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Public Utilities

September 15, 2014

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

RE: Southeast County Landfill
Laboratory Analytical Results
Initial Assessment Monitoring Plan
Report No. 48 – August 2014

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (County) is pleased to provide the analytical results from the August 2014 sampling event conducted as part of the continuation of the Initial Assessment Monitoring Plan (IAMP). The IAMP was developed to address the potential impacts to groundwater from the sinkhole on the edge of Phase VI at the Southeast County Landfill (SCLF), which was discovered on December 14, 2010.

As part of the agreement between the County and Florida Department of Environmental Protection Southwest District Office (Department), three (3) surficial aquifer and four (4) upper Floridan/Limestone aquifer monitoring wells, designated as TH-73, TH-74, TH-75 are sampled on a quarterly schedule and TH-72, TH-76, TH-77, and TH-78 are sampled on a monthly schedule. Representative samples were collected from each of these seven (7) monitoring wells on August 12-13, 2014 and analyzed for total dissolved solids (TDS), chloride, total ammonia, arsenic, iron, sodium, and five (5) field parameters. Each sample collected was analyzed by our contracted laboratory, Test America, Inc. The following paragraphs summarize the parameter specific results pertinent to the evaluation of potential water quality impacts from the sinkhole at the SCLF.

pН

pH was observed at 9.55 pH units in new upper Floridan aquifer (UFA) monitoring well, TH-78, which is above the Secondary Drinking Water Standard (SDWS) acceptable range of 6.5 - 8.5 pH units. The elevated pH value observed does not appear to be representative of the unaffected UFA. The County believes the elevated pH values observed in this well are likely due to the grout materials utilized during construction of this well, and they should recede over time. The pH values in down gradient monitoring wells TH-72, TH-76, and TH-77 were recorded at 6.87, 7.37, and 7.44 pH units. The pH values in the surficial aquifer groundwater monitoring wells, TH-73, TH-74 and TH-75 were recorded at 4.76, 5.43, and 5.43 pH units, respectively.

Turbidity

Turbidity values in the surficial aquifer monitoring wells TH-73, TH-74, and TH-75 were recorded at 3.38, 4.87, and 2.84 Nephelometric Turbidity Units (NTUs). Turbidity in the upper Floridan / Limestone aquifer monitoring wells TH-72, TH-76, TH-77, and TH-78 were recorded at 0.81, 17, 0.61, and 7.37 NTUs, respectively.

Conductivity

The conductivity values in TH-73, TH-74, and TH-75 were recorded at 426, 466, and 343 micromhos per centimeter (umhos/cm). Conductivity values in TH-72, TH-76, and TH-77 were recorded at 2,375, 445, 436, and 467 umhos/cm, respectively. Monitoring well TH-72 is the closest UFA monitoring well to the sinkhole, and it continues to exhibit groundwater impacts similar to those observed over the last year. Conductivity values in TH-76, TH-77, and TH-78 are relatively low and consistent with the unaffected deep wells across the site.

Total Dissolved Solids (TDS)

The TDS in monitoring well TH-72 was observed at 1,300 mg/l, which continues to be above the SDWS of 500 mg/l. The remaining three (3) down gradient UFA monitoring wells, TH-76, TH-77, and TH-78 exhibited TDS values of 240, 260, and 240 mg/l, respectively, which is consistent with the water quality of the unaffected deep wells across the site. The TDS in the surficial aquifer monitoring wells TH-73, TH-74, and TH-75 were all below the Secondary Drinking Water Standard (SDWS) of 500 mg/l.

Chloride

Chloride was observed at 540 mg/l in monitoring well TH-72, which is above the SDWS of 250 mg/l. The elevated chloride value observed is likely attributable to waste in the sinkhole and the extensive amounts of grout injected into the subsurface as part of the sinkhole stabilization. Chloride values in the down gradient monitoring wells TH-76, TH-77, and TH-78 were observed at 12, 9.5, and 38 mg/l, which is consistent with the unaffected deep wells across the site. The highest value of 38 is likely attributable to the grouting of the well casing in the new well TH-78. Chloride concentrations in the surficial aquifer wells, TH-73, TH-74 and TH-75 were observed at 93, 26, and 18 mg/l, respectively, which are all below the SDWS. TH-73 is close to the sinkhole area and the 93 mg/l value is likely attributable to the waste and grout materials in the sinkhole area.

<u>Iron</u>

Total iron concentrations in three (3) of the four (4) upper Floridan/Limestone aquifer monitoring wells were observed above the SDWS of 0.3 mg/l. Monitoring wells TH-72, TH-76, and TH-78 exhibited iron at 0.62, 0.7, and 0.48 mg/l, respectively. Monitor well TH-77 exhibited iron below the SDWS at 0.16i mg/l. The iron concentrations observed have been consistent, and the iron appears to be naturally occurring in some areas of the limestone formation, and may be the result of impacts from the past strip mining activities in area. Total iron in monitoring wells TH-73, TH-74, and TH-75 was observed at 4.5, 26, and 7.5 mg/l, respectively, and these values exceed the Secondary Drinking Water Standard (SDWS) of 0.3 mg/l. Iron is consistent with historical water quality values across the site, and is likely naturally occurring or a result of past strip mining.

Sodium

Sodium was observed at a concentration of 200 mg/l in monitoring well TH-72, which is above the PDWS of 160 mg/l. The elevated sodium value is likely attributable to the waste in the sinkhole and/or the grouting activities. Sodium values in down gradient monitoring wells TH-76, TH-77, and TH-78 were observed at 20, 16, and 34 mg/l, which is consistent with the unaffected deep wells across the site. Sodium values in the surifical aquifer monitor wells were all well below the standard.

Groundwater Elevations and Direction of Flow

On August 15, 2014, the County collected groundwater and surface water elevation data at eleven (11) locations along the western portion of Phases 1-6 at the landfill site, including seven (7) surficial aquifer wells and four (4) upper Floridan (limestone) aquifer wells. No significant changes to the patterns of flow in the surficial aquifer were noted in the data set, and the flow diagram provided is consistent with the observations over the extensive period of record. The elevations observed within the wells closest to the sinkhole indicate that flow patterns continue to be affected in that area, which has not been unexpected. However, the overall direction of flow within the surficial aquifer remains toward the west/northwest.

A contour diagram of the upper Floridan / Limestone aquifer has been prepared for the general area around the sinkhole and is included with this submittal. This diagram was generated manually in AutoCad ™ utilizing the four data points closest to the sinkhole. During this sampling event, the changes in elevations between TH-72 and TH-76 is - 0.07 ft., and TH-72 and TH-77 is + 0.13 ft. Elevation of newly installed monitor well TH-78 indicated an elevation of approximately 5 feet higher than those elevations recorded at TH-72, TH-76, and TH-77. This anomaly in the groundwater elevation indicates that TH-78 may be influenced by the surface water body in this area, or some other geologic formation may be creating the potentiometric high. The County believes that the well provides a valuable data point, and will continue to evaluate the water quality and elevations at this site. However, the UFA contour did include the anomalous elevation data from TH-78. Of note, there was consideration that the survey data from HSA Golden may have been incorrect, so the County had Pickett resurvey to confirm the measuring point elevation, which was found to be correct.

Conclusions

The water quality observed in the August 2014 IAMP sampling event indicates that monitoring well TH-72, which is closest to the sinkhole, continues to exhibit impacts to water quality in the upper Floridan aquifer. The impacts observed include elevated conductivity, TDS, chloride, iron and sodium, and the values are stable and do not appear to be migrating. These impacts were not unexpected in the immediate vicinity of the sinkhole, and TH-72 is less than fifty feet away from the former surface expression, and likely even closer to the subsurface karst feature where waste and grout materials are likely present. Down gradient monitoring wells, TH-76 and TH-77, and TH-78 exhibit good water quality with no evidence of impact from the sinkhole. Monitor well TH-78 exhibited a pH value exceeding the SDWS and the County believes this may partially due to the grouting activities during the well installation. Conductivity values, TDS, sodium and chloride are all very low and consistent with the historical data sets for the unaffected upper Floridan aquifer groundwater monitoring wells at the SCLF. The water quality observations continue to support the position that the impacts from the sinkhole are limited in extent and do not appear to be migrating beyond the area in close proximity to the former sinkhole.

Recommendations

The County continues to move forward with implementation of the IAMP, which includes the monthly sampling of the four upper Floridan / Limestone aquifer groundwater monitoring wells, TH-72, TH-76, TH-77, and TH-78, and quarterly sampling of the three surficial aquifer wells, TH-73, TH-74, and TH-75. The County will continue to evaluate any water quality changes in both the surficial and upper Floridan aquifer wells, and present the findings in the monthly IAMP reports. Monthly sampling shall continue for the short term.

However, it should be noted the IAMP has been conducted for over three and half years, and the consistency of the data set supports complete closure of this monitoring plan. A select group of the IAMP wells, designed to provide long term protectiveness, should be included in the semi-annual sampling required by the Landfill Operations Permit No. 35435-022-SO/01. It is anticipated that an application for modification of the permit will include this proposed approach. If you have any specific concerns with this concept, please provide your feedback as soon as possible, so we can incorporate any suggestions into our strategy moving forward.

Enclosed for your review please find a site location map depicting the location of the monitoring wells sampled, the water quality data summary table for this sampling event, a groundwater elevation data table, groundwater contour and flow diagrams for the surficial and upper Floridan / Limestone aquifers, the historical data summary tables for the wells sampled this month, and the complete analytical data report from our contracted laboratory, Test America, Inc.

Should you have any questions or require any additional information please feel free to call me at (813) 663-3221.

Respectfully submitted,

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

xc: John Lyons, Director, Public Works Department

Kim Byer, Public Works Department, Solid Waste Division

Larry Ruiz, Public Works Department, Solid Waste Division

Jeff Greenwell, Public Utilities Department, Environmental Services

Richard Tedder, FDEP Tallahassee

Clark Moore, FDEP Tallahassee

Steve Morgan, FDEP, Southwest District

Andy Schipfer, EPC

Ernest Ely, WMI

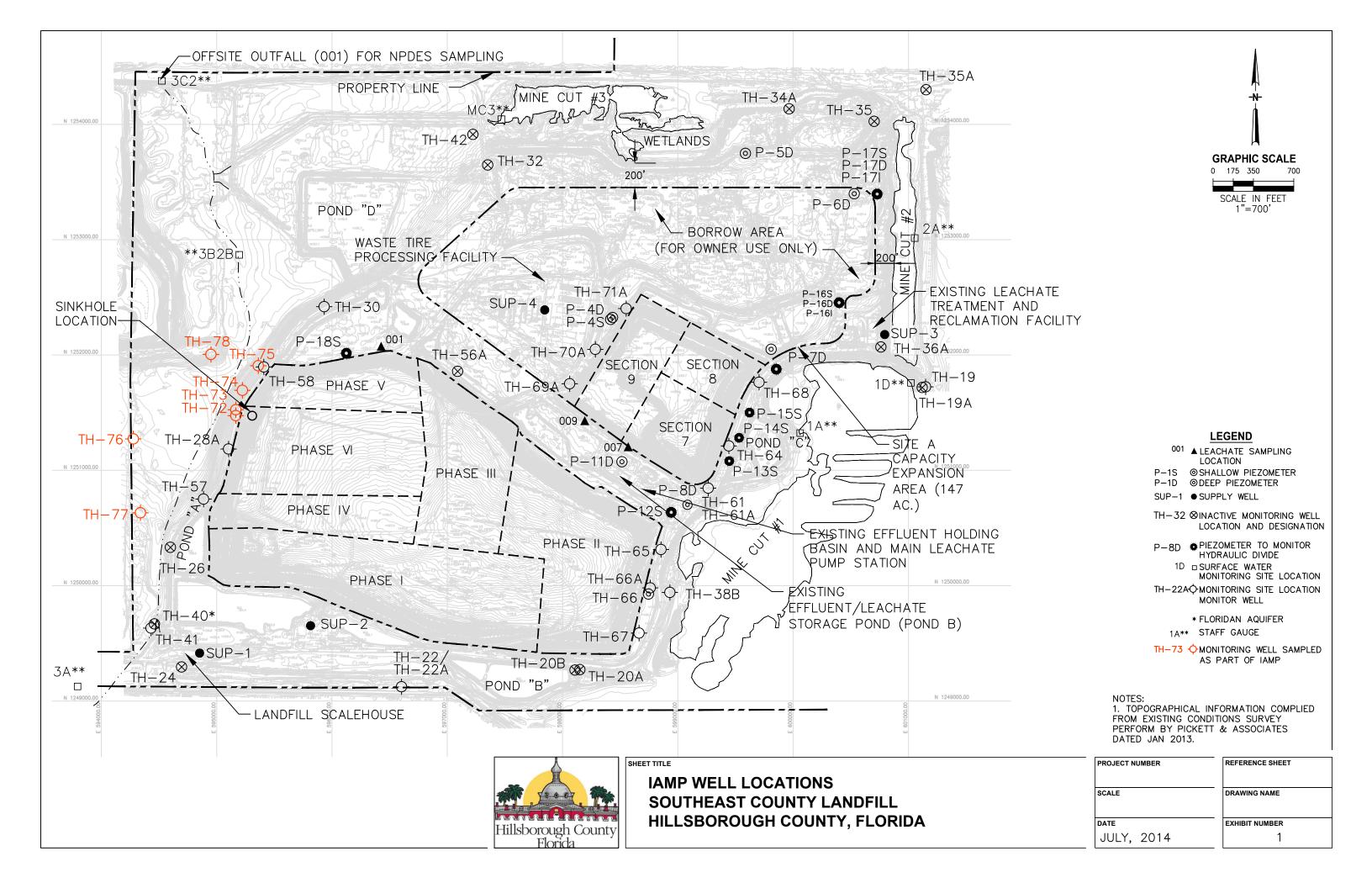
Brian Miller, DOH

Rich Siemering, HDR

Bob Curtis, HDR

Joe O'Neill, CDS

G:/LFS/Southeast/Sinkhole/Scanned IAMP Reports/SCLF - IAMP Report No 48.pdf

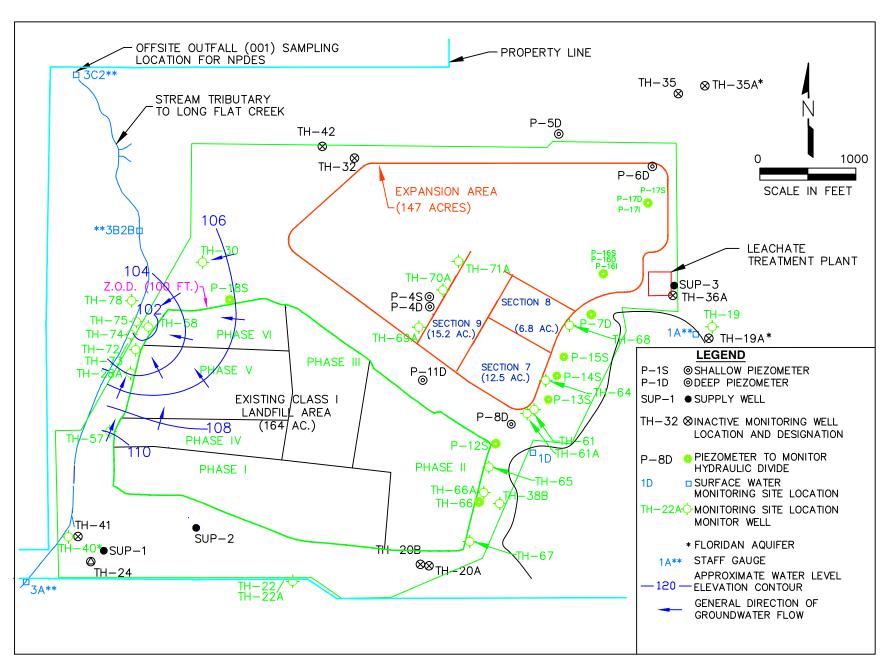


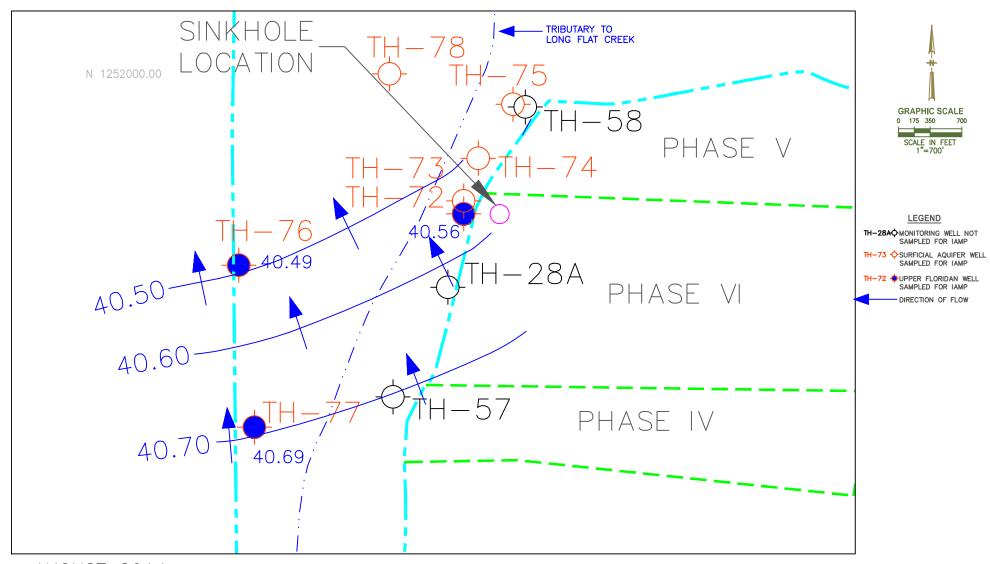
Southeast County Landfill Laboratory Analytical Data Surficial and Upper Floridan Aquifer Groundwater Monitoring Wells August 12-13, 2014

GENERAL	Surficia	I Aquifer V	Vells	Į	Jpper Flori	idan Wells		MCL STANDARD
PARAMETERS	TH-73	TH-74	TH-75	TH-72	TH-76	TH-77	TH-78	
conductivity (umhos/cm) (field)	426	466	343	2,375	445	436	467	NS
dissolved oxygen (mg/l) (field)	0.18	0.31	0.23	0.28	0.25	0.36	0.40	NS
pH (field)	4.76	5.43	5.43	6.87	7.37	7.39	9.55	(6.5 - 8.5)**
temperature (°C) (field)	25.08	23.95	24.52	23.55	22.81	23.76	23.56	NS
turbidity (NTU) (field)	3.38	4.87	2.84	0.81	17	0.61	7.37	NS
total dissolved solids (mg/l)	240	240	190	1300	240	260	240	500**
chloride (mg/l)	93	26	18	540	12	9.5	38	250**
ammonia nitrogen (mg/l as N)	3.1	3.4	1.5	23	0.5	0.49	0.42 j3	2.8***
METALS (mg/l)								MCL STANDARD
arsenic	0.004 u	0.004 u	0.011	0.004 u	0.004 u	0.004 u	0.004 u	0.01*
iron	4.5	26	7.5	0.62	0.7	0.16 i	0.48	0.3**
sodium	32	19	12	200 j3	20	16	34	160*
Note: Ref. Groundwater Guidance Co	ncentration	ns, FDEP 2	012					
MCL = Maximum Contaminant Level								
BDL = Below Detection Limit								
NTU = Nephelometric Turbidity Units								
NS = No Standard								
i = reported value is between the labor	ratory met	hod detecti	on limit an	d practical	quantitation	n limit.		
u = parameter was analyzed but not o						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
j3 = estimated value, value may not b		, spike reco	very or RF	PD outside	of criteria	~		
* = Primary Drinking Water Standard								
** = Secondary Drinking Water Stand								
1,300	Exceeds S	Standards				***************************************		***************************************
ug/l = micrograms per liter								
mg/l = milligrams per liter								

Southeast County Landfill Groundwater Elevations August 15, 2014

Measuring	T.O.C.			
Point	Elevations	W.L.	W.L.	Time
I.D.	(NGVD)	B.T.O.C.	(NGVD)	
TH-28A	131.10	27.69	103.41	12:19 PM
TH-30	128.88	23.78	105.10	12:10 PM
TH-57	128.36	18.52	109.84	12:22 PM
TH-58	127.88	27.66	100.22	12:13 PM
TH-72*	130.96	90.40	40.56	12:17 PM
TH-73	131.07	30.22	100.85	12:16 PM
TH-74	109.08	8.99	100.09	12:26 PM
TH-75	106.92	7.54	99.38	12:29 PM
TH-76*	111.21	70.72	40.49	12:46 PM
TH-77*	119.88	79.19	40.69	12:49 PM
TH-78*	120.75	75.51	45.24	12:41 PM
NGVD	= National Geodet	tic Vertical Datum		
T.O.C.	= Top of Casing			
B.T.O.C.	= Below Top of Ca	asing		
*	= Floridan Well			
ND	= No Data - Poten	tial Error in Survey	!	
W.L.	= Water Level			





AUGUST 2014

UPPER FLORIDAN / LIMESTONE AQUIFER CONTOUR DIAGRAM
IN THE VICINITY OF THE FORMER SINKHOLE
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA



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: 660-62196-1

Client Project/Site: SELF -IAMP Monitoring Wells

For:

Hillsborough Co Public Utilities Dept Environmental Services Group Brandon Support Operations Complex 332 North Falkenburg Rd, 2nd Floor Tampa, Florida 33619

Attn: David Adams

Authorized for release by:

8/25/2014 2:01:41 PM
Nancy Robertson, Project Manager II

(813)885-7427 nancy.robertson@testamericainc.com

.....LINKS

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Have a Question?



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.

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Sample Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-62196-1	BLANK FIELD	Ground Water	08/12/14 11:30	08/12/14 15:20
660-62196-2	TH-72	Ground Water	08/12/14 13:48	08/12/14 15:20
660-62196-3	TH-78	Ground Water	08/12/14 12:28	08/12/14 15:20
660-62236-1	DUPLICATE NOT BLANK	Ground Water	08/13/14 00:00	08/13/14 15:15
660-62236-2	TH-77	Ground Water	08/13/14 10:43	08/13/14 15:15
660-62236-3	TH-76	Ground Water	08/13/14 11:54	08/13/14 15:15
660-62236-4	TH-73	Ground Water	08/13/14 14:02	08/13/14 15:15
660-62236-5	TH-74	Ground Water	08/13/14 12:39	08/13/14 15:15
660-62236-6	TH-75	Ground Water	08/13/14 13:18	08/13/14 15:15

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Case Narrative

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells TestAmerica Job ID: 660-62196-1

Job ID: 660-62196-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-62196-1

Comments

No additional comments.

Receipt

The samples were received on 8/12/2014 3:20 PM and 8/13/2014 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.7° C and 11.4° C.

Metals

Method 6010B: Due to the high concentration of sodium, the matrix spike / matrix spike duplicate (MS/MSD) for batch 150880 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. The sample is flagged with J3.

No additional analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 344651 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The sample is flagged with J3.

No additional analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Metals

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

QC

RER

RPD

TEF

TEQ

RL

Quality Control

Relative error ratio

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Clossary	
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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit

TestAmerica Tampa

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-62196-1

No Detections.

Client Sample ID: TH-72				Lab Sample II	D: 660-62196-2
Analyto	Result Qualifier	POI	MDI Unit	Dil Fac D Method	Pren Tyne

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	540		10	5.0	mg/L	20	_	300.0	Total/NA
Iron	620		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	200	J3	0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	23		1.0	0.52	mg/L	20		350.1	Total/NA
Total Dissolved Solids	1300		25	25	mg/L	1		SM 2540C	Total/NA
Field pH	6.87				SU	1		Field Sampling	Total/NA
Field Temperature	23.55				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.28				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2375				uS/cm	1		Field Sampling	Total/NA
Turbidity	0.81				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-78

Lab Sample ID: 660-62196-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	38		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	480		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	34		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	0.42	J3	0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	240		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	9.55				SU	1		Field Sampling	Total/NA
Field Temperature	23.56				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.40				mg/L	1		Field Sampling	Total/NA
Specific Conductance	467				uS/cm	1		Field Sampling	Total/NA
Turbidity	7.37				NTU	1		Field Sampling	Total/NA

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-62236-1

Analyte	Result Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18	0.50	0.25	mg/L	1	_	300.0	Total/NA
Arsenic	9.5 I	10	4.0	ug/L	1		6010B	Total
								Recoverable
Iron	7600	200	50	ug/L	1		6010B	Total
								Recoverable
Sodium	13	0.50	0.31	mg/L	1		6010B	Total
								Recoverable
Ammonia as N	2.0	0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	200	5.0	5.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TH-77

Lab Sample	ID: 660-62236-2
------------	-----------------

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.5		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	160	I	200	50	ug/L	1		6010B	Total
									Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

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8/25/2014

TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Client Sample ID: TH-77 (Continued)

I ah	Sami	ale	ID:	660	-62236-2
Lab	Jaiii	JIE	ID.	OUU	-02230-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	16		0.50	0.31	mg/L	1	_	6010B	Total
									Recoverable
Ammonia as N	0.49		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	260		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.39				SU	1		Field Sampling	Total/NA
Field Temperature	23.76				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.36				mg/L	1		Field Sampling	Total/NA
Specific Conductance	436				uS/cm	1		Field Sampling	Total/NA
Turbidity	0.61				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-76

Lab Sample ID: 660-62236-3

Analyte	Result (Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	700		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	20		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	0.50		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	240		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.37				SU	1		Field Sampling	Total/NA
Field Temperature	22.81				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.25				mg/L	1		Field Sampling	Total/NA
Specific Conductance	445				uS/cm	1		Field Sampling	Total/NA
Turbidity	17.0				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-73

Lab Sample ID: 660-62236-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	93		2.5	1.3	mg/L	5	_	300.0	Total/NA
Iron	4500		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	32		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	3.1		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	240		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	4.76				SU	1		Field Sampling	Total/NA
Field Temperature	25.08				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Specific Conductance	426				uS/cm	1		Field Sampling	Total/NA
Turbidity	3.38				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-74

Lab Sample ID: 660-62236-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		0.50	0.25	mg/L		_	300.0	Total/NA
Iron	26000		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	19		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	3.4		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	240		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Detection Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Client Sample ID: TH-74 (Continued)

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	5.43				SU	1	_	Field Sampling	Total/NA
Field Temperature	23.95				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.31				mg/L	1		Field Sampling	Total/NA
Specific Conductance	466				uS/cm	1		Field Sampling	Total/NA
Turbidity	4.87				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-75 Lab Sample ID: 660-62236-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		0.50	0.25	mg/L	1	_	300.0	Total/NA
Arsenic	11		10	4.0	ug/L	1		6010B	Total
									Recoverable
Iron	7500		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	12		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	1.5		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	5.43				SU	1		Field Sampling	Total/NA
Field Temperature	24.52				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.23				mg/L	1		Field Sampling	Total/NA
Specific Conductance	343				uS/cm	1		Field Sampling	Total/NA
Turbidity	2.84				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Client Sample ID: BLANK FIELD Lab Sample ID: 660-62196-1

Date Collected: 08/12/14 11:30 Matrix: Ground Water

Date Received: 08/12/14 11:30 Matrix: Ground wa

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.25	U	0.50	0.25	mg/L			08/18/14 17:20	1
Method: 6010B - Metals (ICP) - Total Recoverab	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/13/14 10:05	08/20/14 12:50	1
Iron	50	U	200	50	ug/L		08/13/14 10:05	08/20/14 12:50	1
Sodium	0.31	U	0.50	0.31	mg/L		08/13/14 10:05	08/20/14 12:50	1
- General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L			08/16/14 11:54	1
Total Dissolved Solids	5.0	H	5.0	5.0	mg/L			08/13/14 09:18	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lah Sample ID: 660-62196-2

Client Sample ID: TH-72	Lab Sample ID: 660-62196-2
Date Collected: 08/12/14 13:48	Matrix: Ground Water
Date Received: 08/12/14 15:20	

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540		10	5.0	mg/L			08/18/14 17:35	20
- Method: 6010B - Metals (ICP) - To	otal Recoverab	le							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/13/14 10:05	08/20/14 12:37	1
Iron	620		200	50	ug/L		08/13/14 10:05	08/20/14 12:37	1
Sodium	200	J3	0.50	0.31	mg/L		08/13/14 10:05	08/20/14 12:37	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	23		1.0	0.52	mg/L			08/16/14 13:48	20
Total Dissolved Solids	1300		25	25	mg/L			08/13/14 09:18	1
- Method: Field Sampling - Field S	ampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.87				SU			08/12/14 13:48	1
Field Temperature	23.55				Degrees C			08/12/14 13:48	1
Oxygen, Dissolved	0.28				mg/L			08/12/14 13:48	1
Specific Conductance	2375				uS/cm			08/12/14 13:48	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62196-3

Matrix: Ground Water

Client Sample ID: TH-78
Date Collected: 08/12/14 12:28
Date Received: 08/12/14 15:20

Method: 300.0 - Anions, Ion Cl Analyte	•	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38		0.50		mg/L			08/18/14 17:49	1
Method: 6010B - Metals (ICP)	- Total Recoverab	ole							
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/13/14 10:05	08/20/14 12:54	1
Iron	480		200	50	ug/L		08/13/14 10:05	08/20/14 12:54	1
Sodium	34		0.50	0.31	mg/L		08/13/14 10:05	08/20/14 12:54	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.42	J3	0.050	0.026	mg/L			08/16/14 11:54	1
Total Dissolved Solids	240		10	10	mg/L			08/13/14 09:18	1
Method: Field Sampling - Field	d Sampling								
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	9.55				SU			08/12/14 12:28	1
Field Temperature	23.56				Degrees C			08/12/14 12:28	1
Oxygen, Dissolved	0.40				mg/L			08/12/14 12:28	1
Specific Conductance	467				uS/cm			08/12/14 12:28	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells TestAmerica Job ID: 660-62196-1

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Lab Sample ID: 660-62236-1

Matrix: Ground Water

Client Sample ID: DUPLICATE NOT BLANK Date Collected: 08/13/14 00:00

Date Received: 08/13/14 15:15

Method: 300.0 - Anions, Ion C	hromatography								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		0.50	0.25	mg/L			08/19/14 03:00	
Method: 6010B - Metals (ICP)	- Total Recoverat	ole							
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5	ī	10	4.0	ug/L		08/14/14 12:04	08/21/14 08:29	1
Iron	7600		200	50	ug/L		08/14/14 12:04	08/21/14 08:29	1
Sodium	13		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 08:29	1
- General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	2.0		0.10	0.052	mg/L			08/16/14 13:48	2
Total Dissolved Solids	200		5.0	5.0	ma/L			08/14/14 11:00	1

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Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-2

Matrix: Ground Water

Date	Collected:	08/13/14	10:43
Date	Received:	08/13/14	15:15

Client Sample ID: TH-77

Method: 300.0 - Anions, Ion Cl Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.5		0.50	0.25	mg/L			08/18/14 19:20	1
Method: 6010B - Metals (ICP) -	· Total Recoverab	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/14/14 12:04	08/21/14 08:32	1
Iron	160	T.	200	50	ug/L		08/14/14 12:04	08/21/14 08:32	1
Sodium	16		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 08:32	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.49		0.050	0.026	mg/L			08/16/14 11:54	1
Total Dissolved Solids	260		10	10	mg/L			08/14/14 11:00	1
Method: Field Sampling - Field	d Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.39				SU			08/13/14 10:43	1
Field Temperature	23.76				Degrees C			08/13/14 10:43	1
Oxygen, Dissolved	0.36				mg/L			08/13/14 10:43	1
Specific Conductance	436				uS/cm			08/13/14 10:43	1
Turbidity	0.61				NTU			08/13/14 10:43	1

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Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-3

Matrix: Ground Water

Client Sample ID: TH-76
Date Collected: 08/13/14 11:54
Date Received: 08/13/14 15:15

Method: 300.0 - Anions, Ion Cl Analyte	• • •	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		0.50	0.25	mg/L			08/18/14 20:06	1
Method: 6010B - Metals (ICP) -	· Total Recoverab	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/14/14 12:04	08/21/14 08:36	1
Iron	700		200	50	ug/L		08/14/14 12:04	08/21/14 08:36	1
Sodium	20		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 08:36	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.50		0.050	0.026	mg/L			08/16/14 13:38	1
Total Dissolved Solids	240		10	10	mg/L			08/14/14 11:00	1
Method: Field Sampling - Field	l Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.37				SU			08/13/14 11:54	1
Field Temperature	22.81				Degrees C			08/13/14 11:54	1
Oxygen, Dissolved	0.25				mg/L			08/13/14 11:54	1
Specific Conductance	445				uS/cm			08/13/14 11:54	1
Turbidity	17.0				NTU			08/13/14 11:54	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-4

Matrix: Ground Water

Date Collected	: 08/13/14 14:02
Date Received	: 08/13/14 15:15

Client Sample ID: TH-73

Method: 300.0 - Anions, Ion Cl Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93		2.5	1.3	mg/L			08/19/14 14:23	5
Method: 6010B - Metals (ICP) -	Total Recoverab	le							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/14/14 12:04	08/21/14 09:10	1
Iron	4500		200	50	ug/L		08/14/14 12:04	08/21/14 09:10	1
Sodium	32		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 09:10	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	3.1		0.10	0.052	mg/L			08/16/14 13:48	2
Total Dissolved Solids	240		5.0	5.0	mg/L			08/14/14 11:00	1
Method: Field Sampling - Field	l Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.76				SU			08/13/14 14:02	1
Field Temperature	25.08				Degrees C			08/13/14 14:02	1
Oxygen, Dissolved	0.18				mg/L			08/13/14 14:02	1
Specific Conductance	426				uS/cm			08/13/14 14:02	1
Turbidity	3.38				NTU			08/13/14 14:02	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-5

Matrix: Ground Water

Client Sample ID: TH-74
Date Collected: 08/13/14 12:39
Date Received: 08/13/14 15:15

Method: 300.0 - Anions, Ion Cl Analyte	• • •	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride		- Qualifier	0.50		mg/L		Frepareu	08/19/14 14:39	1
	20		0.00	0.20	9			00/10/11/11/00	
Method: 6010B - Metals (ICP) -	· Total Recoverab	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/14/14 12:04	08/21/14 08:49	1
Iron	26000		200	50	ug/L		08/14/14 12:04	08/21/14 08:49	1
Sodium	19		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 08:49	1
-									
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	3.4		0.10	0.052	mg/L			08/16/14 13:57	2
Total Dissolved Solids	240		10	10	mg/L			08/14/14 11:00	1
Method: Field Sampling - Field	d Sampling								
Analyte	. •	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.43				SU			08/13/14 12:39	1
Field Temperature	23.95				Degrees C			08/13/14 12:39	1
Oxygen, Dissolved	0.31				mg/L			08/13/14 12:39	1
Specific Conductance	466				uS/cm			08/13/14 12:39	1
Turbidity	4.87				NTU			08/13/14 12:39	

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Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Client Sample ID: TH-75

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-6

Date Collected: 08/13/14 13:18							Matrix: Grou	nd Water
Date Received: 08/13/14 15:15								
Method: 300.0 - Anions, Ion Chromatogr	raphy							
Analyte	Result	Qualifier	PQL	MDL Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		0.50	0.25	mg/L			08/18/14 21:23	1
- Method: 6010B - Metals (ICP)	- Total Recoverat	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		10	4.0	ug/L		08/14/14 12:04	08/21/14 08:53	1
Iron	7500		200	50	ug/L		08/14/14 12:04	08/21/14 08:53	1
Sodium	12		0.50	0.31	mg/L		08/14/14 12:04	08/21/14 08:53	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.5		0.10	0.052	mg/L			08/16/14 13:57	2
Total Dissolved Solids	190		5.0	5.0	ma/l			08/14/14 11:00	1

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.43		<u> </u>		SU		•	08/13/14 13:18	1
Field Temperature	24.52				Degrees C			08/13/14 13:18	1
Oxygen, Dissolved	0.23				mg/L			08/13/14 13:18	1
Specific Conductance	343				uS/cm			08/13/14 13:18	1
Turbidity	2.84				NTU			08/13/14 13:18	1

TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-344644/11 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344644

мв мв Result Qualifier PQL MDL Unit D Dil Fac Analyte Prepared Analyzed 0.50 08/18/14 15:40 Chloride 0.25 U 0.25 mg/L

Lab Sample ID: LCS 680-344644/12 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344644

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.0 10.1 mg/L 101 90 - 110

Lab Sample ID: LCSD 680-344644/13 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water Analysis Batch: 344644

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 10.0 10.0 100 mg/L

Lab Sample ID: 660-62204-A-2 MS Client Sample ID: Matrix Spike

Matrix: Water

Analysis Batch: 344644

Sample Sample Spike MS MS %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 8.0 10.0 18 2 mg/L 102 80 - 120

Lab Sample ID: 660-62204-A-2 MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344644

Sample Sample Spike MSD MSD %Rec. RPD Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 80 - 120 8.0 18.3 mg/L 102 30

Lab Sample ID: MB 680-344689/2 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 344689

Result Qualifier PQL Analyte MDL Unit D Prepared Analyzed Dil Fac 0.50 Chloride 0.25 U 0.25 mg/L 08/18/14 17:02

MB MB

Lab Sample ID: LCS 680-344689/3 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 344689

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.0 9.95 mg/L 100 90 - 110

Lab Sample ID: LCSD 680-344689/4 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344689

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 9.98 mg/L 100

TestAmerica Tampa

Prep Type: Total/NA

Client Sample ID: TH-77

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Lab Sample ID: 660-62236-2 MS

Client Sample ID: TH-77 **Matrix: Ground Water** Prep Type: Total/NA Analysis Batch: 344689

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	9.5		10.0	19.5		mg/L		101	80 - 120	

Lab Sample ID: 660-62236-2 MSD

Matrix: Ground Water Analysis Batch: 344689

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Analyte Added Result Qualifier %Rec I imite RPD Limit Unit D Chloride 9.5 10.0 19.5 mg/L 100 80 - 120 30

Lab Sample ID: MB 680-344698/29 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344698

MB MB

POL MDL Unit Analyte Result Qualifier D Prepared Analyzed Dil Fac Chloride 0.25 U 0.50 0.25 mg/L 08/18/14 23:56

Lab Sample ID: LCS 680-344698/30 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 344698

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.0 10.0 mg/L 100 90 - 110

Lab Sample ID: LCSD 680-344698/31

Matrix: Water

Analysis Batch: 344698

LCSD LCSD RPD Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 10.0 100 90 - 110 mg/L

Lab Sample ID: 660-62252-B-2 MS

Matrix: Water

Analysis Batch: 344698

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 10.0 98 80 - 120 11 20.3 mg/L

Lab Sample ID: 660-62252-B-2 MSD

Matrix: Water

Analysis Batch: 344698

MSD MSD %Rec. RPD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 11 10.0 20.3 mg/L 97 80 - 120

Lab Sample ID: MB 680-344823/2

Matrix: Water

Analysis Batch: 344823

MB MB

Analyte Result Qualifier PQL MDL Unit D Prepared Analyzed Dil Fac Chloride 0.25 U 0.50 0.25 mg/L 08/19/14 13:07

TestAmerica Tampa

TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-344823/3 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344823

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit D %Rec 10.0 90 - 110 Chloride 9.99 mg/L 100

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 680-344823/4 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344823

LCSD LCSD RPD Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 10.0 mg/L 100 90 - 110

Client Sample ID: Matrix Spike Lab Sample ID: 680-104154-C-2 MS **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344823

MS MS %Rec. Spike Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 37 40.0 75.2 mg/L 80 - 120

Lab Sample ID: 680-104154-C-2 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Batch: 344823

Sample Sample Spike MSD MSD %Rec. RPD Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Limit Chloride 37 40.0 75.1 mg/L 95 80 _ 120 30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-150689/1-A Client Sample ID: Method Blank **Prep Type: Total Recoverable**

> 4.0 U

Matrix: Water

Analysis Batch: 150880

	MB	MB							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		08/13/14 10:05	08/20/14 12:27	1
Iron	50	U	200	50	ug/L		08/13/14 10:05	08/20/14 12:27	1
Sodium	0.31	U	0.50	0.31	ma/l		08/13/14 10:05	08/20/14 12:27	1

Lab Sample ID: LCS 660-150689/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable**

Analysis Batch: 150880

Arsenic

	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier U	nit D	%Rec	Limits	
Arsenic	1000	998	——— uç	ı/L	100	80 - 120	
Iron	1000	972	uç	ı/L	97	80 - 120	
Sodium	10.0	9.33	m	g/L	93	80 - 120	

Lab Sample ID: 660-62196-2 MS Client Sample ID: TH-72 **Matrix: Ground Water Prep Type: Total Recoverable** Analysis Batch: 150880 **Prep Batch: 150689** Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits

1030

ug/L

103

80 - 120

1000

TestAmerica Tampa

Prep Batch: 150689

Prep Batch: 150689

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 660-62196-2 MS Client Sample ID: TH-72 **Matrix: Ground Water Prep Type: Total Recoverable Analysis Batch: 150880** Prep Batch: 150689

	Sample Sa	mpie Spike	IVIO	INIO			%Rec.	
Analyte	Result Qu	ialifier Added	Result	Qualifier Uni	t D	%Rec	Limits	
Iron	620	1000	1560	ug/		94	80 - 120	
Sodium	200 J3	10.0	210	mg	'L	94	80 - 120	

Lab Sample ID: 660-62196-2 MSD Client Sample ID: TH-72 **Matrix: Ground Water Prep Type: Total Recoverable** Analysis Batch: 150880 **Prep Batch: 150689**

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Arsenic	4.0	U	1000	1060		ug/L		106	80 - 120	2	20	
Iron	620		1000	1590		ug/L		97	80 - 120	2	20	
Sodium	200	J3	10.0	218	J3	ma/L		169	80 - 120	4	20	

Lab Sample ID: MB 660-150729/1-A Client Sample ID: Method Blank **Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 150894 Prep Batch: 150729

MR MR Analyte Result Qualifier PQL MDL Unit Dil Fac Prepared Analyzed Arsenic 4.0 U 10 4.0 08/14/14 12:04 08/21/14 07:24 ug/L Iron 50 U 200 ug/L 08/14/14 12:04 08/21/14 07:24 0.50 08/14/14 12:04 Sodium 0.31 U 0.31 mg/L 08/21/14 07:24

Lab Sample ID: LCS 660-150729/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 150894 Prep Batch: 150729

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	 1000	984		ug/L		98	80 - 120	
Iron	1000	1020		ug/L		102	80 - 120	
Cadium	10.0	10.0				100	00 100	

Lab Sample ID: 640-48834-B-1-B MS Client Sample ID: Matrix Spike **Matrix: Water Prep Type: Total Recoverable** Analysis Batch: 150894 Prep Batch: 150729

Allaryolo Batoli. 100004									1.00	Daton. 10012	
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Arsenic	4.0	U	1000	1020		ug/L		102	80 - 120		_
Iron	70	I	1000	1070		ug/L		100	80 - 120		
Sodium	360	13	10.0	353	13	ma/l		-53	80 120		

Lab Sample ID: 640-48834-B-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Water Prep Type: Total Recoverable Analysis Batch: 150894 Prep Batch: 150729 Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Limits RPD Unit %Rec 4.0 U 1000 80 - 120 Arsenic 1010 ug/L 101

Limit 20 70 I 1000 Iron 1060 ug/L 99 80 - 120 20 360 J3 10.0 359 J3 80 - 120 Sodium mg/L 14 20

TestAmerica Tampa

TestAmerica Job ID: 660-62196-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-344651/5 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344651

мв мв Result Qualifier PQL MDL Unit Analyte D Analyzed Dil Fac Prepared 0.050 08/16/14 09:42 Ammonia as N 0.026 U 0.026 mg/L

Lab Sample ID: LCS 680-344651/49 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 344651

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Ammonia as N 1.00 1.01 mg/L 101 90 - 110

Lab Sample ID: 660-62196-3 MS Client Sample ID: TH-78 **Matrix: Ground Water** Prep Type: Total/NA Analysis Batch: 344651

Spike MS MS %Rec. Sample Sample Result Qualifier Added Result Qualifier Unit D %Rec Limits 0.42 J3 1.00 1.66 J3 124 Ammonia as N mg/L

Lab Sample ID: 660-62196-3 MSD Client Sample ID: TH-78 **Matrix: Ground Water** Prep Type: Total/NA

Analysis Batch: 344651 Sample Sample Spike MSD MSD

%Rec. RPD Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Limit 0.42 J3 1.00 90 - 110 Ammonia as N 1.67 .13 ma/L 125

Lab Sample ID: 660-62236-2 DU Client Sample ID: TH-77 **Matrix: Ground Water** Prep Type: Total/NA Analysis Batch: 344651

Sample Sample DU DU RPD Analyte Result Qualifier Result Qualifier Unit RPD Limit 30 Ammonia as N 0.49 0.474 mg/L

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

Lab Sample ID: MB 660-150677/1 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 150677

мв мв MDL Unit Result Qualifier POL Dil Fac Analyte Prepared Analyzed Total Dissolved Solids 5.0 Ū 5.0 5.0 mg/L 08/13/14 09:18

Lab Sample ID: LCS 660-150677/2 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 150677

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

QC Sample Results

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Lab Sample ID: 660-62196-3 DU

TestAmerica Job ID: 660-62196-1

Client Sample ID: TH-78

Client Sample ID: TH-75

2

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

MR MR

Matrix: Ground Water							Prep Ty	pe: To	tal/NA
Analysis Batch: 150677									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Total Dissolved Solids	240		 272		mg/L		 	11	20

Lab Sample ID: MB 660-150728/1

Matrix: Water

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

Analysis Batch: 150728

Lab Sample ID: 660-62236-6 DU

	IVID	IVID							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			08/14/14 11:00	1

Lab Sample ID: LCS 660-150728/2

Matrix: Water

Analysis Batch: 150728

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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids	10000	9960		mg/L		100	80 - 120	

Matrix: Ground Water

Analysis Batch: 150728

Sample Sample DU DU RPD

۱		Janipie	Sample	D0	ь				KFD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
	Total Dissolved Solids	190		 186		mg/L		 0	20

TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

HPLC/IC

Analysis Batch: 344644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-1	BLANK FIELD	Total/NA	Ground Water	300.0	
660-62196-2	TH-72	Total/NA	Ground Water	300.0	
660-62196-3	TH-78	Total/NA	Ground Water	300.0	
660-62204-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
660-62204-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 680-344644/12	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-344644/13	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-344644/11	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 344689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
660-62236-2	TH-77	Total/NA	Ground Water	300.0	
660-62236-2 MS	TH-77	Total/NA	Ground Water	300.0	
660-62236-2 MSD	TH-77	Total/NA	Ground Water	300.0	
660-62236-3	TH-76	Total/NA	Ground Water	300.0	
660-62236-6	TH-75	Total/NA	Ground Water	300.0	
LCS 680-344689/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-344689/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-344689/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 344698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62236-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	300.0	
660-62252-B-2 MS	Matrix Spike	Total/NA	Water	300.0	
660-62252-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 680-344698/30	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-344698/31	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-344698/29	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 344823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62236-4	TH-73	Total/NA	Ground Water	300.0	 -
660-62236-5	TH-74	Total/NA	Ground Water	300.0	
680-104154-C-2 MS	Matrix Spike	Total/NA	Water	300.0	
680-104154-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 680-344823/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-344823/4	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-344823/2	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 150689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-1	BLANK FIELD	Total Recoverable	Ground Water	3005A	
660-62196-2	TH-72	Total Recoverable	Ground Water	3005A	
660-62196-2 MS	TH-72	Total Recoverable	Ground Water	3005A	
660-62196-2 MSD	TH-72	Total Recoverable	Ground Water	3005A	
660-62196-3	TH-78	Total Recoverable	Ground Water	3005A	
LCS 660-150689/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-150689/1-A	Method Blank	Total Recoverable	Water	3005A	

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TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Metals (Continued)

Prep Batch: 150729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-48834-B-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	_
640-48834-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
660-62236-1	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	3005A	
660-62236-2	TH-77	Total Recoverable	Ground Water	3005A	
660-62236-3	TH-76	Total Recoverable	Ground Water	3005A	
660-62236-4	TH-73	Total Recoverable	Ground Water	3005A	
660-62236-5	TH-74	Total Recoverable	Ground Water	3005A	
660-62236-6	TH-75	Total Recoverable	Ground Water	3005A	
LCS 660-150729/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-150729/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 150880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-1	BLANK FIELD	Total Recoverable	Ground Water	6010B	150689
660-62196-2	TH-72	Total Recoverable	Ground Water	6010B	150689
660-62196-2 MS	TH-72	Total Recoverable	Ground Water	6010B	150689
660-62196-2 MSD	TH-72	Total Recoverable	Ground Water	6010B	150689
660-62196-3	TH-78	Total Recoverable	Ground Water	6010B	150689
LCS 660-150689/2-A	Lab Control Sample	Total Recoverable	Water	6010B	150689
MB 660-150689/1-A	Method Blank	Total Recoverable	Water	6010B	150689

Analysis Batch: 150894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-48834-B-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	150729
640-48834-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	150729
660-62236-1	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	6010B	150729
660-62236-2	TH-77	Total Recoverable	Ground Water	6010B	150729
660-62236-3	TH-76	Total Recoverable	Ground Water	6010B	150729
660-62236-4	TH-73	Total Recoverable	Ground Water	6010B	150729
660-62236-5	TH-74	Total Recoverable	Ground Water	6010B	150729
660-62236-6	TH-75	Total Recoverable	Ground Water	6010B	150729
LCS 660-150729/2-A	Lab Control Sample	Total Recoverable	Water	6010B	150729
MB 660-150729/1-A	Method Blank	Total Recoverable	Water	6010B	150729

General Chemistry

Analysis Batch: 150677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-1	BLANK FIELD	Total/NA	Ground Water	SM 2540C	
660-62196-2	TH-72	Total/NA	Ground Water	SM 2540C	
660-62196-3	TH-78	Total/NA	Ground Water	SM 2540C	
660-62196-3 DU	TH-78	Total/NA	Ground Water	SM 2540C	
LCS 660-150677/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-150677/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 150728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62236-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	SM 2540C	
660-62236-2	TH-77	Total/NA	Ground Water	SM 2540C	
660-62236-3	TH-76	Total/NA	Ground Water	SM 2540C	

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QC Association Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

General Chemistry (Continued)

Analysis Batch: 150728 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62236-4	TH-73	Total/NA	Ground Water	SM 2540C	
660-62236-5	TH-74	Total/NA	Ground Water	SM 2540C	
660-62236-6	TH-75	Total/NA	Ground Water	SM 2540C	
660-62236-6 DU	TH-75	Total/NA	Ground Water	SM 2540C	
LCS 660-150728/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-150728/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 344651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-1	BLANK FIELD	Total/NA	Ground Water	350.1	-
660-62196-2	TH-72	Total/NA	Ground Water	350.1	
660-62196-3	TH-78	Total/NA	Ground Water	350.1	
660-62196-3 MS	TH-78	Total/NA	Ground Water	350.1	
660-62196-3 MSD	TH-78	Total/NA	Ground Water	350.1	
660-62236-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	350.1	
660-62236-2	TH-77	Total/NA	Ground Water	350.1	
660-62236-2 DU	TH-77	Total/NA	Ground Water	350.1	
660-62236-3	TH-76	Total/NA	Ground Water	350.1	
660-62236-4	TH-73	Total/NA	Ground Water	350.1	
660-62236-5	TH-74	Total/NA	Ground Water	350.1	
660-62236-6	TH-75	Total/NA	Ground Water	350.1	
LCS 680-344651/49	Lab Control Sample	Total/NA	Water	350.1	
MB 680-344651/5	Method Blank	Total/NA	Water	350.1	

Field Service / Mobile Lab

Analysis Batch: 151015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-62196-2	TH-72	Total/NA	Ground Water	Field Sampling	
660-62196-3	TH-78	Total/NA	Ground Water	Field Sampling	
660-62236-2	TH-77	Total/NA	Ground Water	Field Sampling	
660-62236-3	TH-76	Total/NA	Ground Water	Field Sampling	
660-62236-4	TH-73	Total/NA	Ground Water	Field Sampling	
660-62236-5	TH-74	Total/NA	Ground Water	Field Sampling	
660-62236-6	TH-75	Total/NA	Ground Water	Field Sampling	

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TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept

Project/Site: SELF -IAMP Monitoring Wells

Lab Sample ID: 660-62196-1

Matrix: Ground Water

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Client Sample ID: BLANK FIELD

Date Collected: 08/12/14 11:30 Date Received: 08/12/14 15:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0			344644	08/18/14 17:20	DAS	TAL SAV
Total Recoverable	Prep	3005A			150689	08/13/14 10:05	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150880	08/20/14 12:50	GAF	TAL TAM
Total/NA	Analysis	350.1		1	344651	08/16/14 11:54	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150677	08/13/14 09:18	TKO	TAL TAM

Client Sample ID: TH-72 Lab Sample ID: 660-62196-2

Date Collected: 08/12/14 13:48 **Matrix: Ground Water**

Date Received: 08/12/14 15:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	344644	08/18/14 17:35	DAS	TAL SAV
Total Recoverable	Prep	3005A			150689	08/13/14 10:05	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150880	08/20/14 12:37	GAF	TAL TAM
Total/NA	Analysis	350.1		20	344651	08/16/14 13:48	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150677	08/13/14 09:18	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/12/14 13:48	FS	TAL TAM

Client Sample ID: TH-78 Lab Sample ID: 660-62196-3

Date Collected: 08/12/14 12:28 **Matrix: Ground Water** Date Received: 08/12/14 15:20

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	344644	08/18/14 17:49	DAS	TAL SAV
Total Recoverable	Prep	3005A			150689	08/13/14 10:05	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150880	08/20/14 12:54	GAF	TAL TAM
Total/NA	Analysis	350.1		1	344651	08/16/14 11:54	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150677	08/13/14 09:18	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/12/14 12:28	FS	TAL TAM

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-62236-1 Date Collected: 08/13/14 00:00 **Matrix: Ground Water**

Date Received: 08/13/14 15:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0			344698	08/19/14 03:00	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 08:29	GAF	TAL TAM
Total/NA	Analysis	350.1		2	344651	08/16/14 13:48	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM

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TestAmerica Job ID: 660-62196-1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

Client Sample ID: TH-77

Date Collected: 08/13/14 10:43 Date Received: 08/13/14 15:15 Lab Sample ID: 660-62236-2

Matrix: Ground Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	344689	08/18/14 19:20	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 08:32	GAF	TAL TAM
Total/NA	Analysis	350.1		1	344651	08/16/14 11:54	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/13/14 10:43	FS	TAL TAM

Client Sample ID: TH-76 Lab Sample ID: 660-62236-3

Date Collected: 08/13/14 11:54

Date Received: 08/13/14 15:15

Matrix: Ground Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	344689	08/18/14 20:06	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 08:36	GAF	TAL TAM
Total/NA	Analysis	350.1		1	344651	08/16/14 13:38	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/13/14 11:54	FS	TAL TAM

Client Sample ID: TH-73 Lab Sample ID: 660-62236-4 Date Collected: 08/13/14 14:02 **Matrix: Ground Water**

Date Received: 08/13/14 15:15

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	344823	08/19/14 14:23	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 09:10	GAF	TAL TAM
Total/NA	Analysis	350.1		2	344651	08/16/14 13:48	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/13/14 14:02	FS	TAL TAM

Client Sample ID: TH-74 Lab Sample ID: 660-62236-5 Date Collected: 08/13/14 12:39 **Matrix: Ground Water**

Date Received: 08/13/14 15:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0			344823	08/19/14 14:39	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 08:49	GAF	TAL TAM
Total/NA	Analysis	350.1		2	344651	08/16/14 13:57	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM

TestAmerica Tampa

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Lab Chronicle

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Lab Sample ID: 660-62236-5

Matrix: Ground Water

Client Sample ID: TH-74
Date Collected: 08/13/14 12:39

Date Received: 08/13/14 15:15

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	Field Sampling	<u> </u>	1	151015	08/13/14 12:39	FS	TAL TAM	-

Client Sample ID: TH-75 Lab Sample ID: 660-62236-6

Date Collected: 08/13/14 13:18 Matrix: Ground Water

Date Received: 08/13/14 15:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	344689	08/18/14 21:23	DAS	TAL SAV
Total Recoverable	Prep	3005A			150729	08/14/14 12:04	ALQ	TAL TAM
Total Recoverable	Analysis	6010B		1	150894	08/21/14 08:53	GAF	TAL TAM
Total/NA	Analysis	350.1		2	344651	08/16/14 13:57	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	150728	08/14/14 11:00	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	151015	08/13/14 13:18	FS	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

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Method Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

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

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Certification Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-15

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
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-15
lowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	08-16-14 *
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-14 *
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15

^{*} Certification renewal pending - certification considered valid.

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Certification Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF -IAMP Monitoring Wells

TestAmerica Job ID: 660-62196-1

-5

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
Wisconsin	State Program	5	999819810	08-31-14 *
Wyoming	State Program	8	8TMS-L	06-30-14 *

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^{*} Certification renewal pending - certification considered valid.

SELF-IAMP Monitoring Wells ELIENT ADDRESS
332 North Falkenburg Road Hills. County Public Utilities RECEIVED BY: (SIGNATURE) Nancy Robertson RECEIVED FOR LABORATORY BY: SIDAMIS COMPANY CONTRACTING THIS WORK ESTAMERICA (LAB) PROJECT MANAGER ROJECT REFERENCE lichael Townsel SAMPLE 13.18 12.39 20.2 75:1 Ch:01 IME ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD SAMPLER'S SIGNATURE 7.13.14 (813) 663-3222 P.O. NUMBER DATE DATE PROJECT NO. townselm@hillsboroughcounty.org JENT PHONE ーボー Duplicate SAMPLE IDENTIFICATION TH- 76 74-75 TH- 73 TH-77 アア Ħ 下が YES O Lithia, FL CLIENT FAX (813) 274-6801 CONTRACT NO. PROJECT LOCATION RECEIVED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) LABORATORY USE ONLY SEAL NO. GX COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) MATRIX TYPE SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT...) STL LOG NO. H2SO4 Ammonia-N DATE 0 **JTA**D 0 TDS ice NUMBER OF CONTAINERS SUBMITTED 6712 Benjamin Rd, Suite 100 Alternate Laboratory Name/Location: Tampa, FL 33634 TestAmerica Tampa Chloride lice TIME TIME LABORATORY REMARKS: HNO3 As, Fe, Na 660-62236 Chain of Custody RELINQUISHED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) Phone: Fax: Phone: (813) 885 7427 Fax: (813) 885 7049 www.testamericainc.com DATE DUE EXPEDITED REPORT DELIVERY PAGE NUMBER OF COOLERS
SUBMITTED PER SHIPMENT: STANDARD REPORT DATE DUE: DATE DATE REMARKS TIME TIME 0

8:13:II

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SIGNATUR

FCU036:12.20.00:2

16010

Original - Return to Laboratory with Sample(s)

C0-07

Serial Number

Original - Return to Laboratory with Sample(s)

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FCU036:12.20.00:2

TestAmerica THE LEADER IN EMPIROHMENTAL TESTENCE	COC No: 660-70941.1	Page: Page 1 of 1	Job #: 660-62196-1	Š	B - NaOH N - None C - Zn Acetate O - AsNaO2 D - NInfrid Anid D - NaOAS		Acid	I - ice J - Di Water K - FDTA	L-EDA	Other:	Potat Vumber Special Instructions/Note:		2	2	2				are retained longer than 1 month)	Archive For Manns	11.	314 BBD	me: Compány	Company	
Chain of Custody Record	Lab PM: Carrier Tracking No(s): Robertson, Nancy	E-Mail: nancy.robertson@testamericainc.com	Analysis Requested				(0)		io 29) Joride	42 /08 V 0 5 V	bereiffd blei Mizilia S_M4380_008 negonii V (r.088		×	×	×				ee may be	Heturn 10 Client Lisposal by Lab Special Instructions/QC Requirements:	Time:	P (Respired by:	Racsived by: Date/Time	Received by: Date/Time	Cooler Temperature(s) "C and Other Remarks:
Chain c	Sampler: Lab PM: Robert Robert	Phone: E-Mail: nancy	THE TRANSPORT OF THE TR	Due Date Requested: 8/22/2014	TAT Requested (days):		PO#.	WO#:	Project #: 66003915	SSOW#;	Sample Type Sample (C=comp,	1	8/12/14 11:30 Water Eastern	8/12/14 T3:48 Water Water	8/12/14 12:28 Water Eastern				ACCURATE AND A STATE OF THE ACCURATE AND ASSESSMENT ASS	THE COLUMN TWO COLUMN TO THE COLUMN TWO COLUMN TWO COLUMN TWO COLUMN TO THE COLUMN TWO C	Date:	Date-Timb		Date/Time: Company	
TestAmerica Tampa 6712 Benjamin Road Suite 100 Tampa, FL 33634 Phone (813) 885-7427 Fax (813) 885-7049	Client Information (Sub Contract Lab)	Cient Contact: Shipping/Recelving	Company: TestAmerica Laboratories, Inc.	Address: 5102 LaRoche Avenue,	Gity. Savannah	State, Zip: GA, 31404	Phone: 912-354-7858(Tel) 912-352-0165(Fax)	Email:	Project Name: SELF MWS,SS,Private Wells,NPDES	Site: Southeast Landfill		Safipte identification - Circli to (Lab id)	BLANK FIELD (660-62196-1)	TH-72 (660-62196-2)	45 (660-62196-3)				Possible Hazard Identification	Unconfirmed Deliverable Requested: I, II, III, IV, Other [specity]	Empty Kit Relinquighed by:		Relinquished by:	Relinquished by:	Custody Seals Intact: Custody Seal No.:

Chain of Custody Record		Carrier Tracking No(s): CDC No.
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Context Tracking No(s): Coor No:	Carrier Tracking No(s): CoC No.	
Ison, Nancy robertson@testamericainc.com Analysis Requested	Carrier Tracking No(s): 6	Ö
Son, Nancy robertson@testamericainc.com	Carrier Tracking No(s): 6	
Carrier Tracking No(s):	Carrier Tracking No(s);	
CONTRACTOR		Carrier Tracking No(s):

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Form FD 9000-24 GROUNDWATER SAMPLING LOG

SITE NAME;		SELF	IMP				TE DCATION:								
WELL NO		TH-72			SAMPLE	ID: T	H-72	~~			DATE:	•	8-12-14	4	
L							SING DA	ATA					•	, , , , , , , , , , , , , , , , , , , ,	
			METER (inches				et to 190 i		STATIC D	ER (feet): 90	.60		E PUMP TY	3 6	
	LUME PURGE ut if applicable)		VOLUME = (T			TH - STA			ATER) X	WELL CAPAC	ITY				
' '	NT VOLUME I		≂ (OUIPMENT V	1 90 DL. = Pl	D fee UMP VÓL	et UME + /TUB	90.00		feet) X	, l 💪 UBING LENGTH	gallons			gallons	
	ut if applicable)			=		allons + (ns/foc		feel	•		gallons =	gallons	
	UMP OR TUBI WELL (feet):	VG 189	FINAL P		R TUBINO				13.00			Y T	TOTAL VOLU PURGED (ga	JME 14	
TIME	VOLUME PURGED (gallons)	CUMUI VOLUM PURGE (gallon:	L. NE PURG	E V	DEPTH TO NATER (feet)	pH (standard units)	TEMP.	Circ (circ µm	COND. cle units) nhos/cm	DISSOLVED OXYGEN (circle units) OR or % saturation	TURBI (NT	DITY	COLOF (describe	R ODOR	
13.32	16.0	16.	o .50	9	10.66	6.91	23.57	a	371	.30	,9	9	NONE	NONE	
13.40	13.40 4.0 20.0 .50 90.60 \$6.88 23.56 2374 .29 1.82														
13.48 4.0 24.0 .50 90.66 6.87 23.55 2375 .28 .81															
	<u> </u>						/								
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					•		_/			/			 		
	PACITY (Gallo NSIDE DIA. CA					1.25" = 0.06 = 0.0014;	3; 2" = 0.1 1/4" = 0.002		3" = 0.37; 5/16" = 0.		5 " = 1,02; 0,006;			2" = 5.88 /8" = 0.016	
PURGING	EQUIPMENT	CODES:	B = Bailer;	BP≂	Bladder F		SP = Electric			mp; PP ≒ P	eristaltic P	ump;	O = Oth	er (Specify)	
SAMPLE	BY (PRINT) /	AFFILIATIO	N:	T SAM	IPLER(S)	SAMP	LING DA	1 A		PAMPI INC			CAMPUNO		
	BALLOON /						Joek /	All	non	SAMPLING INITIATED A	T: 13.4	8	SAMPLING ENDED AT	13.59	
PUMP OF DEPTH IN	TUBING WELL (feet):	ļ	89	TUB	ING ERIAL CO	DDE:	T			FILTERED: You Equipment Ty			FILTER SIZ	Έ: μm	
FIELD DE	CONTAMINAT	ION: PU	IMP Y N	CDei	dicated	TUBIN	IG Y	NO	edicates	DUPLICATE:	Υ	((D)		
	IPLE CONTAIN						RESERVATIO	N	,	INTEND ANALYSIS A			IPLING :	SAMPLE PUMP FLOW RATE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRE	SERVATI USED	VE T ADDE	OTAL VOL D IN FIELD (mL)	FINAL pH	METHO				(mL per minute)	
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				1.				_						***************************************	
		-		1											
SEE	COC FOR	RANAL	YSIS '	/			'\\								
	L CODES:	AG = Amb		= Clea	ır Glass;	PE = Poly	ethylene;	PP =	Polypropyl	ene; S = Silico	one; T =	Teflor	n; O = Oth	ner (Specify)	
SAMPLIN	G EQUIPMENT	CODES:	APP = After RFPP = Revi	Peristalt	tic Pump; w Peristal	B ≂ Bail tic Pump:		Bladd	ler Pump; od (Tubina	ESP = Electric Gravity Drain):	ric Submei O = Ot	sible F her (Si	Pump; pecify)		

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

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

NAME:	5E4		Υ	CAMBIT		CATION:	· · · ·	T	DATE: 8.	19.111	
WELL NO:	TH- 7	8		SAMPLE		TH-78	T.A.		DATE. OF	4.14	*************
) A Areta I	······································			<u> </u>		ING DA	OTATIO I	artari i	DUD	GE PUMP TYPE	
WELL DIAMETER		L DIAME	G TER (inches):	/8 DEF	L SCREEN I	et to 78.14 f	STATIC D	ER (feet): 75.	81 ORB	BAILER: B	>
	ume PURGE t if applicable)			78.14 fee		75.81	feet) X	WELL CAPAC		= 16.38	gallons
	NT VOLUME I		JIPMENT VOL.	= PUMP VOL	.UME + (TUB		TY X TO	UBING LENGTH) + FLOW CEL	LVOLUME	
MUTIAL DI	MD OD TUD		T FINIAL DUIM	= ga P OR TUBING	allons + (BUBOIN	ns/foot X	feet PURGING	<u></u>	galions = TOTAL VOLUME	gallon
	IMP OR TUBI WELL (feet):	177.14	DEPTH IN V		<u> </u>	INITIATE	DAT: 11: 28	ENDED AT:	13:38	PURGED (gallor	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (S/cm)	DISSOLVED OXYGEN (circle units) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe
12:01	16.5	16.5	.50	75.81	9.70	23.51	434	.45	5.95	none	Nove
12:10	4.50	21.0	,50	75.81	9.56	23,52	466	.42	5,80	1	1
12119	4.50	25.50	.50	75.81		23.53	469	.40	4.86		
12:28	4.50	30.0	.50	75.81	9.55	23.56	467	.40	7.37	V	
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				ļ							<u> </u>
WELL CAP	 PACITY (Gallo	ns Per Foot):			1.25" = 0.06	3; 2" = 0.1°			5" = 1.02; 6		= 5,88
			Ft.): 1/8" = 0.0		= 0.0014;	1/4" = 0.002					= 0.016
PURGING	EQUIPMENT	CODES: E	s = Bailer; E	P = Bladder F		LING DA	Submersible Pui	mp; PP = P	eristaitic Pump	; O = Other	(Specify)
		AFFILIATION: ZACK PATTER		SAMPLER(S)		154	Mirson	SAMPLING INITIATED A	T: 12:28	SAMPLING ENDED AT:	12:39
PUMP OR	TUBING WELL (feet):	177.	44.4	TUBING MATERIAL CO	nne.	T		-FILTERED: Yon Equipment Ty	(N)	FILTER SIZE:	μm
•	ONTAMINAT			Dedicated	TUBIN	iG Y	N (Dedicated>		·	(II)	
SAME	LE CONTAIN	ER SPECIFICA			SAMPLE PR	ESERVATIO	N	INTENDI	ED SA	MPLING SAI	MPLE PUM
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	.,,	PRESERVATI USED		OTAL VOL D IN FIELD (1	nL) FINAL	ANALYSIS A METHO			LOW RATE L per minute
						/					
	 					/					
		1 .			1		1	1			

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

CG = Clear Glass;

APP = After Peristaltic Pump; B = B RFPP = Reverse Flow Peristaltic Pump;

AG = Amber Glass;

MATERIAL CODES:

SAMPLING EQUIPMENT CODES:

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

PE = Polyethylene;

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

PP = Polypropylene;

B = Bailer; BP = Bladder Pump; ESP = Elect Pump; SM = Straw Method (Tubing Gravity Drain);

S = Silicone;

ESP = Electric Submersible Pump;

T = Teflon;

Revision Date: February 2009

O = Other (Specify)

SITE NAME:	51	ELF I	MMP			SITE	ON:							
WELL NO	FID	ELD B	MANK	SAM	PLE ID:	FIE	40 1	BLANK		DATE:	8.12.14			
1					Pί	JRGING					·	· · · · · · · · · · · · · · · · · · ·		
		🔥 DIAMI	ETER (inches):	*/A		feet to	fee .	STATIC D	ER (feet):	r oi	JRGE PUMP T R BAILER:	YPE NA		
	LUME PURGE: It if applicable)	1 WELL VO	DLUME = (TO	AL WELL	DEPTH	STATIC D	ЕРТН ТО		WELL CAPAC	ITY ∖ gallons/fo	ot -	gallons		
	NT VOLUME P	URGE: 4 EC	UIPMENT VOI	. ≂ PUMP		(TUBING C	APACITY	feet) X X TI	JBING LENGTH			galions		
		- 11		=	gallons +	. ` 	gallons		feet	<u></u>	gallons			
	JMP OR TUBIN WELL (feet):	G N/A	FINAL PUI DEPTH IN	WELL (fee	BING N		URGING NITIATED		PURGING ENDED AT:	N/A	TOTAL VO PURGED (
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	RATE	DEPT TO WATE (feet)	R (stand	dard '7	MP. C)	COND, (circle units) μmhos/cm <u>or</u> μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBID (NTUs				
	/			\Rightarrow										
-t-														
		<i> </i>	4		-4-		<u>!</u>	<u> </u>	<u>- </u>		Δ			
** · *** · · · · · · · · · · · · · · ·		<u>'</u>		 					<i></i>	 		- $-$ / $-$		
				/		,								
WELL CA	PACITY (Gallon	s Per Foot):	0.75" = 0.02;	1" = 0.04		= 0.06; 2			4" = 0.65;	5" = 1.02;	6" = 1.47;	12" = 5.88		
	NSIDE DIA. CAI EQUIPMENT C		······································	BP = Blado	/16" = 0.00 [.] ler Pump;		= 0.0026; Electric Su	ubmersible Pur	·	eristaltic Pur	2" = 0.010; mp; O = O	5/8" = 0.016 ther (Specify)		
						MPLIN	G DAJ	ΓA						
	BY (PRINT) / A BALLOON / Z			SAMPLE	R(S) SIGNA	TURE(87	hella	three	SAMPLING INITIATED A	T: :30	SAMPLIN ENDED A	G (T: :41		
PUMP OR DEPTH IN	TUBING WELL (feet):	NA		TUBING MATERIA	L CODE:	T	=/		FILTERED: You Equipment Ty		FILTER S	IZE:pm		
FIELD DE	CONTAMINATIO	ON: PUN	I P - Y - N -	Dedicate	d•	-UBING	YN	Dedicated	DUPLICATE:	Υ	(N)			
	PLE CONTAINE		ATION			E PRESER			INTEND		SAMPLING EQUIPMENT	SAMPLE PUMP FLOW RATE		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESER\ USE		TOTAL DDED IN F		FINAL .) pH	METHO		CODE	(mL per minute)		
-,		-	-						ļ					
									ļ					
				,		/		-			, , , , ,			
												·		
	OC FOR		 	- Ola Ol		Date: A		N = D-1:	6 0"		inflant 5	Mh au (D.: 16.5		
MATERIAL	CODES:	AG = Amber CODES:	Glass; CG =	: Clear Gla: ristaltic Pui	 	Polyethyle Bailer:		P = Polypropyle adder Pump;	ene; S = Silloo ESP = Electr			Other (Specify)		
0750 4			RFPP = Revers				Straw Me		Gravity Drain);		or (Specify)	, ,,		

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

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

SITE NAME:	NAME: SELF IMMP LOCATION: NELL NO: TH-77 SAMPLE ID: TH-77 DATE: 8-13-14														
WELL NO				SAMPLE	,		7		DATE: 8	-13-14					
L					PURC	ING DA									
WELL	R (inches):	TUBING) TER (inches):	3/8 WE	LL SCREEN	INTERVAL et to 161.2f	STATIC D		36. I	RGE PUMP TYPE BAILER: 6 P					
WELL VO	LUME PURGE:	1 WELL VOI	LUME = (TOT	AL WELL DEF	TH - STA	TIC DEPTH T	OWATER) X	WELL CAPAC							
. ,	it if applicable)		= (l	69,2 fee	t -	79.31	feet) X	.16	gallons/foo	= 14.39	gallons				
	NT VOLUME P it if applicable)	URGE: 1 EQL	JIPMENT VOL		•			BING LENGTH			_				
INITIAL DI	JMP OR TUBIN	10	FINAL DUM	= g: IP OR TUBING	allons + (DUDOIN	ns/foot X	feet PURGING	<u> </u>	gallons = TOTAL VOLUM	gallons				
l .	WELL (feet):	୍ର / ୧୫.ସ	DEPTH IN	WELL (feet):	168.2	INITIATE	DAT: 9:58	ENDED AT:	10:43	PURGED (gallo					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or as/orh	DISSOLVED OXYGEN (circle units) mg// or % saturation	TURBIDIT (NTUs)	Y COLOR (describe)	ODOR (describe)				
10:27	14.50	14.50	.50	79.55	7.41	23.76	438	.44	.64	NO NE.	NonE				
10:35		18.50		71.55	740	23.70	436	. 38	.56		1				
10:43	10:43 4.0 22.50 .50 77.55 7.39 23.76 436 .86 .61 V														
									1		 /				
- /				 	/			/	 		/				
				 ,	/						/				
				 											
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-														
	PACITY (Gallon ISIDE DIA. CA			1" = 0.04; 0006; 3/16"	1.25" = 0.06 = 0.0014;	3; 2" = 0.10 1/4" = 0.002					' = 5.88 ' = 0.016				
	EQUIPMENT (3P = Bladder F		~	Submersible Pun	np; PP = P	eristaltic Pum	p; O = Other	(Specify)				
CAMPLED	DV (DDINE) (A	CELLATION.		CAMPIEDO		LING DA		·							
	BY (PRINT) / A BALLOON / Z		SON	SAMPLER(S)	SIGNATURE	Jun 1	Sterio	SAMPLING INITIATED A	T: 10:43	SAMPLING ENDED AT:	10:54				
PUMP OR	TUBING WELL (feet);	168	· /~	TUBING MATERIAL CO	nne.	Т		FILTERED: Y n Equipment Ty		FILTER SIZE:	hw				
······································	CONTAMINATIO	·····		(Dedicate)	TUBIN	ig Y	N (Dedicated	DUPLICATE:		(1)					
SAMI	PLE CONTAINE	R SPECIFICA	TION		SAMPLE PR	ESERVATIO	V	INTEND			MPLE PUMP				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVAT USED		OTAL VOL D IN FIELD (r	FINAL nL) pH	ANALYSIS A METHO	_		LOW RATE L per minute)				
	·····														
											·····				
						/									
	·····														
	,.	ļ,ļ <u>.</u>		,											
SEE C	OC FOR	ANALY	SIS 4												
MATERIAL	CODES:	AG = Amber 0	Glass; CG =	Clear Glass;	PE = Poly	ethylene;	PP = Polypropyle	ene; S = Silico	one; T = Tel	flon; O ≃ Other	r (Specify)				
SAMPLING	EQUIPMENT		PP = After Per FPP = Reverse		B ≃ Bail tic Pump:		Bladder Pump; Method (Tubing (ic Submersibl O = Other						

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

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

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

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

APP = After Peristaltic Pump;

SAMPLING EQUIPMENT CODES:

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

B = Bailer;

RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain);

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

BP = Bladder Pump;

Revision Date: February 2009

ESP = Electric Submersible Pump;

SITE NAME:		SELF :	EAMP		SIT	E CATION:				· · · · · · · · · · · · · · · · · · ·				
WELL NO:		1-73	+-//11	SAMPLE	·····		-73		DATE: 😿	.13.14				
	<u>, , , , , , , , , , , , , , , , , , , </u>	<u>, , , , , , , , , , , , , , , , , , , </u>			PURG	ING DA				1,21,				
WELL DIAMETER	(inches):	2 TUBING	∃R (Inches):	/8 WE	LL SCREEN I	NTERVAL	STATIC DI	PTH 30.	29 PUI	RGE PUMP TYPE BAILER: BP				
(only fill out	if applicable)		= (4	13.4 fee	et	30.29		WELL CAPAC	ITY gallons/foc	, = 2.10	gallons			
	IT VOLUME P if applicable)	URGE: 1 EQUII			.UME + (TUB) allons + (TY X TU ns/foot X	BING LENGTH feet	,	LL VOLUME gallons =	gallons			
	INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 42.4 FINAL PUMP OR TUBING DEPTH IN WELL (feet): 42.4 PURGING INITIATED AT: 13.40 PURGING ENDED AT: 14.02 TOTAL VOLUME PURGED (gallons): 3.30													
TIME	TIME VOLUME PURGED (gallons) (gallons) CUMUL. VOLUME (gallons) PURGE (gallons) (gallons) (gallons) PURGED (gallons)													
13.54	2.10	2.10	.15	32.79	4.78	25.07	417	. 21	4.14		NONE			
13.58	.60	2.70	.15	32.77	4.74	25.07	425	. 19	3.52		1			
14.02	,60	3.30	.15	32.79	4.74	25.08	420	.18	3.38	1	7			
	1			,										
	/		.,		, w									
/							\							
		4 V				3 p								
			/	* t .	ì									
		/			* .									
					,									
				- 30-				۲						
		s Per Foot): 0.7 PACITY (Gal./Ft	75" = 0.02; .): 1/8" = 0.00	1" = 0.04; 006: 3/16"	1.25" = 0.06 = 0.0014;	2" = 0.10 1/4" = 0.002				6" = 1.47; 12" = ' = 0.010; 5/8" =	5.88 0.016			
	QUIPMENT C			P = Bladder F		SP = Electric	Submersible Pum	p; PP = Po	eristaltic Pum					
* SAMPLING DATA														
SAMPLED E ANDREW B	SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON SAMPLER(S) SIGNATURE(S): SAMPLING INITIATED AT: 1 4.02 SAMPLING ENDED AT: 14.13													
PUMP OR T DEPTH IN V		42.4		UBING MATERIAL CO	ODE:	Т		ILTERED: Y Equipment Ty		FILTER SIZE:	htm			

	BY (PRINT) / A BALLOON / Z			SAMPLER(S) SIGN	VATURE(S)	liftet	tran	SAMPLING 14.	SAMPLIN ENDED	IG 14.13		
PUMP OR DEPTH IN	TUBING WELL (feet):	42	.4	TUBING MATERIAL CODE:	, T			FILTERED: Y (XX) n Equipment Type:	FILTER S	JIZE;μm		
FIELD DE	CONTAMINATIO	ON: RUM	IP Y N	Dedicated	TUBING	Y N	Dedicated >	DUPLICATE: Y	®			
SAM	PLE CONTAINE	R SPECIFIC	ATION	SAM	IPLE PRESE	RVATION	•	INTENDED	SAMPLING	SAMPLE PUMP		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED		L VOL FIELD (mL)	FINAL pH	ANALYSIS AND/OR METHOD	EQUIPMENT CODE	FLOW RATE (mL per minute)		
,		,										
•.				· .								
								4				
,			-					4				
*4.	ر.		<u>,</u>	•								
4		ila.			,	y						
SEE COC FOR ANALYSIS (NOVONN)												
MATERIAI	MATERIAL CODES: AG = Amber Glass; CG = Cleaf Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											

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

SAMPLING EQUIPMENT CODES:*

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

APP = Áfter Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Elect RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Draln);

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

Revision Date: February 2009

ESP = Electric Submersible Pump;

SITE NAME:		ELF :	TAMP			ITE OCATION:									
WELL NO:		TH- 74		SAMPL	E ID:	TH-7	Ч		DATE: 8.	13.14					
L			· · · · · · · · · · · · · · · · · · ·		PUR	GING DA	TA								
WELL DIAMETER	R (inches):	TUBIN DIAME	G TER (inches):	7/8 DE	ELL SCREEN PTH: 7 fe	eet to 17 1	STATIC D	:R (feet): 🎖 🍣	OR B	SE PUMP TYPE AILER: BP					
fonly fill ou	LUME PURGE: t if applicable) NT VOLUME P						FO WATER) X	.16	gallons/foot		galions				
	NT VOLUME P t if applicable)	URGE: 1 EQ	UIPMENT VOL	. ≃ PUMP VC)LUME + (TUI			JBING LENGTH)	+ FLOW CEL						
INDEAN CO.	un on Tunu				gallons + (ns/foot X	feet)		gallons =	gallons				
	JMP OR TUBIN WELL (feet):	16	7 17 11 11 11 11 11	IP OR TUBIN VELL (feet):	16	PURGIN	ED AT: 12:18	PURGING ENDED AT: DISSOLVED		TOTAL VOLUME PURGED (gallon					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or με/cm	OXYGEN (circle units) •••••••• % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)				
12:31	1.30	1,30	.10	9.22	5.46	23,95	442	.५७	3.74	NONE	NONE				
12135	્ પછ	1.70	.10	9.22	5.45	23.94	463	.36	2,10						
12:31	.40	2,10	.10	9,22	5.43	23.55	466	.31	4.87	<u> </u>	L				
						/					 /				
			/		 	4		/_	<u> </u>		//				
	· · · · · · · · · · · · · · · · · · ·				- /						/				
					+	·									
WELL CAL	I PACITY (Gallor ISIDE DIA. CAI	l is Per Foot): PACITY (Gal		1" = 0.04;	1.25" = 0.0						= 5.88 = 0.016				
	EQUIPMENT (BP = Bladder			Submersible Pur		eristaltic Pump						
-						LING DA	\TA								
	BY (PRINT) / A BALLOON / Z			SAMPLER(S	S) SIGNATUR	John 1	Merso	SAMPLING INITIATED AT	12:39	SAMPLING ENDED AT:	2,50				
PUMP OR DEPTH IN	TUBING WELL (feet):	16		TUBING MATERIAL (CODE;	T		FILTERED: Yon Equipment Ty	pe:	FILTER SIZE:	µ m				
FIELD DEC	CONTAMINATIO	ON: PUM	P Y N	40eglesied	TUBI	NG Y	N Dedicated	DUPLICATE:	Υ	®					
SAM	PLE CONTAINE	ER SPECIFIC	ATION		SAMPLE PI	RESERVATIO	N	INTENDE			MPLE PUMP				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVA USED		TOTAL VOL ED IN FIELD (mL) FINAL pH	ANALYSIS AI METHO			LOW RATE L per minute)				
	· · · · · · · · · · · · · · · · · · ·														
						· · · · · · · · · · · · · · · · · · ·									
				······				ļ			 				
				A				<u> </u>							
SEE C	OC FOR	ANAL	/SIS 🗳												
MATERIAL	CODES:	AG = Amber	Glass; CG =	Clear Glass;	PE = Pol	yethylene;	PP = Polypropyle	ene; S = Silico	one; T = Teflo	on; O = Other	(Specify)				
SAMPLING	EQUIPMENT		APP = After Per RFPP = Reverse				Bladder Pump; Method (Tubing		ic Submersible O = Other (

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

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

SITE NAME:	NAME: SELF TAMP LOCATION: NELL NO: TH-75 SAMPLE ID: TH-75 DATE: 8-13-14														
WELL NO		TH-75	,	SAMPLE	ID: T	H-75			DATE: 8	13.14					
	.,	, ,	· · · · · · · · · · · · · · · · · · ·			ING DA	TA								
WELL DIAMETEI	R (inches):	TUBING DIAME	ER (Inches):	3/8 WELL	IL SCREEN TH: 7 fe	et to 🔰 fe	STATIC D	R (feet):	4 OR B	GE PUMP TYPE AILER: BP					
(only fill ou	t if applicable)		= (17 fee	t	7.44	feet) X	WELL CAPACI		<u>.</u> 1.53	gallons				
	NT VOLUME Po ot if applicable)	URGE: 1 EQL	IIPMENT VOL.		UME + (TUB illons + (ΓΥ Χ Τ∪ ns/foot Χ	BING LENGTH) feet)	+ FLOW CEL	L VOLUME gallons =	gallons				
	JMP OR TUBIN WELL (feet):	G IG		IP OR TUBING WELL (feet):			G D AT: 12:54			TOTAL VOLUM PURGED (gallo	E				
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (19/ci)	DISSOLVED OXYGEN (circle units) (g/) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)				
13.10	1.60	1,40	,10	7.63	5.43	24.66	327	. 29	246	NONE	Nowe				
13,14	.40	2.00	.10	7.63	5.43	24.53	331	.25	328		 - - - 				
13.18	.40	2.40	.10	7.63	5.43	24.52	343	.23	284	- V	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
							_/				+ /				
	····						_(
	-														
WELL CA	PACITY (Gallon NSIDE DIA, CAI	s Per Foot): ().75" = 0.02; = 1.000;	1" = 0.04;	1.25" = 0.00	6; 2" = 0.16 1/4" = 0.002					= 5.88 = 0.016				
	EQUIPMENT O			3P = Bladder P			Submersible Pur	- 	ristaltic Pump;						
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					LING DA									
	BY (PRINT) / A BALLOON / Z			SAMPLER(S)	SIGNATUR	11/11/	Moson	SAMPLING IN!TIATED AT	13.18	SAMPLING ENDED AT:	13.29				
PUMP OR	TUBING WELL (feet):		16	TUBING MATERIAL CO)DE:	T		FILTERED: Y	_((()	FILTER SIZE:	µm				
· · · · · · · · · · · · · · · · · · ·	CONTAMINATION			pedicale	TUBIN	NG Y	N Cedicated	DUPLICATE:	<u> </u>	Q (ZP)					
	PLE CONTAINE	·				RESERVATIO		INTENDE			MPLE PUMP				
SAMPLE	#	MATERIAL		PRESERVATI	VE· 1	TOTAL VOL	FINAL	ANALYSIS AN	ND/OR EQI	UIPMENT F	LOW RATE L per minute)				
ID CODE	CONTAINERS	CODE	10201112	USED	ADDE	D IN FIELD (r	nL) pH			,					
· · · · · · · · · · · · · · · · · · ·	·					······································					, , , , , , , , , , , , , , , , , , ,				
,						, ,									
	· 	PA ^{NE}			\top										
	SEE COC FOR ANALYSIS MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)														
MATERIAL	L CODES:	AG = Amber	Glass; CG = \PP = After Per	Clear Glass;	PE ≃ Poly B ≃ Bai		PP = Polypropyle Bladder Pump;	_,	ne; T = Tefl		(ореспу)				
		R	FPP = Reverse	e Flow Peristal	tic Pump;	SM = Straw	Method (Tubing	Gravity Drain);	O = Other (

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

SITE NAME: SELF IH MP					SI	SITE LOCATION:										
WELL NO: DUPLICATE				SA	SAMPLE ID: Duplicate				DATE:	DATE: 8-13-14						
L		-				*****	PURC	SING DA				· · · · · · · · · · · · · · · · · · ·	··· ·	•		
WELL DIAMETER (Inches): TUBING DIAMETER (Inches)			G TER (Inches):	N/A	WELL S DEPTH:					STATIC DEPTH TO WATER (feet):		PURGE OR BA		E PUMP TYPE		
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill dut if applicable)																
= (feet feet) X gallons/foot = gallons EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL-VOLUME							gallons									
(only fill out Napplicable)				gallon	s + ((gallons/foot X feel				et) +	t) + gallons = gallons					
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):				FINAL PUMP OR TUBING DEPTH IN WELL (feet):			PURGING NA INITIATED AT:		PURGING ENDED AT:		4,	TOTAL VOL PURGED (g		MA		
TIME	VOLUME PURGED (gallons)	V P	OLUME OLUME URGED gallons)	PURGE RATE (gpm)	DEF TO WAT	D (si	pH tandard units)	TEMP. (°C)	(cin	COND. cle units) nhos/cm µS/cm	DISSOLVE OXYGEN (circle units mg/L or % saturation	TUR (N	RBIDITY ITUs)	COLC (descri		ODOR (describe)
		-			<u> </u>			ļ						 		
	1	\vdash						1					_			
								1			· ·					
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA, CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016																
PURGING	EQUIPMENT	CODE	S; E	= Baller, I	3P = Bla	dder Pumj		SP = Electric			np; PP=	Peristaltic	Pump;	0 = 01	her (S	pecify)
	BY (PRINT) / . BALLOON / .			SON	SAMPL	ER(S) SIG		LING DA	4-7	our	SAMPLING	, N	/4.	SAMPLIN		N/1.
PUMP OR	JMP OR TUBING V/ TUBING FIELD-FILTERED: Y N FILTER SIZE:			µm												
	DEPTH IN WELL (feet): MATERIAL CODE: T Filtration Equipment Type: FIELD DECONTAMINATION: PUMP Y N Dedicated TUBING Y N Dedicated DUPLICATE: Y N															
	SAMPLE CONTAINER SPECIFICATION SAMPLE PRESERVATION INTENDED SAMPLING SAMPLE PUT															
SAMPLE ID CODE	# CONTAINERS	MA1	TERIAL ODE	VOLUME		RVATIVE SED		OTAL, VOL D IN FIELD (nL)	FINAL pH	- ANALYSIS METI			IPMENT CODE		W RATE per minute)
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MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)																
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)																

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

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-62196-1

Login Number: 62196 List Source: TestAmerica Tampa

List Number: 1

Creator: Redding, Charles S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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Client: Hillsborough Co Public Utilities Dept Job Number: 660-62196-1

List Source: TestAmerica Savannah
List Number: 2
List Creation: 08/13/14 08:41 AM

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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?	N/A	
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	

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Client: Hillsborough Co Public Utilities Dept Job Number: 660-62196-1

Login Number: 62236 List Source: TestAmerica Tampa

List Number: 1

Creator: Redding, Charles S

Creator: Redding, Charles 5		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	False	Received same day of collection; chilling process has begun.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

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Client: Hillsborough Co Public Utilities Dept Job Number: 660-62196-1

List Source: TestAmerica Savannah
List Number: 2
List Creation: 08/14/14 06:05 AM

Creator: West, Lauren H

Oreator. West, Lauren II		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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?	N/A	
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	

N/A

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Residual Chlorine Checked.