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March 24, 2017

Mr. Scott Miller
Remedial Project Manager
Superfund Remedial and Technical Services Branch
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Subject: 2016 Annual Report
OU-1 and OU-2 Agrico Site
Pensacola, Florida
EPA ID: FLD 98022 1857

Dear Mr. Miller:

AECOM on behalf of Phillips 66, successor to ConocoPhillips and Williams Companies, Inc. representing Agrico Chemical Company is submitting this 2016 Annual Report for the Agrico site in Pensacola, Florida. This report presents the results of O&M activities conducted during 2016 for the site. The sampling event and reporting as well as other activities are conducted in accordance with the U.S. Environmental Protection Agency (EPA) approved OU-1 and OU-2 Operation and Maintenance Plans (September 1996, November 1998, respectively). These plans have been modified and approved by EPA based on report recommendations and other correspondence as follows: Recommendations presented in the November 30, 2006 Evaluation of Long-Term Groundwater Monitoring Network Technical Memorandum Report and the subsequent January 22, 2007 EPA comment letter concurring with the listed recommendations. Additionally, as per your letter dated September 2, 2008, the semi-annual groundwater sampling was discontinued as of the May 2008 event. All OU-1 wells are now a part of the site-wide groundwater monitoring program. Also, EPA approved O&M recommendations (January 25, 2010) were implemented in 2010. URS also implemented in 2010 approved recommendations (February 2, 2010) related to Monitored Natural Attenuation and approved recommendations (September 20, 2010) as stated in the June 2010 Five-Year Review Report (2005-2010) and in the Third Five-Year Review Report for Agrico Chemical Company site, regarding the Bayou Texar surface water sampling.

Recommendations proposed by AECOM as part of the 2014 Annual Report were not immediately implemented due to the Florida Department of Environmental Protection (FDEP) not concurring fully with these recommendations. However, in a memorandum dated March 10, 2015, FDEP made recommendations that modified the annual scope of work for the Agrico Site starting in November 2015, these changes were subsequently approved by EPA on May 29, 2015 and implemented in November 2015. The changes include the following:

1. At a minimum, annual groundwater monitoring will continue for the following wells: ACB-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D for the existing set of parameters. Groundwater elevations shall continue to be measured in all Agrico monitoring wells prior to initiating sampling.

2. At a minimum, annual surface water monitoring should continue for the following locations: BT-02, BT-107, and BT-127 for fluoride only. A map showing the location of the surface water stations relative to the plume should be included.

3. The full plume network and surface water network should be sampled every 5 years to correspond with the Five Year Review. The next comprehensive event is scheduled for November 2019. {This represents no change to the planned scope of work.}

4. Trend Plots for each contaminant of concern shall continue to be updated for each sampling event for the wells sampled.

5. Other annual activities should continue as in previous years for the Agency Coordination Memorandum, the FDOT inquiry for intrusive activity, the Advisory Notice to Water Well Contractors/Irrigation System Installers/Pool Contractors, and a check of the Northwest Florida Water Management District construction permits for new wells within the Delineated Area.

6. Site and cap integrity inspections shall continue semiannually and after major storm events.

The following observations continue based on the 2016 sampling results:

- The former Agrico source area remains controlled.
- The boundaries of the Agrico plume remain well delineated.
- Groundwater flow direction to the east remains unchanged.
- Based on surface water sampling results, there remains no significant risk caused by the groundwater plume discharge to the surface water.

As requested, a copy of the report will be sent directly to the site document repository, the West Florida Regional Library, Genealogy Branch in Pensacola. The annual report will also be uploaded to the site web site once the report is approved and finalized.

AECOM will be uploading the electronic data for 2016 to the EPA DART system as per the guidance memorandum from EPA Region 4's Superfund Division Director, requiring that environmental sampling data be submitted to EPA in a Region 4 electronic format.

Should you have any questions or require additional information regarding this report, please contact Ms. Terry D. Vandell-Bell (Phillips 66) at (580) 767-6561 or Mr. Lee Andrews (Agrico Chemical Company Representative) at (918) 573-6912.

Sincerely,

Jeffry R. Wagner, P.G., V.P.
Principal Hydrogeologist

JRW:lc

Enclosure: 1 CD

cc: Billy Hessman– FDEP, Hazardous Waste Cleanup Section, Tallahassee
Alex Webster– FDEP, Northwest District, Pensacola
Lee Andrews – Agrico Chemical Company Representative
Terry Vandell-Bell – Phillips 66
Bill Nelson – West Florida Public Library, Genealogy Branch, Pensacola

REPORT

2016 ANNUAL REPORT

AGRICO SITE
PENSACOLA, FLORIDA
OPERABLE UNITS ONE (OU-1) AND TWO (OU-2)

EPA ID: FLD 980221857

Submitted to

US Environmental Protection Agency, Region 4
Atlanta, Georgia

Prepared for

Phillips 66
Ponca City, Oklahoma
and
Williams, Inc. on behalf of
Agrico Chemical Company
Tulsa, Oklahoma

March 24, 2017

AECOM
1625 Summit Lake Drive
Tallahassee, Florida 32317
850.402-6409
60504059

Certification By
Florida Registered Professional Geologist

In accordance with Chapter 492, Florida Statutes, the geologic aspects of this *2016 Annual Report for the Agrico Chemical Site, Operable Unit One (OU-1) and Operable Unit Two (OU-2)* located in Pensacola, Florida has been prepared by or supervised by the undersigned registered Florida Professional Geologist. AECOM through URS Corporation (URS), a wholly-owned subsidiary has prepared the geologic information presented in this Annual Report in a manner consistent with sound geologic practices and the customary level of care and skill exercised by members of the profession currently practicing in the same locality under similar circumstances.

Information developed and presented by others was used by AECOM in good faith as representative of the site conditions. The work performed by AECOM is in conformance with the current standards of practice.

Jeffry R. Wagner, P.G. V.P.
Registered Professional Geologist
Florida License No. 156

3/22/17
(Date)

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The activities being conducted for the Agrico Site in Pensacola, Florida are under the oversight of the U.S. Environmental Protection Agency (EPA), as outlined by the Consent Decrees (1994 and 1997) and the EPA Records of Decision (ROD) (1992 and 1994). The Site has been divided into two operable units (OU). The first operable unit (OU-1) addressed the cleanup of on-site source material. The second operable unit (OU-2) addresses groundwater under the Site and downgradient of the Site. In 1995, remedial actions began for OU-1. Impacted soils and all sludge materials were collected and treated by solidification/stabilization. Additional fluoride-impacted soils were excavated. These soils, as well as the treated soils and sludges, were stabilized by placing them into an engineered excavated unlined area about 20 feet (ft) above the water-table and covering them with a multi-layered cap designed to prevent rainfall infiltration from contacting the materials. By keeping the underlying soil dry, the soils remain stabilized. The OU-1 remedial actions were certified complete by EPA in April 1997. With the source area controlled, EPA addressed OU-2, the groundwater, by selecting a monitored natural attenuation (MNA) remedy. The selected remedy involves actions aimed at limiting exposure while natural attenuation processes remediate the groundwater.

After extensive sampling of many constituents during the assessment phase (1990-1993), a risk evaluation was performed. The EPA selected seven constituents of concern (COC) for initial long-term groundwater and surface water monitoring. For OU-1, these COCs included lead, arsenic, and fluoride. These were soil COCs and since the soils were stabilized on-site, monitoring of these constituents in the groundwater provided for assessing the integrity of the OU-1 remedy over time. For OU-2, these constituents include arsenic, fluoride, combined radium 226 plus radium 228, chloride, sulfate, and nitrate plus nitrite. The groundwater performance standards established by each of the RODs for OU-1 and OU-2 are as follows:

- Total Lead 0.015 milligrams per liter (mg/L)
- Total Arsenic 0.050 mg/L
- Fluoride 4.0 mg/L
- Radium 226 +228 5.0 pico Curies per liter (pCi/L)
- Chloride 250 mg/L
- Sulfate 250 mg/L
- Nitrate + nitrite 10 mg/L (analysis of nitrite indicates results at all groundwater monitoring locations are less than detection limit and a higher performance standard is appropriate; nitrite analysis discontinued as per EPA approval, January 22, 2007).

Beginning in November 2005, changes were approved for the long-term monitoring network. In 2005, an upgradient groundwater monitoring well (PIP-D) was added to the network. In 2007, the OU-1 monitoring well network was merged with the OU-2 monitoring network to form the long-term site-wide network. Initially all constituents were monitored in the OU-1 wells. In 2007, nitrite was eliminated as a constituent since it was determined that the nitrogen detected was only nitrate. Also in 2007, surficial zone monitoring wells AC-5S, AC-24S, AC-26S, NWD-2S, and NWD-4S were changed from long-term monitoring to periodic monitoring. In 2009, periodic monitoring wells, AC-9D2, AC-24D, and AC-28D were changed to annual sampling locations. In 2010, arsenic and lead were discontinued from the list of analytes for the long-term network including monitoring wells located in OU-1. As per the EPA approved

(February 5, 2010) recommendation from the *Evaluation of Monitored Natural Attenuation in Groundwater Report* (August 19, 2009), arsenic has been deleted from the list of analytes for the long-term monitoring well network except at AC-2S and AC-3S. In 2010, the surface water long-term monitoring network changes included the deletion of the upstream monitoring of Carpenter's Creek (ACSW-BL). Other changes for 2010 included three additional monitoring stations in Bayou Texar. These stations included near-bottom surface water sampling for fluoride only. For 2016, the sampling program was modified in accordance with the FDEP Memorandum dated March 10, 2015 and approved by EPA on May 29, 2015. These modifications were implemented in November 2016 and included the following:

1. At a minimum, annual groundwater monitoring will continue for the following wells: ACB-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D for the existing set of parameters. Groundwater elevations shall continue to be measured in all Agrico monitoring wells prior to initiating sampling.

2. At a minimum, annual surface water monitoring should continue for the following locations: BT-02, BT-107, and BT-127 for fluoride only. A map showing the location of the surface water stations relative to the plume should be included.

3. The full plume network and surface water network should be sampled every 5 years to correspond with the Five Year Review. The next comprehensive event is scheduled for November 2019. {This represents no change to the planned scope of work.}

4. Trend Plots for each contaminant of concern shall continue to be updated for each sampling even for the wells sampled.

5. Other annual activities should continue as in previous years for the Agency Coordination Memorandum, the FDOT inquiry for intrusive activity, the Advisory Notice to Water Well Contractors/Irrigation System Installers/Pool Contractors, and a check of the Northwest Florida Water Management District construction permits for new wells within the Delineated Area.

6. Site and cap integrity inspections shall continue semiannually and after major storm events.

The Site is currently in the long-term Operations and Maintenance (O&M) phase, with monitored natural attenuation as the selected groundwater remedy.

This 2016 Annual Report presents the results of groundwater activities conducted for the annual sampling program. The 2016 O&M tasks were as follows:

- Annual groundwater sampling for the defined COCs (fluoride, radium 226, radium 228, chloride, sulfate, and nitrate) from 10 groundwater monitoring wells. Data collected during the annual sampling events are used to evaluate the effectiveness of the monitored natural attenuation remedy for groundwater.
- Annual surface water sampling in Bayou Texar from 3 locations and analyzed only for fluoride. This sampling is to assess the surface water quality for potential effects from the groundwater discharge.

- Annual advisory notices are distributed to water well contractors, irrigation system installers, and pool contractors to inform these contractors of the area where groundwater impacts related to the Agrico plume are located. The annual advisory also informs them of the well construction moratorium in effect by the Northwest Florida Water Management District (NWFWMD).
- Review the Northwest Florida Water Management District well construction permit records to confirm that no wells have been inadvertently installed within the OU-2 moratorium area. Because of the existing well construction moratorium, the expectation is that no new wells will be permitted in this area.
- Activities related to coordination and dissemination of site information to local, regional, and state agencies.
- Site inspection reporting and site maintenance activity.

OPERABLE UNIT ONE REMEDY

The Operable Unit One (OU-1) addressed the cleanup of the source on-site. EPA approved the source remedy in the 1992 OU-1 ROD and it included excavation, solidification and stabilization for on-site soils and sludges. Following the ROD issuance, actions by Conoco were initiated to re-acquire ownership of the property so that the OU-1 remedy could be implemented.

In 1995, remedial construction activities began. Lead and arsenic-impacted soils and all sludge materials were collected and treated by solidification/stabilization using cement. Other fluoride-impacted soils were collected for consolidation. These consolidated soils and treated soils and sludges were installed in lifts and compacted in the excavation based on engineering designs and standards. The material was placed approximately 20 ft above the saturated groundwater level within the unsaturated, dry portion of the sediments underlying the Site. The source control was certified by EPA to be complete in April 1997.

OPERABLE UNIT TWO REMEDY

The remedy chosen by EPA for the impacted groundwater associated with the Agrico Site is monitored natural attenuation. The 2016 results indicate that the Agrico plume continues to be adequately defined. The 2016 sampling results compare favorably to past sampling results, which indicate that the source area remains controlled. The limited extent of the surficial zone plume is caused by the downward vertical component to the contaminant transport downgradient of OU-1. The decreasing trends in the surficial zone are a result of the OU-1 source control measures which allow for natural attenuation processes to be effective downgradient. The source area remedy remains an effective measure in eliminating migration of COCs from the OU-1 area to the groundwater.

Monitored Natural Attenuation Results

Dr. Huber concluded in his 2009 report that the data show that mechanisms for attenuation are in place throughout the OU-2 area. These mechanisms and the OU-1 source remedy are resulting in decreasing concentrations that are propagating downgradient toward Bayou Texar, as expected. For the plume area, the highest concentrations for each constituent are declining and

downgradient peaks are less than historical highs. Increases are still happening for individual wells, but the overall concentrations are still less than the historical highs. It is estimated from Huber's statistical evaluation that much of the groundwater will reach the target concentrations within two to three decades. However, the discharge area near Bayou Texar may take longer. The processes at this discharge boundary are more complex and do not follow the upgradient time line. Additionally, radium declines may lag behind the other constituents and is more dependent on increases in pH as the overall chemical conditions improve upgradient. Initial fate and transport modeling performed for the Site in the early 1990s suggested targets would not be reached for at least 70 years. About 20 years has passed since the source controls were implemented. The 50 years remaining is still reasonable and well within the targets as estimated by the statistical evaluation.

The statistical uncertainty for the Agrico data set is low. Data is consistent within each well and shows relatively little random variability. For this reason and the fact that decades are still needed to reach targets, attenuation will eventually occur everywhere within the OU-2 area but time is required for attenuation progress.

Groundwater Sampling Results

Groundwater results for November 2016 continue to compare favorably to past results.

Overall concentration trends within the surficial zone are downward. Impacts to the surficial zone are very limited. This is a direct result of effective source control and the local hydrogeologic conditions.

For the main producing zone, the overall trend in concentrations is downward. At some monitoring locations, fluoride and combine radium results for 2016 are approaching minimum concentrations for the historic record.

Slight upward or downward ticks in the trends for the COCs are to be expected over time. It is the long-term trend for each of the COC that is important.

Groundwater Levels

Results of water level measurements collected in November 2016 indicate that groundwater flow remains toward Bayou Texar for both the surficial zone and main producing zone. In 2016, groundwater flow patterns closely followed historical patterns.

Bayou Texar Sampling Results

The long-term surface water results indicate that Bayou Texar is not adversely affected by impacted groundwater from the Agrico Site discharge to the bayou. All near-bottom surface water samples collected during the sampling event of November 2016 indicated that fluoride concentrations were 1.3 mg/L or less which is below the surface water standard of 5 mg/L.

The evaluation (URS, September 4, 2009) of the primary discharge area for the Agrico plume in Bayou Texar indicates there is no significant risk to populations of demersal fish or to benthic macroinvertebrate communities that inhabit the reach due to fluoride concentrations. Furthermore, results indicate the fluoride solubility in the majority of surface sediments and in all pore waters within the primary discharge area for the Agrico plume is controlled by mineral

precipitation reactions. This reaction causes dissolved fluoride concentrations to be buffered in near surface sediment pore water and in surface water in this primary discharge reach of Bayou Texar.

NWFWMD Well Construction Moratorium

For 2016, no additional irrigation wells were identified from the Northwest Florida Water Management District (NWFWMD) well construction permit records. The well construction moratorium initiated in February 2001 is still in effect and has no termination date. Well prohibition for the defined area which includes the Agrico area is part of NWFWMD's Rule 40A-3. Although the moratorium action was taken independently and not directed by the EPA, this action provides a control to prevent new well drilling in the area (including irrigation wells) where groundwater impacts are known to exist.

Advisory Notice

The annual advisory notice was distributed to water well contractors, irrigation system installers, and pool contractors to inform them of the groundwater conditions and the existence of a well construction moratorium within the OU-2 area.

Institutional Controls Coordination

A memorandum was distributed to the local, regional, and state agencies listed below, soliciting information for any changes or proposed new regulatory rules or policies that may affect the institutional controls currently in place for the area. The agencies include:

Florida Department of Environmental Protection (FDEP), Tallahassee and Pensacola
Emerald Coast Utilities Authority (ECUA) (formerly Escambia County Utilities Authority)
Northwest Florida Water Management District (NWFWMD)
City of Pensacola
Escambia County Health Department (ECHD)
Escambia County Neighborhood and Environmental Services Department
Florida Department of Transportation (FDOT), District Three (Chipley)

FIVE-YEAR REVIEWS

Four Five-Year Reviews have been conducted by EPA for the Agrico Site. The First Five-Year Review occurred in 2000, the Second Five-Year Review occurred in 2004-2005, the Third Five-Year Review occurred in 2010 and the Fourth Five-Year Review occurred in 2015. Each review concluded that the remedy at the Site is functioning as intended by the RODs for OU-1 and OU-2, and remains protective of human health and the environment. The O&M activities were to be continued and conducted as approved. The next Five-Year sampling event will occur in 2019 and will be reported in EPA's 2020 Review Report.

BUTTERFLY HABITAT

In 2015, a butterfly habitat was installed on portions of the site. This creation supports the federal initiative to support the health of pollinators. The site's planting with pollinator-friendly vegetation illustrates how Superfund sites can support a range of ecological opportunities including pollinator habitat. The flower beds that are part of the habitat have become part of the monthly maintenance that is completed for the site. This initiative continued for 2016.

RECOMMENDATIONS

- Groundwater and surface water sampling continue for 2017 as stated in the March 10, 2015 FDEP Memorandum.
- Operations and maintenance including mowing related to OU-1 to continue in accordance with the OU-1 O&M Plan as amended November 18, 2009 and approved by EPA on January 25, 2010. This also includes maintenance of butterfly habitat.
- The advisory notice to contractors and the query of the NWFWMD well construction permit database will continue on an annual basis as a means of controlling new well drilling in the area (including irrigation wells), since the ROD requires another approximately 50 years of MNA for cleanup for the Agrico plume. Additionally, there are contributing sites in the area that have also adversely impacted groundwater quality.
- The Agency Coordination Memo and the FDOT inquiry for intrusive activity will continue on an annual basis.

AECOM through URS Corporation (URS), a wholly owned subsidiary, has prepared this 2016 Annual Report on behalf of Phillips 66 Company and Agrico Chemical Company represented by Williams Companies, Inc. (Williams). This annual report was prepared in accordance with the following:

- United States Environmental Protection Agency (EPA) Consent Decree (CD) dated May 4, 1994 and the March 10, 1997 amended Consent Decree for the Agrico Site (Agrico);
- The Record of Decision (ROD) for Operable Unit One (OU-1) issued on September 29, 1992;
- The Operation and Maintenance (O&M) Plan for OU-1 dated September 1996 including Appendix I – Groundwater Monitoring Plan by Woodward-Clyde Consultants (currently, URS);
- The ROD for Operable Unit Two (OU-2) issued August 25, 1994;
- The SOW which outlines the work to be performed as the remedy for OU-2;
- The EPA-approved (April 26, 1999) Remedial Action Work Plan and related plans;
- The O&M Plan dated November 1998.
- The Evaluation of Long-Term Groundwater Monitoring Network – Section 12 - Recommendations, Technical Memorandum Report dated November 30, 2006 and subsequent EPA approval of recommendations in EPA comment letter dated January 22, 2007.
- The EPA approval dated September 2, 2008 to discontinue OU-1 semi-annual sampling and to perform annual sampling. The last OU-1 semi-annual sampling event was conducted in May 2008.
- Minor O&M recommendations dated November 18, 2009 were approved by EPA on January 25, 2010.
- Recommendations in the report, *Evaluation of Monitored Natural Attenuation in Groundwater (August 19, 2009- William Huber))* and approved by EPA on February 5, 2010.
- EPA's Third Five-Year Review (June 2010) recommendations related to surface water sampling locations for Bayou Texar.
- Recommendations in the second report, *Evaluation of Monitored Natural Attenuation in Groundwater (October 23, 2013-William Huber).*
- As part of the 2014 Annual Report recommendations, AECOM recommended changes to the sampling and reporting program. FDEP rejected the recommendations and followed up with a March 10, 2015 Memorandum outlining a modified annual sampling program. On May 29, 2015 EPA approved FDEP's modified sampling program.

This is the seventeenth comprehensive annual report since the initial one in 1999. The report documents both OU-1 and OU-2 activities performed at the Site for 2016. The annual report was preceded by OU-1 semi-annual sampling results reported annually from 1997-1999. These OU-1 annual reports continued through 2005. The annual report for OU-2 was submitted separately from the OU-1 report from 1999 through 2005. One of the recommendations of the evaluation

of the long-term monitoring network (URS, November 30, 2006) was to combine these networks. Beginning with the 2007 Annual Report, the groundwater requirements were integrated so that OU-1 (on-site) and OU-2 (off-site) groundwater impacts could be readily evaluated. Since November 2007, groundwater from the OU-1 monitoring wells has been analyzed for the same constituents of concern as the OU-2 monitoring wells, as per EPA's request.

EPA approved (September 2, 2008) the integration of the groundwater monitoring requirements for OU-1 and OU-2 so that the monitoring satisfies the original OU-2 monitoring objective - monitoring of the surficial zone and main producing zone, on-site and off-site - downgradient of the Site for the purpose of evaluating the monitored natural attenuation remedy. The original monitoring objective for OU-1 was to only evaluate the effectiveness of the RCRA cap remedy. The effectiveness was demonstrated by a statistical evaluation that confirmed the integrity of the containment system with data collected from 1997 to 2001. Additionally, it has been further confirmed by data collected since 2001, a total of 15 years.

Summary of Sampling Modifications Initiated in November 2007

- Semi-annual sampling of OU-1 groundwater monitoring wells was discontinued and changed to annual sampling as part of the November sampling event. The OU-1 surficial zone monitoring wells, ACB-31S, ACB-32S, AC-33S, AC-34S, and AC-7SR, were integrated into a site-wide groundwater monitoring network. The analyte list for these wells was changed to include the OU-2 analyte list. In addition to total lead, total arsenic and fluoride (COCs in the OU-1 ROD), the groundwater samples from these wells were analyzed for chloride, sulfate, nitrate, radium 226, and radium 228(COCs in the OU-2 ROD).
- Nitrite has been deleted from the Site's analyte list as modified by implementation of EPA-approved long-term monitoring evaluation recommendations (URS, 2006d).
- Surficial zone monitoring wells AC-5S, AC-24S, AC-26S, NWD-2S, and NWD-4S were changed from long-term to periodic monitoring wells. Additionally, monitoring well NWD-3S was removed from the monitoring network because it was destroyed as a result of off-site construction.
- The groundwater sampling purging procedure was changed from extracting a minimum of three well volumes to a low-flow purge procedure that allows for collecting water quality field parameters after one well volume is purged, and then one-quarter well volume thereafter until three stable water quality parameter readings are collected. This procedure is in accordance with the FDEP SOP for sampling monitoring wells.
- Prior to November 2006, annual reports were prepared for OU-1 and OU-2. Annual reporting for these areas has been combined into one annual report.

Summary of Sampling Modifications Initiated in November 2009

- Additional groundwater sampling was requested by EPA in their comment letter dated October 15, 2009 regarding the Evaluation of Monitored Natural Attenuation in Groundwater Report. The additional wells included periodic monitoring wells AC-9D2, AC-24D, and AC-28D. Constituents to be analyzed from the groundwater from these monitoring wells are the

same as the long-term network constituents. The status of these wells was changed from periodic to long-term until sufficient sampling results have been collected on an annual basis.

Summary of Sampling Modifications Initiated in November 2010

- Analysis of lead and arsenic were discontinued from the long-term network groundwater analyses for monitoring wells based on the EPA approval (February 5, 2010) of recommendations in the August 19, 2009, "*Evaluation of Monitored Natural Attenuation in Groundwater*". In that report, the absence of arsenic and lead in groundwater samples collected from the monitoring well network was reported. The exception is for AC-2S and AC-3S. Total arsenic will continue to be analyzed for these two wells to verify the continued effectiveness of the OU-1 cap.
- Sampling of Carpenter's Creek at the Ninth Avenue Bridge (ACSW-BL) was discontinued as per January 25, 2010 approval of the November 18, 2009 Recommendations to Operations and Maintenance Plans for OU-1 and OU-2.
- Three surface water sampling locations were added to the sampling program and include BT-02, BT-107 and BT-127. These near-bottom surface water samples are analyzed for fluoride only (EPA recommendation in June 2010, Third Five-Year Review Report).

Summary of Sampling Modifications Initiated in November 2016

Based on FDEP Memorandum dated March 10, 2015 and the subsequent EPA approval dated May 29, 2015:

- Only the following monitoring wells will be sampled annually for the same constituents as have been analyzed historically. AC-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D.
- Water levels from all Agrico monitoring wells will be measured annually prior to initiating sampling.
- Surface water monitoring will include the following locations: BT-02, BT-107 and BT-127. Only fluoride will be analyzed from each sample collected.
- Trend plots for the above groundwater monitoring wells will be included in each annual report for all constituents.
- The annual Advisory Notice, the Annual Agency Coordination Memo, the Florida Department of Transportation (FDOT) annual inquiry regarding intrusive activity, and the annual checking of the Northwest Florida Water Management District records for newly constructed wells within the designated well construction moratorium area will continue as previously documented in the Site O&M Plans.
- Site and cap integrity inspections will continue twice a year and after major storm events.
- The full Agrico groundwater monitoring network and surface water network will be sampled every 5 years as part of EPA's Five Year Review.

1.1 FIVE-YEAR REVIEWS

The EPA has conducted four Five-Year Reviews for the Agrico Site. The results of these reviews were presented in the February 2000, July 2005, June 2010, and June 2015 EPA reports. Each of the four reviews concluded that (1) all areas were in compliance and (2) the remedy at the Site is functioning as intended by the RODs for OU-1 and OU-2, and remains protective of human health and the environment. The next EPA Five-Year Review will be in 2020.

2.1 SITE DESCRIPTION

The Agrico Site is located at 118 East Fairfield Drive, which is at the northwest corner of Fairfield Drive and Interstate I-110 in Pensacola, Escambia County, Florida. The Site consists of 29.84 acres in Township 2 South, Range 30 West of Section 5 and the latitude and longitude at the center of this area is 302709.8914 degrees west and 871318.9648 degrees north, respectively. The Site is bordered by I-110 to the east, Fairfield Drive to the south, CSX railroad to the west, and a construction aggregate business (Vulcan Materials/Conrad Yelvington Distribution) to the north. An approximately 100-foot wide Gulf Power Company easement and overhead electrical lines are near the eastern boundary of the Site. Site access is from the north side of Fairfield Drive, approximately 600 feet (ft) west of the I-110 overpass. Uncle Bob's Self Storage operates storage warehouses on an Agrico Site out-parcel in the south-central area. The Site location is illustrated on **Figure 1**.

2.2 SITE ACCESS AND DEED RESTRICTIONS

Access to the Agrico Site is restricted. The property is secured by a perimeter chain link security fence with locked gates, and the Site is regularly inspected. Restrictive and Site informational signs are posted advising the public of the on-site conditions, and an AECOM contact phone number is also posted for inquiries. Posted signs are present at the entry gates of the fenced OU-1 property. The wording on the signs is as follows:

Authorized Personnel Only

Please Do Not Disturb Soil Cover

Impacted Waste Material May Be Present Below the Ground Surface

For Information Call 850-251-7208

A Restrictive Covenant (**Appendix C**) for the Site was filed against the property deed with the Escambia County Clerk of the Circuit Court and is dated July 11, 1997. The Restrictive Covenant states in summary that construction or related activities that would interfere with maintaining the Site remedial measures are prohibited by the legal deed restrictions. Any use of the property contrary to the Record of Decision is prohibited, as per the covenant filed for the property.

2.3 DOCUMENT REPOSITORY

EPA maintains Site information at the West Florida Regional Library, Genealogy Branch. This repository contains project documents, fact sheets, and reference material. EPA encourages the public to review these documents to gain a more thorough understanding of the Site. The address of the library is as follows:

West Florida Regional Library, Genealogy Branch
5740 N. 9th Ave
Pensacola, Florida 32505
850-494-7373

Through 2011, the West Florida Regional Library on West Gregory Street was the repository for the Agrico documents. Since 2011 and currently, these documents are found at the Genealogy Branch on North 9th Avenue.

EPA also has Site information located at the following web site:

www.epa.gov/region4/superfund/sites/npl/florida/agricchemfl.html.

A specific web site was developed for the Agrico Pensacola Site and is located at: *www.agricopensacola.com*

This web site contains general information about the Agrico Site, contains the Site fact sheets, and provides contact information for EPA. The web site has been modified and a documents page has been added. Electronic files for several reports are uploaded to this page. The reports that are now accessible via this web site include: Evaluation of Monitored Natural Attenuation in Groundwater (URS, 2009), The Third Five-Year Review Report (E2 Inc., 2010), 2011 Annual Report (URS, 2012), 2012 Annual Report (URS 2013), Evaluation of Monitored Natural Attenuation in Groundwater (Report #2), (URS, October 2013), 2013 Annual Report (URS 2014), 2014 Annual Report (URS 2015), the Fourth Five-Year Review Report for Agrico Chemical Company (EPA, June 2015) and the 2015 Annual Report (AECOM 2016).

2.4 SITE HISTORY

The former facility at the Agrico Site was a superphosphate process facility as opposed to a continuous wet-process phosphoric acid facility that became dominant with phosphoric fertilizer industry starting in the 1960s and 1970s and continued during the modern era. According to the U.S. Department of Agriculture and Tennessee Valley Authority document titled *Superphosphate: Its History, Chemistry, and Manufacturing* (December 1964), the Irish firm known as W. & H. M. Goulding, Ltd. of Dublin, Ireland opened the Goulding Fertilizer Company, Pensacola, Florida factory in 1891 at the current Agrico Site location. The Goulding Fertilizer Company plant had an annual fertilizer production capacity of 45,000 tons. A sulfuric acid manufacturing plant co-existed on the Site. The source of sulfur was pyrite ore. The source of the phosphate for manufacturing the fertilizer was Central Florida mines and was transported to the facility via rail. The Pensacola plant started operations by manufacturing normal superphosphate, and then operated as a concentrated superphosphate plant (the second of its kind in the United States at the time) from 1898 to 1901. Operations by the Goulding Fertilizer Company continued until 1911, when the factory was sold to an American interest, The American Agricultural Chemical Company (TAACC).

TAACC manufactured normal superphosphate and also continued the manufacturing of sulfuric acid using pyrite ore until 1920, when the source of sulfur dioxide was changed to elemental sulfur. TAACC operated the plant through 1963, when Continental Oil Company (Continental) purchased the assets of TAACC (U.S. Department of Agriculture, 1964).

After the acquisition of TAACC, Continental operated the agrichemical business as the Agrico Chemical Company, a wholly owned subsidiary of Continental. During the time period from 1963 to 1972, the same manufacturing process was used as during the TAACC period (U.S. Department of Agriculture, 1964). From 1967 to 1968, in addition to producing virgin acid from sulfur, the plant purchased and utilized an unknown volume of spent sulfuric acid (Geraghty & Miller, 1993a and 1993b). Continental Oil Company operated the plant until 1972.

In April 1972, The Williams Companies, Inc. (Williams) (Tulsa, Oklahoma) purchased the assets associated with Agrico Chemical Company from Continental Oil's Agrico Chemical Division. Under Williams, Agrico Chemical Company operated as a newly formed Delaware corporation and subsidiary of Williams. At this time, Agrico Chemical Company was one of the country's largest chemical fertilizer companies. In 1972, the Pensacola plant began manufacturing monoammonium phosphate in addition to superphosphate, and continued this manufacturing from 1972 to 1975. Normal superphosphate was combined with ammonia to produce monoammonium phosphate. The ammonification process produced nitrate. The macronutrient potassium was blended into the ammoniated phosphate product in various blends. The potassium source was potash, mostly potassium chloride, stored on-site, inside the plant, on concrete floors. In later years, two micronutrients, zinc and magnesium, were added to the ammoniated phosphate product blends at the plant. According to the plant manager and Agrico corporate purchasing agent, the macronutrient and micronutrient sources were purchased as pure products and not as by-products. The peak season for production at the Pensacola plant was March through June. Agrico Chemical Company operated the plant continuously until June 1975, when the plant was shut down (Geraghty & Miller 1993a and 1993b). Subsequently, the Agrico Chemical Company assets were sold to Freeport-McMoRan Resources Partners (Freeport McMoRan) in 1987.

The former plant property was sold to Margod, a Florida partnership, and F.A. Baird, Jr. in August 1977. The former plant buildings and process equipment were demolished in late 1979. After demolition, only the concrete foundations remained in place. A storage warehouse was constructed on the southern portion of the property adjacent to Fairfield Drive between 1979 and 1981, with additional warehouse construction taking place between 1981 and 1986. The Site property (except for the storage warehouse outparcel) was sold to Conoco, Inc. in 1995. The warehouse area is considered an out parcel of the original property. The majority of the remaining Site debris and concrete foundations was later consolidated and placed with the waste material under the RCRA cap during the OU-1 Remedial Action (RA) activities beginning in 1995. There are no permanent buildings from the original operations remaining on the Site. One foundation from an original Site building remains in the southwest portion of the property.

EPA conducted a hazardous waste site investigation at the facility in October 1983. The results of the study indicated that the on-site soils and on-site surface water impoundment were impacted with elevated levels of fluoride and lead. Groundwater was not sampled during that investigation. However, an effort was made to locate private shallow wells in the vicinity of the Site, and none were located.

The Florida Department of Environmental Regulation (FDER) (now Florida Department of Environmental Protection) (FDEP) conducted a groundwater assessment at the Site in January 1987 (Watts, et.al., July 1988) followed by a supplementary assessment in January and February 1989 (Watts, et.al., August 1989). The study concluded that the Site contaminants, primarily fluoride and sulfate, had impacted the area groundwater. While conducting the assessment for the former Agrico Site, FDER discovered contamination from the former Escambia Treating Company Site that had comingled with a portion of the Agrico plume.

EPA listed the Site on the National Priorities List (NPL) on October 4, 1989. Conoco, Inc. and Freeport McMoRan (parents of the Agrico Chemical Company) entered into an Administrative Order on Consent (AOC) on September 29, 1989. According to the terms of the AOC, the companies agreed to conduct source (soils) and groundwater investigations at the Site. The Site

was remediated starting in 1995, and remediation of impacted soils and sludges was certified complete by EPA in April 1997. Currently, Williams (on behalf of Agrico Chemical Company) and Phillips 66 are responsible for implementing the activities associated with the O&M Plans for OU-1 and OU-2.

In mid-2012, ConocoPhillips separated into two standalone companies. The environmental remediation activities conducted at the Agrico Site in the past by ConocoPhillips is now managed by Phillips 66.

2.5 OPERABLE UNIT ONE REMEDY

The first operable unit (OU-1) addressed the cleanup of the source on-site. **Figure 2** shows a recent aerial photograph of the Site and the current features associated with OU-1. A Record of Decision (ROD) for OU-1 issued by EPA Region 4 on September 29, 1992 selected the remedy to be implemented for on-site soils and sludges. The selected remedy was based on a Site remedial investigation and feasibility study, including a human health and environmental risk assessment, and soil and groundwater characteristics for the Site. Following the ROD issuance, actions by Conoco were initiated to re-acquire ownership of the property so that the remedy could be implemented.

In 1995, remedial construction activities began. Lead and arsenic-impacted soils and all sludge materials were collected and treated by solidification/stabilization using cement. Other fluoride-impacted soils were collected for consolidation. These consolidated soils and treated soils and sludges were installed in lifts and compacted in the excavation based on engineering designs and standards. The material was placed approximately 20 ft above the saturated groundwater level within the unsaturated, dry portion of the sediments underlying the Site. The source control was certified by EPA to be complete in April 1997.

On the surface, the material was covered with a 4-ft thick multi-layered engineered cap designed to prevent rainfall from contacting the underlying stabilized soils. The cap covers an area of 12 acres. The impervious nature of the cap causes storm water runoff volumes to be significantly greater than the volume generated before the construction of the remedy. For this reason, an elaborate system of piping and runoff collection devices was installed at the Site. The storm water collection system significantly minimizes runoff from flowing off the Site. Runoff generated on-site is collected and contained on-site by returning runoff to one of two storm water management impoundments constructed as part of the OU-1 remedial action. Because the north storm water impoundment is located upgradient from the stabilized soils, EPA required that a slurry wall be constructed between the north storm water impoundment and the stabilized containment area. The purpose of the slurry wall is to prevent infiltrating storm water from contacting the stabilized materials that are contained within the unsaturated subsurface containment area. A continuous limonite lense (a thin iron precipitation concretion) underlies the north storm water pond. This dense lense causes standing water for extended periods of time within this pond. Whereas, the south drainage pond is not underlain by the limonite layer and stormwater readily infiltrates into the subsurface beneath this pond so that the south pond is dry most of the time.

The following actions were performed as part of the OU-1 remedial action completed in April 1997:

- Excavated and solidified approximately 45,000 cubic yards of arsenic- and lead-impacted soil and contaminated sludge and soils from Site sludge ponds.
- Consolidated approximately 110,000 cubic yards of fluoride-impacted soils.
- Within excavation areas, rubble from building foundations and consolidated soils were placed in a layered fashion, with the uppermost portion of the excavation filled with solidified/stabilized soils and sludges.
- An engineered 4-ft thick, seven-layer cap, consisting in part of impervious fabric, High Density Polyethylene (HDPE) liner, and geotextile materials, was constructed over the stabilized soils within the containment area.
- Constructed a 700-ft long, 2-ft thick slurry wall upgradient of the containment area to prevent infiltrating storm water from contacting consolidated/stabilized soils.
- Installed a drainage collection system so that storm water generated on-site is contained on-Site in one of two storm water impoundments, preventing off-site runoff.
- Deed restrictions were attached to the property controlling future uses of the property, assuring protection of the containment structure.
- Security fencing with locked gates was installed to restrict unauthorized access to the property.
- Five monitoring wells were constructed to serve as long-term groundwater sampling locations to evaluate the effectiveness of the implemented OU-1 remedial action. These five monitoring wells were monitored to demonstrate the effectiveness through 2007. After 2007, the wells were integrated and combined with the OU-2 wells to form a site-wide groundwater monitoring network. The purpose of this site-wide network is to demonstrate the effectiveness of the monitored natural attenuation remedy for groundwater.

2.5.1 Operation and Maintenance

Regular activities are conducted for the Site in accordance with the EPA-approved Operations & Maintenance (O&M) Plan for OU-1 (September 20, 1996).

Elements of the O&M for OU-1 are as follows:

- General facility inspection and regular lawn care service for the Site. The grass is cut on at least a monthly basis between October and April and on at least a biweekly basis between May and September.
- Visual inspections of the drain inlet and outlet system are conducted after storm events with maintenance initiated, as required.
- Inspections of the Site are conducted following major storm events.

The inspection reports for 2016 are presented in **Appendix D**.

2.6 OPERABLE UNIT TWO REMEDY

The ROD for OU-2 was issued by EPA Region 4 on August 25, 1994. The OU-2 ROD presents EPA's selected remedial action for treatment of groundwater. The following discussion is based on the August 1994 ROD and includes the rationale for the selected OU-2 remedy. The OU-2 area is shown on **Figure 3** and was delineated to correspond to the previously completed irrigation well survey area. This area encompasses a larger area than the defined groundwater impact area. The OU-2 area is roughly bound by Palafox Street to the west, E. Cross Street to the south, Fairfield Drive to the north and Bayou Texar to the east.

The EPA selected remedy of monitored natural attenuation meets all EPA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) criteria. The remedy is protective of human health and the environment and complies with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action. This remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable. The reduction of toxicity, mobility, and volume of the Site groundwater contamination has been controlled through source control (OU-1) and monitored natural attenuation (OU-2).

EPA views the monitored natural attenuation remedy as being at least more protective of human health and the environment than the pump-and-treat technology alternatives that were previously considered for this Site. This remedy avoids potentially adverse impacts associated with the groundwater extraction and treatment alternatives.

2.7 ANNUAL O&M TASKS FOR OPERABLE UNITS ONE AND TWO

The field activities associated with this 2016 Annual Report included the following O&M tasks:

- Annually in November groundwater sampling of 10 long-term groundwater monitoring wells (for both OU-1 and OU-2)
- Annual surface water sampling at three surface water sampling locations within the primary groundwater discharge reach of Bayou Texar
- Annual advisory notices distributed to water well contractors, irrigation system installers, and pool contractors. This list of contractors was compiled from the NWFWMD list of licensed water well contractors, from Escambia County construction permit records, and from the telephone directory.
- Coordination and dissemination of site information to local, regional, and state agencies.
- Annual Florida Department of Transportation inquiry of construction activities scheduled for Fairfield Drive between the CSX overpass and the I-110 interchange.
- Annual review of NWFWMD well construction permits records to identify any potential new well construction downgradient of the Agrico Site. Also annual inquiry on status of NWFWMD well construction moratorium in the vicinity of the ETC and Agrico sites.
- Regular maintenance of property associated with the former Agrico Chemical Company (OU-1).

2.8 ANNUAL O&M TASKS FOR DEVELOPMENT OF POLLINATOR HABITAT

In June 2014, President Obama issued a memorandum establishing a Pollinator Health Task Force, co-chaired by USDA and EPA, to create a National Pollinator Health Strategy that promotes the health of honey bees, butterflies, and other pollinators. Early in 2015, EPA approached AECOM regarding the possibilities of the Agrico Site being used to enhance butterfly habitat. The PRPs approved participation in this initiative and in August 2015 approximately 9 areas of the site were converted to flowering plant beds. The goal is to establish a plant habitat that will attract butterflies to provide a safe area for feeding and support of the butterfly's life cycle.

- Flowering plant beds first initiated in August 2015
- Continue cultivating plant beds to get established flowering plants
- Continue to plant flowering species to diversify flowering periods and increase the density of plants
- Regular watering and weeding on-going maintenance tasks.

2.9 OTHER CONTAMINATION SOURCES IN THE VICINITY OF THE AGRICO SITE

Past sampling results conducted by ECUA for supply wells south of the Agrico area have indicated impacts to ECUA supply wells, which initiated an assessment by FDEP in the late 1990s. This assessment identified two areas, collectively referred to as Site 348. Both areas are located less than 0.5 miles south of the Agrico Site. One is the former fertilizer manufacturing operations known as Kaiser Fertilizer plant. The second is known as the former Southern Cotton Oil Company. This site was a fertilizer mixing and storage facility.

Reportedly, the sources which may have contributed to impacted groundwater affecting the F & Scott Streets Well, the East Plant Well, Well No. 6, Well No. 8, and Well No. 9 are still under investigation by FDEP. Three of these ECUA wells have been shut down and pumping discontinued (East Plant, Well No. 8, and Well No. 9) due to groundwater impacts. The COCs identified by FDEP at Site 348 are similar to the Agrico COCs, including radium 228 and ammonia. The Agrico plume was not implicated as a source or a factor in the impacts to these wells (Mactec, 2010). Additionally, the former Agrico plant was not associated with the either operations identified by FDEP that are related to Site 348.

No pumping effects are occurring within the current Agrico plume boundary that will cause the plume to move outside the natural groundwater flow path. This is verified by the past 16 years of water level measurements and potentiometric surfaces that show the natural groundwater flow direction remains consistently to the east, toward Bayou Texar. Consistency of groundwater flow patterns is also demonstrated by the individual water level trend data). The discontinued municipal pumping in the downtown area due to impacts from non-Agrico sources, also significantly decreases the potential of the Agrico plume to migrate from its current plume boundary. These conditions and other groundwater flow conditions negate the potential for future Agrico plume migration that could affect any public water supply well.

Water level measurements collected during the past 16 years indicate that the remaining irrigation pumpage occurring within the OU-2 area is not significantly affecting the direction of

groundwater flow. The primary groundwater flow controls are natural, including Bayou Texar, which functions as the eastern discharge boundary for the Agrico plume.

3.1 HYDROGEOLOGIC FRAMEWORK OF THE SAND-AND-GRAVEL AQUIFER

The vertical profile of the Sand-and-Gravel aquifer consists of beds of sand and gravel interbedded with beds of silt, clay, and fine sand sediments (**Figure 4**). The permeability of these beds is variable, both laterally and vertically. However, the subsurface sequence can be divided into three distinct zones. These zones vary greatly in thickness and lithology throughout Escambia County. In addition, individual beds of sand or clay within these zones are highly discontinuous, resulting in considerable heterogeneity within the zones. The major zones are the surficial zone, the low-permeability zone, and the main producing zone (Roaza, et al., 1991).

3.1.1 Surficial Zone

The surficial zone consists of the uppermost layer of sediments. It contains the unsaturated zone and the shallow surficial water table. The surficial zone varies in thickness, but is generally less than 100 ft thick beneath the OU-2 monitoring area. The surficial zone consists primarily of quartz sand ranging in size from fine sand to gravel. Thin beds of limonite-cemented sandstone also occur. The zone contains thin beds of clay and silt that are highly discontinuous. These low-permeability beds occur both in the unsaturated and the saturated portions of the zone. Groundwater within the surficial zone primarily moves downward through the underlying lower-permeability zone to the main producing zone of the aquifer.

3.1.2 Low-Permeability Zone

The low-permeability zone underlies the surficial zone and is composed of sediments with overall lower permeability characteristics than sediments above or below the zone. This zone forms a semi-confining layer and acts to restrict the vertical flow of groundwater between the overlying surficial zone and the underlying main producing zone. The actual lithology of this zone is variable, ranging from poorly sorted sand and silt to sandy clay to clay beds. Locally, well-sorted, water-bearing sands can also occur within this zone. Poor sorting and a higher percentage of clays and silts distinguish this zone from the other zones. The thickness of this zone in the subsurface underlying the facility ranges from about 20 to 50 ft (Roaza, et al., 1993).

The thickness and lithology of this zone is important because of its effect on vertical permeability. The low vertical permeability of this zone maintains the hydraulic head difference between the surficial and main producing zones in certain areas. This head difference imparts the vertical gradient responsible for the transport of dissolved constituents downward from the surficial zone to the main producing zone beneath the OU-1 Site (see **Figures 5 and 6**).

3.1.3 Main Producing Zone

The main producing zone is the most productive portion of the Sand-and-Gravel aquifer and is the zone tapped by most water supply wells. The main producing zone is the deepest portion of the aquifer. The groundwater within this zone exists under semi-confined conditions. The main producing zone consists of moderate to well-sorted sand and gravel, along with minor interbedded layers of sandy clay and clay. Locally and regionally, variations occur in the lithology of the main producing zone. Changes with depth tend to be gradual and include varying grain size distribution and changes in the degree of sorting.

The clay beds interbedded within this zone generally constitute 10 to 40 percent of the thickness. In some areas, the productive intervals can be correlated and appear to be continuous over a distance of many miles. The saturated thickness of the main producing zone near the Site is approximately 100 ft.

The main producing zone is recharged by leakage through the low-permeability zone. The actual amount of recharge is determined by the hydraulic head difference between the surficial zone and the main producing zone, the vertical permeability of the low-permeability zone, and the presence of any pumping wells. Groundwater from this zone discharges into Bayou Texar from east and west directions, which represents a discharge boundary for groundwater in OU-2.

3.2 HYDRAULIC HEAD DIFFERENCES AND GROUNDWATER FLOW BOUNDARIES

Within the former Site boundary (OU-1), the hydraulic head for the surficial zone is slightly higher than the hydraulic head in the main producing zone, which causes the surficial zone to infiltrate and recharge the main producing zone. This causes the plume emanating from the Site to be transported and diverted to the main producing zone within about 0.4 mile of the Site. For this reason, the surficial zone plume has limited areal extent; and with source control and ongoing source depletion, significant trends toward decreasing concentrations within the plume have occurred in the surficial zone. Near the bayou, the main producing zone hydraulic head is slightly higher than the surficial zone, causing the main producing zone to discharge into the bayou (see **Figures 4, 5, and 6**). The bayou is a discharge boundary; therefore, groundwater from the west and east directions of Bayou Texar discharge into the bayou. This creates a boundary condition for the groundwater flow and plume transport. The Agrico plume discharges from the west into Bayou Texar along with the westerly groundwater flow component. Groundwater from the east (at least as far away as the Pensacola Airport) also discharges to the bayou. **Figure 4** shows the hydrogeologic conceptual model from the Agrico Site to Bayou Texar.

Within OU-2, groundwater generally flows laterally and vertically (both upward near the discharge boundary and downward in recharge areas) within the Sand-and-Gravel aquifer. The overall direction of groundwater flow is easterly toward Bayou Texar. Head variations between zones are important in controlling the vertical direction of groundwater flow. **Figures 5** and **6** show the potentiometric surfaces on November 8, 2016 for the surficial zone and main producing zone, respectively. These surfaces are similar to those measured historically.

The flow direction downgradient of the Agrico Site is primarily controlled by the Bayou Texar discharge boundary conditions. Near the bayou, vertical head differences between aquifer zones cause groundwater to flow vertically from the main producing zone upwards, and groundwater discharges to the bayou. There is evidence that the bayou is a discharge boundary for both the surficial and main producing zones of the aquifer, and that groundwater does not pass under the bayou as underflow. Water levels within both zones to the north, east, and west of Bayou Texar indicate a groundwater flow direction toward the bayou boundary.

3.3 RAINFALL CONDITIONS

Rainfall records collected at the Pensacola Airport indicate that 2016 was characterized by about +2.61 inches above average normal rainfall (annual average is about 62.01 inches based on 1900-

2016 period of rainfall record), with a total accumulation of 64.62 inches during 2016. This was about 11 inches less annual rainfall than occurred in 2015. For the past several years, extremes in rainfall were observed. There was abundant rainfall in 2005 followed by a drought in 2006. During 2006, the total rainfall was 45.26 inches, or 16.27 inches below normal. The hurricanes during 2005 produced a very wet year, with an annual total of 87.32 inches, or 25.79 inches above normal.

A significant storm event occurred in April 2014. Between April 29 and April 30, 2014, the Pensacola area received rainfall totals ranging from 16 to 24 inches. Widespread flooding occurred in many parts of the county and within the vicinity of the Site. The rain ended about 6:30 am on April 30, 2014. The Site was inspected at 14:15 pm on April 30, 2014. The south drainage pond had topped the pond banks. Flood water was contained north of the Fairfield Drive railroad overpass and the railroad right-of-way. Flooding extended along the southern annex road to just east of the storage warehouse property where the stormwater pond on this out parcel also topped the pond's banks. The north pond was full and topping banks but flooding contained on Site. An inspection of the cap area indicated that the cap was intact and no damage occurred.

During 2016, rainfall was above normal for the year but total rainfall was significantly less than 2014 and 2015. **Figure 7** presents the annual rainfall data for the period of record from the NOAA Pensacola station. Also included on **Figure 7** is a graph showing the cumulative departure from normal rainfall. This graph, in general, mimics groundwater level trends. For 2003-2005, the cumulative departure from normal data indicates that groundwater levels were on the rise, reaching a high in 2005. Since 2005, the annual accumulation has been less so the departure from normal has declined but the overall rainfall for the past 5 years has been above normal. The pattern for the past five years is reflective more of a wet cycle than a dry trend.

An annual advisory notice (**Appendix C**) is sent to contractors conducting work in southern Escambia County. The advisory notice is sent to water well contractors, irrigation system installers, and pool contractors, informing them of groundwater conditions in the vicinity of the Agrico Site. The contractor listing is updated annually from yellow pages listing, well contractor licenses listing, and returned "not deliverable – no forwarding address" notices. For the purposes of the advisory notice, the area identified is approximately bounded on the north by Fairfield Drive, on the west side by Palafox Street, on the south side by Bobe Street, and on the east side by Bayou Texar. The notice states that the construction of wells in this area, including lawn irrigation wells, may be restricted due to the occurrence of impacted groundwater. The contractors were advised to contact the NWFWMD, the Northwest District of FDEP, or the Escambia County Health Department for further information. The annual advisory notice was distributed in January 2017 to the contractors listed in **Table 6**. **Table 6** was revised to reflect new contractors and changes in information since last year.

Currently, institutional controls are in place that provides protection to the public drinking water supply. As part of the OU-2 remedy, periodic checking is performed to determine the status of institutional controls established by local, regional, and state agencies. In order to verify that controls remain in place, annual letters are sent to the various agencies requesting information on any changes or proposed changes. Since these agencies also receive reports regarding groundwater conditions, the purpose of the communications are: 1) to address any questions the agencies have concerning groundwater conditions and 2) to receive a status report from the agencies concerning the existing regulations, planned rule changes, or new regulations which control groundwater use in the Agrico OU-2 area.

Institutional controls include the following:

1. Well construction and consumptive use approval (NWFWMD)

   On February 22, 2001, the NWFWMD Board passed a moratorium on drilling new wells, including irrigation wells, in the Agrico and Escambia Treating Company areas. The moratorium remained in effect during 2016 and is expected to continue into the future since there is no expiration date for the moratorium.

   The moratorium affects the west side of the bayou only because the Agrico plume does not extend across the bayou due to hydrogeologic boundary flow conditions (the bayou receives groundwater recharge from groundwater flows from both the east and west). Thus, the bayou serves as a flow boundary to the Agrico plume and prevents any flow farther east.

   This moratorium is governed by the NWFWMD Rule 40A-3 which is incorporated into the rule as 40A-3.055 Prohibitions:

   (1) The construction of certain, specified types of water wells shall be prohibited in the following areas:

   (a) Escambia Treating and Agrico Superfund Sites, South Escambia County – permitting of all water wells other than monitor wells or aquifer restoration wells shall be prohibited with the area inside and bounded on the west by CSX railroad corridor, on the east by Bayou Texar, on the south by East Cross Street projected in a straight line until it intersects Bayou Texar, and on the north by Hyatt Street, North

Davis Highway, Wynnehurst Street, Kenneth Street, Boxwood Drive, Ash Drive, Ninth Avenue, and Hillbrook Way projected in a straight line until it intersects Bayou Texar.

2. Irrigation systems approval (ECHD)**:**

   A letter dated February 2, 2005 was received from the Director of the Environmental Health Services, Escambia County Health Department, indicating that the ECHD no longer approves or disapproves irrigation systems. The coordination with the City of Pensacola Building Inspection office for installation of irrigation systems is no longer a function performed by ECHD.

   Based on this information, the only regulatory control as it relates to groundwater within the OU-2 area is managed by the Northwest Florida Water Management District in their well construction permit program.

3. The location of the Agrico plume is well defined, and ECUA is on the distribution list for reports related to the Agrico plume. Because of this information, a future well location in the vicinity of the Site is highly improbable.

4. Existing wells are regularly sampled by ECUA, which reports these data as part of their permits to FDEP. Therefore, any potential impacts to the supply wells caused by existing plumes can be assessed. For example, existing impacts from Site 348 are currently under assessment by FDEP as a result of analytical results from ECUA wells (F & Scott Well, East Plant Well, Well No. 8, and Well No. 9).

5. The Northwest District for the Florida Department of Environmental Protection has designated the area that encompasses both the Agrico plume area and the ETC plume area as a contaminated area under Chapter 62-524, Florida Administrative Code (FAC). The area is the same as the OU-2 area defined on **Figure 3**. The FDEP designated area also includes a portion to the north of the Agrico OU-2 area that is associated with the ETC plume. Chapter 62-524 FAC is closely tied to the NWFWMD well construction permit program since the designated area requires more stringent processes by the permit applicant before a well construction permit can be issued by the NWFWMD. Since there is a moratorium on the issuance of a well construction permits within the designated area, the moratorium provides more stringent restrictions than Chapter 62-254.

6. On January 11, 2017, the NWFWMD well construction database was queried and no new wells were found confirming no new well construction for the moratorium area.

7. Deed restrictions on Agrico Property provide for certain future land use and subsurface limitations.

In January 2017, a memorandum was distributed to:

- Alex Webster– FDEP, Northwest District, Pensacola,
- Aaron Cohen - FDEP, Tallahassee
- Tim Haag - Emerald Coast Utilities Authority
- Tom Brown– NWFWMD
- Derrick Owens - City of Pensacola

- Mark Spitznagel and Robert Merritt - Escambia County Health Department
- Taylor Kirschenfeld – Escambia County, Neighborhood and Environmental Services
- Alan Hagans – Florida Department of Transportation, District Three (Chipley)

A copy of the memorandum was also distributed to Scott Miller, Project Manager, EPA, Region 4.

On January 11, 2017, FDOT was sent an annual inquiry regarding construction activities. On January 12, 2017, Alan Hagans (FDOT-Chipley), District 3 Contamination Impacts Coordinator, responded to the inquiry by indicating that all the planned 2017 projects and those in the Five Year Plan were non-intrusive activities (**Appendix C).**

5.1 GROUNDWATER SAMPLING

Annual groundwater samples were collected from the modified long-term monitoring network in November 2016. A total of ten monitoring wells were sampled.

Groundwater samples were collected in accordance with the FDEP's SOPs for Field Sampling (Revised March 1, 2014, effective July 30, 2014). Sample collection techniques, sample documentation, preservation requirements, sampling equipment decontamination procedures, the types and number of quality assurance/quality control (QA/QC) samples collected, and specifications that allow for the verification of the precision, accuracy, and completeness of data collected are all detailed in the SAP (O&M Plan, November 1998).

5.1.1 Monitoring Well Network

Monitoring Locations

Monitoring locations for wells installed either in the surficial or main producing zones of the Sand-and-Gravel aquifer are shown on **Figure 1**. Sampling locations for 2016 was in accordance with the March 10, 2015 FDEP Memorandum. **Table 1** lists the wells in the Agrico monitoring network, including long-term monitoring wells which are sampled annually (includes measuring groundwater levels) and periodic monitoring wells where groundwater levels are measured annually and wells are sampled during the Five-Year Review. **Table 2** presents the well construction details for all monitoring wells associated with the groundwater monitoring program for the Agrico Site.

Sampling Constituents

Groundwater was sampled in 2016 for the following constituents of concern in both the surficial and deep zones:

- Fluoride
- Arsenic, Total (only from monitoring well, AC-2S)
- Chloride
- Sulfate
- Nitrate
- Radium 226 and Radium 228 (naturally occurring); also reported as the sum of combined radium 226 + 228 results

Lead and arsenic are no longer included as analytical parameters for all groundwater samples. Arsenic is only analyzed in AC-2S.

5.1.2 Well Purging

Each monitoring well associated with the modified monitoring network and sampled during November 2016 was purged and sampled with an electric, 2-inch, stainless steel, low-flow submersible pump and polyethylene tubing. All wells were purged a minimum of one and a half

well volumes before sampling. When a well was purged dry, it was allowed to recover before sampling. Field parameters, including pH, specific conductivity, turbidity, temperature, dissolved oxygen, and oxidation reduction potential were collected from all wells during purging. A summary of groundwater field parameters is presented in **Table 3**.

5.1.3 Investigation Derived Waste

Development and purge water pumped from each well was collected in a temporary storage tank installed on a field trailer. When the mobile storage tank was filled to capacity, the recovered water was transferred to a larger temporary storage tank located on the Agrico OU-1 Site. In accordance with the FDEP guidelines, the wastewater is managed as industrial waste.

The IDW (non-hazardous groundwater purge water) is transported by Liquid Environmental Solutions (LES) to their Mobile, Alabama facility (EPA ID Number ALO 000 859 421). There it is treated and disposed of in accordance with state and federal regulations. The purge water, 1,300 gallons, was picked up and transported for disposal on November 11, 2016.

5.1.4 Water Level Measurements

On November 8, 2016, groundwater levels were measured in all Agrico monitoring wells for OU-1 and OU-2. Water levels were collected prior to purging in wells scheduled for sampling. These water level measurements were used to evaluate water level fluctuations and groundwater flow direction. All measurements were used to prepare potentiometric surface maps for the surficial and main producing zones of the Sand-and-Gravel aquifer.

Static groundwater levels from all identified monitoring wells associated with the Agrico Site (**Figure 1**) were measured to within ± 0.01 ft. Measurements were collected with an electronic water level tape using the top of casing (TOC) as the measuring point. The measurements were subsequently referenced to the TOC elevations and used to calculate groundwater elevations. This information was used to confirm that groundwater flow directions remain similar to previous years. Groundwater elevations are presented in **Table 4**.

5.2 BAYOU TEXAR SAMPLING

Three surface water sampling locations within the primary groundwater discharge reach of Bayou Texar were sampled on November 7, 2016 as per the March 10, 2015 FDEP Memorandum. These locations are shown on **Figure 1**.

Surface Water Sampling

Three near-bottom surface water samples (BT-02, BT-107, and BT-127) are located within the brackish water locations that are tidally influenced. Saline water from Pensacola Bay is drawn into the bayou during high tide. All surface water samples are collected at low tide.

Surface water sampling is conducted in accordance with the November 1998 Sampling and Analysis Plan (SAP). The samples are collected from a boat. A discrete sample is collected at the deepest section of each transect. Samples are collected using a peristaltic pump and disposable polyethylene tubing attached to PVC pipe, which is lowered to the appropriate depth. The depth of each sample collected is approximately 6 inches above the floor of the bayou. Field

parameters, including pH, specific conductivity, turbidity, and temperature, are collected in conjunction with the surface water samples.

A summary of the 2016 surface water field parameters is presented in **Table 5**.

Sampling Constituents

For sampling locations BT-02, BT-107, and BT-127, fluoride was the only constituent analyzed.

5.3 CHEMICAL ANALYSES

Groundwater and surface water samples collected for the 2016 (November) event were submitted to TestAmerica Laboratories, Inc. (TA), Tallahassee, Florida E81005. All analyses were performed by the Pensacola laboratory (Certification No. E81010), except radium 226 and radium 228 which was analyzed by TA Richland (Certification No. E87829). All analyses were performed pursuant to NELAP requirements. TA is a certified analytical laboratory by EPA, and the State of Florida. All analytical reports were prepared in accordance with TA's Level III report format. The following analytical methods were used to analyze the specific media in accordance with SW-846.

CONSTITUENT	ANALYTICAL METHOD
Fluoride	340.2
Chloride	300.0 (Ion Chromatography)
Sulfate	300.0 (Ion Chromatography)
Nitrate	353.2 Nitrate by calculation
Arsenic	6010B
Radium 226	903.1 Mod (RL-RA—001)(Alpha Scintillation)
Radium 228	904 Mod (RL-RA—001)(Gas Proportional Counters)

5.4 SAMPLING RESULTS

The November 2016 sampling activities completed the annual sampling requirement for the Agrico Site. A total of 10 monitoring wells were sampled. **Figure 1** shows the sampling locations for the Agrico Site.

Field parameter details from the November 2016 sampling event are shown in **Table 3** and historical trends are shown on graphs within Section 5.5.

Details of Bayou Texar sampling results are presented in **Table 5** and **Table 9**.

The groundwater sampling results for the identified COCs detected in the surficial and main producing zones for the site-wide monitoring wells are discussed in this section. Details of results are provided in **Table 8, Figure 8, and Figure 9.**

Appendix A contains all laboratory analytical reports from the November 2016 sampling event.

5.5 GROUNDWATER FIELD PARAMETERS

In addition to the Agrico COCs, several field parameters are collected as part of the groundwater sampling program (**Table 3**). These parameters include water temperature, pH, dissolved oxygen, turbidity, specific conductance, and the oxidation-reduction potential. An understanding of these parameters can be important in understanding the relationships between COC concentrations and field parameter ranges in values, in defining and understanding ranges of background concentrations, and in evaluating overall COC concentration trends. A more detailed discussion of selected field parameters, including specific conductance, pH, dissolved oxygen and the oxidation-reduction potential follows.

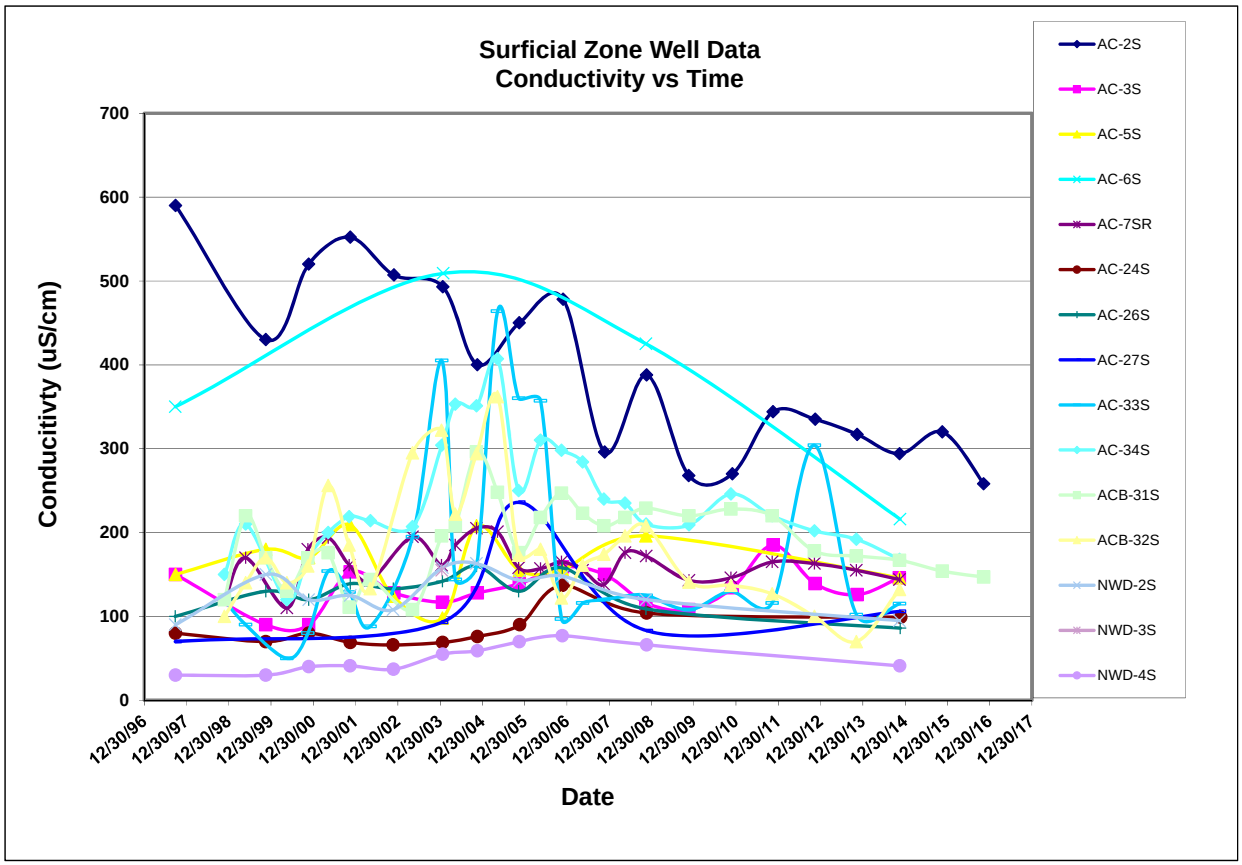
5.5.1 Specific Conductance

Specific conductance is a measure of how well a water sample conducts an electrical current. It is a straightforward measurement that can be made with reasonable accuracy in the field. It is, therefore, often used as a proxy for the total dissolved solids (TDS) analysis. The conductance values are collected in micro Siemens per centimeter units (uS/cm).

Within the main producing zone plume, the specific conductance values were generally greater than 250 uS/cm. Outside of the plume, conductance ranged from a low of 70 to less than 250 uS/cm, which are within in the range of background values. As groundwater recharges the Sand-and-Gravel aquifer in Escambia County, it encounters relatively little soluble material, and the water has characteristically low hardness (soft) and is relatively unmineralized. The aquifer is composed of mostly quartz sand, which is not very soluble. The abundant rainfall and the aquifer's high permeability keep the groundwater moving, and the residence time is such that the water does not tend to contain a significant quantity of dissolved mineral matter. Specific conductivity within the surficial zone of the sand-and-gravel aquifer appears to be within the range of background for all shallow well samples.

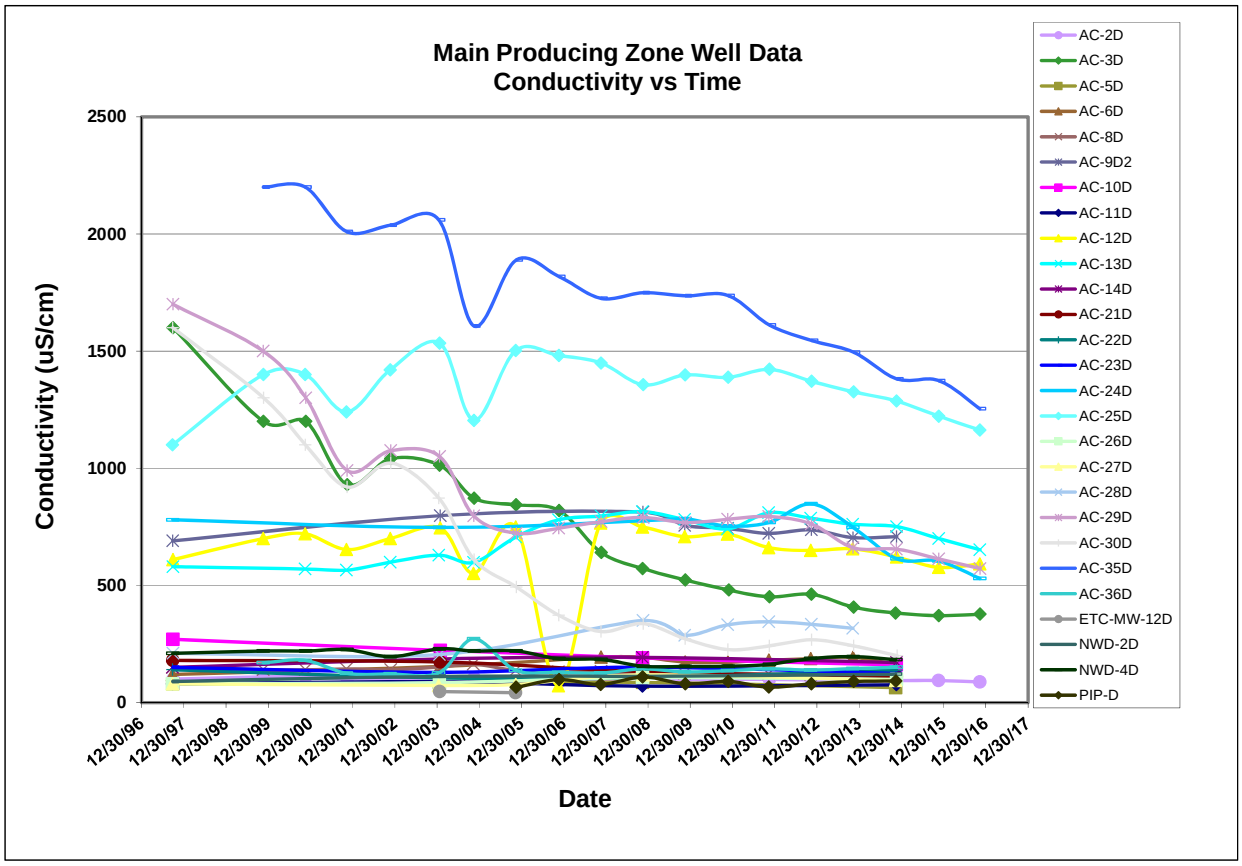
Surficial Zone Groundwater:

The shallow groundwater conductivity vs. time chart is shown below.


Surficial Zone Well Data
Conductivity vs Time
Conducitivty (uS/cm)
700
600
500
400
300
200
100
0
12/30/96
12/30/97
12/30/98
12/30/99
12/30/00
12/30/01
12/30/02
12/30/03
12/30/04
12/30/05
12/30/06
12/30/07
12/30/08
12/30/09
12/30/10
12/30/11
12/30/12
12/30/13
12/30/14
12/30/15
12/30/16
12/30/17
Date
AC-2S
AC-3S
AC-5S
AC-6S
AC-7SR
AC-24S
AC-26S
AC-27S
AC-33S
AC-34S
ACB-31S
ACB-32S
NWD-2S
NWD-3S
NWD-4S

Main Producing Zone Groundwater:

The deep groundwater conductivity vs. time chart is shown below.



5.5.2 pH

Groundwater pH within the Sand-and-Gravel aquifer underlying Escambia County reflects generally acidic conditions (less than 7.0 standard units, su). The reason for the acidic conditions is that rainwater has a pH generally less than 5.5 su in the Escambia County area (Trapp, 1973). This low rainfall pH, coupled with the high recharge from rainfall to the aquifer and the relatively inert nature of the sandy sediments that comprise the aquifer, yields a groundwater pH that is acidic.

Information from the U. S. Geological Survey (USGS) collected in Escambia County was reviewed for groundwater pH data. The period 1968 to 1980 was an extensive data collection time in Escambia County by the USGS. A total of 222 observations of pH (Coffin, 1982) were collected from 69 sites distributed throughout southern Escambia County. The sites were located to characterize general groundwater conditions and were not associated with any assessment of known contamination sites. The range of pH for the 222 observations was 3.4 to 8.9 su. The average pH for the 12 year period was 5.28 su. Background pH conditions are variable and are controlled by local recharge conditions, seasonal rainfall patterns, and whether the groundwater is from a shallow or deep source. Generally, the groundwater occurring at shallow depths (less than 100 ft below land surface) is more acidic than deeper occurring groundwater that tends to approach neutral conditions.

In addition to the above pH data for groundwater, a review was conducted of long-term pH data for a surface water gaging station on the Perdido River at Barrineau Park. The Perdido River is the westernmost boundary for Escambia County. The station is located about the middle portion of the county and shows that base flow streamflow conditions have pH values generally less than 5 su. Since the base flow of this stream, as well as, other streams in the county is derived from groundwater, this is another line of evidence that groundwater pH conditions are acidic.

Geochemically, pH is an important factor in understanding the occurrence of radium in the groundwater beneath Escambia County. Historically, the impacts from radium are well documented within the county and many of these exceedances are not associated with known contaminated sites. As the USGS data indicates, the groundwater can have a naturally occurring background value as low as 3.4 su. Likewise, the data showed that 101 of the 222 observations of pH were less than 5 su. This indicates acidic background conditions existing for the groundwater in southern Escambia County.

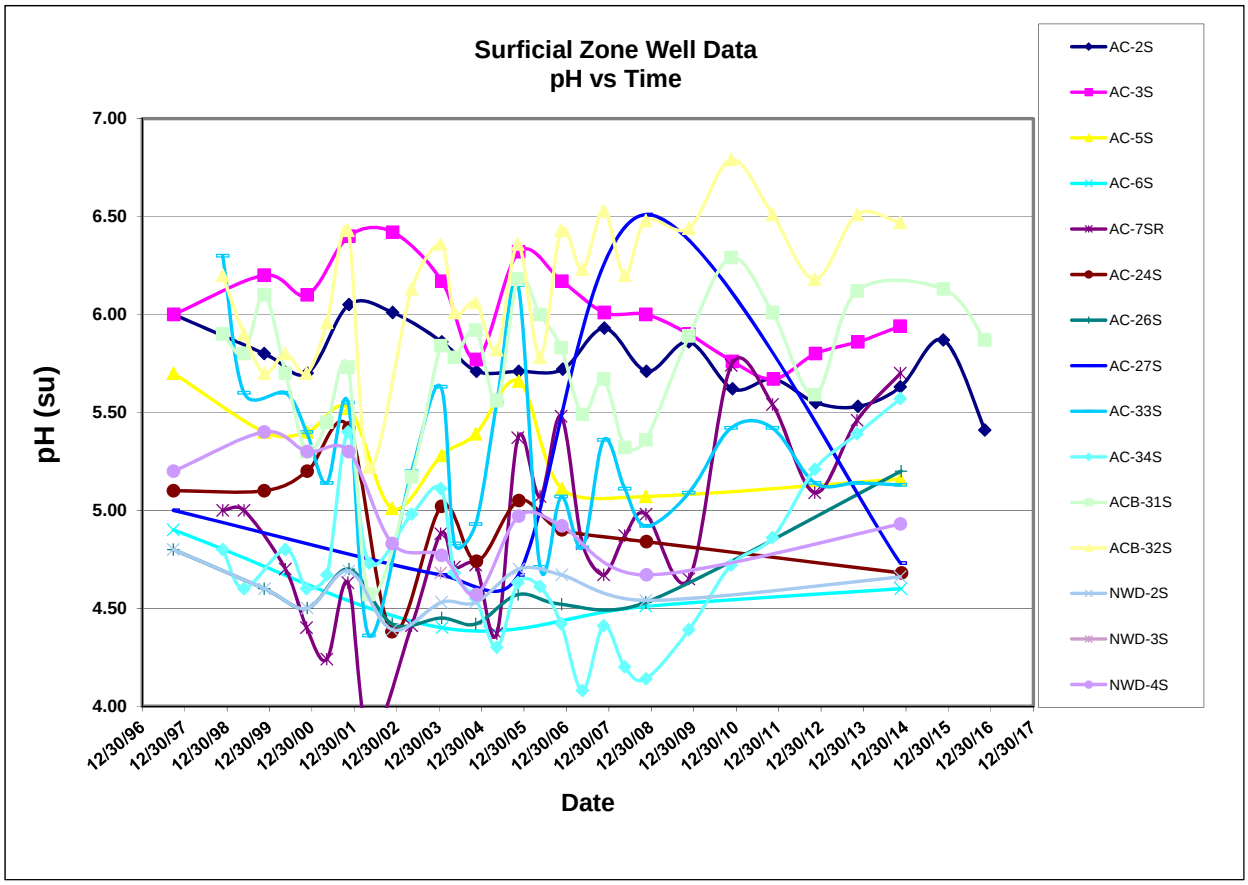
Exceedances of radium in Escambia County are believed to be associated with naturally occurring thorium minerals in the subsurface. USGS research (Zapecza and Szabo, 1988) at sites throughout the eastern United States indicate that when groundwater pH is approaching 4.5 to 5 su or lower and thorium is present, a process known as recoil mobilization is possible. This recoil process allows radium 228 to be released to the groundwater from the minerals containing thorium. For Escambia County as a whole, it is possible to activate this release with what is considered background groundwater conditions.

The acidity reflected by low pH in groundwater within the Agrico plume is most likely the result of former operational processes whereby wastewater was disposed in the former on-site impoundments at the former Agrico facility (Watts, et al, 1988). Since the completion of the OU-1 Remedial Action, the pH of shallow groundwater conditions within the plume has improved.

The trends in groundwater pH from the Agrico network monitoring wells are reflected in the following graphs for the surficial and main producing zones of the aquifer.

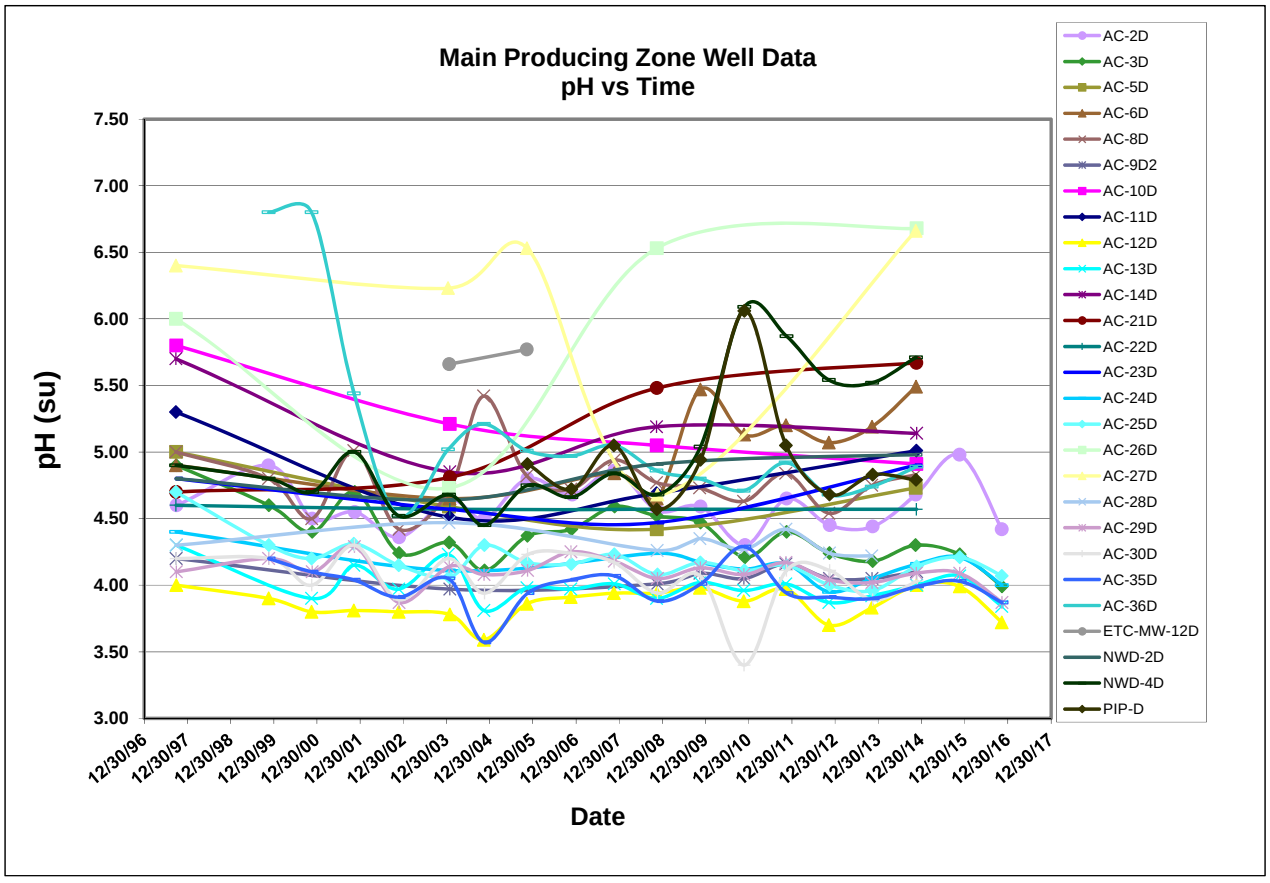
Surficial Zone Groundwater:

The surficial zone groundwater pH vs. time chart is shown below.

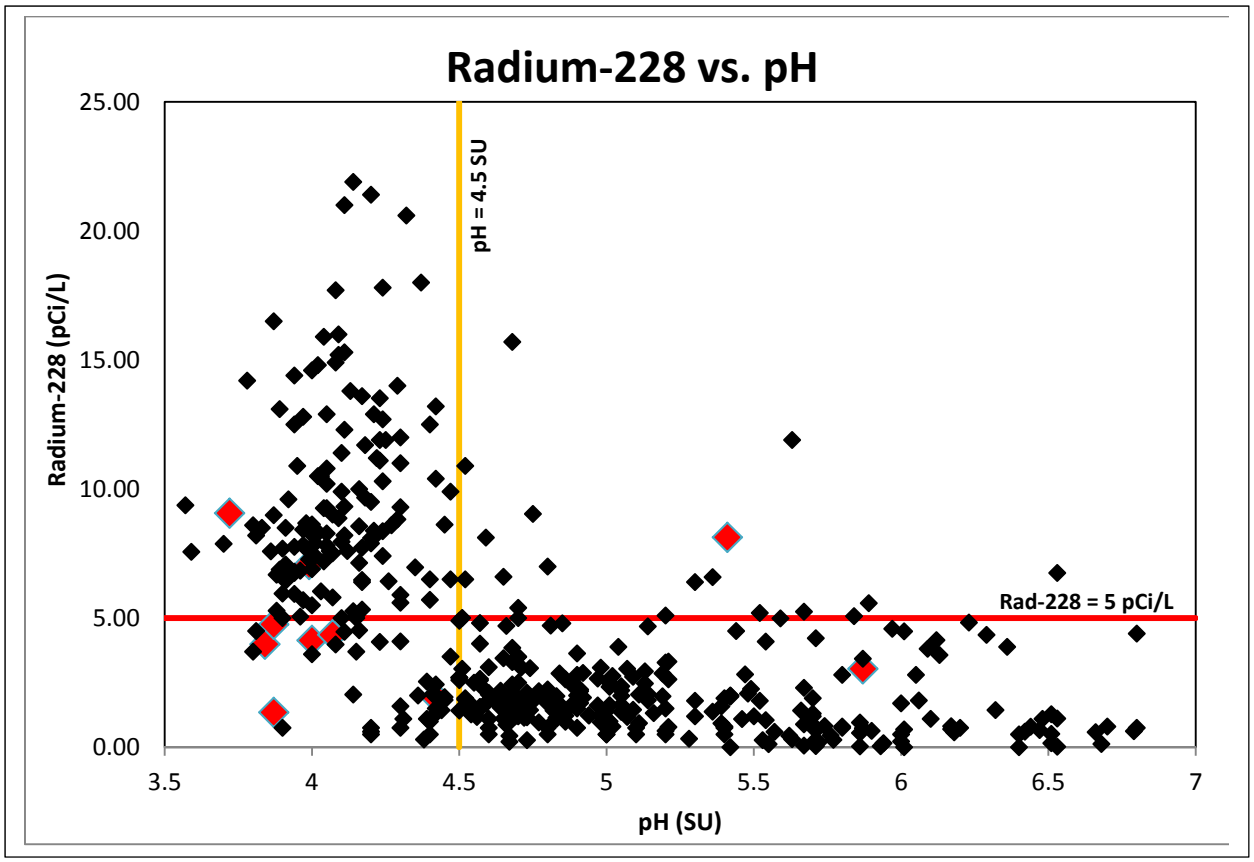


Main Producing Zone Groundwater:

The main producing zone groundwater pH vs. time chart is shown below.



The following graph is updated from the original graph (URS, 2007) to show data from all sampling events conducted for the Agrico Site. The data points marked as red diamonds represent results from the November 2016 sampling event. The graph shows the relationship between pH and radium 228 concentrations whereby as the groundwater pH approaches about 5 to 4.5 su or lower, the radium 228 concentration generally exceeds the 5 pCi/L drinking water standard for combined radium 226 + radium 228. It should be noted that the use of a pH of 4.5 su to demonstrate this relationship is within the range of pH that the recoil process generally is activated. The recoil activation range is plus or minus a pH of 4.5 su (Zapecza and Szabo, 1988).



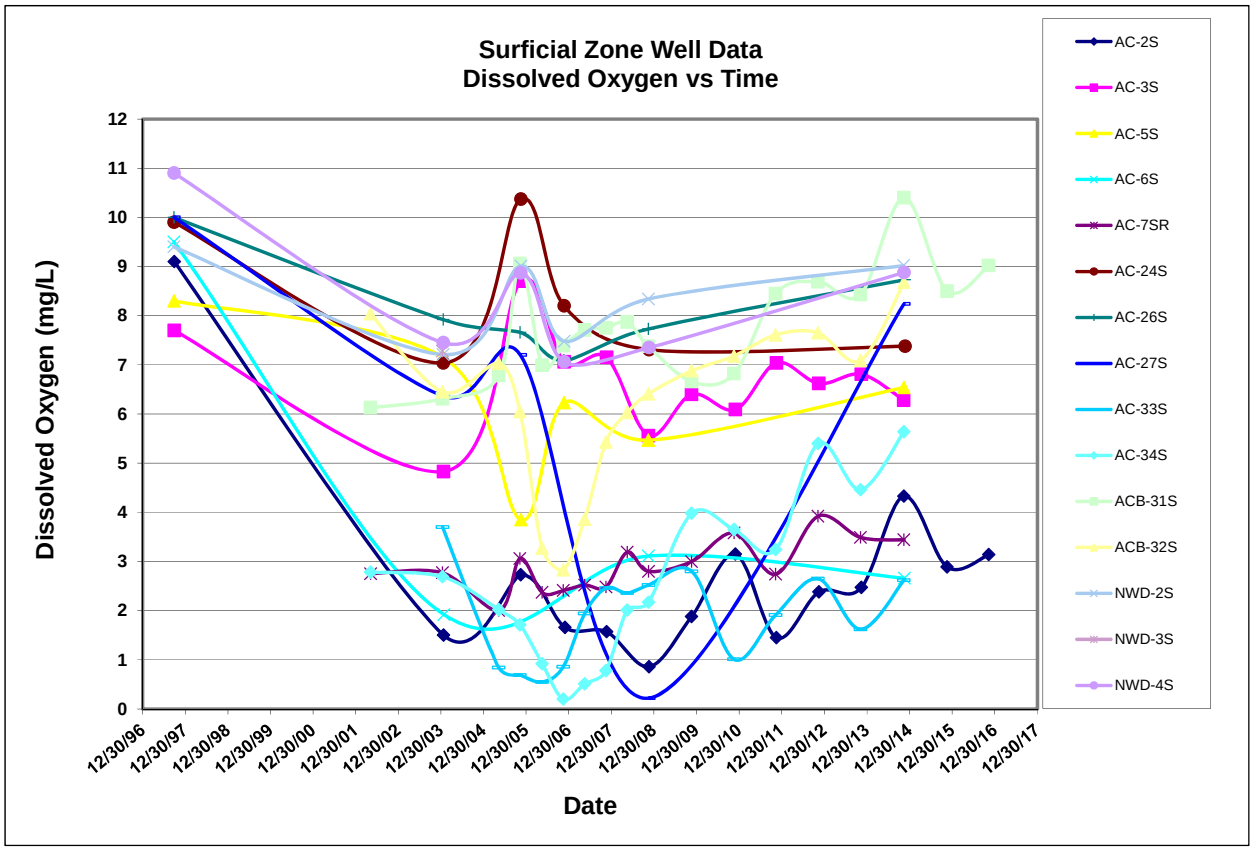
Acidic groundwater conditions are also associated with Site 348. This site is located approximately 3,000 feet south of the Agrico Site. Assessment reports for Site 348 (MACTEC, 2010) present pH and radium 228 data which show that low pH conditions result in exceedances of the radium standard of 5 pCi/L for combined radium 226 and radium 228. Data from Site 348 indicates that radium 228 is the predominant isotope present in the groundwater beneath Site 348. Site 348 is located in close proximity to nearby former municipal water supply wells. A 2008 sample collected by ECUA from the F & Scott well reported a combined radium 226 + 228 concentration of 5 pCi/L (www.ecua.fl.org – 2010 Water Quality Report).

5.5.3 Dissolved Oxygen

The solubility limit (saturation concentration) of oxygen in water (in equilibrium with air) at the temperatures, pressures, and salinities encountered in shallow groundwater at the Site is on the order of 8.5 mg/L (ppm). Oxygen's solubility limit increases as temperature decreases. Dissolved oxygen concentrations greater than 1 mg/L (aerobic conditions) are considered to support aerobic microbial metabolism, and conversely, DO concentrations less than 1 mg/L (anaerobic conditions) support anaerobic microbial systems.

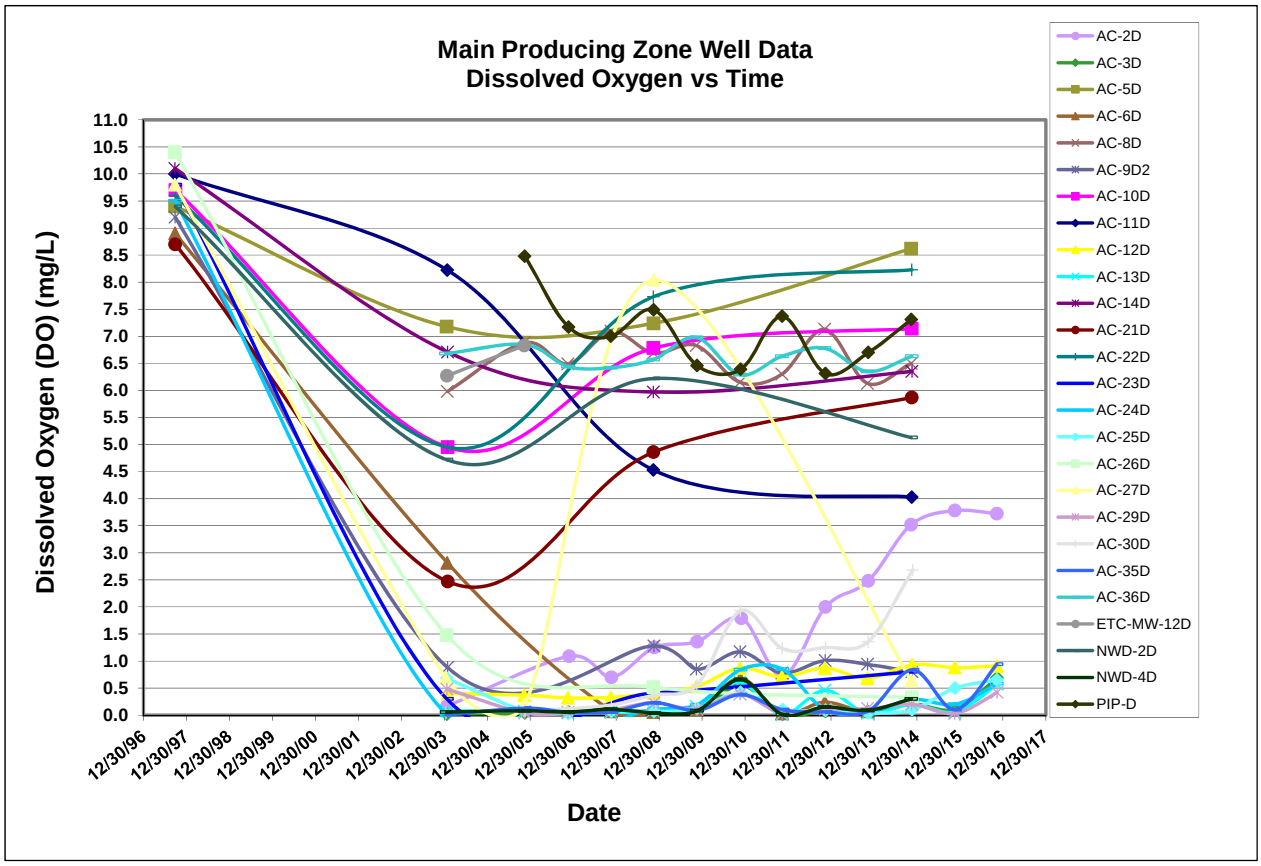
Surficial Zone Groundwater:

The shallow groundwater DO vs. time chart is shown below.



Main Producing Zone Groundwater:

The deep groundwater DO vs. time chart is shown below.



5.5.4 Oxidation-Reduction Potential

Oxidation-reduction potential (ORP) reactions control the behavior of many chemical constituents in groundwater. ORP refers to the electric potential required to transfer electrons from one compound or element (the oxidant) to another compound (the reductant). The process of oxidation involves losing electrons, while reduction involves gaining electrons. ORP is used as a qualitative measure of the state of oxidation in aqueous solutions. ORP (and Eh) are typically given in terms of millivolts (mV).

Although similar to ORP, Eh is reserved for consideration where the redox potential is measured with a relatively fragile standard hydrogen electrode (SHE). Positive Eh values indicate an oxidizing environment, while negative Eh values indicate a reducing environment. For field applications, ORP is typically measured using Ag/AgCl reference electrodes.

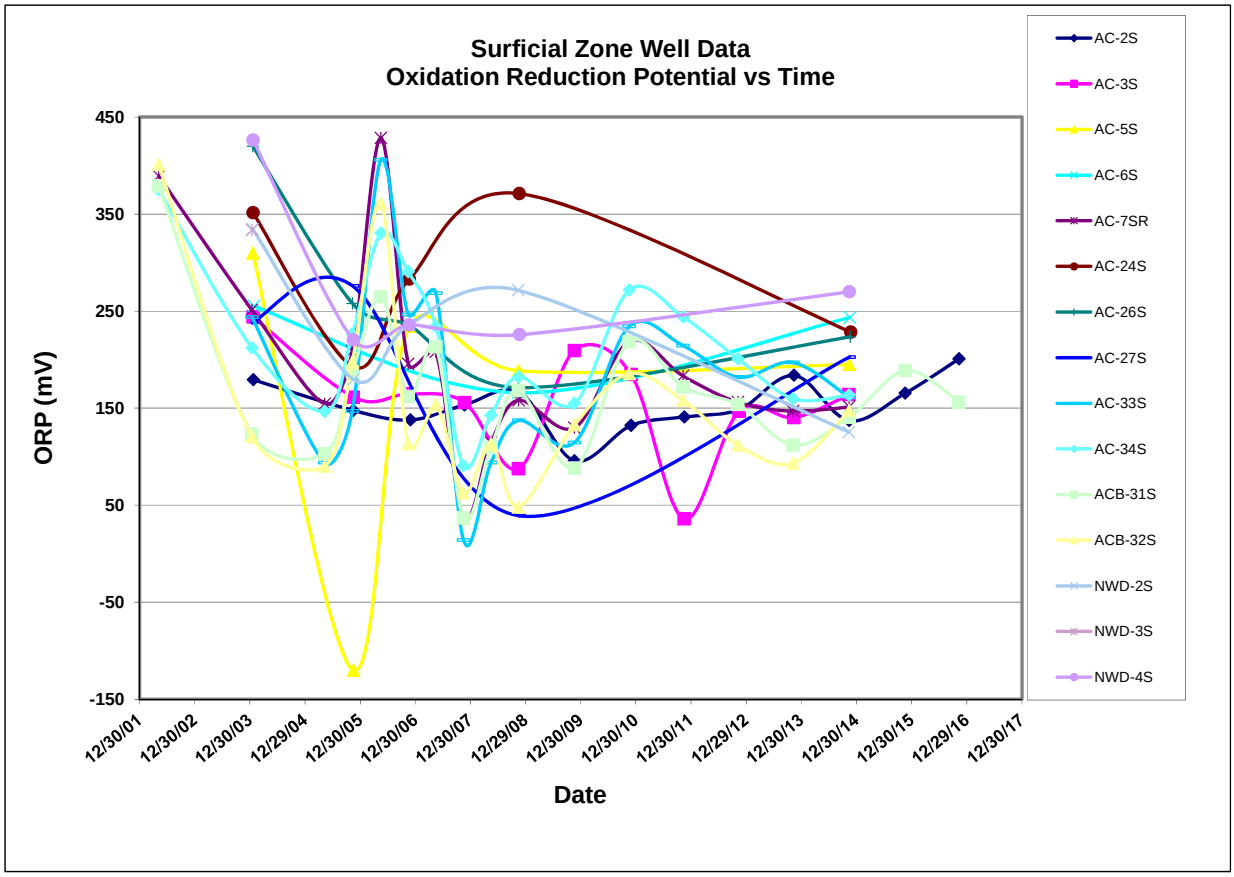
Field ORP readings can be converted to Eh values by adding the offset value provided by the manufacturer of the ORP calibration solution used (or by experimentation). ORP has been measured at the Site with an YSI (brand) instrument equipped with an Ag/AgCl electrode and calibrated against a Zobell 4M KCl solution where the offset to Eh is 200 mV. To convert the Site's field ORP readings to Eh, the offset value of 200 mV is added to the Site's ORP readings. For example, ORP readings of +150 and -172 mV translate to Eh values of +350 and +28 mV,

respectively. It is common for natural groundwater to present ORP between +300 mV to -400 mV (Eh between +500 mV to -200 mV).

Generally, oxygen-rich water is expected to exhibit positive ORP values (reflecting oxidizing conditions); and, conversely, anaerobic water often presents negative ORP values (reflecting reducing conditions). However, oxidation-reduction reaction couples are numerous and often competitive, so that natural environments affected by anthropogenic constituents can induce ORP behavior atypical of the otherwise classic correlation with dissolved oxygen. ORP is expected to reach equilibrium in groundwater that is at or approaching steady state. Changes in ORP can indicate a system that is out of equilibrium.

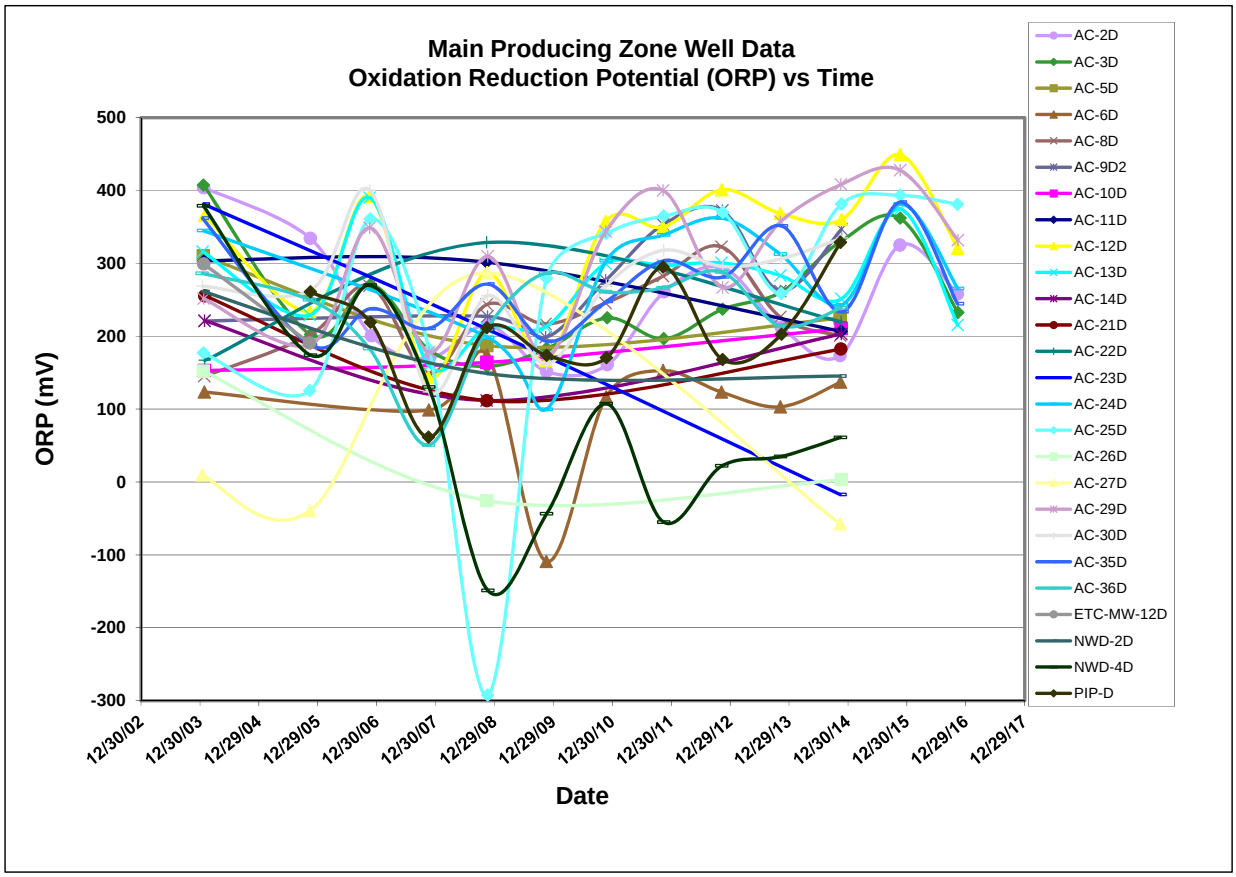
Surficial Zone Groundwater:

The shallow groundwater ORP vs. time chart is shown below.



Main Producing Zone Groundwater:

The deep groundwater ORP vs. time chart is shown below.



5.6 BAYOU TEXAR SAMPLING RESULTS

As of November 2016 the modified surface water monitoring network is composed of three sampling locations within Bayou Texar. Freshwater from Carpenter's Creek flows into the saline estuary, Bayou Texar. **Figure 1** shows the locations of the surface water sampling sites. The samples are analyzed for fluoride only. Brackish water occurs at all three locations where samples are collected.

The surface water sampling results for fluoride at the three stations are shown in **Table 5** (field parameters) and **Table 9** (sampling results). The fluoride results did not vary significantly from the historical data. Fluoride concentrations in surface water did not exceed the surface water criteria at the sampling locations. Laboratory analytical reports are contained in **Appendix A**.

5.7 QA/QC REVIEW

TestAmerica job numbers for this annual report include the following:

400-129822-1 (Revision 1) and 400-129834-1. The following laboratory narratives describe the sample conditions and associated analytical QA/QC issues.

400-129822-1: All samples were received in good condition within temperature requirements, properly preserved and on ice. Method 300.0 for AC-24D, the sample was diluted to bring the concentration of the target analytes within the calibration range. Additionally, for this method, AC-35D, AC-25D, DUP-1, AC-2S, AC-13D, AC-12D, AC-3D, and AC-29D were also diluted due to high conductivity. Elevated reporting limits were provided for all results. Method 353.2 – All of the following samples were diluted to bring the concentration of target anlytes within the calibration range for Nitrate Nitrite as N: AC-25D, AC-25D, AC-3D, AC-29D, AC-2S, AC-24D, AC-13D, and AC-12D. Again elevated reporting limits were provided for all. Metals – No analytical or quality issues were noted.

For Radium 228 (gas proportional counting) the LCS, batch blank, sample duplicate and sample results are within acceptance limits. For Radium 226 (Alpha Scintillation counting), the LCS, batch blank, sample duplicate and sample results are within acceptance limits.

400-129834-1: All samples were received in good condition, properly preserved and within temperature requirements. No analytical or quality issues were noted.

Two QA/QC samples (one duplicate- Dup-1 at AC-35D) and one equipment blank (EQ-1) were collected during the November 2016 sampling event. The duplicate sample showed acceptable agreement with the respective results indicating adequate field and laboratory precision. Target analytes were reported below laboratory detection limits in the equipment blank sample.

Results of the QA/QC samples are included with the laboratory reports in **Appendix A**.

5.8 GROUNDWATER SAMPLING RESULTS

The 2016 annual results continue to support that source control actions at the former Agrico Site are effective and the MNA remedy is functioning as expected with Agrico COCs attenuating in groundwater under the former site and down-gradient of the site. Source control was completed as of April 1997. Long-term groundwater monitoring for the natural attenuation groundwater remedy was initiated in May 1997 for the OU-1 monitoring network and in November 1999 for the OU-2 network. In 2007, both the OU-1 and OU-2 networks were combined to form the site-wide network. In 2016, ten monitoring wells primarily located in the central portions of the plume were sampled and analyzed for the Agrico COCs.

Surficial Zone

Within the surficial zone, the historically the overall trend is downward and historically there has been an overall shrinking of the area of impacts for this zone. The downward trend in concentrations have been attributed to effective source control. The surficial zone plume is historically captured by the vertical hydraulic component of the contaminant transport within less than one-half mile downgradient of the former site. Due to these conditions, the areal extent of impacts in the surficial zone is limited.

Presently, there are only two surficial monitoring wells being sampled annually for the site. These wells are AC-31S and AC-2S. There is only one well where select COC concentrations continued to be above target clean-up goals in the surficial zone. This location is AC-2S. Historical results show that all Agrico monitoring well locations on the former Agrico property have achieved clean up goals. At AC-2S, this location is directly down-gradient of the former Agrico Site and up-gradient of the area where the surficial zone is preferentially hydraulically connected to the deeper main producing zone. For 2016, fluoride (19 mg/L) and arsenic (0.016

mg/L) exceed the clean-up target levels of 4 mg/L and 0.01 mg/L, respectively at this location. For fluoride, concentrations are attenuating and the peak concentration of 210 mg/L occurred in 2002. Since that time, fluoride concentrations have been mostly on a decreasing trend. For arsenic, the concentration is also decreasing. The highest total arsenic concentration of 0.74 mg/L occurred at this location in 1990.

Main Producing Zone

Within the main producing zone, the overall flattening of the trends is what was predicted in the Evaluation of Monitored Natural Attenuation by William Huber, Ph.D., Quantitative Decisions, (URS, 2009) and further confirmed by the evaluations by Huber in the October 23, 2013, Report #2 (URS, 2013b). This flattening should be expected to continue for some time and eventually evolve into a slowly decreasing trend, accelerating as time goes on. Slight upward or downward ticks in the trend for individual monitoring well results are to be expected. It is the long-term trend for each COC that is important. Radium appears to be on a longer attenuation period than the other Agrico COCs. This is due to the fact that radium exceedances occur as the result of a secondary reaction and these exceedances were not the direct result of infiltration into the groundwater from the source area. Instead, acidic wastewater infiltrated into the groundwater and contacted naturally occurring mineralogy with radium content. The radium in turn was released from the subsurface sediments to the groundwater as the acidic plume is transport downgradient contacting newly exposed aquifer material with the radium mineralogy. As the acidity approaches background conditions, this will stop the release of radium and attenuation of combined radium should progress on a faster path.

Figure 8 and **Figure 9** show the 2016 results for the current monitoring locations for fluoride and combined radium 226 + 228, respectively. Overall the sampling locations for 2016 showed that the concentrations for fluoride and combined radium 226 + 228 were less than concentrations found in 2015. In some locations, these 2016 results are approaching the minimum concentrations recorded for the site. **Figure 10** and **Figure 11** show the trend graphs for fluoride, chloride, sulfate, nitrate and combined radium 226 and 228 for each of the annual sampling monitoring wells locations.

6.1 OU-1 REMEDY

The source area remedy was completed in 1997. Since that time, the property has remained secured; institutional controls have been filed on the property deed and are on record with Escambia County; the integrity of the constructed cap has not been compromised by erosion or settlement; the grass cover on the cap has matured and stabilized the soils; and the storm water controls remain intact, preventing storm water runoff from leaving the Site except through infiltration to groundwater in the North and South Ponds. Results of the water and sediment sampling in the infiltration ponds during January 2004 indicated that soils on-site are not affecting the quality of water infiltrating these ponds. Concentrations of all COCs in groundwater of the surficial zone immediately downgradient of the cap have decreased significantly since the remedial actions were completed. Based on all of the groundwater sampling results, the source area is controlled, and the remaining COC impacts are from residual impacts caused prior to the remedial action. Results from the 2016 sampling of monitoring wells downgradient of the cap area indicate that the OU-1 remedy remains effective and that source zone depletion is ongoing.

6.2 OU-2 REMEDY

Annual groundwater and surface water monitoring has been performed at established long-term monitoring locations since 1999. Comprehensive sampling has been performed in conjunction with each Five-Year Review. The groundwater monitoring continues to be an effective means of evaluating the natural attenuation remedy as well as source zone depletion. The evaluation of the long-term groundwater monitoring network (URS, 2006d), approved by EPA on September 11, 2007, provides further information regarding the defined plume area and downgradient progression. The recent evaluations of monitored natural attenuation associated with the Agrico plume (URS, August 2009 and October 2013) further supports that the mechanisms for attenuation are in place throughout the area and the effects of the source zone remedy are evident in the surficial zone of the former source area (OU-1) and are also being observed downgradient (OU-2), as expected. Decreases in concentrations have now been observed in the most upgradient groundwater and are imminent in the further downgradient wells.

For 2016, slight upward or downward ticks in the trend for individual monitoring well results with no significant deviations was the overall pattern for the wells sampled in the modified annual monitoring network.

6.2.1 Notifications

As part of the annual scope of work, notifications are provided to select groups. This includes issuing an Advisory Notice to contractors, a memorandum to local and regional agency contracts; and querying of NWFWMD permit records to determine if any new wells have been installed within the well construction moratorium area.

A standard advisory notice was distributed to contractors who potentially might be performing work related to new well installations in the area of OU-2. This notice informs the contractor of the boundaries of the existing moratorium on well construction. It also directs them to the NWFWMD, FDEP, or the Escambia County Health Department for more information.

According to NWFWMD permit records, no new irrigation wells were installed within the monitoring area during 2016.

On February 22, 2001, the NWFWMD Board passed a moratorium on drilling wells, including irrigation wells, in the Agrico OU-2 and the ETC groundwater plume areas. The moratorium remains in effect and provides the most stringent institutional controls for the area impacted by the plume. The moratorium has no termination date and is part of the Prohibitions in Rule 40A-3. In January 2017, a coordination memorandum was distributed to local and regional agencies requesting input on any rule changes that may affect any institutional controls for the moratorium area (Appendix C).

Additionally, an annual inquiry regarding intrusive activity under Fairfield Drive was distributed to the FDOT on January 11, 2017. FDOT responded that there is not expected intrusive activity planned for the next five years (Appendix C).

These notification tasks are intended to as a means of controlling new well drilling in the area (including irrigation wells), since the ROD requires another approximately 50 years of MNA for cleanup for the Agrico plume. Additionally, there are contributing sites in the area that have also adversely impacted groundwater quality.

6.2.2 SAMPLING RESULTS – GROUNDWATER AND SURFACE WATER

The natural attenuation remedy is proceeding as anticipated, with 18 of the estimated 70 years elapsed (remediation of OU-1 was certified complete in April 1997). Conclusions from the monitored natural attenuation evaluations (URS, August 2009 and October 2013) indicate that much of the groundwater is expected to reach the target concentrations within two to three decades. Within the area of the Bayou Texar discharge boundary, the time to reach the targets may be longer. Fluoride results continue to exemplify cleanup progress for the Agrico Site. Additionally, it appears that the plume discharge area remains well defined and limited in areal extent. Groundwater results for November 2016 closely compared to historical results for both aquifer zones. Although slight increases in concentrations were detected at some monitoring well locations for some COCs, the increases are within the range of expected concentrations for a natural attenuation remedy where source control has been implemented and source-zone depletion is ongoing.

Surficial Zone

The surficial zone plume does not migrate to Bayou Texar. The plume in this zone infiltrates to the main producing zone within less than 0.4 mile downgradient of the Site (**Figure 4**). Monitoring of the groundwater within the surficial zone is limited to the OU-1 area and the vicinity of the vertical diversion area between AC-2S and AC-3S. The only impacts remaining for the surficial zone plume are in close proximity of monitoring well AC-2S. Historically, within the surficial zone, the overall trend in COC concentrations is downward and the overall area of impacts is shrinking. Due to the existing hydrogeologic/hydraulic conditions, the zone has limited areal impacts. For most of the OU-2 area, background conditions exist for the Agrico COCs within the surficial zone, since the potential for downgradient impacts beyond the surficial

zone diversion area are absent. Any exceptions to background concentrations in these downgradient surficial zone wells are due to non-Agrico sources.

Main Producing Zone

Within the main producing zone, arsenic and lead plumes are not present. The primary indicator of the Agrico plume continues to be fluoride where concentrations exceed the performance standard of 4 mg/L. Also, elevated chloride and sulfate concentrations coexist with elevated fluoride concentrations. Radium appears to be on a longer attenuation period than the other Agrico COCs. This is due to the fact that radium (naturally occurring) exceedances occur as the result of a secondary geochemical reaction, not the direct result of infiltration into the groundwater from the source area. Instead low pH acidic wastewater infiltrated into the groundwater and contacted naturally occurring minerals with radium content. The naturally occurring radium was released from the subsurface saturated soil to the groundwater with the low pH acidic plume. As the pH approaches background conditions (neutralizes) downgradient, the release of the naturally occurring radium will subside, and both the pH and radium plumes will continue to shrink.

Historically, the main producing zone plume remains well defined, as the detailed evaluations (URS, 2006d, URS, August 2009, and URS, October 2013) confirmed, and exceedances of contaminant-specific performance standards only cover limited areal extents. Within the main producing zone, the stability and flattening of COC concentration trends is what was predicted and what is observed. At some locations, the flattening/COC stability is expected to continue for some time. This trend will eventually evolve into a slowly decreasing trend, accelerating with time as it has already developed in many locations. Slight upward or downward ticks in COC trends for individual monitoring well results are to be expected as site conditions change (e.g. water level fluctuations, aquifer heterogeneity, etc.). It is the long-term trends for each COC in the impacted area that is important.

6.2.3 Bayou Texar

The 1993 Bayou Texar Assessment (Entrix, 1993a, 1993b, and 1993c) presented fluoride data that indicated groundwater originating from the Agrico Site was discharging to the bayou. The data also indicated that the discharge zone appeared to be well defined and limited in areal extent. EPA's review of the data concluded that fluoride would have to be discharging at a concentration of 4,050 mg/L or greater in order to exceed the surface water standard of 5 mg/L in the bayou. The maximum fluoride concentration in 2016 in groundwater along the western edge of Bayou Texar was only 76 mg/L in monitoring well AC-35D (**Figure 1**). The maximum historical fluoride concentration recorded for the Agrico plume was 180 mg/L also in AC-35D. Furthermore, in the OU-2 ROD, EPA (1994) concluded that it is unlikely that the discharge of the groundwater plume into Bayou Texar would result in impacts to fish or wildlife.

There are more than 60 storm water outfalls into Bayou Texar. Several studies have identified impacts caused by storm water from other locations contributing contaminants to the bayou. Mohrherr, et al. (2005) concluded that Bayou Texar is an urban water body that is impacted by a variety of pollutants and pollution sources. Mohrherr, et al. (2005) further concluded that their results corroborate the studies conducted for the Agrico Site indicating that fluoride levels are highest and increase with depth in the northern portion of the bayou where the Agrico plume

discharges to the bayou. Mohrherr, et al. (2005) also concluded, as the long-term monitoring data for the bayou confirm, that the fluoride concentrations in the waters of Bayou Texar are below the Chapter 62-302, Class III Marine standard of 5 mg/L.

Surface Water

Surface water concentrations remain less than Chapter 62-302, Class III Marine Surface Water Standards for Agrico COCs, indicating that sufficient precipitation for the case of fluoride concentrations exists within the bayou. For other Agrico constituents, advection-dispersion is significantly affecting the COCs before and/or after it is discharged to the bayou so that the Agrico plume potential impacts are minimized with no significant risk to the bayou.

Summary of Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume

On September 4, 2009, the results of the Phase I and Phase II Bayou Texar sampling for August 2008 and May 2009 were submitted to EPA. The results of the investigations indicated the following:

- Fluoride in the top 10 cm of sediment (the bioactive zone) within the groundwater plume discharge zone ranged from about 32 to 339 micrograms per gram (ug/g).
- Fluoride in the near-bottom surface water (the primary exposure regime for demersal fish) within the groundwater plume discharge zone was consistently less than the Florida Surface Water Quality Criterion for Class III Marine waters for fluoride, 5 mg/L. The concentration of fluoride in the majority of surface water samples was less than 1 mg/L.
- Fluoride in the sediment pore water in the bioactive zone (the primary exposure regime for benthic macro-invertebrates) within the groundwater plume discharge zone was less than 3 mg/L in 30 of the 40 stations sampled. Fluoride in pore water exceeded the 5 mg/L standard at only 3 of 40 stations. Spatial analysis determined that the surface area weighted average concentration of fluoride in the bioactive zone pore water was less than the 5 mg/L standard.

The conclusions of this assessment indicated that there is no significant risk to populations of demersal fish or to benthic macro-invertebrate communities that inhibit the reach of Bayou Texar where the Agrico groundwater discharges. Furthermore, the fluoride solubility in the majority of surface sediments and in all pore waters within the primary groundwater plume discharge reach is controlled by mineral precipitation reactions. These reactions are likely responsible for buffering dissolved concentrations of fluoride in near surface sediment pore water and the surface water in this reach of the bayou.

EPA has approved the ecological impact evaluation that was conducted for Bayou Texar (URS, 2009C). As part of the Third Five-Year review, EPA included four recommendations in the June 2010 Five-Year Report. These recommendations were as follows:

1. Continue annual groundwater monitoring.
2. Continue annual near-bottom Bayou Texar surface water monitoring at multiple stations including the 3 locations with pore water greater than 5 milligrams per liter as reported in the

September 4, 2009 "Conceptual Site Model Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume" (Phase II results).

3. If the levels of fluoride in near-bottom surface water or in adjacent Bayou Texar groundwater monitoring well, AC-35D, increase to levels significantly greater than that measured historically (maximum of 180 mg/L in 2010 and in 2016 a decrease to 110 mg/L), submit a work plan to evaluate the increase.
4. Conduct further risk evaluation studies will be conducted if the surface area weighted average for pore water is predicted to be greater than 5 milligrams per liter.

These first two recommendations are continuing tasks of the on-going long-term monitoring program for the Site. As of the November 2010 sampling event, the three locations where pore water results were greater than 5 mg/L were added to the long-term monitoring.

Since the surface water sampling was initiated for Bayou Texar and modified in 2010, no significant concentrations of fluoride have been detected as part of the near-bottom surface water sampling. For 2016, the fluoride concentrations ranged from 0.46 mg/L (BT-127) to 0.52 mg/L BT-02 and BT-107). Historical surface water fluoride concentrations further confirm that the Agrico groundwater discharges to Bayou Texar have no significant risk.

6.3 RECOMMENDATIONS

- Annual groundwater and surface water sampling continue for 2017 as stated in the March 10, 2015 FDEP Memorandum.
- Operations and maintenance including mowing related to OU-1 to continue in accordance with the OU-1 O&M Plan as amended November 18, 2009 and approved by EPA on January 25, 2010.
- The advisory notice to contractors and the query of the NWFWMD well construction permit database will continue on an annual basis as a means of controlling new well drilling in the area (including irrigation wells), since the ROD requires another approximately 50 years of MNA for cleanup for the Agrico plume. Additionally, there are contributing sites in the area that have also adversely impacted groundwater quality.
- The Agency Coordination Memo and the FDOT inquiry for intrusive activity will continue on an annual basis.
- Continue to work with EPA regarding the groundwater remediation at the ETC Site.
- Continue to work to understand the impacts associated with Site 348 (a FDEP site) and work with EPA on gathering information pertaining to Site 348.

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TABLES

TABLE 1
GROUNDWATER MONITORING WELL NETWORK
LONG-TERM AND PERIODIC MONITORING WELLS

Agrico Site
Pensacola, Florida

Well I.D.	Network Component	Description	Aquifer Zone
AC-2D	Annual	Downgradient Site, Below PS Concentration	MPZ
AC-2S	Annual	Elevated Concentration Area Well	SZ
AC-3S	PERIODIC	Flow Path Well, Below PS Concentration	SZ
AC-3D	Annual	Elevated Concentrations, Flow Path Well	MPZ
AC-5D	PERIODIC	Outside of Plume	MPZ
AC-5S	PERIODIC	Outside of Plume, Background	SZ
AC-6D	PERIODIC	Outside of Plume; Potentially Impacted by Site 348 (Kaiser)	MPZ
AC-6S	PERIODIC	Outside of Plume; Potentially Impacted by Site 348 (Kaiser)	SZ
AC-7SR	PERIODIC	In Residual Plume Area	SZ
AC-8D	PERIODIC	Outside Plume, Sentry Well	MPZ
AC-9D2 [(1)]	PERIODIC	In Plume	MPZ
AC-10D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
AC-11D	PERIODIC	Outside of Plume	MPZ
AC-12D	Annual	Flow Path Well Inside Plume	MPZ
AC-13D	Annual	Leading Edge of Plume	MPZ
AC-14D	PERIODIC	Outside of Plume	MPZ
AC-21-D	PERIODIC	Outside of Plume, Potential Effects by Site 348 (Kaiser)	MPZ
AC-22D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
AC-23D	PERIODIC	Sidegradient Fringe of Plume	MPZ
AC-24D	Annual	Flow Path Well Inside Plume	MPZ
AC-24S	PERIODIC	Outside of Plume, Downgradient of Diversion Area	SZ
AC-25D	Annual	Flow Path Well Inside Plume	MPZ
AC-26D	PERIODIC	Near Bayou Texar Outisde of Plume	MPZ
AC-26S	PERIODIC	Outside of Plume, Downgradient of Diversion Area	SZ
AC-27D	PERIODIC	Located on East Side of Groundwater Divide	MPZ
AC-27S	PERIODIC	Located on East Side of Groundwater Divide	SZ
AC-28D	PERIODIC	Flow Path Well Inside Plume	MPZ
AC-29D	Annual	Elevated Concentrations, Flow Path	MPZ
AC-30D	PERIODIC	Flow Path, Inside Plume	MPZ
ACB-31S	Annual	Upgradient but not necessarily Background	SZ
ACB-32S	PERIODIC	Upgradient but not necessarily Background	SZ
AC-33S	PERIODIC	Downgradient Cap Area	SZ
AC-34S	PERIODIC	Downgradient Cap Area	SZ
AC-35D	Annual	Elevated Concentration, Flow Path	MPZ
AC-36D	PERIODIC	Adjacent Bayou, Outside Plume, Potential Discharge Area	MPZ
NWD-2D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
NWD-2S	PERIODIC	Downgradient of Diversion Area, Outside of Plume	SZ
NWD-4D	PERIODIC	Outside of Plume, Sentry Location	MPZ
NWD-4S	PERIODIC	Outside of Plume, Sentry Location	SZ
PIP-D	PERIODIC	Upgradient but not necessarily Background	MPZ

NOTES:

MPZ = Main Producing Zone

SZ = Surficial Zone

PS = Performance Standard

Other wells associated with site were not located as of September 1997 and are assumed destroyed. Wells include AC-3D2, AC-21S, AC-23S, AC-25S, NWD-D, NWD-I

Well plugged with cement and abandoned according to NWFWMD regulations include AC-1S, AC-1D, AC-4S, AC-4D, AC-7S, AC-7D, AC-9D.

Former Periodic Well NWD-3S destroyed between November 2005 and November 2006; New construction location covers the former monitoring well location.

Annual = Groundwater Sampling Monitoring Well

Periodic = Annual water levels and sampling during Five-Year Reviews.

Annual = Beginning Nov. 2009; sampling will be conducted annually to assist in MNA evaluation;

once MNA determinations made, these wells will revert to periodic.

[(1)] AC-9D2 is replacement well for AC-9D. AC-9D was plugged and abandoned on October 21, 1993.

TABLE 2
MONITORING WELL CONSTRUCTION DETAILS

Agrico Site
Pensacola, Florida

Well I.D.	Elevation Measuring Point (ft NGVD)[5]	Well Depth (ft bls)[6]	Screen Interval (ft bls)[2]	Diameter (inches)[2]	Aquifer Zone
AC-2D[(4)]	92.74	149	147.2-149	4	MPZ
AC-2S	88.65	70	50 - 70	4	SZ
AC-3S	88.06	79	59 - 79	4	SZ
AC-3D	88.07	170	150 - 170	4	MPZ
AC-5D	82.4	171	151 - 171	4	MPZ
AC-5S	82.34	69	49 - 69	4	SZ
AC-6D	69.19	170	150 - 170	4	MPZ
AC-6S	69.32	70	50 - 70	4	SZ
AC-7SR	90.59	70	50 - 70	2	SZ
AC-8D	76.44	220	190 - 222	4	MPZ
AC-9D2 [(1)]	64.13	198	179 - 198	4	MPZ
AC-10D	79.48	224	190 - 224	4	MPZ
AC-11D	73.17	200	200 - 220	4	MPZ
AC-12D	79.23	211	191 - 211	4	MPZ
AC-13D	74.65	223	203 - 223	4	MPZ
AC-14D	49.79	199	179 - 199	4	MPZ
AC-21D [(7)]	75.47	170	160 - 169.5	4	MPZ
AC-22D	76.58	170	160 - 169.5	4	MPZ
AC-23D	79.51	170	160 - 169.5	4	MPZ
AC-24D	79.60	215	205 - 215	4	MPZ
AC-24S	79.50	80	70 - 80	4	SZ
AC-25D	39.75	180	170 - 180	4	MPZ
AC-26D	26.70	165	155 - 165	4	MPZ
AC-26S	26.75	35	25 - 35	4	SZ
AC-27D	18.55	150	140 - 150	4	MPZ
AC-27S	18.50	35	25 - 35	4	SZ
AC-28D	74.89	201	181 - 201	4	MPZ
AC-29D	82.26	211	191 - 211	4	MPZ
AC-30D	85.73	211	191 - 211	4	MPZ
ACB-31S	91.92	70	50 - 70	2	SZ
ACB-32S	88.16	69.5	49.5 - 69.5	2	SZ
AC-33S	89.18	69.5	49.5 - 69.5	2	SZ
AC-34S	89.09	70	50 - 70	2	SZ
AC-35D	10.49	145	125 - 145	4	MPZ
AC-36D	5.26	152	132 - 152	4	MPZ
NWD-2D[(3)]	76.80	180	160 - 180	4	MPZ
NWD-2S[(3)]	77.53	75	55 - 75	4	SZ
NWD-3S[(7)]	80.40	75	55 - 75	4	SZ
NWD-4D	34.70	120	100 - 120	4	MPZ
NWD-4S	34.70	45	35 - 45	4	SZ
PIP-D	39.10	180	160 - 180	4	MPZ

NOTES:

ROW = Road Right-of-Way

MPZ = Main Producing Zone

SZ = Surficial Zone

(1) AC-9D2 is replacement well for AC-9D. AC-9D plugged and abandoned on October 21, 1993.

(2) All wells are constructed of PVC casing and screen materials.

ft bls = feet below land surface

(3) Elevations for NWD-2D and NWD-2S were corrected in this Annual Report based on information from the NWFWMD database.

(4) Downhole Video Survey conducted in March 2004. Results indicate well filled in and only about 1 ft of screen remains.

(5) ft NGVD = feet above National Geodetic Vertical Datum of 1988.

(6) ft = feet

(7) NWD-3S destroyed as of 2006; AC-21D damaged as of 2007 (measured depth 163 ft bls; only 3 ft of screen remains).

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
AC-2D	09/30/97	4.60	100	24.00	9.70	NM	0.00
	11/16/99	4.90	110	22.00	NM	NM	0.00
	11/21/00	4.50	110	21.00	NM	NM	0.00
	11/15/01	4.55	102	21.20	NM	NM	0.00
	11/26/02	4.36	102	23.70	NM	NM	0.36
	01/23/04	4.64	105	23.07	0.17	403.9	2.60
	11/17/04	4.50	105	22.40	NM	NM	1.10
	11/14/05	4.80	91	23.32	2.41	334.2	3.34
	11/28/06	4.68	90	23.30	1.09	200.8	1.70
	11/21/07	4.86	91	22.86	0.70	170.0	0.00
	11/19/08	4.56	109	23.65	1.25	214.9	1.87
	11/18/09	4.59	97	23.37	1.36	151.8	1.18
	11/29/10	4.30	99	22.90	1.79	161.0	0.65
	11/16/11	4.65	99	23.61	0.72	260.9	3.14
	11/14/12	4.45	96	23.59	2.00	293.8	2.15
	11/12/13	4.44	95	23.70	2.48	212.1	2.71
	11/12/14	4.68	94	21.28	3.52	173.6	1.31
	11/18/15	4.98	94	22.02	3.78	325.1	2.11
	11/09/16	4.42	88	24.02	3.72	257.9	2.08
AC-2S	09/27/97	6.00	590	24.00	9.10	NM	2.00
	11/16/99	5.80	430	22.00	NM	NM	1.00
	11/21/00	5.70	520	21.00	NM	NM	1.00
	11/15/01	6.05	552	20.00	NM	NM	39.50
	11/26/02	6.01	507	25.90	NM	NM	4.90
	01/23/04	5.86	493	24.75	1.50	179.2	2.50
	11/17/04	5.71	400	23.66	NM	NM	3.31
	11/15/05	5.71	450	23.49	2.73	147.6	9.31
	11/28/06	5.72	478	24.04	1.66	137.8	0.81
	11/21/07	5.93	296	24.39	1.57	153.3	0.00
	11/19/08	5.71	388	24.41	0.86	166.2	1.01
	11/18/09	5.86	268	24.34	1.88	95.8	1.18
	11/29/10	5.62	270	24.48	3.15	132.1	0.07
	11/16/11	5.67	344	24.77	1.45	140.9	3.96
	11/14/12	5.55	335	23.71	2.38	148.6	0.56
	11/12/13	5.53	317	23.99	2.47	183.8	1.07
	11/12/14	5.63	294	21.51	4.33	137.1	0.41
	11/18/15	5.87	320	22.21	2.89	165.3	0.59
	11/09/16	5.41	258	23.87	3.14	200.8	1.45
AC-3D	09/27/97	4.90	1600	24.00	9.50	NM	0.00
	11/19/99	4.60	1200	23.00	NM	NM	0.00
	11/21/00	4.40	1200	21.00	NM	NM	0.00
	11/14/01	4.70	930	22.80	NM	NM	0.00
	11/26/02	4.24	1041	23.80	NM	NM	0.37
	01/22/04	4.32	1013	23.24	0.02	407.2	2.60
	11/17/04	4.11	872	22.81	NM	NM	3.24
	11/15/05	4.37	844	23.35	0.04	202.3	2.96
	11/22/06	4.42	819	23.48	0.06	270.9	1.30
	11/21/07	4.59	640	22.94	0.09	181.3	0.00
	11/13/08	4.52	572	23.77	0.07	158.7	2.20
	11/18/09	4.47	523	23.61	0.10	183.2	0.81
	11/29/10	4.21	480	22.83	0.55	225.2	1.43
	11/15/11	4.40	451	23.53	0.02	196.5	2.04
	11/13/12	4.24	462	23.63	0.07	237.2	0.79
	11/12/13	4.18	407	23.69	0.06	260.9	1.25
	11/11/14	4.30	382	20.74	0.21	329.5	0.16
	11/19/15	4.23	371	21.84	0.11	362.0	0.65
	11/11/16	3.99	377	24.00	0.69	232.5	0.71
AC-12D	09/27/97	4.00	610	24.00	9.00	NM	NM
	11/18/99	3.90	700	23.00	NM	NM	0.00
	11/15/00	3.80	720	23.00	NM	NM	0.00
	11/08/01	3.81	653	21.30	NM	NM	0.00
	11/22/02	3.80	700	24.00	NM	NM	0.54
	01/28/04	3.78	745	23.36	0.40	365.6	1.68
	11/11/04	3.59	551	22.93	NM	NM	0.00
	11/10/05	3.86	749	23.85	0.37	233.6	3.00
	11/16/06	3.91	72	23.67	0.32	392.2	0.11
	11/16/07	3.94	766	22.92	0.33	143.5	0.00
	11/13/08	3.94	749	23.83	0.41	287.4	2.20
	11/12/09	3.98	708	23.77	0.53	166.4	0.52
	11/18/10	3.88	719	23.02	0.87	357.5	0.94
	11/09/11	3.97	661	24.04	0.71	349.9	1.81
	11/08/12	3.70	649	23.77	0.87	401.0	0.32
	11/06/13	3.83	656	23.85	0.68	368.5	1.18
	11/20/14	4.00	621	21.08	0.93	360.0	0.39
	11/19/15	3.99	577	21.92	0.88	449.2	0.63
	11/10/16	3.72	592	23.93	0.91	320.4	0.83

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
AC-13D	09/27/97	4.30	580	24.00	9.50	NM	NM
	11/15/00	3.90	570	21.00	NM	NM	0.00
	11/08/01	4.15	565	23.10	NM	NM	0.00
	11/21/02	3.97	599	23.80	NM	NM	0.00
	01/16/04	4.23	629	23.29	0.08	316.2	0.55
	11/11/04	3.81	598	22.68	NM	NM	0.00
	11/10/05	3.98	706	23.81	0.07	228.9	0.17
	11/16/06	3.97	780	23.56	0.04	390.3	0.02
	11/19/07	4.01	796	22.82	0.05	159.7	0.00
	11/11/08	3.90	815	23.49	0.08	211.1	0.13
	11/12/09	4.02	781	23.66	0.16	213.1	0.22
	11/18/10	3.96	741	22.87	0.61	299.5	0.53
	11/09/11	4.01	810	23.97	0.01	297.3	0.54
	11/07/12	3.87	787	23.45	0.46	300.7	0.15
	11/06/13	3.92	761	23.66	0.03	283.4	0.56
	11/19/14	4.00	751	21.06	0.20	251.3	0.10
	11/20/15	4.07	700	21.81	0.06	374.7	0.43
	11/10/16	3.84	652	23.86	0.57	215.3	0.37
AC-24D	09/26/97	4.40	780	23.00	9.50	NM	0.00
	01/21/04	4.11	747	23.09	0.00	344.9	2.40
	11/18/08	4.24	776	22.77	0.11	198.5	0.32
	11/16/09	4.17	784	23.58	0.19	99.8	0.19
	11/23/10	4.12	753	22.80	0.84	303.8	0.30
	11/14/11	4.16	769	23.76	0.85	339.0	0.44
	11/09/12	3.95	848	22.53	0.10	362.1	1.17
	11/07/13	4.05	748	23.56	0.05	312.5	2.00
	11/24/14	4.16	613	23.58	0.29	243.0	1.03
	11/19/15	4.21	604	21.61	0.20	381.4	0.61
	11/10/16	4.00	529	23.69	0.58	265.6	0.42
AC-25D	09/24/97	4.70	1100	24.00	10.40	NM	0.00
	11/19/99	4.30	1400	23.00	NM	NM	0.00
	11/15/00	4.20	1400	22.00	NM	NM	1.00
	11/08/01	4.31	1240	21.00	NM	NM	9.30
	11/21/02	4.15	1420	22.90	NM	NM	0.05
	01/22/04	4.06	1534	22.61	0.68	177.3	4.19
	11/15/04	4.30	1204	22.69	NM	NM	4.49
	11/10/05	4.17	1502	23.28	0.08	125.4	1.10
	11/20/06	4.16	1481	22.79	0.03	360.9	1.50
	11/20/07	4.23	1449	22.26	0.07	181.9	0.25
	11/18/08	4.08	1356	22.23	0.07	-292.3	0.82
	11/17/09	4.17	1398	22.74	0.12	279.6	0.29
	11/23/10	4.11	1388	22.31	0.42	341.2	2.31
	11/15/11	4.15	1422	23.11	0.10	364.9	0.47
	11/14/12	4.00	1371	23.07	0.09	369.8	0.40
	11/12/13	3.96	1326	23.10	0.04	258.7	0.78
	11/20/14	4.14	1287	20.74	0.10	381.4	0.77
	11/20/15	4.21	1222	20.89	0.50	393.3	0.54
	11/09/16	4.07	1163	23.11	0.65	381.0	0.55
AC-29D	09/27/97	4.10	1700	23.00	9.10	NM	NM
	11/18/99	4.20	1500	22.00	NM	NM	0.00
	11/20/00	4.10	1300	22.00	NM	NM	1.00
	11/13/01	4.29	990	22.20	NM	NM	0.00
	11/25/02	3.87	1075	24.00	NM	NM	0.00
	01/23/04	4.14	1050	23.34	0.48	251.7	0.00
	11/12/04	4.08	797	22.61	NM	NM	2.74
	11/16/05	4.11	723	23.71	0.04	188.7	2.57
	11/17/06	4.25	744	23.68	0.05	348.8	0.00
	11/20/07	4.18	772	22.96	0.10	178.0	0.45
	11/18/08	4.05	790	23.55	0.23	309.6	0.11
	11/17/09	4.13	768	23.58	0.11	171.9	0.18
	11/19/10	4.08	782	23.02	0.39	343.5	0.62
	11/11/11	4.17	794	23.91	0.03	399.9	0.78
	11/13/12	4.04	762	23.74	0.11	267.0	0.30
	11/07/13	4.02	661	23.83	0.12	357.3	0.56
	11/17/14	4.09	655	21.13	0.20	408.3	0.81
	11/19/15	4.09	613	21.80	0.03	427.9	0.45
	11/11/16	3.87	572	23.95	0.42	331.7	0.45

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
ACB-31S	11/23/98	5.90	120	23.00	NM	NM	6.00
	05/25/99	5.80	220	26.00	NM	NM	2.00
	11/16/99	6.10	170	21.00	NM	NM	8.00
	05/16/00	5.70	130	24.00	NM	NM	7.00
	11/14/00	5.30	170	20.00	NM	NM	3.00
	05/08/01	5.45	176	22.50	NM	NM	999*
	11/06/01	5.73	111	22.10	NM	NM	4.6
	05/06/02	4.57	144	22.60	6.13	379	15.4
	05/07/03	5.17	108	22.83	NM	NM	7.2
	01/13/04	5.84	196	23.86	6.31	123	0.8
	05/10/04	5.78	208	24.76	NM	NM	10.2
	11/09/04	5.92	296	23.70	NM	NM	9.3
	05/10/05	5.56	248	23.12	6.78	103	5.1
	11/08/05	6.18	176	23.71	9.06	187	5.0
	05/17/06	6.00	218	23.19	6.99	265	2.0
	11/14/06	5.83	247	23.25	7.39	162	2.1
	05/16/07	5.49	223	23.14	7.71	213	2.4
	11/15/07	5.67	208	22.50	7.75	37	0.6
	05/15/08	5.32	218	23.19	7.87	109	0.9
	11/13/08	5.36	229	23.43	7.38	168	1.2
	11/19/09	5.89	220	23.38	6.66	88	2.1
	11/16/10	6.29	228	22.59	6.82	218	0.9
	11/08/11	6.01	220	23.61	8.45	172	3.5
	11/06/12	5.59	178	23.73	8.69	154	0.4
	11/05/13	6.12	172	23.83	8.43	112	1.2
	11/12/14	5.97	167	20.84	10.40	140.6	0.24
	11/18/15	6.13	154	21.73	8.50	188.8	0.40
	11/08/16	5.87	147	23.45	9.02	156.1	0.78
AC-35D	11/18/99	4.20	2200	22.00	NM	NM	8.00
	11/15/00	4.10	2200	22.00	NM	NM	0.00
	11/08/01	4.04	2010	21.40	NM	NM	3.80
	11/21/02	3.91	2037	22.80	NM	NM	2.80
	01/15/04	4.05	2060	22.36	0.01	362.0	0.80
	11/15/04	3.57	1607	21.95	NM	NM	3.89
	11/16/05	3.94	1889	22.87	0.13	187.8	9.20
	11/20/06	4.04	1818	22.89	0.05	237.7	2.20
	11/20/07	4.07	1725	22.25	0.06	210.8	0.00
	11/19/08	3.88	1749	22.75	0.23	271.6	0.91
	11/19/09	4.01	1736	22.97	0.09	193.1	1.43
	11/23/10	4.29	1737	22.36	0.38	247.7	8.99
	11/16/11	3.94	1611	22.98	0.10	303.7	0.24
	11/15/12	3.91	1545	22.93	0.06	281.4	0.28
	11/13/13	3.90	1495	23.00	0.08	351.5	0.59
	11/24/14	3.99	1381	23.16	0.84	233.6	0.65
	11/20/15	4.03	1374	20.76	0.10	384.1	0.65
	11/08/16	3.87	1254	23.07	0.94	244.5	0.54

NOTES:
su = standard units
µS/cm=microSiemens per centimeter
^{0}C = Degrees Celsius
mg/L = milligrams per Liter
mV = milliVolt
NTU = Nephelometric Turbidity Units
NM = Not Measured

* = turbidity reading above instrument capabilities
Wells purged with a bailer during the May 2001 sampling event
** = Well purged with a bailer

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-2S	May-97	88.65	NM	NM
	Sep-97		51.40	37.25
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		49.81	38.84
	May-00		NM	NM
	Nov-00		58.68	29.97
	May-01		59.37	29.28
	Nov-01		59.94	28.71
	May-02		61.29	27.36
	Nov-02		60.22	28.43
	May-03		NM	NM
	Jan-04		53.90	34.75
	May-04		54.44	34.21
	Nov-04		52.71	35.94
	May-05		46.87	41.78
	Nov-05		44.76	43.89
	May-06		NM	NM
	Nov-06		50.61	38.04
	May-07		52.94	35.71
	Nov-07		53.89	34.76
	May-08		53.02	35.63
	Nov-08		53.57	35.08
	Nov-09		55.93	32.72
	Nov-10		46.73	41.92
	Nov-11		46.73	41.92
	Nov-12		48.74	39.91
	Nov-13		49.19	39.46
	Nov-14		44.74	43.91
	Nov-15		48.39	40.26
	Nov-16		47.49	41.16
AC-3S	May-97	88.06	54.49	33.57
	Sep-97		55.44	32.62
	Nov-97		NM	NM
	May-98		50.19	37.87
	Nov-98		50.21	37.85
	May-99		56.37	31.69
	Nov-99		57.31	30.75
	May-00		NM	NM
	Nov-00		61.93	26.13
	May-01		NM	NM
	Nov-01		62.97	25.09
	May-02		NM	NM
	Nov-02		63.37	24.69
	May-03		NM	NM
	Jan-04		56.37	31.69
	May-04		57.53	30.53
	Nov-04		56.10	31.96
	May-05		41.03	47.03
	Nov-05		47.79	40.27
	May-06		50.15	37.91
	Nov-06		53.68	34.38
	May-07		56.20	31.86
	Nov-07		57.44	30.62
	May-08		61.65	26.41
	Nov-08		56.90	31.16
	Nov-09		55.84	32.22
	Nov-10		49.74	38.32
	Nov-11		49.74	38.32
	Nov-12		52.24	35.82
	Nov-13		52.24	35.82
	Nov-14		47.85	40.21
	Nov-15		51.75	36.31
	Nov-16		50.27	37.79

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-5S	May-97	82.34	43.86	38.48
	Sep-97		43.87	38.47
	Nov-97		NM	NM
	May-98		42.60	39.74
	Nov-98		42.32	40.02
	May-99		45.66	36.68
	Nov-99		46.65	35.69
	May-00		49.45	32.89
	Nov-00		50.98	31.36
	May-01		51.58	30.76
	Nov-01		52.09	30.25
	May-02		53.45	28.89
	Nov-02		51.73	30.61
	May-03		NM	NM
	Jan-04		46.17	36.17
	May-04		46.71	35.63
	Nov-04		44.94	37.40
	May-05		38.01	44.33
	Nov-05		36.86	45.48
	May-06		39.01	43.33
	Nov-06		42.38	39.96
	May-07		44.83	37.51
	Nov-07		45.34	37.00
	May-08		44.86	37.48
	Nov-08		45.49	36.85
	Nov-09		44.35	37.99
	Nov-10		38.33	44.01
	Nov-11		42.20	40.14
	Nov-12		40.62	41.72
	Nov-13		41.05	41.29
	Nov-14		36.75	45.59
	Nov-15		39.77	42.57
	Nov-16		39.15	43.19
AC-6S	May-97	69.32	NM	NM
	Sep-97		43.97	25.35
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		44.75	24.57
	May-00		NM	NM
	Nov-00		47.75	21.57
	May-01		NM	NM
	Nov-01		48.10	21.22
	May-02		NM	NM
	Nov-02		48.25	21.07
	May-03		NM	NM
	Jan-04		41.81	27.51
	May-04		NM	NM
	Nov-04		41.10	28.22
	May-05		NM	NM
	Nov-05		34.63	34.69
	May-06		NM	NM
	Nov-06		39.56	29.76
	May-07		NM	NM
	Nov-07		42.32	27.00
	May-08		NM	NM
	Nov-08		41.17	28.15
	Nov-09		40.47	28.85
	Nov-10		35.84	33.48
	Nov-11		39.58	29.74
	Nov-12		38.10	31.22
	Nov-13		37.59	31.73
	Nov-14		34.78	34.54
	Nov-15		37.31	32.01
	Nov-16		36.08	33.24

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-7SR	May-97	90.59	52.58	38.01
	Sep-97		NM	NM
	Nov-97		53.29	37.30
	May-98		51.04	39.55
	Nov-98		51.05	39.54
	May-99		54.11	36.48
	Nov-99		54.76	35.83
	May-00		57.93	32.66
	Nov-00		59.70	30.89
	May-01		60.38	30.21
	Nov-01		60.90	29.69
	May-02		62.35	28.24
	Nov-02		61.09	29.50
	May-03		59.64	30.95
	Jan-04		54.99	35.60
	May-04		55.55	35.04
	Nov-04		53.70	36.89
	May-05		47.23	43.36
	Nov-05		45.68	44.91
	May-06		48.27	42.32
	Nov-06		51.46	39.13
	May-07		54.04	36.55
	Nov-07		55.04	35.55
	May-08		54.09	36.50
	Nov-08		54.75	35.84
	Nov-09		53.81	36.78
	Nov-10		47.79	42.80
	Nov-11		47.79	42.80
	Nov-12		49.71	40.88
	Nov-13		50.23	40.36
	Nov-14		45.79	44.80
	Nov-15		49.55	41.04
	Nov-16		48.61	41.98
AC-24S	May-97	79.50	NM	NM
	Sep-97		57.32	22.18
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		59.29	20.21
	May-00		NM	NM
	Nov-00		62.81	16.69
	May-01		NM	NM
	Nov-01		63.35	16.15
	May-02		NM	NM
	Nov-02		63.86	15.64
	May-03		NM	NM
	Jan-04		57.97	21.53
	May-04		NM	NM
	Nov-04		NM	NM
	May-05		NM	NM
	Nov-05		51.10	28.40
	May-06		NM	NM
	Nov-06		56.82	22.68
	May-07		NM	NM
	Nov-07		59.45	20.05
	May-08		NM	NM
	Nov-08		59.19	20.31
	Nov-09		57.75	21.75
	Nov-10		57.86	21.64
	Nov-11		57.08	22.42
	Nov-12		54.74	24.76
	Nov-13		54.86	24.64
	Nov-14		51.68	27.82
	Nov-15		55.72	23.78
	Nov-16		CNL	CNL

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-26S	May-97	26.75	NM	NM
	Sep-97		19.62	7.13
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		20.36	6.39
	May-00		NM	NM
	Nov-00		20.74	6.01
	May-01		NM	NM
	Nov-01		20.88	5.87
	May-02		NM	NM
	Nov-02		20.58	6.17
	May-03		NM	NM
	Jan-04		20.04	6.71
	May-04		NM	NM
	Nov-04		19.36	7.39
	May-05		NM	NM
	Nov-05		18.29	8.46
	May-06		NM	NM
	Nov-06		19.60	7.15
	May-07		NM	NM
	Nov-07		19.54	7.21
	May-08		NM	NM
	Nov-08		19.61	7.14
	Nov-09		17.99	8.76
	Nov-10		18.26	8.49
	Nov-11		19.80	6.95
	Nov-12		19.12	7.63
	Nov-13		18.82	7.93
	Nov-14		18.52	8.23
	Nov-15		17.95	8.80
	Nov-16		18.23	8.52
AC-27S	May-97	18.50	NM	NM
	Sep-97		13.94	4.56
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		14.52	3.98
	May-00		NM	NM
	Nov-00		15.24	3.26
	May-01		NM	NM
	Nov-01		15.53	2.97
	May-02		NM	NM
	Nov-02		15.24	3.26
	May-03		NM	NM
	Jan-04		14.55	3.95
	May-04		NM	NM
	Nov-04		13.75	4.75
	May-05		NM	NM
	Nov-05		12.63	5.87
	May-06		NM	NM
	Nov-06		14.19	4.31
	May-07		NM	NM
	Nov-07		13.98	4.52
	May-08		NM	NM
	Nov-08		13.98	4.52
	Nov-09		11.78	6.72
	Nov-10		12.77	5.73
	Nov-11		14.09	4.41
	Nov-12		13.43	5.07
	Nov-13		13.63	4.87
	Nov-14		12.89	5.61
	Nov-15		12.32	6.18
	Nov-16		12.09	6.41

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-33S	May-97	89.18	50.54	38.64
	Sep-97		NM	NM
	Nov-97		51.25	37.93
	May-98		48.93	40.25
	Nov-98		48.86	40.32
	May-99		52.12	37.06
	Nov-99		52.80	36.38
	May-00		55.96	33.22
	Nov-00		57.66	31.52
	May-01		58.32	30.86
	Nov-01		58.90	30.28
	May-02		60.43	28.75
	Nov-02		58.71	30.47
	May-03		57.60	31.58
	Jan-04		52.97	36.21
	May-04		53.56	35.62
	Nov-04		51.60	37.58
	May-05		45.37	43.81
	Nov-05		43.65	45.53
	May-06		46.42	42.76
	Nov-06		49.59	39.59
	May-07		52.17	37.01
	Nov-07		52.89	36.29
	May-08		52.12	37.06
	Nov-08		52.80	36.38
	Nov-09		51.79	37.39
	Nov-10		45.88	43.30
	Nov-11		45.88	43.30
	Nov-12		47.70	41.48
	Nov-13		48.30	40.88
	Nov-14		43.95	45.23
	Nov-15		47.62	41.56
	Nov-16		46.83	42.35
AC-34S	May-97	89.09	51.35	37.74
	Sep-97		NM	NM
	Nov-97		52.09	37.00
	May-98		49.89	39.20
	Nov-98		49.93	39.16
	May-99		52.91	36.18
	Nov-99		53.62	35.47
	May-00		56.63	32.46
	Nov-00		58.46	30.63
	May-01		59.20	29.89
	Nov-01		59.73	29.36
	May-02		61.13	27.96
	Nov-02		60.01	29.08
	May-03		58.45	30.64
	Jan-04		53.74	35.35
	May-04		54.27	34.82
	Nov-04		52.48	36.61
	May-05		46.18	42.91
	Nov-05		44.42	44.67
	May-06		46.90	42.19
	Nov-06		50.14	38.95
	May-07		52.69	36.40
	Nov-07		53.47	35.62
	May-08		52.77	36.32
	Nov-08		53.34	35.75
	Nov-09		52.41	36.68
	Nov-10		46.39	42.70
	Nov-11		46.39	42.70
	Nov-12		48.44	40.65
	Nov-13		48.92	40.17
	Nov-14		44.44	44.65
	Nov-15		48.06	41.03
	Nov-16		47.21	41.88

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
NWD-2S	May-97	77.53	NM	NM
	Sep-97		39.75	37.78
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		41.72	35.81
	May-00		NM	NM
	Nov-00		45.82	31.71
	May-01		NM	NM
	Nov-01		46.77	30.76
	May-02		NM	NM
	Nov-02		47.15	30.38
	May-03		NM	NM
	Jan-04		45.67	31.86
	May-04		NM	NM
	Nov-04		44.49	33.04
	May-05		NM	NM
	Nov-05		37.09	40.44
	May-06		NM	NM
	Nov-06		42.60	34.93
	May-07		NM	NM
	Nov-07		46.25	31.28
	May-08		NM	NM
	Nov-08		45.55	31.98
	Nov-09		44.70	32.83
	Nov-10		38.84	38.69
	Nov-11		42.82	34.71
	Nov-12		NM	NM
	Nov-13		41.32	36.21
	Nov-14		37.36	40.17
	Nov-15		41.01	36.52
	Nov-16		39.45	38.08
NWD-4S	May-97	34.70	NM	NM
	Sep-97		19.33	15.37
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		20.68	14.02
	May-00		NM	NM
	Nov-00		22.21	12.49
	May-01		NM	NM
	Nov-01		22.58	12.12
	May-02		NM	NM
	Nov-02		21.89	12.81
	May-03		NM	NM
	Jan-04		20.16	14.54
	May-04		NM	NM
	Nov-04		NM	NM
	May-05		NM	NM
	Nov-05		16.59	18.11
	May-06		NM	NM
	Nov-06		19.92	14.78
	May-07		NM	NM
	Nov-07		20.22	14.48
	May-08		NM	NM
	Nov-08		16.59	18.11
	Nov-09		18.59	16.11
	Nov-10		17.17	17.53
	Nov-11		19.48	15.22
	Nov-12		17.96	16.74
	Nov-13		17.93	16.77
	Nov-14		16.61	18.09
	Nov-15		17.37	17.33
	Nov-16		17.76	16.94

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
ACB-31S	May-97	91.92	50.26	41.66
	Sep-97		NM	NM
	Nov-97		51.22	40.70
	May-98		48.78	43.14
	Nov-98		48.50	43.42
	May-99		51.84	40.08
	Nov-99		52.74	39.18
	May-00		55.84	36.08
	Nov-00		57.22	34.70
	May-01		57.94	33.98
	Nov-01		58.53	33.39
	May-02		60.31	31.61
	Nov-02		57.38	34.54
	May-03		57.36	34.56
	Jan-04		53.11	38.81
	May-04		53.62	38.30
	Nov-04		51.34	40.58
	May-05		43.27	48.65
	Nov-05		43.34	48.58
	May-06		46.50	45.42
	Nov-06		49.48	42.44
	May-07		52.25	39.67
	Nov-07		50.98	40.94
	May-08		52.11	39.81
	Nov-08		52.37	39.55
	Nov-09		51.14	40.78
	Nov-10		45.76	46.16
	Nov-11		45.76	46.16
	Nov-12		47.70	44.22
	Nov-13		48.28	43.64
	Nov-14		44.00	47.92
	Nov-15		46.38	45.54
	Nov-16		47.14	44.78
ACB-32S	May-97	88.16	48.11	40.05
	Sep-97		NM	NM
	Nov-97		48.92	39.24
	May-98		46.60	41.56
	Nov-98		46.52	41.64
	May-99		49.84	38.32
	Nov-99		50.62	37.54
	May-00		53.71	34.45
	Nov-00		55.41	32.75
	May-01		56.18	31.98
	Nov-01		56.77	31.39
	May-02		58.30	29.86
	Nov-02		56.65	31.51
	May-03		55.49	32.67
	Jan-04		50.81	37.35
	May-04		51.26	36.90
	Nov-04		49.25	38.91
	May-05		41.13	47.03
	Nov-05		40.99	47.17
	May-06		43.50	44.66
	Nov-06		46.77	41.39
	May-07		49.56	38.60
	Nov-07		49.32	38.84
	May-08		49.64	38.52
	Nov-08		49.95	38.21
	Nov-09		48.83	39.33
	Nov-10		42.83	45.33
	Nov-11		42.83	45.33
	Nov-12		45.18	42.98
	Nov-13		45.67	42.49
	Nov-14		41.20	46.96
	Nov-15		43.93	44.23
	Nov-16		44.11	44.05

NOTES:
ft NGVD = feet above National Geodetic Vertical Datum of 1988.
ft btoc = feet below top of casing.

TABLE 4
GROUNDWATER ELEVATIONS
November 8, 2016

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				

NM = Not measured
CNL = Could not locate

TABLE 5
SURFACE WATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Surface Water Location	Date	pH (su)	Conductivity (µs/cm)	Temperature (^{0}C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Salinity (ppT)
BT-02 Bayou Texar (Brackish Water)	11/17/2010	7.44	28,836	21.43	6.07	180.4	7.98	17.74
	11/17/2011	7.63	33,288	21.92	8.15	-9.5	11.30	20.84
	11/8/2012	7.58	36,769	22.35	7.39	70.8	12.10	23.24
	11/11/2013	7.08	27,605	22.12	7.39	84.0	30.50	NM
	11/21/2014	7.23	33,886	17.31	102.3	122.0	5.67	21.49
	11/16/2015	7.53	9,987	18.35	83.3	191.0	12.6	5.66
	11/7/2016	7.07	22,000	23.64	6.16	150	6.62	13.24
BT-107 Bayou Texar (Brackish Water)	11/17/2010	7.39	29,165	21.45	6.14	193.5	5.30	18.05
	11/17/2011	7.51	32,523	21.61	7.96	9.9	9.80	20.48
	11/8/2012	7.23	36,230	22.27	7.01	73.6	10.80	22.94
	11/11/2013	6.89	28,619	22.69	6.37	81.2	7.85	NM
	11/21/2014	7.85	35,026	17.39	92.9	119.7	5.75	22.04
	11/16/2015	7.09	7,907	18.15	77.1	185.3	9.45	4.41
	11/7/2016	6.99	18,967	23.87	6.39	163.1	6.61	11.26
BT-127 Bayou Texar (Brackish Water)	11/17/2010	7.33	28,735	21.31	5.87	240.7	6.21	17.64
	11/17/2011	7.69	35,000	21.73	7.94	-1.8	10.40	22.07
	11/8/2012	7.37	36,564	22.60	7.44	67.5	10.30	22.95
	11/11/2013	6.87	28,952	22.86	6.53	84.9	5.86	NM
	11/21/2014	6.96	34,062	17.53	7.73	117.6	9.27	21.43
	11/16/2015	5.38	18,851	20.21	63.1	203.8	4.03	9.39
	11/7/2016	6.92	18,618	24.48	8.71	185.0	8.81	11.03

NOTES:
SU = Standard Units
µs/cm= microsiemens per centimeter
^{0}C = Degrees Celsius
mg/L = milligram per Liter
mV = milliVolt
NTU = Nephelometric Turbidity Units
ppT=parts per thousand
NM = not measured

TABLE 6

ADVISORY NOTICE DISTRIBUTION LIST
WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
	FLORIDA IRRIGATION SUPPLY INC	2810 COPTER ROAD	PENSACOLA	FL	32514
	WALLACE SPRINKLER INC	3607 ANDREW AVE	PENSACOLA	FL	32505-4108
	ALL SEASONS POOL SERVICE	29 ADKINSON DR	PENSACOLA	FL	32506
	ALL SERVICES POOL SPA`	5585 WINDHAM RD	MILTON	FL	32507
	AMERICAN LIFESTYLE POOL, INC	5053 RING ROSE CT	GULF BREEZE	FL	32563-8935
	AVALON POOLS	4230 TANFIELD RD	MILTON	FL	32583
	PACE POOL & SPA SERVICES, INC.	4873 WEST SPENCER FIELD RD.	PACE	FL	32571-1232
	DOLPHIN POOLS	3210 GULF BREEZE PKWY	GULF BREEZE	FL	32563-2730
	FAMILY POOL AND SPA & BILLIARD CENTE	3920 N. DAVIS HIGHWAY	PENSACOLA	FL	32503
	JOHNSON POOLS, INC	401 MASSACHUSETTS AVE	PENSACOLA	FL	32505-4207
	PARKER POOLS	PO BOX 11769	PENSACOLA	FL	32524-1769
	PENSACOLA POOLS INC	4412 HIGHWAY 90	PACE	FL	32571
	PENSACOLA POOLS INC	3480 GULF BREEZE PKWY	GULF BREEZE	FL	32563-3406
	PINCH A PENNY POOL PATIO SPA	7859 PINE FOREST RD.	PENSACOLA	FL	32526-8701
	PINCH A PENNY POOL PATIO SPA	3307 GULF BREEZE PKWY	GULF BREEZE	FL	32563
	SUNSET POOLS SPAS & WHIRLPOOL BATI	4382 HIGHWAY 90	PACE	FL	32571
	BEDROCK WELLS - AAA SPRINKLERS & LA	6201 N. BLUE ANGEL PKWY	PENSACOLA	FL	32526-8006
	MCGOWAN WATER WORKS INC	3041 E. KINGSFIELD RD.	PENSACOLA	FL	32514-9753
	COFFEY S G WELL SVCE	331 BURNT PINE RD	BREWTON	AL	36426-5817
	COFFEY'S GEORGE WELL SERVICE	680 TRAVIS RD	BREWTON	AL	36426-5120
	RUSSELLS WELL AND PUMP SERVICES	4053 KENTWOOD ST.	MILTON	FL	32571-2432
	WINDHAM & SON PUMPING SUPPLY	5800 MULDOON RD.	PENSACOLA	FL	32526-1699
ALAN ARD	ARD'S CLOSED LOOP	1931 TILLIMAN LN	PENSACOLA	FL	32506
GLENN ASHLEY	ASHLEY WELL DRILLING	8056 WAKULLA SPGS RD	TALLAHASSEE	FL	32305
GREG BAILEY	GREG'S IRRIGATION	4264 BARLOW RD	CRESTVIEW	FL	32536
RONNIE BARLOW		4575 J BARLOW ROAD	JAY	FL	32565
BOBBY BARLOW	BARLOW WATER SERVICES	P O BOX 539	WEWAHITCHKA	FL	32465
FREDERICK BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
CHARLES BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
LESTER BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
MACK H BEASLEY	MACK H BEASLEY WATER WELL SERVICE	4940 BECK AVE	JAY	FL	32565
TERRY BERRY	BERRY'S WELL SERVICE	225 SPENCER DR	FT WALTON BEACH	FL	32547
DAVIS L BOOTH		903 W TENNESSEE ST	TALLAHASSEE	FL	32304
PAUL BRANSON	COFFEY'S WELL SERVICE	P O BOX 564	JAY	FL	32565
TERRY BRANTON	BRANTON BROTHERS WELL DRILLING	755 MALVERN RD	DOTHAN	AL	36301
NEAL BRICKENER		9393 EAST RIVER DR	NAVARRE	FL	32566
MORGAN BROWN		28 MOONEY ROAD NE	FT WALTON BEACH	FL	32547
DOCK L BRYANT JR	B & B WELL DRILLING	108 FETTING AVE	FT WALTON BEACH	FL	32547
BYRON BUTLER		P O BOX 2820	HAINES CITY	FL	33845
TROY E BYRD		P O BOX 371	ATMORE	AL	36504
JOHN G CATON	UNIVERSAL SPRINKLER & LANDSCAPING	5344 SOUNDSIDE DRIVE	GULF BREEZE	FL	32563
HERBERT CHRISTIAN	CHRISTIAN TESTING LABS INC	P O BOX 3218	MONTGOMERY	AL	36109
JL CLANTON	CLANTON'S WELL DRILLING	6512 LOIS ST	PANAMA CITY	FL	32404
MARK COBB	C & S WELL SERVICE	2712 TWILIGHT AVE	PANAMA CITY	FL	32405
SANDRA COFFEY	S G COFFEY WELL SERVICE	409 BURNT PINE RD	BREWTON	AL	35425-5859
JIMMY H COFIELD	JIM'S WELL DRILLING	P O BOX 93	FLOMATON	AL	36441
TE COLLEY		5558 ORIOLE ST	MILTON	FL	32570
ARTHUR COLLINGSWORTH		6806 KEITHLEY RD	PANAMA CITY	FL	32404
JAMES R CONNER	JAMIE CONNER WELL DRILLING SERVICES	1278 LEAVINS RD	WESTVILLE	FL	32464
JOHN COOKE	COOKE'S WELL DRILLING SERVICE	4924 SATIN DR	BASCOM	FL	32423
VERNON CREAMER	COASTAL WELL DRILLING	11939 RACOON RD	SOUTHPORT	FL	32409
DON CRUTCHFIELD	PENSACOLA TESTING LAB	217 E BRENT LN	PENSACOLA	FL	32503
WILLIAM DAVIS	BILL DAVIS DRILLING SERVICES	32 SHORELINE DRIVE	PANACEA	FL	32346
ROBERT DE VALCOURT	PERDIDO HEATING & AIR	5555 BAUER RD	PENSACOLA	FL	32507
ROBIN DEAN	ROBIN DEAN WELL DRILLING	1904 WAX MYRTLE RD	TALLAHASSEE	FL	32310
WESLEY DEAN	DEAN'S WELL DRILLING	PO BOX 1469	WOODVILLE	FL	32362-1469
WESLEY DONALDSON	DONALDSON WELL DRILLING	1321 BLUE ANGEL PKY	PENSACOLA	FL	32506
ROBERT M DORRIETY		5251 COY BURGESS RD	DEFUNIAK SPRINGS	FL	32435
CURT DOYLE	GEOTECHNICAL SERVICES INC	904 BUTLER DR	MOBILE	AL	36693
HARRY DYE	HARRY'S WELL SERVICE	400 KELSON RD	PENSACOLA	FL	32514
BOB ECHOLD	NORTHWEST FLORIDA WATER MANGEME	5453 DAVISSON RD	MILTON	FL	32583-5329
MATT GARCIA		1426 LOLA DR	TALLAHASSEE	FL	32301
DAN GARY	DAN GARY WELL DRILLING	RTE 1 BOX 164	GENEVA	AL	36340
DONALD GELDBAUGH	SOUTHERN COMPANY SERVICES INC	ONE ENERGY PLACE	PENSACOLA	FL	32520
ALPHA GIPSON	ALPHA GIPSON	6131 AGELINA RD	PENSACOLA	FL	32504
TOMMIE GLASS		5970 COLTER ROAD	MILTON	FL	32583-2834
EM GLOVER	E. M. GLOVER DRILLING	243 GLOVER LN	CRAWFORDVILLE	FL	32327
WENDELL HALL		6620 CHIPEWA ST	PANAMA CITY	FL	32404
JOSEPH HARRELL JR	GEO ENERGY DRILLING INC	P O BOX 1454	CRAWFORDVILLE	FL	32326
HOWARD HAYES		20181 SE CL CAPPS RD	BLOUNTSTOWN	FL	32424
STEVE HOLT	HOLT WELL SERVICE	8331 HWY 189 N	BAKER	FL	32531
EDGAR HUGHES		6302 CR 636	CHANCELLOR	AL	36316

TABLE 6

ADVISORY NOTICE DISTRIBUTION LIST
WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
LEWIS C JOHNSON		4537 JAY BARLOW RD	JAY	FL	32565
LEWIS G JOHNSON	AMERICAN WELL DRILLING	7116 NELSON ST	NAVARRE	FL	32566
DAVID L JOHNSON	JOHNSON WELL DRILLING	5056 OAK DR	BASCOM	FL	32423
JAMES JOHNSON		7716 SUNSHINE HILL RD	MOLINO	FL	32577
DON JONES	LARRY JACOBS & ASSOCIATES	328 E GADSDEN ST	PENSACOLA	FL	32501
BILL KIGHT		3511 N CENTRY BLVD	MCDAVID	FL	32568
EVERETTE LEAVINS	EVERETTE B LEAVINS WELL DRILLING	1239 LEAVINS RD	WESTVILLE	FL	32464
JAMES T LEWIS	ADVANCED BORING INC	4931 WOOD CLIFF DR	PENSACOLA	FL	32504
ROBERT LIVINGSTON		4909 PARK ST	PANAMA CITY	FL	32404
JOHN MARTIN		P O BOX 623	DEFUNIAK SPRINGS	FL	32435
SAM MARTIN	SAM MARTIN WELL DRILLING	P O BOX 623	DEFUNIAK SPRINGS	FL	32435
BILLY MCCLAIN	FLORIDA DEPARTMENT OF ENVIRONMEN	2600 BLAIR STONE ROAD	TALLAHASSEE	FL	32399
GENE MCGOWAN		3041 E KINGSFIELD RD	PENSACOLA	FL	32526
MICHAEL MCGUYRE	MCGUYRE'S WELL DRILLING	4090 BUFORD LN	MILTON	FL	32583
TE MILLS	MILLS WELL DRILLING & PUMPS	5355 TOWER RD	TALLAHASSEE	FL	32303
BRICE MOODY	BRICEY MOODY WELL DRILLING	160 SAN MARCOS DR	CRAWFORDFILLE	FL	32327
MAINOR MOORE	MOORE ELECTRIC COMPANY	1110 W WASHINGTON ST	QUINCY	FL	32351
JOHN A MORRILL		3805 A SPRINGHILL RD	TALLAHASSEE	FL	32310
FRANK J MOSLEY	MOSLEY WELL & PUMP	7685 FAIRBANKS FERRY RD	HAVANA	FL	32333
CLYFTON MYERS	MYERS PUMP & INSTALLATION	1391 ACORN LN	PENSACOLA	FL	32514
JAMES PEEL	SOUTHERN TESTING & DRILLING INC	1419 ORANGE HILL RD	CHIPLEY	FL	32428
TONY POWELL		P O BOX 116	URIAH	AL	36480
DOUGLAS RAY	FREETIME IRRIGATION	107 22ND STREET	NICEVILLE	FL	32578
HARVEY REAVES		P O BOX 426	WOODVILLE	FL	32362
CARL REVELL JR	REVELL WELL DRILLING	P O BOX 123	SOPCHOPPY	FL	32358
ROBERT ROACH	BOYLES BROTHERS DRILLING CO	P O BOX 1111	NORTHPORT	AL	35476
RICHARD ROWE		P O DRAWER 1389	TALLAHASSEE	FL	32302
LAMAR ROWE	ROWE DRILLING COMPANY INC	P O DRAWER 1389	TALLAHASSEE	FL	32302
ROBERT SCRIBNER	KCW ELECTRIC CO INC	4765 SHELFER RD	TALLAHASSEE	FL	32310
WAYNE SIMMONS	SIMMONS WELL DRILLING	3152 BOB SIKES ROAD	DEFUNIAK SPRINGS	FL	32435
MILFORD SIMS		3606 S LAKEWOOD DR	TALLAHASSEE	FL	32310
STEVE SMALLEY	NORTH FLORIDA WELL DRILLING	24396 LONE STAR CT	TALLAHASSEE	FL	32310
DONALD SMITH	DONALD SMITH COMPANY INC	746 E MAIN	HEADLAND	FL	36345
FILBERT SMITH	ARDAMAN AND ASSOCIATES	3175 W THARPE ST	TALLAHASSEE	FL	32303
MIKE SPIVA	MIKE'S WATER WORKS	PO BOX 1299	SANTA ROSA BEACH	FL	32459-1289
MICHAEL SUGGS		936 PIONEER RD	CHIPLEY	FL	32428
CLIFFORD TAYLOR	POLLOCK WELL DRILLING INC	7307 EVEREST ST	PANAMA CITY	FL	32404
JAMES THOMASON		328 SEMINOLE ST	FT WALTON BEACH	FL	32547
VJ THOMPSON III	THOMASON DEEP WELL DRILLING	P O DRAWER 91537	MOBILE	AL	36691
VONNIE TOLBERT	VONNIE'S WELLS	7621 SAMANTHA CIRCLE	NAVARRE	FL	32566
JAMES TRINDELL		6 THREE SISTERS ROAD	CRAWFORDVILLE	FL	32327
DEN A TRUMBULL JR	CULLIGAN WATER SERVICES INC	315 E 15TH ST	PANAMA CITY	FL	32405
VICTOR C WALLACE	WALLACE SPRINKLER & SUPPLY INC	P O BOX 1313	GULF BREEZE	FL	32562
ALEX WALTERS		10704 ALEX DRIVE	FOUNTAIN	FL	32438
CHALES M WARD	CLYDE'S WELL SERVICE INC	4537 J BARLOW ROAD	JAY	FL	32565
JAMES W WESTBROOK	J & W WELL DRILLING	P O BOX 135	BASCOM	FL	32423
CHARLES WINDHAM	WILLIAMSON WELL DRILLING INC	5800 MULDOON RD	PENSACOLA	FL	32506
TERRY WOODWARD	TERRY'S WELL SERVICE	5001 CHIMES WAY	PENSACOLA	FL	32507
CHARLES WYCKOFF		12751 SMITH YOUNG RD	MOBILE	AL	36695
ACE PLUMBING & DRAIN		8861 GULF BEACH HWY	PENSACOLA	FL	32507
AGGRESSIVE PLUMBING BY R BROADLEY		1015 E LAKEVIEW AVE	PENSACOLA	FL	32503
ARNO'S PLUMBING AND HEATING		6917 SEA CRAB CIRCLE	NAVARRE	FL	32566
ARTO'S SEWER AND DRAIN PLUMBING CO INC		P O BOX 18116	PENSACOLA	FL	32523
BARBERI PLUMBING		1022 UNDERWOOD AVE	PENSACOLA	FL	32504
BELLVIEW PLUMBING CO INC		3101 MULDOON RD	PENSACOLA	FL	32526
BOYD PLUMBING		2464 S HWY 29	CANTONMENT	FL	32533
CLYDE'S SERVICES		815 N 77TH AVE	PENSACOLA	FL	32506
COKER PLUBMING CO		521 MILLS AVE	PENSACOLA	FL	32507
COOPER GARY PLUMBING		5676 COUNTRY SQUIRE DR	MILTON	FL	32570
EAST BAY PLUMBING CO		6255 EAST BAY BLVD	GULF BREEZE	FL	32561
ELECTRIC ROTO		2376 W NINE MILE RD	PENSACOLA	FL	32534
ESCAMBIA PLUMBING AND HEATING CO		1860 ATWOOD DR	PENSACOLA	FL	32514
FAVORITE PLUMBING CO		2828 N T STREET	PENSACOLA	FL	32505
JIM'S PLUMBING OF NAVARRE INC		1888 COMMODORE ST	NAVARRE	FL	32566
JOHNSON LEON PLUMBING CO		7108 WHIRLEYBIRD AVE	PENSACOLA	FL	32504
MMI MECHANICAL CONTRACTOR		4904 W SPENCER FIELD	PACE	FL	32571
MCCLUSKEY PLUMBING CO		808 W ZARRAGOSSA STREET	PENSACOLA	FL	32501
PAYNE & SON PLUMBING, HEATING, AIR CONDITIONING		P O BOX 2575	PENSACOLA	FL	32513
PENSACOLA PLUMBING CONTRACTORS		2313 BROOKWOOD PLACE	PENSACOLA	FL	32533
QUALITY ONE PLUMBING CO		5724 PALMETTO PL	MILTON	FL	32570
ROOT-A-SEWER INC		2701 LONG LEAF DR	PENSACOLA	FL	32526
S & S PLUMBING AND MECHANICAL INC		7845 PINE FOREST RD	PENSACOLA	FL	32526

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WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
SANTA ROSA PLUMBING		5510 TOM SAWYER RD	MILTON	FL	32583
SPIVEY & SON PLUMBING INC		9820 VONNA JO DR	PENSACOLA	FL	32506
VAN PLUMBING		3248 CLEMSON RD	GULF BREEZE	FL	32561
WARRINGTON PLUMBING INC		910 W MAIN	PENSACOLA	FL	32501
BRAUN'S SPRINKLER SERVICE		10852 BERRYHILL RD	PENSACOLA	FL	32506
GORMAN CO INC		4149 WAREHOUSE LANE	PENSACOLA	FL	32505
PHOENIX LANDSCAPE & IRRIGATION INC		P O BOX 924	GULF BREEZE	FL	32562
RAINFALL LANDSCAPE & SPRINKLER		9850 NORTH LOOP RD	PENSACOLA	FL	32507
TIECO GULF COAST INC		540 W MICHIGAN AVE	PENSACOLA	FL	32505
DOUG MERRITT IRRIGATION		2600 W MICHIGAN AVE, LOT 35E	PENSACOLA	FL	32526
TRIM A LAWN LAWN & GARDEN CENTER		1405 GULF BEACH HIGHWAY	PENSACOLA	FL	32507
MCGOWAN IRRIGATION		3041 E KINGSFIELD RD	PENSACOLA	FL	32526
GARVEY IRRIGATION		PO BOX 250	MOLINO	FL	32577-0250
KEN GRIFFIN LANDSCAPE CONTRACTORS INC		3004 WESTFIELD RD	GULF BREEZE	FL	32563
PENSACOLA LANSCAPING & LAWN CARE		7795 GROW DR	PENSACOLA	FL	32514
WATER WORKS SPRINKLER SYSTEMS & PONDS		4669 ANNA SIMPSON RD	MILTON	FL	32583
C & H PLUMBING		5239 OLD BERRYHILL RD	MILTON	FL	32570
DEALE PLUMBING		7019 WOODLEY DR	PENSACOLA	FL	32503
DOWNS PLUMBING & GAS	LARRY DOWNS	5840 MULDOON RD	PENSACOLA	FL	32526
ELECTRIC ROTO ROOTER SEWER & DRAIN CLEANING		2376 W NINE MILE ROAD	PENSACOLA	FL	32534
FLORIDA AIR CONDITIONING & PLUMBING		9310 BRIDLEWOOD RD	PENSACOLA	FL	32526
THE FRIENDLY PLUMBER OF FLORIDA INC		4300 HOLLYWOOD AVENUE	PENSACOLA	FL	32505
HIGH TECH PLUMBING & HEATING		8375 RALEIGH CIRCLE	PENSACOLA	FL	32534
HOMEOWNERS' ASSURANCE INC		4382 HIGHWAY 90	PACE	FL	32571
PACE PLUMBING		4274 BELL LANE	PACE	FL	32571
PETTRY PLUMBING & GAS SERVICE		P.O. BOX 3422	PENSACOLA	FL	32516
ROTO-ROOTER SERVICE & DRAIN CLEANING		2376 W NINE MILE RD	PENSACOLA	FL	32534
TERRY SMITH PLUMBING INC		22 W NINE & ONE HALF MILE RD	PENSACOLA	FL	32534
ENSLEY SEPTIC TANK SERVICE		10491 BETMARK RD	PENSACOLA	FL	32534
ALTERNATE RAIN SYSTEMS		5353 N BLUE ANGEL PARKWAY	PENSACOLA	FL	32526
AMORE SPRINKLER CO		3652 GARDENVIEW RD	PACE	FL	32571
IRRIGATION ENGINEERING		920 E LLOYD ST	PENSACOLA	FL	32503
KILLER WELLS, INC.		2600 W. MICHIGAN AVE, LOT 35E	PENSACOLA	FL	32525-2282
PERDIDO IRRIGATION SYSTEMS		5555 BAUER ROAD	PENSACOLA	FL	32507
RIKER IRRIGATION		1144 W NINE MILE RD	PENSACOLA	FL	32534
A1 LAWN SPRINKLER CO		15 REDWOOD CIRCLE	PENSACOLA	FL	32506
M7N VENDING SERVICE		440 W. HANNAH STREET	PENSACOLA	FL	32534
GULF COAST POOL & SPA INC		2461 LANGLEY AVE	PENSACOLA	FL	32504
MANNING BROS POOL INC		9465 PENSACOLA BLVD	PENSACOLA	FL	32534
PANAMA POOLS OF NORTHWEST FLORIDA		291 POWELL ADAMS RD	PENSACOLA	FL	32413
PENSACOLA POOLS INC		8514 PENSACOLA BLVD	PENSACOLA	FL	32534
VAUGHN'S INC OF PENSACOLA		1290 NINE MILE ROAD	PENSACOLA	FL	32534
ALLPOOLS		8062 BRIOR OAK DRIVE	PENSACOLA	FL	32514
AVALON POOLS		4230 TANFIELD ROAD	MILTON	FL	32583
COX POOLS		22656 F CANAL ROAD	ORANGE BEACH	AL	36561
D K POOLS INC		4111 LILLIAN HWY	PENSACOLA	FL	32505-2202
L W POOLS		11600 MOBILE HIGHWAY	PENSACOLA	FL	32526
PINCH A PENNY POOL PATIO SPA		8090 N 9th AVE	PENSACOLA	FL	32514
SUNSET POOLS SPAS & WHIRLPOOL BATHS		4382 HIGHWAY 90	PACE	FL	32571
SOUTH CENTRAL POOL SUPPLY		8808 Grow Dr	PENSACOLA	FL	32514
FANTASY POOLS & SPA		1350 S Blue Angel Pkwy	PENSACOLA	FL	32506
JOHNSON POOLS INC.		401 Massachusetts Ave	PENSACOLA	FL	32505
FAGANS CUSTOM POOLS INC.		13440 Serenity Cir	PENSACOLA	FL	32506
ATLANTIS POOL & SPA		2075 Elaine Cir	PENSACOLA	FL	32504
SUPERIOR POOLS PRODUCTS		3338 Mclemore Dr	PENSACOLA	FL	32514

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OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
AFFORDABLE TREE LAWN & POOL		2011 W. Garden Street	PENSACOLA	FL	32502
EMERALD COAST IRRIGATION LLC		3041 Kingsfield Road	PENSACOLA	FL	32514
JERRY PATE TURF & IRRIGATION INC.		301 Schubert Drive	PENSACOLA	FL	32504
GULFSIDE LANDSCAPING INC		8221 Kipling Street	PENSACOLA	FL	32514
GONZALEZ PLUMBING & SPRINKLER		1801 Government Street	PENSACOLA	FL	32502
AIR DESIGN SYSTEMS INC.		400 Lurton St	PENSACOLA	FL	32505
ALL PRO PLUMBING & DRAIN		1765 E Nine Mile Rd Ste 1	PENSACOLA	FL	32514
ARTO'S SEWER & DRAIN SERVICE INC		2923 Rhythm St	PENSACOLA	FL	32505
CERTIFIED PLUMBING SEWER & GAS		7075 N Blue Angel Pkwy	PENSACOLA	FL	32526
PRICHARDS PLUMBING		40 Olive Rd	PENSACOLA	FL	32514
AGGRESSIVE PLUMBING		1220 Maura St	PENSACOLA	FL	32503
Terry Lambert Plumbing & Gas Service Inc		8145 Whitmire Dr	PENSACOLA	FL	32514
BATTLES PLUMBING LLC		2083 Downing Dr	PENSACOLA	FL	32505
KIMMON PLUMBING INC.		2560 Gulf Breeze Ave	PENSACOLA	FL	32507
NELSON PLUMBNIG CONTRACTORS		211 Brent Ln	PENSACOLA	FL	32503
GMC PLUMBING CONTRACTOR		664 Whitney Dr	PENSACOLA	FL	32503
CASEY HYMAN PLUMBING INC		5650 Dixie Dr	PENSACOLA	FL	32503
BALDWIN PLUMBING WORKS INC		3521 Bauer Rd	PENSACOLA	FL	32506
PLUMBERSMITH		9312 Bridlewood Rd	PENSACOLA	FL	32526
AQUA PRODUCTS INC.		3983 N.W. Street	PENSACOLA	FL	32505
VIP POOLS		3303 N. Davis Hwy.	PENSACOLA	FL	32503
AFFORDABLE POOL & SPA REPAIR INC.		7208 W. Fairfield Drive	PENSACOLA	FL	32506
POOL CARE		600 Careondelay Drive	PENSACOLA	FL	32506
LESLIE'S SWIMMING POOL SUPPLIES		9251 University Pkwy	PENSACOLA	FL	32514
KENNY SMITHS POOL CARE		7134 Inniswold Drive	PENSACOLA	FL	32526
LORING IRRIGATION		2406 Escambia Avenue	PENSACOLA	FL	32503
THE FINISH LINE COMPANIES		3370 Pursell Lane	PENSACOLA	FL	32526
PROFESSIONAL SPRINKLER SYSTEMS INC		1125 Corsa Terrace	PENSACOLA	FL	32514
GULF STREAM LANDSCAPING & IRRIGATION		8449 Old Palafox Street	PENSACOLA	FL	32504
KEN GRIFFIN LANDSCAPE CONTRACTORS		3004 Westfield Road	GULF BREEZE	FL	32563
LAYNE CHRISTENSEN CO		3720 N. Palafox Street	PENSACOLA	FL	32505
PRO POOLS INC.		1752 Old Bainbridge Road	TALLAHASSEE	FL	32303
BRYANT CHEMICAL COMPANY		6206 Vicksburg Drive	PENSACOLA	FL	32503
K C W WATER WELL SERVICE		4765 Shelfer Road	TALLAHASSEE	FL	32305
DRILLING SOLUTIONS IINC.		5624 Pasture Lane	JAY	FL	32565
AQUA POOL & PATIO		5904 N. Palafox St	PENSACOLA	FL	32503
SURFSIDE POOLS		6677 Old Bagdad Hwy.	MILTON	FL	32583

TABLE 7
IRRIGATION WELL INFORMATION

Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
1		C.E. Anderson	905 TEXAR DRIVE	2	85	75	SZ	NO	NO			Outside of area of expected impacts for SZ
2	41(HC-1)	Holy Cross Cemetary Diocese of Pensacola	1300 E. HAYES	4	160	140	MPZ	YES	YES	11/28/2000		Two wells exist for cemetary, for sampling purposes labeled HC-1 and HC-2
	41(HC-2)	Holy Cross Cemetary Diocese of Pensacola	1300 E. HAYES	4	160	140	MPZ	YES	YES	11/28/2000		Two wells exist for cemetary, for sampling purposes labeled HC-1 and HC-2
3	81	C. Hass	349 SILVER ROAD	4	82	82	SZ	NO	NO			Outside of area of expected impacts for SZ
4	82	W.S. VanMetre	1221 TEXAR	4	95	95	SZ	NO	NO			Outside of area of expected impacts for SZ
5	97	O. English	3803 N. 10TH AVE.	4	71	130	120	yes	YES	3\13\01		
6	103	Dr. D. McGraw	1680 TEXAR	4	71	61	SZ	NO	NO			Outside of area of expected impacts for SZ
7	109	K. Wolfersterger	2700 MAGNOLIA AVE.	4	115	100	MPZ	YES	NO			
8	110	F & Kathleen Edsel, Jr	2721 BLACKSHEAR	4	UNK	UNK	UNK	RETURNED	NO			
9	111	J. Colley	1750 E. TEXAR DR.	2	85	80	SZ	NO	NO			Outside of area of expected impacts for SZ
10		Curry	2701 N. 16TH AVE.	4	158	143	MPZ	YES	YES	3/15/2001		
11	123	D. Lavin	3632 MENENDEZ DR.	4	73	63	SZ	NO	NO			Outside of area of expected impacts for SZ
12	124	Dr. B. Beidleman	2909 BLACKSHEAR	4	87	77	SZ	NO	NO			Outside of area of expected impacts for SZ
13	127	F. McCallister	2706 BLACKSHEAR	4	85	75	SZ	NO	NO			Outside of area of expected impacts for SZ
14	135	J. Klocke	2914 BLACKSHEAR	2	50	45	SZ	NO	NO			Outside of area of expected impacts for SZ
15	139	R. Moulton	3970 MENENDEZ DR.	4	110	100	MPZ	YES	NO			Well capped under land surface. Not Used
16	140	M. Johnson	1650 E. HAYES ST.	4	120	110	MPZ	YES	YES	11/28/2000		
17	142	L. Fishman	3003 MAGNOLIA AVE	NA	NA	NA	NA	YES	NA	NA		**No well found at location**
18	143	F. Clayborn	1640 E. HAYES ST.	4	125	110	MPZ	YES	NO		2/27/2001	Well exists. Irrigation System Not Used.
19	144	Dr. Willis (Family Practice)	915 E. FAIRFIELD DR	4	120	110	MPZ	YES	YES	5/10/2001		
20	160	B. Hodnelle, Jr.	3966 MENENDEZ	4	117	107	MPZ	YES	NO			
21		E. Davis	4130 MENENDEZ	2	45	40	SZ	NO	NO			Outside of area of expected impacts for SZ
22	194	D. Conkle	3080 BLACKSHEAR AVE	2	68	63	SZ	NO	NO			Outside of area of expected impacts for SZ
23	P9407748	Henry Langhorn	1725 EAST MAURA ST	4	140	120	MPZ	YES	NO			
24	P9503948	Floral Tree Gardens	3601 NORTH DAVIS HWY.	4	115	100	MPZ	YES	NO			
25	T8301727	Fred Levin	3600 MENENDEZ	2	35	30	SZ	NO	NO			Outside of area of expected impacts for SZ
26	T8402575	W.L. Glaze	2675 N. 17TH AVENUE	4	140	120	MPZ	RETURNED	NO			
27	T8403811	Mrs. Dorothy Bearman	1501 GAMARA ROAD	4	110	100	MPZ	YES	NO			
28	T8707396	Richard and Sarah Sanchez	1221 DURNFORD PLACE	4	140	130	MPZ	YES	YES	3/1/2001		
29	T8800778	William C. Baker	1250 DRIFTWOOD DRIVE	4	110	90	MPZ	YES	NO			

TABLE 7
IRRIGATION WELL INFORMATION

Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
30	T8905178	Leroy Gamlin	1005 TUNIS STREET	4	116	106	MPZ	YES	NO			
31	T9005951	Joseph Bores	4100 MENENDEZ DRIVE	4	130	120	MPZ	YES	YES	11/28/2000		
32	T9103343	Charles R. Earnest	1900 EAST LEONARD ST.	4	151	121	MPZ	YES	YES	11/28/2000		Well Resampled 5-10-01 to confirm PCE detection
33	T9104961	Dr. Peter C. Delevett	1660 TEXAR DRIVE	2	84	74	SZ	NO	NO			
34	T9104962	Paul Williams	800 E. BAARS ST	4	120	60	MPZ	YES	NO			808 E. Baars sharing well at 800 E. Baars
35	T9206908	John C. Sowers	3090 BLACKSHEAR AVE	2	90	80	SZ	NO	NO			Outside of area of expected impacts for SZ
36	T9304906	J.E. Boatwright Jr.	2575 PARADISE POINT DR	4	120	100	MPZ	YES	YES	3/1/2001		
37	T9701332	Elisabeth Holmes	1781 E. LEONARD ST.	2	UNK	UNK	UNK	YES	NO			
38	T9800088	James T. Baer	1775 EAST TEXAR DR	4	UNK	UNK	UNK	YES	YES	11/29/2000		
39	P9405922	Randy Head	2015 E. Maura St	NA			NA	YES	NA			**No well found at location**
40	158	N. Kinder	1227 BARCIA DR.	UNK	UNK	UNK	UNK	YES	NO			
41	162	W. Veasie	1271 DRIFTWOOD DR.	4	96	73	SZ	NO	no			Outside of area of expected impacts for SZ
42	171	D. Tringas	2621 PARADISE POINT	UNK	UNK	UNK	UNK	YES	YES	3/1/2001		
43	172	B. Samples	1009 EAST TUNIS	UNK	UNK	UNK	UNK	YES	YES	11/28/2000		
44	178	C. Davis	1555 EAST CROSS ST.	2	UNK	UNK	UNK	YES	NO			
45		Moss & Bessie Wilson	3510 N. 9TH AVE	NA	NA	NA	NA	NO	NA			**No well found at location**
46		John & Priscilla Snyder	2912 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	YES	NO			
47		David & Jean Mayo	3030 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	YES	YES	3/1/2001		
48		Neroy & Lois Anderson	1301 E FISHER ST	UNK	UNK	UNK	UNK	YES	NO			
49		Jude & Nancy White	1710 E CROSS ST	4	140		UNK	YES	YES	8/25/1999		Results in the First annual report OU-2 (2/2000)
50		Mr. Glen McDonald	2860 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	RETURNED	NO			
51		John & Sue Woodward	2710 BLACKSHEAR AVE	4	100	90	MPZ	YES	YES	3/1/2001		
52	159	Amos & Clementine Prevatt	2712 BLACKSHEAR AVE	2	55	45	SZ	NO	NO			Outside of area of expected impacts for SZ
53	80	Howard & Joyce Rein	2101 E CROSS ST	4	130	120	MPZ	YES	YES	11/28/2001		
54		Diocese of Pensacola	1231 DURNFORD PL	UNK	UNK	UNK	UNK	YES	YES	11/28/2001		Bishop's Residence
55		Larry & Catherine Parks	1210 DURNFORD PL	4	145	130	MPZ	YES	NO		2/27/2001	

TABLE 7
IRRIGATION WELL INFORMATION

Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
56		Dennis & Betty Peters	3990 MENENDEZ DR	4	78	65	SZ	NO	NO			Outside of area of expected impacts for SZ
57		Jack & Carolyn Fleming	4010 MENENDEZ DR	UNK	UNK	UNK	UNK	YES	YES	11/28/2000		
58		Richard & Page Ciordia	4020 MENENDEZ DR	4	92	82	SZ	NO	NO			Outside of area of expected impacts for SZ
59		Garrett & Joyce Boyd	1261 STOW AVE	UNK	UNK	UNK	UNK	YES	NO			
60		Gene Schmidt	4141 MENENDEZ DR	4	115	100	MPZ	YES	YES	11/29/2000		
62		C.E. Davis	808 BAARS ST.	UNK	UNK	UNK	UNK	YES	YES	3/13/2001		
63	P200104-707	Escambia County Park Service	CARRIE MILLER PARK	4	90	70	SZ	NO	NO			Downgradient of FDEP Kaiser Site; drilled after moratory initiated.

(1) ID = Map ID number for Figure 2
(2) Permit = Northwest Florida Water Management District Permit Number
(3) Aquifer = SZ = Surficial zone of Sand-and-Gravel Aquifer; MPZ = Main producing zone of Sand-and-Gravel Aquifer;
(4) Unknown = No well construction information available ; UNK= Data Unknown
*(5) NA = Not Applicable
*(6) ft. bls = feet below land surface

	SUMMARY	TOTAL
1.	NUMBER OF NOTIFICATIONS OF VOLUNTARY ABANDONMENT OFFER	41
2.	NUMBER OF LOCATION WHERE SURFICIAL ZONE IRRIGATION WELLS EXIST BUT NO POTENTIAL FOR IMPACTS BY AGRICO-RELATED CONSTITUENTS	8
3.	WRONG INFORMATION - NO WELL PRESENT AT LOCATION	1
4.	NUMBER OF ADDITIONAL IRRIGATION WELLS IDENTIFIED (1 additional well identified at Holy Cross Cemetery)	1
5.	TOTAL NUMBER OF IRRIGATION WELLS IDENTIFIED	60
6.	TOTAL NUMBER OF WELLS ABANDONED THROUGH FEBRUARY 2001.	0
7.	NUMBER OF WELLS SAMPLED THROUGH FEBRUARY 2001.	12

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Surficial Zone										
ACB-31S	5/9/1997	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/10/1997	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/4/1998	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/23/1998	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/25/1999	<0.2	<0.01	<0,005	NA	NA	NA	NA	NA	NA
	11/17/1999	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/15/2000	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	11/14/2000	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/9/2001	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/15/2001	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/2002	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/19/2002	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/7/2003	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	1/13/2004	< 0.2 U	< 0.01 U	< 0.005 U	4.9	50	3.4 J	0.67 J+/- 0.21	5.08 +/- 0.92	**5.8**
	5/11/2004	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/9/2004	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/10/2005	0.2	0.01	0.005	NA	NA	NA	NA	NA	NA
	11/8/2005	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/15/2006	<0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2006	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/16/2007	< 0.1 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/15/2007	< 0.2 U	< 0.01 U	< 0.005 U	7.9	50	4.8	0.829 +/- 0.16	5.25 +/- 0.61	**6.08**
	5/15/2008	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	5.1	51	6.5	0.68 +/- 0.16	6.59 +/- 0.63	**7.27**
	11/19/2009	< 0.1 U	< 0.01 U	NA	5.3	44	4.9	0.708 +/- 0.18	5.58 +/- 0.55	**6.29**
	11/16/2010	<0.10	NA	NA	3.2	43	6.8	0.611 +/- 0.21	4.35 +/- 0.71	4.96
	11/8/2011	<0.10	NA	NA	5.5	52	3.4	0.498 +/- 0.18	4.49 +/- 0.93	4.99
	11/6/2012	<0.10	NA	NA	3.5	39	1.9	0.474 +/- 0.19	4.99 +/- 0.81	**5.46**
	11/5/2013	<0.10	NA	NA	3.1	36	2.4	0.184 +/- 0.17	4.15 +/- 0.74	4.33
	11/12/2014	<0.10	NA	NA	2.1	37	2.4	0.43 +/- 0.17	4.59 +/- 0.79	**5.02**
	11/18/2015	<0.032	NA	NA	2.6	38	1.4	<0.292 +/- 0.20	3.28 +/- 0.68	3.57
	11/8/2016	<0.10	NA	NA	1.9	35	1.9	0.464 +/- 0.25	3.04 +/- 0.57	3.5

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Surficial Zone										
AC-2S	4/15/1987	16	0.010	NA	7.4	143	NA	NA	NA	NA
	10/1/1990	63	0.74	<0.005	18	260	12	NA	NA	NA
	2/4/1992	94	0.164	< 0.005	20	290	15	0.4 +/- 0.10	1.2 +/- 1	1.6
	9/28/1997	130	0.058	NA	10	150	9	< 0.6 +/- 0.03	1.7 +/- 0.48	2.3
	11/17/1999	98	0.029	NA	7	57	5	< 1. +/- 0.94	< 1.5 +/- 0.90	2.5
	11/21/2000	150	0.048	NA	6.8	48	5.6	0.5 +/- 0.20	1.9 +/- 1.50	2.4
	11/15/2001	190	0.036	NA	6	23	3.8	0.1 +/- 0.07	2.8 +/- 1	2.9
	11/26/2002	210	0.042	NA	5.7	22	3.6	0.1 +/- 0.07	0. +/- 0.60	0.1
	1/23/2004	170	0.046	< 0.005 U	5.7	15	3.5	< 0.25 U+/- 0.17	< 1.1 U+/- 0.66	0.79
	11/17/2004	100	0.027	NA	7.1	< 5.	3	0.134 +/- 0.08	0.286 +/- 0.31	0.420
	11/15/2005	73	0.021	NA	8.8	59	3.9	0.103 J+/- 0.0690	0.649 J+/- 0.34	0.752
	11/28/2006	85	0.029	NA	9.1	69	4	0.032 +/- 0.0750	-0.382 +/- 0.19	-0.35
	11/21/2007	50	0.016	NA	5.3	< 5. U	1.9	0.041 +/- 0.0790	0.0402 +/- 0.13	0.081
	11/19/2008	54	0.02	< 0.005 U	7.6	< 5. U	3.2	0.0442 +/- 0.0860	-0.0882 +/- 0.21	-0.0440
	11/18/2009	44	0.017	NA	4.9	31	2.7	0.191 +/- 0.11	0.0314 +/- 0.19	0.222
	11/29/2010	48	0.024	NA	6.1	44	3.4	0.0772 +/- 0.082	0.449 +/- 0.26	0.526
	11/16/2011	68	0.024	NA	7.5	54	6.2	0.168 +/- 0.13	0.0656 +/- 0.27	0.234
	11/14/2012	43	0.016	NA	4.3	62	4.6	0.0957 +/- 0.16	0.118 +/- 0.24	0.214
	11/12/2013	36	0.016	NA	3.8	59	3.3	0.0439 +/- 0.13	0.273 +/- 0.27	0.317
	11/12/2014	34	0.02	NA	4.2	73	3.1	0.0951 +/- 0.10	0.309 +/- 0.40	0.404
	11/18/2015	33	0.027	NA	5.1	100	3.2	0.311 J+/- 0.17	<0.472 U+/- 0.30	0.731
	11/9/2016	19	0.016	NA	3.6	61	3.2	0.0622 +/- 0.19	0.813 +/- 0.30	0.875

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Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-2D	4/15/1987	**5.1**	<0.004	NA	14.7	22	3.37	NA	NA	NA
	10/1/1990	**5.1**	<0.01	<0.005	15	10	3.5	NA	NA	NA
	2/4/1992	**5.2**	< 0.01	0.0057	16	7.4	3.5	2.8 +/- 0.30	7. +/- 1.30	**9.8**
	9/30/1997	2.9	< 0.01	NA	12	26	5.6	0.6	< 1. +/- 0.45	1.6
	11/17/1999	3.5	< 0.01	NA	11	15	3.6	< 1. +/- 0.49	< 1.5 +/- 0.83	2.5
	11/21/2000	3	< 0.01	NA	9.8	19	4.4	1. +/- 0.20	2.7 +/- 0.90	3.7
	11/15/2001	3	< 0.01	NA	9.4	17	3.5	1. +/- 0.20	2.5 +/- 1	3.5
	11/26/2002	3.2	< 0.01	NA	9.1	18	2.5	1.1 +/- 0.20	2. +/- 0.80	3.1
	1/23/2004	2.9	< 0.01 U	< 0.005 U	9	13	2.5	1.05 +/- 0.25	1.54 +/- 0.71	2.59
	11/17/2004	2.7	< 0.01	NA	9.1	14	2.6	1.09 +/- 0.17	1.42 +/- 0.37	2.51
	11/14/2005	2.3	< 0.01 U	NA	9.2	16	2.8	0.983 J+/- 0.27	1.85 +/- 0.51	2.83
	11/28/2006	2.2	< 0.01 U	NA	8.2	15	2.5	0.896 +/- 0.14	1.16 +/- 0.28	2.06
	11/21/2007	2.5	< 0.01 U	NA	7.8	16	3.3	0.843 +/- 0.17	1.22 +/- 0.28	2.06
	11/19/2008	2	< 0.01 U	< 0.005 U	8.8	13	2.5	0.994 +/- 0.16	1.17 +/- 0.31	2.16
	11/18/2009	2	< 0.01 U	NA	8.4	15	2.3	1.2 +/- 0.18	1.7 +/- 0.34	2.9
	11/29/2010	2.3	NA	NA	8.3	16	2.6	1.31 +/- 0.39	1.59 +/- 0.39	2.90
	11/16/2011	2.3	NA	NA	7.6	17	2	1.06 +/- 0.22	1.71 +/- 0.42	2.77
	11/14/2012	2.2	NA	NA	6.9	17	2.1	0.744 +/- 0.27	1.94 +/- 0.54	2.68
	11/12/2013	2.3	NA	NA	7.0	17	5.3	0.887 +/- 0.27	1.43 +/- 0.41	2.32
	11/12/2014	2.2	NA	NA	6.8	16	2	0.911 +/- 0.25	1.31 +/- 0.45	2.22
	11/18/2015	2.1	NA	NA	6.4	18	1.8	1.24 +/- 0.42	1.84 +/- 0.48	3.08
	11/9/2016	1.5	NA	NA	6.5	17	1.7	0.661 +/- 0.31	1.92 +/- 0.44	2.58

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Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-3D	4/15/1987	105	0.041	NA	376	686	52.2	NA	NA	NA
	10/1/1990	75	<0.01	<0.005	150	680	47	NA	NA	NA
	2/5/1992	80	< 0.01	0.0059	270	500	42	8.4 +/- 0.40	12	20.4
	9/28/1997	46	< 0.01	NA	110	460	27	0.81 +/- 0.07	NA	0.81
	11/19/1999	14	< 0.01	NA	19	< 5.	12	< 1. +/- 0.54	2.1	3.1
	11/21/2000	18	< 0.01	NA	32	240	15	1. +/- 0.20	6.5 +/- 1.20	7.5
	11/14/2001	13	< 0.01	NA	22	250	12	0.4 +/- 0.10	5.4 +/- 1.10	5.8
	11/26/2002	46	< 0.01	NA	64	380	16	1.3 +/- 0.20	17.8 +/- 2	19.1
	1/22/2004	34	< 0.01 U	< 0.005 U	48	300	13. J	5.04 +/- 0.77	20.6 +/- 2.50	25.6
	11/17/2004	36	< 0.01	NA	48	310	14	0.934 +/- 0.16	12.3 +/- 1.10	13.2
	11/15/2005	23	< 0.01 U	NA	36	300	12	0.994 J+/- 0.28	18. +/- 2.30	19.0
	11/22/2006	27	< 0.01 U	NA	39	330	12	0.939 +/- 0.27	13.2 +/- 0.89	14.1
	11/21/2007	22	< 0.01 U	NA	24	220	7.8	1.06 +/- 0.22	8.12 +/- 0.56	9.18
	11/13/2008	18	< 0.01 U	< 0.005 U	25	180	8.5	1.22 +/- 0.19	10.9 +/- 0.79	12.1
	11/18/2009	15	< 0.01 U	NA	20	160	6.9	0.951 +/- 0.18	9.9 +/- 0.69	10.1
	11/29/2010	16	NA	NA	22	160	7.8	1.74 +/- 0.44	12.9 +/- 1.8	14.6
	11/15/2011	17	NA	NA	20	130	7.8	1.59 +/- 0.26	12.5 +/- 0.90	14.1
	11/13/2012	16	NA	NA	20	140	7.2	1.38 +/- 0.39	12.7 +/- 1.7	14.1
	11/12/2013	15	NA	NA	16	130	6.1	1.14 +/- 0.36	9.67 +/- 1.3	10.8
	11/11/2014	14	NA	NA	16	230	5.9	0.902 +/- 0.26	11.0 +/- 1.5	11.9
	11/19/2015	13	NA	NA	14	120	4.7	1.42 +/- 0.40	12.1 +/- 1.60	13.52
	11/11/2016	11	NA	NA	15	120	5.4	0.772 +/- 0.29	7.80 +/- 1.2	8.572

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Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-12D	10/1/1990	24	<0.01	<0.005	28	290	13	NA	NA	NA
	4/9/1992	2.6	< 0.01	< 0.005	8.2	39	2.8	NA	NA	NA
	9/27/1997	8.8	0.012	NA	20	320	11	1.5 +/- 0.09	6.9 +/- 0.58	8.4
	11/19/1999	0.52	< 0.01	NA	6.4	7.8	2.4	< 1. +/- 0.09	< 1.5 +/- 0.68	2.5
	11/17/2000	6.7	< 0.01	NA	15	130	6.8	0.5 +/- 0.10	3.7 +/- 1	4.2
	11/8/2001	1.7	< 0.01	NA	7.3	30	3.7	0.4 +/- 0.20	4.5 +/- 1.10	4.9
	11/22/2002	11	0.011	NA	22	310	10	1.9 +/- 0.30	8.6 +/- 1	10.5
	1/28/2004	10	0.015	0.0052	20	280	11	4.13 +/- 0.61	14.2 +/- 1.80	18.3
	11/11/2004	11	< 0.01	NA	20	310	12	1.84 +/- 0.22	7.57 +/- 0.59	9.41
	11/10/2005	15	< 0.01 U	NA	23	290	12	1.65 +/- 0.40	7.59 +/- 1.10	9.24
	11/16/2006	13	< 0.01 U	NA	21	310	12	1.26 +/- 0.18	7.08 +/- 0.65	8.34
	11/16/2007	20	< 0.01 U	NA	22	300	12	1.62 +/- 0.21	7.76 +/- 0.60	9.38
	11/13/2008	17	< 0.01 U	< 0.005 U	23	310	12	1.73 +/- 0.21	6.75 +/- 0.59	8.48
	11/12/2009	15	< 0.01 U	NA	22	280	12	1.57 +/- 0.25	7.7 +/- 0.68	9.3
	11/18/2010	14	NA	NA	22	280	11	1.34 +/- 0.38	6.68 +/- 1.3	8.0
	11/9/2011	14	NA	NA	18	240	10	4.80 +/- 0.69	8.43 +/- 0.75	13.2
	11/8/2012	15	NA	NA	18	250	9.6	1.43 +/- 0.39	7.88 +/- 1.1	9.31
	11/6/2013	14	NA	NA	19	260	9.0	1.27 +/- 0.40	8.50 +/- 1.2	9.77
	11/20/2014	10	NA	NA	16	230	8.6	2.23 +/- 0.55	8.63 +/- 1.2	10.86
	11/19/2015	12	NA	NA	18	230	8.4	1.3 +/- 0.41	7.2 +/- 1.10	8.5
	11/10/2016	8.1	NA	NA	19	230	8.5	1.28 +/- 0.43	9.07 +/- 1.3	10.35

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Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-13D	10/1/1990	8.6	<0.01	<0.005	16	220	8.3	NA	NA	NA
	2/3/1992	5.3	< 0.01	< 0.005	16	150	8.9	4.7 +/- 0.30	3.6 +/- 1.10	8.3
	9/27/1997	4.9	< 0.01	NA	20	260	12	1.3 +/- 0.09	4.1 +/- 0.59	5.4
	11/16/2000	4.6	< 0.01	NA	19	220	11	2.8 +/- 0.30	5	7.8
	11/8/2001	4.7	< 0.01	NA	17	210	10	1.9 +/- 0.20	3.7 +/- 1.10	5.6
	11/21/2002	6.7	< 0.01	NA	20	250	11	1.3 +/- 0.20	5.7 +/- 0.80	7
	1/16/2004	6.3	< 0.01 U	< 0.005 U	22	230	12	1.67 +/- 0.36	11.1 +/- 1.70	12.77
	11/11/2004	7.8	< 0.01	NA	23	260	12	1.55 +/- 0.19	8.2 +/- 0.64	9.75
	11/10/2005	11	< 0.01 U	NA	25	260	12	2.18 +/- 0.53	8.68 +/- 1.20	10.86
	11/16/2006	14	< 0.01 U	NA	28	290	14	1.55 +/- 0.22	7.83 +/- 0.78	9.38
	11/19/2007	17	< 0.01 U	NA	27	300	18	1.64 +/- 0.23	7.41 +/- 0.67	9.05
	11/11/2008	15	< 0.01 U	< 0.005 U	28	360	13	1.32 +/- 0.21	5.95 +/- 0.59	7.27
	11/12/2009	15	0.011	NA	28	300	14	2.28 +/- 0.31	10.5 +/- 0.95	12.78
	11/18/2010	14	NA	NA	23	290	12	1.45 +/- 0.39	6.84 +/- 1.0	8.29
	11/9/2011	14	NA	NA	26	300	13	1.64 +/- 0.25	8.18 +/- 0.69	9.82
	11/7/2012	15	NA	NA	24	290	12	2.05 +/- 0.54	8.99 +/- 1.3	11.0
	11/6/2013	14	NA	NA	24	310	11	1.98 +/- 0.50	9.60 +/- 1.4	11.6
	11/19/2014	12	NA	NA	21	250	11	1.23 +/- 0.39	8.24 +/- 1.3	9.47
	11/20/2015	9.3	NA	NA	11	160	10	1.51 +/- 0.39	7.5 +/- 1.10	9.01
	11/10/2016	6.8	NA	NA	22	270	11	0.53 +/- 0.24	3.99 + /- 0.68	4.52

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-24D	2/19/1992	36	< 0.01	0.005	200	50	1.9	NA	NA	NA
	9/27/1997	8.5	< 0.01	NA	31	8.8	1.3	0.63 +/- 0.06	< 1. +/- 0.42	1.63
	1/21/2004	57	< 0.01 U	< 0.005 U	180	37	3.7	2.32 +/- 0.47	15.3 +/- 2.20	**17.6**
	11/18/2008	56	< 0.01 U	< 0.005 U	200	65	6.8	2.98 +/- 0.28	7.41 +/- 0.62	**10.4**
	11/16/2009	59	< 0.01 U	NA	190	79	5.8	2.44 +/- 0.25	6.4 +/- 0.60	**8.8**
	11/23/2010	77	NA	NA	190	84	6.4	2.09 +/- 0.50	7.60 +/- 1.1	**9.7**
	11/14/2011	65	NA	NA	160	76	6.8	2.96 +/- 0.35	10.0 +/- 0.86	**13.0**
	11/9/2012	67	NA	NA	190	78	5.5	1.48 +/- 0.42	10.9 +/- 1.5	**12.4**
	11/7/2013	68	NA	NA	170	86	4.5	2.02 +/- 0.53	10.2 +/- 1.4	**12.2**
	11/24/2014	51	NA	NA	130	75	4.2	2.12 +/- 0.64	7.14 +/- 1.0	**9.26**
	11/19/2015	47	NA	NA	140	77	4.4	1.17 +/- 0.37	7.22 +/- 1	**8.39**
	11/10/2016	33	NA	NA	120	70	4.7	0.881 +/- 0.31	4.14 +/- 0.70	**5.02**

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-25D	2/15/1992	19	NA	<0.0050	120	7.1	11	NA	NA	7.9
	9/24/1997	20	< 0.01	NA	270	44	2.1	2. +/- 0.10	3.5 +/- 0.52	5.5
	11/19/1999	2.6	< 0.01	NA	45	< 5.	1.9	< 1. +/- 0.62	< 1.5 +/- 0.75	2.5
	11/17/2000	3.3	< 0.01	NA	46	13	5.5	0.6 +/- 0.10	0.6 +/- 0.80	1.2
	11/13/2001	2.9	< 0.01	NA	32	9.4	2.3	0.4 +/- 0.10	1.1 +/- 0.80	1.5
	11/21/2002	48	< 0.01	NA	410	80	2	2.9 +/- 0.30	5.1 +/- 0.80	8.0
	1/22/2004	52	< 0.01 U	< 0.005 U	410	65	2.3 J	4.48 +/- 0.72	7.6 +/- 1.20	12
	11/15/2004	57	< 0.01	NA	440	83	2.2	2.46 +/- 0.23	5.6 +/- 0.54	8.1
	11/10/2005	59	< 0.01 U	NA	390	81	3.1	2.31 +/- 0.52	7.73 +/- 1.20	10.0
	11/20/2006	77	< 0.01 U	NA	430	80	3.1	2.5 +/- 0.35	4.53 +/- 0.55	7.03
	11/20/2007	90	< 0.01 U	NA	390	80	3.7	1.85 +/- 0.29	4.08 +/- 0.49	5.93
	11/18/2008	71	< 0.01 U	< 0.005 U	480	77	3.7	2.2 +/- 0.25	3.98 +/- 0.51	6.18
	11/17/2009	77	< 0.01 U	NA	420	88	3.5	1.84 +/- 0.24	5.33 +/- 0.55	7.17
	11/23/2010	110	NA	NA	440	89	4.3	2.29 +/- 0.62	4.47 +/- 0.73	6.76
	11/15/2011	100	NA	NA	390	78	4.7	2.31 +/- 0.29	5.0 +/- 0.56	7.3
	11/14/2012	100	NA	NA	370	94	4.2	2.38 +/- 0.55	5.50 +/- 0.85	7.88
	11/12/2013	96	NA	NA	370	80	4.4	2.64 +/- 0.75	5.06 +/- 0.83	7.70
	11/20/2014	76	NA	NA	320	91	3.7	1.7 +/- 0.52	5.27 +/- 0.88	6.97
	11/20/2015	91	NA	NA	360	120	4.5	2.09 +/- 0.54	6.05 +/- 0.97	8.14
	11/9/2016	68	NA	NA	380	87	4.4	1.55 +/- 0.46	4.36 +/- 0.77	5.91

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-29D	9/27/1997	65	< 0.01	NA	180	340	20	0.66 +/- 0.05	9.9 +/- 0.65	10.56
	11/19/1999	65	< 0.01	NA	110	< 5.	14	2.3	8.1	10.4
	11/21/2000	45	< 0.01	NA	300	260	14	1.3 +/- 0.10	11.4 +/- 1.10	12.7
	11/13/2001	48	< 0.01	NA	100	280	13	1.4 +/- 0.20	14. +/- 1.60	15
	11/25/2002	59	< 0.01	NA	100	340	16	1.7 +/- 0.20	16.5 +/- 1.70	18
	1/23/2004	52	< 0.01 U	< 0.005 U	93	310	16	3.42 +/- 0.55	21.9 +/- 2.50	25.3
	11/12/2004	45	< 0.01 U	NA	84	290	14	1.52 +/- 0.19	17.7 +/- 0.96	19.2
	11/16/2005	30	< 0.01 U	NA	58	220	9.8	1.53 +/- 0.37	21. +/- 2.70	22.5
	11/17/2006	34	< 0.01 U	NA	67	200	12	1.48 +/- 0.18	11.9 +/- 0.90	13.4
	11/20/2007	42	< 0.01 U	NA	63	220	12	1.45 +/- 0.26	11.7 +/- 0.77	13.2
	11/18/2008	31	< 0.01 U	< 0.005 U	65	200	11	1.54 +/- 0.20	10.8 +/- 0.76	12.3
	11/17/2009	30	< 0.01 U	NA	61	220	9.5	1.54 +/- 0.21	13.8 +/- 0.83	15.3
	11/19/2010	39	NA	NA	62	240	11	1.64 +/- 0.37	14.9 +/- 1.9	16.5
	11/11/2011	41	NA	NA	54	220	12	1.76 +/- 0.27	13.6 +/- 0.81	15.4
	11/13/2012	35	NA	NA	52	230	10	1.08 +/- 0.30	15.9 +/- 2/1	17.0
	11/7/2013	36	NA	NA	45	220	8.1	0.836 +/- 0.27	14.8 +/- 2.0	15.6
	11/17/2014	30	NA	NA	39	74	8.3	1.53 +/- 0.47	15.2 +/- 2.0	16.7
	11/19/2015	30	NA	NA	42	200	7.5	1.49 +/- 0.44	14.5 +/- 1.90	15.99
	11/11/2016	22	NA	NA	39	170	8.2	1.31 +/- 0.48	13.5 +/- 1.7	14.81

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE
Highlighted Results Meet Performance Standard
(see last page for footnotes)
Agrico Site, Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-35D	11/19/1999	23	< 0.01	NA	160	130	3.1	< 1. +/- 0.53	< 1.5 +/- 0.95	2.5
	11/16/2000	150	< 0.01	NA	120	220	12	1.5 +/- 0.20	5. +/- 1.20	6.5
	11/8/2001	160	0.012	NA	520	220	13	1.9 +/- 0.20	7.2 +/- 1.40	9.1
	11/21/2002	170	< 0.01	NA	550	230	11	2. +/- 0.30	8.5 +/- 1	10.5
	1/15/2004	160	0.015	< 0.005 U	530	210	13	4.58 +/- 0.69	12.9 +/- 1.60	17.5
	11/15/2004	170	< 0.01	NA	520	260	14	2.22 +/- 0.21	9.37 +/- 0.69	11.6
	11/16/2005	150	< 0.01 U	NA	430	260	12	2.01 +/- 0.50	14.4 +/- 1.90	16.4
	11/20/2006	160	< 0.01 U	NA	460	270	12	1.83 +/- 0.31	9.26 +/- 0.77	11.1
	11/20/2007	150	< 0.01 U	NA	420	190	12	2.01 +/- 0.29	5.8 +/- 0.53	7.81
	11/19/2008	120	0.01	< 0.005 U	460	190	11	1.78 +/- 0.20	5.29 +/- 0.57	7.07
	11/19/2009	120	< 0.01 U	NA	430	200	9.3	2.33 +/- 0.28	8.44 +/- 0.68	10.8
	11/23/2010	180	NA	NA	580	240	13	2.52 +/- 0.64	8.83 +/- 1.2	11.4
	11/16/2011	130	NA	NA	370	170	11	1.71 +/- 0.28	5.94 +/- 0.61	7.65
	11/15/2012	130	NA	NA	350	200	9.6	1.91 +/- 0.51	6.45 +/- 0.98	8.36
	11/13/2013	120	NA	NA	360	190	9.5	2.01 +/- 0.54	7.69 +/- 1.1	9.70
	11/24/2014	110	NA	NA	300	190	9.6	2.59 +/- 0.64	7.28 +/- 1.1	9.87
	11/20/2015	110	NA	NA	340	140	9.1	1.8 +/- 0.49	8.7 +/- 1.30	10.5
	11/9/2016	76	NA	NA	310	160	8.8	1.6 +/- 0.53	4.76 +/- 0.85	6.4

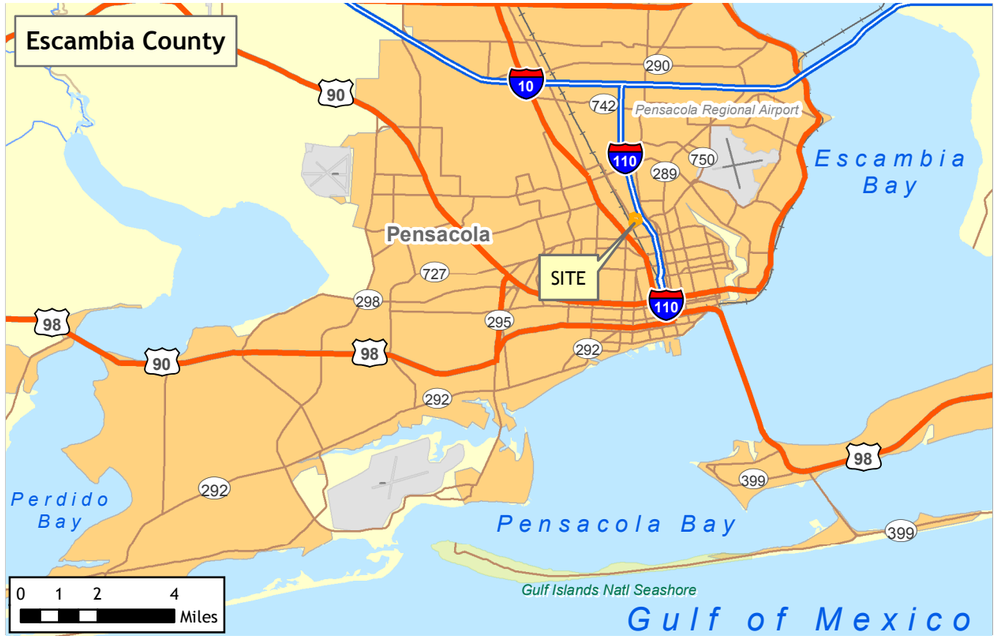
TABLE 9
COMPARISON OF COC RESULTS AT LONG-TERM MONITORING LOCATIONS FOR SURFACE WATER

Agrico Site
Pensacola, Florida

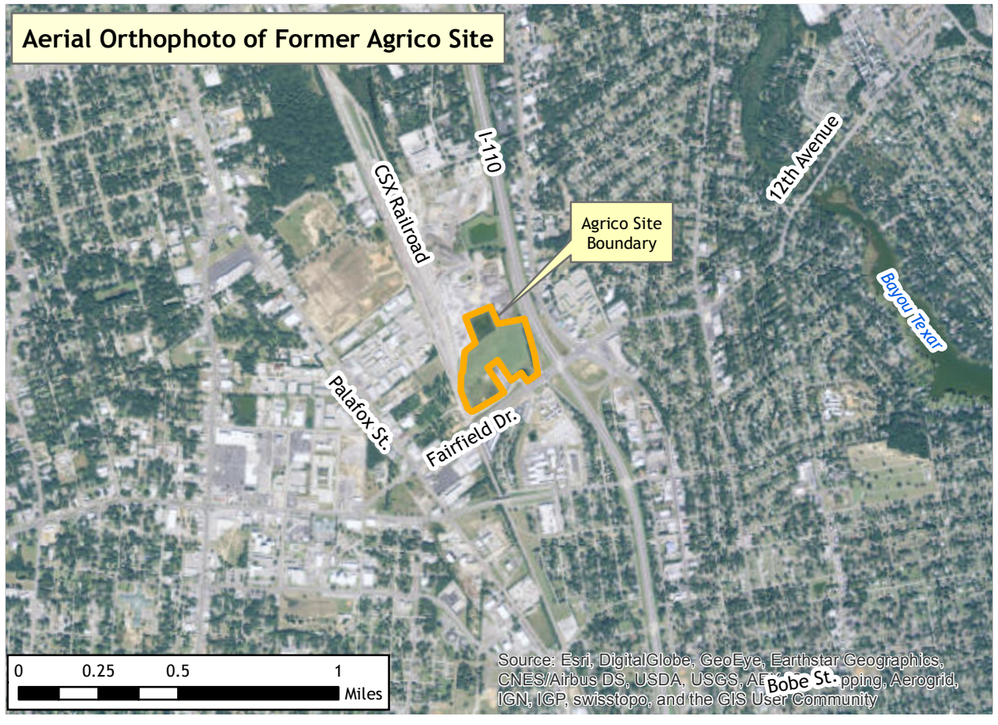
Sample Location ID	Date	Fluoride (mg/L)
BT-02[(3)] Bayou Texar (Brackish Water)	08/2008	0.56
	11/2010	0.83
	11/2011	0.77
	11/2012	0.89
	11/2013	0.94
	11/2014	1.30
	11/2015	1.50
	11/2016	0.52
BT-107[(3)] Bayou Texar (Brackish Water)	05/2009	0.58
	11/2010	0.89
	11/2011	0.81
	11/2012	1.30
	11/2013	0.99
	11/2014	1.30
	11/2015	1.30
	11/2016	0.52
BT-127[(3)] Bayou Texar (Brackish Water)	05/2009	0.60
	11/2010	1.00
	11/2011	0.81
	11/2012	1.20
	11/2013	1.20
	11/2014	1.30
	11/2015	0.46
	11/2016	0.49

FIGURES

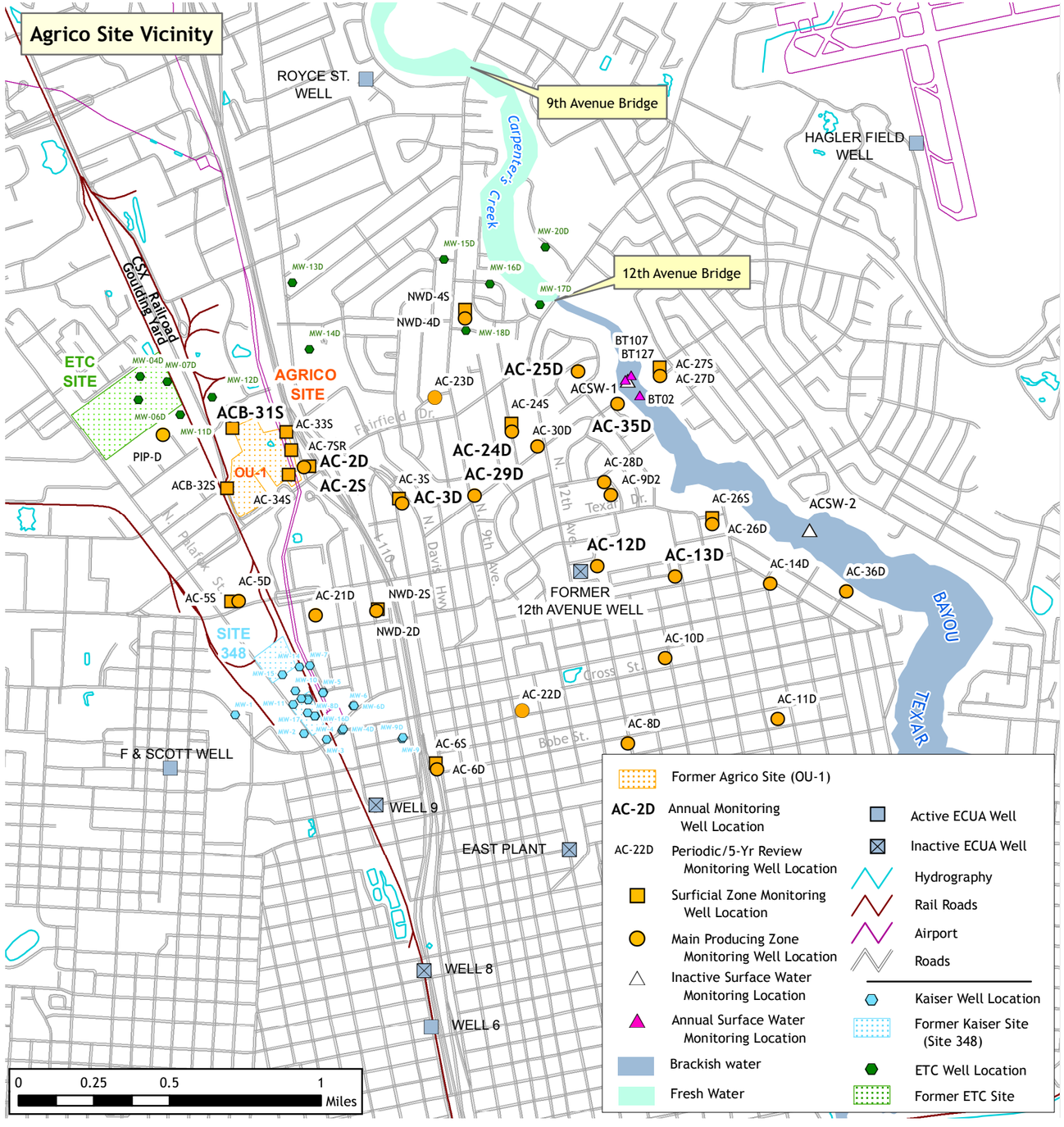
Escambia County



Aerial Orthophoto of Former Agrico Site



Agrico Site Vicinity



OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District
Aerial Source: ESRI

N W E S

SITE LOCATION AND SITE-WIDE MONITORING LOCATIONS OU-1 AND OU-2

FIGURE 1

Candace_Beauvais - Tallahassee - 3/4/2016

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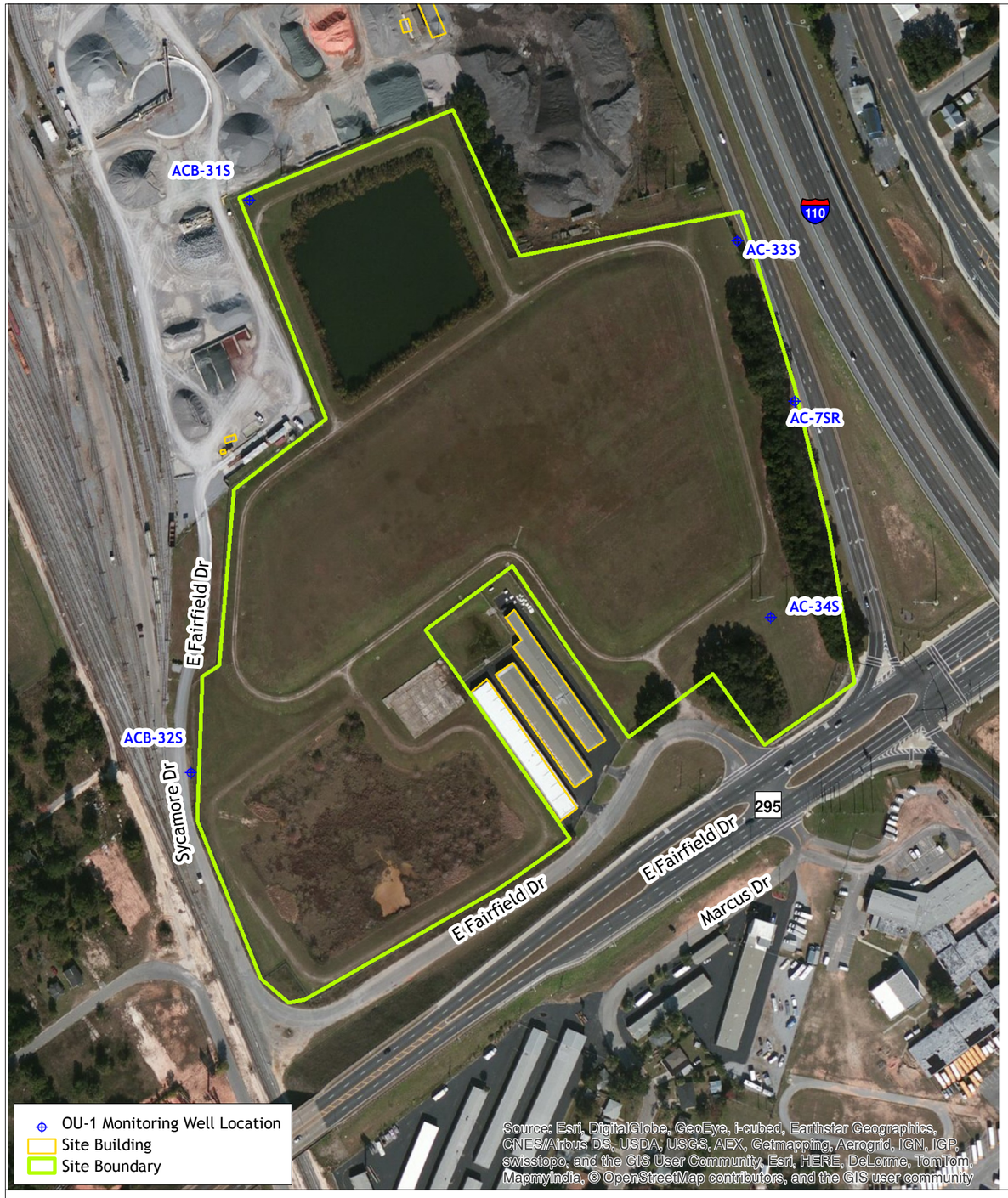

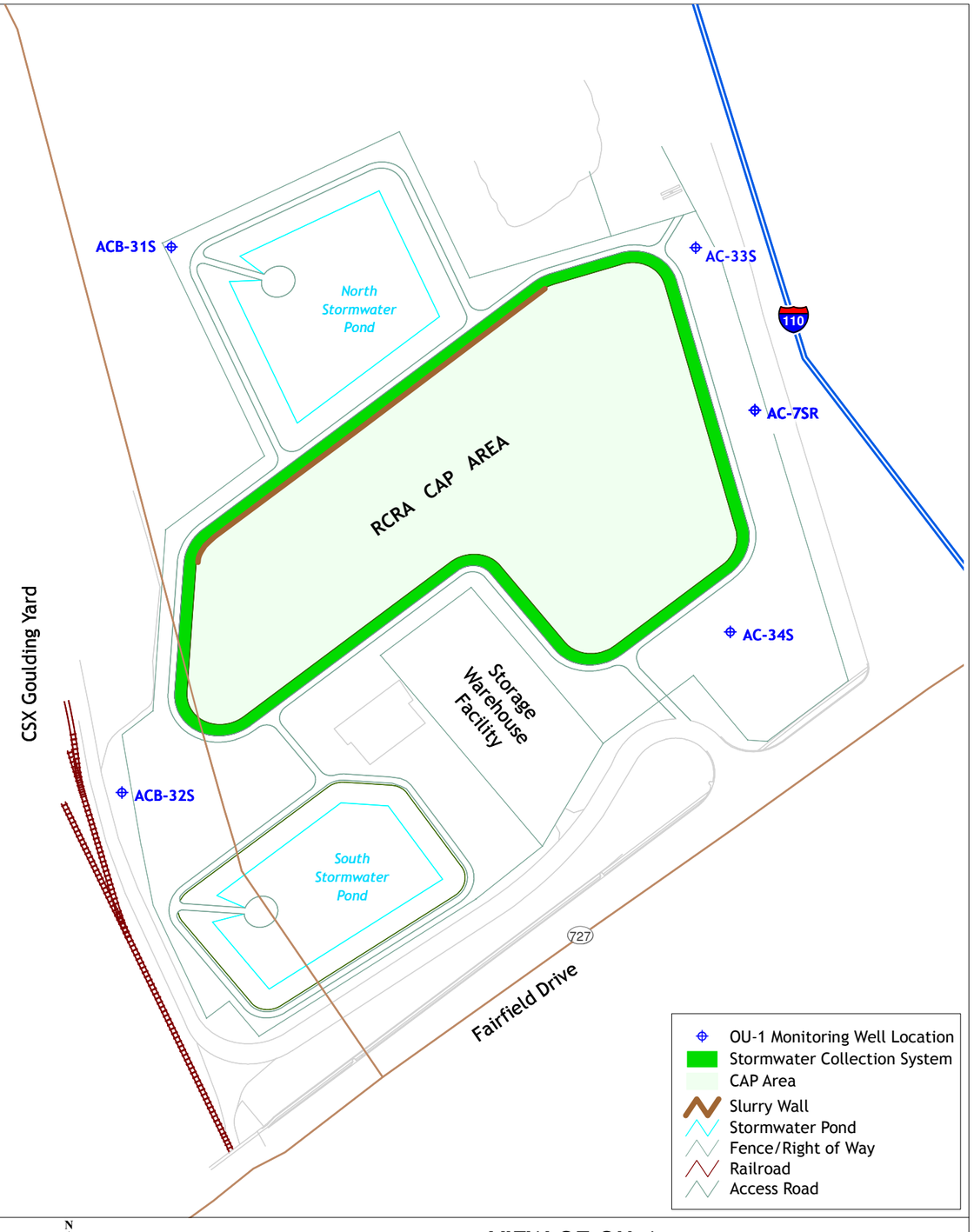

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District
Aerial Source: ESRI

N W E S

250 125 0 250 500 Feet

VIEW OF OU-1
(Former Facility Area)
With Current Features

FIGURE
2

megan_clarisse - Tallahassee - 1/29/2016

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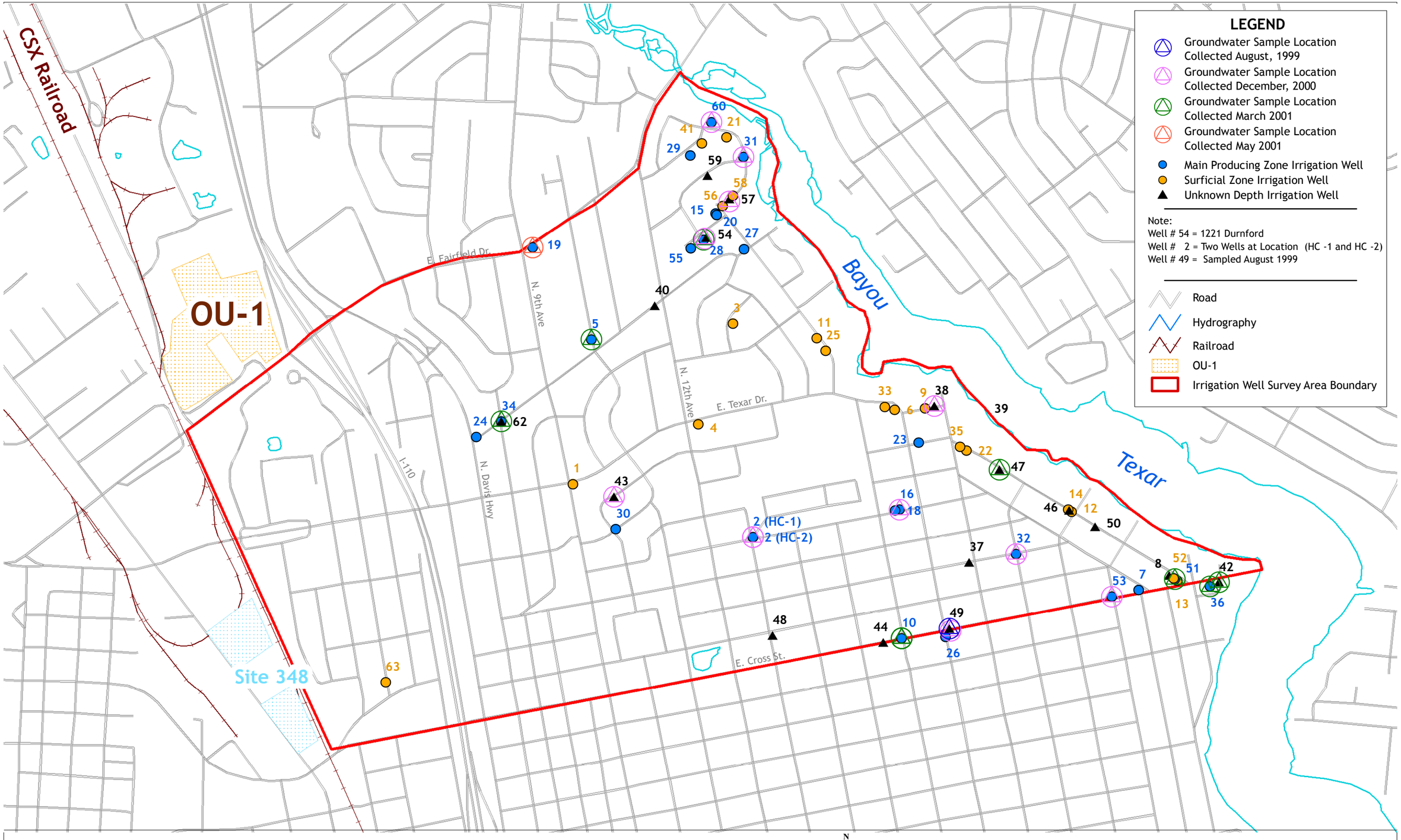

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.25 0.125 0 0.25 0.5 Miles

Projection: UTM, Zone 16, NAD27, Meters

IRRIGATION WELL LOCATIONS

FIGURE 3

megan_clarisse - Tallahassee - 1/29/2016

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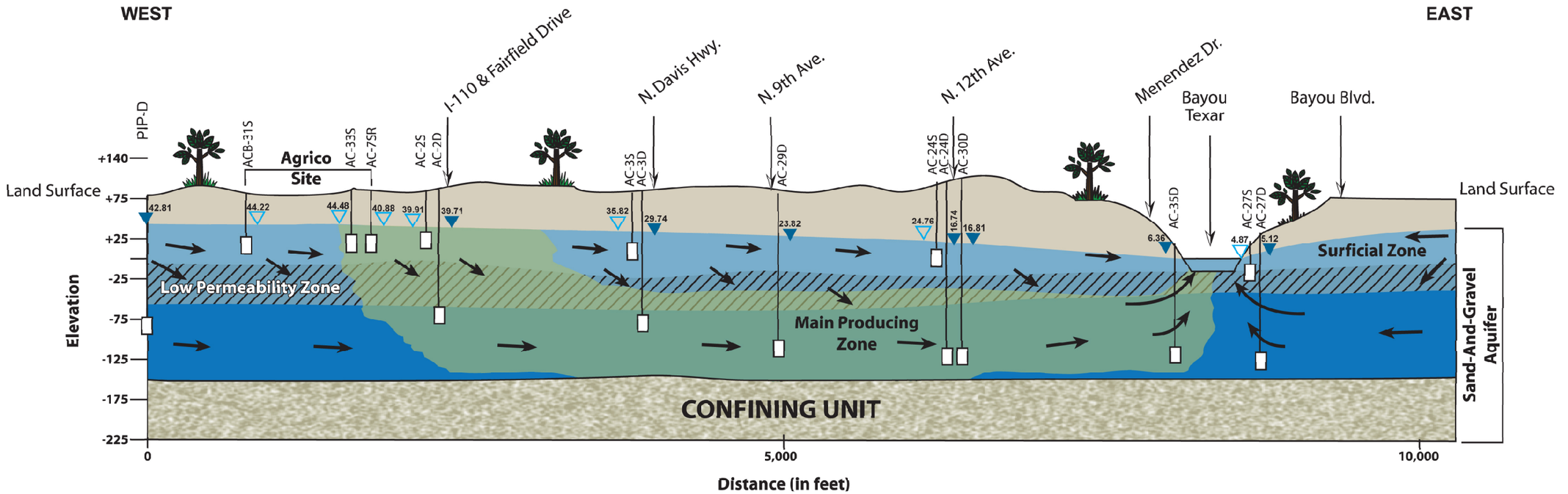

Legend

- Groundwater Flow
- Monitoring Well
- Screen Interval
- 35.59 Main Producing Zone Eleveations
- 34.56 Surficial Zone Well Elevations
- Area of Affected Groundwater

Note: Water Elevations (November 2012)

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

HYDROGEOLOGIC CONCEPTUAL MODEL
FROM AGRICO SITE TO BAYOU TEXAR

FIGURE
4

megan_clarisse - Tallahassee - 1/29/2016

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See Table 4 for Water Elevation Data

CSX Railroad

Carpenter's Creek

Airport

Bayou

Texar

E. Fairfield Dr.

N. 9th Ave.

E. Texar Dr.

I-110

N. Davis Hwy

N. 12th Ave.

E. Cross St.

ACB-31S 45.54

AC-33S 41.56

AC-7SR 41.04

AC-2S 40.26

ACB-32S 44.23

AC-34S 41.03

AC-5S 42.57

AC-3S 36.31

NWD-2S 36.52

AC-6S 32.01

NWD-4S 17.33

AC-24S 23.78

AC-27S 6.18

AC-26S 8.80

45

40

35

30

25

20

15

10

5

5

Surficial Zone Monitoring Well Location, Groundwater Elevation in ft NGVD 88

Potentiometric Surface Contour (5 ft interval)

Groundwater Flow Direction

Former Site Area

Former Escambia Treating Facility

Former Kaiser Facility (Site 348)

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

POTENTIOMETRIC SURFACE
SURFICIAL ZONE
November 2016

FIGURE 5

M. Clarisse - Tallahassee - 3/22/2017

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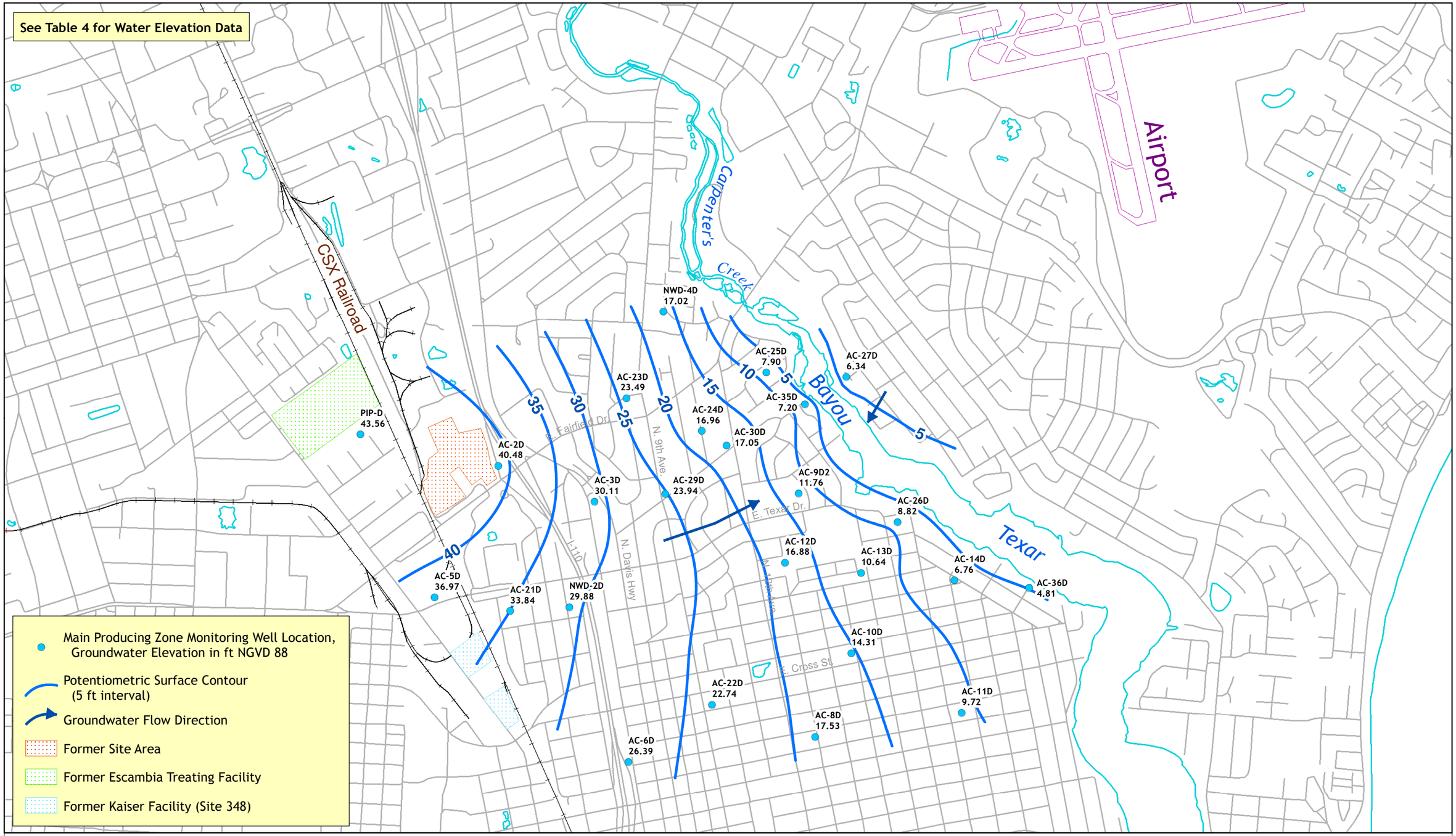
See Table 4 for Water Elevation Data



Main Producing Zone Monitoring Well Location, Groundwater Elevation in ft NGVD 88

Potentiometric Surface Contour (5 ft interval)

Groundwater Flow Direction

Former Site Area

Former Escambia Treating Facility

Former Kaiser Facility (Site 348)

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

POTENTIOMETRIC SURFACE
MAIN PRODUCING ZONE
November 2016

FIGURE 6

M. Clarisse - Tallahassee - 1/26/2017

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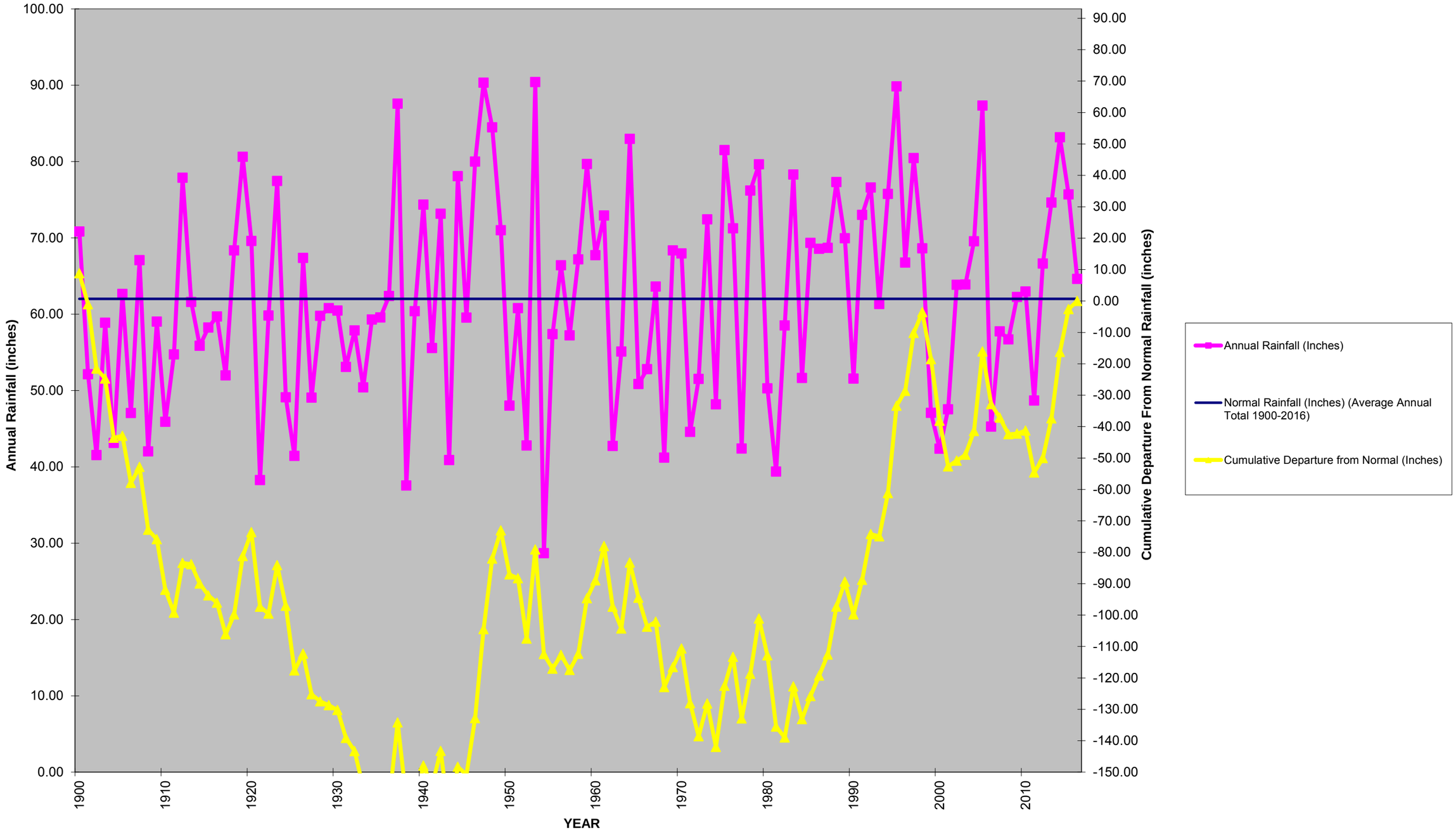
Figure 7
Annual Rainfall and Cumulative Departure from Normal
NOAA Rainfall Station
Pensacola, Florida



URS

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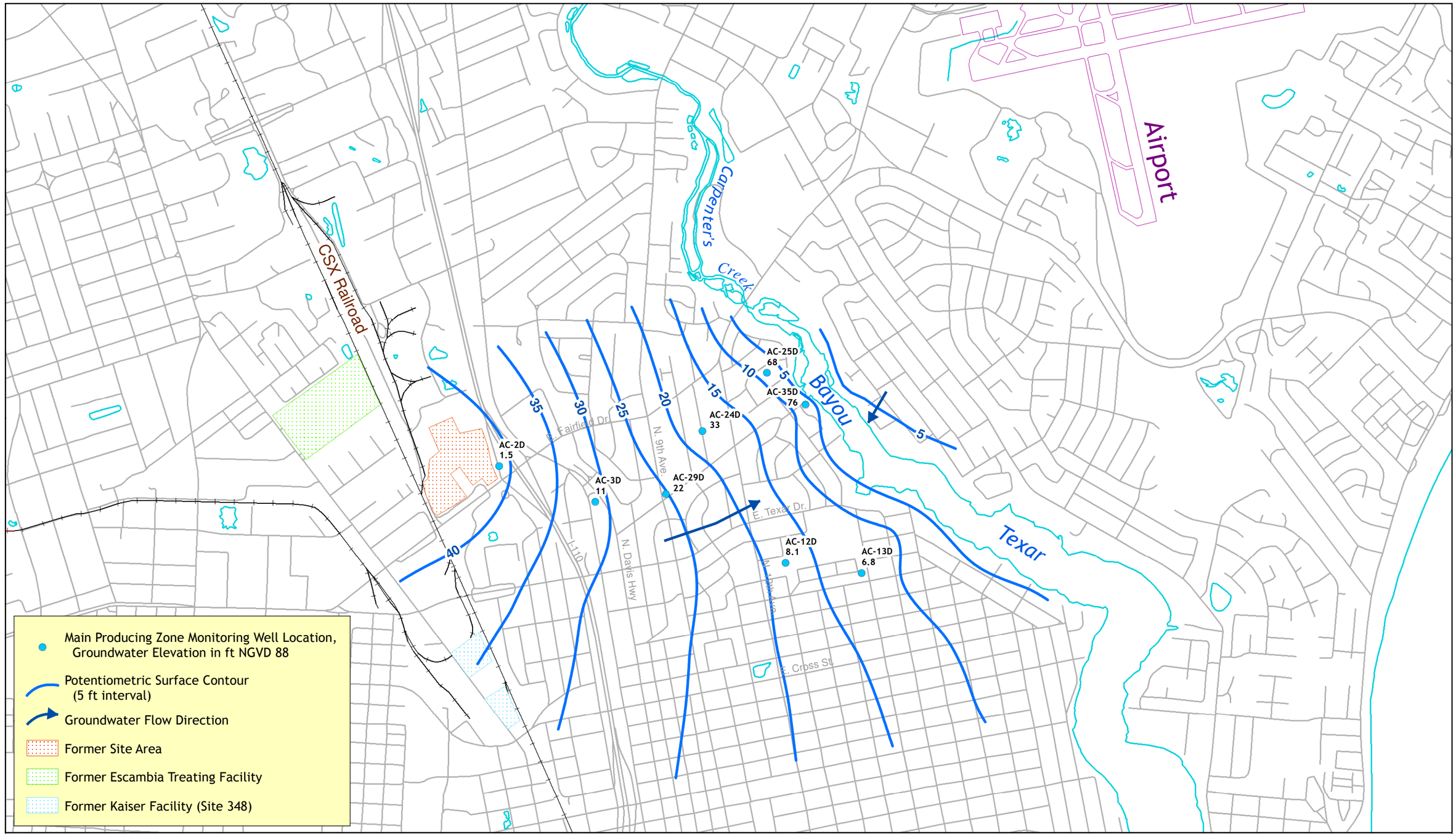

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

FLUORIDE CONCENTRATION

November 2016

FIGURE 8

M. Clarisse - Tallahassee - 1/26/2017

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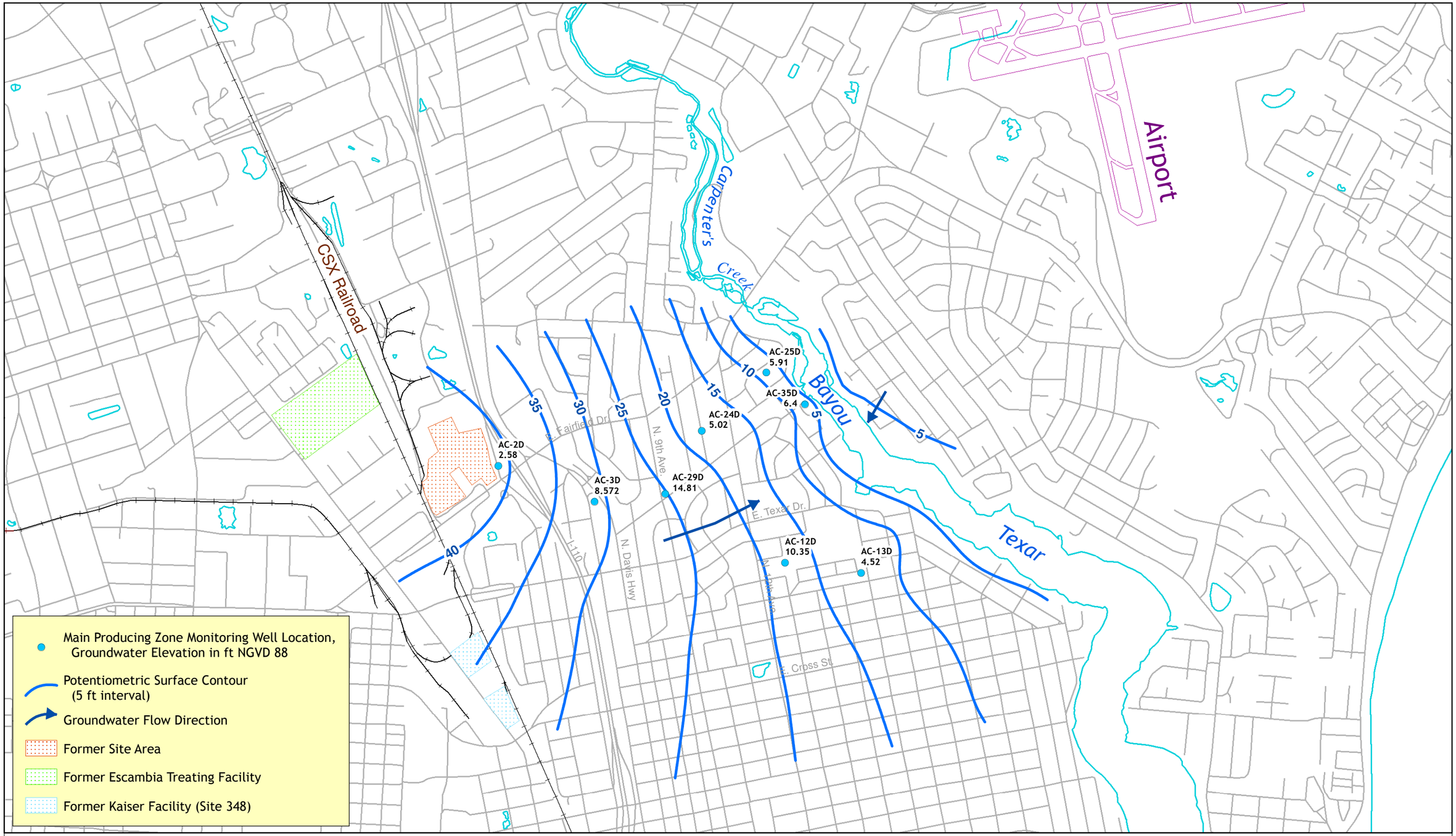

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

COMBINED RADIUM 226+228
CONCENTRATION
November 2016

FIGURE
9

M. Clarisse - Tallahassee - 1/26/2017

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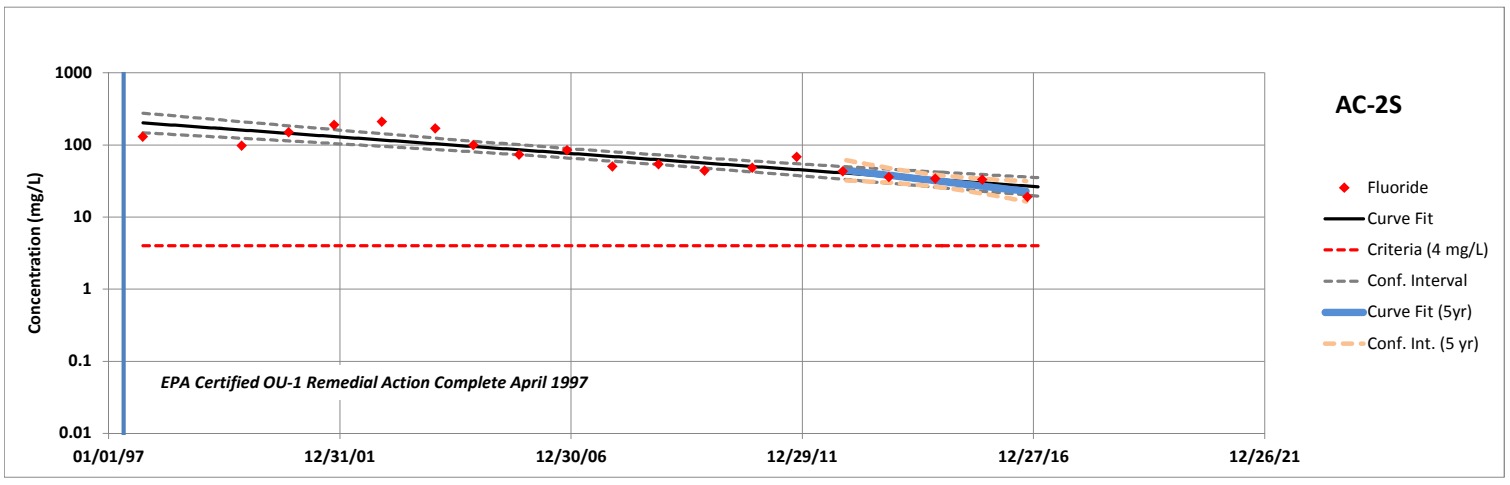
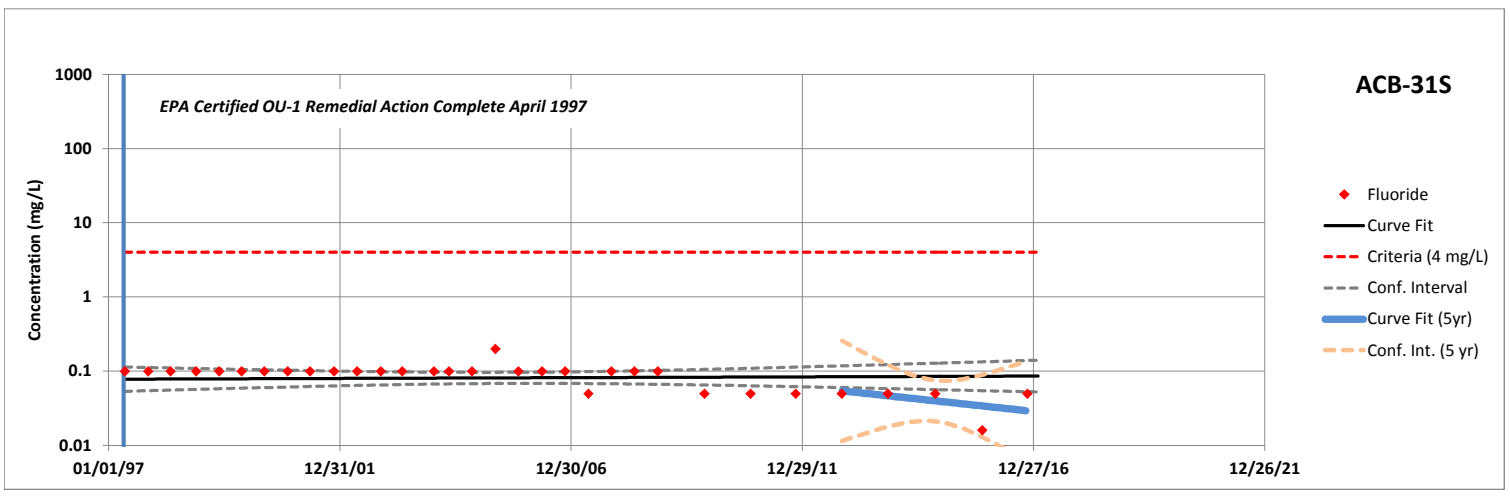
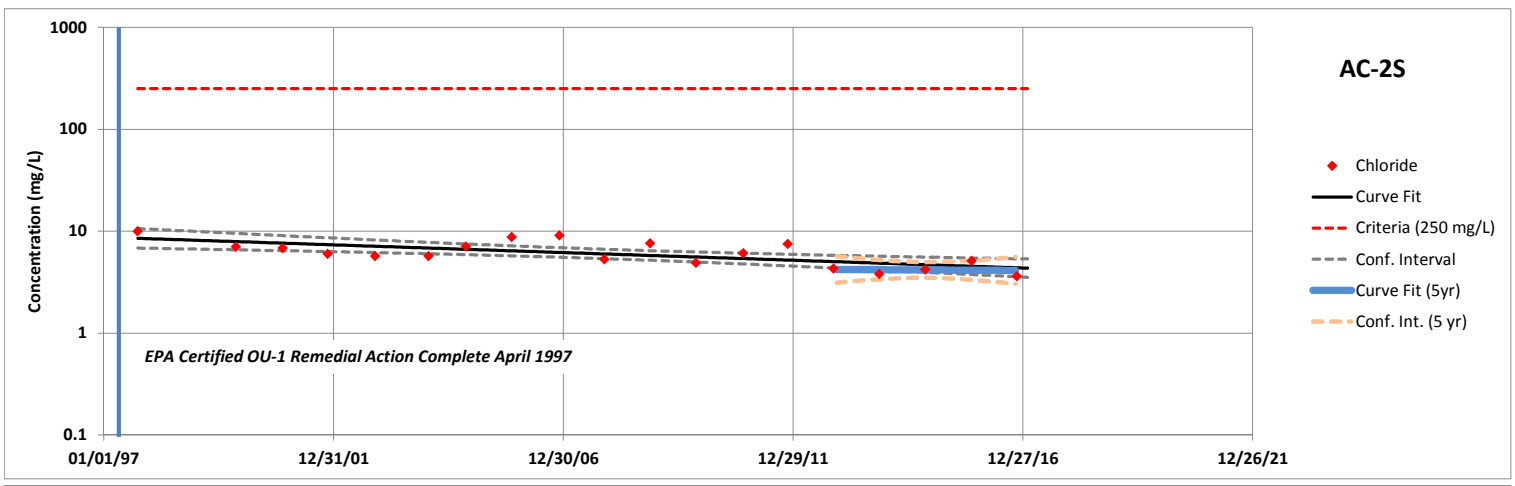
Figure 10 (Continued)

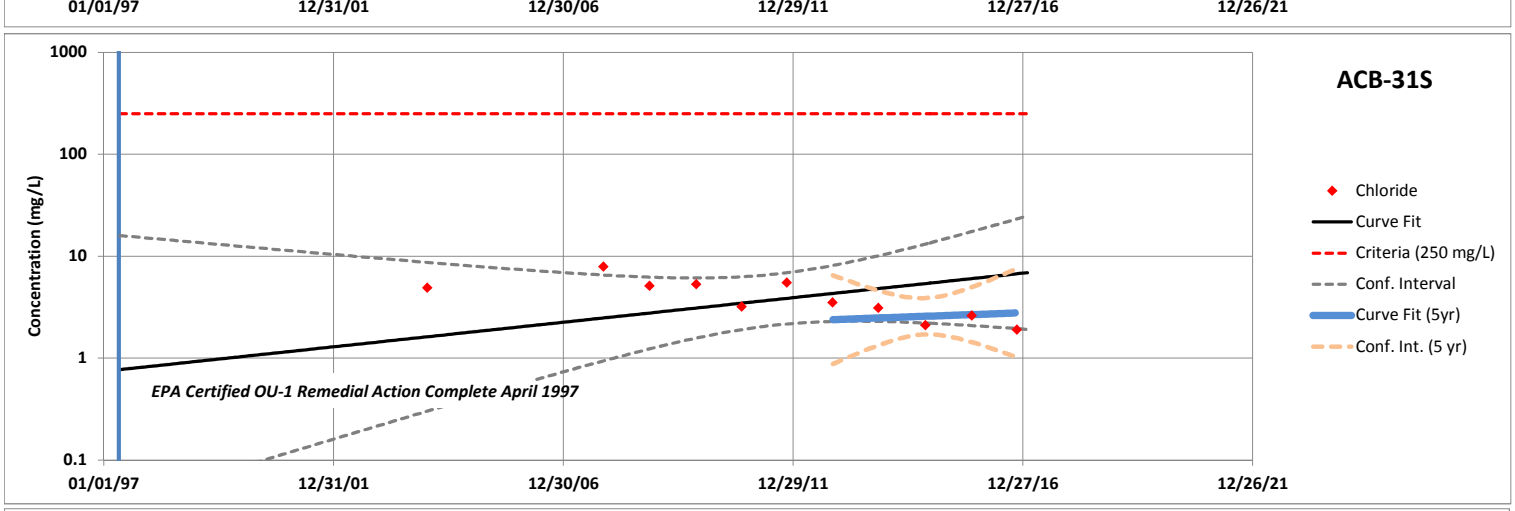
Concentration Trends Agrico Site Annual Network Wells

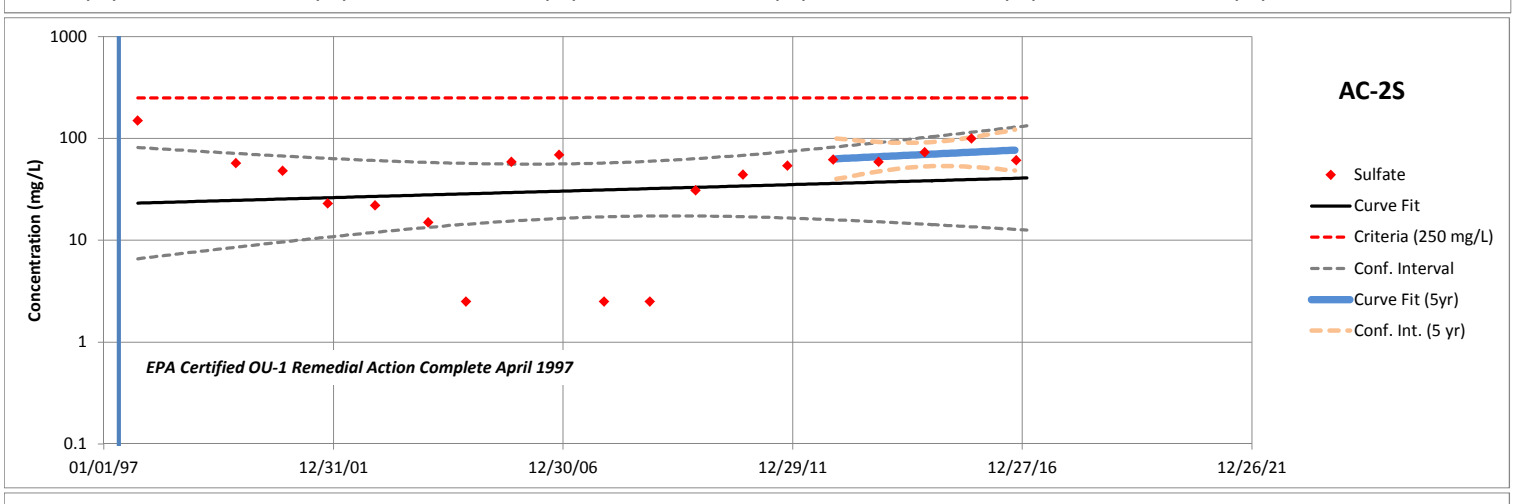
Agrico Site
Pensacola, Florida











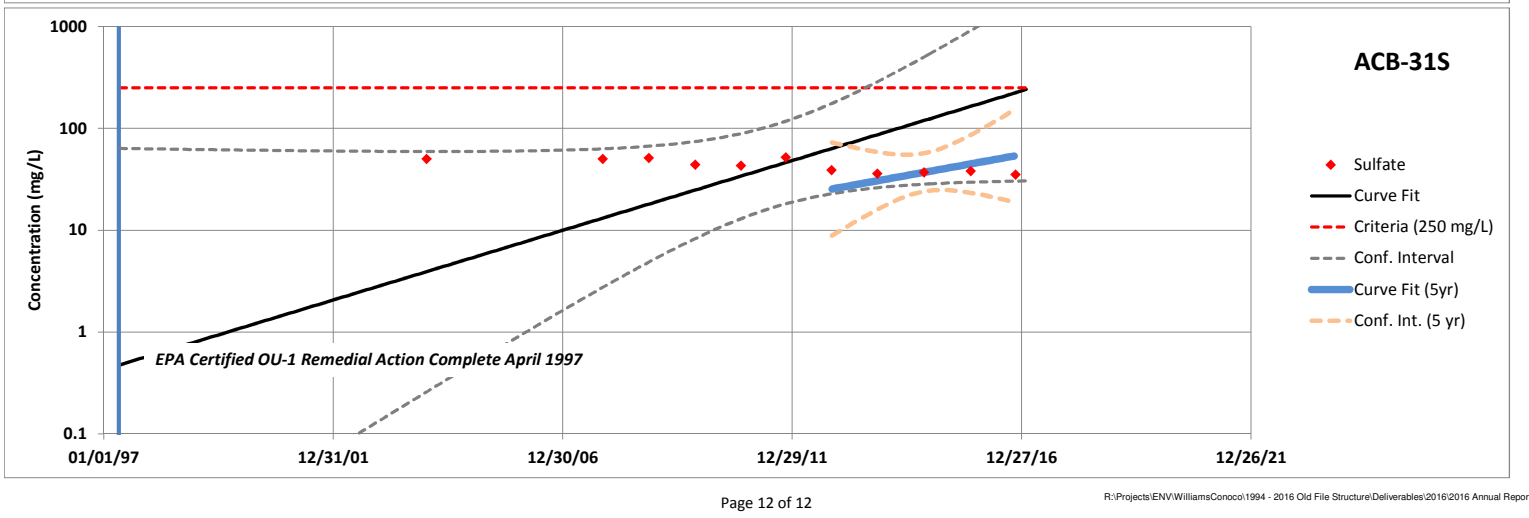
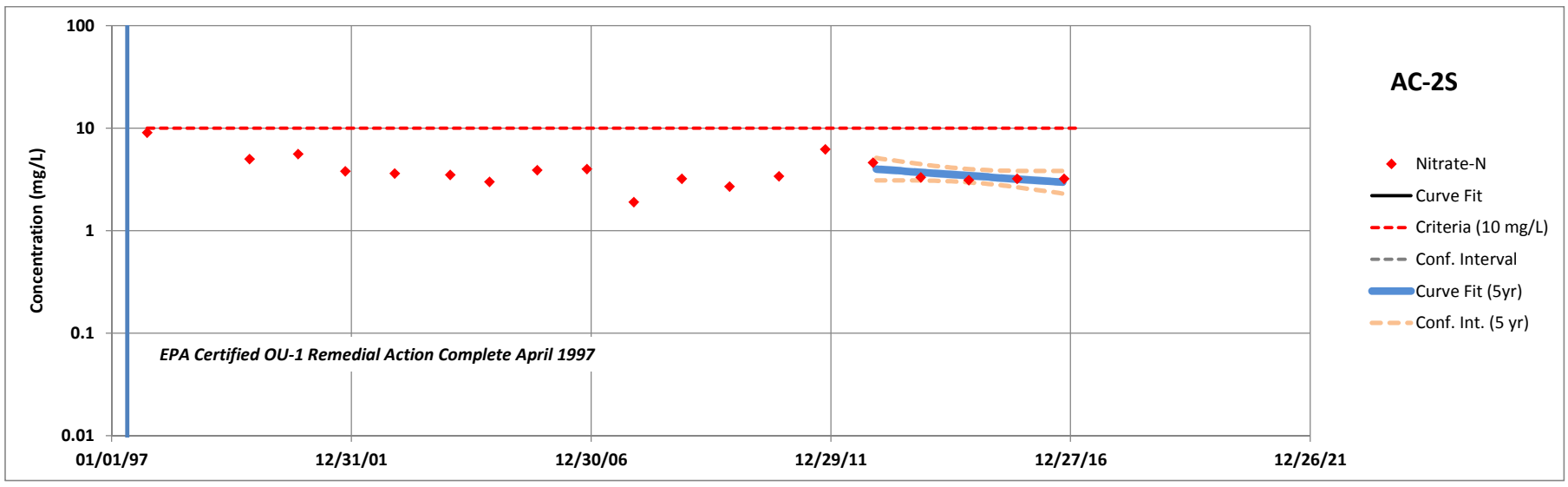
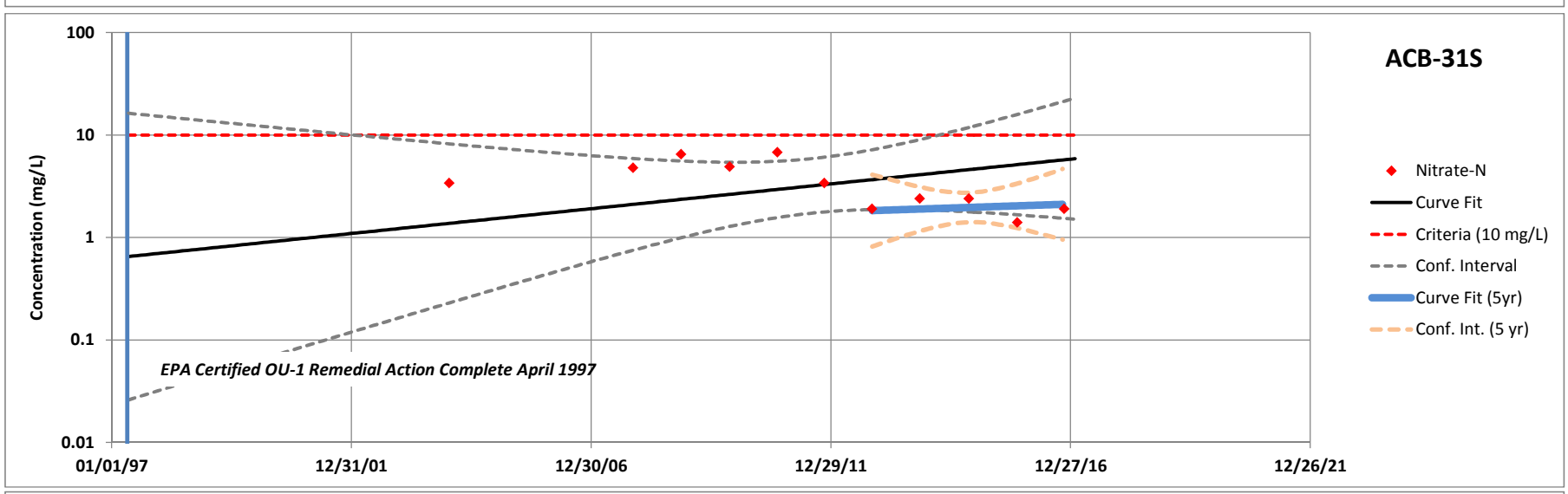


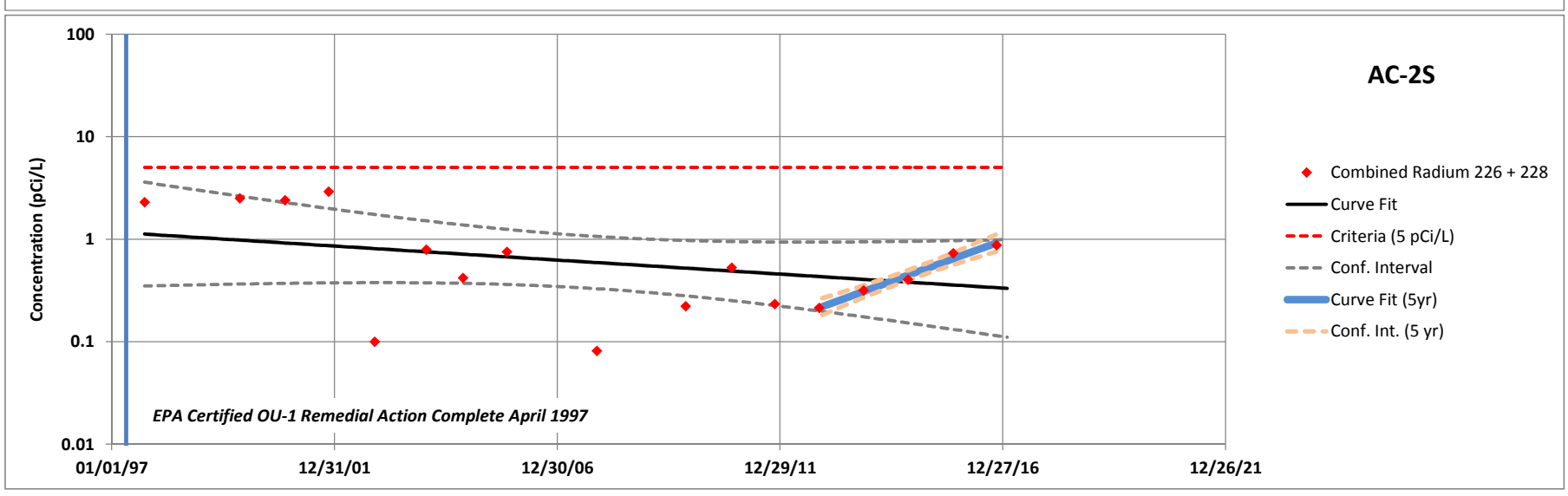
Figure 10 (Continued)

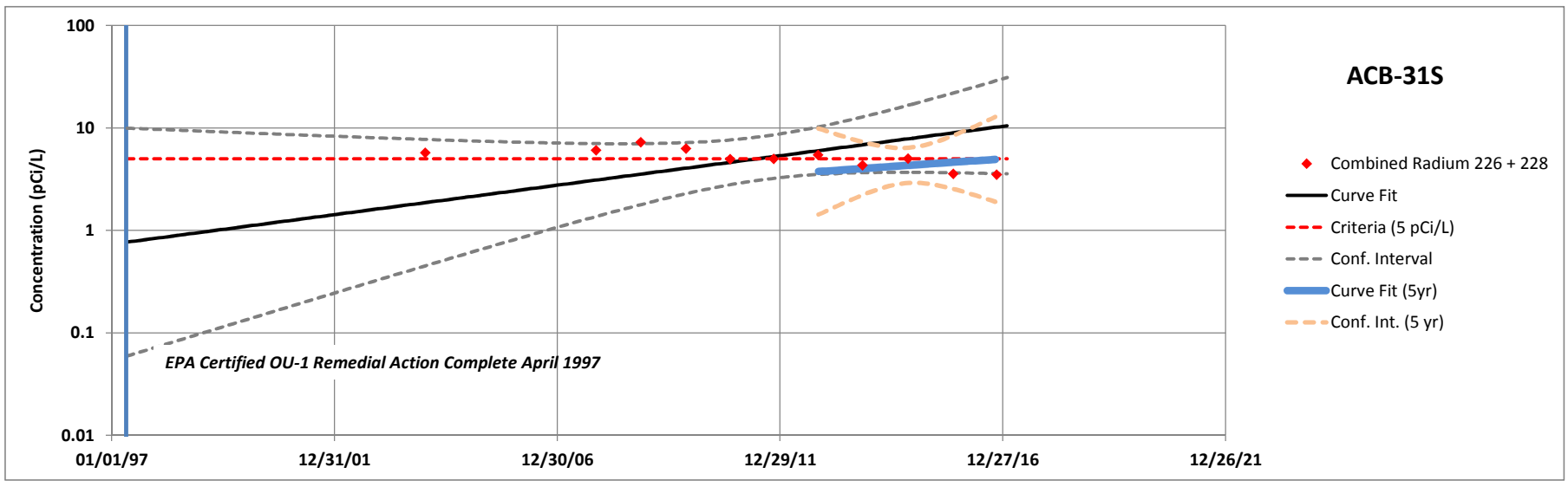
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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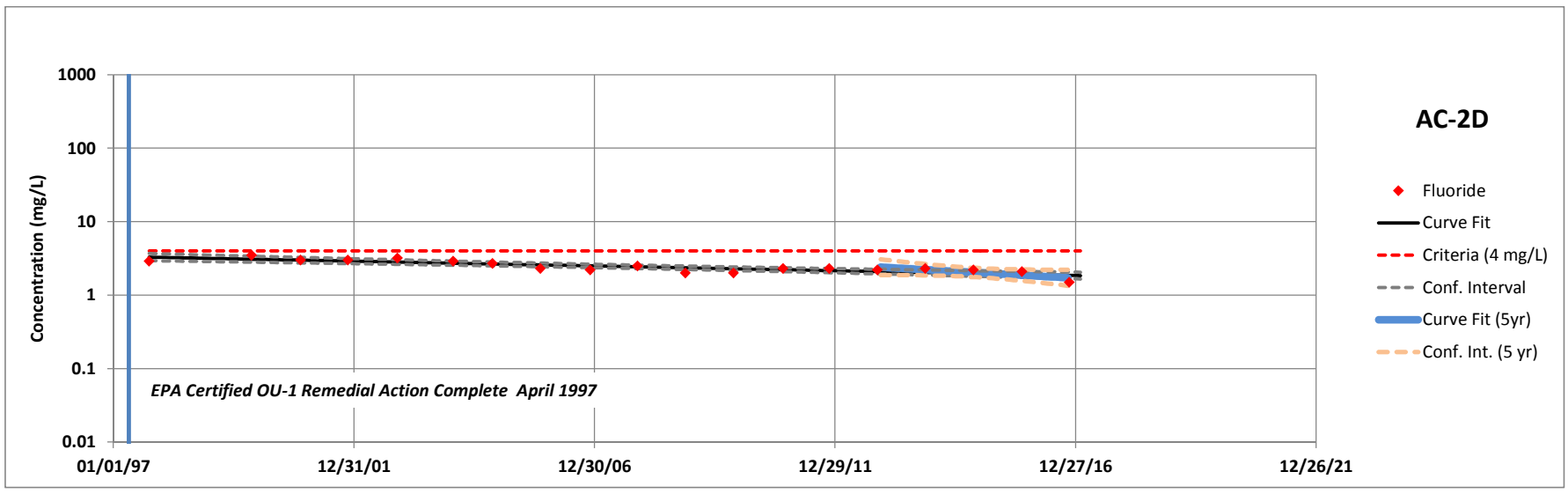
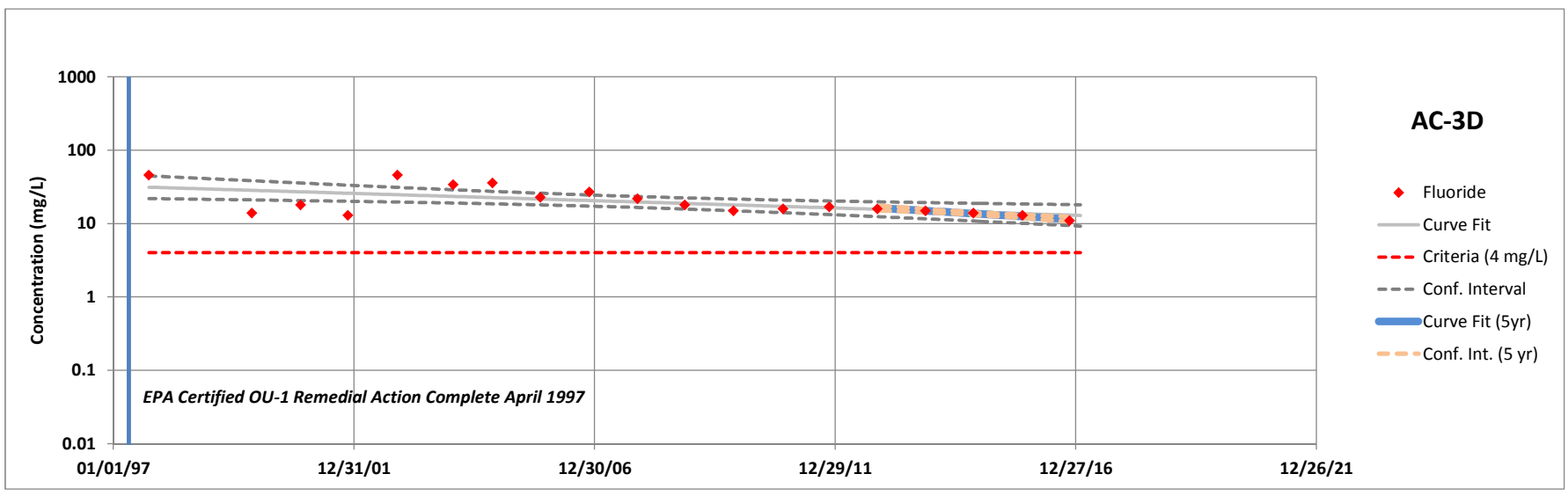
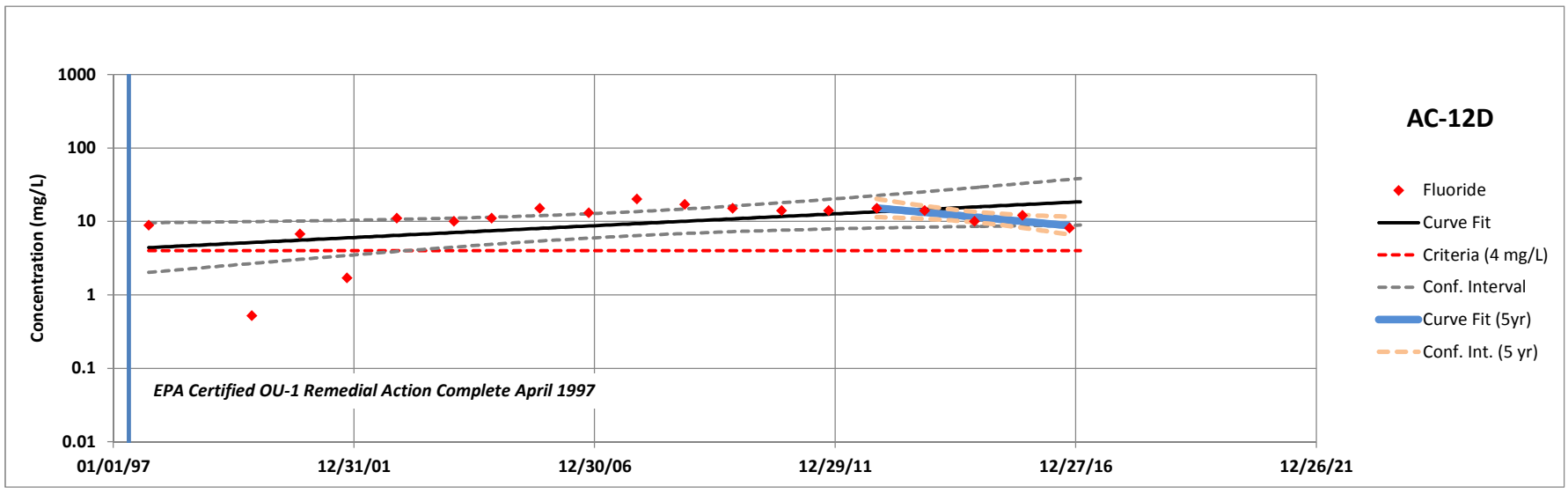
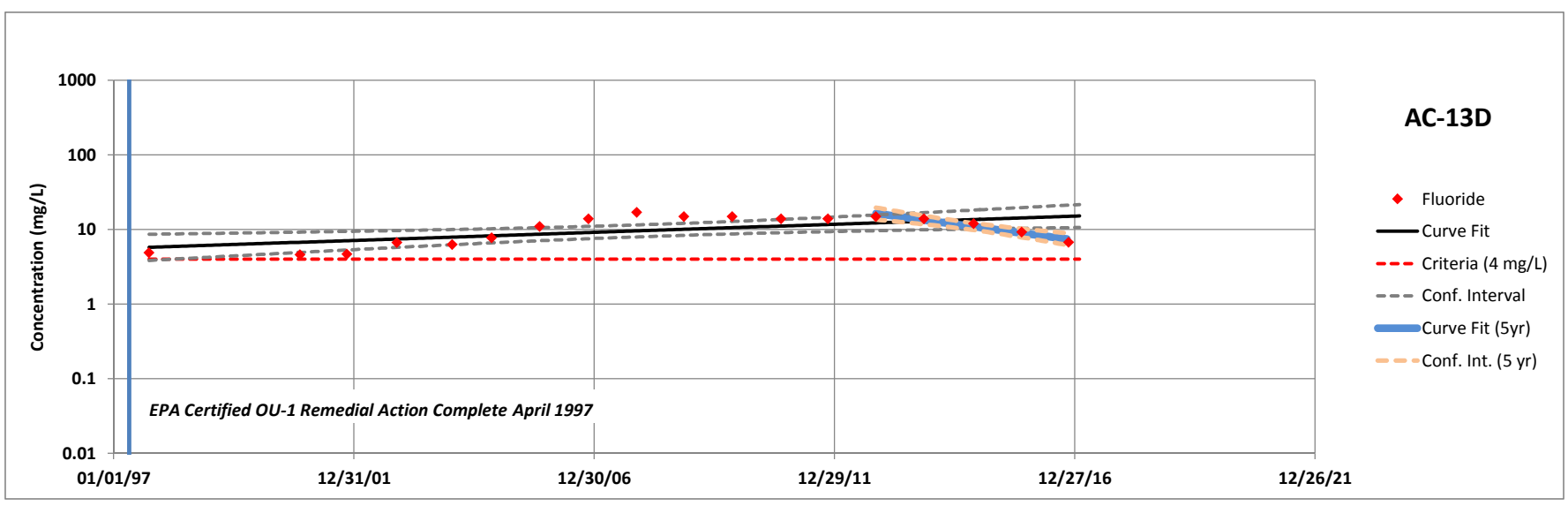
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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Concentration Trends Agrico Site Annual Network Wells

Agrico Site
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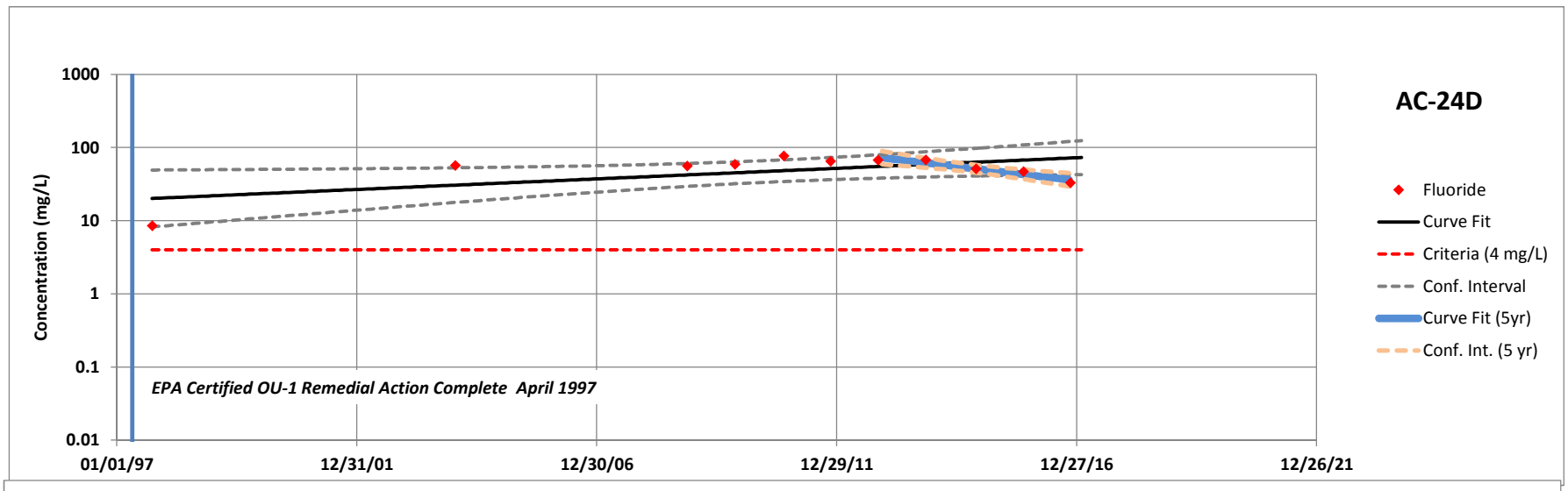

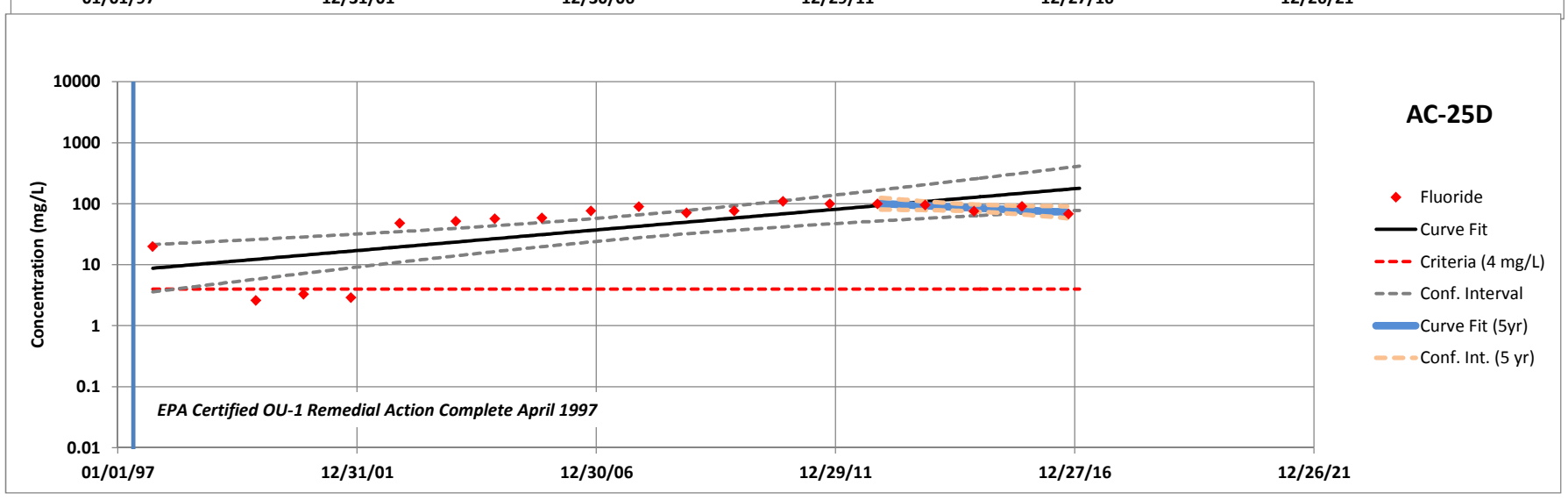

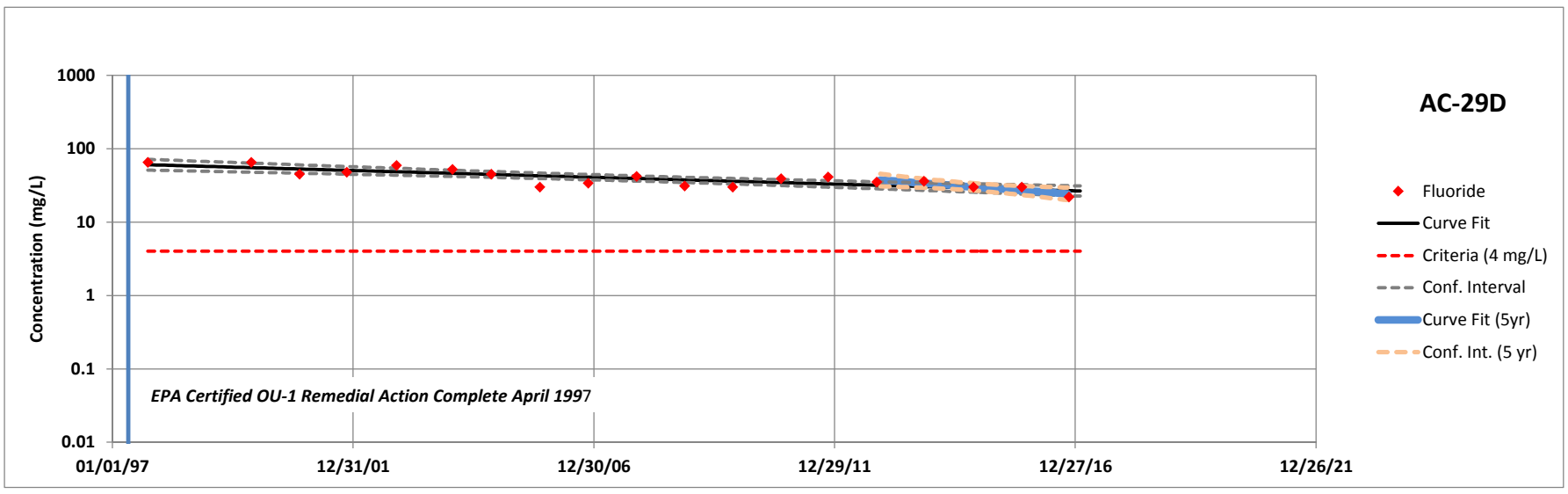

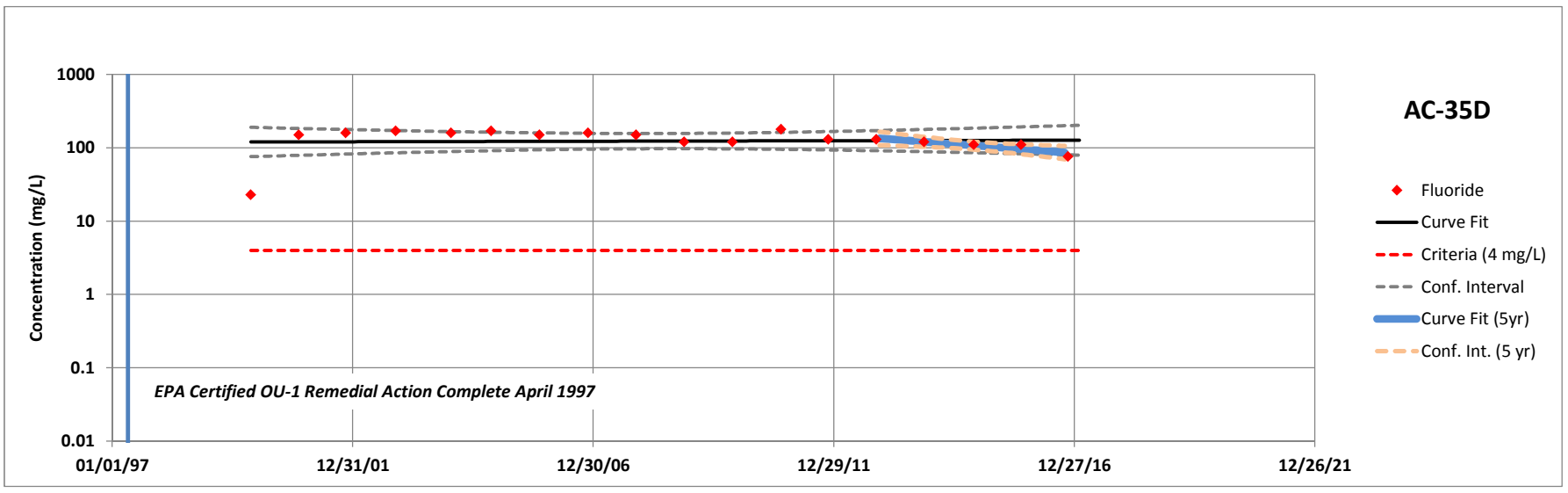

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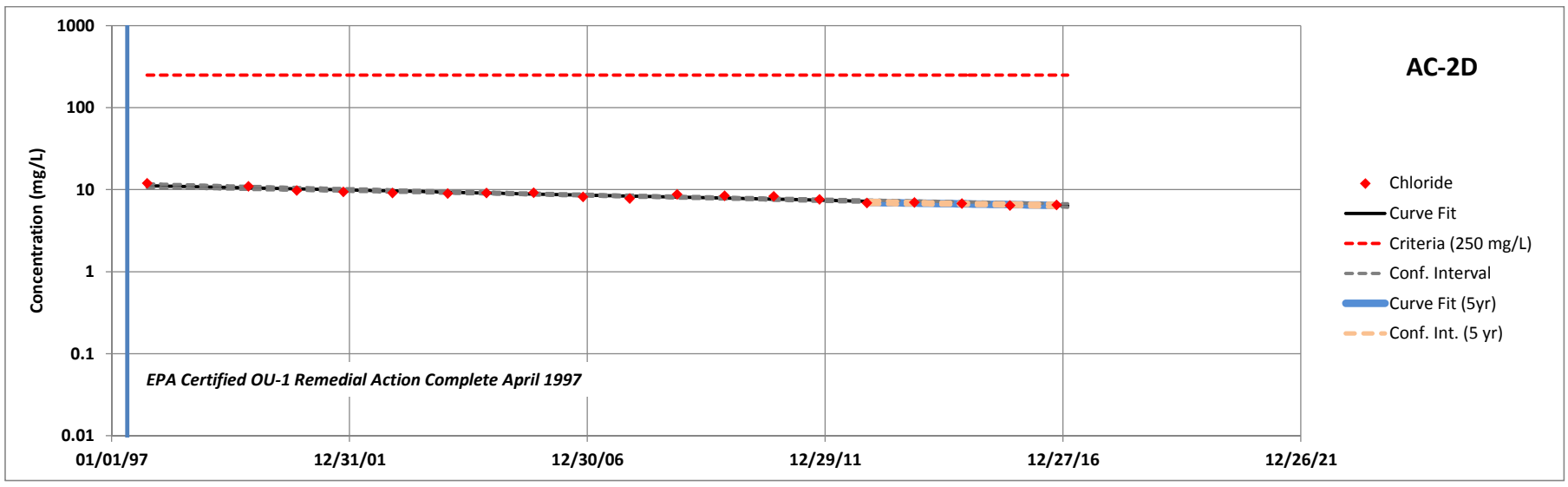
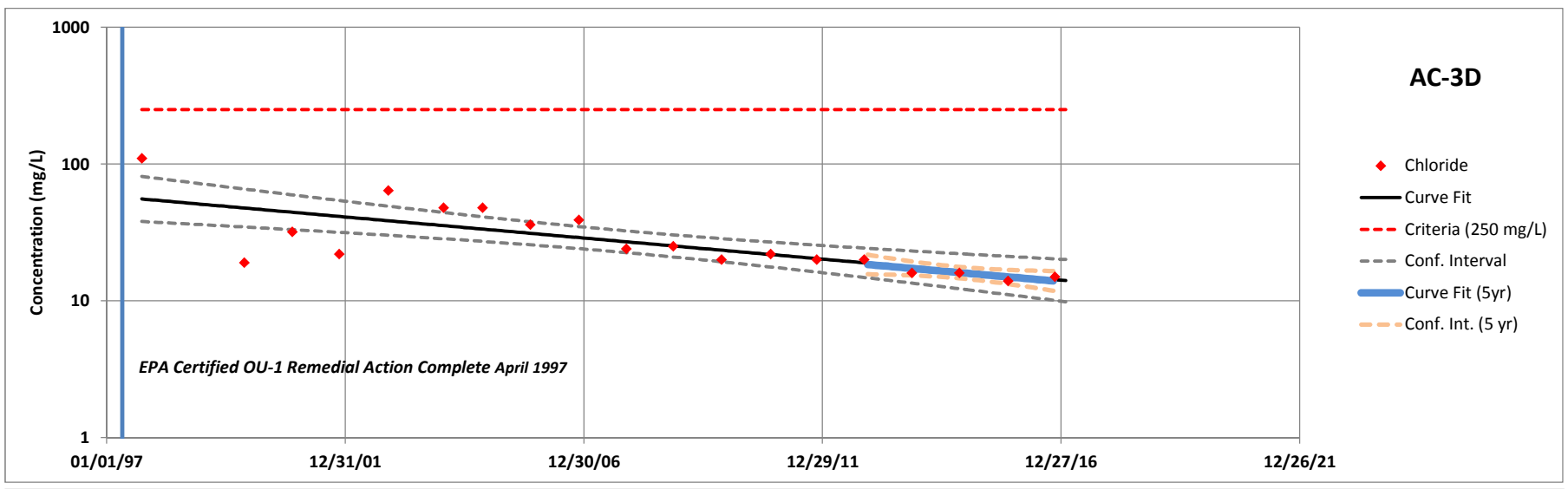
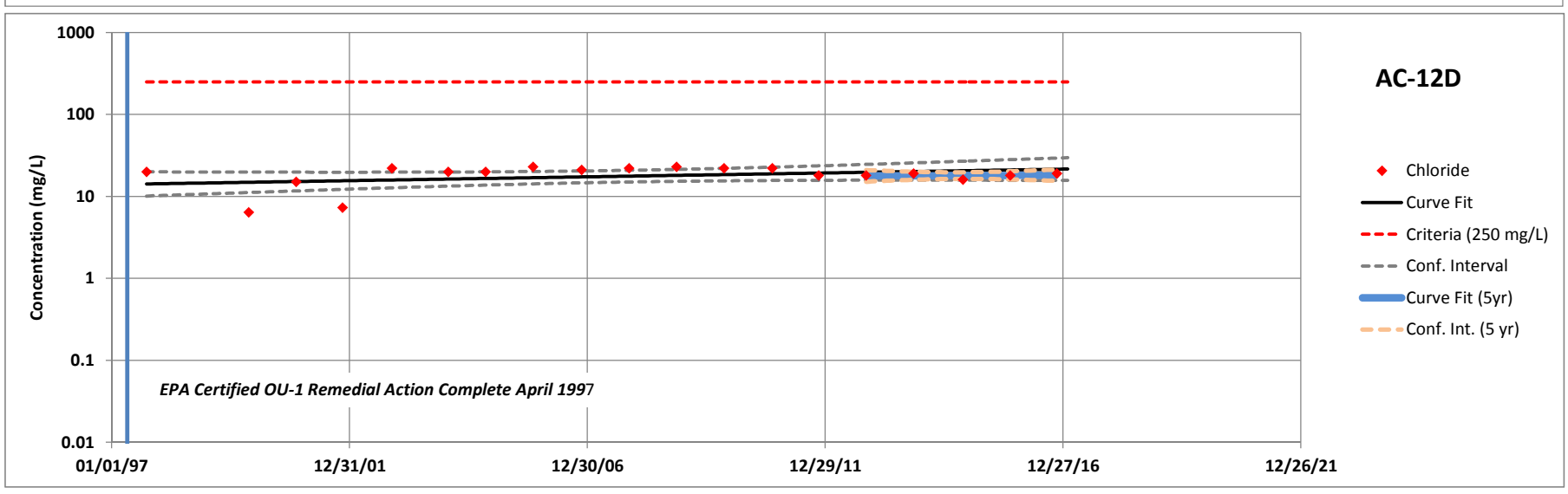
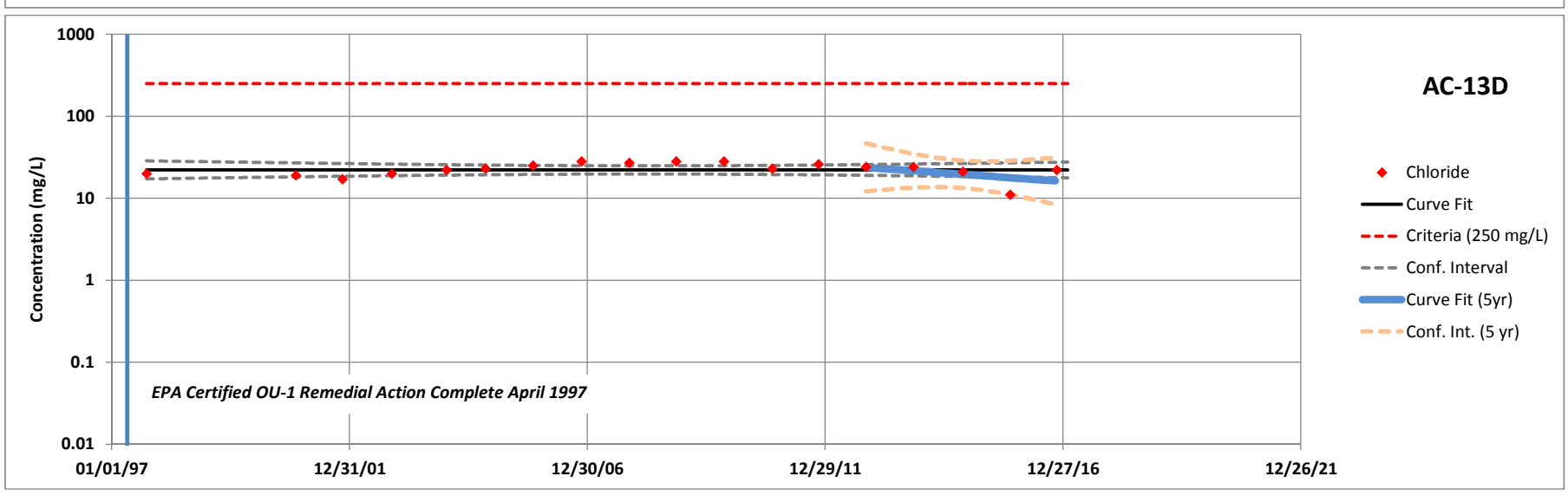
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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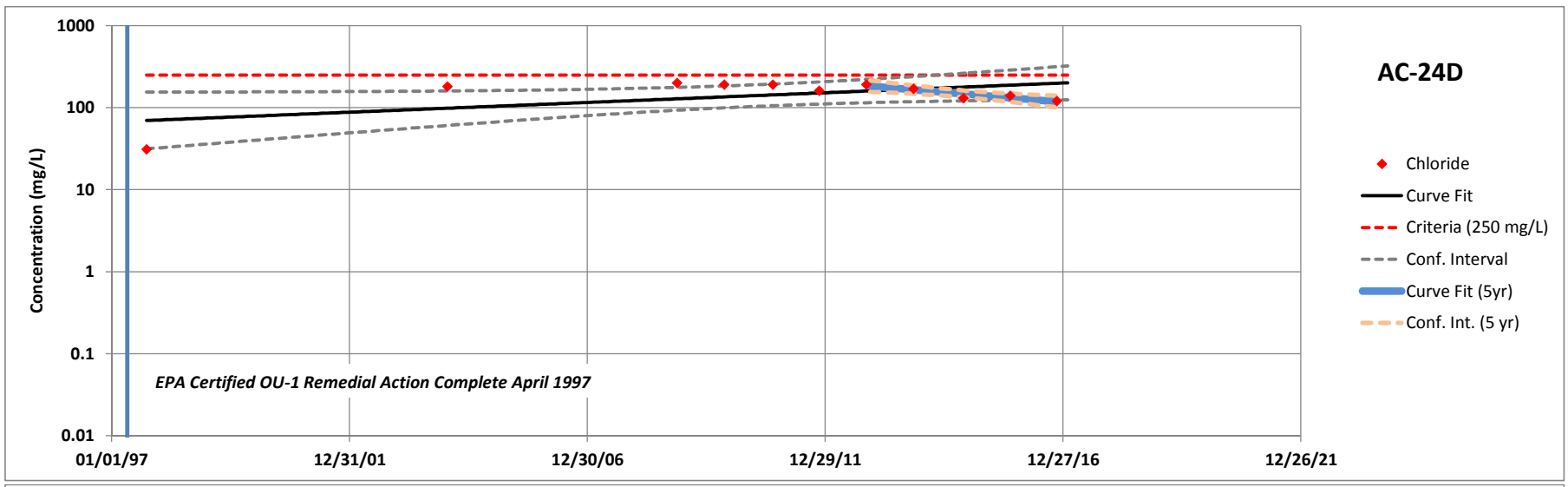
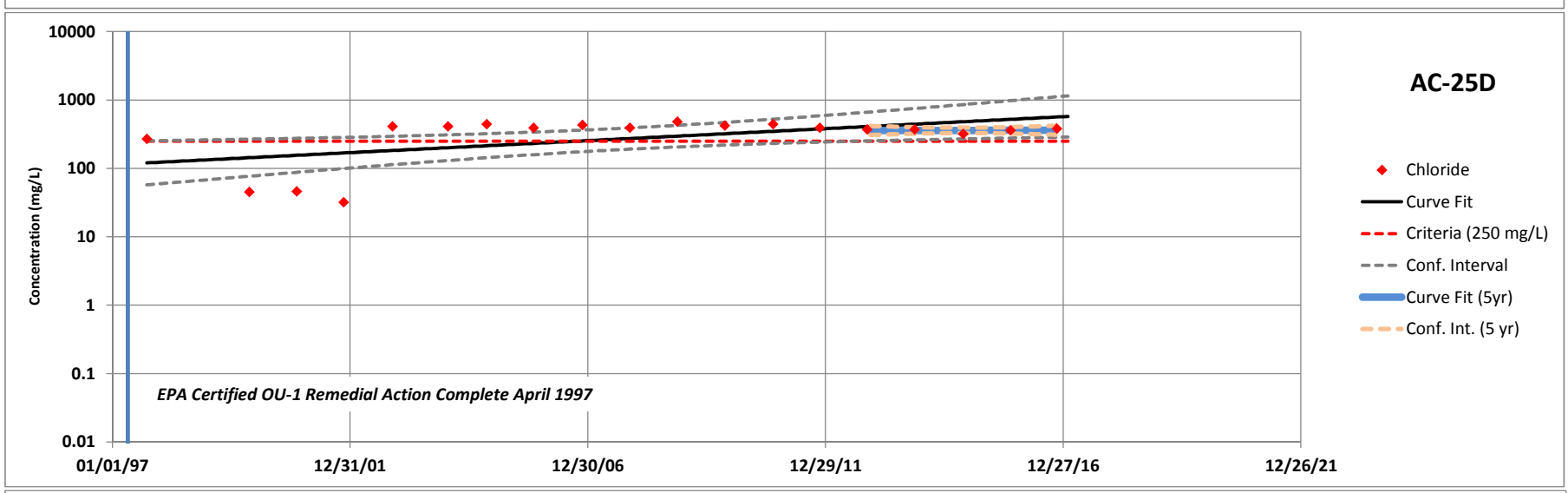
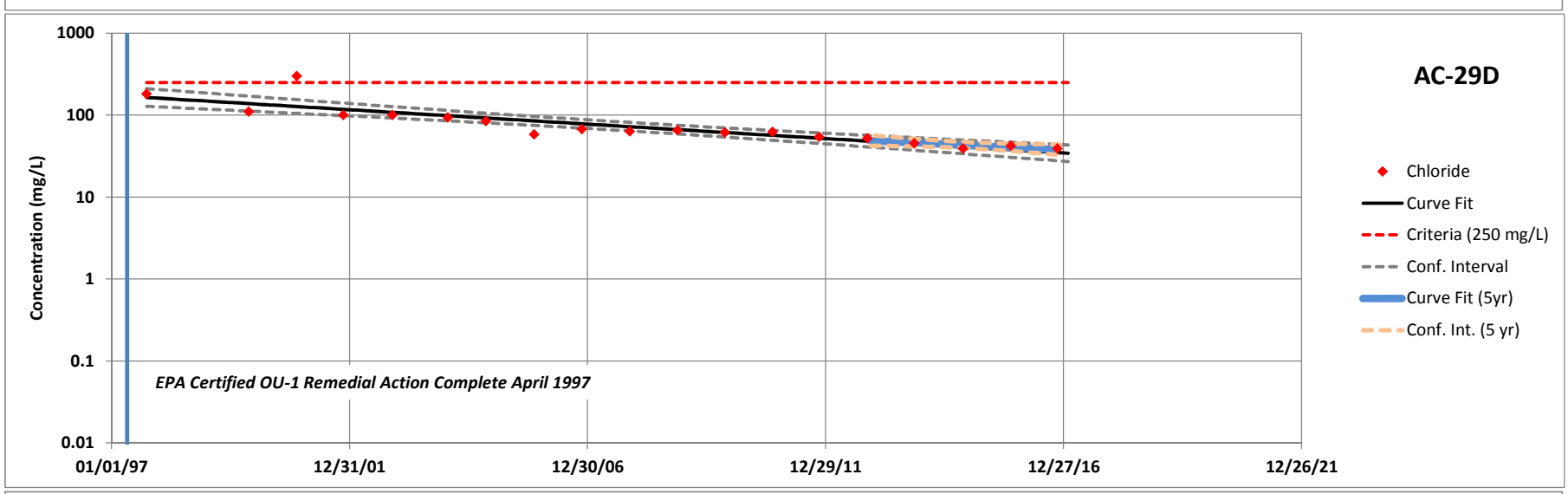
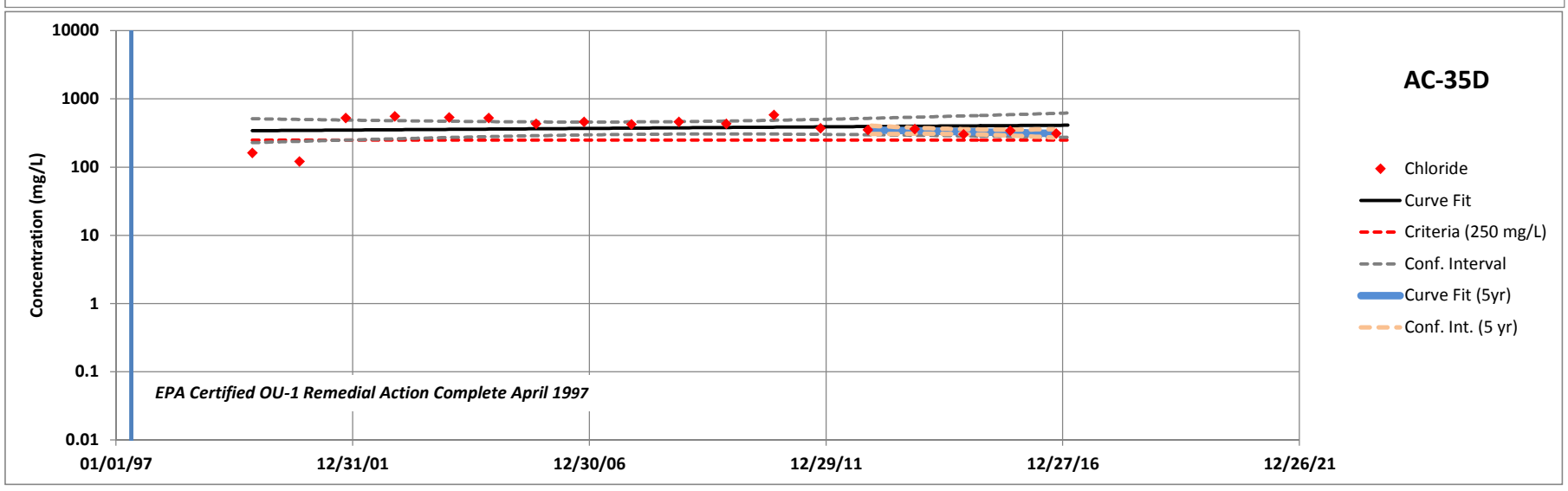
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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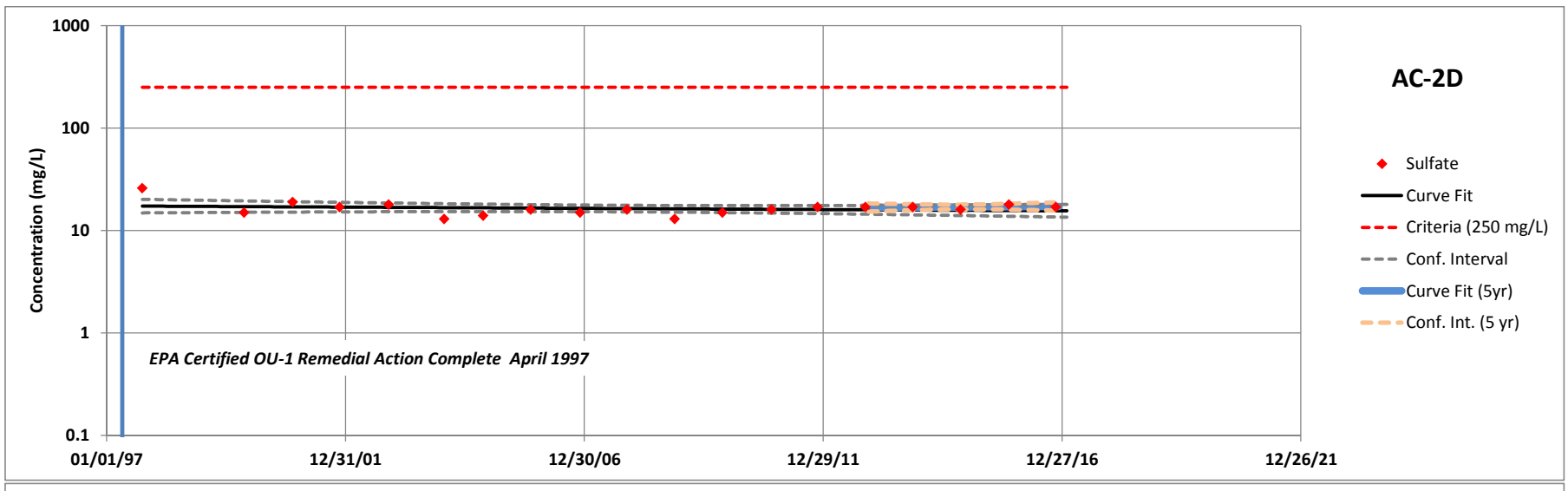
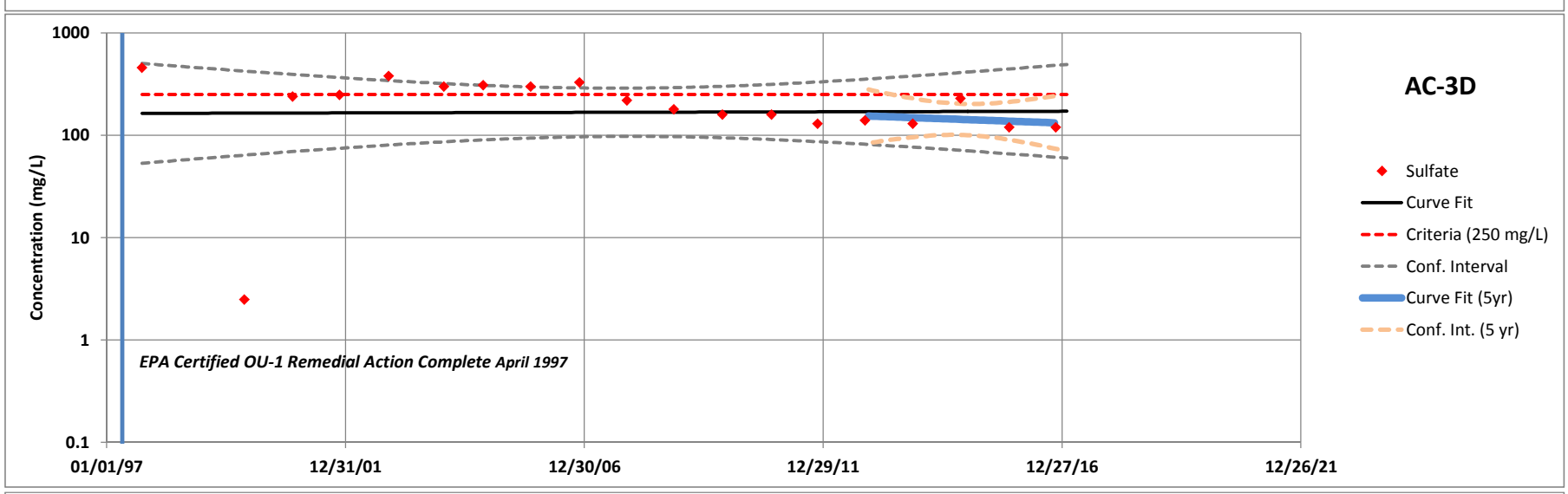
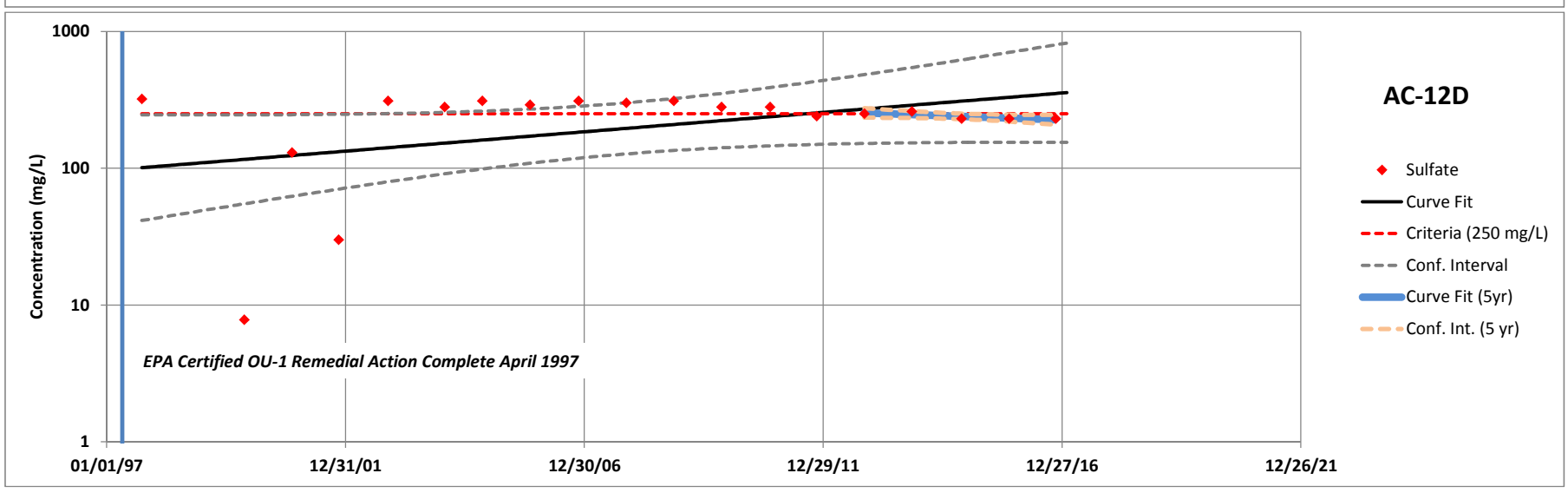
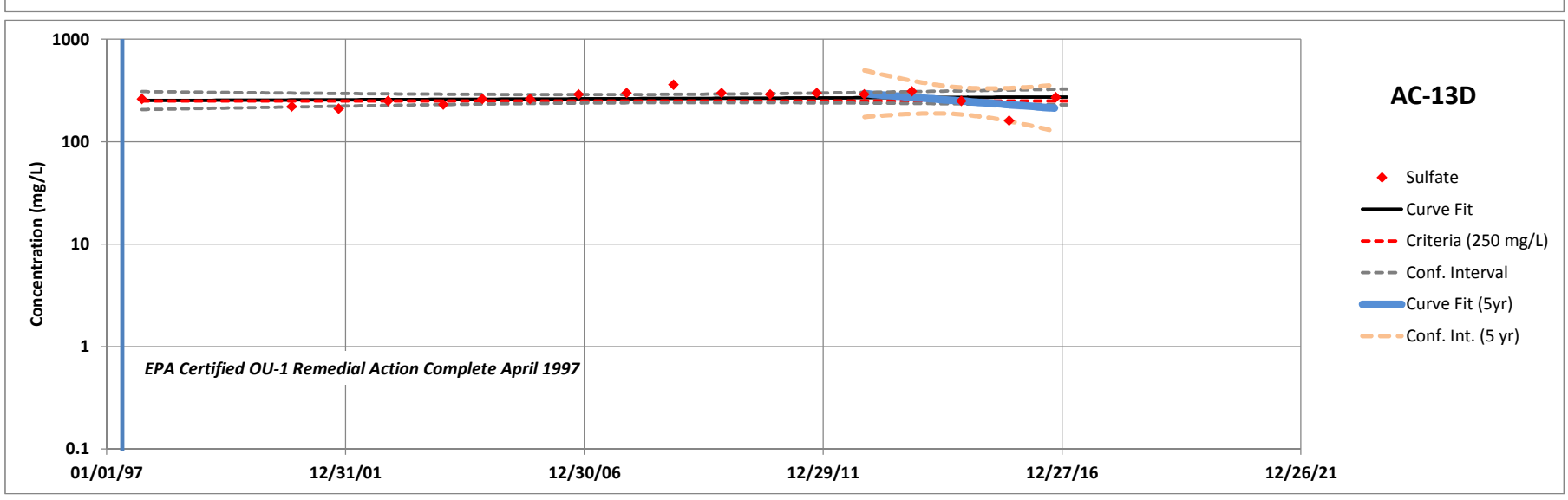
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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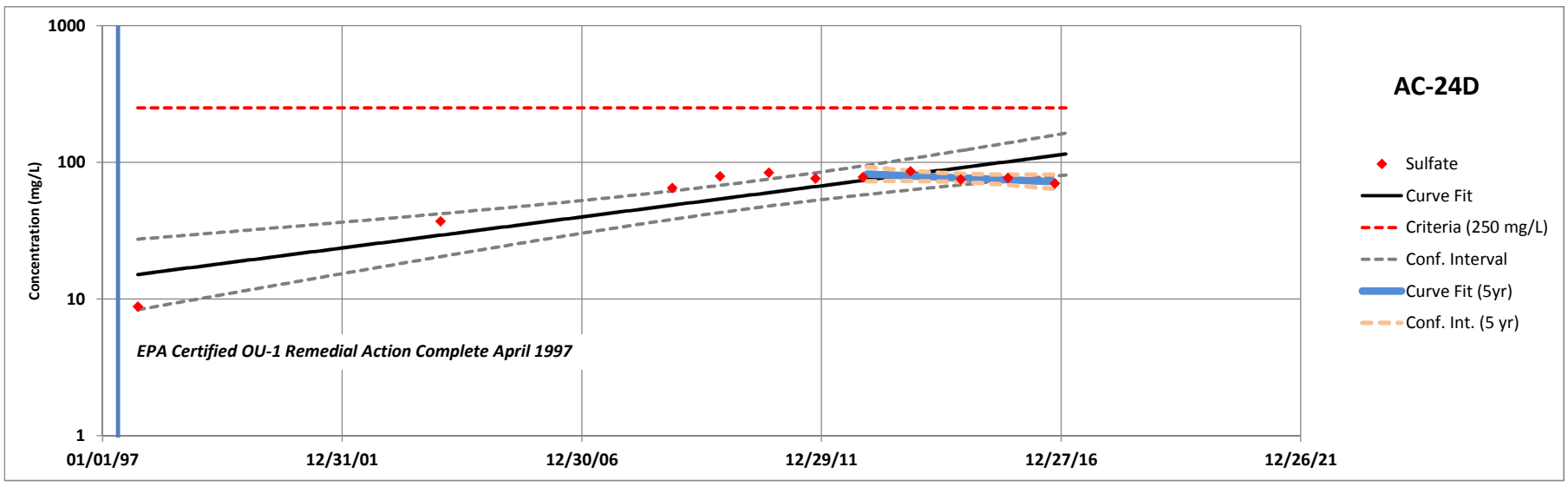
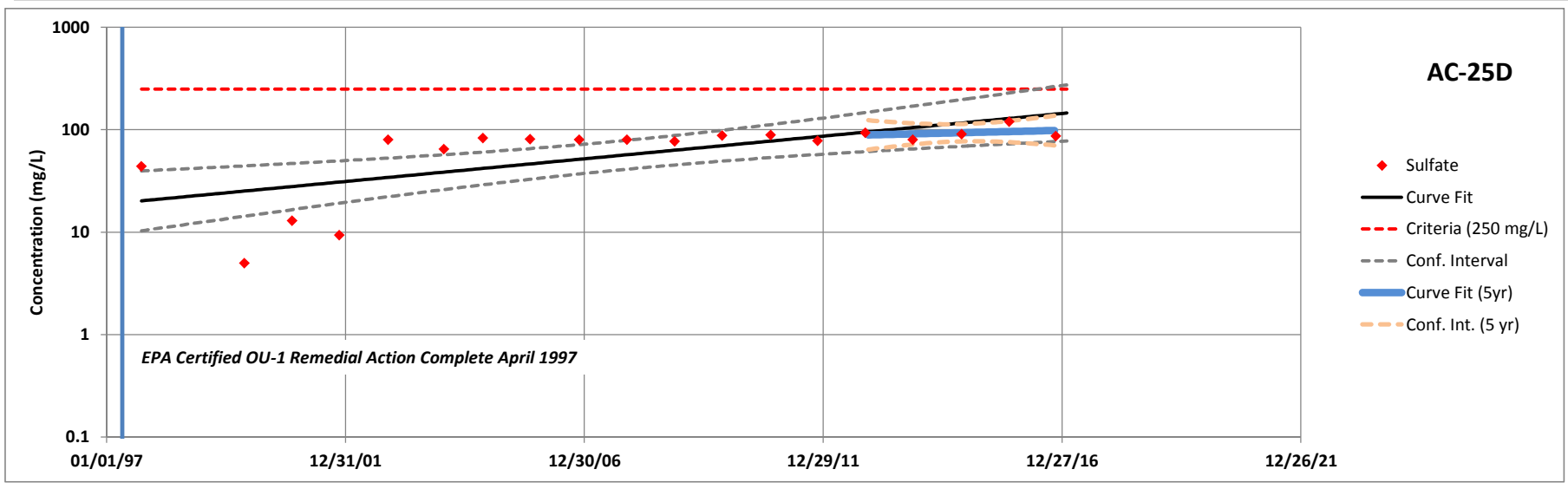
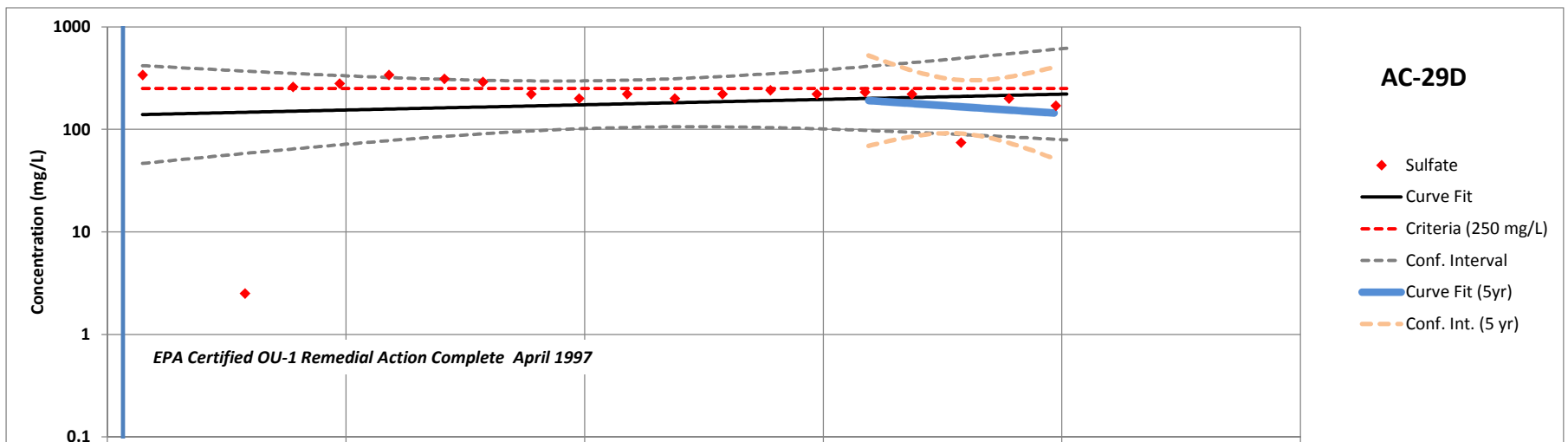
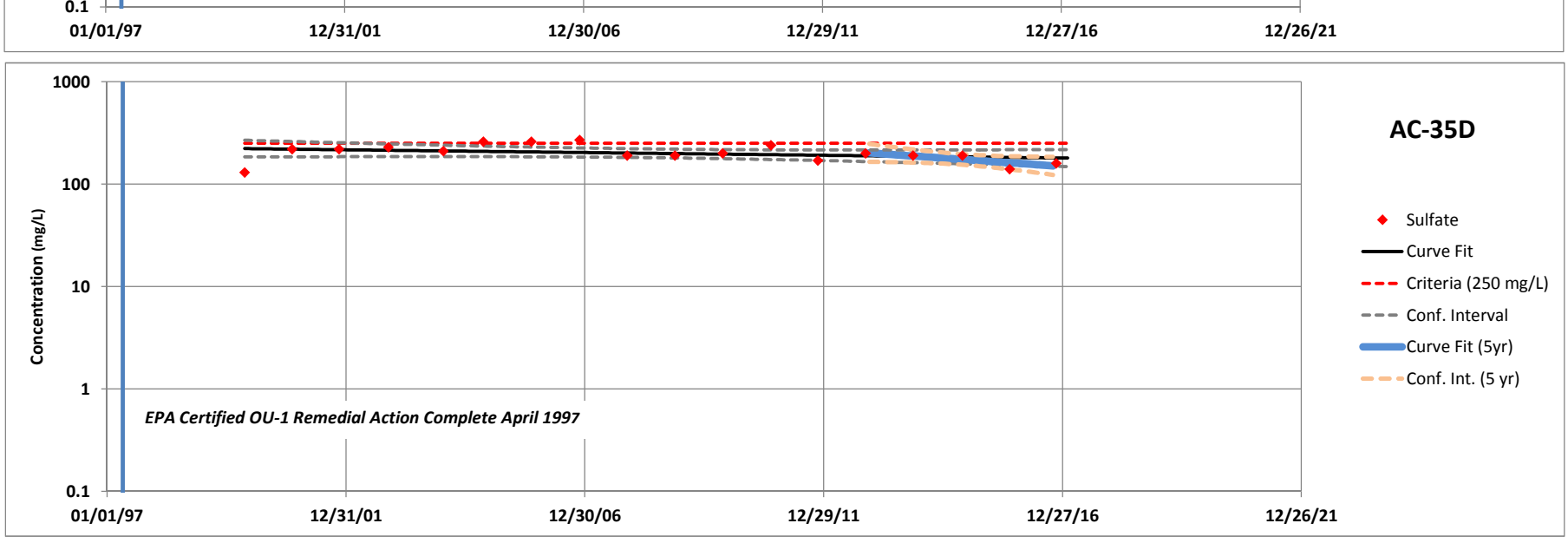
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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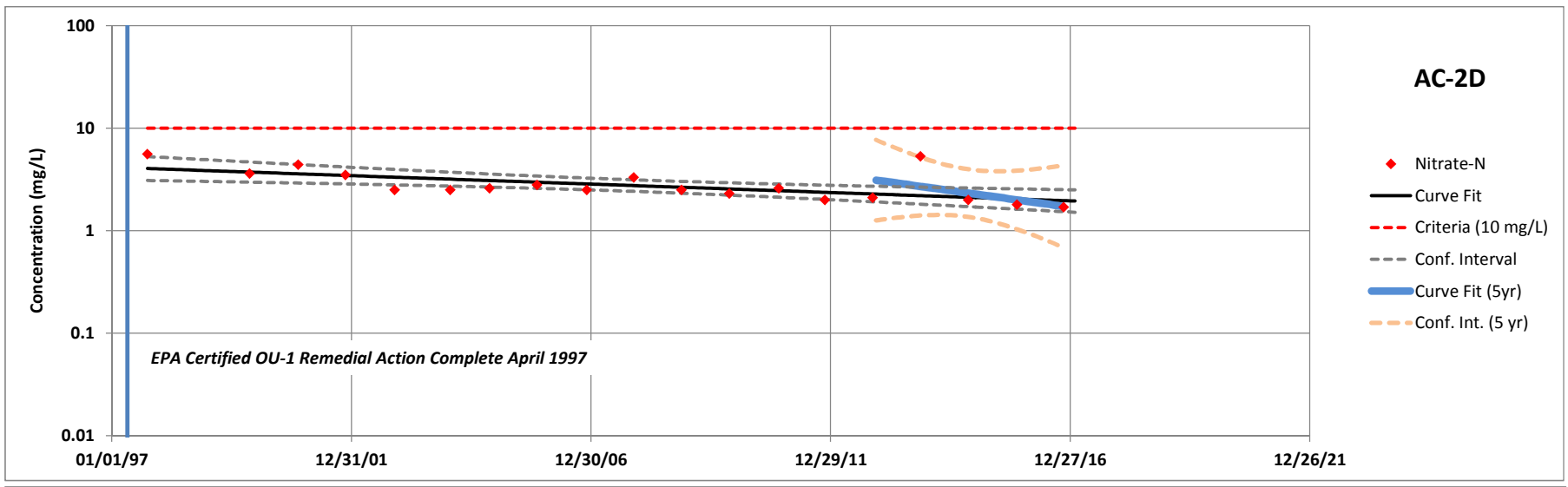
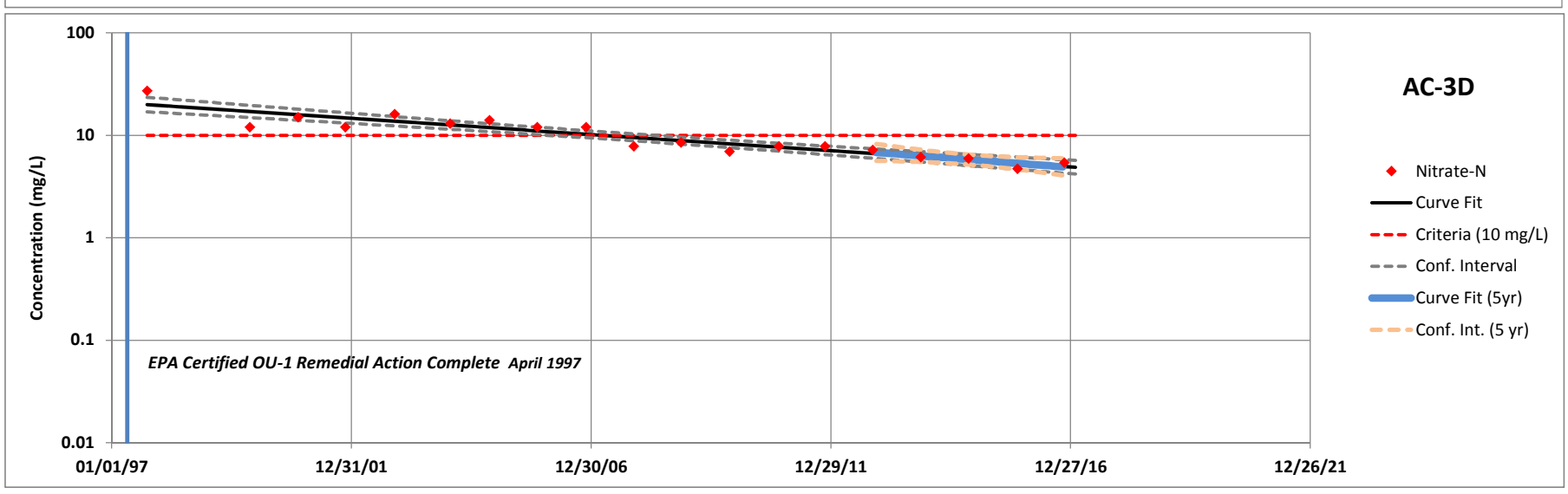
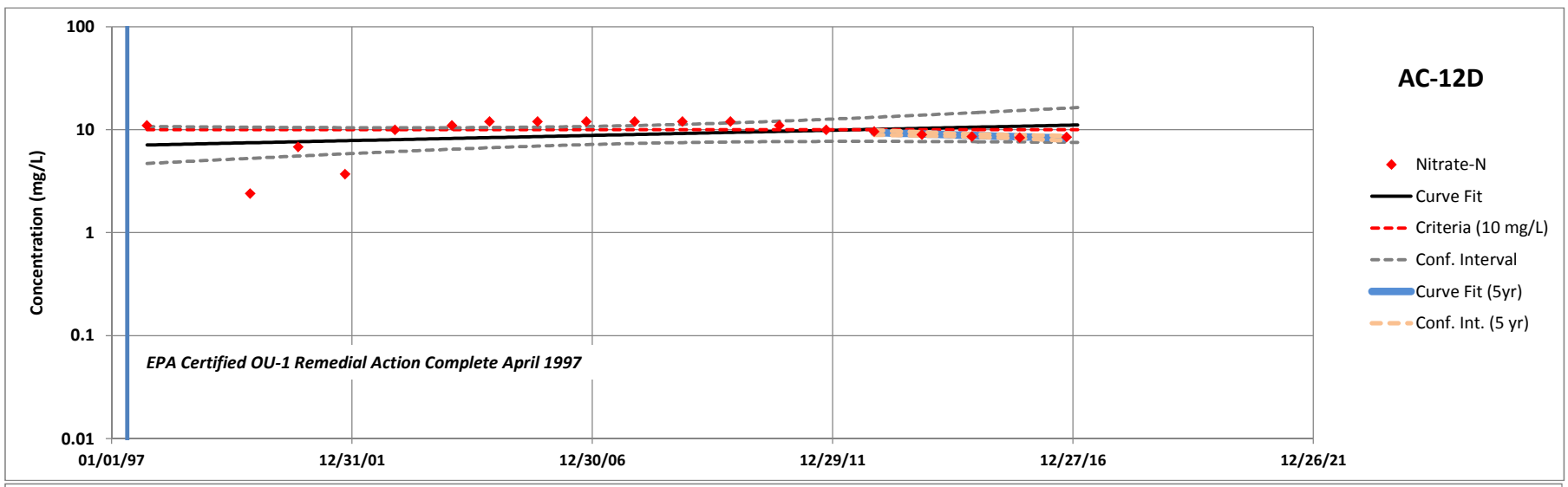
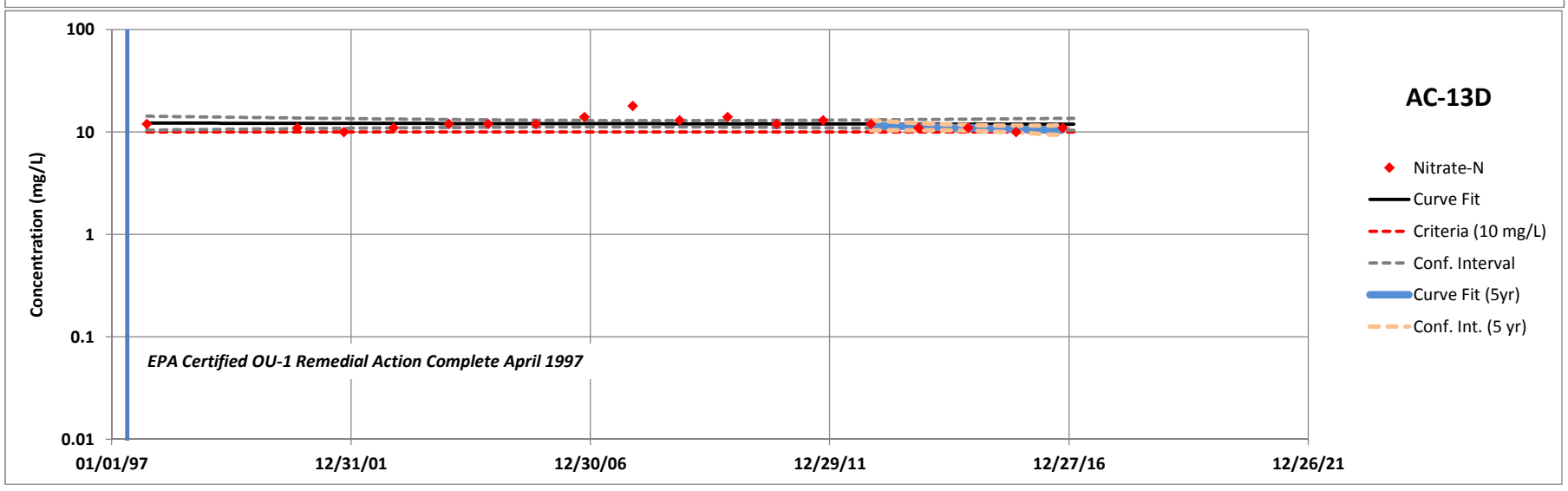
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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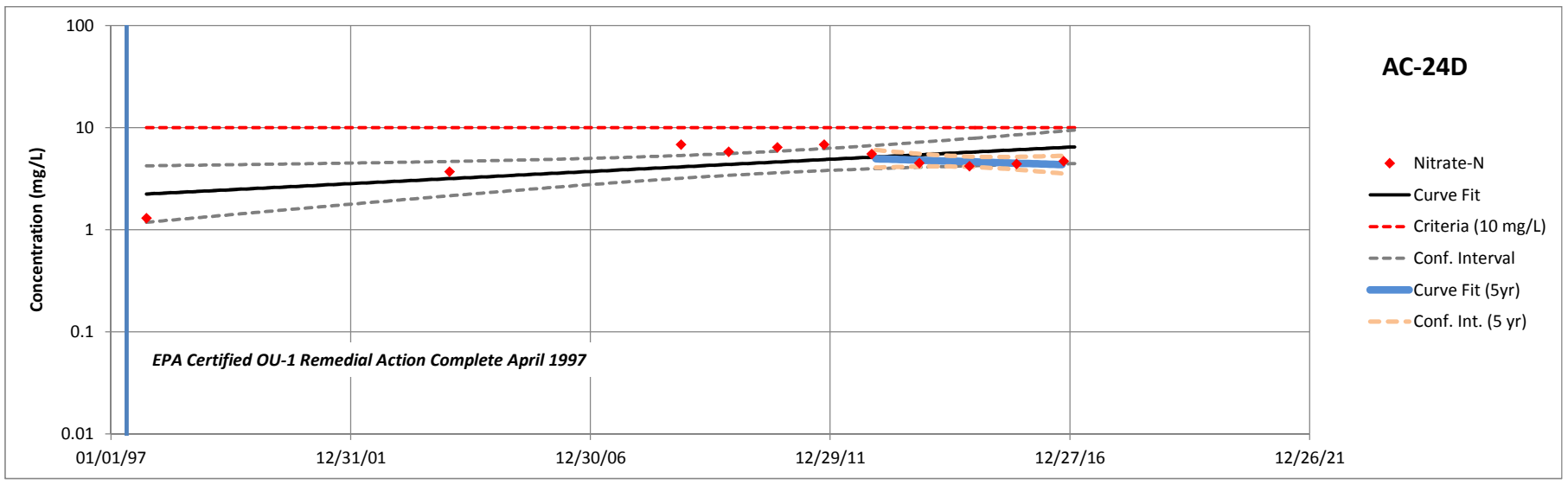
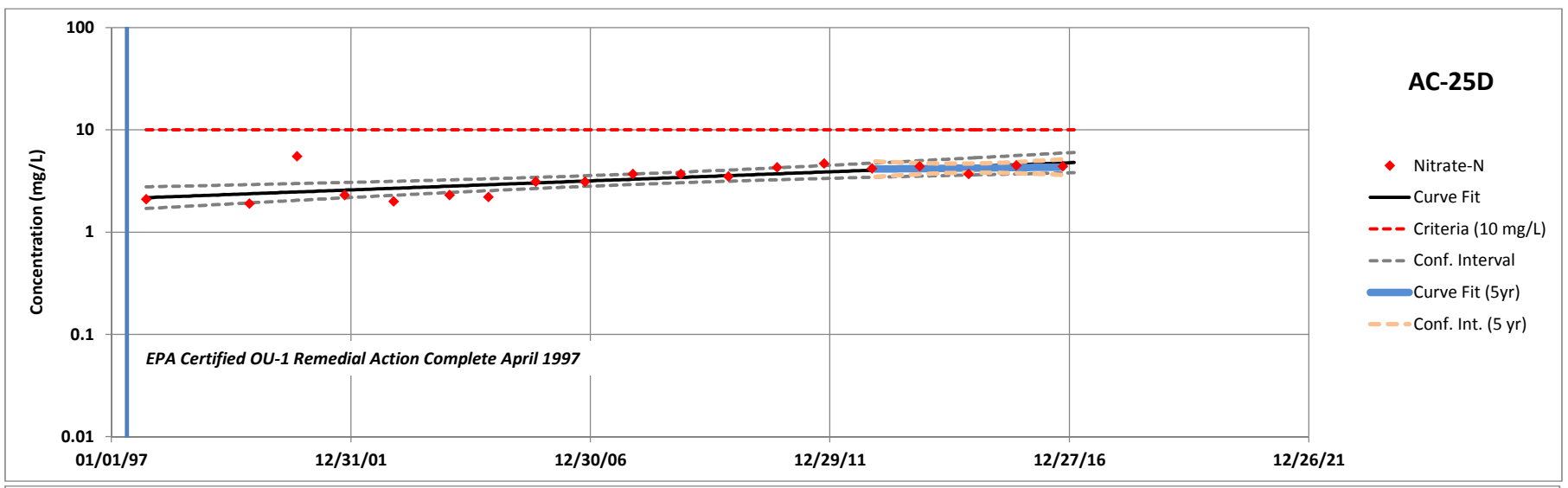
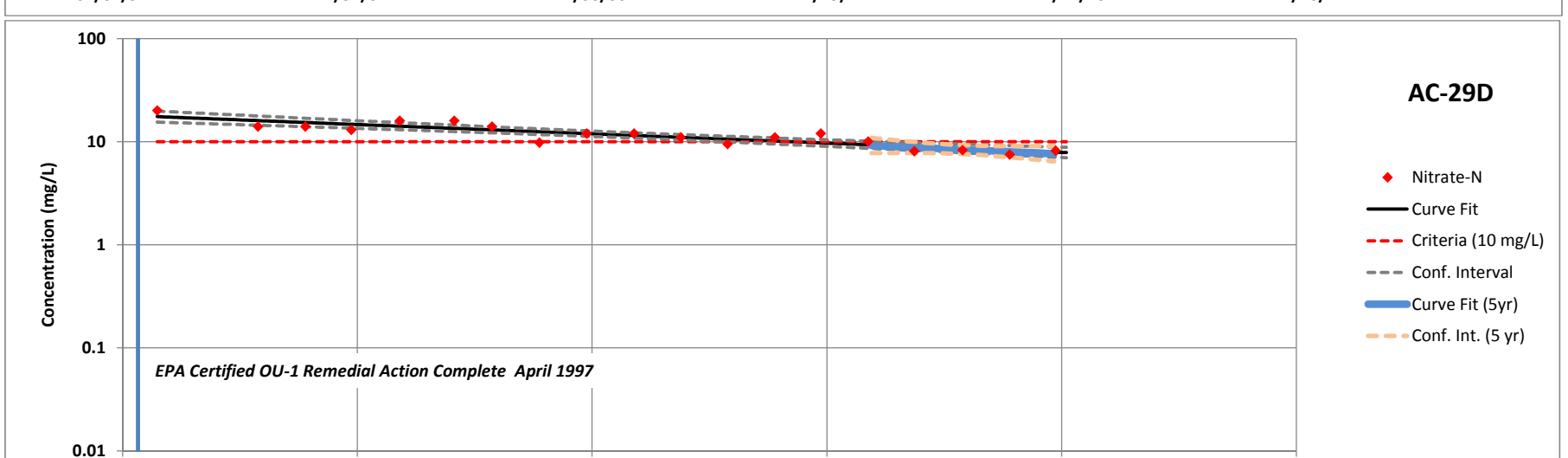
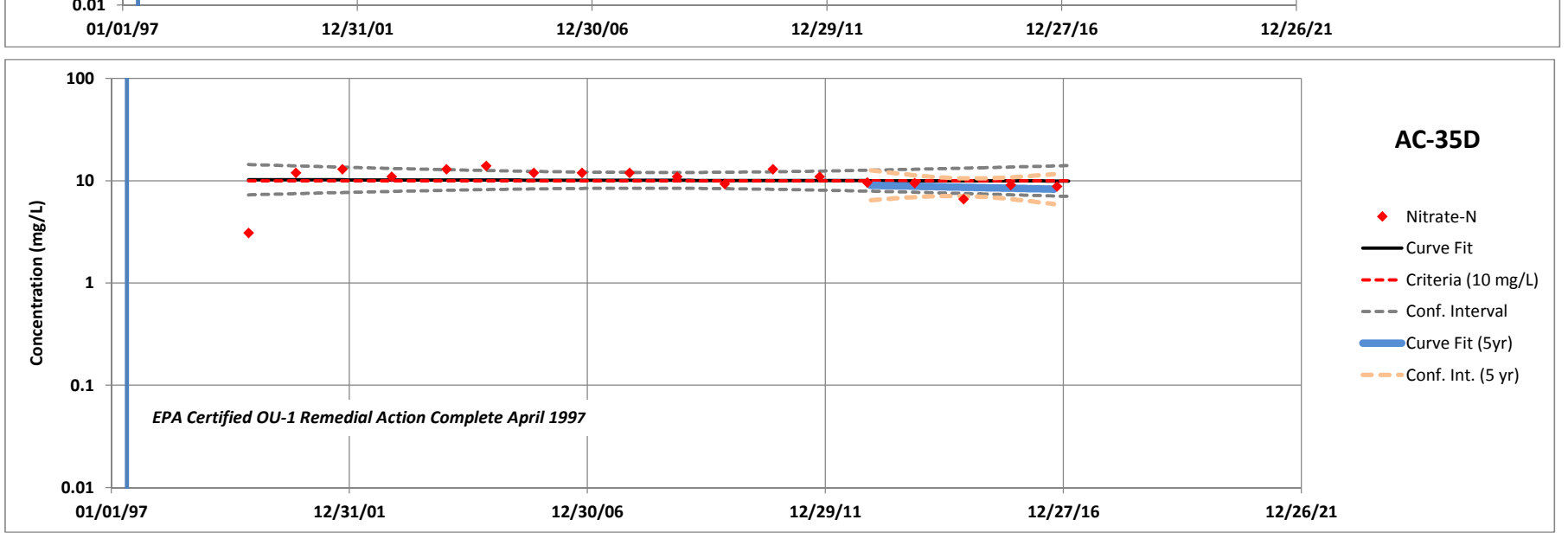
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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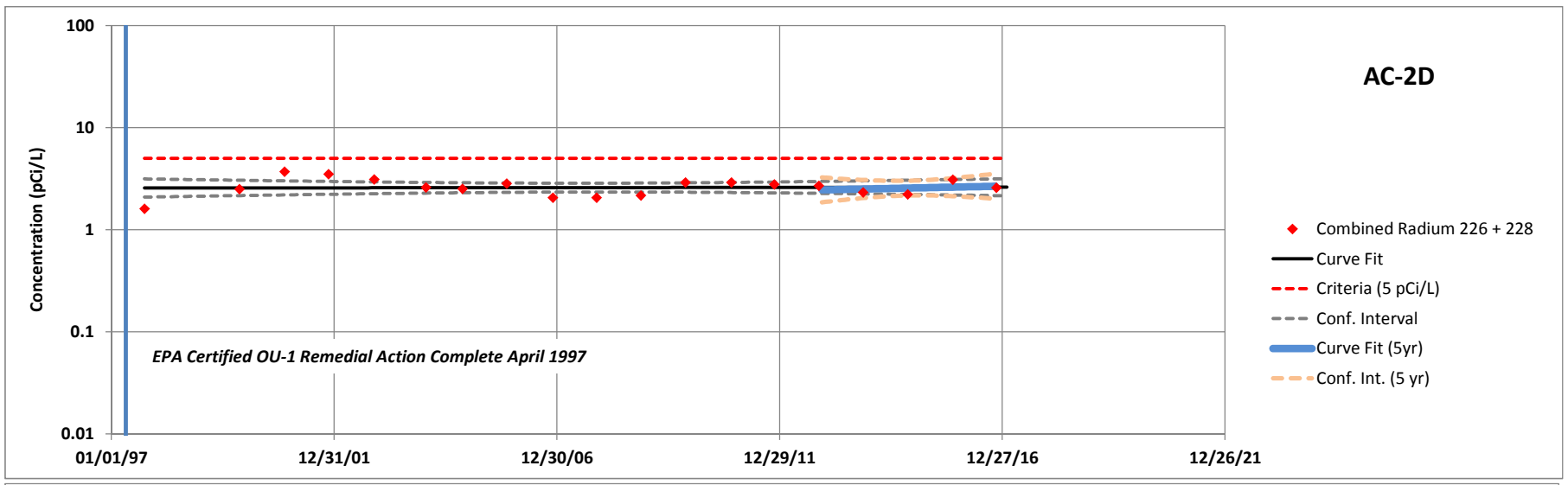
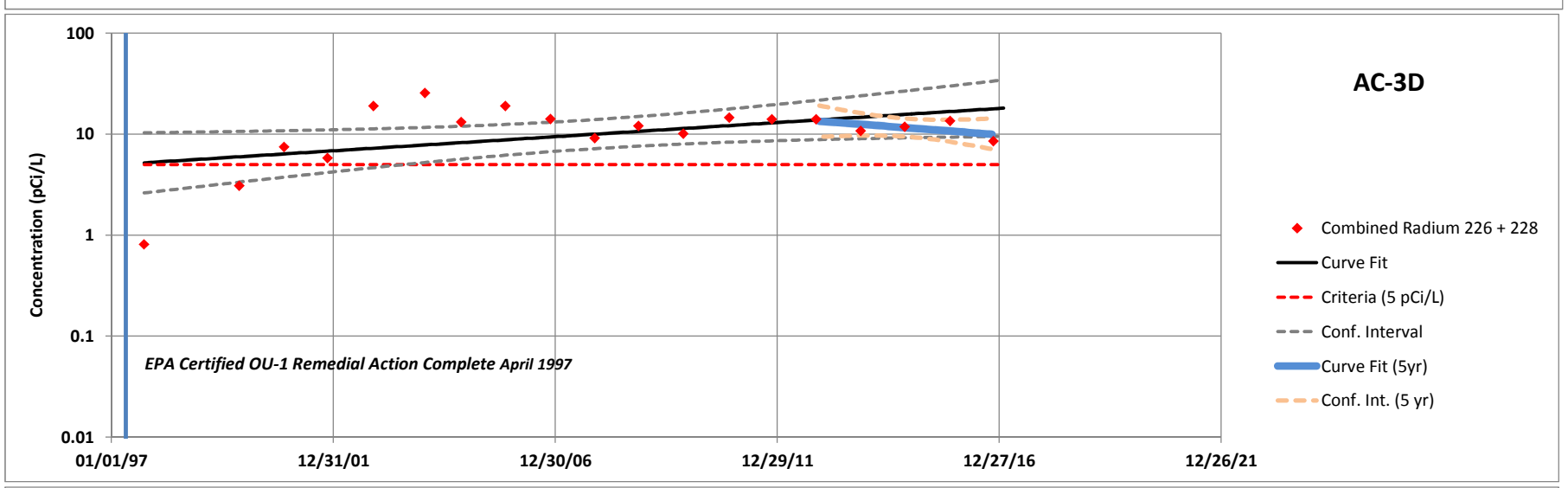
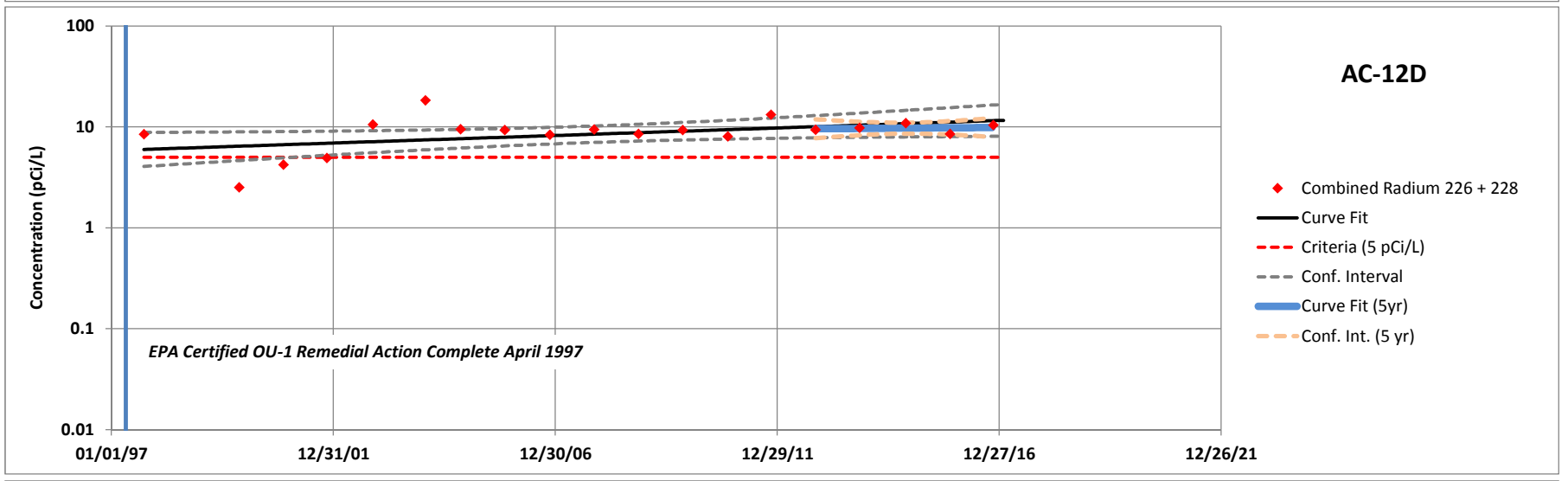
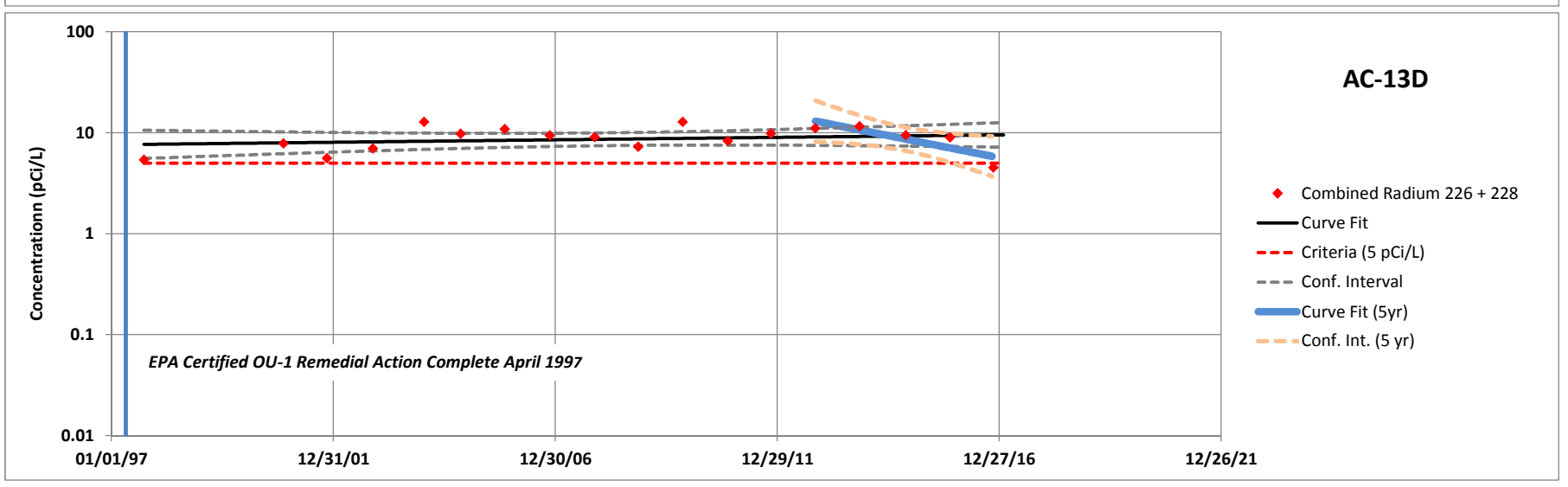
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









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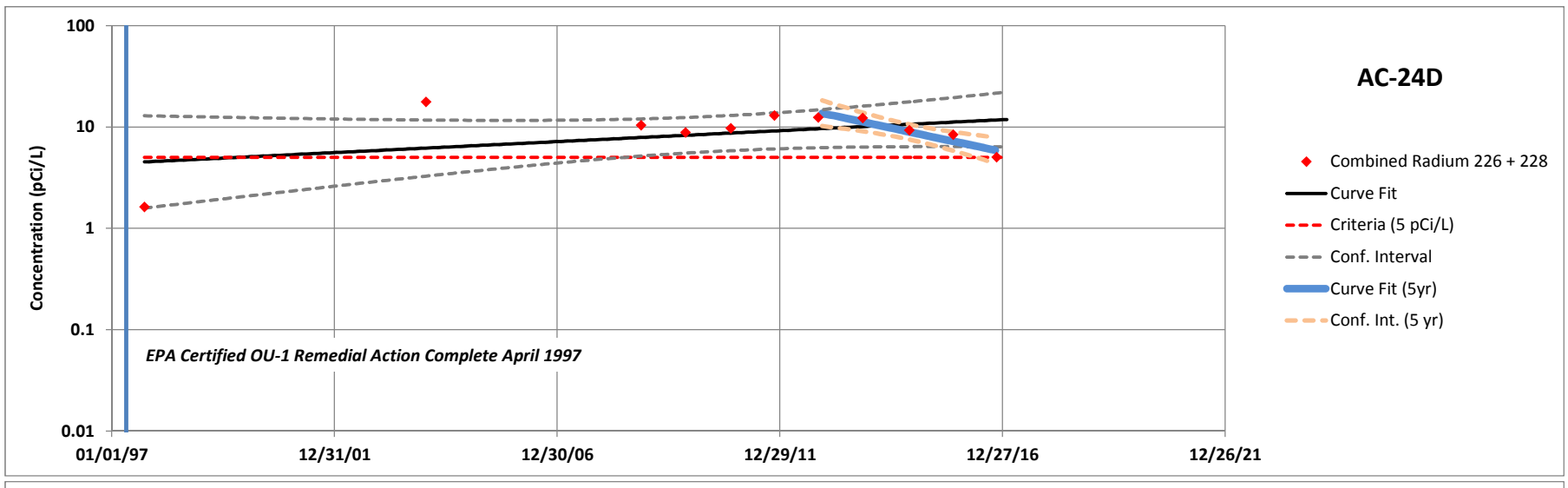
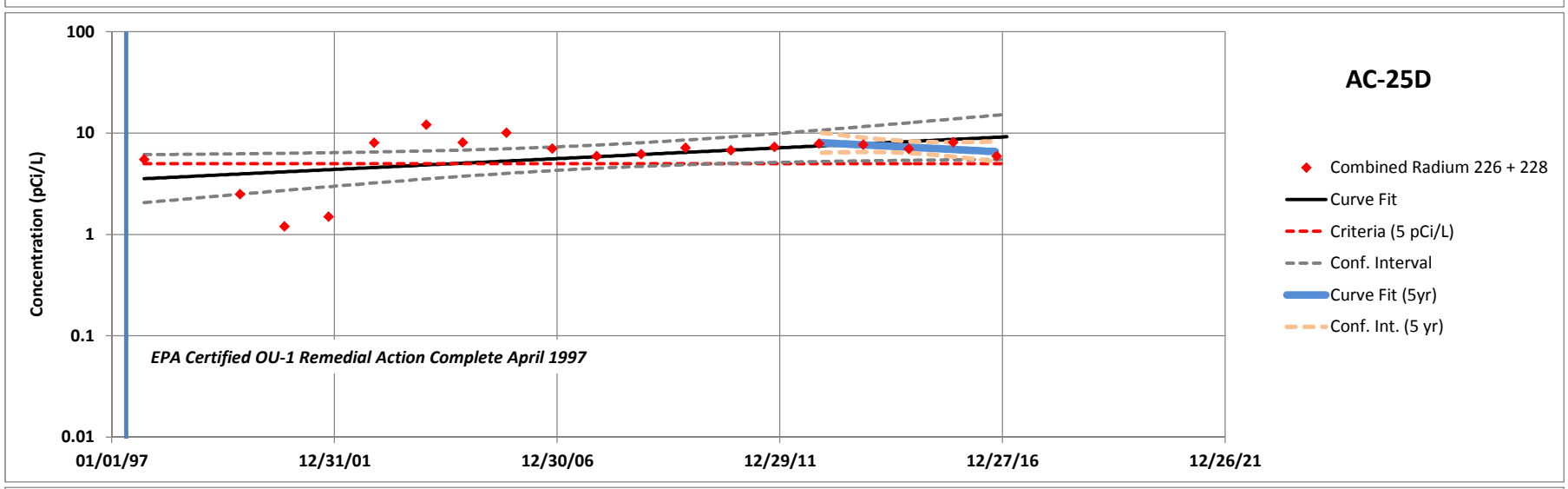
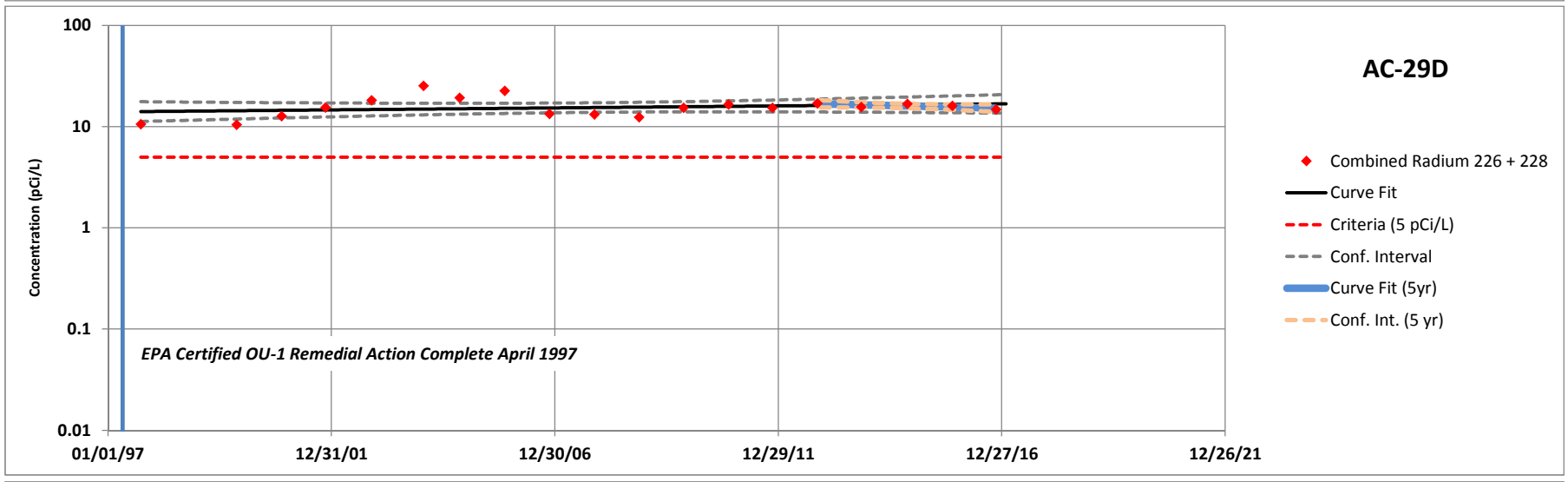
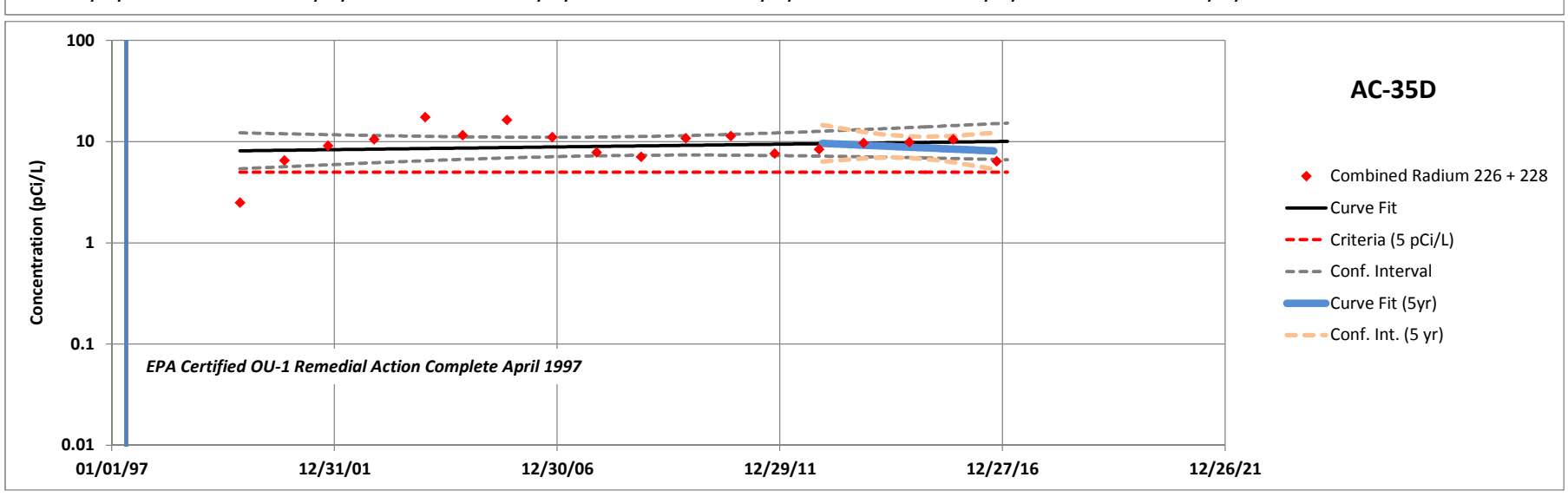
Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida









APPENDIX A

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-129822-1
Client Project/Site: Agrico Pensacola - 2016 Annual
Revision: 1

For:
AECOM
1625 Summit Lake Drive
Suite 200
Tallahassee, Florida 32317

Attn: Mr. Jeff Wagner

Noël Savoie

Authorized for release by:
1/20/2017 3:34:21 PM

Noel Savoie, Project Manager I
(850)878-3994
noel.savoie@testamericainc.com

Table of Contents

Job ID: 400-129822-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129822-1

Comments
Revision created to correct the Dup-1 calculation and to add the radiological data back into the report.

Receipt
The samples were received on 11/9/2016 1:27 PM, 11/11/2016 8:10 AM and 11/11/2016 12:34 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.0º C, 1.2º C, 1.2º C, 3.4º C and 4.7º C.

HPLC/IC
Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: AC-24D (400-129944-3). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples was diluted due to high conductivity. AC-35D (400-129822-2), AC-25D (400-129822-3), DUP-1 (400-129822-5), AC-2S (400-129944-2), AC-13D (400-129944-4), AC-12D (400-129944-5), AC-3D (400-129984-1) and AC-29D (400-129984-2). Elevated reporting limits (RL) are provided.

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

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

General Chemistry
Method 353.2: The following samples was diluted to bring the concentration of target analytes within the calibration range for Nitrate Nitrite as N: AC-35D (400-129822-2), AC-25D (400-129822-3), AC-3D (400-129984-1), AC-29D (400-129984-2), AC-2S (400-129944-2), AC-24D (400-129944-3), AC-13D (400-129944-4) and AC-12D (400-129944-5). Elevated reporting limits (RLs) are provided.

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

Subcontract Work
Methods Radium 226 by EPA Method 903.1, Radium 228 by EPA Method 904.0: These methods were subcontracted to TestAmerica Richland. Reports attached.

Detection Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: ACB-31S — Lab Sample ID: 400-129822-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.9		1.0		mg/L	1		300.0	Total/NA
Sulfate	35		1.0		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.9		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	1.9		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-35D — Lab Sample ID: 400-129822-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	310		10		mg/L	10		300.0	Total/NA
Sulfate	160		10		mg/L	10		300.0	Total/NA
Fluoride	76		1.0		mg/L	10		340.2	Total/NA
Nitrate Nitrite as N	8.8		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	8.8		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-25D — Lab Sample ID: 400-129822-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	380		10		mg/L	10		300.0	Total/NA
Sulfate	87		10		mg/L	10		300.0	Total/NA
Fluoride	68		1.0		mg/L	10		340.2	Total/NA
Nitrate Nitrite as N	4.4		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	4.4		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: EQ-1 — Lab Sample ID: 400-129822-4

No Detections.

Client Sample ID: DUP-1 — Lab Sample ID: 400-129822-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	330		10		mg/L	10		300.0	Total/NA
Sulfate	180		10		mg/L	10		300.0	Total/NA
Fluoride	77		1.0		mg/L	10		340.2	Total/NA
Nitrate Nitrite as N	9.2		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	9.2		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-2D — Lab Sample ID: 400-129944-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		1.0		mg/L	1		300.0	Total/NA
Sulfate	17		1.0		mg/L	1		300.0	Total/NA
Fluoride	1.5		0.10		mg/L	1		340.2	Total/NA
Nitrate Nitrite as N	1.7		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	1.7		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-2S — Lab Sample ID: 400-129944-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		1.0		mg/L	1		300.0	Total/NA
Sulfate	61		5.0		mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: AC-2S (Continued) — Lab Sample ID: 400-129944-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.016		0.010		mg/L	1		6010C	Total Recoverable
Fluoride	19		0.50		mg/L	5		340.2	Total/NA
Nitrate Nitrite as N	3.2		0.10		mg/L	2		353.2	Total/NA
Nitrate as N	3.2		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-24D — Lab Sample ID: 400-129944-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	120		5.0		mg/L	5		300.0	Total/NA
Sulfate	70		5.0		mg/L	5		300.0	Total/NA
Fluoride	33		0.50		mg/L	5		340.2	Total/NA
Nitrate Nitrite as N	4.7		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	4.7		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-13D — Lab Sample ID: 400-129944-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22		1.0		mg/L	1		300.0	Total/NA
Sulfate	270		10		mg/L	10		300.0	Total/NA
Fluoride	6.8		0.10		mg/L	1		340.2	Total/NA
Nitrate Nitrite as N	11		0.50		mg/L	10		353.2	Total/NA
Nitrate as N	11		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-12D — Lab Sample ID: 400-129944-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		1.0		mg/L	1		300.0	Total/NA
Sulfate	230		10		mg/L	10		300.0	Total/NA
Fluoride	8.1		0.10		mg/L	1		340.2	Total/NA
Nitrate Nitrite as N	8.5		0.50		mg/L	10		353.2	Total/NA
Nitrate as N	8.5		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-3D — Lab Sample ID: 400-129984-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15		1.0		mg/L	1		300.0	Total/NA
Sulfate	120		5.0		mg/L	5		300.0	Total/NA
Fluoride	11		0.20		mg/L	2		340.2	Total/NA
Nitrate Nitrite as N	5.4		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	5.4		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-29D — Lab Sample ID: 400-129984-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39		1.0		mg/L	1		300.0	Total/NA
Sulfate	170		5.0		mg/L	5		300.0	Total/NA
Fluoride	22		0.50		mg/L	5		340.2	Total/NA
Nitrate Nitrite as N	8.2		0.50		mg/L	10		353.2	Total/NA
Nitrate as N	8.2		0.050		mg/L	1		Nitrate by calc	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129822-1	ACB-31S	Water	11/08/16 16:19	11/09/16 13:27
400-129822-2	AC-35D	Water	11/09/16 09:00	11/09/16 13:27
400-129822-3	AC-25D	Water	11/09/16 12:00	11/09/16 13:27
400-129822-4	EQ-1	Water	11/08/16 15:30	11/09/16 13:27
400-129822-5	DUP-1	Water	11/09/16 00:00	11/09/16 13:27
400-129944-1	AC-2D	Water	11/09/16 16:10	11/11/16 08:10
400-129944-2	AC-2S	Water	11/09/16 17:00	11/11/16 08:10
400-129944-3	AC-24D	Water	11/10/16 09:48	11/11/16 08:10
400-129944-4	AC-13D	Water	11/10/16 13:48	11/11/16 08:10
400-129944-5	AC-12D	Water	11/10/16 16:20	11/11/16 08:10
400-129984-1	AC-3D	Water	11/11/16 08:55	11/11/16 12:34
400-129984-2	AC-29D	Water	11/11/16 11:00	11/11/16 12:34

Client Sample ID: ACB-31S

Lab Sample ID: 400-129822-1
Date Collected: 11/08/16 16:19
Matrix: Water
Date Received: 11/09/16 13:27

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.9**		1.0		mg/L			11/26/16 00:17	1
Sulfate	**35**		1.0		mg/L			11/29/16 11:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/06/16 17:52	1
Nitrate Nitrite as N	**1.9**		0.050		mg/L			12/02/16 20:09	1
Nitrate as N	**1.9**		0.050		mg/L			12/02/16 20:09	1
Nitrite as N	<0.10		0.10		mg/L			11/09/16 15:27	1

Client Sample ID: AC-35D

Lab Sample ID: 400-129822-2
Date Collected: 11/09/16 09:00
Matrix: Water
Date Received: 11/09/16 13:27

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		10		mg/L			11/29/16 12:20	10
Sulfate	**160**		10		mg/L			11/29/16 12:20	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**76**		1.0		mg/L			12/06/16 18:30	10
Nitrate Nitrite as N	**8.8**		0.25		mg/L			12/02/16 20:10	5
Nitrate as N	**8.8**		0.050		mg/L			12/02/16 20:10	1
Nitrite as N	<0.10		0.10		mg/L			11/09/16 15:27	1

Client Sample ID: AC-25D

Lab Sample ID: 400-129822-3
Date Collected: 11/09/16 12:00
Matrix: Water
Date Received: 11/09/16 13:27

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		10		mg/L			11/29/16 12:42	10
Sulfate	**87**		10		mg/L			11/29/16 12:42	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**68**		1.0		mg/L			12/06/16 18:54	10
Nitrate Nitrite as N	**4.4**		0.25		mg/L			12/02/16 20:19	5
Nitrate as N	**4.4**		0.050		mg/L			12/02/16 20:11	1
Nitrite as N	<0.10		0.10		mg/L			11/09/16 15:27	1

Client Sample ID: EQ-1

Lab Sample ID: 400-129822-4
Date Collected: 11/08/16 15:30
Matrix: Water
Date Received: 11/09/16 13:27

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/26/16 02:57	1
Sulfate	<1.0		1.0		mg/L			11/29/16 13:05	1

Client Sample ID: EQ-1

Lab Sample ID: 400-129822-4
Matrix: Water
Date Collected: 11/08/16 15:30
Date Received: 11/09/16 13:27

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/06/16 17:58	1
Nitrate Nitrite as N	<0.050		0.050		mg/L			12/02/16 20:15	1
Nitrate as N	<0.050		0.050		mg/L			12/02/16 20:15	1
Nitrite as N	<0.10		0.10		mg/L			11/09/16 15:27	1

Client Sample ID: DUP-1

Lab Sample ID: 400-129822-5
Matrix: Water
Date Collected: 11/09/16 00:00
Date Received: 11/09/16 13:27

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	330		10		mg/L			11/29/16 13:28	10
Sulfate	180		10		mg/L			11/29/16 13:28	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	77		1.0		mg/L			12/06/16 18:51	10
Nitrate Nitrite as N	9.2		0.25		mg/L			12/02/16 20:16	5
Nitrate as N	9.2		0.050		mg/L			12/02/16 20:16	1
Nitrite as N	<0.10		0.10		mg/L			11/09/16 15:27	1

Client Sample ID: AC-2D

Lab Sample ID: 400-129944-1
Matrix: Water
Date Collected: 11/09/16 16:10
Date Received: 11/11/16 08:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		1.0		mg/L			11/26/16 03:43	1
Sulfate	17		1.0		mg/L			11/29/16 14:37	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.5		0.10		mg/L			12/06/16 19:15	1
Nitrate Nitrite as N	1.7		0.050		mg/L			12/05/16 13:48	1
Nitrate as N	1.7		0.050		mg/L			12/05/16 13:48	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:26	1

Client Sample ID: AC-2S

Lab Sample ID: 400-129944-2
Matrix: Water
Date Collected: 11/09/16 17:00
Date Received: 11/11/16 08:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0		mg/L			11/26/16 04:06	1
Sulfate	61		5.0		mg/L			11/29/16 14:59	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.010		mg/L		12/01/16 10:32	12/02/16 15:21	1

Client Sample ID: AC-2S
Date Collected: 11/09/16 17:00
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	19		0.50		mg/L			12/06/16 19:23	5
Nitrate Nitrite as N	3.2		0.10		mg/L			12/05/16 13:52	2
Nitrate as N	3.2		0.050		mg/L			12/05/16 13:52	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:26	1

Client Sample ID: AC-24D
Date Collected: 11/10/16 09:48
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.0		mg/L			11/30/16 04:46	5
Sulfate	70		5.0		mg/L			11/30/16 04:46	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	33		0.50		mg/L			12/07/16 16:01	5
Nitrate Nitrite as N	4.7		0.25		mg/L			12/05/16 14:00	5
Nitrate as N	4.7		0.050		mg/L			12/05/16 13:53	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:26	1

Client Sample ID: AC-13D
Date Collected: 11/10/16 13:48
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22		1.0		mg/L			11/26/16 04:51	1
Sulfate	270		10		mg/L			11/29/16 15:45	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	6.8		0.10		mg/L			12/07/16 16:09	1
Nitrate Nitrite as N	11		0.50		mg/L			12/05/16 13:55	10
Nitrate as N	11		0.050		mg/L			12/05/16 13:55	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:27	1

Client Sample ID: AC-12D
Date Collected: 11/10/16 16:20
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		1.0		mg/L			11/26/16 06:00	1
Sulfate	230		10		mg/L			11/29/16 16:08	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	8.1		0.10		mg/L			12/07/16 16:12	1
Nitrate Nitrite as N	8.5		0.50		mg/L			12/05/16 13:56	10
Nitrate as N	8.5		0.050		mg/L			12/05/16 13:56	1

Client Sample ID: AC-12D

Date Collected: 11/10/16 16:20
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-5
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:27	1

Client Sample ID: AC-3D

Date Collected: 11/11/16 08:55
Date Received: 11/11/16 12:34

Lab Sample ID: 400-129984-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		1.0		mg/L			11/26/16 06:23	1
Sulfate	**120**		5.0		mg/L			11/29/16 16:31	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**11**		0.20		mg/L			12/07/16 18:19	2
Nitrate Nitrite as N	**5.4**		0.25		mg/L			12/02/16 20:01	5
Nitrate as N	**5.4**		0.050		mg/L			12/02/16 20:01	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 13:44	1

Client Sample ID: AC-29D

Date Collected: 11/11/16 11:00
Date Received: 11/11/16 12:34

Lab Sample ID: 400-129984-2
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**39**		1.0		mg/L			11/26/16 07:08	1
Sulfate	**170**		5.0		mg/L			11/29/16 17:16	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**22**		0.50		mg/L			12/07/16 18:26	5
Nitrate Nitrite as N	**8.2**		0.50		mg/L			12/02/16 20:00	10
Nitrate as N	**8.2**		0.050		mg/L			12/02/16 20:00	1
Nitrite as N	<0.10		0.10		mg/L			11/11/16 13:44	1

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

HPLC/IC

Analysis Batch: 332745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	300.0	
400-129822-4	EQ-1	Total/NA	Water	300.0	
400-129944-1	AC-2D	Total/NA	Water	300.0	
400-129944-2	AC-2S	Total/NA	Water	300.0	
400-129944-4	AC-13D	Total/NA	Water	300.0	
400-129944-5	AC-12D	Total/NA	Water	300.0	
400-129984-1	AC-3D	Total/NA	Water	300.0	
400-129984-2	AC-29D	Total/NA	Water	300.0	
MB 400-332745/33	Method Blank	Total/NA	Water	300.0	
LCS 400-332745/34	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-332745/35	Lab Control Sample Dup	Total/NA	Water	300.0	
400-129822-1 MS	ACB-31S	Total/NA	Water	300.0	
400-129822-1 MSD	ACB-31S	Total/NA	Water	300.0	

Analysis Batch: 332913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	300.0	
400-129822-2	AC-35D	Total/NA	Water	300.0	
400-129822-3	AC-25D	Total/NA	Water	300.0	
400-129822-4	EQ-1	Total/NA	Water	300.0	
400-129822-5	DUP-1	Total/NA	Water	300.0	
400-129944-1	AC-2D	Total/NA	Water	300.0	
400-129944-2	AC-2S	Total/NA	Water	300.0	
400-129944-4	AC-13D	Total/NA	Water	300.0	
400-129944-5	AC-12D	Total/NA	Water	300.0	
400-129984-1	AC-3D	Total/NA	Water	300.0	
400-129984-2	AC-29D	Total/NA	Water	300.0	
MB 400-332913/3	Method Blank	Total/NA	Water	300.0	
LCS 400-332913/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-332913/5	Lab Control Sample Dup	Total/NA	Water	300.0	
400-129822-1 MS	ACB-31S	Total/NA	Water	300.0	
400-129822-1 MSD	ACB-31S	Total/NA	Water	300.0	

Analysis Batch: 333094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-3	AC-24D	Total/NA	Water	300.0	
MB 400-333094/35	Method Blank	Total/NA	Water	300.0	
LCS 400-333094/36	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-333094/37	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 333295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-2	AC-2S	Total Recoverable	Water	3005A	
MB 400-333295/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-333295/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-129944-2 MS	AC-2S	Total Recoverable	Water	3005A	
400-129944-2 MSD	AC-2S	Total Recoverable	Water	3005A	

Metals (Continued)

Analysis Batch: 333560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-2	AC-2S	Total Recoverable	Water	6010C	333295
MB 400-333295/1-A	Method Blank	Total Recoverable	Water	6010C	333295
LCS 400-333295/2-A	Lab Control Sample	Total Recoverable	Water	6010C	333295
400-129944-2 MS	AC-2S	Total Recoverable	Water	6010C	333295
400-129944-2 MSD	AC-2S	Total Recoverable	Water	6010C	333295

General Chemistry

Analysis Batch: 330641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	SM 4500 NO2 B	
400-129822-2	AC-35D	Total/NA	Water	SM 4500 NO2 B	
400-129822-3	AC-25D	Total/NA	Water	SM 4500 NO2 B	
400-129822-4	EQ-1	Total/NA	Water	SM 4500 NO2 B	
400-129822-5	DUP-1	Total/NA	Water	SM 4500 NO2 B	
MB 400-330641/6	Method Blank	Total/NA	Water	SM 4500 NO2 B	
LCS 400-330641/15	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
LCS 400-330641/7	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MRL 400-330641/3	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 330777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-1	AC-2D	Total/NA	Water	SM 4500 NO2 B	
400-129944-2	AC-2S	Total/NA	Water	SM 4500 NO2 B	
400-129944-3	AC-24D	Total/NA	Water	SM 4500 NO2 B	
400-129944-4	AC-13D	Total/NA	Water	SM 4500 NO2 B	
400-129944-5	AC-12D	Total/NA	Water	SM 4500 NO2 B	
400-129984-1	AC-3D	Total/NA	Water	SM 4500 NO2 B	
400-129984-2	AC-29D	Total/NA	Water	SM 4500 NO2 B	
MB 400-330777/6	Method Blank	Total/NA	Water	SM 4500 NO2 B	
LCS 400-330777/7	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MRL 400-330777/3	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
400-129944-1 MS	AC-2D	Total/NA	Water	SM 4500 NO2 B	
400-129944-1 MSD	AC-2D	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 333555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	353.2	
400-129822-2	AC-35D	Total/NA	Water	353.2	
400-129822-3	AC-25D	Total/NA	Water	353.2	
400-129822-4	EQ-1	Total/NA	Water	353.2	
400-129822-5	DUP-1	Total/NA	Water	353.2	
400-129984-1	AC-3D	Total/NA	Water	353.2	
400-129984-2	AC-29D	Total/NA	Water	353.2	
MB 400-333555/15	Method Blank	Total/NA	Water	353.2	
LCS 400-333555/16	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-333555/13	Lab Control Sample	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 333633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	Nitrate by calc	
400-129822-2	AC-35D	Total/NA	Water	Nitrate by calc	
400-129822-3	AC-25D	Total/NA	Water	Nitrate by calc	
400-129822-4	EQ-1	Total/NA	Water	Nitrate by calc	
400-129822-5	DUP-1	Total/NA	Water	Nitrate by calc	
400-129984-1	AC-3D	Total/NA	Water	Nitrate by calc	
400-129984-2	AC-29D	Total/NA	Water	Nitrate by calc	

Analysis Batch: 333771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-1	AC-2D	Total/NA	Water	353.2	
400-129944-2	AC-2S	Total/NA	Water	353.2	
400-129944-3	AC-24D	Total/NA	Water	353.2	
400-129944-4	AC-13D	Total/NA	Water	353.2	
400-129944-5	AC-12D	Total/NA	Water	353.2	
MB 400-333771/15	Method Blank	Total/NA	Water	353.2	
LCS 400-333771/16	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-333771/13	Lab Control Sample	Total/NA	Water	353.2	
400-129944-1 MS	AC-2D	Total/NA	Water	353.2	
400-129944-1 MSD	AC-2D	Total/NA	Water	353.2	

Analysis Batch: 333777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-1	AC-2D	Total/NA	Water	Nitrate by calc	
400-129944-2	AC-2S	Total/NA	Water	Nitrate by calc	
400-129944-3	AC-24D	Total/NA	Water	Nitrate by calc	
400-129944-4	AC-13D	Total/NA	Water	Nitrate by calc	
400-129944-5	AC-12D	Total/NA	Water	Nitrate by calc	
400-129944-1 MS	AC-2D	Total/NA	Water	Nitrate by calc	
400-129944-1 MSD	AC-2D	Total/NA	Water	Nitrate by calc	

Analysis Batch: 333983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129822-1	ACB-31S	Total/NA	Water	340.2	
400-129822-2	AC-35D	Total/NA	Water	340.2	
400-129822-3	AC-25D	Total/NA	Water	340.2	
400-129822-4	EQ-1	Total/NA	Water	340.2	
400-129822-5	DUP-1	Total/NA	Water	340.2	
400-129944-1	AC-2D	Total/NA	Water	340.2	
400-129944-2	AC-2S	Total/NA	Water	340.2	
MB 400-333983/14	Method Blank	Total/NA	Water	340.2	
LCS 400-333983/13	Lab Control Sample	Total/NA	Water	340.2	
400-129822-1 MS	ACB-31S	Total/NA	Water	340.2	
400-129822-1 MSD	ACB-31S	Total/NA	Water	340.2	
400-129822-3 DU	AC-25D	Total/NA	Water	340.2	

Analysis Batch: 334164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129944-3	AC-24D	Total/NA	Water	340.2	
400-129944-4	AC-13D	Total/NA	Water	340.2	
400-129944-5	AC-12D	Total/NA	Water	340.2	

General Chemistry (Continued)

Analysis Batch: 334164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-334164/15	Method Blank	Total/NA	Water	340.2	
LCS 400-334164/14	Lab Control Sample	Total/NA	Water	340.2	

Analysis Batch: 334170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129984-1	AC-3D	Total/NA	Water	340.2	
400-129984-2	AC-29D	Total/NA	Water	340.2	
MB 400-334170/3	Method Blank	Total/NA	Water	340.2	
LCS 400-334170/4	Lab Control Sample	Total/NA	Water	340.2	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-332745/33
Matrix: Water
Analysis Batch: 332745

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/25/16 23:09	1
Sulfate	<1.0		1.0		mg/L			11/25/16 23:09	1

Lab Sample ID: LCS 400-332745/34
Matrix: Water
Analysis Batch: 332745

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
Sulfate	10.0	9.66		mg/L		97	90 - 110

Lab Sample ID: LCSD 400-332745/35
Matrix: Water
Analysis Batch: 332745

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	90 - 110	1	15
Sulfate	10.0	9.73		mg/L		97	90 - 110	1	15

Lab Sample ID: 400-129822-1 MS
Matrix: Water
Analysis Batch: 332745

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.9		10.0	12.3		mg/L		104	80 - 120

Lab Sample ID: 400-129822-1 MSD
Matrix: Water
Analysis Batch: 332745

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.9		10.0	12.3		mg/L		104	80 - 120	0	20

Lab Sample ID: MB 400-332913/3
Matrix: Water
Analysis Batch: 332913

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/29/16 10:03	1
Sulfate	<1.0		1.0		mg/L			11/29/16 10:03	1

Lab Sample ID: LCS 400-332913/4
Matrix: Water
Analysis Batch: 332913

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	9.88		mg/L		99	90 - 110
Sulfate	10.0	9.68		mg/L		97	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 400-332913/5
Matrix: Water
Analysis Batch: 332913

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			10.0	9.97		mg/L		100	90 - 110	1	15
Sulfate			10.0	9.84		mg/L		98	90 - 110	2	15

Lab Sample ID: 400-129822-1 MS
Matrix: Water
Analysis Batch: 332913

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.8		10.0	12.2		mg/L		104	80 - 120
Sulfate	35		10.0	44.4		mg/L		99	80 - 120

Lab Sample ID: 400-129822-1 MSD
Matrix: Water
Analysis Batch: 332913

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.8		10.0	12.3		mg/L		104	80 - 120	0	20
Sulfate	35		10.0	44.8		mg/L		102	80 - 120	1	20

Lab Sample ID: MB 400-333094/35
Matrix: Water
Analysis Batch: 333094

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/29/16 22:18	1
Sulfate	<1.0		1.0		mg/L			11/29/16 22:18	1

Lab Sample ID: LCS 400-333094/36
Matrix: Water
Analysis Batch: 333094

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	9.92		mg/L		99	90 - 110
Sulfate			10.0	9.55		mg/L		96	90 - 110

Lab Sample ID: LCSD 400-333094/37
Matrix: Water
Analysis Batch: 333094

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			10.0	9.94		mg/L		99	90 - 110	0	15
Sulfate			10.0	9.52		mg/L		95	90 - 110	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 400-333295/1-A
Matrix: Water
Analysis Batch: 333560

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 333295

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		12/01/16 10:32	12/02/16 15:14	1

Lab Sample ID: LCS 400-333295/2-A
Matrix: Water
Analysis Batch: 333560

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 333295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 400-129944-2 MS
Matrix: Water
Analysis Batch: 333560

Client Sample ID: AC-2S
Prep Type: Total Recoverable
Prep Batch: 333295

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.016		1.00	1.03		mg/L		102	75 - 125

Lab Sample ID: 400-129944-2 MSD
Matrix: Water
Analysis Batch: 333560

Client Sample ID: AC-2S
Prep Type: Total Recoverable
Prep Batch: 333295

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.016		1.00	1.04		mg/L		103	75 - 125	1	20

Method: 340.2 - Fluoride

Lab Sample ID: MB 400-333983/14
Matrix: Water
Analysis Batch: 333983

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/06/16 17:44	1

Lab Sample ID: LCS 400-333983/13
Matrix: Water
Analysis Batch: 333983

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.11		mg/L		103	90 - 110

Lab Sample ID: 400-129822-1 MS
Matrix: Water
Analysis Batch: 333983

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.10		1.00	1.00		mg/L		96	75 - 125

Method: 340.2 - Fluoride (Continued)

Lab Sample ID: 400-129822-1 MSD
Matrix: Water
Analysis Batch: 333983

Client Sample ID: ACB-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.10		1.00	0.980		mg/L		94	75 - 125	2	4

Lab Sample ID: 400-129822-3 DU
Matrix: Water
Analysis Batch: 333983

Client Sample ID: AC-25D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	68		68.2		mg/L		0	4

Lab Sample ID: MB 400-334164/15
Matrix: Water
Analysis Batch: 334164

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/07/16 15:20	1

Lab Sample ID: LCS 400-334164/14
Matrix: Water
Analysis Batch: 334164

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.03		mg/L		101	90 - 110

Lab Sample ID: MB 400-334170/3
Matrix: Water
Analysis Batch: 334170

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/07/16 17:58	1

Lab Sample ID: LCS 400-334170/4
Matrix: Water
Analysis Batch: 334170

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.03		mg/L		101	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-333555/15
Matrix: Water
Analysis Batch: 333555

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			12/02/16 19:43	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 400-333555/16
Matrix: Water
Analysis Batch: 333555

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.500	0.503		mg/L		101	90 - 110

Lab Sample ID: MRL 400-333555/13
Matrix: Water
Analysis Batch: 333555

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.0500	<0.050		mg/L		79	50 - 150

Lab Sample ID: MB 400-333771/15
Matrix: Water
Analysis Batch: 333771

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			12/05/16 13:46	1

Lab Sample ID: LCS 400-333771/16
Matrix: Water
Analysis Batch: 333771

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.500	0.493		mg/L		99	90 - 110

Lab Sample ID: MRL 400-333771/13
Matrix: Water
Analysis Batch: 333771

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.0500	<0.050		mg/L		76	50 - 150

Lab Sample ID: 400-129944-1 MS
Matrix: Water
Analysis Batch: 333771

Client Sample ID: AC-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.7		0.500	2.19		mg/L		92	90 - 110

Lab Sample ID: 400-129944-1 MSD
Matrix: Water
Analysis Batch: 333771

Client Sample ID: AC-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	1.7		0.500	2.21		mg/L		96	90 - 110	1	4

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 400-330641/6
Matrix: Water
Analysis Batch: 330641

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.10		0.10		mg/L			11/09/16 11:18	1

Lab Sample ID: LCS 400-330641/15
Matrix: Water
Analysis Batch: 330641

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.300	0.282		mg/L		94	90 - 110

Lab Sample ID: LCS 400-330641/7
Matrix: Water
Analysis Batch: 330641

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.300	0.284		mg/L		95	90 - 110

Lab Sample ID: MRL 400-330641/3
Matrix: Water
Analysis Batch: 330641

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.100	<0.10		mg/L		92	50 - 150

Lab Sample ID: MB 400-330777/6
Matrix: Water
Analysis Batch: 330777

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.10		0.10		mg/L			11/11/16 12:26	1

Lab Sample ID: LCS 400-330777/7
Matrix: Water
Analysis Batch: 330777

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.300	0.275		mg/L		92	90 - 110

Lab Sample ID: MRL 400-330777/3
Matrix: Water
Analysis Batch: 330777

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.100	<0.10		mg/L		98	50 - 150

Lab Sample ID: 400-129944-1 MS
Matrix: Water
Analysis Batch: 330777

Client Sample ID: AC-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	<0.10		0.200	0.198		mg/L		99	80 - 118

QC Sample Results

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Lab Sample ID: 400-129944-1 MSD
Matrix: Water
Analysis Batch: 330777

Client Sample ID: AC-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.10		0.200	0.198		mg/L		99	80 - 118	0	9

Client Sample ID: ACB-31S
Date Collected: 11/08/16 16:19
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 00:17	KH1	TAL PEN
Total/NA	Analysis	300.0		1			332913	11/29/16 11:11	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 17:52	SLT	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	333555	12/02/16 20:09	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:09	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 15:27	JLB	TAL PEN

Client Sample ID: AC-35D
Date Collected: 11/09/16 09:00
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			332913	11/29/16 12:20	TAJ	TAL PEN
Total/NA	Analysis	340.2		10	10 mL	10 mL	333983	12/06/16 18:30	SLT	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	333555	12/02/16 20:10	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:10	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 15:27	JLB	TAL PEN

Client Sample ID: AC-25D
Date Collected: 11/09/16 12:00
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			332913	11/29/16 12:42	TAJ	TAL PEN
Total/NA	Analysis	340.2		10	10 mL	10 mL	333983	12/06/16 18:54	SLT	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	333555	12/02/16 20:19	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:11	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 15:27	JLB	TAL PEN

Client Sample ID: EQ-1
Date Collected: 11/08/16 15:30
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 02:57	KH1	TAL PEN
Total/NA	Analysis	300.0		1			332913	11/29/16 13:05	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 17:58	SLT	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	333555	12/02/16 20:15	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:15	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 15:27	JLB	TAL PEN

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: DUP-1
Date Collected: 11/09/16 00:00
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			332913	11/29/16 13:28	TAJ	TAL PEN
Total/NA	Analysis	340.2		10	10 mL	10 mL	333983	12/06/16 18:51	SLT	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	333555	12/02/16 20:16	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:16	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 15:27	JLB	TAL PEN

Client Sample ID: AC-2D
Date Collected: 11/09/16 16:10
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 03:43	KH1	TAL PEN
Total/NA	Analysis	300.0		1			332913	11/29/16 14:37	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 19:15	SLT	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:48	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:48	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: AC-2S
Date Collected: 11/09/16 17:00
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 04:06	KH1	TAL PEN
Total/NA	Analysis	300.0		5			332913	11/29/16 14:59	TAJ	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	333295	12/01/16 10:32	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			333560	12/02/16 15:21	GESP	TAL PEN
Total/NA	Analysis	340.2		5	10 mL	10 mL	333983	12/06/16 19:23	SLT	TAL PEN
Total/NA	Analysis	353.2		2	10 mL	10 mL	333771	12/05/16 13:52	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:52	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: AC-24D
Date Collected: 11/10/16 09:48
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			333094	11/30/16 04:46	TAJ	TAL PEN
Total/NA	Analysis	340.2		5	10 mL	10 mL	334164	12/07/16 16:01	SLT	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	333771	12/05/16 14:00	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:53	DRE	TAL PEN

Lab Chronicle

Client: AECOM
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TestAmerica Job ID: 400-129822-1

Client Sample ID: AC-24D
Date Collected: 11/10/16 09:48
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: AC-13D
Date Collected: 11/10/16 13:48
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 04:51	KH1	TAL PEN
Total/NA	Analysis	300.0		10			332913	11/29/16 15:45	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	334164	12/07/16 16:09	SLT	TAL PEN
Total/NA	Analysis	353.2		10	10 mL	10 mL	333771	12/05/16 13:55	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:55	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:27	JLB	TAL PEN

Client Sample ID: AC-12D
Date Collected: 11/10/16 16:20
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 06:00	KH1	TAL PEN
Total/NA	Analysis	300.0		10			332913	11/29/16 16:08	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	334164	12/07/16 16:12	SLT	TAL PEN
Total/NA	Analysis	353.2		10	10 mL	10 mL	333771	12/05/16 13:56	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:56	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:27	JLB	TAL PEN

Client Sample ID: AC-3D
Date Collected: 11/11/16 08:55
Date Received: 11/11/16 12:34

Lab Sample ID: 400-129984-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 06:23	KH1	TAL PEN
Total/NA	Analysis	300.0		5			332913	11/29/16 16:31	TAJ	TAL PEN
Total/NA	Analysis	340.2		2	10 mL	10 mL	334170	12/07/16 18:19	SLT	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	333555	12/02/16 20:01	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:01	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 13:44	JLB	TAL PEN

Client Sample ID: AC-29D
Date Collected: 11/11/16 11:00
Date Received: 11/11/16 12:34

Lab Sample ID: 400-129984-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 07:08	KH1	TAL PEN
Total/NA	Analysis	300.0		5			332913	11/29/16 17:16	TAJ	TAL PEN
Total/NA	Analysis	340.2		5	10 mL	10 mL	334170	12/07/16 18:26	SLT	TAL PEN
Total/NA	Analysis	353.2		10	10 mL	10 mL	333555	12/02/16 20:00	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333633	12/02/16 20:00	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 13:44	JLB	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-330641/6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 11:18	JLB	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-330777/6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-332745/33
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/25/16 23:09	KH1	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-332913/3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332913	11/29/16 10:03	TAJ	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-333094/35
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	1.0 mL	333094	11/29/16 22:18	TAJ	TAL PEN

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: Method Blank — Lab Sample ID: MB 400-333295/1-A

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333295	12/01/16 10:32	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			333560	12/02/16 15:14	GESP	TAL PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-333555/15

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333555	12/02/16 19:43	DRE	TAL PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-333771/15

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:46	DRE	TAL PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-333983/14

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 17:44	SLT	TAL PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-334164/15

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	334164	12/07/16 15:20	SLT	TAL PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-334170/3

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	334170	12/07/16 17:58	SLT	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-330641/15**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 11:19	JLB	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-330641/7**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 11:18	JLB	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-330777/7**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-332745/34**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/25/16 23:32	KH1	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-332913/4**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332913	11/29/16 10:25	TAJ	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-333094/36**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	1.0 mL	333094	11/29/16 22:41	TAJ	TAL PEN

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-333295/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333295	12/01/16 10:32	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			333560	12/02/16 15:18	GESP	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-333555/16
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333555	12/02/16 19:44	DRE	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-333771/16
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:47	DRE	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-333983/13
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	100 mL	333983	12/06/16 17:46	SLT	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-334164/14
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	100 mL	334164	12/07/16 15:22	SLT	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-334170/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	100 mL	334170	12/07/16 18:00	SLT	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-332745/35
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/25/16 23:54	KH1	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-332913/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332913	11/29/16 10:48	TAJ	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-333094/37
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	1.0 mL	333094	11/29/16 23:04	TAJ	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: MRL 400-330641/3
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	330641	11/09/16 11:18	JLB	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: MRL 400-330777/3
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: MRL 400-333555/13
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333555	12/02/16 19:40	DRE	TAL PEN

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MRL 400-333771/13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:43	DRE	TAL PEN

Client Sample ID: ACB-31S
Date Collected: 11/08/16 16:19
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-1 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 01:26	KH1	TAL PEN
Total/NA	Analysis	300.0		1			332913	11/29/16 11:34	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 17:54	SLT	TAL PEN

Client Sample ID: ACB-31S
Date Collected: 11/08/16 16:19
Date Received: 11/09/16 13:27

Lab Sample ID: 400-129822-1 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			332745	11/26/16 01:49	KH1	TAL PEN
Total/NA	Analysis	300.0		1			332913	11/29/16 11:57	TAJ	TAL PEN
Total/NA	Analysis	340.2		1	10 mL	10 mL	333983	12/06/16 17:56	SLT	TAL PEN

Client Sample ID: AC-2D
Date Collected: 11/09/16 16:10
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-1 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:50	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:50	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Client Sample ID: AC-2D
Date Collected: 11/09/16 16:10
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-1 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	333771	12/05/16 13:51	DRE	TAL PEN
Total/NA	Analysis	Nitrate by calc		1	10 mL	10 mL	333777	12/05/16 13:51	DRE	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1			330777	11/11/16 12:26	JLB	TAL PEN

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Client Sample ID: AC-2S
Date Collected: 11/09/16 17:00
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-2 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333295	12/01/16 10:32	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			333560	12/02/16 15:40	GESP	TAL PEN

Client Sample ID: AC-2S
Date Collected: 11/09/16 17:00
Date Received: 11/11/16 08:10

Lab Sample ID: 400-129944-2 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	333295	12/01/16 10:32	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			333560	12/02/16 15:43	GESP	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Method Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6010C	Metals (ICP)	SW846	TAL PEN
340.2	Fluoride	MCAWW	TAL PEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL PEN
Nitrate by calc	Nitrogen, Nitrate	SM	TAL PEN
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL PEN
Radium 226 by EPA Method 903.1	EPA 903 RAD-226	NONE	TAL RCH
Radium 228 by EPA Method 904.0	EPA 904 RAD-228	NONE	TAL RCH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
NONE = NONE
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 PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001
TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Certification Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual

TestAmerica Job ID: 400-129822-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-17

Laboratory: TestAmerica Richland

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

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		187436	10-01-17
Arizona	State Program	9	AZ0709	07-02-17 *
California	State Program	9	2425	05-31-18
Colorado	State Program	8	N/A	09-30-17
Florida	NELAP	4	E87829	06-30-17
Hawaii	State Program	9	N/A	01-09-17
L-A-B	DoD ELAP		L2291	06-30-17
Nevada	State Program	9	WA011162015-1	07-31-17
New Mexico	State Program	6	WA00023	01-09-17 *
Oregon	NELAP	10	WA100002	01-08-18
Pennsylvania	NELAP	3	68-04849	08-31-17
Tennessee	State Program	4	TN04011	01-09-18
Texas	NELAP	6	T104704493-15-6	12-31-17
USDA	Federal		P330-14-00085	03-06-17
Utah	NELAP	8	QUAN8	01-31-17
Virginia	State Program	3	460273	03-14-17
Washington	State Program	10	C565	08-13-17
Washington (CLIA)	State Program	10	50D0661626	06-30-17

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E87052	06-30-17

* Certification renewal pending - certification considered valid.

Analytical Data Package Prepared For

TestAmerica Pensacola

Radiochemical Analysis By

TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains _____ Pages

Report No.: 70164

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
52490		AC-25D(400-129822-3)	J6K140416-3	M9JR91AA	9M9JR910	6320021
		AC-25D(400-129822-3)	J6K140416-3	M9JR91AC	9M9JR910	6320023
		AC-35D(400-129822-2)	J6K140416-2	M9JR81AA	9M9JR810	6320021
		AC-35D(400-129822-2)	J6K140416-2	M9JR81AC	9M9JR810	6320023
		ACB-31S(400-129822-1)	J6K140416-1	M9JR71AA	9M9JR710	6320021
		ACB-31S(400-129822-1)	J6K140416-1	M9JR71AC	9M9JR710	6320023
		DUP-1(400-129822-5)	J6K140416-5	M9JTC1AA	9M9JTC10	6320021
		DUP-1(400-129822-5)	J6K140416-5	M9JTC1AC	9M9JTC10	6320023
		EQ-1(400-129822-4)	J6K140416-4	M9JTA1AA	9M9JTA10	6320021
		EQ-1(400-129822-4)	J6K140416-4	M9JTA1AC	9M9JTA10	6320023

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

January 20, 2017

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Attention: Noel Savoie

Date Received at Lab	:	November 11, 2016
Project Name/Number	:	Agrico Pensacola 2016/68017183
Sample Type	:	Five (5) Water
Job Number	:	400-129822-1
SDG Number	:	52490

CASE NARRATIVE

I. Introduction

On November 11, 2016, five water samples were received at TestAmerica's Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Numbers J6K140416.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted upon check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gas Proportional Counting
Radium-228 by method RL-RA-001
Alpha Scintillation Counting
Radium-226 by method RL-RA-001

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Gas Proportional Counting
Radium-228
The LCS, batch blank, sample duplicate and sample results are within acceptance limits.

Alpha Scintillation Counting
Radium 226:
The LCS, batch blank, samples and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

_____

Roger A. Stringer
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in “NIST Technical Note 1297, 1994 Edition”. The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
CSU (#s) ***u_c Combined Standard Uncert.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined standard uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA|MDL	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 20-Jan-17

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 70164 **SDG No:** 52490

Batch / Client Id / Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
6320021 RL-RA-001								
AC-25D(400-129822-3)								
M9JR91AA	Ra-226	1.55E+00 +- 4.6E-01		pCi/L	100%	2.54E-01	1.00E+00	
AC-35D(400-129822-2)								
M9JR81AA	Ra-226	1.60E+00 +- 5.3E-01		pCi/L	90%	3.91E-01	1.00E+00	
ACB-31S(400-129822-1)								
M9JR71AA	Ra-226	4.64E-01 +- 2.5E-01	J	pCi/L	100%	2.93E-01	1.00E+00	
DUP-1(400-129822-5)								
M9JTC1AA	Ra-226	2.13E+00 +- 6.1E-01		pCi/L	95%	2.58E-01	1.00E+00	
EQ-1(400-129822-4)								
M9JTA1AA	Ra-226	-4.36E-02 +- 9.6E-02	U	pCi/L	100%	2.21E-01	1.00E+00	
GW-747 DUP								
M9JRL1AD	Ra-226	2.66E+00 +- 6.8E-01		pCi/L	79%	2.91E-01	1.00E+00	1.6
6320023 RL-RA-001								
AC-25D(400-129822-3)								
M9JR91AC	Ra-228	4.36E+00 +- 7.7E-01		pCi/L	85%	5.29E-01	1.00E+00	
AC-35D(400-129822-2)								
M9JR81AC	Ra-228	4.76E+00 +- 8.5E-01		pCi/L	67%	5.30E-01	1.00E+00	
ACB-31S(400-129822-1)								
M9JR71AC	Ra-228	3.04E+00 +- 5.7E-01		pCi/L	92%	4.23E-01	1.00E+00	
DUP-1(400-129822-5)								
M9JTC1AC	Ra-228	5.80E+00 +- 8.8E-01		pCi/L	96%	4.05E-01	1.00E+00	
EQ-1(400-129822-4)								
M9JTA1AC	Ra-228	1.44E-01 +- 4.3E-01	U	pCi/L	49%	7.87E-01	1.00E+00	
GW-747 DUP								
M9JRL1AE	Ra-228	2.68E+00 +- 6.5E-01		pCi/L	74%	7.57E-01	1.00E+00	2.1

No. of Results: 12

TestAmerica Inc

rptTALRchSaSummary2 V5.8.2 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 20-Jan-17

Report No. : 70164 **SDG No.:** 52490

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
RL-RA-001								
6320021 BLANK QC,								
M9JVT1AA	Ra-226	4.85E-02 +- 1.1E-01	U	pCi/L	94%			2.05E-01
6320021 LCS,								
M9JVT1AC	Ra-226	8.82E+00 +- 1.9E+00		pCi/L	100%	89%	-0.1	2.19E-01
RL-RA-001								
6320023 BLANK QC,								
M9JVW1AA	Ra-228	1.86E-01 +- 2.5E-01	U	pCi/L	88%			4.08E-01
6320023 LCS,								
M9JVW1AC	Ra-228	9.30E+00 +- 1.3E+00		pCi/L	91%	95%	0.0	3.89E-01

No. of Results: 4

TestAmerica Inc

rptSTLRchQcSummary V5.8.2 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52490	**Collection Date:**	11/9/2016 12:00:00 PM
Lot-Sample No.:	J6K140416-3	**Report No. :**	70164	**Received Date:**	11/11/2016 10:20:00 AM
Client Sample ID:	AC-25D(400-129822-3)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:** M9JR91AA			**Report DB ID:** 9M9JR910					
Ra-226	**1.55E+00**		3.2E-01	4.6E-01	2.54E-01	pCi/L	100%	*(6.1)*	1/10/17 06:07 p		0.92917	ASC8HD
						1.06E-01	1.00E+00	*(6.7)*			L	
Batch: 6320023	RL-RA-001			**Work Order:** M9JR91AC			**Report DB ID:** 9M9JR910					
Ra-228	**4.36E+00**		5.9E-01	7.7E-01	5.29E-01	pCi/L	85%	*(8.2)*	1/13/17 03:46 p		0.92917	GPC2C
						2.25E-01	1.00E+00	*(11.3)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc **rptSTLRchSample V5.8.2 A2002**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52490	**Collection Date:**	11/9/2016 9:00:00 AM
Lot-Sample No.:	J6K140416-2	**Report No. :**	70164	**Received Date:**	11/11/2016 10:20:00 AM
Client Sample ID:	AC-35D(400-129822-2)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:** M9JR81AA			**Report DB ID:** 9M9JR810					
Ra-226	**1.60E+00**		3.7E-01	5.3E-01	3.91E-01	pCi/L	90%	*(4.1)*	1/10/17 06:08 p		0.93509	ASC6MB
						1.73E-01	1.00E+00	*(6.1)*			L	
Batch: 6320023	RL-RA-001			**Work Order:** M9JR81AC			**Report DB ID:** 9M9JR810					
Ra-228	**4.76E+00**		6.5E-01	8.5E-01	5.30E-01	pCi/L	67%	*(9.)*	1/13/17 03:46 p		0.93509	GPC2B
						2.17E-01	1.00E+00	*(11.3)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc **MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.**
rptSTLRchSample **U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.**
V5.8.2 A2002

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52490	**Collection Date:**	11/8/2016 4:19:00 PM
Lot-Sample No.:	J6K140416-1	**Report No. :**	70164	**Received Date:**	11/11/2016 10:20:00 AM
Client Sample ID:	ACB-31S(400-129822-1)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:**	M9JR71AA		**Report DB ID:**	9M9JR710				
Ra-226	**4.64E-01**	J	2.2E-01	2.5E-01	2.93E-01	pCi/L	100%	*(1.6)*	1/10/17 06:07 p		0.9462	ASC4HB
						1.27E-01	1.00E+00	*(3.7)*			L	
Batch: 6320023	RL-RA-001			**Work Order:**	M9JR71AC		**Report DB ID:**	9M9JR710				
Ra-228	**3.04E+00**		4.6E-01	5.7E-01	4.23E-01	pCi/L	92%	*(7.2)*	1/13/17 03:46 p		0.9462	GPC2A
						1.76E-01	1.00E+00	*(10.6)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52490	**Collection Date:**	11/9/2016
Lot-Sample No.:	J6K140416-5	**Report No. :**	70164	**Received Date:**	11/11/2016 10:20:00 AM
Client Sample ID:	DUP-1(400-129822-5)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:**	M9JTC1AA		**Report DB ID:**	9M9JTC10				
Ra-226	**2.13E+00**		3.9E-01	6.1E-01	2.58E-01	pCi/L	95%	*(8.3)*	1/10/17 06:07 p		0.91817	ASCASC
						1.04E-01	1.00E+00	*(6.9)*			L	
Batch: 6320023	RL-RA-001			**Work Order:**	M9JTC1AC		**Report DB ID:**	9M9JTC10				
Ra-228	**5.80E+00**		5.9E-01	8.8E-01	4.05E-01	pCi/L	96%	*(14.3)*	1/13/17 03:46 p		0.91817	GPC3A
						1.68E-01	1.00E+00	*(13.1)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52490	**Collection Date:**	11/8/2016 3:30:00 PM
Lot-Sample No.:	J6K140416-4	**Report No. :**	70164	**Received Date:**	11/11/2016 10:20:00 AM
Client Sample ID:	EQ-1(400-129822-4)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:**	M9JTA1AA		**Report DB ID:**	9M9JTA10				
Ra-226	**-4.36E-02**	U	9.5E-02	9.6E-02	2.21E-01	pCi/L	100%	*-0.2*	1/10/17 06:07 p		0.91169	ASC9HC
						8.87E-02	1.00E+00	*-0.91*			L	
Batch: 6320023	RL-RA-001			**Work Order:**	M9JTA1AC		**Report DB ID:**	9M9JTA10				
Ra-228	**1.44E-01**	U	3.3E-01	4.3E-01	7.87E-01	pCi/L	49%	*0.18*	1/13/17 03:46 p		0.91169	GPC2D
						3.24E-01	1.00E+00	*0.67*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 20-Jan-17

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	52488	**Collection Date:**	11/10/2016 12:05:00 PM
Lot-Sample No.:	**J6K140411-4**	**Report No. :**	70164	**Received Date:**	11/11/2016 2:00:00 PM
Client Sample ID:	**GW-747 DUP**	**COC No. :**		**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:**	M9JRL1AD	**Report DB ID:**	M9JRL1DR		**Orig Sa DB ID:**	9M9JRL10		
Ra-226	2.66E+00		4.3E-01	6.8E-01	2.91E-01	pCi/L	79%	(9.1)	1/10/17 06:07 p		1.0	ASC2RC
	1.97E+00		**RER2 1.6**			1.00E+00		(7.8)			L	
Batch: 6320023	RL-RA-001			**Work Order:**	M9JRL1AE	**Report DB ID:**	M9JRL1ER		**Orig Sa DB ID:**	9M9JRL10		
Ra-228	2.68E+00		5.7E-01	6.5E-01	7.57E-01	pCi/L	74%	(3.5)	1/13/17 03:45 p		1.0	GPC1C
	1.81E+00		**RER2 2.1**			1.00E+00		(8.3)			L	

No. of Results: 2 **Comments:**

TestAmerica Inc **RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.**

rptSTLRchDupV5.8.2 A2002 **MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.**

1/20/2017

FORM II

BLANK RESULTS

Date: 20-Jan-17

Lab Name: TestAmerica Inc **SDG:** 52490

Matrix: WATER **Report No. :** 70164

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:** M9JVT1AA		**Report DB ID:** M9JVT1AB						
Ra-226	4.85E-02	U	1.1E-01	1.1E-01	2.05E-01	pCi/L	94%	0.24	1/10/17 06:21 p		1.00058	ASCBMD
					8.32E-02	1.00E+00		0.86			L	
Batch: 6320023	RL-RA-001			**Work Order:** M9JVW1AA		**Report DB ID:** M9JVW1AB						
Ra-228	1.86E-01	U	2.3E-01	2.5E-01	4.08E-01	pCi/L	88%	0.46	1/13/17 03:46 p		1.00058	GPC3B
					1.70E-01	1.00E+00		(1.5)			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 20-Jan-17

Lab Name: TestAmerica Inc **SDG:** 52490

Matrix: WATER **Report No. :** 70164

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 6320021	RL-RA-001			**Work Order:**	M9JVT1AC		**Report DB ID:**	M9JVT1CS					
Ra-226	8.82E+00		7.0E-01	1.9E+00	2.19E-01	pCi/L	100%	9.96E+00	1.01E-01	89%	1/10/17 06:21 p	1.0	ASCDMB
							Rec Limits:	75	125	-0.1		L	
Batch: 6320023	RL-RA-001			**Work Order:**	M9JVW1AC		**Report DB ID:**	M9JVW1CS					
Ra-228	9.30E+00		7.1E-01	1.3E+00	3.89E-01	pCi/L	91%	9.79E+00	1.12E-01	95%	1/13/17 03:46 p	1.0	GPC3C
							Rec Limits:	75	125	0.0		L	

No. of Results: 2 **Comments:**

TestAmerica Inc **Bias** **- (Result/Expected)-1 as defined by ANSI N13.30.**

rptSTLRchLcs
V5.8.2 A2002

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-131070.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: noel.savoie@testamericainc.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-129822-1
Address: 2800 George Washington Way, ,	Due Date Requested: 12/2/2016			
City: Richland	TAT Requested (days):			
State, Zip: WA, 99352				
Phone: 509-375-3131(Tel) 509-375-5590(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - 2016 Annual	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Radium 226 by EPA Method 903.1)/ Radium 226 by EPA Method 903.1	SUB (Radium 228 by EPA Method 904.0)/ Radium 228 by EPA Method 904.0	Total Number of containers	Special Instructions/Note:
				Preservation Code:						
ACB-315 (400-129822-1) M9JR7	11/8/16	16:19 Central		Water			X	X	3	
AC-35D (400-129822-2) M9JR8	11/9/16	09:00 Central		Water			X	X	3	
AC-25D (400-129822-3) M9JR9	11/9/16	12:00 Central		Water			X	X	3	
EQ-1 (400-129822-4) M9JTA	11/8/16	15:30 Central		Water			X	X	3	
DUP-1 (400-129822-5) M9JTC	11/9/16	Central		Water			X	X	3	

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

J6K140416

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 11/10/16 1630	Company: TA-PEN	Received by: Jack J. Black	Date/Time: 11-11-16 1020	Company: TALR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica
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Sample Check-in List

Date/Time Received: 11-11-16 / 1020 Container GM Screen Result: (Airlock) 8 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) ____ cpm Initials [ ]

Client: STP SDG #: 52490 SAF #: ____ NA [ ]

Lot Number: 36K140414

Chain of Custody # 400-131070.1

Shipping Container ID or Air Bill Number : ____ NA [ ]

Samples received inside shipping container/cooler box Yes [ ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: ____ °C NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 5
7. Containers received: 15x4p
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: ____tape ____hazard labels ____custody seals ____appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
____are in good condition ____are leaking ____are broken
____have air bubbles (Only for samples requiring no head space) ____Other ____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ] ____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: WA

[ ] Client Courier denied temperature check. [ ] Client Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: ____ Date: 11-11-16

Client Notification needed? Yes [ ] No [ ] Date: ____
By: ____
Person contacted: ____

[X] No action necessary; process as is

Project Manager ____ Date 11-14-16

Analytical Data Package Prepared For

TestAmerica Pensacola

Radiochemical Analysis By

TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains _____ Pages

Report No.: 70162

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
52497		AC-12D(400-129944-5)	J6K160406-5	M9J6T1AA	9M9J6T10	6322019
		AC-12D(400-129944-5)	J6K160406-5	M9J6T1AC	9M9J6T10	6322021
		AC-13D(400-129944-4)	J6K160406-4	M9J6R1AA	9M9J6R10	6322019
		AC-13D(400-129944-4)	J6K160406-4	M9J6R1AC	9M9J6R10	6322021
		AC-24D(400-129944-3)	J6K160406-3	M9J6Q1AA	9M9J6Q10	6322019
		AC-24D(400-129944-3)	J6K160406-3	M9J6Q1AC	9M9J6Q10	6322021
		AC-2D(400-129944-1)	J6K160406-1	M9J6N1AA	9M9J6N10	6322019
		AC-2D(400-129944-1)	J6K160406-1	M9J6N1AC	9M9J6N10	6322021
		AC-2S(400-129944-2)	J6K160406-2	M9J6P1AA	9M9J6P10	6322019
		AC-2S(400-129944-2)	J6K160406-2	M9J6P1AC	9M9J6P10	6322021

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

January 20, 2017

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Attention: Noel Savoie

Date Received at Lab	:	November 14, 2016
Project Name/Number	:	Agrico Pensacola 2016/68017183
Sample Type	:	Five (5) Water
Job Number	:	400-129822-1
SDG Number	:	52497

CASE NARRATIVE

I. Introduction

On November 14, 2016, five water samples were received at TestAmerica's Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Numbers J6K160406.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted upon check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gas Proportional Counting
Radium-228 by method RL-RA-001
Alpha Scintillation Counting
Radium-226 by method RL-RA-001

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Gas Proportional Counting
Radium-228
The RER is slightly above the limit for the duplicate, data reported for client review, re-milk available if requested. Except as noted, the LCS, batch blank, sample duplicate and sample results are within acceptance limits.

Alpha Scintillation Counting
Radium 226:
The LCS, batch blank, samples and sample duplicate results are within acceptance limits.
.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

_____
Roger A. Stringer
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in “NIST Technical Note 1297, 1994 Edition”. The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
CSU (#s) ***u_c Combined Standard Uncert.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined standard uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA|MDL	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 20-Jan-17

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 70162 **SDG No:** 52497

Batch	Client Id / Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
6322019 RL-RA-001									
	AC-12D(400-129944-5)								
	M9J6T1AA	Ra-226	1.28E+00 +- 4.3E-01		pCi/L	89%	2.55E-01	1.00E+00	
	AC-13D(400-129944-4)								
	M9J6R1AA	Ra-226	5.30E-01 +- 2.4E-01	J	pCi/L	100%	2.37E-01	1.00E+00	
	AC-24D(400-129944-3)								
	M9J6Q1AA	Ra-226	8.81E-01 +- 3.1E-01	J	pCi/L	100%	2.75E-01	1.00E+00	
	AC-2D(400-129944-1)								
	M9J6N1AA	Ra-226	6.61E-01 +- 3.1E-01	J	pCi/L	89%	3.06E-01	1.00E+00	
	AC-2S(400-129944-2)								
	M9J6P1AA	Ra-226	6.22E-02 +- 1.9E-01	U	pCi/L	100%	3.27E-01	1.00E+00	
	AC-3D(400-129984-1) DUP								
	M9J6V1AD	Ra-226	7.07E-01 +- 2.8E-01	J	pCi/L	98%	2.35E-01	1.00E+00	0.3
6322021 RL-RA-001									
	AC-12D(400-129944-5)								
	M9J6T1AC	Ra-228	9.07E+00 +- 1.3E+00		pCi/L	86%	4.59E-01	1.00E+00	
	AC-13D(400-129944-4)								
	M9J6R1AC	Ra-228	3.99E+00 +- 6.8E-01		pCi/L	92%	4.91E-01	1.00E+00	
	AC-24D(400-129944-3)								
	M9J6Q1AC	Ra-228	4.14E+00 +- 7.0E-01		pCi/L	92%	4.02E-01	1.00E+00	
	AC-2D(400-129944-1)								
	M9J6N1AC	Ra-228	1.92E+00 +- 4.4E-01		pCi/L	82%	3.71E-01	1.00E+00	
	AC-2S(400-129944-2)								
	M9J6P1AC	Ra-228	8.13E-01 +- 3.0E-01	J	pCi/L	94%	3.88E-01	1.00E+00	
	AC-3D(400-129984-1) DUP								
	M9J6V1AE	Ra-228	1.06E+01 +- 1.4E+00		pCi/L	92%	5.10E-01	1.00E+00	3.1

No. of Results: 12

TestAmerica Inc

rptTALRchSaSummary2 V5.8.2 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 20-Jan-17

Report No. : 70162 **SDG No.:** 52497

Batch / Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
RL-RA-001								
6322019 BLANK QC,								
M9KFX1AA	Ra-226	-6.78E-02 +- 1.5E-01	U	pCi/L	100%			2.95E-01
6322019 LCS,								
M9KFX1AC	Ra-226	9.02E+00 +- 2.1E+00		pCi/L	100%	91%	-0.1	2.88E-01
RL-RA-001								
6322021 BLANK QC,								
M9KF11AA	Ra-228	4.56E-01 +- 3.3E-01	U	pCi/L	94%			5.25E-01
6322021 LCS,								
M9KF11AC	Ra-228	9.61E+00 +- 1.3E+00		pCi/L	89%	98%	0.0	6.16E-01

No. of Results: 4

TestAmerica Inc

rptSTLRchQcSummary V5.8.2 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52497	**Collection Date:**	11/10/2016 4:20:00 PM
Lot-Sample No.:	J6K160406-5	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-12D(400-129944-5)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:** M9J6T1AA			**Report DB ID:** 9M9J6T10					
Ra-226	**1.28E+00**		3.0E-01	4.3E-01	2.55E-01	pCi/L	89%	*(5.)*	1/11/17 03:10 p		1.00004	ASCASA
						1.06E-01	1.00E+00	*(5.9)*			L	
Batch: 6322021	RL-RA-001			**Work Order:** M9J6T1AC			**Report DB ID:** 9M9J6T10					
Ra-228	**9.07E+00**		7.5E-01	1.3E+00	4.59E-01	pCi/L	86%	*(19.7)*	1/13/17 03:47 p		1.00004	GPC4D
						1.93E-01	1.00E+00	*(14.3)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc **MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.**
rptSTLRchSample **U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.**
V5.8.2 A2002

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52497	**Collection Date:**	11/10/2016 1:48:00 PM
Lot-Sample No.:	J6K160406-4	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-13D(400-129944-4)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6R1AA		**Report DB ID:**	9M9J6R10				
Ra-226	**5.30E-01**	J	2.2E-01	2.4E-01	2.37E-01	pCi/L	100%	*(2.2)*	1/11/17 03:10 p		1.00002	ASC9RA
						9.34E-02	1.00E+00	*(4.4)*			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6R1AC		**Report DB ID:**	9M9J6R10				
Ra-228	**3.99E+00**		5.2E-01	6.8E-01	4.91E-01	pCi/L	92%	*(8.1)*	1/13/17 03:47 p		1.00002	GPC4C
						2.12E-01	1.00E+00	*(11.7)*			L	

No. of Results: 2 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52497	**Collection Date:**	11/10/2016 9:48:00 AM
Lot-Sample No.:	J6K160406-3	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-24D(400-129944-3)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:** M9J6Q1AA			**Report DB ID:** 9M9J6Q10					
Ra-226	**8.81E-01**	J	2.6E-01	3.1E-01	2.75E-01	pCi/L	100%	*(3.2)*	1/11/17 03:09 p		1.00001	ASC8HA
						1.18E-01	1.00E+00	*(5.6)*			L	
Batch: 6322021	RL-RA-001			**Work Order:** M9J6Q1AC			**Report DB ID:** 9M9J6Q10					
Ra-228	**4.14E+00**		5.1E-01	7.0E-01	4.02E-01	pCi/L	92%	*(10.3)*	1/13/17 03:47 p		1.00001	GPC4B
						1.68E-01	1.00E+00	*(11.9)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52497	**Collection Date:**	11/9/2016 4:10:00 PM
Lot-Sample No.:	J6K160406-1	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-2D(400-129944-1)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6N1AA		**Report DB ID:**	9M9J6N10				
Ra-226	**6.61E-01**	J	2.6E-01	3.1E-01	3.06E-01	pCi/L	89%	*(2.2)*	1/11/17 03:09 p		1.00001	ASC4UA
						1.30E-01	1.00E+00	*(4.3)*			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6N1AC		**Report DB ID:**	9M9J6N10				
Ra-228	**1.92E+00**		3.8E-01	4.4E-01	3.71E-01	pCi/L	82%	*(5.2)*	1/13/17 03:46 p		1.00001	GPC3D
						1.50E-01	1.00E+00	*(8.8)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52497	**Collection Date:**	11/9/2016 5:00:00 PM
Lot-Sample No.:	J6K160406-2	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-2S(400-129944-2)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6P1AA		**Report DB ID:**	9M9J6P10				
Ra-226	**6.22E-02**	U	1.8E-01	1.9E-01	3.27E-01	pCi/L	100%	*0.19*	1/11/17 03:09 p		1.00001	ASC6HB
						1.45E-01	1.00E+00	*0.67*			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6P1AC		**Report DB ID:**	9M9J6P10				
Ra-228	**8.13E-01**	J	2.8E-01	3.0E-01	3.88E-01	pCi/L	94%	*(2.1)*	1/13/17 03:47 p		1.00001	GPC4A
						1.63E-01	1.00E+00	*(5.5)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 20-Jan-17

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	52498	**Collection Date:**	11/11/2016 8:55:00 AM
Lot-Sample No.:	**J6K160407-1**	**Report No. :**	70162	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	**AC-3D(400-129984-1) DUP**	**COC No. :**		**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6V1AD	**Report DB ID:**	M9J6V1DR		**Orig Sa DB ID:**	9M9J6V10		
Ra-226	7.07E-01	J	2.3E-01	2.8E-01	2.35E-01	pCi/L	98%	(3.)	1/11/17 03:10 p		1.00004	ASCCSC
	7.72E-01	J	**RER2 0.3**			1.00E+00		(5.)			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6V1AE	**Report DB ID:**	M9J6V1ER		**Orig Sa DB ID:**	9M9J6V10		
Ra-228	1.06E+01		7.4E-01	1.4E+00	5.10E-01	pCi/L	92%	(20.9)	1/13/17 03:48 p		1.00004	GPC6A
	7.80E+00		**RER2 3.1**			1.00E+00		(15.3)			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.8.2 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

FORM II

BLANK RESULTS

Date: 20-Jan-17

Lab Name: TestAmerica Inc **SDG:** 52497

Matrix: WATER **Report No. :** 70162

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9KFX1AA		**Report DB ID:**	M9KFX1AB				
Ra-226	-6.78E-02	U	1.5E-01	1.5E-01	2.95E-01	pCi/L	100%	-0.23	1/11/17 03:19 p		1.00001	ASCEHB
					1.29E-01	1.00E+00		-0.92			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9KF11AA		**Report DB ID:**	M9KF11AB				
Ra-228	4.56E-01	U	3.0E-01	3.3E-01	5.25E-01	pCi/L	94%	0.87	1/13/17 03:48 p		1.00001	GPC6C
					2.35E-01	1.00E+00		(2.7)			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchBlank
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 20-Jan-17

LCS RESULTS

Lab Name: TestAmerica Inc **SDG:** 52497

Matrix: WATER **Report No. :** 70162

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9KFX1AC		**Report DB ID:**	M9KFX1CS					
Ra-226	9.02E+00		7.0E-01	2.1E+00	2.88E-01	pCi/L	100%	9.95E+00	1.01E-01	91%	1/11/17 03:18 p	1.00008	ASCFAB
							Rec Limits:	75	125	-0.1		L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9KF11AC		**Report DB ID:**	M9KF11CS					
Ra-228	9.61E+00		7.4E-01	1.3E+00	6.16E-01	pCi/L	89%	9.77E+00	1.12E-01	98%	1/13/17 03:48 p	1.00008	GPC6D
							Rec Limits:	75	125	0.0		L	

No. of Results: 2 **Comments:**

1/20/2017

TestAmerica Inc **Bias** **- (Result/Expected)-1 as defined by ANSI N13.30.**

rptSTLRchLcs
V5.8.2 A2002

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-131172.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: noel.savoie@testamericainc.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-129822-1
Address: 2800 George Washington Way, ,	Due Date Requested: 12/6/2016			
City: Richland	TAT Requested (days):			
State, Zip: WA, 99352				
Phone: 509-375-3131(Tel) 509-375-5590(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - 2016 Annual	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Radium 226 by EPA Method 903.1)/ Radium 226 by EPA Method 903.1	SUB (Radium 228 by EPA Method 904.0)/ Radium 228 by EPA Method 904.0	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
AC-2D (400-129944-1) m9J6N	11/9/16	16:10 Central		Water			X	X	3	
AC-2S (400-129944-2) m9J6P	11/9/16	17:00 Central		Water			X	X	3	
AC-24D (400-129944-3) m9J6Q	11/10/16	09:48 Central		Water			X	X	3	
AC-13D (400-129944-4) m9J6R	11/10/16	13:48 Central		Water			X	X	3	
AC-12D (400-129944-5) m9J6T	11/10/16	16:20 Central		Water			X	X	3	
										J6K160406
										SOS-52497

J6K160406

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/11/16 1630	TAT TEN	J. Bock	11-14-16 0925	TALR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 11-14-16 / 0925 Container GM Screen Result: (Airlock) 0 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [B]

Client: STP SDG #: 52497 SAF #: _____ NA [B]

Lot Number: J6K160406

Chain of Custody # 400-131172.1

Shipping Container ID or Air Bill Number : _____ NA [B]

Samples received inside shipping container/cooler/box Yes [B] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [B] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [B] No [ ] No Custody Seal [ ]
3. Cooler temperature: _____ °C NA [B]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [B]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [B] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 5
7. Containers received: 15x4p
8. Sample holding times exceeded? NA [ ] Yes [ ] No [B]
9. Samples have: _____tape _____hazard labels _____custody seals [B] appropriate sample labels
10. Matrix: _____A (FLT, Wipe, Solid, Soil) [B] I (Water) _____S (Air, Niosh 7-400) _____T (Biological, Ni-63)
11. Samples:
[B] are in good condition _____are leaking _____are broken
_____have air bubbles (Only for samples requiring no head space) _____Other _____
12. Sample pH appropriate for analysis requested Yes [B] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [B]
14. Description of anomalies (include sample numbers): NA [B] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [B]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [ ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 11-14-16

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[X] No action necessary; process as is

Project Manager _____ Date 11-16-16

Analytical Data Package Prepared For

TestAmerica Pensacola

Radiochemical Analysis By

TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains _____ Pages

Report No.: 70163

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
52498		AC-29D(400-129984-2)	J6K160407-2	M9J6W1AA	9M9J6W10	6322019
		AC-29D(400-129984-2)	J6K160407-2	M9J6W1AC	9M9J6W10	6322021
		AC-3D(400-129984-1)	J6K160407-1	M9J6V1AA	9M9J6V10	6322019
		AC-3D(400-129984-1)	J6K160407-1	M9J6V1AC	9M9J6V10	6322021

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

January 20, 2017

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514

Attention: Noel Savoie

Date Received at Lab	:	November 14, 2016
Project Name/Number	:	Agrico Pensacola- 2016 Annual/68017183
Sample Type	:	Two (2) Water
Job Number	:	400-129984-1
SDG Number	:	52498

CASE NARRATIVE

I. Introduction

On November 14, 2016, two water samples were received at TestAmerica's Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned the TestAmerica identification number as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Numbers J6K160407.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted upon check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gas Proportional Counting
Radium-228 by method RL-RA-001
Alpha Scintillation Counting
Radium-226 by method RL-RA-001

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Gas Proportional Counting
Radium-228
The RER is slightly above the limit for the duplicate, data reported for client review, re-milk available if requested. Except as noted, the LCS, batch blank, sample duplicate and sample results are within acceptance limits.

Alpha Scintillation Counting
Radium 226:
The LCS, batch blank, samples and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

_____
Roger A. Stringer
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in “NIST Technical Note 1297, 1994 Edition”. The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
CSU (#s) ***u_c Combined Standard Uncert.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined standard uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA|MDL	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 20-Jan-17

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 70163 **SDG No:** 52498

Batch	Client Id / Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RER2
6322019 RL-RA-001									
AC-29D(400-129984-2)									
	M9J6W1AA	Ra-226	1.31E+00 +- 4.8E-01		pCi/L	86%	2.90E-01	1.00E+00	
AC-3D(400-129984-1)									
	M9J6V1AA	Ra-226	7.72E-01 +- 2.9E-01	J	pCi/L	100%	2.47E-01	1.00E+00	
AC-3D(400-129984-1) DUP									
	M9J6V1AD	Ra-226	7.07E-01 +- 2.8E-01	J	pCi/L	98%	2.35E-01	1.00E+00	0.3
6322021 RL-RA-001									
AC-29D(400-129984-2)									
	M9J6W1AC	Ra-228	1.35E+01 +- 1.7E+00		pCi/L	81%	6.48E-01	1.00E+00	
AC-3D(400-129984-1)									
	M9J6V1AC	Ra-228	7.80E+00 +- 1.2E+00		pCi/L	81%	6.39E-01	1.00E+00	
AC-3D(400-129984-1) DUP									
	M9J6V1AE	Ra-228	1.06E+01 +- 1.4E+00		pCi/L	92%	5.10E-01	1.00E+00	3.1

No. of Results: 6

TestAmerica Inc

rptTALRchSaSummary2 V5.8.2 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

QC Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 20-Jan-17

Report No. : 70163 **SDG No.:** 52497

Batch / Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
RL-RA-001								
6322019 BLANK QC,								
M9KFX1AA	Ra-226	-6.78E-02 +- 1.5E-01	U	pCi/L	100%			2.95E-01
6322019 LCS,								
M9KFX1AC	Ra-226	9.02E+00 +- 2.1E+00		pCi/L	100%	91%	-0.1	2.88E-01
RL-RA-001								
6322021 BLANK QC,								
M9KF11AA	Ra-228	4.56E-01 +- 3.3E-01	U	pCi/L	94%			5.25E-01
6322021 LCS,								
M9KF11AC	Ra-228	9.61E+00 +- 1.3E+00		pCi/L	89%	98%	0.0	6.16E-01

No. of Results: 4

TestAmerica Inc

rptSTLRchQcSummary V5.8.2 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52498	**Collection Date:**	11/11/2016 11:00:00 AM
Lot-Sample No.:	J6K160407-2	**Report No. :**	70163	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-29D(400-129984-2)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:** M9J6W1AA			**Report DB ID:** 9M9J6W10					
Ra-226	**1.31E+00**		3.2E-01	4.8E-01	2.90E-01	pCi/L	86%	*(4.5)*	1/11/17 03:10 p		1.00004	ASCDMC
						1.22E-01	1.00E+00	*(5.4)*			L	
Batch: 6322021	RL-RA-001			**Work Order:** M9J6W1AC			**Report DB ID:** 9M9J6W10					
Ra-228	**1.35E+01**		8.9E-01	1.7E+00	6.48E-01	pCi/L	81%	*(20.9)*	1/13/17 03:48 p		1.00004	GPC6B
						2.92E-01	1.00E+00	*(15.6)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 20-Jan-17

Lab Name:	TestAmerica Inc	**SDG:**	52498	**Collection Date:**	11/11/2016 8:55:00 AM
Lot-Sample No.:	J6K160407-1	**Report No. :**	70163	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	AC-3D(400-129984-1)	**COC No. :**		**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6V1AA		**Report DB ID:**	9M9J6V10				
Ra-226	**7.72E-01**	J	2.4E-01	2.9E-01	2.47E-01	pCi/L	100%	*(3.1)*	1/11/17 03:09 p		1.00001	ASCBMA
						1.04E-01	1.00E+00	*(5.4)*			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6V1AC		**Report DB ID:**	9M9J6V10				
Ra-228	**7.80E+00**		7.2E-01	1.2E+00	6.39E-01	pCi/L	81%	*(12.2)*	1/13/17 03:47 p		1.00001	GPC5B
						2.87E-01	1.00E+00	*(13.4)*			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 20-Jan-17

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	52498	**Collection Date:**	11/11/2016 8:55:00 AM
Lot-Sample No.:	**J6K160407-1**	**Report No. :**	70163	**Received Date:**	11/14/2016 9:25:00 AM
Client Sample ID:	**AC-3D(400-129984-1) DUP**	**COC No. :**		**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9J6V1AD	**Report DB ID:**	M9J6V1DR		**Orig Sa DB ID:**	9M9J6V10		
Ra-226	7.07E-01	J	2.3E-01	2.8E-01	2.35E-01	pCi/L	98%	(3.)	1/11/17 03:10 p		1.00004	ASCCSC
	7.72E-01	J	**RER2 0.3**			1.00E+00		(5.)			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9J6V1AE	**Report DB ID:**	M9J6V1ER		**Orig Sa DB ID:**	9M9J6V10		
Ra-228	1.06E+01		7.4E-01	1.4E+00	5.10E-01	pCi/L	92%	(20.9)	1/13/17 03:48 p		1.00004	GPC6A
	7.80E+00		**RER2 3.1**			1.00E+00		(15.3)			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.8.2 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
J Qual - No U or < qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.

FORM II

BLANK RESULTS

Date: 20-Jan-17

Lab Name: TestAmerica Inc **SDG:** 52497

Matrix: WATER **Report No. :** 70163

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9KFX1AA		**Report DB ID:**	M9KFX1AB				
Ra-226	-6.78E-02	U	1.5E-01	1.5E-01	2.95E-01	pCi/L	100%	-0.23	1/11/17 03:19 p		1.00001	ASCEHB
					1.29E-01	1.00E+00		-0.92			L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9KF11AA		**Report DB ID:**	M9KF11AB				
Ra-228	4.56E-01	U	3.0E-01	3.3E-01	5.25E-01	pCi/L	94%	0.87	1/13/17 03:48 p		1.00001	GPC6C
					2.35E-01	1.00E+00		(2.7)			L	

No. of Results: 2 **Comments:**

TestAmerica Inc
rptSTLRchBlank
V5.8.2 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 20-Jan-17

LCS RESULTS

Lab Name: TestAmerica Inc **SDG:** 52497

Matrix: WATER **Report No. :** 70163

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 6322019	RL-RA-001			**Work Order:**	M9KFX1AC		**Report DB ID:**	M9KFX1CS					
Ra-226	9.02E+00		7.0E-01	2.1E+00	2.88E-01	pCi/L	100%	9.95E+00	1.01E-01	91%	1/11/17 03:18 p	1.00008	ASCFAB
							Rec Limits:	75	125	-0.1		L	
Batch: 6322021	RL-RA-001			**Work Order:**	M9KF11AC		**Report DB ID:**	M9KF11CS					
Ra-228	9.61E+00		7.4E-01	1.3E+00	6.16E-01	pCi/L	89%	9.77E+00	1.12E-01	98%	1/13/17 03:48 p	1.00008	GPC6D
							Rec Limits:	75	125	0.0		L	

No. of Results: 2 **Comments:**

1/20/2017

TestAmerica Inc **Bias** **- (Result/Expected)-1 as defined by ANSI N13.30.**

rptSTLRchLcs
V5.8.2 A2002

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-131167.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: noel.savoie@testamericainc.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-129984-1
Address: 2800 George Washington Way, ,	Due Date Requested: 12/6/2016			
City: Richland	TAT Requested (days):			
State, Zip: WA, 99352				
Phone: 509-375-3131(Tel) 509-375-5590(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - 2016 Annual	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Radium 226 by EPA Method 903.1)/ Radium 226 by EPA Method 903.1	SUB (Radium 228 by EPA Method 904.0)/ Radium 228 by EPA Method 904.0	Total Number of containers	Special Instructions/Note:
			Preservation Code							
AC-3D (400-129984-1) M9JL6V	11/11/16	08:55 Central		Water			X	X	3	
AC-29D (400-129984-2) M9JL6W	11/11/16	11:00 Central		Water			X	X	3	

J6K160407

J6K160407
SDS-52498

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	11/11/2016 15:37	TA PEN	[signature] J. Bock	11-14-16 / 0925	D TALK
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date Time Received: 11-14-16 / 0925 Container GM Screen Result: (Airlock) 0 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [ ]

Client: STP SDG #: 52498 SAF #: _____ NA [ ]

Lot Number: JGK160407

Chain of Custody # 400-131167.1

Shipping Container ID or Air Bill Number : _____ NA [ ]

Samples received inside shipping container/cooler box Yes [ ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: _____ °C NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 6x4p
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: _____tape _____hazard labels _____custody seals _____appropriate sample labels
10. Matrix: _____A (FLT, Wipe, Solid, Soil) _____I (Water) _____S (Air, Niosh 7400) _____T (Biological, Ni-63)
11. Samples:
_____are in good condition _____are leaking _____are broken
_____have air bubbles (Only for samples requiring no head space) _____Other _____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client Courier denied temperature check. [ ] Client Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 11-14-16

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[X] No action necessary; process as is

Project Manager _____ Date 11-16-16

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

640-Tallahassee

TestAmerica

Client Information	Sampler: DC Hilton	Lab PM: Savoie, Noel	Carrier Tracking No(s): 640-Tallahassee	COC No: 680-78239-32401.1
Client Contact: Mr. Jeff Wagner	Phone: 850-528-8995	E-Mail: noel.savoie@testamericainc.com		Page: Page 1 of 2
Company: AECOM				Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32317				
Phone: 850-402-6409(Tel)	PO #: 308649.US			
Email: jeffry.wagner@aecom.com	WO #: 12806620.00000 Vendor #1427536			
Project Name: Agrico Pensacola	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

400-129822 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

640-Tallahassee

Special Instructions/Note:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	340.2 - Fluoride	Total Number of containers
			Preservation Code:		X	X	N	N	D	D	D	S	N	
ACB-31S	11.08.16	1619	G	W			1	1	1	2		1	1	7
AC-35D	11.09.16	0900	G	W			1	1	1	2		1	1	7
AC-25D	11.09.16	1200	G	W			1	1	1	2		1	1	7
EQ-1	11.08.16	1550	G	W			1	1	1	2		1	1	7
DUP-1	11.09.16		G	W			1	1	1	2		1	1	7

Tallahassee

640

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if sample
☐ Return To Client ☐ Disposal By Lab

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
DC Hilton	11.09.16 1327	AECOM			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			[signature]	11/09/16 1327	TA

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.4°C 1.2°C IR5

640-Tallahassee

1/20/2017

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

640-Tallahassee

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: D Hilton	Lab PM: Savoie, Noel	Carrier Tracking No(s): 640-Tallahassee	COC No: 680-78239-32401.2
Client Contact: Mr. Jeff Wagner	Phone: 850-528-8995	E-Mail: noel.savoie@testamericainc.com		Page: Page 2 of 2
Company: AECOM				Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32317				
Phone: 850-402-6409(Tel)	PO #: 308649.US			
Email: jeffry.wagner@aecom.com	WO #: 12806620.00000 Vendor #1427536			
Project Name: Agrico Pensacola	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

640-Tallahassee

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	340.2 - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	D	D	D	S	N		
AC-2D	11.09.16	1610	G	W			1	1	2	1		1	1	7	
AC-25	11.09.16	1700	G	W			1	1	2	1		1	1	8	
AC-24D	11.10.16	0948	G	W			1*	1	2	1		1	1	7	
AC-13D	11.10.16	1348	G	W			1	1	2	1		1	1	7	
AC-12D	11.10.16	1620	G	W			1	1	2	1		1		7	

400-129944 COC

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	D Hilton	11.10.16 0811	AECOM			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: C Chiang	Date/Time: 11/11/16 0810	Company TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.7°C, 1.2°C IR6

1/20/2017

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

640-Tallahassee

TestAmerica

Client Information	Sampler: D Hilton	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 680-78239-32401.2
Client Contact: Mr. Jeff Wagner	Phone: 850-528-8995	E-Mail: noel.savoie@testamericainc.com	640-Tallahassee	Page: Page 2 of 2
Company: AECOM				Job #:

Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Tallahassee	TAT Requested (days):		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: FL, 32317			
Phone: 850-402-6409(Tel)	PO #: 308649.US		
Email: jeffry.wagner@aecom.com	WO #: 12806620.00000 Vendor #1427536		
Project Name: Agrico Pensacola	Project #: 68017183		
Site:	SSOW#:		

Sample identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	340.2 - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	D	D	D	S	N	X	
AC-3D	11.11.16	0855	G	W			1	1	2	1		1	1	7	
AC-29D	11.11.16	1100	G	W			1	1	2	1		1	1	7	

640-Tallahassee

400-129984 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
D Hilton	11.11.16 1234	AECOM		11-11-16 1234	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR6

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-129834-1
Client Project/Site: Agrico Pensacola - 2016 Annual SW

For:
AECOM
1625 Summit Lake Drive
Suite 200
Tallahassee, Florida 32317

Attn: Mr. Jeff Wagner

Noël Savoie

Authorized for release by:
11/28/2016 4:55:21 PM

Noel Savoie, Project Manager I
(850)878-3994
noel.savoie@testamericainc.com

Table of Contents

Case Narrative

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Job ID: 400-129834-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-129834-1

Comments
No additional comments.

Receipt
The samples were received on 11/9/2016 1:27 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2º C.

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

Detection Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Client Sample ID: BT-127 — Lab Sample ID: 400-129834-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.49		0.10		mg/L	1		340.2	Total/NA

Client Sample ID: BT-107 — Lab Sample ID: 400-129834-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.52		0.10		mg/L	1		340.2	Total/NA

Client Sample ID: BT-02 — Lab Sample ID: 400-129834-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.52		0.10		mg/L	1		340.2	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129834-1	BT-127	Water	11/07/16 14:27	11/09/16 13:27
400-129834-2	BT-107	Water	11/07/16 14:41	11/09/16 13:27
400-129834-3	BT-02	Water	11/07/16 14:55	11/09/16 13:27

Client Sample ID: BT-127 — **Lab Sample ID: 400-129834-1**
Date Collected: 11/07/16 14:27 — **Matrix: Water**
Date Received: 11/09/16 13:27

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.49		0.10		mg/L			11/28/16 13:00	1

Client Sample ID: BT-107 — **Lab Sample ID: 400-129834-2**
Date Collected: 11/07/16 14:41 — **Matrix: Water**
Date Received: 11/09/16 13:27

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.52		0.10		mg/L			11/28/16 13:02	1

Client Sample ID: BT-02 — **Lab Sample ID: 400-129834-3**
Date Collected: 11/07/16 14:55 — **Matrix: Water**
Date Received: 11/09/16 13:27

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.52		0.10		mg/L			11/28/16 13:04	1

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

General Chemistry

Analysis Batch: 332817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129834-1	BT-127	Total/NA	Water	340.2	
400-129834-2	BT-107	Total/NA	Water	340.2	
400-129834-3	BT-02	Total/NA	Water	340.2	
MB 400-332817/3	Method Blank	Total/NA	Water	340.2	
LCS 400-332817/4	Lab Control Sample	Total/NA	Water	340.2	

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Method: 340.2 - Fluoride

Lab Sample ID: MB 400-332817/3
Matrix: Water
Analysis Batch: 332817

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/28/16 12:01	1

Lab Sample ID: LCS 400-332817/4
Matrix: Water
Analysis Batch: 332817

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.03		mg/L		101	90 - 110

Lab Chronicle

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Client Sample ID: BT-127
Lab Sample ID: 400-129834-1
Date Collected: 11/07/16 14:27
Matrix: Water
Date Received: 11/09/16 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	332817	11/28/16 13:00	SLT	TAL PEN

Client Sample ID: BT-107
Lab Sample ID: 400-129834-2
Date Collected: 11/07/16 14:41
Matrix: Water
Date Received: 11/09/16 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	332817	11/28/16 13:02	SLT	TAL PEN

Client Sample ID: BT-02
Lab Sample ID: 400-129834-3
Date Collected: 11/07/16 14:55
Matrix: Water
Date Received: 11/09/16 13:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	332817	11/28/16 13:04	SLT	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-332817/3
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	10 mL	332817	11/28/16 12:01	SLT	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-332817/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	340.2		1	10 mL	100 mL	332817	11/28/16 12:04	SLT	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Method Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Method	Method Description	Protocol	Laboratory
340.2	Fluoride	MCAWW	TAL PEN

Protocol References:

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Certification Summary

Client: AECOM
Project/Site: Agrico Pensacola - 2016 Annual SW

TestAmerica Job ID: 400-129834-1

Laboratory: TestAmerica Pensacola

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81010	06-30-17

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E87052	06-30-17

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

640-Tallahassee

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: DC Hutton	Lab PM: Savoie, Noel	Carrier Tracking No(s): 640-Tallahassee	COC No: 680-78240-32403.1
Client Contact: Mr. Jeff Wagner	Phone: 850-528-8095	E-Mail: noel.savoie@testamericainc.com		Page: Page 1 of 1
Company: AECOM				Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Tallahassee	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: FL, 32317				
Phone: 850-402-6409(Tel)	PO #: 308649.US			Other:
Email: jeffry.wagner@aecom.com	WO #: 12806620.00000 Vendor #1427536			
Project Name: Agrico Brackish Surface Water	Project #: 68017183			
Site:	SSOW#:			

400-129834 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	340.2 - Fluoride	Total Number of containers	640-Tallahassee Special Instructions/Note:
			Preservation Code:				N		
BT-127	11.07.16	1427	G	W			1	1	
BT-107	11.07.16	1441	G	W			1	1	
BT-02	11.07.16	1455	G	W			1	1	

Tallahassee
640

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: 10.25.16 Time: 0710 Method of Shipment: CC

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
DC Hutton	11.09.16 1327	AECOM			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	11/09/16 1327	TA

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.2°C IR5

Login Sample Receipt Checklist

Client: AECOM

Job Number: 400-129834-1

Login Number: 129834

List Source: TestAmerica Pensacola

List Number: 1

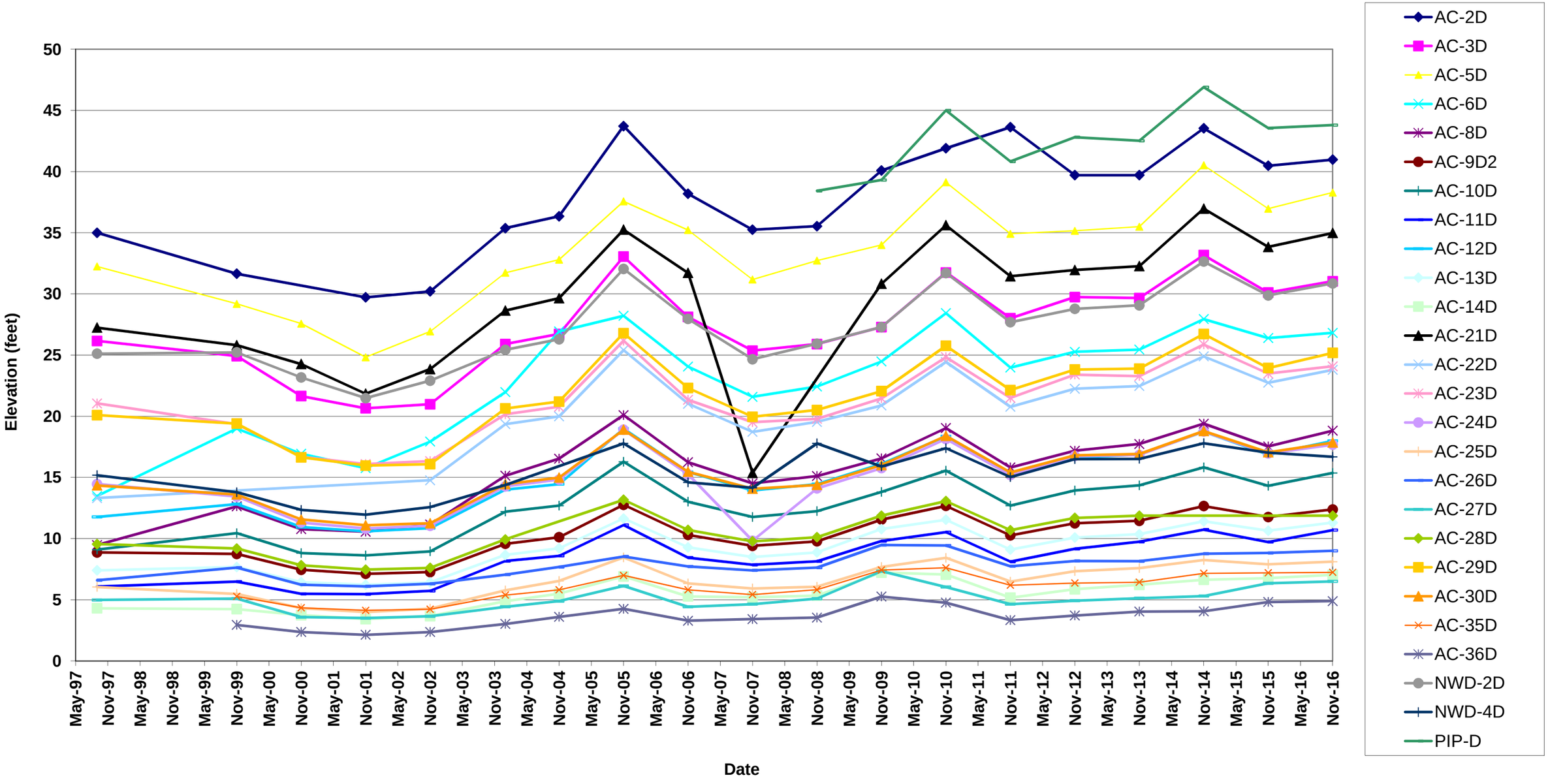
Creator: Chambers, Cheryle A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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	1.2°C IR5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

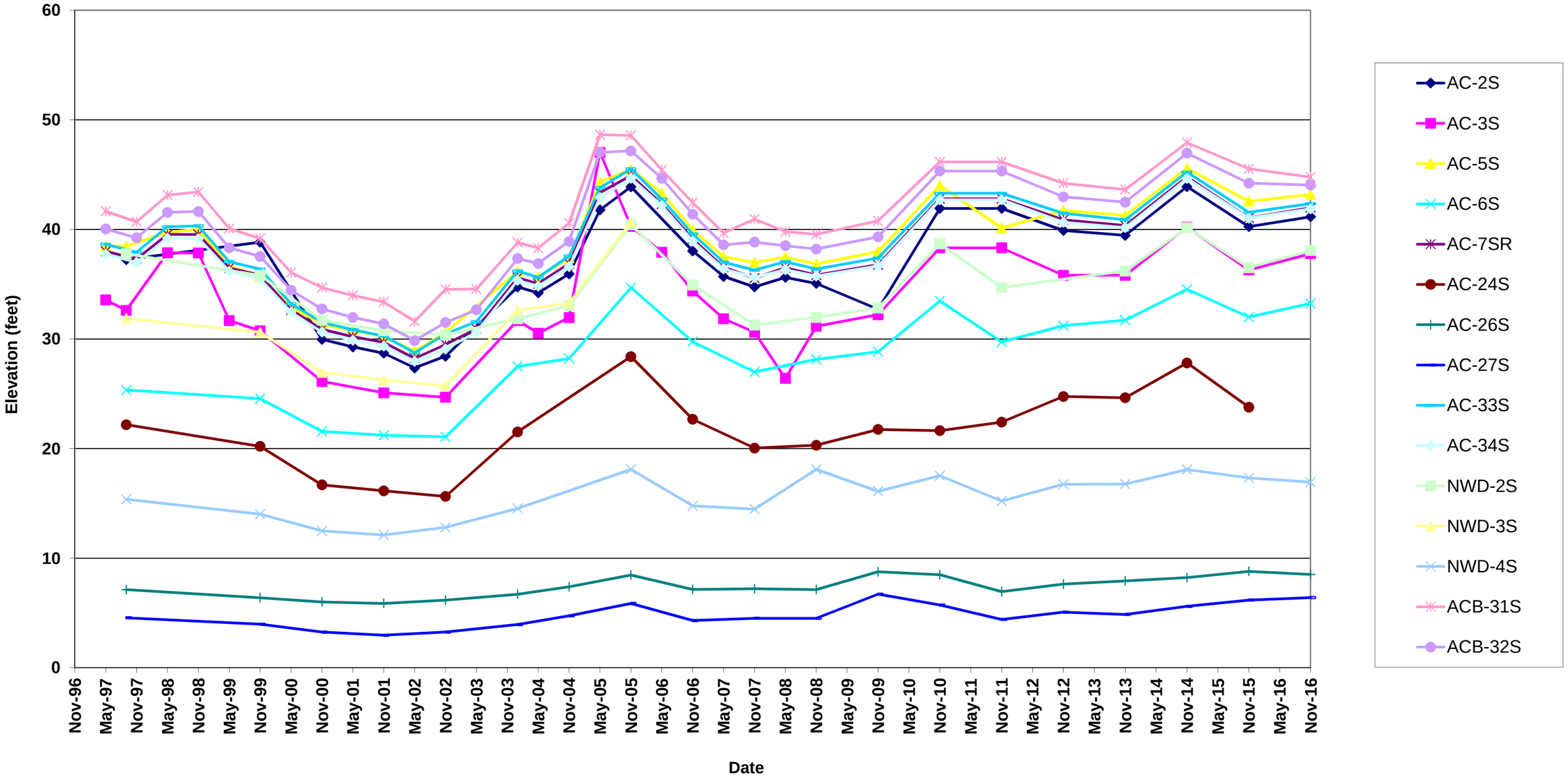
Groundwater Elevation Trend in Main Producing Zone

Agrico Site
Pensacola, FL



Groundwater Elevation Trend in Surficial Zone

Agrico Site
Pensacola, FL



APPENDIX C

AECOM

MEMORANDUM

To:	Alex Webster (FDEP NW District) Aaron Cohen (FDEP, Tallahassee) Tim Haag (ECUA) Tom Brown (NWFWMD) L. Derrik Owens (City of Pensacola) Mark Spitznagel (ECHD) Robert Merritt (ECHD) Taylor Kirschenfeld (Escambia County) Alan Hagans (FDOT Chipley)	From: CC: Date:	Jeffry R. Wagner, P.G. AECOM Tallahassee Scott Miller (EPA Region 4 January 11, 2017

Subject: Institutional Controls Coordination
Agrico Site, Pensacola, Florida

As part of the U.S. Environmental Protection Agency (EPA) approved Remedial Action Work Plan for Operating Unit Two (OU-2) (November 1998), periodic communications are planned with the agencies in order to ensure and verify that existing institutional controls remain in place. The purpose of this Memorandum is to solicit, in writing, information on any changes in existing or any proposed new regulatory requirements that may affect the existing institutional controls pertaining to the Agrico Site.

SITE SUMMARY

Monitored Natural Attenuation Results

Statistical MNA evaluations were prepared in 2009 and 2013. Additionally, annual trend plots are prepared for all constituents analyzed for each sampling location. The reports and trend plots in each annual report that were submitted to EPA and FDEP show that mechanisms for attenuation are in place throughout the OU-2 area. These mechanisms and the OU-1 source remedy are propagating downgradient toward Bayou Texar, as expected. For the plume area, the highest concentrations for each constituent are declining and downgradient peaks are less than historical highs. Increases are still happening for individual wells, but the overall concentrations are still less than the historical highs. It is estimated from statistical evaluation following EPA MNA guidance that much of the groundwater will reach the target concentrations within two to three decades. However, the discharge area near Bayou Texar may take longer. The processes at this discharge boundary are more complex and do not follow the upgradient time line. Additionally, radium declines may lag behind the other constituents and is more dependent on increases in pH as the overall chemical conditions improve upgradient. Initial fate and transport modeling performed for the site in the early 1990s suggested targets would not be reached for at least 70 years. About 20 years has passed since the source controls were implemented. The 50 years remaining is still reasonable and well within the targets estimated with the statistical evaluation.

Groundwater Sampling Results

Groundwater results for November 2016 continue to compare favorably to past results. Overall concentration trends within the surficial zone are downward and the impact extent is shrinking. Impacts are limited for this zone. This is a direct result of effective source remediation and the local hydrogeologic conditions.

For the main producing zone, the overall flattening of trends is what has been predicted. This flattening should be expected to continue for some time and eventually evolve into a slowly decreasing trend that accelerates with time.

Slight upward or downward ticks in the trends for the COCs are to be expected over time. It is the long-term trend for each of the COC that is important.

Groundwater Levels

Results of water level measurements collected in November 2016 indicate that groundwater flow remains toward Bayou Texar for both the surficial zone and main producing zone. In 2016, groundwater flow patterns closely followed historical patterns.

Bayou Texar Sampling Results

An assessment of potential impacts downgradient of the Agrico groundwater plume was presented to EPA and FDEP on September 4, 2009 in the report, "*Conceptual Site Model, Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume, September 14, 2009." The report* concluded that there is no completed exposure pathway between populations of demersal fish and benthic receptors in the Bayou downgradient of the Site, and concentrations of fluoride in pore water and near-bottom surface water that potentially would cause adverse effects to the populations of dermersal fish and benthic receptors. The report also concluded that the fluoride solubility in the majority of surface sediments and in all pore waters within the groundwater plume discharge area is controlled by mineral precipitation reactions that are responsible for buffering dissolved concentrations of fluoride. This report was approved by EPA on September 20, 2010. The approval modified the report recommendations to include three additional surface water sampling locations to be added as part of the annual sampling for the site. Sampling continues to show concentrations in the bayou at levels well below the surface water standard (5 mg/L) for fluoride.

Annual groundwater/surface water monitoring was conducted in November 2016. The sampling network starting with the November 2015 sampling event has been modified to a select set of sampling locations for the Agrico site as per discussions with FDEP and

approved by EPA on March 10, 2015. Eighteen years of annual monitoring have been conducted since 1999.

INSTITUTIONAL CONTROLS

Several rules, regulations and policies already exist which control the use of groundwater within the OU-2 area. These serve as institutional controls, and include:

1. Well construction and consumptive use is approved by Northwest Florida Water Management District (NWFWMD). On February 22, 2001 the Northwest Florida Water Management District (NWFWMD) Governing Board passed a well construction moratorium for the area bounded to the north by Hyatt Street, Wynnehurst Street, Kenneth Street, Boxwood Drive and Brookside Place; to the west by the CSX Railroad; to the south by East Cross Street; and to the east by Bayou Texar. This moratorium applies to all new well construction within the designated area except monitoring wells and encompasses both the Agrico and Escambia Treating Company areas. The moratorium remains in effect during 2014. Checking of NWFWMD drilling permits indicates that no well construction permits were issued within the Agrico OU-2 area during 2015.

2. Access is restricted on the Agrico site. The property is secured by a perimeter chain link security fence and locked gates. Restrictive and site information signs are posted advising the public of the on-site conditions, and a contact phone number is also posted for inquiries. The site is routinely inspected by authorized personnel and inspection reports on the site conditions are completed twice a year. Additionally, the site is inspected after each major storm event. Any damages found are repaired. Construction or related activities which would interfere with maintaining the site remedial measures are prohibited by the legal deed restrictions. Any use of the property contrary to the Record of Decision is prohibited, as per covenants filed for the property.

3. The location of the Agrico plume is well characterized and documented. Because this information is submitted to the ECUA and other agencies in an annual report, and because of the NWFWMD well moratorium, it is highly improbable that future municipal wells will be located in the vicinity of the site. It should also be noted that non-Agrico groundwater impacts are present outside of the Agrico plume. To the north of the Agrico site, groundwater impacts have been caused by the Escambia Treating Company (ETC) site. This plume intrudes into the Agrico area to the south. Also south of the Agrico plume, Florida Department of Environmental Protection

(FDEP) is assessing a site referred to as Site 348. This site has reportedly contributed to groundwater impacts to the south of the Agrico plume. The Site 348 plume has the potential to intrude into the Agrico area, and Site 348 has similar COCs to those of Agrico. This site is being assessed for possible impacts to ECUA wells, including F& Scott Streets well, No. 9 well, and East Plant well. Groundwater from Site 348 moves easterly and may discharge into Bayou Texar, if not affected by pumping from F & Scott Streets Well. Additionally, other sources of groundwater impacts exist within and in the near proximity of the Agrico plume and include releases from petroleum and dry cleaning related sites as documented by FDEP.

4. The ECUA regularly samples and analyzes water being pumped from public supply wells. ECUA controls the pumpage from these wells. The cause of current impacts to ECUA wells, as noted above, is the subject of an ongoing assessment by FDEP. Pumping of both East Plant and well No.9 has been discontinued. The F& Scott Street well is still active and within a distance from Site 348 impacts that pumping influences could potentially draw the Site 348 plume toward this active well.

5. In 1997, the Northwest Florida Water Management District (NWFWMD) established 7-year and 20-year capture zones around each ECUA water supply well. These captures zones constitute the wellhead protection area for each well (Richards, Pratt, and Milla, December 1997, Wellhead Protection Area Delineation in Southern Escambia County, Florida; Water Resources Special Report 97-4, NWFWMD). The Agrico plume remains outside of the 20-year capture zone for all supply wells. Site 348 lies within the 20- year capture zone for inactive ECUA Well No. 9. And Site 348 lies in close proximity to the designated capture zone for active ECUA Well F & Scott.

6. The Designated Area has been established by the FDEP and regulated by Florida Administrative Code, Chapter 62-524, FDEP rules. New potable well permitting requirements must be met in order to install a new potable water well. This designated area is the same as the area defined in item number 1. At this time, the NWFWMD moratorium is a more stringent restriction than that related to the Chapter 62-524 designation.

The 2016 Annual Report is currently in preparation and will be distributed to you following approval by EPA. It is anticipated this will occur in the April/May 2017 timeframe.

Four Five-Year Reviews of the Agrico Site have been completed by EPA. Each Review has concluded that the remedy at the Agrico Site is functioning as intended by the Records of Decision for OU-1 and OU-2, and remains protective of human health and the environment.

Site information is available at the local EPA repository, the West Florida Regional Library. Information includes various project documents. Additionally, a site specific internet web site has been established at: http://agricopensacola.com. The web site contains general information and includes all Fact Sheets for the site as well as pertinent documents for the site.

Please respond in writing concerning any contemplated changes in existing or any proposed new regulatory requirements that may affect the existing institutional controls pertaining to the Agrico Site to Jeffry R. Wagner, AECOM, 1625 Summit Lake Drive, Suite 200, Tallahassee, Florida 32317, or send an e-mail to Jeffry.Wagner@aecom.com. Your assistance in this cooperative effort is greatly appreciated.

If you have any questions, please contact me at (850) 402-6409.

JRW/lc

From: Hagans, Alan
To: Wagner, Jeffry
Cc: Scott Miller
Subject: RE: Annual Inquiry Regarding Construction Activities Fairfield Dr SR727 at I-110
Date: Thursday, January 12, 2017 8:55:58 AM

Hey Jeff,

I reviewed the information in the work program on future projects along the corridor and do not see any projects that may have intrusive work in this area.

Thanks,

Alan Hagans
District Contamination Impacts Coordinator
Department Of Environmental Management (FDOT)
Ph: (850) 330-1511
alan.hagans@dot.state.fl.us

From: Wagner, Jeffry [mailto:jeffry.wagner@aecom.com]
Sent: Wednesday, January 11, 2017 1:34 PM
To: Hagans, Alan
Cc: Scott Miller
Subject: Annual Inquiry Regarding Construction Activities Fairfield Dr SR727 at I-110

Alan – attached is the annual letter of inquiry regarding road construction activities for Fairfield Dr from Palafox to the I-110 west ramp.

Jeff Wagner, PG
Vice President – Principal Hydrogeologist
Florida Environment BL Remediation Lead
Design & Consulting Services - Southeast-Florida Environment
D: 850.402.6409 | F: 850.402.6490 | C: 850-251-7208
jeffry.wagner@aecom.com

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1625 Summit Lake Drive
Suite 200
Tallahassee, FL 32317
www.aecom.com

850 574 3197 tel
850 402 6490 fax

January 11, 2017 **alan.hagans@dot.state.fl.us**

Mr. Alan Hagans
Florida Department of Transportation District 3
1074 Highway 90
Chipley, Florida 32428

Subject: **Annual Inquiry Regarding Construction Activities**
Fairfield Drive (SR 727) at I-110 (SR 8-A) Roadway ID 48004000
Mile Marker 9.009 at Palafox to Mile Marker 9.490 at I-110 West Ramp
Pensacola, Florida

Dear Mr. Hagans:

Per U.S. Environmental Protection Agency requirements set forth in the Agrico Chemical Site Operation and Maintenance Plans, this annual inquiry is submitted to determine if intrusive work into the subsurface soils in the above-referred location is planned by Florida Department of Transportation (FDOT) for the year 2017. Additionally, this inquiry seeks to determine if there are work activities included in FDOT's five-year plan that will involve intrusive work at Fairfield Drive from Palafox to the I-110 ramp.

If there is additional information that we or the U.S. Environmental Protection Agency (USEPA) should be aware of, please let me know.

Please respond in writing regarding receipt of this correspondence. If you have any questions concerning this request, please e-mail me at **jeffry.wagner@aecom.com.**

Sincerely,

Jeffry R. Wagner, P.G.
Principal Hydrogeologist

JRW:lc

cc: Scott Miller (USEPA)

Wagner, Jeffry

From: Miller, Scott <Miller.Scott@epa.gov>
Sent: Friday, May 29, 2015 6:56 AM
To: Wagner, Jeffry
Subject: RE: Agrico Pensacola -- Annual Sampling Plan

Good morning, Jeff,
EPA accepts this proposed change to the Annual Sampling Plan.

Thank you,
Scott Miller
Remedial Project Manager
Superfund Restoration & Sustainability Section
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-9120
fax: (404) 562-8896

From: Wagner, Jeffry [mailto:jeffry.wagner@aecom.com]
Sent: Wednesday, May 27, 2015 3:11 PM
To: Miller, Scott
Cc: Jean-Baptiste, Walsta (Walsta.JeanBaptiste@dep.state.fl.us); Vandell, Terry D (P66) (Terry.D.Vandell@p66.com); john.carey@williams.com
Subject: Agrico Pensacola -- Annual Sampling Plan

Scott --
On behalf of Phillips 66 and Williams, AECOM is requesting that the annual sampling plan for the Agrico Pensacola site be modified in accordance with the FDEP comments of March 10th (attached file).
The sampling will remain annually and the event will occur in November.
The analyte list will remain as reported in the 2014 Annual Report.
Groundwater monitoring wells and surface water monitoring locations will be reduced and only those specified in the FDEP March 10, 2015 memorandum will be sampled.

Please reply to this email regarding EPA's acceptance of these changes.
Thanks,
Jeff

Jeff Wagner, PG
Vice President – Senior Consulting Hydrogeologist
Site Environmental Department Leader
D: 850.402.6409 | F: 850.402.6490 | C: 850-251-7208
jeffry.wagner@aecom.com

AECOM
Design and Consulting Services Group
Environment

1625 Summit Lake Drive, Suite 200, Tallahassee, Florida 32317
www.aecom.com

From: Jean-Baptiste, Walsta [mailto:Walsta.JeanBaptiste@dep.state.fl.us]
Sent: Friday, March 13, 2015 3:58 PM
To: Scott Miller (Miller.Scott@epamail.epa.gov)
Cc: Wagner, Jeffry
Subject: 2014 Agrico Annual Report Review

Hi Scott,

The Department has completed a review of the 2014 Annual Report for the Agrico Site. It is attached.

Have a great weekend!

Walsta Jean-Baptiste
Waste Cleanup Program
2600 Blair Stone Road, MS 4520
Tallahassee, FL 32399-2400

Office Phone: 850-245-8973

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

MEMORANDUM

TO: Walsta Jean-Baptiste, Professional Geologist
Waste Site Cleanup Section, Waste Cleanup Program

THROUGH: Brian Dougherty, Administrator
Office of District & Business Support, DWM

3/10/2015
X
BJD
Signed by: Brian Dougherty

FROM: Zoe Kulakowski, Professional Geologist
Office of District & Business Support, DWM

3/10/2015
X ZPK
Signed by: kulakowski_z

SUBJECT: Agrico Chemical Superfund Site
118 East Fairfield Avenue, Pensacola, Escambia County
2014 Annual Report, dated February 3, 2015
WC-SF: 000000074

DATE: March 10, 2015

I have reviewed the referenced document prepared by AECOM through URS Corporation (received February 16, 2015) for the referenced site. This report contains a number of recommendations that I cannot concur with at this time due to the size of the plume and analyte concentrations.

(1) At a minimum, annual groundwater monitoring should continue for the following wells: ACB-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D for the existing set of parameters. This should include groundwater elevations.
(2) At a minimum, annual surface water monitoring should continue for the following locations: BT-02, BT-107, and BT-127 for fluoride. A map showing the location of the surface water stations relative to the plume should be included.
(3) The full plume network and surface water network should be sampled every five years to provide a snapshot of the plume status for the Five Year Review, with the next comprehensive event scheduled for November 2019.
(4) Trend Plots for each Contaminant of Concern should be updated for each sampling event for the wells sampled and should be provided for the 2014 data set.
(5) Other annual activities that should continue are the Agency Coordination Memo, the FDOT inquiry for intrusive activity, Advisory Notice to Water Well Contractors/irrigation system installers/pool contractors, and a check of Northwest Water Management District records for new wells within the Delineated Area.
(6) Site and cap integrity inspections should continue as approved in the 2009 O&M Plan.

If you have any questions, please contact me at (850) 245-8982.
/zpk

33.00

DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

THIS DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS ("Covenant") is made by CONOCO INC. ("CONOCO"), and shall take effect as of the date set forth below. The purpose of this Covenant is to restrict and prohibit all surface and subsurface uses of the property described herein, in perpetuity, except as specifically set forth herein.

RECITALS

WHEREAS, CONOCO is the owner of real property lying and being in Escambia County, Florida; and

WHEREAS, the intent of CONOCO is that this Covenant apply to and be binding on all property owned by CONOCO as of the date of this document and which lies in the area bounded by North Palafox Street, Brent Lane, North Davis Highway, and Fairfield Drive (the "Property"), as more particularly described on Composite Exhibit "A" consisting of 4 pages, attached and made a part hereof; and

WHEREAS, a RCRA cap is located on the Property containing pollutants in excess of certain standards allowed by federal and state law, as more particularly described in the Record of Decision, Agrico Chemical Superfund Site, September 28, 1992;
and

WHEREAS, the Record of Decision described above mandated that CONOCO perform remedial action and impose access and use restrictions on the Property; and

WHEREAS, CONOCO seeks by this Covenant to fully comply with the Record of Decision requirement to restrict access to and use of the Property;

NOW THEREFORE, in consideration of the acceptance by the United States Environmental Protection Agency of the remedial action conditions and limitations stated in the Record of Decision, and acknowledging that the same constituted good and valuable consideration, CONOCO does hereby impose on the Property, in perpetuity, the following reasonable and lawful access and use restrictions.

COVENANTS

1. Access to the Property is restricted (1) to those authorized CONOCO agents and governmental agents or their representatives and officials who must enter the Property to inspect, maintain, or repair fencing or other remedial action measures constructed pursuant to or to be maintained in connection with the Record of Decision, (2) to those persons entitled to exercise the personal servitude of passage

in accordance with and for the limited purposes stated in the Act of Servitude recorded in the Official Records of Escambia County at OR Book 3758, Page 0955, and (3) to those persons who must have access to the Property to service and maintain existing public utilities and electrical power lines.

2. The erection, construction, or placing of any road, parking lot, building, sign, billboard or other advertising, utilities (public or commercial), towers, antennas, or any other structure on or above the ground is prohibited, except (a) as such structures may be required for the purpose of maintaining the remedial measures as required by paragraph 1 herein, or (b) as Conoco, or its agents or assigns, may erect or construct on those portions of the Property on which is not located the RCRA cap and as will not interfere with the maintenance of the remedial measures.

3. Use of the Property for temporary or permanent storage of equipment, inventory, or materials is prohibited, except as the same may be necessary to maintain the remedial measures as required by paragraph 1 herein.

4. The dumping or placing of soil or other substance or material as landfill or the dumping or placing of trash, waste, or unsightly or offensive materials on the Property is prohibited.

5. The removal or harvesting for any commercial purpose of trees, shrubs, or other vegetation is prohibited.

6. The excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance on or under the Property is prohibited, except as may be necessary to maintain the remedial measures as required by paragraph 1 herein.

7. Any drilling, mining, or other removal of soil, water, minerals, gases, or other substances from the surface or subsurface of the Property is prohibited, except as required to comply with the Record of Decision.

8. Any other use of the Property contrary to the Record of Decision is prohibited even though not specifically enumerated herein.

9. The restrictions imposed herein are perpetual restrictions imposed by the lawful owner of the Property and will run with the land and be binding on all successor owners, lessees or other transferees of the Property, as well as all successors and assigns of CONOCO.

10. This Covenant may be enforced by CONOCO, any other Potentially Responsible Party with respect to the Property the United States Environmental Protection Agency or the Florida Department of Environmental Protection, or their successors and assigns.

11. Enforcement of this Covenant shall be by action against any person or persons violating or attempting to violate any provision herein, either in equity or in law.

12. Invalidation of any provision of this Covenant by judgment or court order shall in no way affect any other provision of this Covenant, which shall remain in full force and effect in perpetuity.

IN WITNESS WHEREOF, the Covenantor has executed this Declaration of Covenants, Conditions and Restrictions for the Property described herein, this 11th day of July, 1997.

Signed, sealed and delivered
in the presence of:

ANN LUNDSTROM

Name: Ann Lundstrom

DOROTHY AKERS

Name: Dorothy Akers

STATE OF TEXAS
COUNTY OF HARRIS

The foregoing instrument was acknowledged before me this 11th day of July, 1997, by Dennis R. Parker, as V.P. SHEA of CONOCO INC., a Delaware corporation, and who is personally known to me or who has produced U.S. Passport 135824098 as identification.

COVENANTOR:

CONOCO INC., a Delaware corporation

By: Dennis R. Parker (SEAL)
Dennis R. Parker
Its: Vice President, SHEA

Attest:
Assistant Secretary

CONOCO INC. CORPORATE SEAL 1920

Notary Public

Commission No.:
My Commission Expires: 9-20-97

MARGO WILLIAMS
Notary Public, State of Texas
My Commission Expires
09/20/97

This instrument prepared by:
Jesse W. Rigby, of
CLARK, PARTINGTON, HART, LARRY
BOND, STACKHOUSE & STONE
One Pensacola Plaza
125 W. Romana Street, Suite 800
Pensacola, Florida 32501

PARCEL 1:

Commence at the Northwest corner of Section 4, Township 2 South, Range 30 West, Escambia County, Florida; thence North 52°36'16" East along the South line of Section 5, Township 2 South, Range 30 West for a distance of 1194.20 feet to the Easterly R/W line of the Louisville and Nashville Railroad (100' R/W); thence North 24°26'14" West along said Easterly R/W line for a distance of 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for a distance of 76.08 feet; thence South 37°26'14" East along said R/W for a distance of 90.00 feet; thence North 57°38'32" East along said R/W for a distance of 451.36 feet; thence North 50°39'13" East along said R/W for a distance of 150.08 feet; thence North 37°26'14" West for a distance of 490.00 feet; thence North 52°33'46" East for a distance of 200.00 feet to a point which is the Point of Beginning. From said Point of Beginning, continue North 52°33'46" East for a distance of 200.00 feet; thence South 37°26'14" East for a distance of 400.00 feet to the R/W line of Fairfield Drive (SR #289-A); thence continue South 37°26'14" East along said R/W for a distance of 165.00 feet; thence South 82°26'14" East along said R/W for a distance of 35.36 feet; thence North 52°33'46" East along said R/W for a distance of 177.70 feet to the Westerly R/W line of Interstate Highway 110 (SR #8-A); thence North 16°26'14" West along said Westerly R/W line for a distance of 823.07 feet; thence South 52°39'08" West for a distance of 697.67 feet; thence South 37°26'14" East for a distance of 179.49 feet to the Point of Beginning, containing 7.0 acres, more or less, and lying and being in Section 5, Township 2 South, Range 30 West, Escambia County, Florida, and subject to a 100 foot wide Gulf Power Company Easement. [As recorded in OR Book 3767, Page 0377, Escambia County, Florida.]

PARCEL 2:

Commence at the Northwest corner of Section 4, Township 2 South, Range 30 West, Escambia County, Florida; thence North 52°36'16" East along the South line of Section 5, Township 2 South, Range 30 West for a distance of 1194.20 feet to the Easterly R/W line of the Louisville & Nashville Railroad (100' R/W); thence North 24°26'14" West along said Easterly R/W line for a distance of 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for a distance of 76.08 feet; thence South 37°26'14" East along said R/W for a distance of 90.00 feet; thence North 57°38'32" East along said R/W for a distance of 451.36 feet; thence North 50°39'13" East along said R/W for a distance of 150.08 feet; thence North 28°20'06" East along said R/W for a distance of 219.32 feet to the Point of Beginning; thence North 52°33'46" East along said R/W for a distance of 200,00 feet; thence North 37°26'14" West for a distance of 400.00 feet; thence South 52°33'46" West for a distance of 200.00 feet; thence South 37°26'14" East for a distance of 400.00 feet to the Point of Beginning, containing 1.84 acres more or less and all lying and being in Section 5, Township 2 South, Range 30 West, Escambia County, Florida. [As recorded in OR Book 3767, Page 0377, Escambia County, Florida.]

EXHIBIT "A"

PARCEL 3:

A tract being 1,6769 acres in Section 5, Township 2 South, Range 30 West, Escambia County, Florida, being more particularly described as:

Commence at the Northwest Corner of Section 4, Township 2 South, Range 30 West of said Escambia County, Florida; thence North 52°36'16" East along the South line of Section 5, Township 2 South, Range 30 West for 1194.20 feet to the Easterly R/W line of the CSX Railroad (100 foot R/W); thence North 24°26'14" West along said Easterly R/W line for 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for 25.64 feet; thence North 24°26'14" West for 370.51 feet; thence North 14°47'54" West for 199.93 feet; thence North 52°39'08" East for 970.81 feet; thence North 24°20'24" West for 175.71 feet; thence North 52°38'15" East for 257.88 feet to the Westerly R/W line of a Gulf Power Company Easement (100 feet R/W) as recorded in O.R. Book 298 at Page 512 of the public records of said county and the Point of Beginning; thence along said Westerly R/W line North 18°04'37" West 38.40 feet; thence departing said Westerly R/W line North 75°28'00" East for 93.40 feet; thence South 52°38'15" West for 98.77 feet to the Westerly R/W line of the aforesaid Gulf Power Easement and the Point of Beginning, AND

Commence at the Northwest Corner of Section 4, Township 2 South, Range 30 West of said Escambia County, Florida; thence North 52°36'16" East along the South line of Section 5, Township 2 South, Range 30 West for 1194.20 feet to the Easterly R/W line of the CSX Railroad (100 foot R/W); thence North 24°26'14" West along said Easterly R/W line for 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for 25.64 feet; thence North 24°26'14" West for 370.51 feet; thence North 14°47'54" West for 199.93 feet; thence North 52°39'08" East for 970.81 feet for the Point of Beginning; thence continue North 52°39'08" East for 416.63 feet to the Westerly R/W of Interstate I-110 (R/W varies); thence along said Westerly R/W North 16°22'22" West for 43.75 feet to the point of curvature of a curve concave to the Northeast having a radius of 2969.83 feet; thence along the arc of said curve through a central angle of 01°33'56" for an arc distance of 108.46 feet (Chord Bearing North 26°08'39" West, Chord Distance 108.46 feet); thence departing said Westerly R/W South 75°29'00" West for 62.02 feet; thence South 52°38'15" West for 356.65 feet; thence South 24°20'24" East for 175.71 feet to the Point of Beginning. [As recorded in OR Book 3758, Page 0952, Escambia County, Florida.]

PARCEL 4:

A portion of Section 5, Township 2 South, Range 30 West, Escambia County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 4, Township 2 South, Range 30 West of said Escambia County, Florida; thence North 52°36'16" East along the South line Section 5, Township 2 South, Range 30 West for 1194.20 feet to the Easterly R/W line of the CSX Railroad (100' R/W); thence North 24°26'14" West along said Easterly R/W for 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for 25.64 feet; thence North 24°26'14" West for 370.51 feet; thence North 14°47'54" West for 199.93 feet; thence North 52°39'08" East for 970.81 feet; thence North 24°20'24" West for 175.71 feet to the Point of Beginning; thence continue North 24°20'24" West for 140.43; thence North 75°28'00" East for 259.23 feet to the Westerly R/W line of a Gulf Power Company Easement (100' R/W) as recorded to O.R. Book 298 at page 512 of the Public Records of said county; thence along said Westerly R/W line South 18°04'37" East for 38.40 feet; thence departing said Westerly R/W line South 52°38'15" West for 257.88 feet to the Point of Beginning, containing 0.519 acres more or less.

PARCEL 5:

A portion of Section 5, Township 2 South, Range 30 West, Escambia County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 4, Township 2 South, Range 30 West of said Escambia County, Florida; thence North 52°36'16" East along the South line Section 5, Township 2 South, Range 30 West for 1194.20 feet to the Easterly R/W line of the CSX Railroad (100' R/W); thence North 24°26'14" West along said Easterly R/W line for 295.98 feet to the Northerly R/W line of Fairfield Drive (SR #289-A); thence North 52°33'46" East along said Northerly R/W for 25.64 feet; thence North 24°26'14" West for 370.51 feet; thence North 14°47'54" West for 199.93 feet; thence North 52°39'08" East for 118.25 feet for the Point of Beginning; thence continue North 52°39'08" East for 852.56 feet; thence North 24°20'24" West for 636.38 feet; thence South 65°39'36" West for 480.00 feet; thence South 24°20'24" East for 466.12 feet; thence South 52°38'43" West for 218.02 feet; thence South 2°28'32" West for 350.75 feet to the Point of Beginning; containing 9.1316 acres more or less.

Being more particularly shown on plat of survey dated March 19, 1995 prepared by Paul F. McCartney, Professional Land Surveyor Number 3140, Carlan Consulting Group, Inc., P.O. Box 2518, Pensacola, Florida 32513, incorporated herein by reference.

Being a portion of the property acquired by The Louisville and Nashville Railroad Company, a predecessor of Grantor, from Louis Boley, et ux, by deed dated November 17, 1896, recorded among the Public Land Records of Escambia County, Florida, in Book 17, Page 86.

On December 29, 1982 The Louisville and Nashville Railroad Company merged into Seaboard Coast Line Railroad Company, and the name of the surviving corporation changed to Seaboard System Railroad, Inc. On July 1, 1986, Seaboard System Railroad, Inc. changed its name to CSX Transportation, Inc.

PARCEL 6:

Commence at the Northwest corner of Section 4, Township 2 South, Range 30 West, Escambia County, Florida; thence North 52°36'16" East along the South line of Section 5, Township 2 South, Range 30 West, for a distance of 1194.20 feet to the easterly R/W line of the Louisville and Nashville Railroad (100' R/W); thence North 24°26'14" West along said easterly R/W line for a distance of 295.98 feet to the northerly R/W line of Fairfield Drive (SR #298-A); thence North 52°33'46" East along said northerly R/W for a distance of 25.64 feet to the Point of Beginning; then continue North 52°33'46" East along said R/W for a distance of 50.44 feet; thence South 37°26'14" East along said R/W for a distance of 90.00 feet; thence North 57°38'32 East along said R/W for a distance of 451.36 feet; thence North 50°39'13" East along said R/W for a distance of 150.08 feet; thence North 37°26'14" West for a distance of 490.00 feet; thence North 52°33'46" East for a distance of 200.00 feet; thence run North 37°26'14" West for a distance of 179.49 feet; thence South 52°39'08" West for a distance of 689.92 feet; thence South 14°47'54" East for a distance of 199.93 feet; thence South 24°26'14" East parallel to said Railroad R/W for a distance of 370.51 feet to the Point of Beginning. Containing 9.67 acres, more or less, and lying and being in Section 5, Township 3 South, Range 30 West, Escambia County, Florida.

RCD Aug 07, 1997 12:39 pm
Escambia County, Florida

Ernie Lee Magaha
Clerk of the Circuit Court
INSTRUMENT 97-407567

APPENDIX D

OU-1 Bi-Annual Inspection Report

Agrico Chemical Site
Pensacola, Florida

ROUTINE FACILITY INSPECTION CHECKLIST AGRICO CHEMICAL SITE, PENSACOLA FLORIDA	SATISFACTORY	UNSATISFACTORY	DATE CORRECTED	INITIALED	REMARKS
GENERAL FACILITY AREA					
Gates and Locks Secured	X				
Perimeter Fencing	X				
Signage	X				
Roadway Conditions	X				
COVER SYSTEM					
Surface Water Runoff Controlled	X				
No Ponding Water On Cover	X				
No Sideslope or Top Erosion or Gullying	X				
Topsoil and Vegetation Intact	X				
Settlement/Cracking Inspection	X				
SURFACE WATER COLLECTION SYSTEM					
No Obstructions of Culverts or Inlets	X				
Inlet Sediment Controls Intact	X				
No Erosion of Drainage Ditches or Berms	X				
Detention Ponds Draining Adequately	X				
Side Slope Erosion of Detention Ponds	X				
Leaks, Structural Damage to Inlets, Culverts, or Pipes	X				

INSPECTED BY:

NAME: Deborah Hilton

SIGNATURE: Deborah Hilton

DATE: 25 May 2016

OU-1 Bi-Annual Inspection Report

Agrico Chemical Site
Pensacola, Florida

ROUTINE FACILITY INSPECTION CHECKLIST AGRICO CHEMICAL SITE, PENSACOLA FLORIDA	SATISFACTORY	UNSATISFACTORY	DATE CORRECTED	INITIALED	REMARKS
GENERAL FACILITY AREA					
Gates and Locks Secured	X				
Perimeter Fencing	Y				
Signage	X				
Roadway Conditions	X				
COVER SYSTEM					
Surface Water Runoff Controlled	V				
No Ponding Water On Cover	X				
No Sideslope or Top Erosion or Gullying	X				
Topsoil and Vegetation Intact	X				
Settlement/Cracking Inspection	X				
SURFACE WATER COLLECTION SYSTEM					
No Obstructions of Culverts or Inlets	X				
Inlet Sediment Controls Intact	X				
No Erosion of Drainage Ditches or Berms	X				
Detention Ponds Draining Adequately	X				
Side Slope Erosion of Detention Ponds	X				
Leaks, Structural Damage to Inlets, Culverts, or Pipes	X				

INSPECTION PERIOD:

INSPECTED BY: DC Hilton

NAME: DC Hilton

SIGNATURE: DC Hilton

DATE: 11/08/16