/2010	28.75	102.35	171	1.63	5.11	25.81	5	120	42	1.2	ND	ND	17
01/04/2011	28.88	102.22	175	0.91	5.12	25.58	1.7	92	42	1.4	ND	ND	17
01/13/2011	28.67	102.43	235	0.7	5.25	25.59	2.1	110	44	1	0.0059	2.5	17
01/20/2011	28.41	102.69	239	0.43	5.15	26.31	1.5	110	46	1.1	0.004 u	2.4	17
01/27/2011	28.44	102.66	236	0.99	5.09	25.37	1.6	120	45	0.94	0.004 u	2.4	18
02/03/2011	28.32	102.78	233	0.96	5.07	25.9	2.5	110	46	0.91	0.004 u	2.2	16
02/10/2011	28.31	102.79	209	0.61	5.06	25.85	3.1	110	45	1.3	0.004 u	2.4	18
02/14/2011	28.23	102.87	183	0.84	5.14	25.2	0.9	120	46	1.2	0.0022	2.5	18
02/24/2011	28.39	102.71	199	0.6	5.32	26.1	4.5	130	45	1.2	0.004 u	2.5	17
03/03/2011	28.45	102.65	229	0.51	5.18	26	13.2	140	43	1.1	0.004 u	2.7	18
03/10/2011	28.51	102.59	210	0.8	5.24	26.54	4.8	110	46	0.88	0.004 u	2.8	18
03/17/2011	28.36	102.74	161	0.64	5.19	26.06	1.9	150	47	1.3	0.004 u	2.7	18
03/24/2011	28.50	102.60	151	0.42	5.26	26.26	1.8	140	45	1.2	0.004 u	2.8	17
04/01/2011	28.10	103.00	231	0.79	5.31	25.75	4.8	120	45	0.72	0.004 u	3.1	18
04/08/2011	27.69	103.41	240	0.63	5.3	26.19	4.1	120	49	1.1	0.004 u	3.1	19
05/05/2011	28.78	102.32	227	0.88	5.16	25.77	7.9	94	41	1.2	0.004 u	2.9	16
06/08/2011	29.31	101.79	226	1.89	5.34	26.34	9.61	120	41	1.3	0.004 u	3.2	16
07/07/2011	28.26	102.84	207	0.58	5.16	26.22	3.4	110	45	1.1	0.004 u	3	16
08/04/2011	27.95	103.15	206	0.97	5.2	27.28	11.5	130	43	0.67	0.004 u	3.1	16
09/08/2011	27.66	103.44	202	0.49	5.24	26.63	4	140	46	1.5	0.004 u	3.4	19
10/04/2011	28.11	102.99	195	1.26	5.17	26.66	3.4	130	46	1	0.004 u	3	18
11/03/2011	28.20	102.90	225	0.8	5.3	26.37	7.4	110	47	1.4	0.004 u	2.9	18
12/08/2011	28.70	102.40	234	1.12	5.3	25.1	6.13	120	45	1.2	0.004 u	3.2	18
01/05/2012	28.94	102.16	231	0.71	5.27	25.35	7.15	140	50	1.2	0.004 u	3.4	18
02/10/2012	28.92	102.18	242	1.58	5.26	25.12	5.08	160	63	1.6	0.004 u	3.6	22
03/07/2012	29.15	101.95	299	0.79	5.24	26.34	5.1	190	59	1.5	0.004 u	3.5	23
04/05/2012	29.35	101.75	297	1.83	5.3	26.27	14.4	130	71	2.2	0.004 u	3.7	24
05/03/2012	29.43	101.67	305	1.32	5.13	26.64	9.15	110	61	3	0.004 u	3.7	25
06/07/2012	29.00	102.10	274	1.18	5.31	26.73	4.36	170	64	3.1	0.004 u	3	25
07/05/2012	28.05	103.05	344	0.49	5.25	26.77	3.53	150	75	3	0.004 u	4	29
08/03/2012	28.48	102.62	219	0.81	5.31	27.56	3.73	150	50	2.9	0.004 u	3.2	21
09/06/2012	27.89	103.40	269	0.24	5.27	27.26	2.55	150	49	3	0.004 u	3.6	20
10/04/2012	28.00	103.10	234	0.31	5.08	27.36	10.7	130	43	2.4	0.004 u	3.4	18
11/07/2012	28.31	102.79	253	0.51	5.18	26.6	2.33	130	46	1.6	0.004 u	3.3	19
12/05/2012	28.60	102.50	251	0.31	5.08	27.04	2.45	130	54	1.6	0.004 u	3.3	18

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

6.22 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-30

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
02/03/2011	24.05	104.83	244	0.27	4.45	23.65	3.6	110	57	0.94	0.004 u	0.2	19
02/10/2011	24.11	104.77	219	0.21	4.36	23.7	4	120	61	1.5	0.004 u	0.2	20
02/14/2011	24.05	104.83	192	0.3	4.45	23.7	1.8	150	57	1	0.004 u	0.2	20
02/24/2011	24.10	104.78	208	0.18	4.81	23.82	3.1	160	57	1.3	0.004 u	0.19 i	20
03/03/2011	24.15	104.73	239	0.3	4.68	24.48	2.4	150	60	0.89	0.004 u	0.25	21
03/10/2011	24.13	104.75	231	0.16	4.71	23.58	3.9	130	57	0.96	0.004 u	0.19 i	20
03/17/2011	24.18	104.70	175	0.12	4.56	23.68	6.9	130	50	1.1	0.004 u	0.24	21
03/24/2011	24.15	104.73	208	0.17	4.58	23.71	2.1	120	59	0.91	0.004 u	0.21	20
04/01/2011	24.11	104.77	252	0.14	4.68	23.56	2.8	140	58	0.8	0.004 u	0.21	20
04/08/2011	23.77	105.11	242	0.19	4.69	23.62	2.3	120	59	1.3	0.004 u	0.21	21
05/05/2011	24.20	104.68	251	0.13	4.61	23.4	3.6	130	64	1.4	0.004 u	0.21	21
06/08/2011	24.32	104.56	261	0.27	4.4	23.45	3.62	150	64	1.9	0.004 u	0.23	20
07/07/2011	24.06	104.82	266	0.3	4.47	23.42	4.25	150	67	1.6	0.004 u	0.2	21
08/04/2011	23.84	105.04	244	0.17	4.49	23.43	3.3	160	63v	1.5	0.004 u	0.23	21
09/08/2011	23.80	105.08	251	0.21	4.44	23.41	4.7	130	66v	1.7	0.004 u	0.24	23
10/04/2011	23.97	104.91	231	0.17	4.63	23.46	3.4	160	70	0.89	0.004 u	0.25	22
11/03/2011	23.94	104.94	266	0.16	4.6	23.72	1.94	170	61	1.2	0.004 u	0.05 u	22
12/08/2011	23.95	104.93	283	0.16	4.66	23.62	1.81	160	71	1.2	0.004 u	0.24	22
01/05/2012	24.10	104.78	277	0.14	4.59	23.67	1.98	150	83	1	0.004 u	0.27	25
02/10/2012	24.08	104.80	302	0.13	4.48	23.74	1.48	230	97	1.1	0.004 u	0.29	24
03/07/2012	24.26	104.62	375	0.21	4.58	23.79	1	170	99	1	0.004 u	0.31	26
04/05/2012	24.28	104.60	407	0.15	4.39	23.67	0	150	110	1.7	0.004 u	0.32	27
05/03/2012	24.32	104.56	431	0.19	4.01	23.6	1.93	180	110	2.3	0.004 u	0.36	29
06/07/2012	24.24	104.64	430	0.17	4.25	23.52	1.09	240	130	2.3	0.004 u	0.37	29
07/05/2012	23.69	105.19	462	0.15	3.94	23.5	1.83	280	130 j3	2.4 j3	0.004 u	0.43	31
08/03/2012	24.02	104.86	297	0.13	4.07	23.51	3.01	280	130	2.4	0.004 u	0.38	30
09/06/2012	23.55	106.43	433	0.11	4.24	23.61	1.51	220	130	2.6	0.004 u	0.37	28
10/04/2012	23.71	105.17	410	0.09	4.32	23.6	2.67	220	120	2.7	0.004 u	0.42	27
11/07/2012	23.89	104.99	451	0.19	4.47	23.77	1.95	230	120	1.9	0.004 u	0.38	28
12/05/2012	23.98	104.90	483	0.27	4.41	23.81	1.86	240	140	2	0.004 u	0.39	28

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

4.45 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-40

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l) as N	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	115.10	9.94	348	1.06	7.61	23.3	0.3	210	8.3	0.31	0.0013 u	0.041	20
12/28/2010	116.90	8.09	304	1.37	7.55	22.7	1.4	220	8	0.42	ND	ND	17
01/04/2011	115.10	9.91	323	2.33	7.2	23.23	1	220	8.7	0.27	ND	ND	16
01/13/2011	112.16	12.83	400	0.74	7.54	23.11	0.5	210	8.5	0.27	0.0048	0.065	16
01/20/2011	111.15	13.84	420	0.58	7.52	23.28	0.8	220	8.6	0.31	0.004 u	0.11	16
01/27/2011	107.91	17.08	359	1.3	7.73	23.38	0.2	220	8.2	0.29	0.004 u	0.063	16
02/03/2011	104.37	20.62	398	0.81	7.74	23.35	0.2	210	8.3	0.32	0.004 u	0.05 u	15
02/10/2011	102.03	22.96	346	0.48	7.68	23.38	0.6	210	8.7	0.31	0.004 u	0.05 u	16
02/14/2011	100.18	24.81	325	0.92	7.58	23.2	0.5	230	8.2	0.38	0.0013 u	0.073 i	18
02/24/2011	101.87	23.12	345	0.46	7.65	23.4	0.3	230	8.2	0.26	0.004 u	0.05 u	16
03/03/2011	103.59	21.40	378	0.34	7.71	23.4	0.1	230	8.4	0.27	0.004 u	0.05 u	16
03/10/2011	105.12	19.87	351	0.43	7.66	23.3	0.1	210	8	0.33	0.004 u	0.05 u	16
03/17/2011	104.60	20.39	274	0.36	7.59	23.31	0.1	220	7.5	0.3	0.004 u	0.05 u	16
03/24/2011	106.11	18.88	309	0.37	7.65	23.44	0.1	210	8.1	0.3	0.004 u	0.05 u	16
04/01/2011	107.77	17.22	355	0.52	7.6	23.33	0.3	230	7.8	0.26	0.004 u	0.05 u	16
04/08/2011	104.35	20.64	387	0.39	7.51	23.46	0.4	210	7.9	0.29	0.004 u	0.05 u	16
05/05/2011	108.11	16.88	392	0.63	7.42	23.44	0.2	220	7.6	0.34	0.004 u	0.05 u	16
06/08/2011	111.06	13.93	417	0.52	7.59	23.5	0.18	240	8.4	0.41	0.004 u	0.05 u	15
07/07/2011	105.55	19.44	430	0.51	7.46	23.53	0.35	230	7.8	0.39	0.004 u	0.098 i	16
08/04/2011	95.76	29.23	361	0.34	7.52	23.64	0	220	7.3	0.4	0.004 u	0.05 u	16
09/08/2011	90.15	34.84	370	1.04	7.59	23.6	0.7	190	7.4	0.45	0.004 u	0.05 u	17
10/04/2011	91.54	33.45	291	0.51	7.58	23.51	0.8	190	6.5	0.33	0.004 u	0.05 u	16
11/03/2011	95.45	29.54	255	0.41	7.67	23.42	0.31	210	7.7	0.32	0.004 u	0.05 u	16
12/08/2011	98.90	26.09	367	0.54	7.58	23.03	0.51	170	7.2	0.33	0.004 u	0.05 u	16
01/05/2012	107.41	17.58	354	0.95	7.48	23.15	0.39	200	8.3	0.3	0.004 u	0.05 u	16
02/10/2012	106.49	18.50	308	0.45	7.66	23.29	0.66	210	8.9	0.3	0.004 u	0.05 u	16
03/07/2012	114.22	10.77	381	1.09	7.56	23.4	0.5	160	8.5	0.23	0.004 u	0.05 u	17
04/05/2012	118.71	6.28	351	0.66	7.37	23.43	0.86	170	8.8	0.31	0.004 u	0.05 u	17
05/03/2012	120.35	4.64	388	0.47	7.29	23.44	0	170	8.5	0.63	0.004 u	0.05 u	19
06/07/2012	114.61	10.38	382	0.75	7.13	23.42	0.48	200	8.9	0.43	0.004 u	0.05 u	18
07/05/2012	100.03	24.96	389	0.6	7.39	23.78	0.18	200	8.5	0.68	0.004 u	0.05 u	18
08/03/2012	92.72	32.27	276	0.29	7.3	23.56	0.47	210	8.3	0.6	0.004 u	0.05 u	17
09/06/2012	85.90	38.47	337	0.29	7.33	23.59	0.68	210	8.5 j3	0.45	0.004 u	0.05 u	16
10/04/2012	84.99	40.00	328	0.25	7.29	23.5	0.19	200	8.2	0.46	0.004 u	0.05 u	16
11/07/2012	94.30	30.69	356	0.49	7.44	23.46	0.65	200	7.9	0.44	0.004 u	0.05 u	16
12/05/2012	96.88	28.11	361	0.32	7.34	23.58	0.33	200	8.1	0.38	0.004 u	0.05 u	16

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-42

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	89.31	27.43	496	0.77	7.29	23.7	796	320	17	0.36	0.009	25	18
12/28/2010	89.22	27.52	412	0.42	7.21	23.47	156.1	310	17	0.24	ND	ND	15
01/04/2011	90.92	25.82	427	0.81	7.24	23.52	234.4	300	18	0.16	ND	ND	15
01/13/2011	89.73	27.01	556	0.32	7.31	23.22	175.1	300	18	0.2	0.004 u	3.6	16
01/20/2011	88.91	27.83	562	0.22	7.02	23.69	160.3	320	18	0.27	0.004 u	3.8	16
01/27/2011	86.86	29.88	498	0.59	7.43	23.05	202.9	310	18	0.22	0.004 u	3.8	15
02/03/2011	84.45	32.29	536	0.77	7.07	23.51	329.3	290	18	0.24	0.004 u	6.6	15
02/10/2011	82.50	34.24	476	0.84	7.26	23.62	95.6	300	18	0.27	0.004 u	2.5	15
02/14/2011	80.86	35.88	420	0.49	7.28	23.7	55	300	19	0.26	0.004 u	1.6	16
02/24/2011	81.01	35.73	541	2.26	7.29	23.66	41.1	320	18	0.19	0.004 u	1.2	15
03/03/2011	82.17	34.57	527	0.25	7.33	23.7	40.8	310	17	0.17	0.004 u	1.2	16
03/10/2011	83.41	33.33	503	0.37	7.41	23.42	57.5	310	17	0.26	0.004 u	1.2	15
03/17/2011	83.86	32.88	377	0.14	7.26	23.68	25.7	300	16	0.26	0.004 u	1.1	16
03/24/2011	84.20	32.54	443	0.29	7.32	23.77	22.1	300	17	0.27	0.004 u	0.63	16
04/01/2011	86.39	30.35	471	0.7	7.35	23.39	19.5	320	19	0.16	0.004 u	0.94	16
04/08/2011	84.84	31.90	526	0.34	7.2	23.72	16.6	290	17	0.22	0.004 u	0.68	15
05/05/2011	85.80	30.94	535	0.16	7.18	23.59	12.2	290	18	0.29	0.004 u	0.36	15
06/08/2011	89.20	27.54	544	0.32	7.33	23.98	8.87	310	20	0.33	0.004 u	0.22	15
07/07/2011	86.45	30.29	541	0.27	7.26	23.85	18.1	310	18	0.33	0.004 u	0.088 i	16
08/04/2011	78.31	38.43	493	0.13	7.23	24.02	18.3	300	17	0.094	0.004 u	0.62	16
09/08/2011	72.14	44.60	499	0.22	7.36	23.97	18.1	280	17	0.28	0.004 u	0.37	17
10/04/2011	71.42	45.32	421	0.25	7.26	23.93	11.5	230	15	0.25	0.004 u	0.37	16
11/03/2011	74.50	42.24	495	0.23	7.21	23.64	20.6	260	18	0.25	0.004 u	0.36	16
12/08/2011	77.64	39.10	475	0.21	7.18	23.72	11.9	280	16	0.21	0.004 u	0.47	15
01/05/2012	83.90	32.84	466	0.22	7.12	23.67	12	270	18	0.21	0.004 u	0.4	17
02/10/2012	84.26	32.48	474	0.22	7.42	23.62	11.4	290	18	0.23	0.004 u	0.56	16
03/07/2012	88.95	27.79	521	0.17	7.15	23.83	12.4	260	18	0.13	0.004 u	0.4	16
04/05/2012	93.21	23.53	536	0.19	7	23.78	3.98	250	17	0.25	0.004 u	0.16 i	16
05/03/2012	95.72	21.02	511	2.82	7.07	23.8	4.76	260	18	0.41	0.004 u	0.12 i	17
06/07/2012	93.92	22.82	476	1.54	7.18	23.93	8.39	300	18	0.3	0.004 u	0.24	16
07/05/2012	82.84	33.90	454	0.86	6.5	24.06	7.16	280	17	0.53	0.004 u	0.22	16
08/03/2012	75.30	41.44	306	0.57	6.78	24.4	17.2	290	17	0.47	0.004 u	0.53	16
09/06/2012	69.12	47.08	519	0.14	6.98	23.87	16.9	280	18	0.32	0.004 u	0.64	16
10/04/2012	67.42	49.32	366	0.15	7.03	23.93	17.8	270	17	0.35	0.004 u	0.64 j3	15
11/07/2012	73.49	43.25	538	0.27	7.07	23.66	33.1	280	17	0.34	0.004 u	0.6	16
12/05/2012	76.16	40.58	543	0.31	7.04	23.92	18.1	250	18	0.27	0.004 u	0.5	16

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

25 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-57

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	20.18	108.20	144	1.6	5.05	26.1	0.6	76	35	0.79	0.0013 u	0.32	13
12/28/2010	20.26	108.10	150	1.45	5.21	26.2	0.5	110	44	0.93	ND	ND	13
01/04/2011	20.26	108.10	143	0.33	5.08	26.4	0.4	100	39	0.82	ND	ND	12
01/13/2011	20.19	108.17	207	0.37	5.24	26.41	0.5	80	40	0.85	0.004 u	0.51	12
01/20/2011	20.03	108.33	200	0.39	5.23	26.37	0.4	98	42	0.64	0.004 u	0.52	12
01/27/2011	19.99	108.40	172	0.23	4.99	26.05	0.5	32	36	0.88	0.004 u	0.41	11
02/03/2011	19.99	108.37	189	0.62	5.08	26.13	0.4	88	40	0.87	0.004 u	0.48	11
02/10/2011	19.47	108.89	160	0.42	5.02	26.02	2.1	82	40	1	0.004 u	0.43	11
02/14/2011	20.00	108.36	152	0.5	5.24	25.9	0.2	98	37	1	0.0013 u	0.51	13
02/24/2011	20.10	108.26	164	0.16	5.34	25.97	0.2	110	34	0.92	0.004 u	0.35	11
03/03/2011	19.65	108.71	198	0.24	5.16	25.8	0.6	110	39	0.88	0.004 u	0.48	13
03/10/2011	19.70	108.66	167	0.37	5.24	26.7	0.5	98	38	0.83	0.004 u	0.45	11
03/17/2011	20.15	108.21	133	0.31	5.16	25.76	0.1	130	42	0.81	0.004 u	0.49	12
03/24/2011	19.72	108.64	128	0.21	5.18	25.69	5.1	120	39	0.87	0.004 u	0.48	12
04/01/2011	19.99	108.37	176	0.22	5.2	25.6	0.9	92	35	0.7	0.004 u	0.46	11
04/08/2011	19.40	108.96	187	0.19	5.18	25.56	0.4	80	41	0.87	0.004 u	0.5	12
05/05/2011	20.09	108.27	182	0.51	5.09	25.3	0.2	88	34	1.1	0.004 u	0.4	11
06/08/2011	20.55	107.81	185	0.4	5.17	25.61	3.17	110	39	1.2	0.004 u	0.43	11
07/07/2011	19.66	108.70	157	0.22	5.14	25.81	2.5	200	9.7	0.17	0.004 u	0.05 u	8.6
08/04/2011	19.20	109.57	211	0.15	5.02	26.26	0.3	150	47	0.76	0.004 u	0.63	13
09/08/2011	18.60	109.76	183	0.27	5.08	26.55	2.5	110	42	1.1	0.004 u	0.51	14
10/04/2011	18.96	109.40	144	0.21	5.06	26.76	2.1	110	38	0.8	0.004 u	0.5	14
11/03/2011	19.20	109.16	218	0.25	5.26	26.72	0.66	130	42	1.2	0.004 u	0.54	14
12/08/2011	19.59	108.77	187	0.26	5.32	26.55	0.41	96	37	1	0.004 u	0.39	13
01/05/2012	19.85	108.51	154	0.65	5.24	26.31	0.7	110	36	0.85	0.004 u	0.35	13
02/10/2012	19.94	108.42	156	0.2	5.31	26.19	0.63	120	26	0.84	0.004 u	0.32	12
03/07/2012	20.19	108.17	148	0.53	5.11	25.8	0.3	84	30	0.63	0.004 u	0.3	11
04/05/2012	20.28	108.08	139	0.78	5.16	25.79	0.46	80	29	0.73	0.004 u	0.29	10
05/03/2012	20.42	107.94	152	0.28	4.88	25.87	2.24	68	26	1.2	0.004 u	0.31	11
06/07/2012	20.02	108.34	127	0.29	4.84	26.04	0.82	70	25	0.92	0.004 u	0.29	10
07/05/2012	18.39	109.97	274	0.27	5.11	26.28	1.12	170	54	1.5	0.004 u	1.2	17
08/03/2012	18.75	109.61	160	0.22	4.92	26.44	1.7	120	36	1.5	0.004 u	0.56	13
09/06/2012	18.14	109.40	252	0.2	4.9	26.79	0.97	160	40	1.1	0.004 u	0.45	14
10/04/2012	18.45	109.91	211	0.17	4.93	26.91	2.43	110	37	1.5	0.004 u	0.63	13
11/07/2012	18.72	109.64	220	0.17	5.08	27.01	0.82	120	36	1.1	0.004 u	0.54	14
12/05/2012	18.99	109.37	188	0.15	5.08	26.94	0.49	100	34	1	0.004 u	0.42	13

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

5.05 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-58

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/21/2010	28.34	99.54	970	1.2	5.76	26	0.9	490	190	0.66	0.027	4.7	38
12/28/2010	28.34	99.54	570	0.42	5.66	26	0.9	420	130	0.75	ND	ND	30
01/04/2011	28.36	99.52	619	0.44	5.71	25.81	0.6	440	140	0.64	ND	ND	29
01/13/2011	28.31	99.57	736	0.46	5.78	25.58	0.2	390	130	0.61	0.031	5	26
01/20/2011	28.22	99.66	751	0.34	5.74	25.95	0.2	380	120	0.74	0.024	4.9	23
01/27/2011	28.11	99.77	693	0.64	5.76	25.87	0.4	380	97	0.68	0.026	5	22
02/03/2011	28.05	99.83	740	0.86	5.73	25.71	2.2	380	110	0.61	0.027	4.4	23
02/10/2011	28.02	99.86	578	0.56	5.74	25.58	1.3	350	76	0.92	0.026	4.9	20
02/14/2011	28.05	99.83	521	0.58	5.72	25.7	0.6	340	85	0.91	0.027	4.7	20
02/24/2011	28.09	99.79	692	0.59	5.79	25.76	0.5	380	92	0.95	0.025	4	21
03/03/2011	28.21	99.67	591	0.42	5.68	25.6	0.6	300	76	0.61	0.024	4.1	19
03/10/2011	28.24	99.64	524	0.47	5.76	25.38	0.6	280	63	0.68	0.026	4	17
03/17/2011	28.20	99.68	337	0.33	5.69	25.47	0.4	280	65	0.3	0.026	4.1	17
03/24/2011	28.28	99.60	440	0.42	5.72	25.53	0.2	270	57	0.93	0.024	4.3	16
04/01/2011	28.10	99.78	504	0.37	5.8	25.23	0.8	270	56	0.73	0.024	4.2	17
04/08/2011	27.59	100.29	459	0.28	5.73	25.36	0.9	250	57	0.82	0.026	4.6	16
05/05/2011	28.20	99.68	1005	0.36	5.65	25.06	0.9	580	270	2.8	0.027	8.7	45
06/08/2011	28.72	99.16	1210	1.28	5.76	26.69	10.3	800	290	1.2	0.02	7.7	63
07/07/2011	27.99	99.89	998	0.75	5.7	25.62	4.49	560	210	0.94	0.025	5.8	47
08/04/2011	27.61	100.27	2167	0.39	5.6	26.1	2.1	1700	660	1.6	0.028	16	150
09/08/2011	27.42	100.46	1239	0.9	5.7	26.18	3.6	1200	570	0.75	0.026	8.1	120
10/04/2011	27.77	100.11	1416	0.67	5.72	26.01	5.2	1100	400	0.45	0.028	4.5	96
11/03/2011	27.91	99.97	1574	0.87	5.84	26.72	8.36	920	340	0.73	0.026	3.7	81
12/08/2011	28.26	99.62	1307	0.99	5.86	24.98	11.78	570	260	0.77	0.026	3.6	65
01/05/2012	28.40	99.48	1032	1.45	5.9	24.58	8.8	610	230	0.57	0.029	3.5	58
02/10/2012	28.42	99.46	880	0.89	5.8	25.26	5.17	510	160	0.58	0.025	3.2	41
03/07/2012	28.55	99.33	992	2.01	5.94	25.1	3.6	420	160	0.42	0.026	2.8	45
04/05/2012	28.66	99.22	606	0.4	5.7	25.63	0	270	81	0.9	0.026	4	26
05/03/2012	28.70	99.18	540	0.43	5.66	25.84	0.69	250	65	1.5	0.025	4.1	24
06/07/2012	28.60	99.28	379	0.63	5.68	25.53	1.6	200	36	1.6	0.026	3.8	17
07/05/2012	27.23	100.65	527	0.62	5.72	26.35	2.34	310	87	1.4	0.024	3.4	30
08/03/2012	27.93	99.95	445	0.74	5.69	26.71	2.24	480	150	2.2	0.025	4.1	50
09/06/2012	27.24	99.83	696	0.31	5.6	25.02	0.83	390	130	1.5	0.028	3.5	36
10/04/2012	27.66	100.22	645	0.28	5.61	26.51	2.57	410	130	1.2	0.025	3.6	41
11/07/2012	28.00	99.88	652	0.46	5.71	26.24	1.1	320	97	1	0.03	3.6	36
12/05/2012	28.28	99.60	530	0.58	5.64	26.04	0.59	270	64	1.1	0.025	3.7	30

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

5.76

EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-72

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
01/27/2011	115.69	15.27	551	0.39	7.43	22.88	3.2	320	32	0.22	0.004 u	0.52	32
02/03/2011	112.18	18.78	565	1.09	7.38	22.95	9.9	300	32	0.21	0.004 u	0.62	27
02/10/2011	109.80	21.16	514	1.58	7.34	22.65	3.2	340	31	0.28	0.004 u	0.54	31
02/14/2011	108.18	22.78	483	1.15	7.36	22.7	3.5	320	32	0.24	0.0013 u	0.58	32
02/24/2011	111.71	19.25	513	0.19	7.34	22.85	1	350	32	0.22	0.004 u	0.53	31
03/03/2011	111.88	19.08	579	0.77	7.35	22.8	0.8	330	31	0.23	0.004 u	0.43	32
03/10/2011	113.65	17.31	551	1.26	7.41	22.73	0.9	320	30	0.18	0.004 u	0.35	31
03/17/2011	112.85	18.11	388	1.05	7.34	22.9	0.9	330	30	0.31	0.004 u	0.25	31
03/24/2011	114.33	16.63	1192	1.5	7.58	23.1	1.5	1,100	350	0.9	0.004 u	0.64	130
04/01/2011	115.70	15.26	928	0.16	7.41	22.8	3.6	520	110	2	0.004 u	0.24	59
04/08/2011	112.10	18.86	810	0.92	7.35	23.13	6.1	420	87	1.9	0.004 u	0.22	51
05/05/2011	116.21	14.75	609	0.71	7.67	23.01	6.6	320	33	0.3	0.004 u	0.27	37
06/08/2011	119.19	11.77	607	0.71	7.65	23.35	4.51	340	32	0.57	0.004 u	0.2	34
07/07/2011	113.30	17.66	606	0.72	7.4	23.25	3.94	150	64	2.1	0.004 u	7.9	27
08/04/2011	103.31	27.65	564	0.33	7.29	23.18	0.4	360	33	0.21	0.004 u	0.18 i	34
09/08/2011	97.99	32.97	536	1.11	7.29	23.2	0.6	340	34	0.41	0.004 u	0.18 i	36
10/04/2011	99.45	31.51	471	1.69	7.31	23.13	1.1	290	31	0.3	0.004 u	0.14 i	34
11/03/2011	103.37	27.59	550	1.8	7.28	23.04	1.51	290	32	0.29	0.004 u	0.15 i	34
12/08/2011	106.80	24.16	528	1.92	7.31	22.9	0.73	320	29	0.32	0.004 u	0.13 i	33
01/05/2012	113.08	17.88	535	0.2	7.23	22.74	0.44	330	32	0.29	0.004 u	0.097 i	31
02/10/2012	113.86	17.10	511	0.94	7.3	22.89	1.39	310	28	0.28	0.004 u	0.13 i	30
03/07/2012	121.00	9.95	575	0.27	7.15	23.23	0.5	310	25	0.22	0.004 u	0.11 i	31
04/05/2012	124.96	6.00	522	1.09	7.08	23.18	0.65	280	28	0.41	0.004 u	0.11 i	29
05/03/2012	126.55	4.41	746	1.6	6.9	23.46	0.81	380	72	2.3	0.004 u	0.54	49
06/07/2012	120.46	10.50	641	0.72	7.07	23.4	0.26	370	46	1	0.004 u	0.23	37
07/05/2012	104.95	26.01	900	0.23	6.54	23.52	0.4	650	190	2.9 j3	0.004 u	0.39	70
08/03/2012	98.26	32.70	843	0.69	6.77	23.6	2.23	730	210	3	0.004 u	0.48	78
09/06/2012	91.18	39.66	2,357	0.2	6.51	23.62	1.05	1,300	570	12	0.004 u	1.1	170
10/04/2012	90.19	40.77	1,654	0.6	6.43	23.22	0.46	1,500	650	25	0.004 u	1.9	210
11/07/2012	99.29	31.67	2,488	0.76	6.58	23.03	0.74	1,400	540	15	0.004 u	1.4	180
12/05/2012	101.82	29.14	2,416	0.23	6.49	23.18	0.45	1,300	540	13	0.004 u	1.3	180 j3

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

1,100

EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-73

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
01/27/2011	30.99	100.08	440	1.7	5.53	25.01	22.2	180	69	2.3	0.004 u	15	38
02/03/2011	30.85	100.22	400	1.78	5.62	26.12	17.6	140	56	1.9	0.004 u	31	26
02/10/2011	30.76	100.31	336	1.44	5.62	25.86	12	160	56	2	0.004 u	26	27
02/14/2011	30.82	100.25	312	0.56	5.54	26	15.5	190	55	2.6	0.004 u	34	24
02/24/2011	30.78	100.29	340	0.38	5.62	26.15	16.4	170	61	3	0.004 u	17	28
03/03/2011	30.87	100.20	382	0.53	5.56	26	19.4	200	61	2.1	0.004 u	21	29
03/10/2011	30.87	100.20	371	0.66	5.56	25.97	8.3	170	60	1.7	0.004 u	21	27
03/17/2011	30.76	100.31	266	1.22	5.35	26	14.3	150	69	2.1	0.004 u	12	33
03/24/2011	30.78	100.29	346	0.61	5.47	26.02	8	140	63	2	0.004 u	13	27
04/01/2011	31.11	99.96	366	0.78	5.53	25.89	19.8	160	68	1.7	0.004 u	14	29
04/08/2011	30.65	100.42	331	0.62	5.35	25.97	18	140	66	2.1	0.004 u	11	30
05/05/2011	31.70	99.37	361	0.4	5.34	25.64	12.2	150	66	2	0.004 u	20	28
06/08/2011	32.54	98.53	391	0.7	5.41	25.69	14	150	63	2.2	0.004 u	14	27
07/07/2011	31.55	99.52	306	0.35	5.13	25.34	19.2	350	33	0.52	0.004 u	0.22	31
08/04/2011	31.40	99.67	262	0.89	5.12	25.44	19.9	140	60	1.2	0.004 u	8.2	24
09/08/2011	30.66	100.41	259	0.49	5.24	25.41	28.1	170	62	1.9	0.004 u	8.5	27
10/04/2011	31.16	99.91	345	0.89	5.2	25.48	12	220	96	1.8	0.004 u	9.1	33
11/03/2011	31.27	99.80	1273	0.3	5.21	25.55	8.16	720	360	7.3	0.004 u	22	97
12/08/2011	31.96	99.11	1499	0.62	5.3	25.24	2.64	820	500	3	0.004 u	26	110
01/05/2012	32.31	98.76	1188	0.71	5.16	25.18	2.05	750	350	3.3	0.004 u	19	80
02/10/2012	32.25	98.82	304	0.55	5.28	25.24	3.31	190	67	1.6	0.004 u	4.9	23
03/07/2012	32.42	98.65	312	1.08	5.22	25.24	3.3	150	56	1.2	0.004 u	4.7	22
04/05/2012	32.63	98.44	231	0.79	5.06	24.94	4.39	120	50	1.1	0.004 u	4.1	20
05/03/2012	32.74	98.33	283	0.99	4.8	24.88	6.47	160	63	1.9	0.004 u	4.5	22
06/07/2012	32.40	98.67	224	0.87	4.82	24.64	5.6	140	48	1.6	0.004 u	3.3	18
07/05/2012	31.51	99.56	232	0.31	4.77	24.63	9	140	50	1.7	0.004 u	4	18
08/03/2012	32.09	98.98	201	0.71	5.02	24.63	5.13	160	52	1.7	0.004 u	3.8	19
09/06/2012	31.22	99.76	242	0.5	5.06	24.67	7.39	140	47	1.3	0.004 u	3.6	18
10/04/2012	31.46	99.61	222	0.18	4.86	24.68	7.56	130	43	1.2	0.004 u	3.4	16
11/07/2012	31.84	99.23	231	0.39	5.06	24.75	5.54	130	45	0.94	0.004 u	3.6	16
12/05/2012	32.14	98.93	237	0.2	5.03	24.9	3.26	110	46	0.84	0.004 u	3.5	17

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

5.53 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-74

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
11/03/2011	9.65	ND	485	0.51	5.56	23.62	5.45	280	48	2.9	0.004 u	26	20
12/08/2011	10.11	98.97	445	0.89	5.64	22.9	14.7	270	40	2.3	0.0042 i	27	21
01/05/2012	10.30	98.78	474	0.66	5.66	21.97	16.8	240	59	1.8	0.004 u	30	26
02/10/2012	10.22	98.86	501	0.6	5.42	21.48	9.99	350	95	2.5	0.004 u	34	22
03/07/2012	10.40	98.68	618	0.53	5.24	21.57	8.7	210	120	2.3	0.004 u	38	22
04/05/2012	10.53	98.55	592	0.79	5.13	21.74	13.7	270	120	2.8	0.004 u	40	24
05/03/2012	10.71	98.37	602	0.86	5.15	21.93	12.5	330	110	2.8	0.004 u	38	25
06/07/2012	10.45	98.63	334	0.75	5.35	22.48	6.92	210	37	3	0.004 u	20	16
07/05/2012	9.45	99.63	495	0.32	4.99	23.09	5.33	240	73	2.1	0.004 u	11	27
08/03/2012	9.99	99.09	261	0.37	5.18	23.63	6.12	210	47	3	0.004 u	19	15
09/06/2012	9.36	99.66	578	0.24	5.33	24.08	2.37	330	110	2.8	0.012	21	36
10/04/2012	9.53	99.55	369	0.25	5.36	24.12	3.98	260	76	3.5	0.0055 i	19	22
11/07/2012	9.91	99.17	385	0.36	5.47	23.53	3.21	240	60	1.9	0.0045 i	18	20
12/05/2012	10.14	98.94	398	0.34	5.44	22.82	3.08	230	59	2.7	0.004 u	21	19

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

5.56 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-75

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
11/03/2011	7.68	ND	396	0.25	5.65	23.63	11.6	220	49	1.4	0.0085 i	11	14
12/08/2011	7.90	99.02	301	0.46	5.57	22.9	20.1	150	23	1.1	0.011	8.9	11
01/05/2012	8.01	98.91	300	0.92	5.58	21.69	18.9	180	25	1.1	0.0071 i	8.6	10
02/10/2012	8.00	98.92	422	0.51	5.48	21.5	17.9	280	81	1.1	0.0072 i	12	20
03/07/2012	8.14	98.78	495	0.26	5.39	21.5	19.6	220	79	0.96	0.0079 i	13	22
04/05/2012	8.15	98.77	584	0.33	5.37	21.76	4.94	300	130	1.3	0.0063 i	16	26
05/03/2012	8.27	98.65	588	0.28	5.32	22.06	0.0	350	120	1.9	0.0078 i	16	33
06/07/2012	8.14	98.78	702	0.39	5.61	22.87	5.69	480	140	1.5	0.0095 i	10	40
07/05/2012	7.36	99.56	344	0.22	5.35	23.52	6.48	180	37	2	0.01	9.8	15
08/03/2012	7.80	99.12	241	0.28	5.28	24.07	4.21	190	25	1.8	0.008 i	8.3	14
09/06/2012	7.42	99.50	360	0.18	5.41	24.5	4.41	200	40	2	0.01	9.1	15
10/04/2012	7.55	99.37	346	0.15	5.35	24.54	6.73	240	51	2.5	0.0084 i	9.2	15
11/07/2012	7.79	99.13	422	0.3	5.48	23.8	2.51	200	54	1.6	0.0086 i	9.8	17
12/05/2012	7.98	98.94	395	0.31	5.5	22.97	7.22	210	48	1.4	0.0067 i	9.2	16

New survey data beginning with 10/4/2012.

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

5.65 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
SUP-1

	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/28/2010	275	0.49	7.63	24.46	0.1	180	9.9	0.17	ND	ND	11
01/04/2011	387	1.9	7.51	21.04	0.1	210	18	0.18	ND	ND	13
01/13/2011	380	0.27	7.64	24.36	0	190	10	0.13	0.004 u	0.05 u	8.1
01/20/2011	387	0.09	7.45	24.36	0.1	190	10	0.15	0.004 u	0.058	8.5
01/27/2011	378	0.1	7.63	24.43	2	190	9.9	0.17	0.004 u	0.05 u	8.7
02/03/2011	353	0.31	7.59	24.42	0.1	190	9.9	0.14	0.004 u	0.05 u	8.2
02/10/2011	322	0.31	7.66	24.33	0.2	210	9.9	0.11	0.004 u	0.05 u	8.6
02/14/2011	289	0.33	7.6	24.3	0.2	190	10	0.084	0.004 u	0.05 u	8.5
02/24/2011	373	0.5	7.66	24.48	0.1	220	9.9	0.096	0.004 u	0.05 u	8.7
03/03/2011	370	0.08	7.68	24.48	0.3	190	9.9	0.13	0.004 u	0.05 u	8.6
03/10/2011	330	0.07	7.66	24.37	0.3	190	9.7	0.17	0.004 u	0.05 u	8.6
03/17/2011	244	0.06	7.58	24.49	0.2	210	9.6	0.16	0.004 u	0.05 u	8.6
03/24/2011	239	0.06	7.64	24.7	0.7	210	9.7	0.22	0.004 u	0.05 u	8.7
04/01/2011	370	0.06	7.69	24.31	0.4	200	9.3	0.15	0.004 u	0.05 u	8.7
04/08/2011	354	0.04	7.53	24.54	0	190	9.7	0.16	0.004 u	0.05 u	8.7
05/05/2011	351	0.16	7.86	24.59	0.1	210	9.2	0.14	0.004 u	0.05 u	8.7
06/08/2011	373	0.11	7.61	24.6	0.35	220	9.5	0.18	0.004 u	0.05 u	8.4
07/07/2011	350	0.07	7.5	24.47	0.23	210	10	0.16	0.004 u	0.05 u	8.8
08/04/2011	337	0.03	7.49	24.54	0.1	230	9.1	0.27	0.004 u	0.05 u	8.4
09/08/2011	323	0.1	7.52	24.46	0.5	220	9.3	0.19	0.004 u	0.05 u	9
10/04/2011	322	0.18	7.47	24.45	0	190	9	0.16	0.004 u	0.05 u	9
11/03/2011	339	0.5	7.46	24.38	0	170	9.5	0.15	0.004 u	0.05 u	8.6
12/08/2011	328	0.07	7.52	24.51	0.14	200	8.6	0.16	0.004 u	0.05 u	8.6
01/05/2012	317	0.08	7.5	24.34	0.06	150	9.6	0.16	0.004 u	0.05 u	9
02/10/2012	313	0.06	7.45	24.44	0.1	220	10	0.14	0.004 u	0.05 u	8.4
03/07/2012	362	0.05	7.34	24.53	0	190	9.8	0.074	0.004 u	0.05 u	8.5
04/05/2012	363	0.04	7.37	24.53	0	150	9.4	0.15	0.004 u	0.41	8.3
05/03/2012	348	0.07	7.4	24.59	0	180	9.5	0.33	0.004 u	0.05 u	9
06/07/2012	292	0.06	7.29	24.6	0.07	190	9.2	0.23	0.004 u	0.05 u	8.8
07/05/2012	263	0.07	7.27	24.61	0.02	160	9.1	0.57	0.004 u	0.05 u	8.5
08/03/2012	241	0.08	7.1	24.49	0.08	220	9.1	0.34	0.004 u	0.05 u	8.4
09/06/2012	351	0.06	7.27	24.48	0.74	210	9.7 j3	0.14	0.004 u	0.05 u	8.3
10/04/2012	243	0.06	7.29	24.45	0.17	210	9.4	0.15	0.004 u	0.47	8.3
11/07/2012	365	0.24	7.46	24.32	0.49	210	9.3	0.33	0.004 u	0.05 u	8.3
12/05/2012	360	0.11	7.37	24.49	0.38	200	9.7	0.17	0.004 u	0.05 u	8.4

ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

0.41 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
SUP-2

	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
12/28/2010	293	0.27	7.59	24.18	0.1	200	12	0.15	ND	ND	13
01/04/2011	378	0.29	7.57	24.19	0.1	200	12	0.16	ND	ND	9.2
01/13/2011	389	0.15	7.42	24.4	0	200	11	0.28	0.004 u	0.05 u	8.1
01/20/2011	392	0.24	7.45	24.4	0	210	11	0.14	0.004 u	0.05 u	8.6
01/27/2011	384	0.11	7.59	24.35	0	210	11	0.13	0.004 u	0.05 u	8.8
02/03/2011	360	1.09	7.62	24.43	0.1	190	11	0.18	0.004 u	0.05 u	8.4
02/10/2011	328	0.98	7.76	24.27	0.1	210	11	0.11	0.004 u	0.05 u	8.7
02/14/2011	296	0.35	7.59	24.5	0.2	200	11	0.084	0.004 u	0.05 u	8.8
02/24/2011	381	0.07	7.69	24.45	0.1	230	11	0.065	0.004 u	0.05 u	8.7
03/03/2011	379	0.43	7.72	24.66	0.8	210	11	0.13	0.004 u	0.05 u	8.6
03/10/2011	332	0.06	7.65	24.33	0.3	190	10	0.17	0.004 u	0.05 u	8.4
03/17/2011	246	0.08	7.54	24.32	0.2	210	10	0.16	0.004 u	0.05 u	8.6
03/24/2011	241	0.07	7.6	24.29	0.5	230	10	0.24	0.004 u	0.05 u	8.6
04/01/2011	372	0.05	7.69	24.31	0	210	9.4	0.11	0.004 u	0.05 u	8.7
04/08/2011	359	0.05	7.5	24.46	0.1	190	10	0.12	0.004 u	0.05 u	8.8
05/05/2011	361	0.17	7.8	26.01	0	210	10	0.17	0.004 u	0.05 u	8.7
06/08/2011	381	0.1	7.6	24.52	0.43	230	11	0.22	0.004 u	0.05 u	8.6
07/07/2011	356	0.07	7.5	24.39	0.19	82	30	0.87	0.004 u	0.4	11
08/04/2011	348	0.1	7.56	25.87	0	240	11	0.2	0.004 u	0.05 u	11
09/08/2011	347	0.28	7.56	26.71	1.6	230	12	0.21	0.004 u	0.05 u	10
10/04/2011	331	0.45	7.59	25.84	0	210	11	0.15	0.004 u	0.05 u	8.9
11/03/2011	347	0.07	7.44	24.62	0	180	10	0.16	0.004 u	0.05 u	8.6
12/08/2011	339	0.37	7.44	24.75	0.33	190	9.6	0.19	0.004 u	0.05 u	8.6
01/05/2012	328	0.3	7.57	24.53	1	180	11	0.15	0.004 u	0.05 u	9
02/10/2012	321	0.04	7.49	24.53	0.34	200	11	0.13	0.004 u	0.05 u	8.2
03/07/2012	373	0.04	7.42	24.85	0.1	190	11	0.089	0.004 u	0.05 u	8.2
04/05/2012	376	0.04	7.5	24.94	0	170	11	0.14	0.004 u	0.05 u	8.3
05/03/2012	364	0.17	7.45	24.79	0	190	11	0.29	0.004 u	0.05 u	8.5
06/07/2012	304	0.1	7.15	25.07	0.05	220	10	0.15	0.004 u	0.05 u	8.8
07/05/2012	275	0.08	7.35	24.69	0.07	190	10	0.04	0.004 u	0.05 u	8.6
08/03/2012	265	0.07	7.11	24.82	0.45	220	11	0.61	0.004 u	0.05 u	8.7
09/06/2012	359	0.05	7.24	24.79	0.5	210	11	0.15	0.004 u	0.05 u	8.4
10/04/2012	261	0.06	7.26	24.82	0.12	220	11	0.15	0.004 u	0.05 u	8.4
11/07/2012	381	0.29	7.47	24.47	0.36	210	11	0.16	0.004 u	0.05 u	8.7
12/05/2012	383	0.1	7.39	24.74	0.23	210	13	0.16	0.004 u	0.05 u	9.1

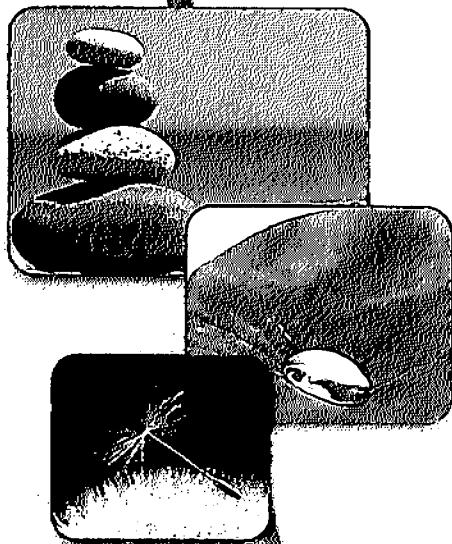
ND = NO DATA (Not analyzed)

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Tampa

6712 Benjamin Road

Suite 100

Tampa, FL 33634

Tel: (813)885-7427

TestAmerica Job ID: 660-51972-1

Client Project/Site: Southeast Monitoring Wells

For:

Hillsborough County Public Utilities Dep
Solid Waste Management Group
Brandon Support Operations Complex
332 North Falkenburg Rd, 2nd Floor
Tampa, Florida 33619

Attn: David Adams

Authorized for release by:

1/15/2013 10:20:17 AM

Nancy Robertson

Project Manager II

nancy.robertson@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?

Ask
The
Expert

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Definitions/Glossary	5
Detection Summary	6
Client Sample Results	11
QC Sample Results	26
QC Association Summary	31
Lab Chronicle	35
Method Summary	40
Certification Summary	41
Chain of Custody	43
Receipt Checklists	61

Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-51972-1	TH-72	Ground Water	01/03/13 12:24	01/03/13 15:10
660-51972-2	TH-40	Ground Water	01/03/13 09:50	01/03/13 15:10
660-51972-3	TH-42	Ground Water	01/03/13 11:10	01/03/13 15:10
660-51972-4	TH-19	Ground Water	01/03/13 10:23	01/03/13 15:10
660-51972-5	BLANK EQUIPMENT 51972	Ground Water	01/03/13 09:22	01/03/13 15:10
660-51972-6	DUPLICATE NOT BLANK	Ground Water	01/03/13 00:00	01/03/13 15:10
660-51972-7	TH-73	Ground Water	01/03/13 12:19	01/03/13 15:10
660-51989-1	TH-28A	Ground Water	01/04/13 09:52	01/04/13 15:01
660-51989-2	TH-57	Ground Water	01/04/13 10:17	01/04/13 15:01
660-51989-3	TH-30	Ground Water	01/04/13 08:59	01/04/13 15:01
660-51989-4	TH-75	Ground Water	01/04/13 00:00	01/04/13 15:01
660-51989-5	TH-58	Ground Water	01/04/13 09:25	01/04/13 15:01
660-51989-6	SUP 1	Ground Water	01/04/13 12:19	01/04/13 15:01
660-51989-7	TH-74	Ground Water	01/04/13 10:43	01/04/13 15:01
660-51989-8	SUP 2	Ground Water	01/04/13 11:49	01/04/13 15:01

3

TestAmerica Tampa

Case Narrative

Client: Hillsborough County Public Utilities Dept
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Job ID: 660-51972-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-51972-1

Comments

No additional comments.

Receipt

The samples were received on 1/3/2013 3:10 PM and 1/4/2013 3:01 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.4° C and 5.8° C.

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for sodium in batch 133206 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

General Chemistry

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 262152 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

Definitions/Glossary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

5

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♂	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-72

Lab Sample ID: 660-51972-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1300		200	50	ug/L	1		6010B	Total Recoverable
Sodium	170	J3	0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	500		20	4.0	mg/L	20		300.0	Total/NA
Ammonia as N	15		0.50	0.26	mg/L	10		350.1	Total/NA
Total Dissolved Solids	1400		50	50	mg/L	1		SM 2540C	Total/NA
Field pH	6.44			SU		1		Field Sampling	Total/NA
Field Temperature	23.09			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	1.10			mg/L		1		Field Sampling	Total/NA
Specific Conductance	2430			umhos/cm		1		Field Sampling	Total/NA
Turbidity	0.42			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-40

Lab Sample ID: 660-51972-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	17		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	7.7		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.38		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	180		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.14			SU		1		Field Sampling	Total/NA
Field Temperature	23.26			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.99			mg/L		1		Field Sampling	Total/NA
Specific Conductance	400			umhos/cm		1		Field Sampling	Total/NA
Turbidity	0.35			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-42

Lab Sample ID: 660-51972-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	400		200	50	ug/L	1		6010B	Total Recoverable
Sodium	16		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	17		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.31		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	280		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.03			SU		1		Field Sampling	Total/NA
Field Temperature	23.72			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.44			mg/L		1		Field Sampling	Total/NA
Specific Conductance	549			umhos/cm		1		Field Sampling	Total/NA
Turbidity	12.9			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-19

Lab Sample ID: 660-51972-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	14		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	7.5		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.31		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	220		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.12			SU		1		Field Sampling	Total/NA
Field Temperature	23.43			Degrees C		1		Field Sampling	Total/NA

TestAmerica Tampa

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-19 (Continued)

Lab Sample ID: 660-51972-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxygen, Dissolved	0.53				mg/L	1		Field Sampling	Total/NA
Specific Conductance	435				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.47				NTU	1		Field Sampling	Total/NA

Client Sample ID: BLANK EQUIPMENT 51972

Lab Sample ID: 660-51972-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	0.51		0.50	0.31	mg/L	1		6010B	Total Recoverable

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-51972-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3400		200	50	ug/L	1		6010B	Total
Sodium	17		0.50	0.31	mg/L	1		6010B	Recoverable
Chloride	45		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	1.1		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TH-73

Lab Sample ID: 660-51972-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3200		200	50	ug/L	1		6010B	Total Recoverable
Sodium	16		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	45		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	1.1		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	130		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	4.95			SU		1		Field Sampling	Total/NA
Field Temperature	24.84			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.49			mg/L		1		Field Sampling	Total/NA
Specific Conductance	237			umhos/cm		1		Field Sampling	Total/NA
Turbidity	2.47			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-28A

Lab Sample ID: 660-51989-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3800		200	50	ug/L	1		6010B	Total Recoverable
Sodium	22		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	59		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	2.4 J3		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	190		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	5.08			SU		1		Field Sampling	Total/NA
Field Temperature	26.68			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.40			mg/L		1		Field Sampling	Total/NA
Specific Conductance	294			umhos/cm		1		Field Sampling	Total/NA
Turbidity	1.80			NTU		1		Field Sampling	Total/NA

TestAmerica Tampa

Detection Summary

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51982-1

Client Sample ID: TH-57

Lab Sample ID: 660-51989-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	420		200	50	ug/L	1		6010B	Total Recoverable
Sodium	13		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	29		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	1.0		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	140		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	5.01			SU		1		Field Sampling	Total/NA
Field Temperature	26.69			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.15			mg/L		1		Field Sampling	Total/NA
Specific Conductance	185			umhos/cm		1		Field Sampling	Total/NA
Turbidity	0.71			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-30

Lab Sample ID: 660-51989-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	440		200	50	ug/L	1		6010B	Total Recoverable
Sodium	32		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	140		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	2.3		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	350		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	4.37			SU		1		Field Sampling	Total/NA
Field Temperature	23.78			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.20			mg/L		1		Field Sampling	Total/NA
Specific Conductance	532			umhos/cm		1		Field Sampling	Total/NA
Turbidity	1.90			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-75

Lab Sample ID: 660-51989-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.5	I	10	4.0	ug/L	1		6010B	Total Recoverable
Iron	8100		200	50	ug/L	1		6010B	Total Recoverable
Sodium	21		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	60		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	1.3		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	400		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	5.53			SU		1		Field Sampling	Total/NA
Field Temperature	21.89			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.37			mg/L		1		Field Sampling	Total/NA
Specific Conductance	447			umhos/cm		1		Field Sampling	Total/NA
Turbidity	13.9			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-58

Lab Sample ID: 660-51989-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	25		10	4.0	ug/L	1		6010B	Total Recoverable
Iron	3300		200	50	ug/L	1		6010B	Total Recoverable

TestAmerica Tampa

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-58 (Continued)

Lab Sample ID: 660-51989-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	26		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	47		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.97		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	290		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	5.63			SU		1		Field Sampling	Total/NA
Field Temperature	25.71			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	1.52			mg/L		1		Field Sampling	Total/NA
Specific Conductance	507			umhos/cm		1		Field Sampling	Total/NA
Turbidity	1.06			NTU		1		Field Sampling	Total/NA

Client Sample ID: SUP 1

Lab Sample ID: 660-51989-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8.6		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	9.4		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.16		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	250		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.37			SU		1		Field Sampling	Total/NA
Field Temperature	24.31			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.06			mg/L		1		Field Sampling	Total/NA
Specific Conductance	372			umhos/cm		1		Field Sampling	Total/NA
Turbidity	0.02			NTU		1		Field Sampling	Total/NA

Client Sample ID: TH-74

Lab Sample ID: 660-51989-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	20000		200	50	ug/L	1		6010B	Total Recoverable
Sodium	20		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	59		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	2.7		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	280		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	5.43			SU		1		Field Sampling	Total/NA
Field Temperature	22.03			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.31			mg/L		1		Field Sampling	Total/NA
Specific Conductance	418			umhos/cm		1		Field Sampling	Total/NA
Turbidity	3.03			NTU		1		Field Sampling	Total/NA

Client Sample ID: SUP 2

Lab Sample ID: 660-51989-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8.5		0.50	0.31	mg/L	1		6010B	Total Recoverable
Chloride	11		5.0	1.0	mg/L	5		300.0	Total/NA
Ammonia as N	0.13		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	270		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.36			SU		1		Field Sampling	Total/NA
Field Temperature	24.45			Degrees C		1		Field Sampling	Total/NA
Oxygen, Dissolved	0.06			mg/L		1		Field Sampling	Total/NA
Specific Conductance	389			umhos/cm		1		Field Sampling	Total/NA

TestAmerica Tampa

Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: SUP 2 (Continued)

Lab Sample ID: 660-51989-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	0.22				NTU	1		Field Sampling	Total/NA

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-72

Lab Sample ID: 660-51972-1

Date Collected: 01/03/13 12:24

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 14:45	1
Iron	1300		200	50	ug/L		01/08/13 07:39	01/09/13 14:45	1
Sodium	170	J3	0.50	0.31	mg/L		01/08/13 07:39	01/09/13 14:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	500		20	4.0	mg/L			01/09/13 17:41	20
Ammonia as N	15		0.50	0.26	mg/L			01/05/13 12:44	10
Total Dissolved Solids	1400		50	50	mg/L			01/08/13 09:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.44				SU			01/03/13 12:24	1
Field Temperature	23.09				Degrees C			01/03/13 12:24	1
Oxygen, Dissolved	1.10				mg/L			01/03/13 12:24	1
Specific Conductance	2430				umhos/cm			01/03/13 12:24	1
Turbidity	0.42				NTU			01/03/13 12:24	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-40

Lab Sample ID: 660-51972-2

Date Collected: 01/03/13 09:50

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 14:57	1
Iron	50	U	200	50	ug/L		01/08/13 07:39	01/09/13 14:57	1
Sodium	17		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 14:57	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.7		5.0	1.0	mg/L			01/09/13 17:53	5
Ammonia as N	0.38		0.050	0.026	mg/L			01/05/13 12:43	1
Total Dissolved Solids	180		10	10	mg/L			01/08/13 09:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.14				SU			01/03/13 09:50	1
Field Temperature	23.26				Degrees C			01/03/13 09:50	1
Oxygen, Dissolved	0.99				mg/L			01/03/13 09:50	1
Specific Conductance	400				umhos/cm			01/03/13 09:50	1
Turbidity	0.35				NTU			01/03/13 09:50	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-42

Lab Sample ID: 660-51972-3

Date Collected: 01/03/13 11:10

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:01	1
Iron	400		200	50	ug/L		01/08/13 07:39	01/09/13 15:01	1
Sodium	16		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		5.0	1.0	mg/L			01/09/13 18:06	5
Ammonia as N	0.31		0.050	0.026	mg/L			01/05/13 12:19	1
Total Dissolved Solids	280		10	10	mg/L			01/08/13 09:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.03				SU			01/03/13 11:10	1
Field Temperature	23.72				Degrees C			01/03/13 11:10	1
Oxygen, Dissolved	0.44				mg/L			01/03/13 11:10	1
Specific Conductance	549				umhos/cm			01/03/13 11:10	1
Turbidity	12.9				NTU			01/03/13 11:10	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-19

Lab Sample ID: 660-51972-4

Date Collected: 01/03/13 10:23

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:04	1
Iron	50	U	200	50	ug/L		01/08/13 07:39	01/09/13 15:04	1
Sodium	14		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.5		5.0	1.0	mg/L			01/09/13 18:18	5
Ammonia as N	0.31		0.050	0.026	mg/L			01/05/13 12:19	1
Total Dissolved Solids	220		10	10	mg/L			01/08/13 09:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.12			SU				01/03/13 10:23	1
Field Temperature	23.43			Degrees C				01/03/13 10:23	1
Oxygen, Dissolved	0.53			mg/L				01/03/13 10:23	1
Specific Conductance	435			umhos/cm				01/03/13 10:23	1
Turbidity	0.47			NTU				01/03/13 10:23	1

7

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: BLANK EQUIPMENT 51972

Lab Sample ID: 660-51972-5

Date Collected: 01/03/13 09:22

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:13	1
Iron	50	U	200	50	ug/L		01/08/13 07:39	01/09/13 15:13	1
Sodium	0.51		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	5.0	1.0	mg/L			01/09/13 18:30	5
Ammonia as N	0.026	U	0.050	0.026	mg/L			01/05/13 12:19	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			01/08/13 09:07	1

7

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-51972-6

Date Collected: 01/03/13 00:00

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:17	1
Iron	3400		200	50	ug/L		01/08/13 07:39	01/09/13 15:17	1
Sodium	17		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45		5.0	1.0	mg/L			01/09/13 18:43	5
Ammonia as N	1.1		0.050	0.026	mg/L			01/05/13 12:11	1
Total Dissolved Solids	130		5.0	5.0	mg/L			01/08/13 09:07	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-73

Lab Sample ID: 660-51972-7

Date Collected: 01/03/13 12:19

Matrix: Ground Water

Date Received: 01/03/13 15:10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:20	1
Iron	3200		200	50	ug/L		01/08/13 07:39	01/09/13 15:20	1
Sodium	16		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45		5.0	1.0	mg/L			01/09/13 19:20	5
Ammonia as N	1.1		0.050	0.026	mg/L			01/05/13 12:11	1
Total Dissolved Solids	130		5.0	5.0	mg/L			01/08/13 09:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.95				SU			01/03/13 12:19	1
Field Temperature	24.84				Degrees C			01/03/13 12:19	1
Oxygen, Dissolved	0.49				mg/L			01/03/13 12:19	1
Specific Conductance	237				umhos/cm			01/03/13 12:19	1
Turbidity	2.47				NTU			01/03/13 12:19	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-28A

Lab Sample ID: 660-51989-1

Date Collected: 01/04/13 09:52

Matrix: Ground Water

Date Received: 01/04/13 15:01

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:33	1
Iron	3800		200	50	ug/L		01/08/13 07:39	01/09/13 15:33	1
Sodium	22		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:33	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59		5.0	1.0	mg/L			01/12/13 01:08	5
Ammonia as N	2.4	J3	0.10	0.052	mg/L			01/08/13 12:18	2
Total Dissolved Solids	190		5.0	5.0	mg/L			01/09/13 15:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.08			SU				01/04/13 09:52	1
Field Temperature	26.68			Degrees C				01/04/13 09:52	1
Oxygen, Dissolved	0.40			mg/L				01/04/13 09:52	1
Specific Conductance	294			umhos/cm				01/04/13 09:52	1
Turbidity	1.80			NTU				01/04/13 09:52	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-57

Date Collected: 01/04/13 10:17

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-2

Matrix: Ground Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:37	1
Iron	420		200	50	ug/L		01/08/13 07:39	01/09/13 15:37	1
Sodium	13		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		5.0	1.0	mg/L		01/12/13 01:45		5
Ammonia as N	1.0		0.050	0.026	mg/L		01/08/13 12:05		1
Total Dissolved Solids	140		5.0	5.0	mg/L		01/09/13 15:42		1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.01				SU		01/04/13 10:17		1
Field Temperature	26.69				Degrees C		01/04/13 10:17		1
Oxygen, Dissolved	0.15				mg/L		01/04/13 10:17		1
Specific Conductance	185				umhos/cm		01/04/13 10:17		1
Turbidity	0.71				NTU		01/04/13 10:17		1

7

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-30

Lab Sample ID: 660-51989-3

Date Collected: 01/04/13 08:59

Matrix: Ground Water

Date Received: 01/04/13 15:01

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:40	1
Iron	440		200	50	ug/L		01/08/13 07:39	01/09/13 15:40	1
Sodium	32		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		5.0	1.0	mg/L			01/12/13 01:57	5
Ammonia as N	2.3		0.10	0.052	mg/L			01/08/13 12:14	2
Total Dissolved Solids	350		10	10	mg/L			01/09/13 15:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.37				SU			01/04/13 08:59	1
Field Temperature	23.78				Degrees C			01/04/13 08:59	1
Oxygen, Dissolved	0.20				mg/L			01/04/13 08:59	1
Specific Conductance	532				umhos/cm			01/04/13 08:59	1
Turbidity	1.90				NTU			01/04/13 08:59	1

7

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-75

Lab Sample ID: 660-51989-4

Date Collected: 01/04/13 00:00

Matrix: Ground Water

Date Received: 01/04/13 15:01

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.5	I	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:43	1
Iron	8100		200	50	ug/L		01/08/13 07:39	01/09/13 15:43	1
Sodium	21		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:43	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60		5.0	1.0	mg/L		01/12/13 02:10		5
Ammonia as N	1.3		0.050	0.026	mg/L		01/08/13 12:05		1
Total Dissolved Solids	400		10	10	mg/L		01/09/13 15:42		1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.53				SU		01/04/13 00:00		1
Field Temperature	21.89				Degrees C		01/04/13 00:00		1
Oxygen, Dissolved	0.37				mg/L		01/04/13 00:00		1
Specific Conductance	447				umhos/cm		01/04/13 00:00		1
Turbidity	13.9				NTU		01/04/13 00:00		1

7

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-58

Date Collected: 01/04/13 09:25

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-5

Matrix: Ground Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	25		10	4.0	ug/L		01/08/13 07:39	01/09/13 15:53	1
Iron	3300		200	50	ug/L		01/08/13 07:39	01/09/13 15:53	1
Sodium	26		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		5.0	1.0	mg/L			01/12/13 02:22	5
Ammonia as N	0.97		0.050	0.026	mg/L			01/08/13 11:36	1
Total Dissolved Solids	290		10	10	mg/L			01/09/13 15:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.63				SU			01/04/13 09:25	1
Field Temperature	25.71				Degrees C			01/04/13 09:25	1
Oxygen, Dissolved	1.52				mg/L			01/04/13 09:25	1
Specific Conductance	507				umhos/cm			01/04/13 09:25	1
Turbidity	1.06				NTU			01/04/13 09:25	1

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: SUP 1

Date Collected: 01/04/13 12:19

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-6

Matrix: Ground Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:56	1
Iron	50	U	200	50	ug/L		01/08/13 07:39	01/09/13 15:56	1
Sodium	8.6		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4		5.0	1.0	mg/L			01/12/13 02:34	5
Ammonia as N	0.16		0.050	0.026	mg/L			01/08/13 12:05	1
Total Dissolved Solids	250		10	10	mg/L			01/09/13 15:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.37				SU			01/04/13 12:19	1
Field Temperature	24.31				Degrees C			01/04/13 12:19	1
Oxygen, Dissolved	0.06				mg/L			01/04/13 12:19	1
Specific Conductance	372				umhos/cm			01/04/13 12:19	1
Turbidity	0.02				NTU			01/04/13 12:19	1

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-74

Date Collected: 01/04/13 10:43

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-7

Matrix: Ground Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		01/08/13 07:39	01/09/13 15:59	1
Iron	20000		200	50	ug/L		01/08/13 07:39	01/09/13 15:59	1
Sodium	20		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 15:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59		5.0	1.0	mg/L		01/12/13 02:47		5
Ammonia as N	2.7		0.10	0.052	mg/L		01/08/13 12:14		2
Total Dissolved Solids	280		10	10	mg/L		01/09/13 15:42		1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.43			SU			01/04/13 10:43		1
Field Temperature	22.03			Degrees C			01/04/13 10:43		1
Oxygen, Dissolved	0.31			mg/L			01/04/13 10:43		1
Specific Conductance	418			umhos/cm			01/04/13 10:43		1
Turbidity	3.03			NTU			01/04/13 10:43		1

TestAmerica Tampa

Client Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: SUP 2

Lab Sample ID: 660-51989-8

Date Collected: 01/04/13 11:49

Matrix: Ground Water

Date Received: 01/04/13 15:01

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U		10	4.0	ug/L	01/08/13 07:39	01/09/13 16:03	1
Iron	50	U		200	50	ug/L	01/08/13 07:39	01/09/13 16:03	1
Sodium	8.5		0.50	0.31	mg/L		01/08/13 07:39	01/09/13 16:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11			5.0	1.0	mg/L		01/12/13 02:59	5
Ammonia as N	0.13			0.050	0.026	mg/L		01/08/13 12:05	1
Total Dissolved Solids	270			10	10	mg/L		01/09/13 15:42	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.36				SU			01/04/13 11:49	1
Field Temperature	24.45				Degrees C			01/04/13 11:49	1
Oxygen, Dissolved	0.06				mg/L			01/04/13 11:49	1
Specific Conductance	389				umhos/cm			01/04/13 11:49	1
Turbidity	0.22				NTU			01/04/13 11:49	1

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-133206/1-A

Matrix: Water

Analysis Batch: 133264

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 133206

Analyte	MB MB		PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	4.0	U		10	4.0 ug/L		01/08/13 07:39	01/09/13 14:35	1
Iron	50	U		200	50 ug/L		01/08/13 07:39	01/09/13 14:35	1
Sodium	0.31	U		0.50	0.31 mg/L		01/08/13 07:39	01/09/13 14:35	1

Lab Sample ID: LCS 660-133206/2-A

Matrix: Water

Analysis Batch: 133264

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 133206

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec.	
	Added						%Rec.	Limits
Arsenic	1000		975		ug/L		97	80 - 120
Iron	1000		1030		ug/L		103	80 - 120
Sodium	10.0		9.79		mg/L		98	80 - 120

Lab Sample ID: 660-51972-1 MS

Matrix: Ground Water

Analysis Batch: 133264

Client Sample ID: TH-72
Prep Type: Total Recoverable
Prep Batch: 133206

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec.	
	Result	Qualifier		Result	Qualifier			%Rec.	Limits
Arsenic	4.0	U	1000	989		ug/L		99	80 - 120
Iron	1300		1000	2280		ug/L		97	80 - 120
Sodium	170	J3	10.0	187	J3	mg/L		147	80 - 120

Lab Sample ID: 660-51972-1 MSD

Matrix: Ground Water

Analysis Batch: 133264

Client Sample ID: TH-72
Prep Type: Total Recoverable
Prep Batch: 133206

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec.	
	Result	Qualifier		Result	Qualifier			%Rec.	RPD
Arsenic	4.0	U	1000	1010		ug/L		101	80 - 120
Iron	1300		1000	2330		ug/L		102	80 - 120
Sodium	170	J3	10.0	186	J3	mg/L		136	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-262263/2

Matrix: Water

Analysis Batch: 262263

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	1.0	U		5.0	1.0 mg/L			01/09/13 13:59	5

Lab Sample ID: LCS 680-262263/3

Matrix: Water

Analysis Batch: 262263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec.	
	Added						%Rec.	Limits
Chloride	50.0		48.8		mg/L		98	90 - 110

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-262263/4 Matrix: Water Analysis Batch: 262263							Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
Chloride			50.0	48.7		mg/L		97	90 - 110		0	30	
Lab Sample ID: 660-51962-B-1 MS Matrix: Water Analysis Batch: 262263							Client Sample ID: Matrix Spike Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits			
Chloride	120		50.0	167		mg/L		97	90 - 110				
Lab Sample ID: 660-51962-B-1 MSD Matrix: Water Analysis Batch: 262263							Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
Chloride	120		50.0	167		mg/L		97	90 - 110		0	30	
Lab Sample ID: 660-51972-7 MS Matrix: Ground Water Analysis Batch: 262263							Client Sample ID: TH-73 Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits			
Chloride	45		50.0	95.6		mg/L		102	90 - 110				
Lab Sample ID: MB 680-262580/2 Matrix: Water Analysis Batch: 262580							Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	PQL	MDL	Unit		D	Prepared	Analyzed	Dil Fac			
Chloride	1.0	U		5.0	1.0	mg/L			01/12/13 00:30	5			
Lab Sample ID: LCS 680-262580/3 Matrix: Water Analysis Batch: 262580							Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits			
Chloride			50.0	49.2		mg/L		98	90 - 110				
Lab Sample ID: LCSD 680-262580/4 Matrix: Water Analysis Batch: 262580							Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
Chloride			50.0	49.0		mg/L		98	90 - 110		0	30	
Lab Sample ID: 660-51989-1 MS Matrix: Ground Water Analysis Batch: 262580							Client Sample ID: TH-28A Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits			
Chloride	59		50.0	111		mg/L		104	90 - 110				

8

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Lab Sample ID: 660-51989-1 MSD

Client Sample ID: TH-28A

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 262580

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Chloride	59		50.0	111		mg/L			90 - 110	0	30

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-261897/2

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 261897

Analyte	MB	MB	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	0.026	U	0.050	0.026	mg/L			01/05/13 12:10	1

Lab Sample ID: LCS 680-261897/1

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 261897

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Ammonia as N	1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: 680-86224-A-5 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 261897

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Ammonia as N	0.026	U	1.00	0.965		mg/L		96	90 - 110

Lab Sample ID: 680-86224-A-5 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 261897

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Ammonia as N	0.026	U	1.00	0.961		mg/L		96	90 - 110	0	30

Lab Sample ID: 640-41735-B-2 DU

Client Sample ID: Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 261897

Analyte	Sample	Sample	Spike	DU	DU	Unit	D	Prepared	Analyzed	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Ammonia as N	0.026	U	1.00	0.026	U	mg/L				NC	30

Lab Sample ID: MB 680-262152/2

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 262152

Analyte	MB	MB	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	0.026	U	0.050	0.026	mg/L			01/08/13 11:27	1

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-262152/1

Matrix: Water

Analysis Batch: 262152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Ammonia as N	1.00	1.02		mg/L	102		90 - 110

Lab Sample ID: 660-51989-1 MS

Matrix: Ground Water

Analysis Batch: 262152

Client Sample ID: TH-28A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Ammonia as N	2.4	J3	1.00	3.31	J3	mg/L	88		90 - 110

Lab Sample ID: 660-51989-1 MSD

Matrix: Ground Water

Analysis Batch: 262152

Client Sample ID: TH-28A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Ammonia as N	2.4	J3	1.00	3.27	J3	mg/L	84		90 - 110	1	30

Lab Sample ID: 660-52008-D-1 DU

Matrix: Water

Analysis Batch: 262152

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	RPD	Limit
Ammonia as N	0.20			0.196		mg/L		2		30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-133207/1

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 133207

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			01/08/13 09:07	1

Lab Sample ID: LCS 660-133207/2

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 133207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Total Dissolved Solids	10000	9910		mg/L	99		80 - 120

Lab Sample ID: 660-51972-1 DU

Client Sample ID: TH-72

Prep Type: Total/NA

Matrix: Ground Water

Analysis Batch: 133207

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	RPD	Limit
Total Dissolved Solids	1400			1300		mg/L		5		20

TestAmerica Tampa

QC Sample Results

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 680-262231/1

Matrix: Water

Analysis Batch: 262231

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U		5.0	mg/L			01/09/13 15:42	1

Lab Sample ID: LCS 680-262231/2

Matrix: Water

Analysis Batch: 262231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Total Dissolved Solids	406	424		mg/L		104	80 - 120

Lab Sample ID: LCSD 680-262231/3

Matrix: Water

Analysis Batch: 262231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Total Dissolved Solids	406	418		mg/L		103	80 - 120	1	25

Lab Sample ID: 680-86311-A-5 DU

Matrix: Water

Analysis Batch: 262231

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	2100		2150		mg/L		4	25

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Metals

Prep Batch: 133206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51972-1	TH-72	Total Recoverable	Ground Water	3005A	
660-51972-1 MS	TH-72	Total Recoverable	Ground Water	3005A	
660-51972-1 MSD	TH-72	Total Recoverable	Ground Water	3005A	
660-51972-2	TH-40	Total Recoverable	Ground Water	3005A	
660-51972-3	TH-42	Total Recoverable	Ground Water	3005A	
660-51972-4	TH-19	Total Recoverable	Ground Water	3005A	
660-51972-5	BLANK EQUIPMENT 51972	Total Recoverable	Ground Water	3005A	
660-51972-6	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	3005A	
660-51972-7	TH-73	Total Recoverable	Ground Water	3005A	
660-51989-1	TH-28A	Total Recoverable	Ground Water	3005A	
660-51989-2	TH-57	Total Recoverable	Ground Water	3005A	
660-51989-3	TH-30	Total Recoverable	Ground Water	3005A	
660-51989-4	TH-75	Total Recoverable	Ground Water	3005A	
660-51989-5	TH-58	Total Recoverable	Ground Water	3005A	
660-51989-6	SUP 1	Total Recoverable	Ground Water	3005A	
660-51989-7	TH-74	Total Recoverable	Ground Water	3005A	
660-51989-8	SUP 2	Total Recoverable	Ground Water	3005A	
LCS 660-133206/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-133206/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 133264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51972-1	TH-72	Total Recoverable	Ground Water	6010B	133206
660-51972-1 MS	TH-72	Total Recoverable	Ground Water	6010B	133206
660-51972-1 MSD	TH-72	Total Recoverable	Ground Water	6010B	133206
660-51972-2	TH-40	Total Recoverable	Ground Water	6010B	133206
660-51972-3	TH-42	Total Recoverable	Ground Water	6010B	133206
660-51972-4	TH-19	Total Recoverable	Ground Water	6010B	133206
660-51972-5	BLANK EQUIPMENT 51972	Total Recoverable	Ground Water	6010B	133206
660-51972-6	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	6010B	133206
660-51972-7	TH-73	Total Recoverable	Ground Water	6010B	133206
660-51989-1	TH-28A	Total Recoverable	Ground Water	6010B	133206
660-51989-2	TH-57	Total Recoverable	Ground Water	6010B	133206
660-51989-3	TH-30	Total Recoverable	Ground Water	6010B	133206
660-51989-4	TH-75	Total Recoverable	Ground Water	6010B	133206
660-51989-5	TH-58	Total Recoverable	Ground Water	6010B	133206
660-51989-6	SUP 1	Total Recoverable	Ground Water	6010B	133206
660-51989-7	TH-74	Total Recoverable	Ground Water	6010B	133206
660-51989-8	SUP 2	Total Recoverable	Ground Water	6010B	133206
LCS 660-133206/2-A	Lab Control Sample	Total Recoverable	Water	6010B	133206
MB 660-133206/1-A	Method Blank	Total Recoverable	Water	6010B	133206

General Chemistry

Analysis Batch: 133207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51972-1	TH-72	Total/NA	Ground Water	SM 2540C	
660-51972-1 DU	TH-72	Total/NA	Ground Water	SM 2540C	
660-51972-2	TH-40	Total/NA	Ground Water	SM 2540C	
660-51972-3	TH-42	Total/NA	Ground Water	SM 2540C	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

General Chemistry (Continued)

Analysis Batch: 133207 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51972-4	TH-19	Total/NA	Ground Water	SM 2540C	
660-51972-5	BLANK EQUIPMENT 51972	Total/NA	Ground Water	SM 2540C	
660-51972-6	DUPLICATE NOT BLANK	Total/NA	Ground Water	SM 2540C	
660-51972-7	TH-73	Total/NA	Ground Water	SM 2540C	
LCS 660-133207/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-133207/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 261897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-41735-B-2 DU	Duplicate	Total/NA	Water	350.1	
660-51972-1	TH-72	Total/NA	Ground Water	350.1	
660-51972-2	TH-40	Total/NA	Ground Water	350.1	
660-51972-3	TH-42	Total/NA	Ground Water	350.1	
660-51972-4	TH-19	Total/NA	Ground Water	350.1	
660-51972-5	BLANK EQUIPMENT 51972	Total/NA	Ground Water	350.1	
660-51972-6	DUPLICATE NOT BLANK	Total/NA	Ground Water	350.1	
660-51972-7	TH-73	Total/NA	Ground Water	350.1	
680-86224-A-5 MS	Matrix Spike	Total/NA	Water	350.1	
680-86224-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
LCS 680-261897/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-261897/2	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 262152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51989-1	TH-28A	Total/NA	Ground Water	350.1	
660-51989-1 MS	TH-28A	Total/NA	Ground Water	350.1	
660-51989-1 MSD	TH-28A	Total/NA	Ground Water	350.1	
660-51989-2	TH-57	Total/NA	Ground Water	350.1	
660-51989-3	TH-30	Total/NA	Ground Water	350.1	
660-51989-4	TH-75	Total/NA	Ground Water	350.1	
660-51989-5	TH-58	Total/NA	Ground Water	350.1	
660-51989-6	SUP 1	Total/NA	Ground Water	350.1	
660-51989-7	TH-74	Total/NA	Ground Water	350.1	
660-51989-8	SUP 2	Total/NA	Ground Water	350.1	
660-52008-D-1 DU	Duplicate	Total/NA	Water	350.1	
LCS 680-262152/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-262152/2	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 262231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51989-1	TH-28A	Total/NA	Ground Water	SM 2540C	
660-51989-2	TH-57	Total/NA	Ground Water	SM 2540C	
660-51989-3	TH-30	Total/NA	Ground Water	SM 2540C	
660-51989-4	TH-75	Total/NA	Ground Water	SM 2540C	
660-51989-5	TH-58	Total/NA	Ground Water	SM 2540C	
660-51989-6	SUP 1	Total/NA	Ground Water	SM 2540C	
660-51989-7	TH-74	Total/NA	Ground Water	SM 2540C	
660-51989-8	SUP 2	Total/NA	Ground Water	SM 2540C	
680-86311-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 680-262231/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 680-262231/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep.
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

General Chemistry (Continued)

Analysis Batch: 262231 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-262231/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 262263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51962-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
660-51962-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
660-51972-1	TH-72	Total/NA	Ground Water	300.0	
660-51972-2	TH-40	Total/NA	Ground Water	300.0	
660-51972-3	TH-42	Total/NA	Ground Water	300.0	
660-51972-4	TH-19	Total/NA	Ground Water	300.0	
660-51972-5	BLANK EQUIPMENT 51972	Total/NA	Ground Water	300.0	
660-51972-6	DUPLICATE NOT BLANK	Total/NA	Ground Water	300.0	
660-51972-7	TH-73	Total/NA	Ground Water	300.0	
660-51972-7 MS	TH-73	Total/NA	Ground Water	300.0	
LCS 680-262263/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-262263/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-262263/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 262580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51989-1	TH-28A	Total/NA	Ground Water	300.0	
660-51989-1 MS	TH-28A	Total/NA	Ground Water	300.0	
660-51989-1 MSD	TH-28A	Total/NA	Ground Water	300.0	
660-51989-2	TH-57	Total/NA	Ground Water	300.0	
660-51989-3	TH-30	Total/NA	Ground Water	300.0	
660-51989-4	TH-75	Total/NA	Ground Water	300.0	
660-51989-5	TH-58	Total/NA	Ground Water	300.0	
660-51989-6	SUP 1	Total/NA	Ground Water	300.0	
660-51989-7	TH-74	Total/NA	Ground Water	300.0	
660-51989-8	SUP 2	Total/NA	Ground Water	300.0	
LCS 680-262580/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-262580/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-262580/2	Method Blank	Total/NA	Water	300.0	

Field Service / Mobile Lab

Analysis Batch: 133181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51972-1	TH-72	Total/NA	Ground Water	Field Sampling	
660-51972-2	TH-40	Total/NA	Ground Water	Field Sampling	
660-51972-3	TH-42	Total/NA	Ground Water	Field Sampling	
660-51972-4	TH-19	Total/NA	Ground Water	Field Sampling	
660-51972-7	TH-73	Total/NA	Ground Water	Field Sampling	
660-51989-1	TH-28A	Total/NA	Ground Water	Field Sampling	
660-51989-2	TH-57	Total/NA	Ground Water	Field Sampling	
660-51989-3	TH-30	Total/NA	Ground Water	Field Sampling	
660-51989-4	TH-75	Total/NA	Ground Water	Field Sampling	
660-51989-5	TH-58	Total/NA	Ground Water	Field Sampling	
660-51989-6	SUP 1	Total/NA	Ground Water	Field Sampling	
660-51989-7	TH-74	Total/NA	Ground Water	Field Sampling	

9

TestAmerica Tampa

QC Association Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Field Service / Mobile Lab (Continued)

Analysis Batch: 133181 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-51989-8	SUP 2	Total/NA	Ground Water	Field Sampling	

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-72

Date Collected: 01/03/13 12:24

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 14:45	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		10	261897	01/05/13 12:44	RW	TAL SAV
Total/NA	Analysis	300.0		20	262263	01/09/13 17:41	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/03/13 12:24		TAL TAM

Client Sample ID: TH-40

Date Collected: 01/03/13 09:50

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 14:57	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:43	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 17:53	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/03/13 09:50		TAL TAM

Client Sample ID: TH-42

Date Collected: 01/03/13 11:10

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:01	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:19	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 18:06	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/03/13 11:10		TAL TAM

Client Sample ID: TH-19

Date Collected: 01/03/13 10:23

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:04	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:19	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 18:18	PAT	TAL SAV

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-19

Date Collected: 01/03/13 10:23

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	133181	01/03/13 10:23		TAL TAM

Client Sample ID: BLANK EQUIPMENT 51972

Date Collected: 01/03/13 09:22

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:13	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:19	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 18:30	PAT	TAL SAV

Client Sample ID: DUPLICATE NOT BLANK

Date Collected: 01/03/13 00:00

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:17	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:11	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 18:43	PAT	TAL SAV

Client Sample ID: TH-73

Date Collected: 01/03/13 12:19

Date Received: 01/03/13 15:10

Lab Sample ID: 660-51972-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:20	GF	TAL TAM
Total/NA	Analysis	SM 2540C		1	133207	01/08/13 09:07	TO	TAL TAM
Total/NA	Analysis	350.1		1	261897	01/05/13 12:11	RW	TAL SAV
Total/NA	Analysis	300.0		5	262263	01/09/13 19:20	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/03/13 12:19		TAL TAM

Client Sample ID: TH-28A

Date Collected: 01/04/13 09:52

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-28A

Lab Sample ID: 660-51989-1

Date Collected: 01/04/13 09:52

Matrix: Ground Water

Date Received: 01/04/13 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:33	GF	TAL TAM
Total/NA	Analysis	350.1		2	262152	01/08/13 12:18	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 01:08	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 09:52		TAL TAM

Client Sample ID: TH-57

Lab Sample ID: 660-51989-2

Date Collected: 01/04/13 10:17

Matrix: Ground Water

Date Received: 01/04/13 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:37	GF	TAL TAM
Total/NA	Analysis	350.1		1	262152	01/08/13 12:05	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 01:45	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 10:17		TAL TAM

Client Sample ID: TH-30

Lab Sample ID: 660-51989-3

Date Collected: 01/04/13 08:59

Matrix: Ground Water

Date Received: 01/04/13 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:40	GF	TAL TAM
Total/NA	Analysis	350.1		2	262152	01/08/13 12:14	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 01:57	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 08:59		TAL TAM

Client Sample ID: TH-75

Lab Sample ID: 660-51989-4

Date Collected: 01/04/13 00:00

Matrix: Ground Water

Date Received: 01/04/13 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:43	GF	TAL TAM
Total/NA	Analysis	350.1		1	262152	01/08/13 12:05	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 02:10	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 00:00		TAL TAM

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
 Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: TH-58

Date Collected: 01/04/13 09:25

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-5

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:53	GF	TAL TAM
Total/NA	Analysis	350.1		1	262152	01/08/13 11:36	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 02:22	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 09:25		TAL TAM

Client Sample ID: SUP 1

Date Collected: 01/04/13 12:19

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-6

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:56	GF	TAL TAM
Total/NA	Analysis	350.1		1	262152	01/08/13 12:05	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 02:34	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 12:19		TAL TAM

Client Sample ID: TH-74

Date Collected: 01/04/13 10:43

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-7

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 15:59	GF	TAL TAM
Total/NA	Analysis	350.1		2	262152	01/08/13 12:14	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 02:47	PAT	TAL SAV
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 10:43		TAL TAM

Client Sample ID: SUP 2

Date Collected: 01/04/13 11:49

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			133206	01/08/13 07:39	GF	TAL TAM
Total Recoverable	Analysis	6010B		1	133264	01/09/13 16:03	GF	TAL TAM
Total/NA	Analysis	350.1		1	262152	01/08/13 12:05	RW	TAL SAV
Total/NA	Analysis	SM 2540C		1	262231	01/09/13 15:42	LE	TAL SAV
Total/NA	Analysis	300.0		5	262580	01/12/13 02:59	PAT	TAL SAV

TestAmerica Tampa

Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Client Sample ID: SUP 2

Date Collected: 01/04/13 11:49

Date Received: 01/04/13 15:01

Lab Sample ID: 660-51989-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	133181	01/04/13 11:49		TAL TAM

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

11

55

10

TestAmerica Tampa

Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL TAM
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SAV
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater".

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427



Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Laboratory: TestAmerica Tampa

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-13
Florida	NELAP	4	E84282	06-30-13
Georgia	State Program	4	905	06-30-13
USDA	Federal		P330-11-00177	04-20-14

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		0399-01	02-28-13
A2LA	ISO/IEC 17025		399.01	02-28-13
Alabama	State Program	4	41450	06-30-13
Alaska (UST)	State Program	10	UST-104	06-19-13
Arkansas DEQ	State Program	6	88-0692	02-01-13
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-12
Connecticut	State Program	1	PH-0161	03-31-13
Florida	NELAP	4	E87052	06-30-13
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-13
Georgia	State Program	4	803	06-30-13
Guam	State Program	9	09-005r	04-17-13
Hawaii	State Program	9	N/A	06-30-13
Illinois	NELAP	5	200022	11-30-12
Indiana	State Program	5	N/A	06-30-13
Iowa	State Program	7	353	07-01-13
Kentucky	State Program	4	90084	12-31-12
Kentucky (UST)	State Program	4	18	02-28-13
Louisiana	NELAP	6	30690	06-30-13
Louisiana	NELAP	6	LA100015	12-31-12
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-12
Massachusetts	State Program	1	M-GA006	06-30-13
Michigan	State Program	5	9925	06-30-13
Mississippi	State Program	4	N/A	06-30-13
Montana	State Program	8	CERT0081	12-31-12
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13
New Jersey	NELAP	2	GA769	06-30-13
New Mexico	State Program	6	N/A	06-30-13
New York	NELAP	2	10842	04-01-13
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-13
Puerto Rico	State Program	2	GA00006	01-01-13
South Carolina	State Program	4	98001	06-30-13
Tennessee	State Program	4	TN02961	06-30-13
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-13
Washington	State Program	10	C1794	06-10-13
West Virginia	State Program	3	9950C	12-31-12

12

TestAmerica Tampa

Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: Southeast Monitoring Wells

TestAmerica Job ID: 660-51972-1

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
West Virginia DEP	State Program	3	94	06-30-13
Wisconsin	State Program	5	999819810	08-31-13
Wyoming	State Program	8	8TMS-Q	06-30-13

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

660-51972

DATE | TIME

RELINQUISHED BY: St. Lell

REP. OF CONTRACT LAB.

12-24-12 | 1515

ACCEPTED BY: Tom Clapp

REP. OF SOLID WASTE DEPT.

12.13 | 1515

LOCATION: TH-72 WACS# 27753

SAMPLE MATRIX: WATER OTHER MATRIX: _____

PERSONAL ENGAGED IN SAMPLE COLLECTION

A. Balloon B. Clay

WELL DIAMETER: 2 INCH:

DATE | TIME

TOTAL DEPTH OF WELL: 190.00 Ft.

1.3.13 | 10:44:2 12:00

DEPTH TO WATER: 100.35 Ft.

PURGE STARTED: 1.3.13

DATE | TIME

LENGTH OF WATER COL: 89.45 Ft.

PURGE RATE: 0.75 GPM.

VOLUME TO PURGE: 14.34 Gal.

PURGE ENDED: 1.3.13

DATE | TIME

12:23

ACT. VOL. PURGED: 17.25 GAL.

Draw Down: 100.29

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB-1c	12:19	23.18	2411	6.36	1.44	0.43
AB-1c	12:21	23.13	2429	6.42	0.96	0.40
AB-2c	12:23	23.09	2430	6.44	1.10	0.42

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1.	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

Colors and Sheens none

COLLECTED

DATE | TIME

1.3.13 | 12:24

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

RELINQUISHED BY: Tom Clapp

DATE | TIME

1.3.13 | 13:16

ACCEPTED BY: Tom Clapp

DATE | TIME

1.3.13 | 13:10

COMMENT'S: W0870072

5.8° CU-07

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

660-51972

DATE | TIME

RELINQUISHED BY: St. Rolf

REP. OF CONTRACT LAB.

12-24-12 | 1515

ACCEPTED BY: _____

REP. OF SOLID WASTE DEPT. 1.2.13 | 1515

LOCATION: TH-40 WACS# 822

SAMPLE MATRIX: WATER OTHER MATRIX: _____

PERSONAL ENGAGED IN SAMPLE COLLECTION

A. Balloon J Clayton

WELL DIAMETER: 2.0 INCH:

DATE | TIME

1.3.13 | 9:33

TOTAL DEPTH OF WELL: 165.90 Ft.

PURGE STARTED:

0.90 GPM.

DEPTH TO WATER: 95.16 Ft.

PURGE RATE:

DATE | TIME

LENGTH OF WATER COL: 70.74 Ft.

1.3.13 | 9:49

VOLUME TO PURGE: 11.32 Gal.

PURGE ENDED:

14.4 GAL.

ACT. VOL. PURGED:

Draw Down:

95.14

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB	
AB J2	23-24	28.24	409	7.08	1.12	0.17	=
AB J2	23-23	23.23	406	7.06	1.05	0.24	
AB J2	23-24	23.24	400	7.14	0.99	0.35	

9:45

9:47

9:49

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
1	125 ml. GLASS		125 ml. GLASS	
	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED

DATE | TIME

1.3.13 | 8:50

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

DATE | TIME

RELINQUISHED BY: St. Rolf

REP. OF SOLID WASTE DEPT.

1.3.13 | 3:10

ACCEPTED BY: Chris McMillen

REP. OF CONTRACT LAB.

1.3.13 | 3:10

COMMENTS: WOT# 72

PRECLEANED SAMPLE CONTAINERS:

RELINQUISHED BY: St. Kelly REP. OF CONTRACT LAB. 12-24-12 | 1515

ACCEPTED BY: J. Clay REP. OF SOLID WASTE DEPT. 1.2.13 | 1515

LOCATION: TH-42 WACS# 823 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon J.Clay

WELL DIAMETER: 2.0 INCH:

TOTAL DEPTH OF WELL: 164.00 Ft.

PURGE STARTED: 1.3.13 | 10:42

DEPTH TO WATER: 76.68 Ft.

PURGE RATE: 0.60 GPM.

LENGTH OF WATER COL: 87.32 Ft.

DATE | TIME

VOLUME TO PURGE: 13.97 Gal.

PURGE ENDED: 1.3.13 | 11:09

ACT. VOL. PURGED: 14.2 GAL.

Draw Down: 97.19

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB SC	11:05	23.73	548	7.03	0.55	14.4
AB SC	11:07	23.72	549	7.04	0.49	14.4
AB SC	11:09	23.72	549	7.03	0.44	12.9

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED
DATE | TIME
1.3.13 | 11:10

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

RELINQUISHED BY: A.Balloon REP. OF SOLID WASTE DEPT. 1.3.13 | 3:10

ACCEPTED BY: John McNamee REP. OF CONTRACT LAB. 1.3.13 | 3:10

COMMENT'S: WOT#0072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS: 660-51972 DATE | TIME
RELINQUISHED BY: St. Reidy REP. OF CONTRACT LAB. 12-24-12 | 1515
ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12-24-12 | 1515
LOCATION: TH-19 WACS# 821 SAMPLE MATRIX: WATER OTHER MATRIX: _____
PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon J.Clayton

WELL DIAMETER: <u>2.0</u> INCH:		DATE TIME
TOTAL DEPTH OF WELL: <u>153.60</u>	Ft.	<u>1.3.13 10:09</u>
DEPTH TO WATER: <u>99.43</u>	Ft.	<u>0.90</u> GPM.
LENGTH OF WATER COL: <u>59.97</u>	Ft.	DATE TIME
VOLUME TO PURGE: <u>8.64</u>	Gal.	<u>1.3.13 10:22</u>
		<u>11.7 GAL.</u>
		<u>95.63</u>

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB-12	10:18	23.41	435	7.11	0.57	0.52
AB-12	10:20	23.43	435	7.11	0.53	0.48
AB-12	10:22	23.43	435	7.12	0.53	0.47

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

TOTAL NO. OF SAMPLES COLLECTED:

COLLECTED
DATE | TIME
1-3-13 10:23

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: As REP. OF SOLID WASTE DEPT. 1.3.13 | 3:10
ACCEPTED BY: Carol McParthy REP. OF CONTRACT LAB. 1.3.13 | 3:10

COMMENT'S: W0#0072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET

660-51972

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM
MONITORING WELLS BLANK, EQUIPMENT

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: At Reilly REP. OF CONTRACT LAB. 12-24-12 | 1515

ACCEPTED BY: in Clayt REP. OF SOLID WASTE DEPT. 12.13 | 1515

LOCATION: BLANK, EQUIPMENT SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION G.A.Balloon E.J.Clayt

FIELD PARAMETERS: N/A

13

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED
DATE | TIME
1.3.12 | 9:22

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES: DATE | TIME

RELINQUISHED BY: At Reilly REP. OF SOLID WASTE DEPT. 1.3.12 | 2:10

ACCEPTED BY: Craig McRatty REP. OF CONTRACT LAB. 1.3.12 | 3:10

COMMENT'S: WOT# 72

660-51972

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM
MONITORING WELLS DUPLICATE SAMPLE

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: Stu Kroll REP. OF CONTRACT LAB. 12-24-12 | 15:15

ACCEPTED BY: Dir Clift REP. OF SOLID WASTE DEPT. 1-2-13 | 15:15

LOCATION: DUPLICATE SAMPLE MATRIX: WATER OTHER MATRIX: _____
PERSONAL ENGAGED IN SAMPLE COLLECTION : A.Balloon J.Clift

FIELD PARAMETERS: N/A

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED

DATE | TIME

1-3-13 | _____

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 ✓ SAMPLE STORAGE: COOLER & ICE TO 4.0 C

DATE | TIME

1-3-13 | 3:10

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Stu Kroll REP. OF SOLID WASTE DEPT. 1-3-13 | 3:10
ACCEPTED BY: Carol McMurtry REP. OF CONTRACT LAB. 1-3-13 | 3:10

COMMENT'S: WOT 0072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

660-51972

DATE | TIME

RELINQUISHED BY: St. Reel REP. OF CONTRACT LAB. 1/24/12 | 1515

ACCEPTED BY: Jim Cray REP. OF SOLID WASTE DEPT. 1.2.13 | 1515

LOCATION: TH-73 WACS#27754 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon J.Cray

WELL DIAMETER: 2 INCH:

TOTAL DEPTH OF WELL:	<u>43.40</u>	Ft.	PURGE STARTED:	<u>1.3.13 12:08</u>
DEPTH TO WATER:	<u>94.48</u>	Ft. <u>31.90</u>	PURGE RATE:	<u>0.30 GPM.</u>
LENGTH OF WATER COL:	<u>63.97</u>	Ft. <u>19.50</u>	DATE TIME	<u> </u>
VOLUME TO PURGE:	<u>8.64</u>	Gal. <u>1.84</u>	PURGE ENDED:	<u>1.3.13 12:18</u>
			ACT. VOL. PURGED:	<u>3.0 GAL.</u>
			Draw Down:	<u>33.78</u>

FIELD PARAMETERS:

BY	Temp	Cond	pH	TDS	Time
AB 52	24.85	250	5.02	403.03	12:14 5.23
AB 52	24.84	242	4.97	0.62.0.62	12:16 3.44
AB 52	24.84	237	4.95	0.490.49	12:18 2.47

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

Colors and Sheens none

COLLECTED

DATE | TIME

1.3.13 | 12:19

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES: / DATE | TIME

RELINQUISHED BY: St. Reel REP. OF SOLID WASTE DEPT. 1.3.13 | 3:10

ACCEPTED BY: Jim Cray REP. OF CONTRACT LAB. 1.3.13 | 3:10

COMMENT'S: W040072

660-51989

SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: John Kroll REP. OF CONTRACT LAB. 12-24-12 | 15:15ACCEPTED BY: Tom Clapp REP. OF SOLID WASTE DEPT. 12-24-12 | 3:13LOCATION: TH-28A WACS# 19862 SAMPLE MATRIX: WATER OTHER MATRIX: PERSONAL ENGAGED IN SAMPLE COLLECTION E.A.Balloon G.S. ClayWELL DIAMETER: 2.0 INCH:

DATE | TIME

TOTAL DEPTH OF WELL: 34.30 Ft.

PURGE STARTED:

1.4.13 | 9:41DEPTH TO WATER: 28.45 Ft.

PURGE RATE:

0.15 GPMLENGTH OF WATER COL: 5.85 Ft.

DATE | TIME

VOLUME TO PURGE: 0.94 Gal.

PURGE ENDED:

1.4.13 | 9:51

ACT. VOL. PURGED:

1.5 GAL

Draw Down:

29.41FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB 2C	9:47	24.62	297	5.08	0.59	2.74
AB 2C	9:49	24.44	294	5.09	0.46	2.13
AB 3C	9:51	24.48	294	5.08	0.40	1.80

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL NO. OF SAMPLES COLLECTED:

COLLECTED

DATE | TIME

1.4.13 | 9:52ANALYSIS REQUESTED:AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron ArsenicPRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

DATE | TIME

ABOVE LISTED SAMPLES: As perRELINQUISHED BY: Tom Clapp REP. OF SOLID WASTE DEPT. 1.4.13 | 3:01ACCEPTED BY: John Kroll REP. OF CONTRACT LAB. 1.4.13 | 3:01COMMENT'S: WOC # 007244-C 007

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: St. Rolf REP. OF CONTRACT LAB. 12-24-12 | 1515

ACCEPTED BY: La Clayton REP. OF SOLID WASTE DEPT. 1-2-13 | 8:15

LOCATION: TH-57 WACS# 1570 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A. Balloon La Clayton

WELL DIAMETER: 2.0 INCH:

TOTAL DEPTH OF WELL: 26.83 Ft.
DEPTH TO WATER: 19.67 Ft.
LENGTH OF WATER COL: 7.74 Ft.
VOLUME TO PURGE: 1.24 Gal.

PURGE STARTED: 1-4-13 | 10:04
PURGE RATE: 0.20 GPM.
PURGE ENDED: 1-4-13 | 10:14
ACT. VOL. PURGED: 2.0 GAL.
Draw Down: 19.95

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB SC	10:12	26.67	179	4.98	0.21	1.96
AB SC	10:14	26.68	185	4.99	0.18	1.09
AB SC	10:14	26.69	185	5.01	0.15	0.71

13

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

TOTAL No. OF SAMPLES COLLECTED:

COLLECTED DATE | TIME
1-4-13 | 10:17

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 °C

ABOVE LISTED SAMPLES:
RELINQUISHED BY: La Clayton REP. OF SOLID WASTE DEPT. 1-4-13 | 12:01
ACCEPTED BY: Caral McNulty REP. OF CONTRACT LAB. 1-4-13 | 13:01

COMMENT'S: water 0072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: St. Rolf REP. OF CONTRACT LAB. 12-24-12 | 15:15

ACCEPTED BY: Di Clary REP. OF SOLID WASTE DEPT. 12/13 | 3:15

LOCATION: TH-30 WACS# 1065 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon D.J.Clary

WELL DIAMETER: <u>2.00</u>	INCH:	DATE TIME
TOTAL DEPTH OF WELL: <u>46.19</u>	Ft.	<u>1.4.13 8:40</u>
DEPTH TO WATER: <u>24.05</u>	Ft.	PURGE STARTED: <u>0.25</u> GPM.
LENGTH OF WATER COL: <u>22.14</u>	Ft.	PURGE RATE: <u> </u>
VOLUME TO PURGE: <u>3.54</u>	Gal.	PURGE ENDED: <u>1.4.13 8:58</u>
		ACT. VOL. PURGED: <u>4.5</u> GAL.
		Draw Down: <u>24.05</u>

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
A/B JC	8:54	23.78	529	4.34	6.21	1.63
A/B JC	8:54	23.78	531	4.37	6.20	1.78
A/B JC	8:58	23.78	532	4.37	6.20	1.90

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED
 DATE | TIME
1.4.13 | 8:59

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES: DATE | TIME

RELINQUISHED BY: AB REP. OF SOLID WASTE DEPT. 1.4.13 | 3:01
 ACCEPTED BY: Carol McNulty REP. OF CONTRACT LAB. 1.4.13 | 3:01

COMMENT'S: W0E# 0072 H2S odor

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: St. Bell REP. OF CONTRACT LAB. 1/2-24-12 | 15:15

ACCEPTED BY: John Clayton REP. OF SOLID WASTE DEPT. 1.2.13 | 3:15

LOCATION: TH-75 WACS# 28308 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION G.A.Balloon J.S.Clayton

WELL DIAMETER: 2 INCH:

TOTAL DEPTH OF WELL: 17.00 Ft. PURGE STARTED: 1.4.13 | 10:56

DEPTH TO WATER: 7.89 Ft. PURGE RATE: 0.15 GPM.

LENGTH OF WATER COL: 9.11 Ft. DATE | TIME

VOLUME TO PURGE: 1.46 Gal. PURGE ENDED: 1.4.13 | 11:09

ACT. VOL. PURGED: .1.95 GAL.

Draw Down: 8.15

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB 3C	11:05	21.89	432	5.53	0.46	16.4
AB 3C	11:07	21.90	438	5.52	0.37	14.6
AB 3C	11:09	21.89	447	5.53	0.37	13.9

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

Colors and Sheens none COLLECTED DATE | TIME
1.4.13 |

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES: Asce DATE | TIME

RELINQUISHED BY: Asce REP. OF SOLID WASTE DEPT. 1.4.13 | 3:01

ACCEPTED BY: Carol McHulty REP. OF CONTRACT LAB. 1.4.13 | 3:01

COMMENT'S: INFO # 0072

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY:

St. Rolf

REP. OF CONTRACT LAB.

12-24-12 | 1515

ACCEPTED BY:

Le Clays

REP. OF SOLID WASTE DEPT.

12.13 | 3:15

LOCATION: TH-58 WACS# 1571SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION

 A.Balloon Le Clays WELL DIAMETER: 2.0 INCH:TOTAL DEPTH OF WELL: 32.92 Ft.
DEPTH TO WATER: 28.19 Ft.
LENGTH OF WATER COL: 4.73 Ft.
VOLUME TO PURGE: 0.74 Gal.PURGE STARTED: 1-4-13 | 9:14
PURGE RATE: 6.15 GPM.
PURGE ENDED: 1-4-13 | 9:27
ACT. VOL. PURGED: 1.95 GAL.
Draw Down: 28.84FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
A-B 12	9:23	25.33	544	5.63	1.59	2.19
A-B 12	9:23	25.61	525	5.64	1.52	1.84
A-B 12	9:27	25.71	507	5.63	1.52	1.06

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED

DATE | TIME

1-4-13 | 9:26

ANALYSIS REQUESTED:AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron ArsenicPRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

DATE | TIME

RELINQUISHED BY: *A. B. Clays*

REP. OF SOLID WASTE DEPT.

1-4-13 | 3:01

ACCEPTED BY: *Le Clays*

REP. OF CONTRACT LAB.

1-4-13 | 3:07

COMMENT'S: WS #0072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: St. Rolf REP. OF CONTRACT LAB.

12-24-12 | 1515

ACCEPTED BY: A. Clayton REP. OF SOLID WASTE DEPT. 1.2.13 | 3:15

LOCATION: SUP 1 WACS# 27755

SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon J.Clayton

WELL VOLUME TO PURGE: 15 MIN: PURGE STARTED: DATE 1.4.13 TIME 11:53
 ACTUAL PURGE TIME: 19 MIN:

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB	=
A-B DC	12:14	24.31	372	7.37	0.08	0.03	
A-B DC	12:14	24.32	372	7.37	0.07	0.02	
A-B DC	12:18	24.31	372	7.37	0.06	0.02	

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED
 DATE | TIME
1.4.13 | 12:19

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:
 RELINQUISHED BY: A. Clayton REP. OF SOLID WASTE DEPT. 1.4.13 | 3:00
 ACCEPTED BY: Carol Murphy REP. OF CONTRACT LAB. 1.4.13 | 3:00

COMMENT'S: W0 # 0072 H2S odor

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: St. Roff REP. OF CONTRACT LAB. 1/24/12 | 15:15

ACCEPTED BY: Jim Hayes REP. OF SOLID WASTE DEPT. 1-2/13 | 3:15

LOCATION: TH-74 WACS# 28307 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon - Day

WELL DIAMETER: 2 INCH:

TOTAL DEPTH OF WELL: 17.00 Ft.
 DEPTH TO WATER: 9.94 Ft.
 LENGTH OF WATER COL: 7.04 Ft.
 VOLUME TO PURGE: 1.13 Gal.

DATE | TIME

PURGE STARTED: 1/4/13 11:0:33
 PURGE RATE: 0.20 GPM.
DATE | TIME
 PURGE ENDED: 1/4/13 11:0:42
 ACT. VOL. PURGED: 1.8 GAL.
 Draw Down: 10.82

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AB JC	10:38	21.94	427	5.44	0.44	12.6
AB JZ	10:40	22.00	423	5.45	0.35	4.76
AB JE	10:42	22.03	418	5.43	0.31	3.03

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml GLASS		125 ml GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

Colors and Sheens None

COLLECTED
DATE | TIME
1/4/13 | 10:45

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

RELINQUISHED BY: Bac REP. OF SOLID WASTE DEPT. 1-4-13 | 2:0

ACCEPTED BY: Carroll McMurtry REP. OF CONTRACT LAB. 1-4-13 | 3:0

COMMENT'S: WDF 2072

HILLSBOROUGH COUNTY DEPT. OF SOLID WASTE COC SHEET
SOUTHEAST LANDFILL WELL MONITORING PROGRAM

PRECLEANED SAMPLE CONTAINERS:

DATE | TIME

RELINQUISHED BY: Stu Reilly REP. OF CONTRACT LAB. 12-24-12 | 15:15

ACCEPTED BY: Jim Claytor REP. OF SOLID WASTE DEPT. 1-2-13 | 3:15

LOCATION: SUP 2 WACS# 27756 SAMPLE MATRIX: WATER OTHER MATRIX:

PERSONAL ENGAGED IN SAMPLE COLLECTION A.Balloon A.Claytor

WELL VOLUME TO PURGE: 15 MIN: PURGE STARTED: DATE 1-4-13 TIME 11:29

ACTUAL PURGE TIME: 19 MIN:

FIELD PARAMETERS:

BY	TIME	TEMP	COND	PH	DO	TURB
AQ SC	11:44	24.41	389	7.37	0.07	0.25
AQ SC	11:46	24.44	389	7.37	0.07	0.27
	11:48	24.45	389	7.34	0.06	0.22

SAMPLE CONTAINERS

QTY	CONTAINER DESCRIPTION	QTY	CONTAINER DESCRIPTION	PRESERVED
	40 ml VIAL		40 ml VIAL	
	125 ml. PLASTIC		125 ml. PLASTIC	
	125 ml. GLASS		125 ml. GLASS	
1	250 ml. PLASTIC	2	250 ml. PLASTIC	
	250 ml. GLASS		250 ml. GLASS	
	500 ml. PLASTIC		500 ml. PLASTIC	
	500 ml. GLASS		500 ml. GLASS	
	LITER PLASTIC		LITER PLASTIC	
	LITER GLASS		LITER GLASS	
	BACTERIAL		BACTERIAL	

3 TOTAL No. OF SAMPLES COLLECTED:

COLLECTED
DATE | TIME
1-4-13 | 11:49

ANALYSIS REQUESTED:

AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic

PRESERVED SAMPLES PH < 2.0 SAMPLE STORAGE: COOLER & ICE TO 4.0 C

ABOVE LISTED SAMPLES:

DATE | TIME

RELINQUISHED BY: Stu Reilly REP. OF SOLID WASTE DEPT. 1-4-13 | 3:01,
 ACCEPTED BY: Carroll McMurtry REP. OF CONTRACT LAB. 1-4-13 | 3:01

COMMENTS: W0 # 0672 H2S odor

Chain of Custody Record

TestAmerica Tampa

6712 Benjamin Road Suite 100

Tampa FL 33634

Phone (813) 885-7427 Fax (813) 885-7049

Chain of Custody Record

TestAmerica

ANALYSIS OF THE INVESTMENT DECISION

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-51972-1

Login Number: 51972

List Source: TestAmerica Tampa

List Number: 1

Creator: Snead, Joshua

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

14

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-51972-1

Login Number: 51972

List Number: 1

Creator: Barnett, Eddie T

List Source: TestAmerica Savannah
List Creation: 01/04/13 08:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

14

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-51972-1

Login Number: 51989

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

14

Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-51972-1

Login Number: 51989

List Number: 1

Creator: Barnett, Eddie T

List Source: TestAmerica Savannah

List Creation: 01/05/13 09:13 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-51972-1

Login Number: 51989

List Number: 2

Creator: McDonald, Debbie

List Source: TestAmerica Savannah

List Creation: 01/08/13 09:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

14