Hillsborough County
Florida

Office of the County Administrator
Michael S. Merrill



February 6, 2012

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

RE: **Southeast County Landfill**
**Laboratory Analytical Results**
**Initial Assessment Monitoring Plan**
**Report No. 17**

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (County) is pleased to provide the analytical results from the monthly sampling event conducted as part of our continuation of the Initial Assessment Monitoring Plan (IAMP). The IAMP was developed to address the potential impacts to groundwater from the sinkhole in Phase VI of the Southeast County Landfill (SCLF), which was discovered on December 14, 2010. The monthly sampling event was conducted on January 5-6, 2012, and the samples collected were analyzed by our contracted laboratory, Test America, Inc.

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

## pH

The surficial aquifer monitoring wells continue to exhibit pH values below the Secondary Drinking Water Standard (SDWS) acceptable range of 6.5 to 8.5 pH units. The pH values in the surficial range from 4.59 to 5.90 pH units. The pH values within the surficial aquifer across the SCLF have historically been observed below the acceptable range, and the observed values are consistent with the historical and background water qualities. The pH values observed in the four (4) upper Floridan monitoring wells and the two (2) on-site supply wells were all within the acceptable range, and consistent with historical data for the site.

## Turbidity

Turbidity values are generally low in the monitoring wells that have been part of the permit required sampling program at the SCLF. The piezometer/monitoring well P-18S was not pumped to evaluate turbidity during this sampling event. The representative groundwater sample was again collected from TH-30. The Field Sampling Team has been instructed to always pump P-18S in an attempt to reduce the turbidity to below 20 Nephelometric Turbidity Units (NTU), and if so, collect a representative sample. This will be done in all the future IAMP sampling events. The turbidity value recorded in TH-42 was 11.9 NTU, which continues to exhibit a significant reduction over the past year.

## Conductivity

The conductivity values in most of the wells sampled are relatively low and have remained consistent with historical values associated with the SCLF. Surficial aquifer monitoring well, TH-58 has exhibited elevated conductivity values that have been trending upward over the past year. The conductivity value in TH-58 during this sampling event was 1032 uhmos/cm. The conductivity value in surficial aquifer monitoring well TH-73 was 1188 umhos/cm. The observed impacts remain in close proximity to the sinkhole within the surficial aquifer and are not observed within the deeper upper Floridan aquifer monitoring wells. The conductivity value observed in TH-72 at 535 uhmos/cm continues to be slightly elevated when compared to the other Floridan wells. However, it should be noted that conductivity in this well has consistently been around 500 uhmos/cm since the installation in January 2011.

## Total Dissolved Solids (TDS)

Surficial aquifer groundwater monitoring wells, TH-58 and TH-73, exhibited TDS concentrations of 610 mg/l and 750 mg/l, respectively, and exceed the SDWS of 500 mg/l. The County will continue to closely observe and evaluate TDS values in the surficial aquifer. The TDS value in the upper Floridan well TH-72 exhibited a concentration of 330 mg/l, which is slightly above the other upper Floridan wells, but still below the SDWS.

## Chloride

Surficial aquifer groundwater monitoring wells, TH-58 and TH-73, exhibited chloride concentrations of 260 and 350 mg/l, which exceed the SDWS of 250 mg/l. The chloride concentrations in these wells are likely attributable to the sinkhole and/or the grouting fluids introduced into the subsurface. The County will continue to evaluate this component of water quality in these and all the other wells in the vicinity of the sinkhole.

## Arsenic

The arsenic observed in TH-58 is 0.029 mg/l, which is above the Primary Drinking Water Standard (PDWS) of 0.01 mg/l. Arsenic has been present in TH-58 at almost the same concentration for over ten years. Although changes in water quality have recently been observed in TH-58, the arsenic values have remained very stable. This observation supports the position that the arsenic is likely not attributable to the landfill or the sinkhole. The County continues to maintain the position that the arsenic is naturally occurring within the soils surrounding the well and is likely being mobilized in the anaerobic environment below the lined landfill.

## Iron

Iron concentrations in six (6) surficial aquifer wells and one (1) upper Floridan well were observed above the SDWS of 0.3 mg/l. The concentrations of iron ranged from below the detectable limits to 30 mg/l. As previously discussed, the elevated iron concentrations observed in the surficial aquifer wells at specific locations across the site are likely naturally occurring and/or the result of past strip mining activities. The iron value observed in TH-42 at 0.4 mg/l may be naturally occurring in the strata within the production zone of this well.

## Total Ammonia

Ammonia concentrations were observed in the surficial groundwater monitoring well TH-73 at 3.3 mg/l, exceeding the Groundwater Cleanup Target Level (GCTL) of 2.8 mg/l. These results may be indicative of water quality impacts from the sinkhole and/or the grouting fluids. The concentrations observed in TH-58, TH-74, and TH-75 were below the GCTL. Overall, the remaining concentrations of ammonia within the surficial aquifer appear consistent with the water quality observations to date, and the County will continue to evaluate this component of water quality as we move forward with the IAMP.

## Conclusions

The water quality observed in the January 2012 sampling event continue to indicate the wells closest to the sinkhole exhibit changes in conductivity, total dissolved solids, chloride, and

total ammonia. These impacts are likely a result of the sinkhole and/or the grouting activities. The observed impacts remain in close proximity to the sinkhole within the surficial aquifer and are not present within the deeper upper Floridan aquifer. The two on-site supply wells continue to exhibit good water quality and no changes have been observed over the period of record. No significant changes in water quality were observed in the data set from this event.

**Recommendations**

The County recommends continuation of the IAMP sampling program on the approved monthly schedule, and associated evaluation of water quality in the eleven monitoring wells and two on-site supply wells. The monthly sampling schedule is coming up on the one year mark, and based on the consistency of the data set, it appears justified to reduce the sampling frequency to quarterly, in conjunction with the permit required sampling activities. The County will compile the data generated to date, and submit a formal request to the Department for consideration.

Enclosed for your review please find a site location map depicting the on-site wells sampled, the water quality data summary table, a groundwater elevation data table, groundwater contour and flow diagram, 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) 272-5977, ext. 43944.

Respectfully submitted,

David S. Adams 2/6/2012

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


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Brian Miller, DOH
Rich Siemering, HDR
Joe O'Neill, Civil Design Services

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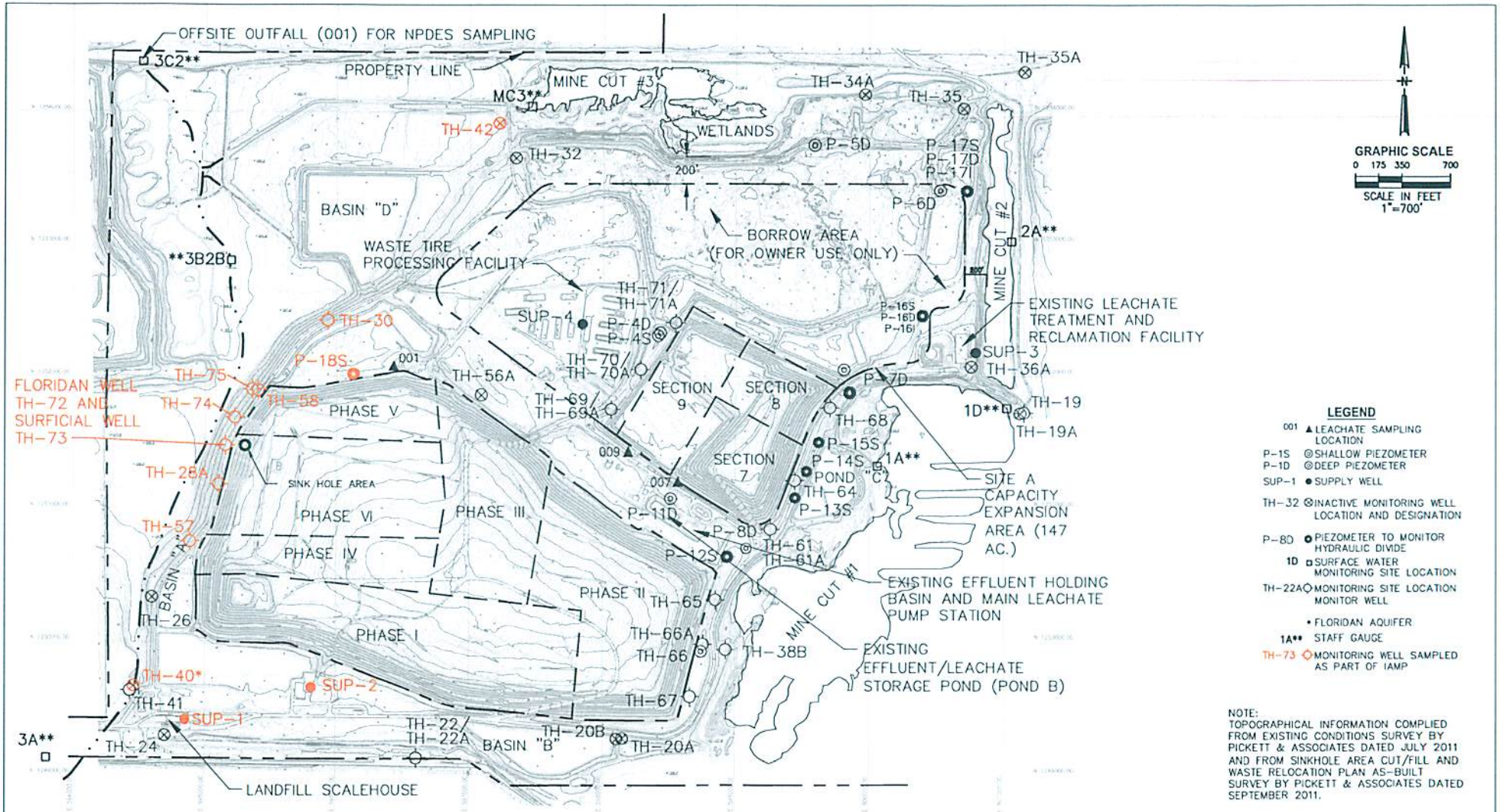
Final copy scanned to LFS/Southeast/Sinkhole/SCLF – IAMP Report No 17.




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

Hillsborough County Florida

SHEET TITLE

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

| PROJECT NUMBER | REFERENCE SHEET |
|---|---|
| SCALE | DRAWING NAME |
| DATE: DECEMBER 2011 | EXHIBIT NUMBER: 1 |

C:\pwworking\tpa\d0266713\Well Location Map - Revised 12-21-11.dwg, Plot, 12/21/2011 10:08:10 AM, bradjohn

# Hillsborough County Southeast Landfill
## Laboratory Analytical Results from Groundwater Monitoring and On-Site Supply Wells
## January 5-6, 2012

| GENERAL (mg/l) | | | | | | | | | | | | | | (MCL) STANDARD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PARAMETERS | TH-19 | TH-28A | TH-30 | TH-40 | TH-42 | TH-57 | TH-58 | TH-72 | TH-73 | TH-74 | TH-75 | SUP-1 | SUP-2 | F.A.C. 62-550 |
| conductivity (umhos/cm) (field) | 369 | 231 | 277 | 354 | 466 | 154 | 1032 | 535 | 1188 | 474 | 300 | 317 | 328 | NS |
| dissolved oxygen (mg/l) (field) | 0.45 | 0.71 | 0.14 | 0.95 | 0.22 | 0.65 | 1.45 | 0.20 | 0.71 | 0.66 | 0.92 | 0.08 | 0.30 | NS |
| pH (field) | 7.29 | 5.27 | 4.59 | 7.48 | 7.12 | 5.24 | 5.90 | 7.23 | 5.16 | 5.66 | 5.58 | 7.50 | 7.57 | (6.5 - 8.5)** |
| temperature (°C) (field) | 23.25 | 25.35 | 23.67 | 23.15 | 23.67 | 26.31 | 24.58 | 22.74 | 25.18 | 21.97 | 21.69 | 24.34 | 24.53 | NS |
| turbidity (NTU) (field) | 0.24 | 7.15 | 1.98 | 0.39 | 12 | 0.7 | 8.8 | 0.44 | 2.05 | 16.8 | 18.9 | 0.06 | 1 | NS |
| total dissolved solids (mg/l) | 200 | 140 | 150 | 200 | 270 | 110 | 610 | 330 | 750 | 240 | 180 | 150 | 180 | 500** |
| chloride (mg/l) | 8.3 | 50 | 83 | 8.3 | 18 | 36 | 230 | 32 | 350 | 59 | 25 | 9.6 | 11 | 250** |
| ammonia nitrogen (mg/l as N) | 0.25 | 1.2 | 1 | 0.3 | 0.21 | 0.85 | 0.57 | 0.29 | 3.3 | 1.8 | 1.1 | 0.16 | 0.15 | 2.8*** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | (MCL) STANDARD |
| Metals: (mg/l) | TH-19 | TH-28A | TH-30 | TH-40 | TH-42 | TH-57 | TH-58 | TH-72 | TH-73 | TH-74 | TH-75 | SUP-1 | SUP-2 | F.A.C. 62-550 |
| arsenic | 0.004 u | 0.004 u | 0.004 u | 0.004 u | 0.004 u | 0.004 u | 0.029 | 0.004 u | 0.004 u | 0.004 u | 0.0071 i | 0.004 u | 0.004 u | 0.01* |
| iron | 0.05 u | 3.4 | 0.27 | 0.05 u | 0.40 | 0.35 | 3.5 | 0.097 i | 19 | 30 | 8.6 | 0.05 u | 0.05 u | 0.3** |
| sodium | 15 | 18 | 25 | 16 | 17 | 13 | 58 | 31 | 80 | 26 | 10 | 9 | 9 | 160* |

Note: Ref. Groundwater Guidance Concentrations, FDEP 2007
MCL=MAXIMUM CONTAMINANT LEVEL
BDL=BELOW DETECTION LIMIT
NTU=NEPHELOMETRIC TURBIDITY UNITS
i = reported value between the laboratory method detection limit and the laboratory practical quantitation limit
u = parameter was analyzed but not detected.
*=DENOTES PRIMARY DRINKING WATER STANDARD
**=DENOTES SECONDARY DRINKING WATER STANDARD
***=DENOTES FLORIDA GUIDANCE CONCENTRATION
5.27 : EXCEEDS PRIMARY OR SECONDARY DRINKING WATER
ug/l=MICROGRAMS PER LITER
mg/l=MILLIGRAMS PER LITER
NS=NO STANDARD

Prepared by: Mike Townsel
QA/QC'D by: Cindy Pelley
Final QA/QC by: David Adams

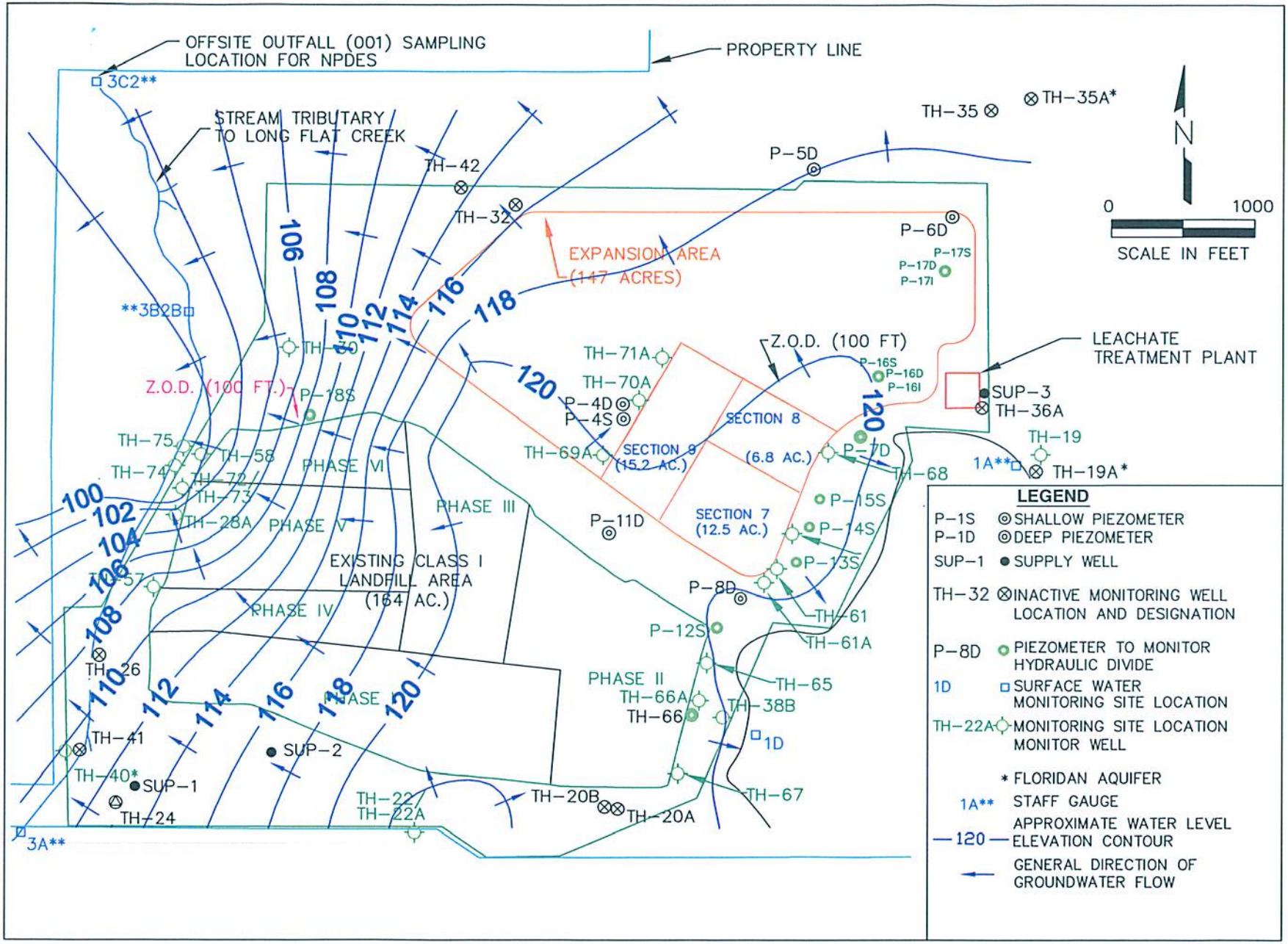
## GROUNDWATER AND SURFACE WATER ELEVATIONS FOR

## SOUTHEAST LANDFILL

### January 4, 2012

| Measuring Point I.D. | T.O.C. Elevations (NGVD) | 01/04/2012 W.L. B.T.O.C. | W.L. (NGVD) | Time |
|---|---|---|---|---|
| P-4D | 140.78 | 22.22 | 118.56 | 11:54 AM |
| P-4S | 140.95 | Dry | Dry | 11:53 AM |
| P-5D | 151.94 | Dry | Dry | 10:29 AM |
| P-6D-A | 148.01 | 28.09 | 119.92 | 10:35 AM |
| P-7D | 138.92 | 18.25 | 120.67 | 11:08 AM |
| P-8D | 138.34 | 18.64 | 119.70 | 11:27 AM |
| P-11D | 138.02 | 17.94 | 120.08 | 11:46 AM |
| P-12S | 134.97 | 14.85 | 120.12 | 11:28 AM |
| P-13S | 140.21 | 19.88 | 120.33 | 11:21 AM |
| P-14S | 138.56 | 18.19 | 120.37 | 11:17 AM |
| P-15S | 139.19 | 18.80 | 120.39 | 11:16 AM |
| P-16S | 143.38 | 16.84 | 126.54 | 10:46 AM |
| P-16I | 144.15 | 24.56 | 119.59 | 10:45 AM |
| P-16D | 143.84 | 24.29 | 119.55 | 10:44 AM |
| P-17S | 137.35 | 16.45 | 120.90 | 10:53 AM |
| P-17I | 137.32 | 17.56 | 119.76 | 10:52 AM |
| P-17D | 137.22 | 17.60 | 119.62 | 10:51 AM |
| P-18S | 129.86 | 18.91 | 110.95 | 12:10 PM |
| P-19 | 133.36 | 14.30 | 119.06 | 10:32 AM |
| P-20 | 132.38 | 13.51 | 118.87 | 10:41 AM |
| P-21 | 122.79 | 4.07 | 118.72 | 12:03 PM |
| P-22 | 128.35 | 9.40 | 118.95 | 12:05 PM |
| P-23 | 143.13 | 23.90 | 119.23 | 11:59 AM |
| TH-19* | 130.27 | 107.26 | 23.01 | 11:01 AM |
| TH-20A | 131.86 | 10.46 | 121.40 | 11:42 AM |
| TH-20B | 132.57 | 11.46 | 121.11 | 11:43 AM |
| TH-22 | 128.82 | 6.00 | 122.82 | 9:15 AM |
| TH-22A | 129.27 | 6.61 | 122.66 | 9:14 AM |
| TH-24A | 128.23 | 6.50 | 121.73 | 9:21 AM |
| TH-28A | 131.10 | 28.94 | 102.16 | 9:40 AM |
| TH-30 | 128.88 | 24.10 | 104.78 | 9:51 AM |
| TH-32 | 129.90 | 14.22 | 115.68 | 10:16 AM |
| TH-35 | 145.98 | 28.93 | 117.05 | 10:24 AM |
| TH-36A | 152.70 | 33.39 | 119.31 | 11:05 AM |
| TH-38A | 130.68 | 10.90 | 119.78 | 11:36 AM |
| TH-38B | 131.81 | 11.67 | 120.14 | 11:35 AM |
| TH-40* | 124.99 | 107.41 | 17.58 | 9:30 AM |
| TH-41* | 125.00 | 107.16 | 17.84 | 9:32 AM |
| TH-42* | 116.74 | 83.90 | 32.84 | 10:14 AM |
| TH-57 | 128.36 | 19.85 | 108.51 | 9:37 AM |
| TH-58 | 127.88 | 28.40 | 99.48 | 9:48 AM |
| TH-61 | 138.73 | 18.00 | 120.73 | 11:25 AM |
| TH-61A | 139.45 | 18.66 | 120.79 | 11:24 AM |
| TH-64 | 139.64 | 18.39 | 121.25 | 11:19 AM |
| TH-65 | 135.40 | 15.11 | 120.29 | 11:30 AM |
| TH-66 | 130.58 | 9.90 | 120.68 | 11:33 AM |
| TH-66A | 130.66 | 10.36 | 120.30 | 11:32 AM |
| TH-67 | 129.51 | 7.19 | 122.32 | 11:39 AM |
| TH-68 | 140.01 | 17.55 | 122.46 | 11:10 AM |
| TH-69A | 144.97 | 25.75 | 119.22 | 11:49 AM |
| TH-70A | 146.63 | 27.25 | 119.38 | 11:51 AM |
| TH-71A | 146.95 | 26.98 | 119.97 | 11:56 AM |
| TH-72 | 130.96 | 113.08 | 17.88 | 9:44 AM |
| TH-73 | 131.07 | 32.31 | 98.76 | 9:43 AM |
| TH-74 | 109.08 | 10.30 | 98.78 | 12:18 PM |
| TH-75 | 106.92 | 8.01 | 98.91 | 12:20 PM |
| SW-3A | 3.0'=125.53' | 0.18 | 122.71 | 9:09 AM |
| SW-3B2B | 3.0'=97.97' | Dry | Dry | 9:57 AM |
| SW-3C2 | 6.0'=92.33' | 1.10 | 87.43 | 10:02 AM |
| Mine Cut #1 | 4.0'=122.14' | 1.14 | 119.28 | 10:57 AM |
| Mine Cut #2 | 6.0'=123.47' | 1.70 | 119.17 | 11:13 AM |
| Mine Cut #3 | 4.0'=112.27' | 2.00 | 110.27 | 10:11 AM |
| Mine Cut #4 | 5.0'=97.54' | 1.46 | 94.00 | 10:08 AM |

| | |
|---|---|
| NGVD | = National Geodetic Vertical Datum |
| T.O.C. | = Top of Casing |
| B.T.O.C. | = Below Top of Casing |
| * | = Floridan Well |
| ND | =No Data |
| W.L. | = Water Level |

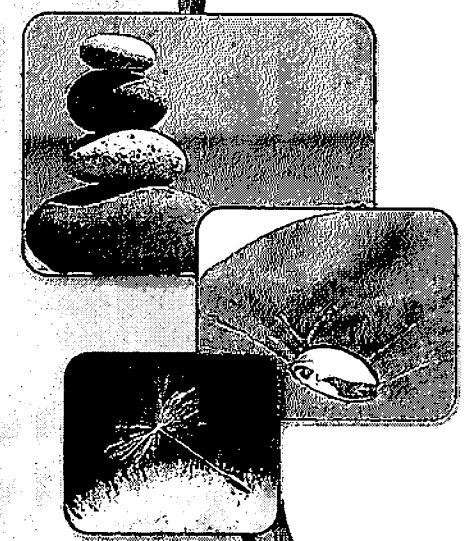



Southeast County Landfill

Groundwater Elevation Contour Diagram – January 4, 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-45526-1
Client Project/Site: SELF MWs,SS,Private Wells,NPDES

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

Attn: David Adams

*Authorized for release by:*
*1/19/2012 3:32:28 PM*

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com

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# Definitions/Glossary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

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## Qualifiers

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 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. |
| J3 | Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria. |

### General Chemistry

| 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. |

## Glossary

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

## Job ID: 660-45526-1

**Laboratory: TestAmerica Tampa**

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**Narrative**

**Job Narrative**
**660-45526-1**

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method 6010B: The matrix spike and/or matrix spike duplicate (MS/MSD) recoveries for Iron in batch 119640 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. No other analytical or quality issues were noted.

**General Chemistry**
Method 300.0: The matrix spike (MS) recovery for batch 119752 was outside control limits for chloride. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 350.1: The matrix spike(MS) recovery for batch 119635 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

# Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

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## Client Sample ID: TH-58 WACS#1571 — Lab Sample ID: 660-45526-1

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 29 | | 10 | 4.0 | ug/L | 1 | | 6010B | Total Recovera |
| Iron | 3500 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 58 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 230 | | 5.0 | 2.0 | mg/L | 10 | | 300.0 | Total/NA |
| Ammonia as N | 0.57 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 610 | | 17 | 17 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.90 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.58 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 1.45 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 1032 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 8.80 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-28A WACS#19862 — Lab Sample ID: 660-45526-2

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 3400 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 18 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 50 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 1.2 | J3 | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 140 | | 5.0 | 5.0 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.27 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 25.35 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.71 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 231 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 7.15 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-57 WACS#1570 — Lab Sample ID: 660-45526-3

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 350 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 13 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 36 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.85 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 110 | | 5.0 | 5.0 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.24 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 26.31 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.65 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 154 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 0.70 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-73 WACS#27754 — Lab Sample ID: 660-45526-4

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 19000 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 80 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 350 | | 5.0 | 2.0 | mg/L | 10 | | 300.0 | Total/NA |
| Ammonia as N | 3.3 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 750 | | 25 | 25 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.16 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 25.18 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.71 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 1188 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 2.05 | | | | NTU | 1 | | Field Sampling | Total/NA |

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## Client Sample ID: TH-72 WACS#27753 — Lab Sample ID: 660-45526-5

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 97 | I | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 31 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 32 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.29 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 330 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.23 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 22.74 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.20 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 535 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 0.44 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-40 WACS#822 — Lab Sample ID: 660-45526-7

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 16 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 8.3 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.30 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 200 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.48 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.15 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.95 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 354 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 0.39 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: Blank, Equipment 45526 — Lab Sample ID: 660-45526-8

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.036 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |

## Client Sample ID: SUP 2 WACS# 27756 — Lab Sample ID: 660-45579-1

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 9.0 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 11 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.15 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 180 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.57 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.53 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.30 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 328 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 1.00 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-42 WACS# 823 — Lab Sample ID: 660-45579-2

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 400 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 17 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 18 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.21 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 270 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.12 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.67 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.22 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 466 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-42 WACS# 823 (Continued) - Lab Sample ID: 660-45579-2

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Turbidity | 12.0 | | | | NTU | 1 | | Field Sampling | Total/NA |

5

## Client Sample ID: SUP 1 WACS# 27755 Lab Sample ID: 660-45579-3

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 9.0 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 9.6 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.16 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 150 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.5 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 24.34 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.08 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 317 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 0.06 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-30 WACS# 1065 Lab Sample ID: 660-45579-4

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 270 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 25 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 83 | | 2.5 | 1.0 | mg/L | 5 | | 300.0 | Total/NA |
| Ammonia as N | 1.0 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 150 | | 5.0 | 5.0 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 4.59 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.67 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.14 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 277 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 1.98 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: Duplicate 45579 Lab Sample ID: 660-45579-5

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 30000 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 27 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 66 | | 1.0 | 0.40 | mg/L | 2 | | 300.0 | Total/NA |
| Ammonia as N | 1.8 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 250 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: TH-19 WACS# 821 Lab Sample ID: 660-45579-6

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 15 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 8.3 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 0.25 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 200 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 7.29 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 23.25 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.45 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 369 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 0.24 | | | | NTU | 1 | | Field Sampling | Total/NA |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-58 WACS#1571**
**Date Collected: 01/05/12 11:03**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-1**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 29 | | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:39 | 1 |
| Iron | 3500 | | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:39 | 1 |
| Sodium | 58 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:39 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 230 | | 5.0 | 2.0 | mg/L | | | 01/12/12 11:38 | 10 |
| Ammonia as N | 0.57 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:34 | 1 |
| Total Dissolved Solids | 610 | | 17 | 17 | mg/L | | | 01/06/12 14:01 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.90 | | | | SU | | | 01/05/12 11:03 | 1 |
| Field Temperature | 24.58 | | | | Degrees C | | | 01/05/12 11:03 | 1 |
| Oxygen, Dissolved | 1.45 | | | | mg/L | | | 01/05/12 11:03 | 1 |
| Specific Conductance | 1032 | | | | umhos/cm | | | 01/05/12 11:03 | 1 |
| Turbidity | 8.80 | | | | NTU | | | 01/05/12 11:03 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-28A WACS#19862**
**Date Collected: 01/05/12 12:15**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-2**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:42 | 1 |
| Iron | 3400 | | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:42 | 1 |
| Sodium | 18 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:42 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 50 | | 0.50 | 0.20 | mg/L | | | 01/11/12 21:20 | 1 |
| Ammonia as N | 1.2 | J3 | 0.020 | 0.010 | mg/L | | | 01/09/12 19:47 | 1 |
| Total Dissolved Solids | 140 | | 5.0 | 5.0 | mg/L | | | 01/06/12 14:02 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.27 | | | | SU | | | 01/05/12 12:15 | 1 |
| Field Temperature | 25.35 | | | | Degrees C | | | 01/05/12 12:15 | 1 |
| Oxygen, Dissolved | 0.71 | | | | mg/L | | | 01/05/12 12:15 | 1 |
| Specific Conductance | 231 | | | | umhos/cm | | | 01/05/12 12:15 | 1 |
| Turbidity | 7.15 | | | | NTU | | | 01/05/12 12:15 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-57 WACS#1570**
**Date Collected: 01/05/12 10:09**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-3**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:45 | 1 |
| Iron | 350 | | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:45 | 1 |
| Sodium | 13 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:45 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 36 | | 0.50 | 0.20 | mg/L | | | 01/11/12 21:37 | 1 |
| Ammonia as N | 0.85 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:51 | 1 |
| Total Dissolved Solids | 110 | | 5.0 | 5.0 | mg/L | | | 01/06/12 14:02 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.24 | | | | SU | | | 01/05/12 10:09 | 1 |
| Field Temperature | 26.31 | | | | Degrees C | | | 01/05/12 10:09 | 1 |
| Oxygen, Dissolved | 0.65 | | | | mg/L | | | 01/05/12 10:09 | 1 |
| Specific Conductance | 164 | | | | umhos/cm | | | 01/05/12 10:09 | 1 |
| Turbidity | 0.70 | | | | NTU | | | 01/05/12 10:09 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-73 WACS#27754**
**Date Collected: 01/05/12 11:31**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-4**
**Matrix: Water**

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:49 | 1 |
| Iron | 19000 | | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:49 | 1 |
| Sodium | 80 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:49 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 350 | | 5.0 | 2.0 | mg/L | | | 01/13/12 11:23 | 10 |
| Ammonia as N | 3.3 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:52 | 1 |
| Total Dissolved Solids | 750 | | 25 | 25 | mg/L | | | 01/06/12 14:03 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.16 | | | | SU | | | 01/05/12 11:31 | 1 |
| Field Temperature | 25.18 | | | | Degrees C | | | 01/05/12 11:31 | 1 |
| Oxygen, Dissolved | 0.71 | | | | mg/L | | | 01/05/12 11:31 | 1 |
| Specific Conductance | 1188 | | | | umhos/cm | | | 01/05/12 11:31 | 1 |
| Turbidity | 2.05 | | | | NTU | | | 01/05/12 11:31 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-72 WACS#27753**
**Date Collected: 01/05/12 11:49**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-5**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:52 | 1 |
| Iron | 97 | I | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:52 | 1 |
| Sodium | 31 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:52 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 32 | | 0.50 | 0.20 | mg/L | | | 01/11/12 23:16 | 1 |
| Ammonia as N | 0.29 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:53 | 1 |
| Total Dissolved Solids | 330 | | 10 | 10 | mg/L | | | 01/06/12 14:03 | 1 |

### Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.23 | | | | SU | | | 01/05/12 11:49 | 1 |
| Field Temperature | 22.74 | | | | Degrees C | | | 01/05/12 11:49 | 1 |
| Oxygen, Dissolved | 0.20 | | | | mg/L | | | 01/05/12 11:49 | 1 |
| Specific Conductance | 535 | | | | umhos/cm | | | 01/05/12 11:49 | 1 |
| Turbidity | 0.44 | | | | NTU | | | 01/05/12 11:49 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-40 WACS#822**
**Date Collected: 01/05/12 09:39**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-7**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 15:06 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 15:06 | 1 |
| Sodium | 16 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 15:06 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8.3 | | 0.50 | 0.20 | mg/L | | | 01/11/12 23:49 | 1 |
| Ammonia as N | 0.30 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:55 | 1 |
| Total Dissolved Solids | 200 | | 10 | 10 | mg/L | | | 01/06/12 14:04 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.48 | | | | SU | | | 01/05/12 09:39 | 1 |
| Field Temperature | 23.15 | | | | Degrees C | | | 01/05/12 09:39 | 1 |
| Oxygen, Dissolved | 0.95 | | | | mg/L | | | 01/05/12 09:39 | 1 |
| Specific Conductance | 354 | | | | umhos/cm | | | 01/05/12 09:39 | 1 |
| Turbidity | 0.39 | | | | NTU | | | 01/05/12 09:39 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: Blank, Equipment 45526**
**Date Collected: 01/05/12 09:16**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-8**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 15:09 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 15:09 | 1 |
| Sodium | 0.31 | U | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 15:09 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/12/12 00:05 | 1 |
| Ammonia as N | 0.036 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:57 | 1 |
| Total Dissolved Solids | 5.0 | U | 5.0 | 5.0 | mg/L | | | 01/06/12 14:05 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: SUP 2 WACS# 27756**
**Date Collected: 01/06/12 09:26**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-1**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:51 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:51 | 1 |
| Sodium | 9.0 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:51 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 11 | | 0.50 | 0.20 | mg/L | | | 01/12/12 09:59 | 1 |
| Ammonia as N | 0.15 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:26 | 1 |
| Total Dissolved Solids | 180 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.57 | | | | SU | | | 01/06/12 09:26 | 1 |
| Field Temperature | 24.53 | | | | Degrees C | | | 01/06/12 09:26 | 1 |
| Oxygen, Dissolved | 0.30 | | | | mg/L | | | 01/06/12 09:26 | 1 |
| Specific Conductance | 328 | | | | umhos/cm | | | 01/06/12 09:26 | 1 |
| Turbidity | 1.00 | | | | NTU | | | 01/06/12 09:26 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-42 WACS# 823**
**Date Collected: 01/06/12 11:38**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-2**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:54 | 1 |
| Iron | 400 | | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:54 | 1 |
| Sodium | 17 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:54 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 18 | | 0.50 | 0.20 | mg/L | | | 01/12/12 10:15 | 1 |
| Ammonia as N | 0.21 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:27 | 1 |
| Total Dissolved Solids | 270 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.12 | | | | SU | | | 01/06/12 11:38 | 1 |
| Field Temperature | 23.67 | | | | Degrees C | | | 01/06/12 11:38 | 1 |
| Oxygen, Dissolved | 0.22 | | | | mg/L | | | 01/06/12 11:38 | 1 |
| Specific Conductance | 466 | | | | umhos/cm | | | 01/06/12 11:38 | 1 |
| Turbidity | 12.0 | | | | NTU | | | 01/06/12 11:38 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: SUP 1 WACS# 27755**
**Date Collected: 01/06/12 09:53**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-3**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:58 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:58 | 1 |
| Sodium | 9.0 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:58 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9.6 | | 0.50 | 0.20 | mg/L | | | 01/12/12 10:32 | 1 |
| Ammonia as N | 0.16 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:28 | 1 |
| Total Dissolved Solids | 150 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

### Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.5 | | | | SU | | | 01/06/12 09:53 | 1 |
| Field Temperature | 24.34 | | | | Degrees C | | | 01/06/12 09:53 | 1 |
| Oxygen, Dissolved | 0.08 | | | | mg/L | | | 01/06/12 09:53 | 1 |
| Specific Conductance | 317 | | | | umhos/cm | | | 01/06/12 09:53 | 1 |
| Turbidity | 0.06 | | | | NTU | | | 01/06/12 09:53 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-30 WACS# 1065**
**Date Collected: 01/06/12 10:59**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-4**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 09:08 | 1 |
| Iron | 270 | | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 09:08 | 1 |
| Sodium | 25 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 09:08 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 83 | | 2.5 | 1.0 | mg/L | | | 01/12/12 10:48 | 5 |
| Ammonia as N | 1.0 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:29 | 1 |
| Total Dissolved Solids | 150 | | 5.0 | 5.0 | mg/L | | | 01/12/12 12:03 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 4.59 | | | | SU | | | 01/06/12 10:59 | 1 |
| Field Temperature | 23.67 | | | | Degrees C | | | 01/06/12 10:59 | 1 |
| Oxygen, Dissolved | 0.14 | | | | mg/L | | | 01/06/12 10:59 | 1 |
| Specific Conductance | 277 | | | | umhos/cm | | | 01/06/12 10:59 | 1 |
| Turbidity | 1.98 | | | | NTU | | | 01/06/12 10:59 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: Duplicate 45579**
**Date Collected: 01/06/12 00:00**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-5**
**Matrix: Water**

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 09:11 | 1 |
| Iron | 30000 | | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 09:11 | 1 |
| Sodium | 27 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 09:11 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 66 | | 1.0 | 0.40 | mg/L | | | 01/12/12 11:05 | 2 |
| Ammonia as N | 1.8 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:31 | 1 |
| Total Dissolved Solids | 250 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-19 WACS# 821**
**Date Collected: 01/06/12 12:08**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-6**
**Matrix: Water**

6

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 09:14 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 09:14 | 1 |
| Sodium | 15 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 09:14 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8.3 | | 0.50 | 0.20 | mg/L | | | 01/12/12 11:21 | 1 |
| Ammonia as N | 0.25 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:32 | 1 |
| Total Dissolved Solids | 200 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

### Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 7.29 | | | | SU | | | 01/06/12 12:08 | 1 |
| Field Temperature | 23.25 | | | | Degrees C | | | 01/06/12 12:08 | 1 |
| Oxygen, Dissolved | 0.45 | | | | mg/L | | | 01/06/12 12:08 | 1 |
| Specific Conductance | 369 | | | | umhos/cm | | | 01/06/12 12:08 | 1 |
| Turbidity | 0.24 | | | | NTU | | | 01/06/12 12:08 | 1 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 660-119537/1-A**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |
| Sodium | 0.31 | U | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |

**Lab Sample ID: LCS 660-119537/2-A**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1000 | 1040 | | ug/L | | 104 | 75 - 125 |
| Iron | 1000 | 1020 | | ug/L | | 102 | 75 - 125 |
| Sodium | 10.0 | 9.65 | | mg/L | | 96 | 75 - 125 |

**Lab Sample ID: 660-45511-A-1-B MS**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 12 | | 1000 | 1040 | | ug/L | | 103 | 75 - 125 |
| Iron | 1300 | | 1000 | 2320 | | ug/L | | 101 | 75 - 125 |
| Sodium | 5.6 | | 10.0 | 15.2 | | mg/L | | 96 | 75 - 125 |

**Lab Sample ID: 660-45511-A-1-C MSD**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 12 | | 1000 | 1050 | | ug/L | | 104 | 75 - 125 | 1 | 20 |
| Iron | 1300 | | 1000 | 2330 | | ug/L | | 102 | 75 - 125 | 0 | 20 |
| Sodium | 5.6 | | 10.0 | 15.4 | | mg/L | | 97 | 75 - 125 | 1 | 20 |

**Lab Sample ID: MB 660-119640/1-A**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |
| Sodium | 0.31 | U | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |

**Lab Sample ID: LCS 660-119640/2-A**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1000 | 1060 | | ug/L | | 106 | 75 - 125 |
| Iron | 1000 | 1050 | | ug/L | | 105 | 75 - 125 |
| Sodium | 10.0 | 10.2 | | mg/L | | 102 | 75 - 125 |

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

**Lab Sample ID: 660-45578-C-1-B MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 119823** — **Prep Batch: 119640**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 1000 | 1090 | | ug/L | | 109 | 75 - 125 |
| Iron | 30000 | J3 | 1000 | 30900 | | ug/L | | 76 | 75 - 125 |
| Sodium | 26 | | 10.0 | 36.4 | | mg/L | | 101 | 75 - 125 |

**Lab Sample ID: 660-45578-C-1-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 119823** — **Prep Batch: 119640**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 1000 | 1080 | | ug/L | | 108 | 75 - 125 | 1 | 20 |
| Iron | 30000 | J3 | 1000 | 30400 | J3 | ug/L | | 21 | 75 - 125 | 2 | 20 |
| Sodium | 26 | | 10.0 | 35.7 | | mg/L | | 94 | 75 - 125 | 2 | 20 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 660-119752/3** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 119752**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/11/12 18:51 | 1 |

**Lab Sample ID: LCS 660-119752/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 119752**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 10.0 | 10.5 | | mg/L | | 105 | 90 - 110 |

**Lab Sample ID: 660-45627-B-1 MS ^10** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 119752**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 150 | J3 | 100 | 265 | J3 | mg/L | | 111 | 90 - 110 |

**Lab Sample ID: 660-45627-B-1 MSD ^10** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 119752**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 150 | J3 | 100 | 257 | | mg/L | | 103 | 90 - 110 | 3 | 30 |

**Lab Sample ID: MB 660-119814/3** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 119814**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/12/12 09:26 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 660-119814/4**
**Matrix: Water**
**Analysis Batch: 119814**

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

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

**Lab Sample ID: 660-45593-A-1 MS**
**Matrix: Water**
**Analysis Batch: 119814**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 26 | | 10.0 | 35.5 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: 660-45593-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 119814**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 26 | | 10.0 | 35.7 | | mg/L | | 101 | 90 - 110 | 1 | 30 |

**Lab Sample ID: MB 660-119941/3**
**Matrix: Water**
**Analysis Batch: 119941**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/13/12 09:44 | 1 |

**Lab Sample ID: LCS 660-119941/4**
**Matrix: Water**
**Analysis Batch: 119941**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 10.0 | 9.69 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: 660-45634-C-2 MS**
**Matrix: Water**
**Analysis Batch: 119941**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.1 | | 10.0 | 14.4 | | mg/L | | 103 | 90 - 110 |

**Lab Sample ID: 660-45634-C-2 MSD**
**Matrix: Water**
**Analysis Batch: 119941**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.1 | | 10.0 | 14.5 | | mg/L | | 104 | 90 - 110 | 0 | 30 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 660-119631/3**
**Matrix: Water**
**Analysis Batch: 119631**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.010 | U | 0.020 | 0.010 | mg/L | | | 01/09/12 19:01 | 1 |

**Lab Sample ID: LCS 660-119631/4**
**Matrix: Water**
**Analysis Batch: 119631**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.500 | 0.536 | | mg/L | | 107 | 90 - 110 |

**Lab Sample ID: 660-45483-A-13 MS**
**Matrix: Water**
**Analysis Batch: 119631**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.048 | | 1.00 | 1.03 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: 660-45483-A-13 MSD**
**Matrix: Water**
**Analysis Batch: 119631**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.048 | | 1.00 | 1.04 | | mg/L | | 99 | 90 - 110 | 1 | 30 |

**Lab Sample ID: MB 660-119635/3**
**Matrix: Water**
**Analysis Batch: 119635**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.010 | U | 0.020 | 0.010 | mg/L | | | 01/09/12 19:44 | 1 |

**Lab Sample ID: LCS 660-119635/4**
**Matrix: Water**
**Analysis Batch: 119635**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.500 | 0.540 | | mg/L | | 108 | 90 - 110 |

**Lab Sample ID: 660-45526-2 MS**
**Matrix: Water**
**Analysis Batch: 119635**

**Client Sample ID: TH-28A WACS#19862**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.2 | J3 | 1.00 | 2.05 | J3 | mg/L | | 89 | 90 - 110 |

**Lab Sample ID: 660-45526-2 MSD**
**Matrix: Water**
**Analysis Batch: 119635**

**Client Sample ID: TH-28A WACS#19862**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.2 | J3 | 1.00 | 2.06 | | mg/L | | 90 | 90 - 110 | 0 | 30 |

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

**Lab Sample ID: MB 660-119559/1**
**Matrix: Water**
**Analysis Batch: 119559**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.0 | U | 5.0 | 5.0 | mg/L | | | 01/06/12 14:00 | 1 |

**Lab Sample ID: LCS 660-119559/2**
**Matrix: Water**
**Analysis Batch: 119559**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 10000 | 9980 | | mg/L | | 100 | 80 - 120 |

**Lab Sample ID: 660-45526-1 DU**
**Matrix: Water**
**Analysis Batch: 119559**

**Client Sample ID: TH-58 WACS#1571**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 610 | | 660 | | mg/L | | 8 | 20 |

**Lab Sample ID: MB 660-119773/1**
**Matrix: Water**
**Analysis Batch: 119773**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.0 | U | 5.0 | 5.0 | mg/L | | | 01/12/12 12:03 | 1 |

**Lab Sample ID: LCS 660-119773/2**
**Matrix: Water**
**Analysis Batch: 119773**

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

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

**Lab Sample ID: 660-45576-AD-1 DU**
**Matrix: Water**
**Analysis Batch: 119773**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 810 | | 820 | | mg/L | | 1 | 20 |

## Metals

### Prep Batch: 119537

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45511-A-1-B MS | Matrix Spike | Total Recoverable | Water | 3005A | |
| 660-45511-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |
| 660-45526-1 | TH-58 WACS#1571 | Total Recoverable | Water | 3005A | |
| 660-45526-2 | TH-28A WACS#19862 | Total Recoverable | Water | 3005A | |
| 660-45526-3 | TH-57 WACS#1570 | Total Recoverable | Water | 3005A | |
| 660-45526-4 | TH-73 WACS#27754 | Total Recoverable | Water | 3005A | |
| 660-45526-5 | TH-72 WACS#27753 | Total Recoverable | Water | 3005A | |
| 660-45526-7 | TH-40 WACS#822 | Total Recoverable | Water | 3005A | |
| 660-45526-8 | Blank, Equipment 45526 | Total Recoverable | Water | 3005A | |
| LCS 660-119537/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| MB 660-119537/1-A | Method Blank | Total Recoverable | Water | 3005A | |

### Analysis Batch: 119543

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45511-A-1-B MS | Matrix Spike | Total Recoverable | Water | 6010B | 119537 |
| 660-45511-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-1 | TH-58 WACS#1571 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-2 | TH-28A WACS#19862 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-3 | TH-57 WACS#1570 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-4 | TH-73 WACS#27754 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-5 | TH-72 WACS#27753 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-7 | TH-40 WACS#822 | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-8 | Blank, Equipment 45526 | Total Recoverable | Water | 6010B | 119537 |
| LCS 660-119537/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 119537 |
| MB 660-119537/1-A | Method Blank | Total Recoverable | Water | 6010B | 119537 |

### Prep Batch: 119640

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-C-1-B MS | Matrix Spike | Total Recoverable | Water | 3005A | |
| 660-45578-C-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |
| 660-45579-1 | SUP 2 WACS# 27756 | Total Recoverable | Water | 3005A | |
| 660-45579-2 | TH-42 WACS# 823 | Total Recoverable | Water | 3005A | |
| 660-45579-3 | SUP 1 WACS# 27755 | Total Recoverable | Water | 3005A | |
| 660-45579-4 | TH-30 WACS# 1065 | Total Recoverable | Water | 3005A | |
| 660-45579-5 | Duplicate 45579 | Total Recoverable | Water | 3005A | |
| 660-45579-6 | TH-19 WACS# 821 | Total Recoverable | Water | 3005A | |
| LCS 660-119640/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| MB 660-119640/1-A | Method Blank | Total Recoverable | Water | 3005A | |

### Analysis Batch: 119823

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-C-1-B MS | Matrix Spike | Total Recoverable | Water | 6010B | 119640 |
| 660-45578-C-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-1 | SUP 2 WACS# 27756 | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-2 | TH-42 WACS# 823 | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-3 | SUP 1 WACS# 27755 | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-4 | TH-30 WACS# 1065 | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-5 | Duplicate 45579 | Total Recoverable | Water | 6010B | 119640 |
| 660-45579-6 | TH-19 WACS# 821 | Total Recoverable | Water | 6010B | 119640 |
| LCS 660-119640/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 119640 |
| MB 660-119640/1-A | Method Blank | Total Recoverable | Water | 6010B | 119640 |

## General Chemistry

### Analysis Batch: 119559

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-1 | TH-58 WACS#1571 | Total/NA | Water | SM 2540C | |
| 660-45526-1 DU | TH-58 WACS#1571 | Total/NA | Water | SM 2540C | |
| 660-45526-2 | TH-28A WACS#19862 | Total/NA | Water | SM 2540C | |
| 660-45526-3 | TH-57 WACS#1570 | Total/NA | Water | SM 2540C | |
| 660-45526-4 | TH-73 WACS#27754 | Total/NA | Water | SM 2540C | |
| 660-45526-5 | TH-72 WACS#27753 | Total/NA | Water | SM 2540C | |
| 660-45526-7 | TH-40 WACS#822 | Total/NA | Water | SM 2540C | |
| 660-45526-8 | Blank, Equipment 45526 | Total/NA | Water | SM 2540C | |
| LCS 660-119559/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| MB 660-119559/1 | Method Blank | Total/NA | Water | SM 2540C | |

### Analysis Batch: 119631

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45483-A-13 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 660-45483-A-13 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |
| 660-45526-1 | TH-58 WACS#1571 | Total/NA | Water | 350.1 | |
| 660-45579-1 | SUP 2 WACS# 27756 | Total/NA | Water | 350.1 | |
| 660-45579-2 | TH-42 WACS# 823 | Total/NA | Water | 350.1 | |
| 660-45579-3 | SUP 1 WACS# 27755 | Total/NA | Water | 350.1 | |
| 660-45579-4 | TH-30 WACS# 1065 | Total/NA | Water | 350.1 | |
| 660-45579-5 | Duplicate 45579 | Total/NA | Water | 350.1 | |
| 660-45579-6 | TH-19 WACS# 821 | Total/NA | Water | 350.1 | |
| LCS 660-119631/4 | Lab Control Sample | Total/NA | Water | 350.1 | |
| MB 660-119631/3 | Method Blank | Total/NA | Water | 350.1 | |

### Analysis Batch: 119635

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-2 | TH-28A WACS#19862 | Total/NA | Water | 350.1 | |
| 660-45526-2 MS | TH-28A WACS#19862 | Total/NA | Water | 350.1 | |
| 660-45526-2 MSD | TH-28A WACS#19862 | Total/NA | Water | 350.1 | |
| 660-45526-3 | TH-57 WACS#1570 | Total/NA | Water | 350.1 | |
| 660-45526-4 | TH-73 WACS#27754 | Total/NA | Water | 350.1 | |
| 660-45526-5 | TH-72 WACS#27753 | Total/NA | Water | 350.1 | |
| 660-45526-7 | TH-40 WACS#822 | Total/NA | Water | 350.1 | |
| 660-45526-8 | Blank, Equipment 45526 | Total/NA | Water | 350.1 | |
| LCS 660-119635/4 | Lab Control Sample | Total/NA | Water | 350.1 | |
| MB 660-119635/3 | Method Blank | Total/NA | Water | 350.1 | |

### Analysis Batch: 119752

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-2 | TH-28A WACS#19862 | Total/NA | Water | 300.0 | |
| 660-45526-3 | TH-57 WACS#1570 | Total/NA | Water | 300.0 | |
| 660-45526-5 | TH-72 WACS#27753 | Total/NA | Water | 300.0 | |
| 660-45526-7 | TH-40 WACS#822 | Total/NA | Water | 300.0 | |
| 660-45526-8 | Blank, Equipment 45526 | Total/NA | Water | 300.0 | |
| 660-45627-B-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 660-45627-B-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| LCS 660-119752/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 660-119752/3 | Method Blank | Total/NA | Water | 300.0 | |

## General Chemistry (Continued)

### Analysis Batch: 119773

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45579-1 | SUP 2 WACS# 27756 | Total/NA | Water | SM 2540C | |
| 660-45579-2 | TH-42 WACS# 823 | Total/NA | Water | SM 2540C | |
| 660-45579-3 | SUP 1 WACS# 27755 | Total/NA | Water | SM 2540C | |
| 660-45579-4 | TH-30 WACS# 1065 | Total/NA | Water | SM 2540C | |
| 660-45579-5 | Duplicate 45579 | Total/NA | Water | SM 2540C | |
| 660-45579-6 | TH-19 WACS# 821 | Total/NA | Water | SM 2540C | |
| 660-45576-AD-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| LCS 660-119773/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| MB 660-119773/1 | Method Blank | Total/NA | Water | SM 2540C | |

### Analysis Batch: 119814

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-1 | TH-58 WACS#1571 | Total/NA | Water | 300.0 | |
| 660-45579-1 | SUP 2 WACS# 27756 | Total/NA | Water | 300.0 | |
| 660-45579-2 | TH-42 WACS# 823 | Total/NA | Water | 300.0 | |
| 660-45579-3 | SUP 1 WACS# 27755 | Total/NA | Water | 300.0 | |
| 660-45579-4 | TH-30 WACS# 1065 | Total/NA | Water | 300.0 | |
| 660-45579-5 | Duplicate 45579 | Total/NA | Water | 300.0 | |
| 660-45579-6 | TH-19 WACS# 821 | Total/NA | Water | 300.0 | |
| 660-45593-A-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 660-45593-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| LCS 660-119814/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 660-119814/3 | Method Blank | Total/NA | Water | 300.0 | |

### Analysis Batch: 119941

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-4 | TH-73 WACS#27754 | Total/NA | Water | 300.0 | |
| 660-45634-C-2 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 660-45634-C-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| LCS 660-119941/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 660-119941/3 | Method Blank | Total/NA | Water | 300.0 | |

## Field Service / Mobile Lab

### Analysis Batch: 119553

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-1 | TH-58 WACS#1571 | Total/NA | Water | Field Sampling | |
| 660-45526-2 | TH-28A WACS#19862 | Total/NA | Water | Field Sampling | |
| 660-45526-3 | TH-57 WACS#1570 | Total/NA | Water | Field Sampling | |
| 660-45526-4 | TH-73 WACS#27754 | Total/NA | Water | Field Sampling | |
| 660-45526-5 | TH-72 WACS#27753 | Total/NA | Water | Field Sampling | |
| 660-45526-7 | TH-40 WACS#822 | Total/NA | Water | Field Sampling | |

### Analysis Batch: 119592

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45579-1 | SUP 2 WACS# 27756 | Total/NA | Water | Field Sampling | |
| 660-45579-2 | TH-42 WACS# 823 | Total/NA | Water | Field Sampling | |
| 660-45579-3 | SUP 1 WACS# 27755 | Total/NA | Water | Field Sampling | |
| 660-45579-4 | TH-30 WACS# 1065 | Total/NA | Water | Field Sampling | |
| 660-45579-6 | TH-19 WACS# 821 | Total/NA | Water | Field Sampling | |

# Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

## Client Sample ID: TH-58 WACS#1571

**Lab Sample ID: 660-45526-1**

**Date Collected: 01/05/12 11:03**

**Matrix: Water**

**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:39 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:01 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:34 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 10 | 119814 | 01/12/12 11:38 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 11:03 | | TAL TAM |

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## Client Sample ID: TH-28A WACS#19862

**Lab Sample ID: 660-45526-2**

**Date Collected: 01/05/12 12:15**

**Matrix: Water**

**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:42 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:02 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:47 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/11/12 21:20 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 12:15 | | TAL TAM |

## Client Sample ID: TH-57 WACS#1570

**Lab Sample ID: 660-45526-3**

**Date Collected: 01/05/12 10:09**

**Matrix: Water**

**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:45 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:02 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:51 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/11/12 21:37 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 10:09 | | TAL TAM |

## Client Sample ID: TH-73 WACS#27754

**Lab Sample ID: 660-45526-4**

**Date Collected: 01/05/12 11:31**

**Matrix: Water**

**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:49 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:03 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:52 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 10 | 119941 | 01/13/12 11:23 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 11:31 | | TAL TAM |

# Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

## Client Sample ID: TH-72 WACS#27753

**Lab Sample ID: 660-45526-5**

**Date Collected: 01/05/12 11:49**
**Matrix: Water**
**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:52 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:03 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:53 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/11/12 23:16 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 11:49 | | TAL TAM |

## Client Sample ID: TH-40 WACS#822

**Lab Sample ID: 660-45526-7**

**Date Collected: 01/05/12 09:39**
**Matrix: Water**
**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 15:06 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:04 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:55 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/11/12 23:49 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 09:39 | | TAL TAM |

## Client Sample ID: Blank, Equipment 45526

**Lab Sample ID: 660-45526-8**

**Date Collected: 01/05/12 09:16**
**Matrix: Water**
**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 15:09 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:05 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:57 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/12/12 00:05 | TS | TAL TAM |

## Client Sample ID: SUP 2 WACS# 27756

**Lab Sample ID: 660-45579-1**

**Date Collected: 01/06/12 09:26**
**Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 08:51 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:26 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119814 | 01/12/12 09:59 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 09:26 | | TAL TAM |

**Client Sample ID: TH-42 WACS# 823** — **Lab Sample ID: 660-45579-2**
**Date Collected: 01/06/12 11:38** — **Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 08:54 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:27 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119814 | 01/12/12 10:15 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 11:38 | | TAL TAM |

**Client Sample ID: SUP 1 WACS# 27755** — **Lab Sample ID: 660-45579-3**
**Date Collected: 01/06/12 09:53** — **Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 08:58 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:28 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119814 | 01/12/12 10:32 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 09:53 | | TAL TAM |

**Client Sample ID: TH-30 WACS# 1065** — **Lab Sample ID: 660-45579-4**
**Date Collected: 01/06/12 10:59** — **Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 09:08 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:29 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 5 | 119814 | 01/12/12 10:48 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 10:59 | | TAL TAM |

**Client Sample ID: Duplicate 45579** — **Lab Sample ID: 660-45579-5**
**Date Collected: 01/06/12 00:00** — **Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 09:11 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:31 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 2 | 119814 | 01/12/12 11:05 | TS | TAL TAM |

# Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

**Client Sample ID: TH-19 WACS# 821**
**Date Collected: 01/06/12 12:08**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45579-6**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 09:14 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:32 | TO | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119814 | 01/12/12 11:21 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 12:08 | | TAL TAM |

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**Laboratory References:**

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

# Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Tampa | Alabama | State Program | 4 | 40610 |
| TestAmerica Tampa | Florida | NELAC | 4 | E84282 |
| TestAmerica Tampa | Georgia | State Program | 4 | 905 |
| TestAmerica Tampa | USDA | USDA | | P330-11-00177 |

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 6010B | Metals (ICP) | SW846 | TAL TAM |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL TAM |
| 350.1 | Nitrogen, Ammonia | MCAWW | TAL TAM |
| 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 TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

# Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 660-45526-1 | TH-58 WACS#1571 | Water | 01/05/12 11:03 | 01/05/12 14:10 |
| 660-45526-2 | TH-28A WACS#19862 | Water | 01/05/12 12:15 | 01/05/12 14:10 |
| 660-45526-3 | TH-57 WACS#1570 | Water | 01/05/12 10:09 | 01/05/12 14:10 |
| 660-45526-4 | TH-73 WACS#27754 | Water | 01/05/12 11:31 | 01/05/12 14:10 |
| 660-45526-5 | TH-72 WACS#27753 | Water | 01/05/12 11:49 | 01/05/12 14:10 |
| 660-45526-7 | TH-40 WACS#822 | Water | 01/05/12 09:39 | 01/05/12 14:10 |
| 660-45526-8 | Blank, Equipment 45526 | Water | 01/05/12 09:16 | 01/05/12 14:10 |
| 660-45579-1 | SUP 2 WACS# 27756 | Water | 01/06/12 09:26 | 01/06/12 14:25 |
| 660-45579-2 | TH-42 WACS# 823 | Water | 01/06/12 11:38 | 01/06/12 14:25 |
| 660-45579-3 | SUP 1 WACS# 27755 | Water | 01/06/12 09:53 | 01/06/12 14:25 |
| 660-45579-4 | TH-30 WACS# 1065 | Water | 01/06/12 10:59 | 01/06/12 14:25 |
| 660-45579-5 | Duplicate 45579 | Water | 01/06/12 00:00 | 01/06/12 14:25 |
| 660-45579-6 | TH-19 WACS# 821 | Water | 01/06/12 12:08 | 01/06/12 14:25 |

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660- 45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jo Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2.0 INCH:
TOTAL DEPTH OF WELL: 32.92 Ft.
DEPTH TO WATER: 28.45 Ft.
LENGTH OF WATER COL: 4.47 Ft.
VOLUME TO PURGE: 0.72 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 10:55 |
| PURGE RATE: | 0.20 | GPM. |
| PURGE ENDED: | 1.5.12 | 11:03 |
| ACT. VOL. PURGED: | 1.60 | GAL. |
| Draw Down: | 28.64 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:59 | 24.55 | 1049 | 5.94 | 1.51 | 9.21 = |
| AB JC | 11:01 | 24.57 | 1037 | 5.92 | 1.43 | 8.78 |
| AB JC | 11:03 | 24.58 | 1032 | 5.90 | 1.45 | 8.80 |

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:03

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jo Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO # 0054

5.0 CU-07

13

660-45526

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

PRECLEANED SAMPLE CONTAINERS: | DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: **TH-28A WACS# 19862** SAMPLE MATRIX: **WATER** OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☐ **A.Balloon** ☐ ☐

WELL DIAMETER: **2.0** INCH:
TOTAL DEPTH OF WELL: 34.30 Ft.
DEPTH TO WATER: 28.99 Ft.
LENGTH OF WATER COL: 5.31 Ft.
VOLUME TO PURGE: 0.85 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 12:07 |
| PURGE RATE: | 0.10 | GPM. |
| | DATE | TIME |
| PURGE ENDED: | 1.5.12 | 12115 |
| ACT. VOL. PURGED: | 1.30 | GAL. |
| Draw Down: | 29.41 | |

MM 1-5-12 FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 12:11 | 25.29 | 234 | 5.31 | 0.88 | 6.96 |
| AB JC | 12:13 | 25.34 | 233 | 5.30 | 0.73 | 7.08 |
| AB JC | 12:15 | 25.35 | 231 | 5.27 | 0.71 | 7.15 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

MM 1-5-12
**COLLECTED**
**DATE | TIME**
1.5.12 | 12:15

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.5.12 | 2110

COMMENT`S: WO# 0054

5.0 CW.07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2.0 INCH:
TOTAL DEPTH OF WELL: 26.83 Ft.
DEPTH TO WATER: 19.84 Ft.
LENGTH OF WATER COL: 6.97 Ft.
VOLUME TO PURGE: 1.12 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 9:59 |
| PURGE RATE: | 0.20 GPM. | |
| | DATE | TIME |
| PURGE ENDED: | 1.5.12 | 10:09 |
| ACT. VOL. PURGED: | 2.00 GAL. | |
| Draw Down: | 20.50 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:05 | 26.25 | 147 | 5.28 | 0.68 | 0.47 = |
| AB JC | 10:07 | 26.30 | 155 | 5.25 | 6.69 | ~~0.70~~ 0.67 |
| AB JC | 10:09 | 26.31 | 154 | 5.24 | 0.65 | 0.70 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 10:09

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. DATE | TIME 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: GW # 0054 $H_2S$ odor 5.0 CW-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 43.40 Ft.
DEPTH TO WATER: 32.31 Ft.
LENGTH OF WATER COL: 11.09 Ft.
VOLUME TO PURGE: 1.77 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 11:14 |
| PURGE RATE: | 0.25 GPM. | |
| PURGE ENDED: | 1.5.12 | 11:31 |
| ACT. VOL. PURGED: | 3.25 GAL. | |
| Draw Down: | 33.69 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 11:27 | 25.18 | 1185 | 5.19 | 0.73 | 2.11 = |
| AB JC | 11:29 | 25.20 | 1183 | 5.21 | 0.74 | 2.09 |
| AB JC | 11:31 | 25.18 | 1188 | 5.14 | 0.71 | 2.05 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:31

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. DATE | TIME 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO#0054 S.O CW-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clapton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: TH-72 WACS# 27753 SAMPLE MATRIX: WATER OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☒ A.Balloon ☒ JC ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 190.00 Ft.
DEPTH TO WATER: 113.70 Ft.
LENGTH OF WATER COL: 76.30 Ft.
VOLUME TO PURGE: 12.21 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 11:24 |
| PURGE RATE: | 0.60 | GPM. |
| PURGE ENDED: | 1.5.12 | 11:49 |
| ACT. VOL. PURGED: | 15.00 | GAL. |
| Draw Down: | 113.69 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 11:45 | 22.73 | 533 | 7.22 | 0.22 | 0.58 |
| AB JC | 11:47 | 22.73 | 534 | 7.23 | 0.21 | 0.65 |
| AB JC | 11:49 | 22.74 | 535 | 7.23 | 0.20 | 0.44 |

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:49

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clapton REP. OF SOLID WASTE DEPT. DATE | TIME 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO # 0054

5.0 CU-07

13

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Hayes REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: **TH-40 WACS# 822** SAMPLE MATRIX: **WATER** OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☐ **A.Balloon** ☐ ☐

WELL DIAMETER: **2.0** INCH:

| | | | | DATE | TIME |
|---|---|---|---|---|---|
| TOTAL DEPTH OF WELL: | 165.90 Ft. | PURGE STARTED: | | 1.5.12 | 9:29 |
| DEPTH TO WATER: | 109.94 Ft. | PURGE RATE: | | 1.00 | GPM. |
| LENGTH OF WATER COL: | 57.96 Ft. | | | DATE | TIME |
| VOLUME TO PURGE: | 9.27 Gal. | PURGE ENDED: | | 1.5.12 | 9:39 |
| | | ACT. VOL. PURGED: | | 13.00 | GAL. |
| | | Draw Down: | | 107.09 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 9:35 | 23.12 | 349 | 7.50 | 0.98 | 0.37 = |
| AB JC | 9:37 | 28.13 | 350 | 7.48 | 0.97 | 0.40 |
| AB JC | 9:39 | 23.15 | 354 | 7.48 | 0.95 | 0.39 |

**SAMPLE CONTAINERS**

| QTY | CONTAINER DESCRIPTION | QTY | CONTAINER DESCRIPTION | PRESERVED |
|---|---|---|---|---|
| | 40 ml VIAL | | 40 ml VIAL | |
| 1 | 125 ml. PLASTIC | | 125 ml. PLASTIC | |
| | 125 ml GLASS | | 125 ml GLASS | |
| | 250 ml. PLASTIC | 4 | 250 ml. PLASTIC | |
| | 250 ml. GLASS | | 250 ml. GLASS | |
| 1 | 500 ml. PLASTIC | | 500 ml. PLASTIC | |
| | 500 ml. GLASS | | 500 ml. GLASS | |
| | LITER PLASTIC | | LITER PLASTIC | |
| | LITER GLASS | | LITER GLASS | |
| | BACTERIAL | | BACTERIAL | |

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 9:39

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

| ABOVE LISTED SAMPLES: | | | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY: | Jim Clark | REP. OF SOLID WASTE DEPT. | 1.5.12 | 2:10 |
| ACCEPTED BY: | [signature] | REP. OF CONTRACT LAB. | 1.5.12 | 2:10 |

COMMENT`S: WO # 0054 5.0 CU-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Lisa Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☒ A.Balloon ☒ J.C ☐

FIELD PARAMETERS: N/A

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 9:16

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Lisa Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: Steve Wolf REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO # 0054

5.0 CU-07

660- 45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jen Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2.0 INCH:

| | | | | DATE | TIME |
|---|---|---|---|---|---|
| TOTAL DEPTH OF WELL: | 32.92 | Ft. | PURGE STARTED: | 1.5.12 | 10:55 |
| DEPTH TO WATER: | 28.45 | Ft. | PURGE RATE: | 0.20 | GPM. |
| LENGTH OF WATER COL: | 4.47 | Ft. | | DATE | TIME |
| VOLUME TO PURGE: | 0.72 | Gal. | PURGE ENDED: | 1.5.12 | 11:03 |
| | | | ACT. VOL. PURGED: | 1.60 | GAL. |
| | | | Draw Down: | 28.64 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:59 | 24.55 | 1049 | 5.54 | 1.51 | 9.21 = |
| AB JC | 11:01 | 24.57 | 1037 | 5.92 | 1.43 | 8.78 |
| AB JC | 11:03 | 24.58 | 1032 | 5.90 | 1.45 | 8.80 |

13

**SAMPLE CONTAINERS**

| QTY | CONTAINER DESCRIPTION | QTY | CONTAINER DESCRIPTION | PRESERVED |
|---|---|---|---|---|
| 3 | 40 ml VIAL | | 40 ml VIAL | |
| 1 | .125 ml. PLASTIC | | 125 ml. PLASTIC | |
| | 125 ml GLASS | | 125 ml GLASS | |
| | 250 ml. PLASTIC | 2 | 250 ml. PLASTIC | |
| | 250 ml. GLASS | | 250 ml. GLASS | |
| 1 | 500 ml. PLASTIC | | 500 ml. PLASTIC | |
| | 500 ml. GLASS | | 500 ml. GLASS | |
| | LITER PLASTIC | | LITER PLASTIC | |
| | LITER GLASS | | LITER GLASS | |
| | BACTERIAL | | BACTERIAL | |

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:03

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:

| | | | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY: | Jen Clayton | REP. OF SOLID WASTE DEPT. | 1.5.12 | 2:10 |
| ACCEPTED BY: | [illegible] | REP. OF CONTRACT LAB. | 1.5.12 | 2:10 |

COMMENT`S: WO # 0054

5.0 CU.07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: **TH-28A WACS# 19862** SAMPLE MATRIX: **WATER** OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☐ **A.Balloon** ☐ ☐

WELL DIAMETER: **2.0** INCH:
TOTAL DEPTH OF WELL: 34.30 Ft.
DEPTH TO WATER: 28.99 Ft.
LENGTH OF WATER COL: 5.31 Ft.
VOLUME TO PURGE: 0.85 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 12:02 |
| PURGE RATE: | 0.10 GPM. | |
| | DATE | TIME |
| PURGE ENDED: | 1.5.12 | 12:15 |
| ACT. VOL. PURGED: | 1.30 GAL. | |
| Draw Down: | 29.41 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | | | | | | |
| AB JC | | | | | | |
| AB JC | | | | | | |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

| COLLECTED DATE | TIME |
|---|---|
| 1.5.12 | |

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO# 0054

5.0 CW.07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2.0 INCH:

| | | | | DATE | TIME |
|---|---|---|---|---|---|
| TOTAL DEPTH OF WELL: | 26.83 | Ft. | PURGE STARTED: | 1.5.12 | 9:59 |
| DEPTH TO WATER: | 19.84 | Ft. | PURGE RATE: | 0.20 | GPM. |
| LENGTH OF WATER COL: | 6.97 | Ft. | | DATE | TIME |
| VOLUME TO PURGE: | 1.12 | Gal. | PURGE ENDED: | 1.5.12 | 10:09 |
| | | | ACT. VOL. PURGED: | 2.00 | GAL. |
| | | | Draw Down: | 20.50 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:05 | 26.25 | 147 | 5.28 | 0.68 | 0.47 = |
| AB JC | 10:07 | 26.30 | 155 | 5.25 | 6.69 | ~~0.70~~ 0.67 |
| AB JC | 10:09 | 26.31 | 154 | 5.24 | 0.65 | 0.70 |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 10:09

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO# 0054 $H_2S$ odor 5.0 CN-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 43.40 Ft.
DEPTH TO WATER: 32.31 Ft.
LENGTH OF WATER COL: 11.09 Ft.
VOLUME TO PURGE: 1.77 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 11:18 |
| PURGE RATE: | 0.25 GPM. | |
| PURGE ENDED: | 1.5.12 | 11:31 |
| ACT. VOL. PURGED: | 3.25 GAL. | |
| Draw Down: | 33.69 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 11:27 | 25.18 | 1185 | 5.19 | 0.73 | 2.11 |
| AB JC | 11:29 | 25.20 | 1183 | 5.21 | 0.74 | 2.09 |
| AB JC | 11:31 | 25.18 | 1184 | 5.14 | 0.71 | 2.05 |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:31

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO#00054 5.0 CU.FT

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clapp REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: TH-72 WACS# 27753 SAMPLE MATRIX: WATER OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☒ A.Balloon ☒ JC ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 190.00 Ft.
DEPTH TO WATER: 113.70 Ft.
LENGTH OF WATER COL: 76.30 Ft.
VOLUME TO PURGE: 12.21 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 11:24 |
| PURGE RATE: | 0.60 | GPM. |
| | DATE | TIME |
| PURGE ENDED: | 1.5.12 | 11:49 |
| ACT. VOL. PURGED: | 15.00 | GAL. |
| Draw Down: | 113.69 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 11:45 | 22.73 | 533 | 7.22 | 0.27 | 0.59 = |
| AB JC | 11:47 | 22.73 | 534 | 7.23 | 0.21 | 0.65 |
| AB JC | 11:49 | 22.74 | 535 | 7.23 | 0.20 | 0.44 |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 11:49

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clapp REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO # 0054

5.0 CU-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ J.C ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 17.00 Ft.
DEPTH TO WATER: 8.07 Ft.
LENGTH OF WATER COL: 8.93 Ft.
VOLUME TO PURGE: 1.42 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 10:24 |
| PURGE RATE: | 0.20 GPM. | |
| PURGE ENDED: | 1.5.12 | 10:35 |
| ACT. VOL. PURGED: | 2.20 GAL. | |
| Draw Down: | 8.50 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:31 | 21.72 | 298 | 5.61 | 0.94 | 23.1 = |
| AB JC | 10:33 | 21.20 | 300 | 5.61 | 0.91 | 22.5 |
| AB JC | 10:35 | 21.69 | 300 | 5.58 | 0.92 | 18.9 |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 10:35

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: Stan Wolf REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO # 0054

5.0 CU-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Hayes REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: **TH-40 WACS# 822** SAMPLE MATRIX: **WATER** OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☐ **A.Balloon** ☐ ☐

WELL DIAMETER: 2.0 INCH:
TOTAL DEPTH OF WELL: 165.90 Ft.
DEPTH TO WATER: 107.94 Ft.
LENGTH OF WATER COL: 57.94 Ft.
VOLUME TO PURGE: 9.27 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 9:29 |
| PURGE RATE: | 1.00 | GPM. |
| PURGE ENDED: | 1.5.12 | 9:39 |
| ACT. VOL. PURGED: | 13.00 | GAL. |
| Draw Down: | 107.09 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 9:35 | 23.12 | 349 | 7.50 | 0.98 | 0.37 |
| AB JC | 9:37 | 23.13 | 350 | 7.48 | 0.97 | 0.40 |
| AB JC | 9:39 | 23.15 | 354 | 7.48 | 0.95 | 0.39 |

**SAMPLE CONTAINERS**

| QTY | CONTAINER DESCRIPTION | QTY | CONTAINER DESCRIPTION | PRESERVED |
|---|---|---|---|---|
| | 40 ml VIAL | | 40 ml VIAL | |
| 1 | 125 ml. PLASTIC | | 125 ml. PLASTIC | |
| | 125 ml GLASS | | 125 ml GLASS | |
| | 250 ml. PLASTIC | 4 | 250 ml. PLASTIC | |
| | 250 ml. GLASS | | 250 ml. GLASS | |
| 1 | 500 ml. PLASTIC | | 500 ml. PLASTIC | |
| | 500 ml. GLASS | | 500 ml. GLASS | |
| | LITER PLASTIC | | LITER PLASTIC | |
| | LITER GLASS | | LITER GLASS | |
| | BACTERIAL | | BACTERIAL | |

4 **TOTAL No. OF SAMPLES COLLECTED:**

| COLLECTED | |
|---|---|
| DATE | TIME |
| 1.5.12 | 9:39 |

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clark REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: Steve Reed REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO # 00054 5.0 CU-07

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Lin Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☒ A.Balloon ☒ J.C ☐

FIELD PARAMETERS: N/A

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.5.12 | 9:16

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Lin Clayton REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: Stan Neff REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENTS: WO # 0059
5.0 CW-07

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

PRECLEANED SAMPLE CONTAINERS: 660-45579 DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Lin Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL VOLUME TO PURGE: 15 MIN: PURGE STARTED: DATE 1.6.12 TIME 9:07
ACTUAL PURGE TIME: 19 MIN:

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 9:22 | 24.41 | 329 | 7.55 | 0.20 | 0.73 = |
| AB JC | 9:24 | 24.54 | 328 | 7.54 | 0.33 | 1.08 |
| AB JC | 9:26 | 24.53 | 328 | 7.57 | 0.30 | 1.00 |

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.6.12 | 9:26

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Lin Clayton REP. OF SOLID WASTE DEPT. 1.6.12 | 2125
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.6.12 | 2:25

COMMENTS: WO# 0054 2.2°c CU-07

13

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

PRECLEANED SAMPLE CONTAINERS: 660-45579 DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2.0 INCH:
TOTAL DEPTH OF WELL: 164.00 Ft.
DEPTH TO WATER: 81.86 Ft.
LENGTH OF WATER COL: 82.14 Ft.
VOLUME TO PURGE: 13.4 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.6.12 | 11:12 |
| PURGE RATE: | 0.40 | GPM. |
| PURGE ENDED: | 1.6.12 | 11:38 |
| ACT. VOL. PURGED: | 15.4 | GAL. |
| Draw Down: | 98.46 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 11:34 | 23.63 | 465 | 7.11 | 0.23 | 10.9 |
| AB JC | 11:36 | 23.46 | 465 | 7.12 | 0.23 | 12.4 |
| AB JC | 11:38 | 23.67 | 464 | 7.12 | 0.22 | 12.0 |

13

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.6.12 | 11:38

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic Dissolved Sodium Dissolved Iron Dissolved Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jim Clayton REP. OF SOLID WASTE DEPT. DATE 1.6.12 | TIME 2:25
ACCEPTED BY: _____ REP. OF CONTRACT LAB. DATE 1.6.12 | TIME 2:25

COMMENT'S: loc # 0054

660-45579

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Dan Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: SUP 1 WACS# 27755 SAMPLE MATRIX: WATER OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☒ A.Balloon ☒ JC ☐

WELL VOLUME TO PURGE: 15 MIN: PURGE STARTED: DATE 1.6.12 TIME 9:34
ACTUAL PURGE TIME: 17 MIN:

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 9:49 | 24.33 | 317 | 7.51 | 0.08 | 0.08 = |
| AB JC | 9:51 | 24.35 | 317 | 7.51 | 0.08 | 0.06 |
| AB JC | 9:53 | 24.34 | 317 | 7.5 | 0.08 | 0.06 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

COLLECTED
DATE | TIME
1.6.12 | 9:53

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Dan Clayton REP. OF SOLID WASTE DEPT. 1.6.12 | 2:25
ACCEPTED BY: [signature] REP. OF CONTRACT LAB. 1.6.12 | 2:25

COMMENTS: WO # 0054

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

PRECLEANED SAMPLE CONTAINERS: 660-45579 DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

| | | | DATE | TIME |
|---|---|---|---|---|
| WELL DIAMETER: 2.00 INCH: | | PURGE STARTED: | 1.6.12 | 10:41 |
| TOTAL DEPTH OF WELL: 46.19 | Ft. | PURGE RATE: | 0.25 | GPM. |
| DEPTH TO WATER: 24.09 | Ft. | | DATE | TIME |
| LENGTH OF WATER COL: 22.10 | Ft. | PURGE ENDED: | 1.6.12 | 10:59 |
| VOLUME TO PURGE: 3.54 | Gal. | ACT. VOL. PURGED: | 4.50 | GAL. |
| | | Draw Down: | 24.28 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:55 | 23.71 | 274 | 4.63 | 0.14 | 1.67 |
| AB JC | 10:57 | 23.68 | 275 | 4.61 | 6.16 | 1.98 |
| AB JC | 10:59 | 23.67 | 277 | 4.59 | 0.14 | 1.98 |

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.6.12 | 10:59

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:

| | | | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY: | Jim Clayton | REP. OF SOLID WASTE DEPT. | 1.6.12 | 2:25 |
| ACCEPTED BY: | [signature] | REP. OF CONTRACT LAB. | 1.6.12 | 2:25 |

COMMENT`S: WO# 00054

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660-45579

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Lisa Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

LOCATION: **DUPLICATE** SAMPLE MATRIX: **WATER** OTHER MATRIX: ____

PERSONAL ENGAGED IN SAMPLE COLLECTION : ☑ A.Balloon ☑ JC ☐

FIELD PARAMETERS: N/A

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.6.12 | —

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Lisa Clayton REP. OF SOLID WASTE DEPT. 1.6.12 | 2:25
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.6.12 | 2:25

COMMENT'S: WO# 0054

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

PRECLEANED SAMPLE CONTAINERS: 660-45579 DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clayton REP. OF SOLID WASTE DEPT. 12.30.11 | _____

LOCATION: **TH-19 WACS# 821** SAMPLE MATRIX: **WATER** OTHER MATRIX: _____

PERSONAL ENGAGED IN SAMPLE COLLECTION ☐ **A.Balloon** ☐ ☐

WELL DIAMETER: **2.0** INCH:

| | | | | DATE | TIME |
|---|---|---|---|---|---|
| TOTAL DEPTH OF WELL: | 153.60 Ft. | PURGE STARTED: | | 1.6.12 | 11:57 |
| DEPTH TO WATER: | 108.06 Ft. | PURGE RATE: | 1.0 GPM. | | |
| LENGTH OF WATER COL: | 45.54 Ft. | | | DATE | TIME |
| VOLUME TO PURGE: | 7.29 Gal. | PURGE ENDED: | | 1.6.12 | 12:05 |
| | | ACT. VOL. PURGED: | 11.0 GAL. | | |
| | | Draw Down: | 108.39 | | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 12:04 | 23.27 | 369 | 7.32 | 0.59 | 0.37 = |
| AB JC | 12:06 | 23.21 | 369 | 7.30 | 0.55 | 0.34 |
| AB JC | 12:08 | 23.25 | 369 | 7.29 | 0.45 | 0.24 |

**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**COLLECTED**
**DATE | TIME**
1.6.12 | 12:08

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:

| | | | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY: | Jim Clayton | REP. OF SOLID WASTE DEPT. | 1.6.12 | 2:25 |
| ACCEPTED BY: | John Smith | REP. OF CONTRACT LAB. | 1.6.12 | 2:25 |

COMMENT'S: WO # 0054

# Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-45526-1

**Login Number: 45526**

**List Source: TestAmerica Tampa**

**List Number: 1**

**Creator: Redding, Charles S**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is 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 | 5.0c CU-07 |
| 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

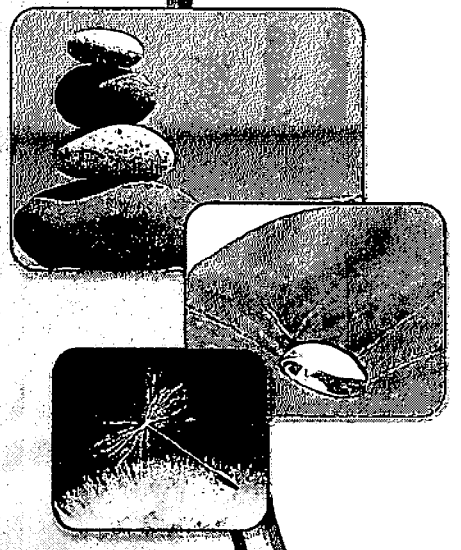
Client: Hillsborough County Public Utilities Dep

Job Number: 660-45526-1

**Login Number: 45579**
**List Number: 1**
**Creator: Snead, Joshua**

**List Source: TestAmerica Tampa**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is 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 | 2.2c CU07 |
| 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-45526-2
Client Project/Site: SELF MWs,SS,Private Wells,NPDES

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

Attn: David Adams

*Authorized for release by:*
*1/20/2012 12:06:37 PM*

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com

# Table of Contents

# Definitions/Glossary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

## Qualifiers

### Metals

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| 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. |

### General Chemistry

| 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. |

## Glossary

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

# Case Narrative

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

## Job ID: 660-45526-2

**Laboratory: TestAmerica Tampa**

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**Narrative**

**Job Narrative**
**660-45526-2**

**Comments**
No additional comments.

**Receipt**
All samples were received in good condition within temperature requirements.

**Metals**
Method 6010B: The matrix spike and/or matrix spike duplicate (MS/MSD) recoveries for Iron in batch 119640 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

**General Chemistry**
Method 350.1: The matrix spike(MS) recovery for batch 119635 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 300.0: The matrix spike(MS) recovery for batch 119752 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

# Detection Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

## Client Sample ID: TH-75 WACS#28308 — Lab Sample ID: 660-45526-6

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.1 | I | 10 | 4.0 | ug/L | 1 | | 6010B | Total Recovera |
| Iron | 8600 | | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 10 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 25 | | 0.50 | 0.20 | mg/L | 1 | | 300.0 | Total/NA |
| Ammonia as N | 1.1 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 180 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.58 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 21.69 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.92 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 300 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 18.9 | | | | NTU | 1 | | Field Sampling | Total/NA |

## Client Sample ID: TH-74 WACS# 28307 — Lab Sample ID: 660-45578-1

| Analyte | Result | Qualifier | PQL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 30000 | J3 | 200 | 50 | ug/L | 1 | | 6010B | Total Recovera |
| Sodium | 26 | | 0.50 | 0.31 | mg/L | 1 | | 6010B | Total Recovera |
| Chloride | 59 | | 5.0 | 2.0 | mg/L | 10 | | 300.0 | Total/NA |
| Ammonia as N | 1.8 | | 0.020 | 0.010 | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 240 | | 10 | 10 | mg/L | 1 | | SM 2540C | Total/NA |
| Field pH | 5.66 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Temperature | 21.97 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Oxygen, Dissolved | 0.66 | | | | mg/L | 1 | | Field Sampling | Total/NA |
| Specific Conductance | 474 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Turbidity | 16.8 | | | | NTU | 1 | | Field Sampling | Total/NA |

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# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

**Client Sample ID: TH-75 WACS#28308**
**Date Collected: 01/05/12 10:35**
**Date Received: 01/05/12 14:10**

**Lab Sample ID: 660-45526-6**
**Matrix: Water**

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.1 | I | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 14:56 | 1 |
| Iron | 8600 | | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 14:56 | 1 |
| Sodium | 10 | | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 14:56 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 25 | | 0.50 | 0.20 | mg/L | | | 01/11/12 23:32 | 1 |
| Ammonia as N | 1.1 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:54 | 1 |
| Total Dissolved Solids | 180 | | 10 | 10 | mg/L | | | 01/06/12 14:04 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.58 | | | | SU | | | 01/05/12 10:35 | 1 |
| Field Temperature | 21.69 | | | | Degrees C | | | 01/05/12 10:35 | 1 |
| Oxygen, Dissolved | 0.92 | | | | mg/L | | | 01/05/12 10:35 | 1 |
| Specific Conductance | 300 | | | | umhos/cm | | | 01/05/12 10:35 | 1 |
| Turbidity | 18.9 | | | | NTU | | | 01/05/12 10:35 | 1 |

# Client Sample Results

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

**Client Sample ID: TH-74 WACS# 28307**
**Date Collected: 01/06/12 10:23**
**Date Received: 01/06/12 14:25**

**Lab Sample ID: 660-45578-1**
**Matrix: Water**

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

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:38 | 1 |
| Iron | 30000 | J3 | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:38 | 1 |
| Sodium | 26 | | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:38 | 1 |

**General Chemistry**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 59 | | 5.0 | 2.0 | mg/L | | | 01/11/12 17:12 | 10 |
| Ammonia as N | 1.8 | | 0.020 | 0.010 | mg/L | | | 01/09/12 19:25 | 1 |
| Total Dissolved Solids | 240 | | 10 | 10 | mg/L | | | 01/12/12 12:03 | 1 |

**Method: Field Sampling - Field Sampling**

| Analyte | Result | Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Field pH | 5.66 | | | | SU | | | 01/06/12 10:23 | 1 |
| Field Temperature | 21.97 | | | | Degrees C | | | 01/06/12 10:23 | 1 |
| Oxygen, Dissolved | 0.66 | | | | mg/L | | | 01/06/12 10:23 | 1 |
| Specific Conductance | 474 | | | | umhos/cm | | | 01/06/12 10:23 | 1 |
| Turbidity | 16.8 | | | | NTU | | | 01/06/12 10:23 | 1 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 660-119537/1-A**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |
| Sodium | 0.31 | U | 0.50 | 0.31 | mg/L | | 01/06/12 08:42 | 01/06/12 13:45 | 1 |

**Lab Sample ID: LCS 660-119537/2-A**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1000 | 1040 | | ug/L | | 104 | 75 - 125 |
| Iron | 1000 | 1020 | | ug/L | | 102 | 75 - 125 |
| Sodium | 10.0 | 9.65 | | mg/L | | 96 | 75 - 125 |

**Lab Sample ID: 660-45511-A-1-B MS**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 12 | | 1000 | 1040 | | ug/L | | 103 | 75 - 125 |
| Iron | 1300 | | 1000 | 2320 | | ug/L | | 101 | 75 - 125 |
| Sodium | 5.6 | | 10.0 | 15.2 | | mg/L | | 96 | 75 - 125 |

**Lab Sample ID: 660-45511-A-1-C MSD**
**Matrix: Water**
**Analysis Batch: 119543**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 119537**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 12 | | 1000 | 1050 | | ug/L | | 104 | 75 - 125 | 1 | 20 |
| Iron | 1300 | | 1000 | 2330 | | ug/L | | 102 | 75 - 125 | 0 | 20 |
| Sodium | 5.6 | | 10.0 | 15.4 | | mg/L | | 97 | 75 - 125 | 1 | 20 |

**Lab Sample ID: MB 660-119640/1-A**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 10 | 4.0 | ug/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |
| Iron | 50 | U | 200 | 50 | ug/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |
| Sodium | 0.31 | U | 0.50 | 0.31 | mg/L | | 01/10/12 07:33 | 01/13/12 08:28 | 1 |

**Lab Sample ID: LCS 660-119640/2-A**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1000 | 1060 | | ug/L | | 106 | 75 - 125 |
| Iron | 1000 | 1050 | | ug/L | | 105 | 75 - 125 |
| Sodium | 10.0 | 10.2 | | mg/L | | 102 | 75 - 125 |

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

**Lab Sample ID: 660-45578-1 MS**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: TH-74 WACS# 28307**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 1000 | 1090 | | ug/L | | 109 | 75 - 125 |
| Iron | 30000 | J3 | 1000 | 30900 | | ug/L | | 76 | 75 - 125 |
| Sodium | 26 | | 10.0 | 36.4 | | mg/L | | 101 | 75 - 125 |

**Lab Sample ID: 660-45578-1 MSD**
**Matrix: Water**
**Analysis Batch: 119823**

**Client Sample ID: TH-74 WACS# 28307**
**Prep Type: Total Recoverable**
**Prep Batch: 119640**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.0 | U | 1000 | 1080 | | ug/L | | 108 | 75 - 125 | 1 | 20 |
| Iron | 30000 | J3 | 1000 | 30400 | J3 | ug/L | | 21 | 75 - 125 | 2 | 20 |
| Sodium | 26 | | 10.0 | 35.7 | | mg/L | | 94 | 75 - 125 | 2 | 20 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 660-119751/3**
**Matrix: Water**
**Analysis Batch: 119751**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/11/12 08:57 | 1 |

**Lab Sample ID: LCS 660-119751/4**
**Matrix: Water**
**Analysis Batch: 119751**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 10.0 | 10.6 | | mg/L | | 106 | 90 - 110 |

**Lab Sample ID: 660-45578-1 MS**
**Matrix: Water**
**Analysis Batch: 119751**

**Client Sample ID: TH-74 WACS# 28307**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 59 | | 100 | 162 | | mg/L | | 104 | 90 - 110 |

**Lab Sample ID: 660-45578-1 MSD**
**Matrix: Water**
**Analysis Batch: 119751**

**Client Sample ID: TH-74 WACS# 28307**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 59 | | 100 | 167 | | mg/L | | 109 | 90 - 110 | 3 | 30 |

**Lab Sample ID: MB 660-119752/3**
**Matrix: Water**
**Analysis Batch: 119752**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.20 | U | 0.50 | 0.20 | mg/L | | | 01/11/12 18:51 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 660-119752/4**
**Matrix: Water**
**Analysis Batch: 119752**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 10.0 | 10.5 | | mg/L | | 105 | 90 - 110 |

**Lab Sample ID: 660-45627-B-1 MS ^10**
**Matrix: Water**
**Analysis Batch: 119752**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 150 | J3 | 100 | 265 | J3 | mg/L | | 111 | 90 - 110 |

**Lab Sample ID: 660-45627-B-1 MSD ^10**
**Matrix: Water**
**Analysis Batch: 119752**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 150 | J3 | 100 | 257 | | mg/L | | 103 | 90 - 110 | 3 | 30 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 660-119631/3**
**Matrix: Water**
**Analysis Batch: 119631**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.010 | U | 0.020 | 0.010 | mg/L | | | 01/09/12 19:01 | 1 |

**Lab Sample ID: LCS 660-119631/4**
**Matrix: Water**
**Analysis Batch: 119631**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.500 | 0.536 | | mg/L | | 107 | 90 - 110 |

**Lab Sample ID: 660-45483-A-13 MS**
**Matrix: Water**
**Analysis Batch: 119631**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.048 | | 1.00 | 1.03 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: 660-45483-A-13 MSD**
**Matrix: Water**
**Analysis Batch: 119631**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.048 | | 1.00 | 1.04 | | mg/L | | 99 | 90 - 110 | 1 | 30 |

## Method: 350.1 - Nitrogen, Ammonia (Continued)

**Lab Sample ID: MB 660-119635/3**
**Matrix: Water**
**Analysis Batch: 119635**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.010 | U | 0.020 | 0.010 | mg/L | | | 01/09/12 19:44 | 1 |

**Lab Sample ID: LCS 660-119635/4**
**Matrix: Water**
**Analysis Batch: 119635**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia as N | 0.500 | 0.540 | | mg/L | | 108 | 90 - 110 |

**Lab Sample ID: 660-45526-C-2 MS**
**Matrix: Water**
**Analysis Batch: 119635**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.2 | J3 | 1.00 | 2.05 | J3 | mg/L | | 89 | 90 - 110 |

**Lab Sample ID: 660-45526-C-2 MSD**
**Matrix: Water**
**Analysis Batch: 119635**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia as N | 1.2 | J3 | 1.00 | 2.06 | | mg/L | | 90 | 90 - 110 | 0 | 30 |

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

**Lab Sample ID: MB 660-119559/1**
**Matrix: Water**
**Analysis Batch: 119559**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.0 | U | 5.0 | 5.0 | mg/L | | | 01/06/12 14:00 | 1 |

**Lab Sample ID: LCS 660-119559/2**
**Matrix: Water**
**Analysis Batch: 119559**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 10000 | 9980 | | mg/L | | 100 | 80 - 120 |

**Lab Sample ID: 660-45526-B-1 DU**
**Matrix: Water**
**Analysis Batch: 119559**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 610 | | 660 | | mg/L | | 8 | 20 |

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

**Lab Sample ID: MB 660-119773/1**
**Matrix: Water**
**Analysis Batch: 119773**

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

| Analyte | MB Result | MB Qualifier | PQL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.0 | U | 5.0 | 5.0 | mg/L | | | 01/12/12 12:03 | 1 |

**Lab Sample ID: LCS 660-119773/2**
**Matrix: Water**
**Analysis Batch: 119773**

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

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

**Lab Sample ID: 660-45576-AD-1 DU**
**Matrix: Water**
**Analysis Batch: 119773**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 810 | | 820 | | mg/L | | 1 | 20 |

## Metals

### Prep Batch: 119537

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45511-A-1-B MS | Matrix Spike | Total Recoverable | Water | 3005A | |
| 660-45511-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |
| 660-45526-6 | TH-75 WACS#28308 | Total Recoverable | Water | 3005A | |
| LCS 660-119537/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| MB 660-119537/1-A | Method Blank | Total Recoverable | Water | 3005A | |

### Analysis Batch: 119543

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45511-A-1-B MS | Matrix Spike | Total Recoverable | Water | 6010B | 119537 |
| 660-45511-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 6010B | 119537 |
| 660-45526-6 | TH-75 WACS#28308 | Total Recoverable | Water | 6010B | 119537 |
| LCS 660-119537/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 119537 |
| MB 660-119537/1-A | Method Blank | Total Recoverable | Water | 6010B | 119537 |

### Prep Batch: 119640

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-1 | TH-74 WACS# 28307 | Total Recoverable | Water | 3005A | |
| 660-45578-1 MS | TH-74 WACS# 28307 | Total Recoverable | Water | 3005A | |
| 660-45578-1 MSD | TH-74 WACS# 28307 | Total Recoverable | Water | 3005A | |
| LCS 660-119640/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| MB 660-119640/1-A | Method Blank | Total Recoverable | Water | 3005A | |

### Analysis Batch: 119823

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-1 | TH-74 WACS# 28307 | Total Recoverable | Water | 6010B | 119640 |
| 660-45578-1 MS | TH-74 WACS# 28307 | Total Recoverable | Water | 6010B | 119640 |
| 660-45578-1 MSD | TH-74 WACS# 28307 | Total Recoverable | Water | 6010B | 119640 |
| LCS 660-119640/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 119640 |
| MB 660-119640/1-A | Method Blank | Total Recoverable | Water | 6010B | 119640 |

## General Chemistry

### Analysis Batch: 119559

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-6 | TH-75 WACS#28308 | Total/NA | Water | SM 2540C | |
| 660-45526-B-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| LCS 660-119559/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| MB 660-119559/1 | Method Blank | Total/NA | Water | SM 2540C | |

### Analysis Batch: 119631

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45483-A-13 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 660-45483-A-13 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |
| 660-45578-1 | TH-74 WACS# 28307 | Total/NA | Water | 350.1 | |
| LCS 660-119631/4 | Lab Control Sample | Total/NA | Water | 350.1 | |
| MB 660-119631/3 | Method Blank | Total/NA | Water | 350.1 | |

### Analysis Batch: 119635

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-6 | TH-75 WACS#28308 | Total/NA | Water | 350.1 | |
| 660-45526-C-2 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 660-45526-C-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |

## General Chemistry (Continued)

### Analysis Batch: 119635 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 660-119635/4 | Lab Control Sample | Total/NA | Water | 350.1 | |
| MB 660-119635/3 | Method Blank | Total/NA | Water | 350.1 | |

### Analysis Batch: 119751

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-1 | TH-74 WACS# 28307 | Total/NA | Water | 300.0 | |
| 660-45578-1 MS | TH-74 WACS# 28307 | Total/NA | Water | 300.0 | |
| 660-45578-1 MSD | TH-74 WACS# 28307 | Total/NA | Water | 300.0 | |
| LCS 660-119751/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 660-119751/3 | Method Blank | Total/NA | Water | 300.0 | |

### Analysis Batch: 119752

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-6 | TH-75 WACS#28308 | Total/NA | Water | 300.0 | |
| 660-45627-B-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 660-45627-B-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| LCS 660-119752/4 | Lab Control Sample | Total/NA | Water | 300.0 | |
| MB 660-119752/3 | Method Blank | Total/NA | Water | 300.0 | |

### Analysis Batch: 119773

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-1 | TH-74 WACS# 28307 | Total/NA | Water | SM 2540C | |
| 660-45576-AD-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| LCS 660-119773/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| MB 660-119773/1 | Method Blank | Total/NA | Water | SM 2540C | |

## Field Service / Mobile Lab

### Analysis Batch: 119553

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45526-6 | TH-75 WACS#28308 | Total/NA | Water | Field Sampling | |

### Analysis Batch: 119592

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 660-45578-1 | TH-74 WACS# 28307 | Total/NA | Water | Field Sampling | |

# Lab Chronicle

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

## Client Sample ID: TH-75 WACS#28308

**Lab Sample ID: 660-45526-6**

**Date Collected: 01/05/12 10:35**
**Matrix: Water**
**Date Received: 01/05/12 14:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119537 | 01/06/12 08:42 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119543 | 01/06/12 14:56 | GF | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119559 | 01/06/12 14:04 | TO | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119635 | 01/09/12 19:54 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 1 | 119752 | 01/11/12 23:32 | TS | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119553 | 01/05/12 10:35 | | TAL TAM |

9

## Client Sample ID: TH-74 WACS# 28307

**Lab Sample ID: 660-45578-1**

**Date Collected: 01/06/12 10:23**
**Matrix: Water**
**Date Received: 01/06/12 14:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 3005A | | | 119640 | 01/10/12 07:33 | GF | TAL TAM |
| Total Recoverable | Analysis | 6010B | | 1 | 119823 | 01/13/12 08:38 | GF | TAL TAM |
| Total/NA | Analysis | 350.1 | | 1 | 119631 | 01/09/12 19:25 | TO | TAL TAM |
| Total/NA | Analysis | 300.0 | | 10 | 119751 | 01/11/12 17:12 | TS | TAL TAM |
| Total/NA | Analysis | SM 2540C | | 1 | 119773 | 01/12/12 12:03 | TO | TAL TAM |
| Total/NA | Analysis | Field Sampling | | 1 | 119592 | 01/06/12 10:23 | | TAL TAM |

**Laboratory References:**

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

# Certification Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Tampa | Alabama | State Program | 4 | 40610 |
| TestAmerica Tampa | Florida | NELAC | 4 | E84282 |
| TestAmerica Tampa | Georgia | State Program | 4 | 905 |
| TestAmerica Tampa | USDA | USDA | | P330-11-00177 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# Method Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 6010B | Metals (ICP) | SW846 | TAL TAM |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL TAM |
| 350.1 | Nitrogen, Ammonia | MCAWW | TAL TAM |
| 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 TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

# Sample Summary

Client: Hillsborough County Public Utilities Dep
Project/Site: SELF MWs,SS,Private Wells,NPDES

TestAmerica Job ID: 660-45526-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 660-45526-6 | TH-75 WACS#28308 | Water | 01/05/12 10:35 | 01/05/12 14:10 |
| 660-45578-1 | TH-74 WACS# 28307 | Water | 01/06/12 10:23 | 01/06/12 14:25 |

660-45526

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jim Clapp REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 17.00 Ft.
DEPTH TO WATER: 8.07 Ft.
LENGTH OF WATER COL: 8.93 Ft.
VOLUME TO PURGE: 1.42 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.5.12 | 10:24 |
| PURGE RATE: | 0.20 GPM. | |
| | DATE | TIME |
| PURGE ENDED: | 1.5.12 | 10:35 |
| ACT. VOL. PURGED: | 2.20 GAL. | |
| Draw Down: | 8.50 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:31 | 21.72 | 298 | 5.41 | 0.94 | 23.1 = |
| AB JC | 10:33 | 21.70 | 300 | 5.41 | 0.91 | 22.5 |
| AB JC | 10:35 | 21.69 | 300 | 5.58 | 0.92 | 18.9 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.5.12 | 10:35

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES: DATE | TIME
RELINQUISHED BY: Jim Clapp REP. OF SOLID WASTE DEPT. 1.5.12 | 2:10
ACCEPTED BY: _____ REP. OF CONTRACT LAB. 1.5.12 | 2:10

COMMENT`S: WO # 0054

5.0 CU-07

660-45578

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

PRECLEANED SAMPLE CONTAINERS: DATE | TIME

RELINQUISHED BY: _____ REP. OF CONTRACT LAB. _____ | _____

ACCEPTED BY: Jai Clafa REP. OF SOLID WASTE DEPT. 12.30.11 | 10:00

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

PERSONAL ENGAGED IN SAMPLE COLLECTION ☑ A.Balloon ☑ JC ☐ _____

WELL DIAMETER: 2 INCH:
TOTAL DEPTH OF WELL: 17.00 Ft.
DEPTH TO WATER: 10.24 Ft.
LENGTH OF WATER COL: 6.76 Ft.
VOLUME TO PURGE: 1.08 Gal.

| | DATE | TIME |
|---|---|---|
| PURGE STARTED: | 1.6.12 | 10:12 |
| PURGE RATE: | 0.15 | GPM. |
| PURGE ENDED: | 1.6.12 | 10:23 |
| ACT. VOL. PURGED: | 1.65 | GAL. |
| Draw Down: | 10.74 | |

FIELD PARAMETERS:

| BY | TIME | TEMP | COND | PH | DO | TURB |
|---|---|---|---|---|---|---|
| AB JC | 10:19 | 21.97 | 478 | 5.70 | 0.80 | 28.6 |
| AB JC | 10:21 | 21.94 | 476 | 5.68 | 0.73 | 23.0 |
| AB JC | 10:23 | 21.97 | 474 | 5.64 | 0.66 | 16.8 |

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**SAMPLE CONTAINERS**

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

4 **TOTAL No. OF SAMPLES COLLECTED:**

**Colors and Sheens** _____

**COLLECTED**
**DATE | TIME**
1.6.12 | 10:23

**ANALYSIS REQUESTED:**

**AMMONIA-NITROGEN CHLORIDE SODIUM TDS Iron Arsenic**

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

ABOVE LISTED SAMPLES:
RELINQUISHED BY: Jai Clafa REP. OF SOLID WASTE DEPT. DATE 1.6.12 | TIME 2:25
ACCEPTED BY: _____ REP. OF CONTRACT LAB. DATE 1.6.12 | TIME 2:25

COMMENT`S: WO# 0054 2.2°c CU-07

# Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-45526-2

**Login Number: 45526**
**List Number: 1**
**Creator: Redding, Charles S**

**List Source: TestAmerica Tampa**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is 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 | 5.0c CU-07 |
| 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Hillsborough County Public Utilities Dep

Job Number: 660-45526-2

**Login Number: 45578**
**List Number: 1**
**Creator: Snead, Joshua**

**List Source: TestAmerica Tampa**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is 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 | 2.2c Cu07 |
| 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 sample IDs on the containers 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 | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | |