Our Contribution to the Environment®

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May 18, 2018

Mr. Robert Marbury
Georgia Department of Natural Resources
Response and Remediation Program
2 Martin Luther King, Jr. Drive, S.E.
Suite 1054 East Tower
Atlanta, Georgia 30334-9000

Subject: **Eighth VIRP Semi-annual Progress Report**
Former McKenzie Tank Lines Site
HSI Site No. 10406
111 Grange Road, Port Wentworth, Georgia
Tax Parcels: 1-0729-01-007 and 1-0729-01-009

Dear Mr. Marbury:

On behalf of McKenzie Tank Lines, Inc. (MTL), Environmental International Corporation (EIC) is pleased to submit the attached Eighth VIRP Semi-annual Progress Report for the above referenced site.

Enclosed are the following:

1. One signed and sealed certification page for the report.
2. One bound paper copy of the report.
3. Two Compact Discs, each with the report in searchable PDF format.

If you have any questions regarding this submittal, please contact Mr. Thomas F. Panebianco of MTL at 1-800-828-6495 or me at the above location.

Sincerely,

ENVIRONMENTAL INTERNATIONAL CORPORATION

Raj Mahadevaiah, P.E., C.G.W.P.
President & CEO

Cc: Thomas F. Panebianco, McKenzie Tank Lines
Christopher Novack, Georgia Ports Authority

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GA

EIGHTH VIRP SEMI-ANNUAL PROGRESS REPORT

5/17/2018

Submitted to:

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
Georgia Department of Natural Resources
Response and Remediation Program
Suite 1054 East Tower
2 Martin Luther King Jr. Drive, S.E.
Atlanta, Georgia 30334

Prepared for:

MCKENZIE TANK LINES, INC.
1966 Commonwealth Lane
Tallahassee, FL 32304

Submitted with the consent of:

GEORGIA PORTS AUTHORITY
PO Box 2406
Savannah, Georgia 31402

Prepared by:

ENVIRONMENTAL INTERNATIONAL CORPORATION
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CERTIFICATION AND SUPPORTING DOCUMENTATIONS
Eighth VIRP Semi-annual Progress Report
Former McKenzie Tank Lines Site, Port Wentworth, Georgia
HSI Site No. 10406
May 18, 2018

"I certify under penalty of law that the accompanying report referenced above and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Investigation and Remediation Plan (VIRP) development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Basavaraj Mahadevaiah, GA PE No. 23198
Environmental International Corporation
770-772-7100, ext. 223

5/18/18
Date

Signature and Stamp

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SECTION

1

1.0 Introduction

On behalf of McKenzie Tank Lines, Inc. (MTL), Environmental International Corporation (EIC) is pleased to submit this "Eighth VIRP Semi-annual Progress Report" to Georgia Environmental Protection Division (EPD). This report chronicles project activities concerning the former MTL, Hazardous Site Inventory (HSI) site 10406, located at 111 Grange Road, Land Lot 30, Tax Parcel IDs 1-0729-01-007 and 1-0729-01-009, Port Wentworth, Georgia, (site). This report was prepared as specified in the January 29, 2014 "Voluntary Investigation and Remediation Plan (VIRP) Application" that was approved by the EPD on May 20, 2014 under the Voluntary Remediation Program (VRP) (EIC, 2014a).

1.1 Primary Objective

The primary objective of this report is to chronicle the tasks completed by MTL during the six-month time frame during the period of November 2017 through April 2018. This report documents the following tasks:

- Follow-up responses to the February 26, 2018 EPD Comment letter;
- The fifth semi-annual groundwater monitoring event;
- Hot spot removal, including the excavation of source material from AOC-3 and AOC-4.

A site map is included as Figure 1-1. The following sections describe the aforementioned tasks.

SECTION

2

2.0 Response to EPD Comment Letter

2.1 Responses to February 26, 2018 Comment Letter

The following is a response on behalf of MTL to EPD's review and list of comments letter, dated February 26, 2018 (EPD, 2018).

Comments and Responses

EPD Comment 1:

Groundwater sampling results from the Seventh VRP Progress Report indicate that groundwater north and east of MW-46S and MW-47D is not horizontally delineated. EPD understands that delineation wells north and east of MW-46S, MW-44D and MW-47D could not be installed due to flowing sand conditions complicating the well installation. Considering groundwater flows across the site to the southwest, EPD would not expect groundwater constituents to begin migrating upgradient beyond the eastern most wells. Please continue with the scheduled groundwater monitoring to observe whether constituents in wells MW-46s and MW-47D will attenuate to levels below delineation criteria.

Response to EPD Comment 1:

EPD's comment is noted. Accordingly, MTL will continue monitoring constituents of concern (COC) concentrations in these wells to determine if the concentrations are trending below the delineation criteria and report its findings.

EPD Comment 2:

Section 4.0 in the Seventh VRP Progress Report states that collecting additional delineation soil samples further west of AOC-6 would be impractical due to a near ground surface water table making soil sample collection above the saturated depth impossible. Further, Section 4.0 states that existing shallow monitoring wells west of AOC-6 adequately address the constituents in that area. EPD does not concur that constituents west of AOC-6 have been adequately addressed or delineated, and requests the following be completed:

a) *McKenzie should determine whether the saturated area west of AOC-6 meets the definition of a wetland according to the USACE and/or meets the criteria of an ecological habitat. In addition, McKenzie should collect additional saturated soil/sediment samples and shallow groundwater samples to characterize that area west of AOC-6 and compare the results against the appropriate screening criteria (e.g., USEPA's Ecological Screening Values, calculated groundwater risk reduction standards, etc.).*

b) *Elevated concentrations of site constituents in soil, sediment and groundwater in the vicinity of AOC-6 may introduce contaminants to the North-South Stormwater Ditch. Please implement the collection of surface water samples in the North-South Stormwater Ditch and East-West Stormwater Ditch that coincide with groundwater sampling events to determine the presence/absence of site constituents in surface water, and to determine whether contaminated surface water is leaving the site through storm water pipes along the western property boundary.*

Response to EPD Comment 2:

a) The area to the west of the North-South ditch in AOC-6 typically becomes flooded when rainwater gets impounded due to pipes clogged with debris or due to artificial dams built by beavers. Is therefore uncertain whether the subject area would be considered a true wetland. Referring to the historical plat map of Attachment 2-1, EIC also observed that this area was previously utilized for residential use – further supporting our uncertainty whether the subject area was historically under wetland conditions. Nevertheless, GPA has obtained a permit from the US Army Corps of Engineers to redevelop the wetland area. The redevelopment plans entail the rerouting of the stormwater ditch to the west of AOC-6 along the existing earthen berm and backfilling of the wetland area with up to 5 feet of backfill material to construct a paved surface for a container storage area. These actions will resolve the aforementioned flooding issues.

   Additionally, EIC has observed that the groundwater elevations in the subject area is currently at or just below the soil surface – causing the shallow subsurface to get saturated. Upon completion of the site redevelopment program, the groundwater will be located approximately 5 feet below grade. Considering that the groundwater is being monitored from samples collected from the wells in this area as part of the semi-annual monitoring program, the collection of additional saturated soil/sediment samples would not add value.

b) Upon completion of the site redevelopment activities, EIC can collect surface water samples both upgradient and downgradient of the AOC-6 area from the stormwater ditch after it is realigned as EIC understands it will be from GPA's redevelopment plans.

EPD Comment 3:

According to Table 3-2 in the Seventh VRP Progress Report, the most recent samples collected from wells G-22R, MW-57S, MW-58D and RW-8 had turbidity readings that exceed 10 NTU. In future monitoring events, please attempt to reduce turbidity readings to 10 NTU or less prior to sample collection. If turbidity cannot be reduced to 10 NTU or less, please re-develop the well, and document the well development procedure.

Additionally, according to the Sixth VRP Progress Report, monitoring wells RW-1 and RW-4 were not used for contouring due to the effects of excessive siltation. Please attempt to redevelop wells RW-1 and RW-4 to remove any particulate that has settled in the well column. If the wells continue to produce silt and are determined to be damaged, please discuss with EPD whether reinstallation of monitoring wells RW-1 and RW-4 is necessary.

Response to EPD Comment 3:

Referring to Table 3-2 of this report, please note that the sampling event in July 2017 was the first sampling event following the installation of wells G-22R, MW-57S, and MW-58D. During the first subsequent sampling event in October 2017, with the exception of well MW-57S with a turbidity of 14.5, the turbidity levels in each of these wells, and also well RW-8, had fallen to below 10 NTUs. During future sampling events, MTL will attempt to reduce turbidity levels in each well to below 10 NTUs by purging. If purging alone cannot reduce the NTU level below 10, MTL will attempt to reduce the turbidity below 10 NTUs in these wells by redeveloping these wells before purging and sampling these wells. MTL will also document the well development procedure at each well where this is necessary.

Similar to the conditions found in the former recovery wells (RW-2, RW-3, RW-5, RW-6, and RW-7) that were abandoned, EIC has observed large silt accumulations (which possibly indicated well screen damage) in RW-1 and RW-4. Consequently, EIC plans to abandon these two recovery wells. Considering that there are an adequate number of wells in the immediate vicinity of these recovery wells, EIC does not find value in replacing these two recovery wells.

EPD Comment 4:

The updated Site Conceptual Model in the Sixth VRP Progress Report states that arsenic in groundwater will be investigated to confirm previously reported arsenic concentrations in the vicinity of former monitoring well MW-13S. Please include in future progress reports the former location of well MW-13 on the Site Layout Map Figure 1-1 and plans to investigate the area for arsenic in groundwater.

Response to EPD Comment 4:

As required by EPD, EIC will illustrate the approximate location of MW-13S on Figure 1-1 in future Semi-annual reports. Please note that, as survey data is not available to accurately plot the location of this well, however this will be approximated based on site landmarks included in environmental reports from historical environmental consultants. Also, EIC is planning to collect a round of groundwater samples for arsenic analysis from existing wells in the area surrounding the former MW-13S.

EPD Comment 5:

EPD concurs with the decision to not replace the recently abandoned monitoring well MW-U2 as MW-32 is in close proximity to the former MW-U2 monitoring well location and will adequately monitor shallow groundwater conditions in that area.

Response to EPD Comment 5:

EPD's comment is noted.

EPD Comment 6:

Data from the Fifth, Sixth, and Seventh VRP monitoring reports indicate that wells MW-2D, MW-4S, MW-50S and RW-8 have had exceedances of 1,1-dichloroethene above the Type 1RRS delineation criteria of 7.0 µg/L. Please add 1,1-dichloroethene to the list of site constituents of concern and include groundwater monitoring results in the groundwater constituents of concern tables.

Response to EPD Comment 6:

Please note that the analytical results for 1,1-dichloroethene from all wells sampled have been added to the COC analytical results tables, Table 3-3 and Table 3-4 for all sampling events during the VIRP program. MTL will include the results for 1,1-dichloroethene in such tables as a monitored COC in future semi-annual reports.

SECTION

3

3.0 Groundwater Monitoring

EIC conducted the ninth groundwater monitoring event of the VIRP in October 2017. During this monitoring event, EIC gauged the groundwater levels at all wells of the monitoring well network onsite, collected groundwater samples from each of these wells for laboratory analysis of targeted COCs, and conducted other related tasks.

3.1 Groundwater Monitoring Objectives

The primary objectives of the groundwater monitoring program are to meet the following goals set forth in the VIRP:

- Establish a baseline for COC plume stability analysis,
- Track the natural attenuation of COCs by monitoring the groundwater concentrations of COCs and water quality parameters within the existing COC plumes,
- Determine if the prevailing groundwater COC concentrations are meeting or trending towards meeting the established RRS, and
- Determine if the horizontal and vertical extents of the COCs have been defined.

3.2 Groundwater Monitoring Field Program

During the October 2017 monitoring event, EIC conducted groundwater monitoring activities at a total of 44 wells onsite. As noted in the VIRP, wells with screened intervals that are less than 20 feet below ground surface (bgs) were historically defined as shallow wells and those with screened intervals reaching greater than 20 feet bgs were defined as deep wells, regardless of the screened interval length (EIC, 2014a). For consistency, EIC has maintained this definition with newly installed wells. Consequently, 19 of the 44 wells onsite are defined as shallow wells and the remaining 25 are defined as deep wells.

Four of the 25 deep wells are recovery wells (RW-1, RW-4, RW-8, and RW-9). Each of these recovery wells consists of a 4-inch internal diameter (ID) well casing/screen, with the exception of RW-4, which has a 6-inch ID well casing/screen. Of the remaining 21 deep monitoring wells, the IDs of the well casings/screens range in size from 3/4-inch to 2-inches.

3.2.1 Sampling Protocol

EIC conducted the groundwater sampling program in accordance with the current U.S. EPA Region 4 groundwater sampling procedure "Field Branches Quality System and Technical Procedures" (FBQSTP), per EPD regulations. Each monitoring well was gauged, purged, and sampled following the "low-flow" purge technique established in the standard operating procedure (SOP) SESDPROC-301-R3 under the FBQSTP (EPA, 2013).

3.2.2 Site Access

Prior to the field visit, EIC coordinated with GPA in gaining access to the Site to conduct groundwater monitoring and related tasks. All work at the Site was completed under the supervision of EIC.

3.2.3 Groundwater Gauging

Prior to sampling, EIC gauged each well using a decontaminated oil-water interface meter (or "probe") to determine the static depth to groundwater from the well top-of-casing (TOC). EIC utilized TOC elevations documented in recent well surveys to determine the current groundwater elevations. The gauging data for the October 2017 monitoring event is tabulated in Table 3-1.

3.2.4 Groundwater Sampling

Following the "low-flow" purge technique, noted in Section 3.2.1, EIC utilized a peristaltic pump with variable lengths of disposable 1/4-inch ID Teflon-lined tubing and a 6-inch segment of 3/16-inch ID silicon tubing at the pump head to purge each well until groundwater quality parameters reached stabilization prior to sampling. EIC determined the length of Teflon-tubing necessary to initially place the intake at the center of the wetted screened interval of each well by considering water levels gauged just prior to purging during this monitoring event and the available well construction data, as noted in EIC's well purging and sampling data field logs (Attachment 3-1). To determine the tubing length, EIC also considering that additional tubing may be needed should it become necessary to lower the tubing below the initial intake depth due to drawdown causing the water level to reach the initial tubing intake.

Groundwater stabilization parameters were monitored via direct pumping to a multi-parameter field water quality meter equipped with a flow-through cell. These parameters were recorded at approximately five-minute intervals on EIC field logs during the October 2017 monitoring event (Attachment 3-1). Additionally, purge volumes and depth-to-water (DTW) measurements were

recorded at the same five-minute intervals when possible. At each well, the pumping rate was decreased, and/or the tubing depth increased when drawdown lowered the water level to the tubing intake level, causing air to be pumped.

When purging 1-inch and 3/4-inch diameter wells with Teflon tubing (that has a 3/8-inch outer diameter (OD), the oil-water interface probe (that has a 5/8-inch OD) could not be simultaneously inserted into the well to gauge the depth to water due to space limitations. At these wells, gauging could only be performed just prior to inserting the tubing and immediately after the tubing was removed.

EIC collected all samples using the "soda straw method" specified in the SOP SESDPROC-301-R3 under the FBQSTP (EPA, 2013). Under this SOP, EIC considered that stabilization was reached when 3 consecutive groundwater quality parameter readings were within ± 0.1 standard units for pH and ± 5% for specific conductivity during purging. EIC made reasonable attempts at each well to reach 0.2 mg/L of dissolved oxygen (DO) and a turbidity reading at or below 10 Nephelometric Turbidity Units (NTUs) prior to sampling. Groundwater quality field parameters (Temperature, pH, oxygen reduction potential (ORP), conductivity, turbidity, and DO) after stabilization and prior to sample collection are summarized in Table 3-2.

3.2.5 Sample Custody and Laboratory Analysis

Immediately after each sample set was collected, the sample bottles were labeled, and the samples were stored with ice in double-sealed bags in laboratory-provided insulated containers ("coolers") provided by the contracted laboratory. EIC maintained the temperature of the samples in these containers with sufficient ice, kept completed chain-of-custody forms with all samples, and kept custody of the samples at all times until EIC relinquished the samples to the laboratory.

EIC delivered the samples to Analytical Environmental Services, Inc. in Atlanta, Georgia - a Georgia Department of Natural Resources (DNR) certified laboratory. The laboratory conducted analysis of volatile organic compounds according to EPA method 8260B. The laboratory report for the October 2017 monitoring event is included as Attachment 3-2. The analytical results of samples collected from both the shallow and deep wells are summarized in Tables 3-3 and 3-4, respectively, along with historical analytical results.

3.3 Quality Assurance and Quality Control

To prevent cross-contamination, new disposable Teflon-lined tubing was utilized to collect a groundwater sample at each well. EIC decontaminated its oil/water interface meter and any of its other reusable field equipment that came in contact with groundwater prior to use and between sample locations. EIC accomplished this by first washing this equipment with a pressurized phosphate-free detergent solution and then rinsing with pressurized de-ionized (DI) water. EIC also utilized brushes and/or wipes if necessary.

After each sample was collected, the water quality parameters instrument flow-through cell was opened and decontaminated with pressurized DI water. In the event of gross contamination, EIC

used detergent solution in addition to DI water in cleaning this instrument.

For sample quality assurance and quality control, EIC maintained a laboratory-provided trip blank set in each of the sample coolers. The laboratory analyzed each trip blank via EPA method 8260B as with the groundwater samples collected at the Site.

3.4 Data Evaluation

EIC conducted an evaluation of the data compiled and tabulated from field measurements and laboratory analyses. This evaluation enabled the depiction of the groundwater potentiometric surface, as well as the extents of the prevailing COC plumes at the time of the October 2017 monitoring event.

As established in the VIRP, EIC has continued to distinguish between unconfined shallow and apparently partially confined deep aquifers in illustrating groundwater potentiometric surfaces and COC plumes. The following subsections describe EIC's evaluation of the shallow and deep potentiometric surfaces and the four COC plumes monitored at the Site.

3.4.1 Groundwater Potentiometric Surfaces

3.4.1.1 Shallow Groundwater Potentiometric Surface

The October 2017 groundwater gauging event data is summarized in Table 3-1. In addition, all historical shallow groundwater gauging data collected at the site following the initiation of the VIRP program is summarized in Table 3-5. EIC compared the shallow well gauging data from the October 2017 monitoring event to each of the historical monitoring events.

Referring to Table 3-5, on average, the surface groundwater elevations at each utilized well across the site for the October 2017 event, which define the shallow groundwater potentiometric surface, were lower than those of the April 2017 gauging event and lower than the historical average observed since VIRP monitoring began in July 2014.

Utilizing the data presented in Table 3-1, EIC prepared a shallow groundwater potentiometric surface map, illustrated in Figure 3-1. Due to the historically anomalous groundwater elevation observed at well MW-2S, relative to the groundwater elevations at surrounding wells, the data from this well was not considered for potentiometric surface contouring. The anomaly observed at this well may have resulted from this well having a relatively shallow depth of completion (which is less than 10 feet bgs) relative to other shallow wells onsite and may represent perched groundwater conditions caused by confining and/or partially confining strata underlying this well.

EIC compared Figure 3-1 to previous shallow potentiometric surface maps included in all previous VIRP semi-annual progress reports (EIC 2014b, 2015a, 2015b, 2016a, 2016b, 2017a and 2017b). Based on the potentiometric surface during each of the eight gauging events under the VIRP, it is clearly evident that the groundwater generally flows from east-northeast to west-southwest across the site and the shallow unconfined potentiometric surface remains relatively

stable in elevation over time.

3.4.1.2 Deep Groundwater Potentiometric Surface

As with EIC's evaluation of the shallow wells at the site, EIC compared gauging data from the deep wells from the October 2017 monitoring events to those of the previous eight gauging events that are summarized in Table 3-6. Referring to Table 3-6, the average potentiometric surface elevations in deep wells in October 2017 were lower than those of the previous April 2017 monitoring event and lower than the historical average.

Utilizing the gauging data in Table 3-1, EIC prepared a deep groundwater potentiometric surface map, Figure 3-2. EIC then compared the potentiometric surface in Figure 3-2 to previous deep potentiometric surface maps included in all previous VIRP semi-annual progress reports. In comparing the potentiometric surface from the October 2017 event with those of previous eight groundwater monitoring events, it is apparent that groundwater generally flows from east-northeast to west-southwest across the site. Additionally, it is apparent that the deep potentiometric surface has remained relatively stable in elevation over time.

3.4.2 Horizontal Extent of COC Plumes

The COCs at the site established in the VIRP consist of the chlorinated volatile organics (CVOCs) tetrachloroethene or perchloroethene (PCE), trichloroethene (TCE), cis-1, 2 dichloroethene (DCE), and vinyl chloride (VC). Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared Figures 3-3 through 3-10, which illustrate the horizontal extent of the four COC constituent plumes within both the defined shallow and deep aquifer horizons. In addition, the figures illustrate the horizontal extent of the plumes with concentrations both above RRS and above delineation criteria. The following four subsections describe the concentrations of each of the four COCs and the extents of the plumes in both the shallow and deep aquifer horizons, respectively.

3.4.2.1 PCE Plume

Utilizing the analytical results of samples collected during the October 2017 monitoring event, that are summarized in Tables 3-3 and 3-4, EIC prepared PCE isoconcentration maps to illustrate the horizontal extent of the PCE plume. The following subsections describe the PCE concentrations in both the shallow and deep aquifer horizons.

Shallow PCE

Figure 3-3 illustrates the horizontal extent of the shallow PCE plume based on samples from shallow wells during the October 2017 monitoring event. Referring to Figure 3-3, the shallow plume is confirmed to be above delineation criterion at wells MW-31, MW-32, MW-40S, MW-50S and MW-57S. The shallow plume is also above RRS at MW-50S. PCE concentrations at all of the remaining monitoring wells were below the laboratory method detection limit (MDL) with the exception of MW-37S. PCE concentrations in MW-37S were detected below both the delineation

criterion and RRS. The November 2016 monitoring event is the first time - since the installation of MW-50S - that PCE concentrations at this well have been above RRS. During the April 2016 monitoring event, the PCE concentration observed at MW-50S was below MDL. EIC will continue to monitor the PCE concentration at MW-50S to determine if the respective concentrations persist above RRS.

Deep PCE

Figure 3-4 illustrates the horizontal extent of the deep PCE plume based on samples from deep wells during the October 2017 monitoring event. Referring to Figure 3-4, PCE concentrations at all wells sampled (apart from MW-14D and MW-47D) were below the laboratory MDL. PCE concentrations in MW-14D were detected below both the delineation criterion and RRS. PCE concentrations in MW-47D were detected above the delineation criterion, but below RRS. This represents an overall decrease in the concentrations and the extent of the plume, indicating that natural attenuation is progressively reducing the concentrations.

3.4.2.2 TCE Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared TCE isoconcentration maps to illustrate the horizontal extent of the TCE plume. The following subsections describe the TCE concentrations in both the shallow and deep aquifer horizons.

Shallow TCE

Figure 3-5 illustrates the horizontal extent of the shallow TCE plume based on samples from shallow wells during the October 2017 monitoring event. Shallow TCE concentrations in MW-37S were detected below both the delineation criterion and RRS. Concentrations that exceeded the RRS and the delineation criterion were detected at monitoring wells MW-31, MW-32, MW-40S and MW-50S. It is worth noting that the concentration observed at MW-50S (4,700 µg/L) and MW-40 (200 µg/L) have increased since the previous April 2017 monitoring event (MW-50S - 1,900 µg/L and MW-40S - <0.30 µg/L). The overall extent of the shallow TCE plume has remained relatively the same since April 2017.

Deep TCE

Figure 3-6 illustrates the horizontal extent of the deep TCE plume based on samples from deep wells during the October 2017 monitoring event. Deep TCE concentrations that exceeded the RRS and the delineation criterion were found at monitoring wells MW-14D, MW-44D and MW-47D. Concentrations at the remaining monitoring wells were below the MDL, indicating an overall decrease in concentrations from the April 2017 monitoring event.

Former recovery wells RW-1 and RW-4 were not considered for contouring due to the effects of excessive siltation (which EIC has determined exists in these wells), due to possibly corroded well screens, or due to possible other forms of screen interference.

3.4.2.3 cis-1, 2 DCE Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared DCE isoconcentration maps to illustrate the horizontal extent of the DCE plume. The following subsections describe the DCE concentrations in both the shallow and deep aquifer horizons.

Shallow DCE

Figure 3-7 illustrates the horizontal extent of the shallow DCE plume based on samples from shallow wells during the October 2017 monitoring event. Shallow DCE concentrations that exceeded the RRS occurred at monitoring wells MW-4S, MW-40S, and MW-50S. The overall extent of the shallow DCE plume during the October 2017 monitoring event was similar to that occurring during the April 2017 monitoring event. It should be noted, however, that the concentrations changed significantly within the plume, as compared with those of the April 2017 event, as follows: the concentration decreased by approximately 1,100 µg/L at MW-4S, increased by approximately one-quarter at MW-50S and increased by approximately 2-fold at MW-40S. Overall, the peak concentration shifted from the center of the plume to the leading edge of the plume.

Deep DCE

Figure 3-8 illustrates the horizontal extent of the deep DCE plume based on samples from deep wells during the October 2017 monitoring event. Deep DCE concentrations that exceeded the delineation criterion occurred at monitoring wells MW-2D, MW-49D, PAW-4, RW-8, and RW-9. The overall extent of the October 2017 deep DCE plume was similar to the DCE plume of the April 2017 monitoring event. Monitoring well MW-53D was not considered for contouring due to the close proximity to wells with concentrations above RRS, such as RW-8. Historically, groundwater concentrations in this area have been above RRS, but have decreased to below the delineation criterion at monitoring wells MW-2D, MW-49D, PAW-4, RW-8, and RW-9 since April 2017. Former recovery wells RW-1 and RW-4 were not considered for contouring due to the same reasons cited for the TCE plume.

3.4.2.4 VC Plume

Utilizing the analytical results summarized in Tables 3-3 and 3-4, EIC prepared VC isoconcentration maps to illustrate the horizontal extent of the VC plume. The following subsections describe the VC concentrations in both the shallow and deep aquifer horizons.

Shallow VC

Figure 3-9 illustrates the horizontal extent of the shallow VC plume based on samples from shallow wells during the October 2017 monitoring event. Shallow VC concentrations that exceeded the RRS occurred at monitoring wells MW-4S, MW-33, MW-40S, MW-45S, MW-46S and MW-50S. The overall extent of the shallow VC plume during the October 2017 monitoring event was similar to that occurring during the April 2017 monitoring event. It should be noted,

however, that a concentration exceeded the RRS at MW-45S, as compared with the April 2017 event. Concentrations increased slightly within the plume at wells MW-40S, MW-45S and MW-50S since April 2017. These increases may be due to the degradation of the parent COCs.

Deep VC

Figure 3-10 illustrates the horizontal extent of the deep VC plume based on samples from deep wells during the October 2017 monitoring event. Deep VC concentrations that exceeded the RRS occurred at monitoring wells MW-2D, MW-44D, MW-49D, MW-51D, MW-53D, MW-54D, MW-55D, PAW-4, RW-8, and RW-9. The overall extent of the deep VC plume was similar to the VC plume of the April 2017 monitoring event, with the exception of MW-44D which exceeded the RRS during the October 2017 monitoring event. In general, the plume concentrations slightly increased when compared to those of the April 2017 monitoring event. Former recovery wells RW-1 and RW-4 were not considered for contouring for the same reasons they were not considered for the TCE plume.

Monitoring well MW-36R and former recovery wells RW-9 and RW-8 were not considered for contouring due to anomalous concentrations not representative of the overall plume conditions.

3.4.3 Horizontal Delineation of COC Plumes

Based on results from the October 2017 monitoring event, it is apparent that the horizontal delineation of both the PCE and DCE plumes are complete. However, the horizontal delineation of the TCE and VC plumes are not complete. From Figure 3-6, the horizontal delineation of the deep TCE plume is not complete to the east (hydraulically up-gradient) of MW-47D. From Figure 3-9, horizontal delineation of the shallow VC is not complete to the east and north (hydraulically up-gradient) of MW-46S.

As discussed in Section 2.0, MTL will continue monitoring COC concentrations in monitoring wells MW-44D and MW-47D to determine if the concentrations are trending below the delineation criteria and report its findings.

3.4.4 Vertical Delineation of COC Plumes

Of the current monitoring well network, well MW-35 is the deepest known well within the footprint of the COC plumes. This well is also located near the downgradient extent or leading edge of the COC plumes. Based on gauging measurements that EIC has collected and historical well data provided by a previous consultant, the total depth of MW-35 is 38.02 feet bgs. MW-35 has a 10-foot screen interval at the well bottom. Under the VIRP, EIC has sampled this well since February 2014. The associated analytical data for samples collected from the well is tabulated in Table 3-4.

Referring to Table 3-4, the concentrations of all monitored COCs in groundwater samples collected from MW-35 have consistently been below MDLs during all monitoring events since

February 2014, with the exception of a concentration of 0.58 µg/L of DCE in April 2016 - which is well below the established RRS limit of 204 µg/L for DCE. EIC will continue to include well MW-35 in the monitoring program, but it appears that the vertical delineation of the plume has been completed.

3.4.5 Plume Attenuation and Stability

Based on the relatively high concentrations and horizontal extent of dissolved PCE degradation products observed at the site, it is clearly evident that natural attenuation of COCs is progressively attenuating the PCE. Also, an overall comparison of the COC plume concentrations indicates that the plumes are confined to a relatively small area within the site and continue to decrease in concentration. This finding substantiates plume stability. EIC will continue to evaluate this trend and evaluate the extent of natural attenuation while implementing plans for active remediation.

SECTION

4

4.0 Source (Hot Spot) Removal

4.1 Background

As stated in the VIRP (EIC, 2014a), the EPD required that MTL conduct confirmatory sampling for previous soil source removal excavations. In addition, the EPD required MTL to conduct exploratory soil sampling in other areas of concern (AOCs) at the site. To complete these objectives, EIC identified 10 AOCs in the VIRP for further soil/sediment sampling and delineation.

Following the VIRP submittal, EIC collected and analyzed soil samples in each of the 10 AOCs to delineate the extents of any constituents of concern (COCs) above the delineation criteria or Risk Reduction Standards (RRS). Based on the laboratory analytical results, EIC determined that COCs in soil samples from seven of the ten AOCs were below delineation criteria and the RRS established in the VIRP. COCs in a number of soil samples collected from the remaining three AOCs (AOC-3, AOC-4, and AOC-6) were detected above the RRS. Figure 4-1 is a site layout diagram that illustrates the location of each of the three AOCs. In addition, sediment samples collected in AOC-6 indicated levels of COCs above the RRS. Since the contaminated soils in these AOCs are potentially source material for continued leachate of COCs to groundwater, EIC recommended that the source material that exceeds RRS be removed from the AOCs.

As a remedial action, EIC began the removal of contaminated material from targeted source areas in the remaining AOCs. The following subsections outline EIC's progress to complete the removal of contaminated material from the remaining AOCs.

4.2 Areas Targeted for Source Removal

Referring to Figure 4-1, the areas targeted for source removal are identified as AOC-3, AOC-4 and AOC-6. Figures 4-2 through 4-4 identify the soil boring locations in each of these three AOCs that were used for laboratory analysis in delineating the extent of contamination in each AOC. Soil boring locations that indicated the presence of soil contamination above the RRS are illustrated in red and those that were below the RRS are illustrated in green. These boring locations were used in defining the extent of source removal planned at each of the three AOCs.

4.3 Site Clearance and Preparatory Activities

The following sections describe the site clearance and preparatory activities for source removal of contaminated source material in the targeted AOCs. Since each source area has unique surface characteristics, different excavation procedures were required for each location. The excavation procedures followed for the respective source areas are described in Section 4.4.

4.3.1 Site Clearing & Preparation

Each of the three source areas required different levels of effort to conduct site clearing and preparation prior to excavation. The following subsections describe site clearing and preparatory activities required prior to initiating excavation in each AOC.

4.3.1.1 AOC-3

Figure 4-1 includes a plan view of AOC-3 that illustrates the boundaries of the AOC and the extent of the area targeted for excavation of source materials. Referring to Figure 4-1, this area required no site clearing prior to excavation. Prior to initiating excavation activities, an EIC representative positioned stakes and surveyor flags to identify the horizontal limits of the excavation area.

4.3.1.2 AOC-4

Figure 4-1 includes a plan view of AOC-4 that illustrates the boundaries of the AOC and the extent of the area targeted for excavation of source materials. The abandoned Tire Shop building (as shown in Figure 1-1) and associated above grade building materials were removed from the site prior to MTL's initiation of excavation activities. Prior to initiating excavation activities, an EIC representative positioned stakes and surveyor flags to identify the horizontal limits of the area to be excavated. During the excavation of soils in AOC-4, subsurface concrete structures associated with the former Tire Shop building were evaluated. No staining, hydrocarbon odors or PID readings above background levels were found on the concrete structures.

4.3.1.3 AOC-6

Figure 4-1 includes a plan view of AOC-6 that illustrates the boundaries of the AOC and the extent of the area targeted for excavation of source materials. Clearing & preparation activities in AOC-6 are expected to begin in concurrence with GPA site redevelopment, currently scheduled to start in June/July of 2018. Explicit details of the clearing & preparation activities pertaining to AOC-6 will be included in the subsequent semi-annual report to be submitted to the EPD during the second half of 2018.

4.4 Excavations

All site excavation was performed within the areas targeted for source removal as discussed in Section 4.2. The actual depth of each excavation was defined by the groundwater conditions at

the time of excavation.

At each excavation, the soil was screened for evidence of COCs with a photoionization detector (PID) and logged. Suspected hazardous and non-hazardous soils were segregated and staged within each individual AOC during soil removal activities. All excavated material was placed on plastic sheeting with a thickness of adequate thickness and strength and covered with plastic sheeting at the end of each work day.

4.4.1 AOC-3

Referring to Figure 4-5, the excavation within AOC-3 resulted in removal of soil material from an area of approximately 147 square feet and to depth of approximately 6 feet below grade. Excavated soil was placed onto plastic sheeting and temporarily stockpiled within the southern perimeter of AOC-3, prior to characterization and disposal. The excavation resulted in the removal of approximately 24 cubic yards of soil from AOC-3.

On March 23, 2018, excavation confirmation soil sampling was performed to confirm the removal of contaminated soil containing CVOC concentrations above the RRS. Four samples were collected from approximately three feet below the top of each excavation sidewall (AOC-3 1, AOC-3 2, AOC-3 3 and AOC-3 4) and analyzed for volatile organic compounds (VOCs) using EPA Method 8260B. The approximate excavated area, analytical results and confirmation sampling locations are shown on Figure 4-5.

A total of four confirmation sample sets and one duplicate sample set collected from the sidewalls of the excavation were submitted for laboratory analysis. Gloves worn for sample handling were discarded between sample collections as investigation-derived waste (IDW). All soil samples were appropriately packaged, placed in ice-filled coolers and delivered to Analytical Environmental Services of Atlanta, Georgia, a GA Department of Natural Resources-certified laboratory, for analysis. Samples were preserved by maintaining a temperature of 4°C in the sample coolers. The laboratory analytical results are provided in Attachment 4-1.

Referring to Table 4-1, the results of the excavation confirmation sampling indicated that CVOCs did not exceed the RRS and as such, no additional excavation and confirmation sampling would be required.

4.4.2 AOC-4

Referring to Figure 4-6, the excavation within AOC-3 resulted in removal of soil material from an area of approximately 1,508 square feet and to depth of approximately 6 feet below grade. Excavated soil was placed on plastic sheeting and temporarily stockpiled within the southern perimeter of AOC-4, prior to characterization and disposal. The excavation resulted in the removal of approximately 264 cubic yards of soil from AOC-4.

On March 27, 2018, excavation confirmation soil sampling was performed to confirm the removal of contaminated soil containing CVOC concentrations above the RRS. Two samples were collected from approximately three feet below the top of the southern excavation sidewall (AOC-4 2 & AOC-4 3) and four samples were collected from approximately three feet below the top of each northern, eastern and western excavation sidewalls (AOC-4 1, AOC-4 4, AOC-4 5 and AOC-4 6). Soil samples collected from the AOC-4 excavation sidewalls were analyzed for VOCs using EPA Method 8260B. The approximate excavated area, analytical results and confirmation sampling locations are shown on Figure 4-6.

Referring to Table 4-2, the results of the excavation confirmation sampling indicated that CVOC concentrations for the sample collected from the north-west sidewall (AOC-4 5) exceeded the RRS and as such, additional excavation and confirmation sampling would be required in this portion of the excavation. Additional excavation will therefore be conducted in during the AOC-6 source removal activities.

A total of 6 confirmation sample sets and one duplicate sample set collected from the sidewalls were sent for laboratory analysis. Gloves worn for sample handling were discarded between sample collections as IDW. All soil samples were appropriately packaged, placed in ice-filled coolers and delivered to Analytical Environmental Services of Atlanta, Georgia, a GA Department of Natural Resources-certified laboratory, for analysis. Samples were preserved by maintaining a temperature of 4°C in the sample coolers. The laboratory analytical results are provided in Attachment 4-1.

4.4.3 AOC-6

Excavation in AOC-6 is expected to begin in concurrence with GPA site redevelopment, currently scheduled to start in June/July of 2018. Details concerning the excavation within AOC-6 are expected to be included in the subsequent semi-annual report submitted to the EPD during the second half of 2018.

4.5 Backfilling

After excavating the targeted source material from AOC-3 & AOC-4, each excavation was backfilled and compacted with clean material to grade.

SECTION

5

5.0 Disposal of Contaminated Material

As discussed in section 4.4, the excavations resulted in the generation of approximately 24 cubic yards of soil and approximately 264 cubic yards of soil from AOC-3 and AOC-4, respectively. These soils were sampled and disposed of in regulated facilities as discussed in the following subsections.

5.1 Stockpile Sampling

As discussed in Section 4, the soils excavated from AOC-3 and AOC-4 areas were stockpiled in staging areas adjacent to the respective AOCs. On March 23rd, 2018 MTL collected one sample set from each of the 10 stockpiles in the AOC-3 staging area. One five-point composite sample was collected from each of the following stockpiles: P3, NP2 & SP5 and one grab sample was collected from each of the remaining stockpiles: 2812, N25134, N26030, N48000, N48304, N48544 & P1. The grab and composite samples were analyzed for TCLP VOCs (8260B), TCLP SVOCs (8270D) and TCLP Metals (6010C/7470A).

On March 28th, 2018, MTL collected one sample set from each of the 3 stockpiles located in the AOC-4 staging area. Three grab samples were collected from each of the following stockpiles: P4, P5 & P6. The grab samples were analyzed for TCLP VOCs (8260B), TCLP SVOCs (8270D) and TCLP Metals (6010C/7470A).

All thirteen samples from the two AOCs were submitted for laboratory analysis. Gloves worn for sample handling were discarded between sample collections. All soil samples were appropriately packaged, placed in ice-filled coolers and delivered to ENCO Laboratories of Jacksonville, Florida, a FL State Department of Health-certified laboratory, for analysis. Samples were preserved to maintain a temperature of 4°C. The laboratory analytical results are provided in Attachment 5-1.

5.2 Transportation and Disposal

Based on the results of the laboratory analysis, the excavated soils staged in the AOC-3 and AOC-4 areas were classified as non-hazardous or hazardous soils as appropriate. The following subsections provide more insight into the analysis and the disposition of the excavated soils.

5.2.1 Non-hazardous Soil

Based on the stockpile sampling laboratory results, an estimated 276 cubic yards (cu yds) of soil were categorized as non-hazardous. This non-hazardous soil was loaded into 25-cu yd roll-offs using excavation equipment.

MTL retained Atlantic Waste Services, Inc. to transport the soil to Superior Landfill & Recycling Center in Savannah, Georgia. Copies of the executed waste manifests will be included in the subsequent semi-annual report due in the second half of 2018.

5.2.2 Hazardous Soil

Based on the stockpile sampling laboratory results, an estimated 12 cu yds of soil were categorized as hazardous. This hazardous soil material was loaded into a single 25-cu yd roll-off using excavation equipment.

MTL staged roll-off, containing the hazardous material, along the northern end of AOC-4. MTL is currently awaiting approval of the transfer and disposal of the hazardous material by an approved hazardous waste disposal contractor. Copies of the executed waste manifests will be included in the subsequent semi-annual report due in the second half of 2018.

SECTION

6

6.0 GPA Redevelopment

Per EIC's understanding from GPA, GPA's redevelopment project affecting the site, as discussed in Section 2 and Section 4.4.3, includes the construction a paved area for additional container storage and a new access road. The proposed construction will consist of erosion, and sedimentation control, the installation of stormwater drainage utilities and structures, asphalt pavement and base material, asphalt milling and overlay, concrete paving and curb, pavement striping and road signage, electrical and fiber-optics utilities installation.

GPA plans to provide protection of all on-site monitoring and recovery wells during construction activities that are proposed to take place as part of the redevelopment.

SECTION

7

7.0 Summary

After the submittal of the Seventh Semi-annual Progress Report in May 2017, EIC continued the implementation of various tasks outlined in the VIRP and as directed by the EPD. The following paragraphs summarize these activities.

In October 2017, EIC conducted the second semi-annual groundwater monitoring event of 2017. This event served as the sixth round of groundwater monitoring after the installation of 20 new monitoring wells in February 2015. The data from this event was used for comparative analysis of characteristics of the monitored COC plumes of this event with the characteristics of the plumes during previous monitoring events. Based on the relatively high levels of PCE degradation products observed at the site that occurred during the October 2017 event, it is evident that natural attenuation is progressing well at the site. In general, the COC plume is stable and confined to a relatively small area within the site and it continues to decrease in overall concentration.

As reported in the previous semi-annual reports, only 3 of the 10 areas of concern required excavation for removal of hot-spot soil material. In March 2018, MTL completed excavation of contaminated material from AOC-3 and AOC-4. After collecting confirmation samples from the sidewalls, MTL backfilled both excavations with clean material. The results of the confirmation sampling confirmed that all contaminated soils exceeding the RRS levels were successfully removed from the AOC-3 area. One sidewall sample from the AOC-4, however, indicated that additional excavation would be required to remove contaminated material north of the northeast portion of the excavated area within AOC-4. Additional excavation will be conducted in this area during a separate mobilization to be performed in the removal of hot-spot source material removal in the AOC-6 area.

In addition to the hot spot removal remediation tasks, EIC has initiated the process for implementing a groundwater recovery and treatment system for the enhanced attenuation of dissolved COCs.

SECTION

8

8.0 Monthly Summary of Hours

A monthly summary of hours invoiced for the aforementioned tasks during the period from November 2017 through April 2018 is summarized in Attachment 9-1.

SECTION

9

9.0 References

Environmental International Corporation (EIC), 2014a. *VIRP Application, Former McKenzie Tank Lines Site, Port Wentworth Georgia.* Alpharetta, Georgia. January 29, 2014.

EIC, 2014b. *First VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. November 11, 2014.

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EIC, 2015b. *Third VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. November 18, 2015.

EIC, 2016a. *Fourth VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. May 19, 2016.

EIC, 2016b. *Fifth VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. November 21, 2016.

EIC, 2017a. *Sixth VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. May 19, 2017.

EIC, 2017b. *Seventh VIRP Semi-annual Progress Report – HSI Site 10406, Former McKenzie Tank Lines Site.* Alpharetta, Georgia. November 20, 2017.

Georgia Environmental Protection Division (EPD), 2016. *Voluntary Remediation Program Progress Report McKenzie Tank Lines Site, HSI # 10406 Port Wentworth, Chatham County, Georgia Tax parcel ID #s 1-0729-01-007 & 1-0729-01-009.* Atlanta, Georgia. October 6, 2016.

United States Environmental Protection Agency (EPA), 2013. *Groundwater Sampling, Operating Procedure, Number SESDPROC-301-R3.* Region 4, U.S. Environmental Protection Agency, Science and Ecosystem Support Division, Athens, Georgia. March 6, 2013.

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GEORGIA

EIGHTH SEMI-ANNUAL PROGRESS REPORT

TABLES

Table 3-1: October 2017 Well Gauging Data

Well ID # (Dia., in.)	TOC Elevation (ft., NAVD88)	DTW BTOC (ft.)	Groundwater Surface Elevation (ft., NAVD88)	Notes
Shallow Wells*				
G-17 (1)	8.94	5.19	3.75	
G-19 (1)	9.85	6.19	3.66	
G-22R (2)	17.17	14.10	3.07	
MW-2S (2)	11.54	4.83	6.71	
MW-4S (2)	10.86	6.17	4.69	
MW-15S (1)	8.27	4.52	3.75	
MW-29 (1)	9.39	3.85	5.54	
MW-31 (1)	11.96	5.95	6.01	
MW-32 (1)	12.02	5.81	6.21	
MW-33 (1)	8.48	4.72	3.76	
MW-37S (2)	10.14	5.26	4.88	
MW-40S (2)	5.57	1.52	4.05	
MW-42S (2)	10.71	4.20	6.51	
MW-45S (2)	13.74	7.05	6.69	
MW-46S (2)	14.01	6.88	7.13	
MW-48S (2)	13.56	6.75	6.81	
MW-50S (2)	11.18	5.76	5.42	
MW-57S (2)	9.68	3.41	6.27	
PAW-3 (2)	11.83	5.78	6.05	
Deep Wells*				
MW-2D (2)	11.39	4.97	6.42	
MW-11D (2)	16.07	8.90	7.17	
MW-14D (2)	12.06	6.46	5.60	
MW-26 (1)	8.42	3.29	5.13	
MW-35 (0.75)	6.28	0.97	5.31	
MW-36R (2)	7.80	2.87	4.93	
MW-38D (2)	10.08	5.40	4.68	
MW-39D (2)	7.25	3.25	4.00	
MW-41D (2)	9.59	3.86	5.73	
MW-43D (2)	10.77	4.62	6.15	
MW-44D (2)	13.83	7.35	6.48	
MW-47D (2)	13.63	6.94	6.69	
MW-49D (2)	11.09	5.69	5.40	
MW-51D (2)	9.87	5.05	4.82	
MW-52D (2)	8.29	3.64	4.65	
MW-53D (2)	7.62	2.58	5.04	
MW-54D (2)	10.91	5.10	5.81	
MW-55D (2)	11.78	6.10	5.68	
MW-56D (2)	10.68	4.55	6.13	
MW-58D (2)	9.82	3.42	6.40	
PAW-4 (2)	11.99	5.86	6.13	
RW-1 (4)	11.69	5.25	6.44	
RW-4 (6)	13.25	6.85	6.40	
RW-8 (4)	7.43	2.65	4.78	
RW-9 (4)	11.79	5.59	6.20	

Notes:

ID = Identity
Dia. = Internal Diameter
In. = Inches
ft. = feet
BTOC = Below Top of Casing
DTW = Depth to Water
TOC = Top of Casing
NAVD88 = North American Vertical Datum of 1988

*Wells with screen intervals reaching depths greater than 20 feet below ground surface are considered deep wells, otherwise they are considered shallow wells. Note that, well G-22R is considered a shallow well, despite its total depth greater than 20 feet bgs due to its location on an earthen berm with a height of approximately 12 feet above the native ground surface.

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
G-17	8/13/2013	24.44	6.04	33	0.972	2.50	3.57
	7/16/2014	23.67	5.63	-16	0.265	112	0.49
	10/13/2015	25.89	5.65	-31	1.34	0.60	0.33
	4/19/2016	23.73	6.41	92	1.38	0.00	0.72
	11/2/2016	30.96	6.47	23	1.24	8.60	0.00
	4/26/2017	24.88	5.93	125	1.47	0.00	1.20
	10/2/2017	26.99	6.77	42	0.791	9.20	1.03
G-19	8/15/2013	21.92	3.81	230	0.095	34.6	1.34
	2/21/2014	17.69	4.39	41	0.296	14.0	0.71
	7/17/2014	22.39	4.17	86	0.419	0.00	0.69
	10/7/2014	23.45	4.45	-43	0.233	11.9	0.76
	4/28/2015	18.01	4.52	83	0.091	0.00	6.30
	10/14/2015	23.36	3.93	40	0.089	18.3	0.00
	4/20/2016	19.13	4.33	52	0.092	0.00	1.21
	11/3/2016	26.84	4.82	103	0.093	4.80	0.00
	4/27/2017	24.78	4.45	153	0.071	9.20	1.88
	10/4/2017	26.70	4.94	141	0.059	9.90	0.78
G-22 (ABD)	8/15/2013	22.29	5.72	118	0.357	0.00	1.76
	2/23/2014	16.80	5.87	25	0.722	50.1	1.12
	7/17/2014	25.75	5.77	-27	1.170	796	3.88
	10/7/2014	25.60	5.95	-129	1.670	200	3.12
	4/28/2015	17.24	5.24	56	0.881	0.00	1.67
	10/14/2015	22.70	5.36	-32	1.090	105	0.17
	4/20/2016	19.04	5.67	111	1.37	6.70	3.00
G-22R	7/12/2017	25.94	7.47	-31	0.288	47.30	0.60
	10/4/2017	23.51	7.85	46	0.247	9.20	1.08
MW-2D	8/12/2013	22.47	6.30	-64	0.759	27.0	0.41
	2/21/2014	18.67	6.07	-91	0.555	0.00	0.48
	7/19/2014	19.97	6.13	-50	0.486	0.00	0.40
	10/9/2014	20.58	6.61	-217	0.589	0.00	0.48
	4/27/2015	18.67	6.21	-54	0.513	9.40	0.00
	10/12/2015	21.21	5.87	46	0.484	0.00	0.42
	4/18/2016	23.67	5.95	111	0.407	4.50	0.49
	11/1/2016	22.69	5.17	117	0.407	1.90	0.52
	4/25/2017	21.32	5.68	113	0.220	0.00	1.90
	10/2/2017	24.97	6.67	34	0.360	0.60	0.82
MW-2S	8/13/2013	26.37	6.58	-35	1.160	0.00	0.58
	2/21/2014	15.59	6.74	-33	0.999	0.00	1.43
	7/18/2014	23.45	6.54	-62	0.895	4.50	2.78
	10/8/2014	20.82	6.65	-164	0.772	0.00	1.27
	4/27/2015	18.80	6.87	64	0.330	12.5	1.00
	10/12/2015	22.30	6.18	38	0.810	0.00	0.72
	4/18/2016	22.47	6.45	103	0.984	8.10	0.64
	10/31/2016	24.18	5.71	139	1.680	0.00	0.45
	4/25/2017	24.03	6.23	80	1.220	0.00	2.80
	10/2/2017	25.95	7.03	43	0.760	0.70	1.28

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-4S	8/14/2013	22.63	5.92	-45	1.870	360	0.48
	2/19/2014	18.69	6.13	-50	1.330	254	0.76
	7/18/2014	21.55	6.08	-51	1.660	0.00	0.53
	10/9/2014	22.83	6.00	0.89	1.970	0.00	0.43
	4/27/2015	18.80	6.06	-50	1.850	3.10	0.00
	10/13/2015	22.88	5.25	-61	1.640	0.50	0.00
	4/20/2016	21.49	5.49	93	1.740	0.00	0.83
	11/3/2016	36.30	6.13	-50	1.220	18.6	0.00
	4/26/2017	29.18	6.60	-55	1.200	9.9	0.57
	10/3/2017	26.17	5.51	3	1.540	16.5	0.70
MW-11D	8/13/2013	24.07	6.73	-22	0.498	0.00	0.62
	2/20/2014	15.95	6.40	45	0.210	100	2.45
	7/16/2014	22.29	6.35	-85	0.332	22.1	0.53
	10/7/2014	22.13	6.18	-153	0.417	0.00	0.77
	4/27/2015	17.30	6.40	-35	0.290	6.80	0.12
	10/12/2015	22.10	6.17	81	0.342	5.60	0.62
	4/18/2016	20.51	6.15	174	0.252	7.60	0.77
	10/31/2016	24.76	4.74	163	0.329	0.00	0.77
	4/24/2017	20.24	5.31	84	0.316	0.00	1.72
	10/2/2017	24.97	6.62	40	0.239	7.00	1.37
MW-14D	8/14/2013	21.19	6.81	-82	0.210	0.00	0.95
	2/21/2014	18.27	6.82	-55	0.235	2.00	0.61
	7/17/2014	24.96	6.32	-66	0.237	73.5	0.41
	10/7/2014	21.45	6.83	-135	0.261	146	0.70
	4/28/2015	20.49	6.74	-81	0.189	53.3	0.00
	10/14/2015	24.48	6.05	-94	0.210	0.00	0.18
	4/20/2016	21.00	6.36	61	0.235	4.40	1.07
	11/3/2016	23.33	6.21	19	0.245	2.90	0.64
	4/27/2017	29.52	6.20	33	0.215	9.50	1.12
	10/4/2017	27.08	7.22	22	0.135	0.00	1.68
MW-15S	8/13/2013	22.67	6.60	-58	0.460	0.00	0.58
	2/19/2014	18.39	6.83	-87	0.355	22.5	0.69
	7/16/2014	21.63	6.64	-65	0.396	14.8	0.65
	10/7/2014	19.85	6.97	-116	0.473	4.90	1.27
	4/28/2015	17.62	5.98	-34	0.377	0.00	1.20
	10/13/2015	22.87	7.07	10	0.395	0.00	0.82
	4/19/2016	23.40	7.06	73	0.404	0.00	0.74
	11/2/2016	28.95	7.07	-99	0.381	0.70	0.00
	4/26/2017	22.40	6.56	92	0.413	8.10	1.16
	10/3/2017	24.29	7.59	-12	0.256	13.80	1.75
MW-26	8/13/2013	21.22	7.82	-67	0.510	55.2	0.61
	2/19/2014	18.33	8.04	-157	0.407	24.7	0.69
	7/16/2014	21.75	7.87	-103	0.446	34.0	0.86
	10/7/2014	21.82	7.89	-126	0.490	9.00	1.00
	4/27/2015	18.82	8.14	-88	0.387	0.40	0.00
	10/15/2015	23.71	7.21	-78	0.387	4.90	0.00
	4/19/2016	21.82	7.61	16	0.418	0.00	0.86
	11/2/2016	30.28	7.85	2	0.377	1.70	0.77
	4/26/2017	24.79	9.06	-62	0.354	0.90	2.82
	10/3/2017	24.57	6.94	24	0.433	3.70	1.91

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-29	8/14/2013	28.30	5.94	4	0.422	50.3	0.54
	2/19/2014	17.75	5.82	27	0.319	9.90	1.53
	7/16/2014	22.03	6.30	-98	0.425	46.9	0.69
	10/6/2014	21.48	6.18	-168	0.785	23.2	0.42
	4/27/2015	25.07	5.78	-11	0.288	47.7	5.89
	10/12/2015	28.19	5.91	25	0.374	0.00	0.44
	4/19/2016	21.88	5.80	130	0.649	0.00	0.73
	11/2/2016	31.82	6.17	-5	0.950	4.00	0.00
	4/25/2017	23.22	6.16	50	0.571	0.70	0.42
	10/2/2017	26.52	5.25	98	0.427	0.40	0.87
MW-31	8/15/2013	21.00	5.62	50	0.779	0.00	1.22
	2/20/2014	18.38	5.15	147	1.060	46.2	0.79
	7/17/2014	20.58	4.86	159	1.880	21.5	0.64
	10/8/2014	25.81	5.09	157	1.070	76.7	1.14
	4/28/2015	17.46	5.07	71	1.020	0.00	0.66
	10/14/2015	21.20	5.58	89	0.970	24.4	0.77
	4/20/2016	22.80	5.36	96	0.746	4.00	0.00
	11/1/2016	28.33	6.27	-26	0.354	1.80	0.00
	4/27/2017	28.04	6.14	112	0.570	4.10	0.76
	10/4/2017	26.17	5.56	48	0.447	15.40	0.77
MW-32	8/15/2013	20.53	4.70	217	0.427	0.00	0.91
	2/20/2014	17.41	4.56	245	0.441	0.00	1.00
	7/16/2014	20.24	4.70	228	0.420	0.00	0.55
	10/8/2014	25.09	4.79	281	0.403	16.4	0.75
	4/28/2015	17.67	4.28	121	0.553	0.00	0.68
	10/14/2015	20.76	4.58	230	0.395	9.50	0.70
	4/20/2016	23.36	4.57	248	0.378	1.80	0.46
	11/1/2016	28.15	4.65	217	0.389	0.30	0.00
	4/27/2017	25.95	5.18	275	0.374	0.80	0.83
	10/4/2017	22.74	4.44	266	0.389	0.10	2.78
MW-33	8/13/2013	23.96	6.60	-46	1.410	4.00	3.73
	2/19/2014	17.87	6.73	-82	1.070	21.7	0.73
	7/16/2014	21.14	6.83	-70	0.937	54.5	0.41
	10/9/2014	23.49	7.02	-101	0.612	16.8	1.21
	4/28/2015	17.58	6.87	-66	0.664	31.9	0.00
	10/13/2015	23.32	7.03	-44	0.535	0.00	0.52
	4/18/2016	22.25	7.04	46	0.560	0.00	0.64
	11/2/2016	30.40	7.19	-80	0.483	2.00	0.00
	4/26/2017	24.65	6.43	84	0.613	1.70	1.55
	10/2/2017	25.85	7.60	-4	0.314	0.00	1.75
MW-35	7/18/2014	20.94	7.72	-83	0.425	80.9	0.51
	10/7/2014	21.03	7.94	-143	0.474	8.40	1.26
	4/28/2015	18.05	8.14	-102	0.377	14.7	0.00
	10/13/2015	20.93	8.07	-87	0.400	23.3	0.76
	4/19/2016	23.23	8.72	-135	0.319	3.80	4.25
	11/2/2016	24.05	7.28	-2	0.386	0.00	0.72
	4/26/2017	27.24	7.32	17	0.398	0.00	1.46
	10/3/2017	25.02	6.66	2	0.408	1.20	1.13

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-36 (ABD)	8/14/2013	24.05	7.55	-98	0.415	233	1.78
	2/19/2014	20.14	7.45	-88	0.406	14.7	1.93
	7/18/2014	24.13	7.50	-140	0.453	8.10	0.54
	10/8/2014	26.11	7.55	-180	0.475	0.00	3.07
	4/27/2015	21.36	7.09	-44	0.400	0.00	1.54
	10/13/2015	21.98	6.59	-90	0.396	11.2	0.47
	4/19/2016	21.71	7.80	-101	0.346	6.10	0.39
MW-36R	10/4/2017	25.95	7.10	-66	3.670	1.30	0.88
MW-37S	4/28/2015	20.59	6.04	-38	0.240	0.00	0.63
	10/13/2015	26.69	5.81	-65	0.239	0.00	0.00
	4/20/2016	21.79	6.43	-86	0.241	8.70	0.00
	11/3/2016	29.35	6.47	-64	0.262	1.00	0.00
	4/27/2017	26.13	7.56	-97	0.264	6.50	0.48
	10/4/2017	26.78	6.88	26	0.188	1.00	0.74
MW-38D	4/28/2015	21.50	6.71	-62	0.853	0.00	0.87
	10/13/2015	26.13	6.53	-129	0.581	2.10	0.00
	4/20/2016	22.45	7.30	-91	0.443	3.10	0.00
	11/3/2016	32.22	7.31	-120	0.443	1.40	0.00
	4/27/2017	27.82	8.43	-3	0.374	0.10	0.53
	10/4/2017	27.51	7.76	-29	0.258	4.10	0.78
MW-39D	4/28/2015	18.40	7.06	-62	0.372	0.00	0.53
	10/13/2015	22.91	6.86	-81	0.356	0.00	0.00
	4/19/2016	21.56	8.19	-56	0.311	0.00	0.00
	11/2/2016	24.11	7.21	127	0.363	0.00	0.00
	4/27/2017	23.42	9.21	12	0.330	0.10	0.67
	10/3/2017	22.40	6.90	-8	0.398	0.30	1.59
MW-40S	4/27/2015	19.51	6.86	-76	0.274	8.40	0.00
	10/13/2015	22.77	6.05	-88	0.272	0.00	0.00
	4/19/2016	23.10	7.34	-122	0.330	0.00	1.78
	11/2/2016	24.34	6.39	37	0.285	0.00	0.49
	4/27/2017	24.68	7.86	-107	0.262	0.00	0.75
	10/3/2017	23.06	6.03	-39	0.330	4.20	1.00
MW-41D	4/27/2015	20.95	7.80	-93	0.335	47.1	0.00
	10/12/2015	25.31	7.51	-93	0.306	0.00	0.53
	4/19/2016	22.71	7.62	-4	0.325	0.00	0.79
	11/2/2016	29.03	7.87	-91	0.306	1.30	0.00
	4/25/2017	23.98	8.26	91	0.283	0.00	0.65
	10/3/2017	29.36	6.93	-61	0.330	0.00	0.80
MW-42S	4/27/2015	25.77	11.24	-245	2.320	20.4	0.68
	10/12/2015	26.68	10.44	-237	0.711	11.3	0.46
	4/19/2016	26.28	9.07	-282	0.731	0.00	0.00
	11/1/2016	30.58	7.21	-97	1.140	1.40	0.00
	4/28/2017	25.43	7.60	-41	1.150	0.40	0.57
	10/2/2017	30.60	5.96	-30	1.640	2.00	0.89
MW43D	4/27/2015	23.41	8.16	-81	0.317	70.2	0.67
	10/12/2015	26.27	7.23	3	0.435	9.60	0.00
	4/19/2016	28.30	8.08	40	0.329	4.00	0.00
	11/1/2016	30.15	7.22	78	0.479	4.00	0.00
	4/25/2017	23.65	8.19	-55	0.393	8.00	0.70
	10/2/2017	29.80	6.47	118	0.473	4.40	0.86

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-44D	4/27/2015	24.80	5.16	58	0.662	5.30	0.86
	10/13/2015	26.06	5.56	-78	0.506	0.30	0.13
	4/18/2016	27.89	5.79	-15	0.610	7.20	0.00
	10/31/2016	34.49	5.51	20	0.508	0.00	0.00
	4/25/2017	22.65	5.82	-47	0.702	0.30	0.67
	10/3/2017	30.74	4.91	83	0.595	0.50	1.19
MW-45S	4/27/2015	25.37	4.78	69	0.621	3.40	0.86
	10/12/2015	28.14	5.23	-71	0.481	0.20	0.14
	4/18/2016	27.89	5.09	-43	0.669	5.70	0.20
	10/31/2016	34.56	5.16	22	0.575	0.30	0.00
	4/25/2017	22.46	5.47	24	0.795	0.00	1.38
	10/3/2017	31.55	4.66	96	0.630	0.00	0.84
MW-46S	4/27/2015	20.68	6.07	84	0.887	22.9	0.00
	10/12/2015	25.13	5.88	87	0.722	0.00	0.57
	4/18/2016	24.12	5.04	161	0.680	0.00	0.69
	4/24/2017	24.23	5.60	135	0.699	7.30	1.35
	10/2/2017	27.30	6.46	87	0.444	5.20	0.86
MW-47D	4/27/2015	19.62	6.42	96	0.462	159	0.84
	10/12/2015	22.09	6.29	-14	0.339	4.40	0.00
	4/18/2016	20.93	5.26	21	0.283	156	0.00
	10/31/2016	27.99	6.75	-84	0.409	2.90	0.00
	4/24/2017	19.58	6.69	13.3	0.330	6.60	0.66
	10/2/2017	25.33	5.37	89	0.324	0.40	1.78
MW-48S	4/27/2015	18.12	4.09	277	0.163	21.7	5.89
	10/12/2015	22.81	4.29	348	0.135	0.00	2.11
	4/18/2016	21.64	4.03	416	0.140	6.60	2.25
	10/31/2016	29.32	4.19	391	0.151	0.00	0.29
	4/27/2017	19.30	4.55	434	0.142	0.00	1.75
	10/2/2017	26.03	3.82	329	0.150	0.00	2.24
MW-49D	4/29/2015	18.92	6.86	-78	0.574	17.5	0.00
	10/14/2015	25.49	7.12	-6	0.652	0.00	1.11
	4/21/2016	22.25	4.60	213	0.873	8.50	0.89
	11/3/2016	28.66	6.82	32	0.488	1.60	0.54
	4/27/2017	24.15	4.65	174	0.799	9.90	1.57
	10/4/2017	27.10	7.59	-27	0.339	2.80	1.02
MW-50S	4/29/2015	18.98	5.01	87	0.763	22.4	0.00
	10/14/2015	27.37	4.41	63	0.763	0.00	5.51
	4/21/2016	23.58	6.41	73	0.676	0.00	1.51
	11/3/2016	30.90	4.83	125	0.762	0.00	0.41
	4/27/2017	24.15	4.65	174	0.799	9.90	1.13
	10/4/2017	28.96	5.40	103	0.455	1.10	0.72
MW-51D	4/29/2015	18.49	6.89	-59	0.450	0.00	1.01
	10/14/2015	21.29	7.69	-41	0.371	17.4	0.72
	4/20/2016	23.94	7.54	-5	0.326	2.90	0.00
	11/3/2016	32.86	7.57	-76	0.320	5.40	0.00
	4/27/2017	23.14	8.40	-81	0.440	0.70	0.92
	10/4/2017	26.15	6.88	-61	0.355	1.90	0.93

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
MW-52D	4/28/2015	19.01	7.49	-103	0.349	10.4	0.00
	10/13/2015	21.59	7.09	-25	0.359	9.00	0.68
	4/20/2016	24.15	7.21	-82	0.284	82.0	0.05
	11/2/2016	23.84	6.77	23	0.302	9.20	0.10
	4/25/2012	23.55	6.38	95	0.230	4.60	1.81
	70/4/2017	25.76	6.74	-43	0.660	5.30	0.66
MW-53D	4/29/2015	18.57	7.62	-114	0.326	1.50	0.00
	10/14/2015	23.94	7.59	-36	0.330	0.00	0.55
	4/20/2016	23.47	7.89	-76	0.286	0.40	0.00
	11/3/2016	33.09	7.79	-38	0.333	0.30	0.00
	4/26/2017	21.90	6.35	75	0.321	0.00	1.30
	10/4/2017	28.18	6.62	-12	0.560	0.20	1.11
MW-54D	4/29/2015	18.20	7.55	-35	0.296	35.3	0.00
	10/14/2015	25.34	6.82	-100	0.308	0.10	0.00
	4/20/2016	22.57	6.84	13	0.336	0.00	0.66
	11/1/2016	29.96	7.73	-86	0.303	0.10	0.00
	4/25/2017	23.09	7.02	-1	0.318	0.00	1.49
	10/4/2017	26.16	6.95	-24	0.302	0.40	0.89
MW-55D	4/29/2015	18.63	6.42	-49	0.589	0.00	0.92
	10/14/2015	26.31	6.86	-102	0.338	0.00	0.08
	4/21/2016	22.36	7.77	-121	0.308	1.40	0.39
	11/3/2016	28.46	7.86	-19	0.350	0.00	0.41
	4/27/2017	22.00	6.90	149	0.348	0.00	1.95
	10/4/2017	27.38	8.04	-48	0.216	0.00	1.09
MW-56D	4/29/2015	18.34	7.42	81	0.396	17.5	1.34
	10/14/2015	22.76	7.45	-28	0.319	0.00	0.67
	4/20/2016	21.91	6.56	23	0.350	0.00	0.82
	11/3/2016	26.71	6.91	-3	0.301	0.00	0.37
	4/25/2017	24.29	6.62	19	0.320	0.00	1.41
	10/4/2017	27.70	7.93	-35	0.179	3.40	0.66
MW-57S	7/12/2017	26.78	5.51	97	0.592	69.60	0.53
	10/4/2017	25.10	5.18	108	0.856	14.50	1.00
MW-58D	7/12/2017	24.39	7.58	-14	0.261	257.00	0.86
	10/4/2017	24.03	6.99	-69	0.293	5	1.45
MW-U2 (ABD)	4/28/2015	18.27	5.56	58	1.060	71.2	0.96
	10/14/2015	20.68	6.40	54	1.410	92.9	4.40
	4/20/2016	23.08	6.08	-20	0.804	529	153.00
PAW-3	8/12/2013	23.53	5.75	25	0.582	12.4	0.41
	2/21/2014	17.33	6.44	52	0.906	9.00	0.61
	7/19/2014	21.80	6.03	-38	0.683	0.00	0.41
	10/8/2014	23.73	6.43	-97	0.979	0.00	0.88
	4/21/2015	18.02	6.34	-25	0.440	5.60	0.00
	10/12/2015	21.45	5.98	38	0.503	4.10	0.98
	4/20/2016	21.71	5.95	57	0.561	0.00	0.63
	11/1/2016	29.07	6.29	-30	0.934	9.30	0.00
	4/25/2017	19.17	5.38	86	0.555	0.00	1.95
	10/3/2017	28.10	6.66	57	0.348	0.30	1.83

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
PAW-4	8/12/2014	18.65	6.03	-36	0.876	1.80	0.53
	2/21/2014	18.62	5.56	31	0.392	22.2	0.67
	7/19/2014	19.14	5.45	0	0.513	1.00	0.46
	10/8/2014	21.57	6.50	-66	0.490	0.00	0.83
	4/28/2015	19.34	5.41	92	0.328	150	0.00
	10/12/2015	21.32	5.21	104	0.354	9.90	0.85
	4/20/2016	21.51	5.06	119	0.348	0.00	0.93
	11/1/2016	27.75	6.45	-32	0.576	3.30	0.00
	4/25/2017	19.39	4.92	173	0.424	6.00	1.95
	10/3/2017	25.84	6.89	39	0.383	2.30	1.97
RW-1	8/13/2013	25.25	5.88	5	0.683	0.00	0.63
	2/20/2014	16.73	6.06	39	0.690	196	0.52
	7/18/2014	21.73	5.91	-19	0.736	37.0	0.42
	10/8/2014	21.40	6.04	-52	0.707	0.00	1.07
	4/27/2015	19.86	6.35	-41	0.404	59.5	0.00
	10/13/2015	20.38	6.15	38	0.664	11.3	0.77
	4/19/2016	18.96	6.07	159	0.699	1.40	0.86
	11/3/2016	30.97	6.13	-20	0.638	7.40	0.00
	4/24/2017	21.00	5.58	56	0.752	0.00	2.66
	10/3/2017	24.26	6.48	31	0.497	5.60	0.99
RW-2 (ABD)	8/12/2013	22.40	5.68	51	0.695	369	0.65
	2/20/2014	19.94	5.90	61	0.934	217	0.26
	7/17/2014	22.04	5.80	5	1.410	48.6	0.39
	10/9/2014	22.02	6.03	-60	0.708	664	0.35
RW-3 (ABD)	8/14/2013	21.43	5.79	38	0.628	377	0.33
	2/20/2014	19.05	5.78	2	1.120	91.5	0.40
	7/17/2014	24.63	6.09	-46	1.060	368	0.39
	10/9/2014	23.71	6.35	-120	1.140	281	0.29
RW-4	8/12/2013	24.07	5.41	37	0.778	40.8	0.43
	2/20/2014	18.09	6.49	-43	0.893	125	0.32
	7/18/2014	21.94	6.48	-33	0.819	62.7	0.40
	10/9/2014	20.76	6.17	-44	0.741	0.00	2.68
	4/27/2015	19.99	6.71	-74	0.725	111	0.00
	10/13/2015	21.03	6.76	-84	0.944	24.7	0.65
	4/19/2016	19.73	6.58	71	0.974	0.00	0.67
	11/1/2016	23.98	5.83	52	0.959	0.10	0.55
	4/25/2017	20.27	5.65	71	0.911	0.00	1.41
	10/3/2017	25.28	7.07	11	0.672	0.40	0.87
RW-5 (ABD)	8/12/2013	26.50	5.04	107	1.050	219	0.50
	2/20/2014	21.53	4.61	271	0.630	204	0.36
	7/17/2014	24.27	4.98	148	0.733	69.0	0.46
	10/9/2014	24.28	5.43	69	0.677	9.90	0.44
RW-6 (ABD)	8/15/2013	21.35	5.90	20	1.950	7.10	1.29
	2/19/2014	19.88	5.45	20	0.994	22.3	0.67
	7/18/2014	21.32	6.00	-6	2.780	7.50	0.44
	10/8/2014	24.08	6.14	-93	1.820	0.00	0.79
RW-7 (ABD)	8/14/2013	22.24	6.00	-12	1.180	255	0.49
	2/20/2014	18.72	6.10	-44	1.110	193	0.50
	7/18/2014	21.45	6.14	-32	1.150	47.5	0.42
	10/9/2014	21.72	6.26	-73	1.040	294	0.38

Table 3-2: Chronological Groundwater Quality Field Parameters Summary

Well ID #	Sample Date	Temp (Celcius)	pH (SU)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
RW-8	4/21/2016	21.01	7.98	-112	0.303	2.10	0.16
	11/3/2016	34.17	7.80	-23	0.316	0.70	0.00
	4/27/2017	19.68	7.01	-69	1.810	14.50	1.19
	10/4/2017	26.99	6.50	-42	0.497	0.30	1.06
RW-9	4/20/2016	24.19	5.86	71	0.704	0.00	0.72
	11/3/2016	28.13	6.54	17	0.370	0.00	0.57
	4/25/2017	24.97	5.50	95	0.826	9.60	1.40
	10/3/2017	26.40	7.62	-18	0.236	6.00	0.90

Notes:

Field parameters were recorded by EIC during groundwater monitoring events after stabilization had been reached and prior to sample collection. Parameters were measured with a Horiba U-52 Water Quality Meter with a Flow-Through Cell

SU - Standard Unit
mV - Millivolts
mS/cm - Microsiemens per centimeter
NTU - Nephelometric Turbidity Unit
mg/L - Milligrams per liter
ABD - Abandoned

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Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
Date	G-17	G-19	G-22/ G-22R	MW-2S	MW-4S	MW-15S	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	MW-57S	PAW-3	MW-U2
Tetrachloroethylene (PCE)	Type 4 RRS (µg/L)			98	Delineation Criteria (µg/L)			5												
Mar-93	NI	NI	NI	2,390.00	1,910.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-94	NI	NI	NI	U	2,900.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Feb-96	NI	NI	NI	NA	460.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-96	NI	NI	NI	20.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Sep-96	NI	NI	NI	11,000.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-96	NI	NI	NI	31.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Apr-97	NI	NI	NI	47.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Jul-97	NI	NI	NI	111.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	NU
Feb-98	NI	NI	NI	81.90	267.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-98	NI	NI	NI	U	200.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-98	NI	NI	NI	NA	1,580.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Feb-99	NI	NI	NI	0.50	80.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.4	NU
Oct-99	NI	NI	NI	0.42	1,490.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
May-00	NI	NI	NI	U	1,343.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.4	NU
Jan-01	NI	NI	NI	4.80	3,730.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-01	NI	NI	NI	NA	250.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	NU
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	13.0	NU
Oct-03	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.43	NU
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-04	NI	NI	NI	NA	6,300.00	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3.1	NU
May-05	NI	NI	NI	NA	100.00 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	NU
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Oct-06	NI	NI	NI	NA	146.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Apr-07	NI	NI	NI	NA	NA	<0.3 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.3	NU
Nov-07	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-10	NI	NI	NI	NA	0.2 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	34.0	NU
Dec-10	NI	NI	NI	NA	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.3 U	NU
Mar-11	0.2 U	0.2 U	0.2 U	NA	NA	NA	0.2 U	3.8	37.0	10.0 U	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-11	NA	NA	NA	NA	NA	NA	0.2 U	15.0	14.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-12	NA	NA	NA	0.21 U	0.3 U	NA	0.3 U	1.9	NA	2.5 U	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-12	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	41.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	150.0	NU
Mar-13	NA	0.2 U	NA	1.20	12.0 U	NA	0.3 U	0.3 J	100.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	9.0	NU
Aug-13	1.9	2.3	3.1	<0.16	<0.16	1.3	3.2	1.1	160.0	1.20	NI	NI	NI	NI	NI	NI	NI	NI	<0,16 U	NU
Feb-14	<0.160 U	<0.160 U	<0.160 U	1.17	1.2	<0.16 U	<0.160 U	1.5	102.0	0.70 J	NI	NI	NI	NI	NI	NI	NI	NI	<0.160 U	NU
Jul-14	<0.16 U	<0.16 U	<0.16 U	<0.16	<0.16	<0.16 U	<0.16 U	<0.16	120.0	<0.16 U	NI	NI	NI	NI	NI	NI	NI	NI	<0.16 U	NU
Oct-14	<0.15 U	<0.15 U	NS	<0.15 U	<3.0 U	<0.15 U	<0.15 U	1.8	53.0	<0.30 U	NI	NI	NI	NI	NI	NI	NI	NI	<0.15 U	NU
Jan-15	<0.74 U	<0.74 U	<0.74 U	2.3	<15 U	<0.74 U	<0.74 U	1.1	97.0	<3.7 U	NI	NI	NI	NI	NI	NI	NI	NI	<0.74 U	<0.74 U
Apr-15	<0.74 U	<0.74 U	<0.74 U	1.9	<15 U	<0.74 U	<0.74 U	2.8	51.0	<3.7 U	<0.74 U	<37 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	25.0	NI	<0.74 U	<0.74 U
Oct-15	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<37 U	<0.74 U	<0.74 U	3	45.0	<0.74 U	<0.74 U	<37 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	35.0	NI	<0.74 U	<0.74 U
Apr-16	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<15 U	<0.74 U	<0.74 U	11	31	<0.74 U	0.88 J	<37 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<7.4 U	NI	<0.74 U	<0.74 U
Nov-16	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	14	26	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	110.0	NI	<0.29 U	NU
Apr-17	<0.46 U	<0.46 U	NS	<0.46 U	<0.46 U	<0.46 U	0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	NI	<0.46 U	ABD
Jul-17	NS	NS	<0.46 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.7 J	NS	ABD	
Oct-17	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	12	25	<0.46 U	2.2 J	9.8	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	630.0	5.7	<0.46 U	ABD

McKenzie Tank Lines, Port Wentworth, GA

Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
Date	G-17	G-19	G-22/ G-22R	MW-2S	MW-4S	MW-15S	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	MW-57S	PAW-3	MW-U2
Trichloroethylene (TCE)	Type 4 RRS (µg/L)			5	Delineation Criteria (µg/L)			5												
Mar-93	NI	NI	NI	460.0	125.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-94	NI	NI	NI	U	680.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Feb-96	NI	NI	NI	NA	500.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-96	NI	NI	NI	270.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Sep-96	NI	NI	NI	400.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-96	NI	NI	NI	5,450.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Apr-97	NI	NI	NI	180.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Jul-97	NI	NI	NI	338.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	NU
Feb-98	NI	NI	NI	238.0	336.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-98	NI	NI	NI	86.0	680.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-98	NI	NI	NI	NA	1,630.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Feb-99	NI	NI	NI	1.3	79.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,370.0	NU
Oct-99	NI	NI	NI	1.5	1,590.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
May-00	NI	NI	NI	1.5	1,807.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	826.0	NU
Jan-01	NI	NI	NI	2.9	5,940.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	803.0	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-01	NI	NI	NI	NA	430.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jan-02	NI	NI	NI	<1	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	726.0	NU
Sep-02	NI	NI	NI	NA	500.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	300.0	NU
Oct-03	NI	NI	NI	NA	680.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	340.0	NU
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-04	NI	NI	NI	NA	750.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	450.0	NU
May-05	NI	NI	NI	NA	50.0 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	640.0	NU
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Oct-06	NI	NI	NI	NA	528.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Apr-07	NI	NI	NI	NA	NA	<0.3	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	230.0	NU
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-10	NI	NI	NI	NA	48.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.2 U	NU
Dec-10	NI	NI	NI	NA	48. 0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	30.0	NU
Mar-11	0.2 U	0.2 U	0.2 U	NA	NA	NL	3.5	3.6	98.0	12.0 U	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-11	NA	NA	NA	NA	NA	NA	0.2	4.4	44.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-12	NA	NA	NA	1.8	0.8 J	NL	0.2 U	1.3	NA	1.7 U	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-12	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	140.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	0.3 J	NU
Mar-13	NA	0.2 U	NA	2.0	NA	NL	0.2 U	1.4	140.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	0.2 U	NU
Aug-13	<0.19	<0.19	0.9 J	<0.19	2,200.0 D	<0.19	1.9	3.2	150.0	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	NU
Feb-14	<0.190	<0.190	<0.190	1.9	3.1	<0.190	<0.190	3.3	99.5	<0.190	NI	NI	NI	NI	NI	NI	NI	NI	2.1	NU
Jul-14	<0.19	<0.19	<0.19	3.4	<0.19	<0.19	<0.19	<0.19	120.0	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	NU
Oct-14	<0.13 U	<0.13 U	NS	0.2	85.0	<0.13 U	0.3 J	6.0	54.0	<0.26 U	NI	NI	NI	NI	NI	NI	NI	NI	<0.15 U	NU
Jan-15	<0.48 U	<0.48 U	<0.48 U	1.4	<9.6 U	<0.48 U	<0.48 U	1.5	65.0	<2.4 U	NI	NI	NI	NI	NI	NI	NI	NI	<0.48 U	<0.48 U
Apr-15	<0.48 U	<0.48 U	<0.48 U	1.0	<9.6 U	<0.48 U	<0.48 U	7.4	30.0	<2.4 U	0.5 J	370.0	<0.48 U	<0.48 U	0.6 J	<0.48 U	120.0	NI	<0.48 U	<0.48 U
Oct-15	<0.48 U	<0.48 U	<0.48 U	2.9	92.0	<0.48 U	<0.48 U	9.2	26.0	<0.48 U	0.8 J	26.0 J	<0.48 U	<0.48 U	<0.48 U	<0.48 U	240.0	NI	<0.48 U	<0.48 U
Apr-16	<0.48 U	<0.48 U	<0.48 U	<0.48 U	11.0 J	<0.48 U	<0.48 U	13.0	20.0	<0.48 U	1.1	<24 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<4.8 U	NI	<0.48 U	<0.48 U
Nov-16	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	36.0	15.0	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	1,700.0	NI	<0.35 U	NU
Apr-17	<0.30 U	<0.30 U	NS	<0.30 U	<0.30 U	<0.30 U	<0.30 U	10.0	16.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	1,900.0	NI	<0.30 U	ABD
Jul-17	NS	NS	<0.30 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.8	NS	ABD
Oct-17	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	27.0	12.0	<0.30 U	2.0 J	200.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	4,700.0	7.0	<0.30 U	ABD

McKenzie Tank Lines, Port Wentworth, GA
Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
Date	**G-17**	**G-19**	**G-22/ G-22R**	**MW-2S**	**MW-4S**	**MW-15S**	**MW-29**	**MW-31**	**MW-32**	**MW-33**	**MW-37S**	**MW-40S**	**MW-42S**	**MW-45S**	**MW-46S**	**MW-48S**	**MW-50S**	**MW-57S**	**PAW-3**	**MW-U2**
cis-1,2-Dichloroethylene		**Type 4 RRS (µg/L)**		**204**		**Delineation Criteria (µg/L)**		**70**												
Mar-93	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-94	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Feb-96	NI	NI	NI	NA	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Sep-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-96	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Apr-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Jul-97	NI	NI	NI	U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3,330.0**	NU
Feb-98	NI	NI	NI	**8,920.0**	**838.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-98	NI	NI	NI	U	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-98	NI	NI	NI	NA	**912.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Feb-99	NI	NI	NI	**64.2**	**96.1**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**2,350.0**	NU
Oct-99	NI	NI	NI	**60.5**	**850.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
May-00	NI	NI	NI	**22.8**	**956.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,390.0**	NU
Jan-01	NI	NI	NI	**31.2**	**7,580.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,500.0**	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-01	NI	NI	NI	NA	**360.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jan-02	NI	NI	NI	**37.0**	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,800.0**	NU
Sep-02	NI	NI	NI	NA	**660.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**740.0**	NU
Oct-03	NI	NI	NI	NA	**4,100.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**820.0**	NU
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-04	NI	NI	NI	NA	**4,800.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,800.0**	NU
May-05	NI	NI	NI	NA	**5,700.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,900.0**	NU
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Oct-06	NI	NI	NI	NA	**2,410.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Apr-07	NI	NI	NI	NA	NA	**4.5**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,050.0**	NU
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-10	NI	NI	NI	NA	**930.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**2.5**	NU
Dec-10	NI	NI	NI	NA	**930.0**	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**200.0**	NU
Mar-11	**0.2** U	**0.2** U	**0.2** U	NA	NA	NA	**5.8**	**15.0**	**220.0**	**5,100.0**	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-11	NA	NA	NA	NA	NA	NA	**0.2** U	**4.4**	**110.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-12	NA	NA	NA	**1.0** J	**4.6**	NL	**0.3** U	**0.9** J	NA	**1,300.0**	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-12	**0.2** U	**0.2** U	NA	NA	NA	NA	NA	NA	**270.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	**0.3** J	NU
Mar-13	NA	**0.2** U	NA	**2.4**	**3,100.0**	NL	**0.3** U	**2.3**	**540.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	**0.2** U	NU
Aug-13	<0.21	**0.8**	**1.5**	**16.0**	**6,500.0**	<0.21	**1.5**	**6.9**	**720.0** D	**1,100.0** D	NI	NI	NI	NI	NI	NI	NI	NI	**1.0** J	NU
Feb-14	<0.210	<0.210	<0.210	**11.8**	**639.0**	<0.21	<0.21	**7.1**	**775.0** D	**2,230.0** D	NI	NI	NI	NI	NI	NI	NI	NI	**4.8**	NU
Jul-14	<0.21	<0.21	<0.21	**3.6**	**608.0** D	<0.21	<0.21	**1.8**	**626.0** D	**66.7** D	NI	NI	NI	NI	NI	NI	NI	NI	<0.21	NU
Oct-14	<0.15 U	<0.15 U	NS	**16.0**	**1,900.0**	<0.15 U	**0.4** J	**12.0**	**320.0**	**340.0**	NI	NI	NI	NI	NI	NI	NI	NI	**0.8** J	NU
Jan-15	<0.41 U	<0.41 U	<0.41 U	**0.6** J	**1,600.0**	<0.41 U	<0.41 U	**3.1**	**350.0**	**650.0**	NI	NI	NI	NI	NI	NI	NI	NI	<0.41 U	<0.41 U
Apr-15	<0.41 U	<0.41 U	<0.41 U	<0.41 U	**1,400.0**	<0.41 U	<0.41 U	**18.0**	**140.0**	**270.0**	**5.5**	**5,300.0**	<0.41 U	**3.8**	**12.0**	<0.41 U	**1,200.0**	NI	**0.6** J	<0.41 U
Oct-15	**0.6** J	<0.41 U	<0.41 U	**5.6**	**4,700.0**	<0.41 U	<0.41 U	**22.0**	**110.0**	**120.0**	**5.9**	**2,400.0**	<0.41 U	**17.0**	**7.0**	<0.41 U	**2,600.0**	NI	<0.41 U	<0.41 U
Apr-16	<0.41 U	<0.41 U	<0.41 U	**8.1**	**6,100.0**	<0.41 U	<0.41 U	**38.0**	**90.0**	**88.0**	**8.1**	**1,900.0**	<0.41 U	**3.8**	**9.7**	<0.41 U	**600.0**	NI	<0.41 U	<0.41 U
Nov-16	<0.27 U	<0.27 U	<0.27 U	**17.0**	**3,700.0**	<0.27 U	<0.27 U	**48.0**	**71.0**	**81.0**	**7.7**	**380.0**	<0.27 U	**19.0**	**9.4**	<0.27 U	**7,800.0**	NI	<0.27 U	NU
Apr-17	<0.28 U	<0.28 U	NS	**10.0**	**6,000.0**	<0.28 U	<0.28 U	**46.0**	**78.0**	**92.0**	**12.0**	**1,000.0**	<0.28 U	<1.4 J	**8.0**	<0.28 U	**5,900.0**	NI	<0.28 U	ABD
Jul-17	NS	NS	<0.28 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**19.0**	NS	ABD
Oct-17	<0.28 U	<0.28 U	<0.28 U	**10.0**	**4,900.0**	<0.28 U	<0.28 U	**31.0**	**44.0**	**47.0**	**7.7**	**2,200.0**	<0.28 U	**17.0**	**6.2**	<0.28 U	**8,100.0**	**22.0**	<0.28 U	ABD

McKenzie Tank Lines, Port Wentworth, GA

Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																			
Date	G-17	G-19	G-22/ G-22R	MW-2S	MW-4S	MW-15S	MW-29	MW-31	MW-32	MW-33	MW-37S	MW-40S	MW-42S	MW-45S	MW-46S	MW-48S	MW-50S	MW-57S	PAW-3	MW-U2
Vinyl Chloride	Type 4 RRS (µg/L)			3	Delineation Criteria (µg/L)			2												
Mar-93	NI	NI	NI	8,830.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-94	NI	NI	NI	1,200.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Feb-96	NI	NI	NI	78.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Mar-96	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Sep-96	NI	NI	NI	280.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-96	NI	NI	NI	676.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Apr-97	NI	NI	NI	2,200.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Jul-97	NI	NI	NI	380.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NU
Oct-97	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	U	NU
Feb-98	NI	NI	NI	2,530.0	2.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-98	NI	NI	NI	1,800.0	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-98	NI	NI	NI	NA	1.8	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Feb-99	NI	NI	NI	30.9	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	623.0	NU
Oct-99	NI	NI	NI	37.1	4.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
May-00	NI	NI	NI	9.8	7.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU
Jan-01	NI	NI	NI	12.4	28.7	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	240.0	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-01	NI	NI	NI	NA	23.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Dec-01	NI	NI	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jan-02	NI	NI	NI	34.0	NA	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	160.0	NU
Sep-02	NI	NI	NI	NA	<25	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU
Oct-03	NI	NI	NI	NA	40.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	53.0	NU
Jan-04	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-04	NI	NI	NI	NA	73.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	130.0	NU
May-05	NI	NI	NI	NA	74.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	120.0	NU
Dec-05	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Oct-06	NI	NI	NI	NA	20.0 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Apr-07	NI	NI	NI	NA	NA	<0.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	138.0	NU
Nov-07	NI	NI	NI	NA	NA	NL	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	NU
Jun-08	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-09	NI	NI	NI	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jul-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1.8	NU
Dec-10	NI	NI	NI	NA	28.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	33.0	NU
Mar-11	0.3 U	0.3 U	0.3 U	NA	NA	NL	0.3 U	0.3 U	2.0 J	190.0	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Nov-11	NA	NA	NA	NA	NA	NA	0.3 U	0.3 U	0.4 J	NA	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Jun-12	NA	NA	NA	0.3 U	0.1 U	NL	0.2 U	0.2 U	NA	230.0	NI	NI	NI	NI	NI	NI	NI	NI	NA	NU
Aug-12	0.3 U	0.3 U	NA	NA	NA	NA	NA	NA	1.4 J	NA	NI	NI	NI	NI	NI	NI	NI	NI	0.2 U	NU
Mar-13	NA	0.3 U	NA	0.3 U	44.0	NL	0.2 U	0.2 U	4.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	0.2 U	NU
Aug-13	<0.19 U	<0.19 U	<0.19 U	<0.19 U	74.0	<0.19	<0.19	<0.19	2.9	150.0	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	NU
Feb-14	<0.19 U	<0.19 U	<0.19 U	<0.19 U	29.4	<0.19	<0.19	<0.19	2.9	177.0	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	NU
Jul-14	<0.19 U	<0.19 U	<0.19 U	<0.19 U	19.1	<0.19 U	<0.19	<0.19	2.3	104.0	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	NU
Oct-14	<0.18 U	<0.18 U	NS	3.0	110.0	<0.18 U	<0.18 U	<0.18 U	<0.9 U	63.0	NI	NI	NI	NI	NI	NI	NI	NI	0.8 J	NU
Jan-15	<0.50 U	<0.50 U	<0.50 U	<0.50 U	64.0	<0.50 U	<0.50 U	<0.50 U	1.2 J	55.0	NI	NI	NI	NI	NI	NI	NI	NI	<0.50 U	<0.50 U
Apr-15	<0.50 U	<0.50 U	<0.50 U	<0.50 U	53.0	<0.50 U	<0.50 U	<0.50 U	0.8 J	51.0	<0.50 U	<25 U	<0.50 U	<0.50 U	28.0	<0.50 U	67.0	NI	1.1	<0.50 U
Oct-15	<0.50 U	<0.50 U	<0.50 U	<0.50 U	98.0	<0.50 U	<0.50 U	<0.50 U	0.5 J	36.0	<0.50 U	<25 U	<0.50 U	5.5	15.0	<0.50 U	140.0	NI	<0.50 U	<0.50 U
Apr-16	<0.50 U	<0.50 U	<0.50 U	<0.50 U	140.0	<0.50 U	<0.50 U	<0.50 U	0.9 J	36.0	<0.50 U	<25 U	<0.50 U	<0.50 U	19.0	<0.50 U	60.0	NI	<0.50 U	<0.50 U
Nov-16	<0.42 U	<0.42 U	<0.42 U	<0.42 U	140.0	<0.42 U	<0.42 U	<0.42 U	<0.42 U	35.0	<0.42 U	2.0 J	<0.42 U	5.1	12.0	<0.42 U	170.0	NI	<0.42 U	NU
Apr-17	<0.30 U	<0.30 U	NS	<0.30 U	160.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	38.0	<0.30 U	4.1	<0.30 U	<0.30 U	6.2	<0.30 U	180.0	NI	<0.30 U	ABD
Jul-17	NS	NS	<0.30 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.30	NS	ABD
Oct-17	<0.30 U	<0.30 U	<0.30 U	0.91 J	93.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	11.0	<0.30 U	5.3	<0.30 U	5.5	14.0	<0.30 U	240.0	<0.30 U	<0.30 U	ABD

McKenzie Tank Lines, Port Wentworth, GA

Table 3-3: Shallow Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Shallow Wells																																							
Date	G-17		G-19		G-22/ G-22R		MW-2S		MW-4S		MW-15S		MW-29		MW-31		MW-32		MW-33		MW-37S		MW-40S		MW-42S		MW-45S		MW-46S		MW-48S		MW-50S		MW-57S		PAW-3		MW-U2	
1,1-Dichloroethene			**Type 4 RRS (µg/L)**				**NA**				**Delineation Criteria (µg/L)**				7																									
Oct-14	<0.11	U	<0.11	U	NS		<0.11	U	11.0	J	<0.11	U	<0.11	U	<0.11	U	<0.55	U	**1.4**	J	NI		NI		NI		NI		NI		NI		NI		NI		**0.24**	J	NU	
Jan-15	<0.36	U	<0.36	U	NS		<0.36	U	7.6	J	<0.36	U	<0.36	U	<0.36	U	**1.2**	J	**2.6**	J	NI		NI		NI		NI		NI		NI		NI		NI		<0.36	U	<0.36	U
Apr-15	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<7.2	U	<0.36	U	<0.36	U	<0.36	U	**0.56**	J	<1.8	U	<0.36	U	<18	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<3.6	U	NI		<0.36	U	<0.36	U
Oct-15	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<18	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	**0.42**	J	<0.36	U	<18	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<9.0	U	NI		<0.36	U	<0.36	U
Apr-16	<0.36	U	<0.36	U	<0.36	U	<0.36	U	22.0		<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<18	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<3.6	U	NI		<0.36	U	<0.36	U
Nov-16	<0.36	U	<0.36	U	<0.36	U	<0.36	U	13.0		<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	<0.36	U	12		NI		<0.36	U	NU	
Apr-17	<0.4	U	<0.4	U	NS		<0.4	U	18.0		<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	17		NI		<0.4	U	ABD	
Jul-17	NS		NS		<0.4	U	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		<0.4	U	NS		ABD	
Oct-17	<0.4	U	<0.4	U	<0.4	U	<0.4	U	15.0		<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	<0.4	U	**4**	J	<0.4	U	<0.4	U	<0.4	U	<0.4	U	18		<0.4	U	<0.4	U	ABD	

Notes:

110 - Value exceeds risk reduction standards

5 - Value exceeds delineation criteria

0.3 - Value exceeds detection limits

All data prior to August 2013 reported by previous environmental consultants

NA - Well not accessible

NS - Well not sampled

NI - Well not installed

NU - Well not utilized in groundwater sampling program

NL - Well not located

ABD- Well was abandoned

U - Value is below detection limits

< - less than method detection limit (MDL)

J - this is an estimated value that is above the MDL but below the practical quantitation limit

I* - not certain

McKenzie Tank Lines, Port Wentworth, GA

Table 3-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																														
Date	**MW-2D**	**MW-11D**	**MW-14D**	**MW-15D**	**MW-26**	**MW-35**	**MW-36/ MW-36R**	**MW-38D**	**MW-39D**	**MW-41D**	**MW-43D**	**MW-44D**	**MW-47D**	**MW-49D**	**MW-51D**	**MW-52D**	**MW-53D**	**MW-54D**	**MW-55D**	**MW-56D**	**MW-58D**	**PAW-4**	**RW-1**	**RW-2**	**RW-3**	**RW-4**	**RW-5**	**RW-6**	**RW-7**	**RW-8**	**RW-9**
Tetrachloroethylene (PCE)		**Type 4 RRS (µg/L)**		**98**		**Delineation Criteria (µg/L)**		**5**																							
Mar-93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-94	**49,000.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-96	**10,000.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-96	**120.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-96	**6.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-96	**15,880.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-97	**13,000.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-97	**10,000.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-97	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**11.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-98	**7,750.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-98	**24,000.0**	**40.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-98	**26,200.0**	**2,010.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-99	**18,300.0**	**752.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**5,650.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	**51,800.0**	**142.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
May-00	**24,046.0**	**676.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3,554.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-01	**6,240.0**	**14.7**	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3,270.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	**9,300.0**	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	**2,800.0**	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-01	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-01	NA	NA	**10.0**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-02	NA	**19.0**	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**2,900.0**	NI	NI	<25	NI	NI	NI	NI	NI	NI
Sep-02	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**920.0**	NI	**350.0**	NA	NI	NI	NI	NI	NI	NI
Oct-03	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,300.0**	NI	NA	NA	NI	NI	NI	NI	NI	NI
Jan-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**2,300.0**	**2,000.0**	<150	NI	NI	NI	NI	NI	NI
Nov-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,400.0**	**2,200.0**	**17,000.0**	NA	NI	NI	NI	NI	NI	NI
May-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jun-05	NA	<2	<2	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jul-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1,500.0**	**2,100.0**	**11,000.0**	**90.0**	NI	NI	NI	NI	NI	NI
Dec-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	**1,500.0**	**400.0**	NI	**4,500.0**	NI	NI
Oct-06	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**459.0**	**779.0**	**54.0**	**459.0**	**1,450.0**	NI	**9,6800**	NI	NI
Apr-07	NA	NA	NA	**0.7** I*	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**654.0**	NA	NA	NA	NA	NA	NI	NA	NI	NI
Nov-07	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**1,900.0**	NA	NA	**1,500.0**	NA	NI	NA	NI	NI
Jun-08	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	**0.9** I*	NA	NI	NI
Jun-09	**110.0**	NA	NA	**1.5**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**650.0**	NA	**190.0**	**460.0**	**3,100.0**	NA	NA	NI	NI
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**0.2** U	NA	NA	NA	NA	NA	NA	NA	NI	NI
Dec-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**34.0**	NA	NA	**6,200.0**	NA	NA	NA	**15,000.0**	NI	NI
Mar-11	**120.0**	**0.2** U	**0.2** U	**0.2** U	**0.2** U	**1.4**	**1.0** U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**590.0**	**28.0**	NA	**50.0**	**5,100.0**	**1.0** U	NA	NI	NI
Nov-11	NA	NA	NA	NA	**0.2** U	**0.2**	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**590.0**	**490.0**	**50.0**	NA	**7,000.0**	NA	**7,700.0**	NI	NI
Jun-12	**55.0**	NA	**0.3** U	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
Aug-12	NA	**0.3** U	NA	NA	**0.3** U	**0.2**	**0.2** U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**0.3** U	**5.5**	**1,900.0**	**56.0**	**1,500.0**	**2,300.0**	**2.2**	**2,500.0**	NI	NI
Mar-13	**1.4**	**1.7**	NA	NA	NA	NA	**0.3**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**0.3** U	**4.6**	**2,200.0**	**54.0**	**1,200.0**	**820.0**	**0.3** U	**2,500.0**	NI	NI
Aug-13	**300.0** D	<0.16	NA	NL	<0.16 U	NA	**1.5**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**17.0**	<0.16	**350.0**	**36.0**	**950.0**	**4,500.0**	**4.6**	**11,000.0** D	NI	NI
Feb-14	**482.0** D	<0.160	**1.2** U	NL	<0.16 U	NA	<0.160 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**14.7**	**14.1**	**606.0**	**75.9**	**17.8**	**4,550.0**	**8.8**	**7,960.0** D	NI	NI
Jul-14	**285.0** D	<0.16	**2.6**	NL	<0.16 U	<0.16 U	<0.16 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**22.0**	**5.5**	**94.7**	**2,650.0** D	**79.6**	**2,000.0** D	<0.16	**44,700.0** D	NI	NI
Oct-14	**71.0**	<0.15 U	**1.2**	NL	<0.15 U	<0.15 U	<0.15 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3.1**	**31.0**	<1.5 U	**3,900.0**	**530.0**	**840.0**	<0.30 U	**17,000.0**	NI	NI
Jan-15	**280.0**	<0.74	**2.6**	NL	<0.74 U	<0.74 U	<0.74 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**150.0**	**1.0** J	<0.74 U	<37 U	**11.0**	**1,100.0**	<0.74 U	**400.0**	NI	NI
Apr-15	**370.0**	<0.74 U	**2.7**	NL	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	**36.0**	<3.7 U	<3.7 U	<0.74 U	<0.74 U	<0.74 U	<7.4 U	<0.74 U	NI	**150.0**	**6.0**	NS	NS	<0.74 U	NS	NS	NS	NI	NI
Oct-15	**190.0**	<0.74 U	**3.5**	NL	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	**17.0**	**30.0**	<3.7 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	NI	**58.0**	<0.74 U	ABD	ABD	<0.74	ABD	ABD	ABD	NI	NI
Apr-16	**110.0**	<0.74 U	**4.0**	NL	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	<0.74 U	**19.0**	**66.0**	<0.74 U	<0.74 U	<0.74 U	<0.74	<0.74 U	<0.74 U	NI	**74.0**	<0.74 U	ABD	ABD	<0.74	ABD	ABD	ABD	<0.74 U	<0.74 U
Oct-16	<0.29 U	<0.29 U	**2.6** J	NL	<0.29 U	<0.29 U	NA	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	<0.29 U	NI	**2.1** J	<0.29 U	ABD	ABD	<0.29 U	ABD	ABD	ABD	<0.29 U	<0.29 U
Apr-17	<3.3 J	<0.46 U	<3.9 J	NL	<0.46 U	<0.46 U	NS	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<4.7 J	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	NI	**41.0**	<0.46 U	ABD	ABD	<0.46 U	ABD	ABD	ABD	<0.46 U	<0.46 U
Jul-17	NS	NS	NS	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.46	NS	NS	ABD	ABD	NS	ABD	ABD	ABD	NS	NS
Oct-17	<0.46 U	<0.46 U	**1.9** J	NL	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	**9.0**	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	<0.46 U	ABD	ABD	<0.46 U	ABD	ABD	ABD	<0.46 U	<0.46 U

McKenzie Tank Lines, Port Wentworth, GA

Table 3-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																													
Date	MW-2D	MW-11D	MW-14D	MW-15D	MW-26	MW-35	MW-36/ MW-36R	MW-38D	MW-39D	MW-41D	MW-43D	MW-44D	MW-47D	MW-49D	MW-51D	MW-52D	MW-53D	MW-54D	MW-55D	MW-56D	MW-58D	PAW-4	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9
Trichloroethylene (TCE)	Type 4 RRS (µg/L)			5		Delineation Criteria (µg/L)		5																							
Mar-93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-94	680.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-96	1,600.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-96	260.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-96	11.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-96	5,805.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-97	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-97	8,700.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-97	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	121.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-98	3,560.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-98	13,000.0	40.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-98	26,200.0	2,010.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-99	5,220.0	24.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	15,000.0	76.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
May-00	7,158.0	389.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	8.3	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-01	2,290.0	4.0	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	5.3	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	4,300.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	4,300.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-01	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-01	NA	NA	2.9	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-02	NA	7.5	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3.8	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-02	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	6.1	NI	380.0	180.0	NI	NI	NI	NI	NI	NI
Oct-03	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.43	NI	NA	NA	NI	NI	NI	NI	NI	NI
Jan-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	2,000.0	1,300.0	430.0	NI	NI	NI	NI	NI	NI
Nov-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	200.0	4,900.0	NA	NI	NI	NI	NI	NI	NI
May-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jun-05	NA	2.0	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jul-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<1	1,400.0	4,300.0	<20	NI	NI	NI	NI	NI	NI
Dec-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	1,800.0	160.0	NI	1,300.0	NI	NI
Oct-06	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	465.0	559.0	414.0	3,500.0	540.0	NI	5,440.0	NI	NI
Apr-07	NA	NA	NA	3.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.1	NA	NA	NA	NA	NA	NI	NA	NI	NI
Nov-07	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	<10	NA	4,200.0	2,300.0	NA	NI	NA	NI	NI
Jun-08	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	330	NA	NI	NI
Jun-09	97.0	NA	NA	2.1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	140.0	NA	770.0	590.0	3,800.0	NA	NA	NI	NI
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	30.0	NA	NA	NA	NA	NA	NA	NA	NI	NI
Dec-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.3 U	NA	NA	4,600.0	NA	NA	NA	7,800.0	NI	NI
Mar-11	260.0	0.2	0.2	0.2 U	0.2 U	2.1	130.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	320.0	230.0	NA	910.0	1,600.0	1.2 U	NA	NI	NI
Nov-11	NA	NA	NA	NA	0.2 U	0.2 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	320.0	130.0	330.0	960.0	2,600.0	NA	3,500.0	NI	NI
Jun-12	160.0	NA	0.3	NL	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
Aug-12	NA	0.3	NA	NA	0.2 U	0.2 U	0.7 I*	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	150.0	13.0	5,500.0	280.0	1,700.0	3,900.0	3.3	1,800.0	NI	NI
Mar-13	12.0	1.7	0.3	NL	NA	NA	0.6 J	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.0	12.0	1,700.0	300.0	1,200.0	1,400.0	1.2	2,300.0	NI	NI
Aug-13	490.0	<0.16	<0.16	NL	<0.19	NA	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.0	0.6 J	680.0 D	430.0	760.0 D	1,200.0 D	1.0 J	5,700.0 D	NI	NI
Feb-14	715.0	<0.160	1.2	NL	<0.160	NA	<0.190	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	15.3	9.2	1,180.0 D	595.0	13.0	1,440.0 D	5.3	4,010.0 D	NI	NI
Jul-14	1,000.0 D	<0.19	2.3	NA	<0.19	<0.19	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.19	<0.19	198.0	3,870.0 D	67.1	1,550.0 D	<0.19	38,200.0 D	NI	NI
Oct-14	370.0	<0.13 U	1.2	NL	<0.13 U	<0.13 U	<0.13 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.6	37.0	3.3 J	7,400.0	660.0	1,000.0	0.4 J	11,000.0	NI	NI
Jan-15	1,100.0	<0.48 U	2.2	NL	<0.48 U	<0.48 U	<0.48 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	37.0	1.8	2.0	34.0 J	29.0	1,700.0	<0.48 U	740.0	NI	NI
Apr-15	1,200.0	<0.48 U	2.0	NL	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	11.0	29.0	2.4 J	<2.4 U	<0.48 U	<0.48 U	<0.48 U	<4.8 U	<0.48 U	NI	29.0	4.3	NS	NS	0.9 J	NS	NS	NS	NI	NI
Oct-15	920.0	<0.48 U	2.1	NL	<0.48	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	17.0	23.0	<2.4	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	NI	25.0	<0.48 U	ABD	ABD	0.7 J	ABD	ABD	ABD	NI	NI
Apr-16	610.0	<0.48 U	2.3	NL	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	9.1	20.0	560.0	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	<0.48 U	NI	26.0	<0.48 U	ABD	ABD	<0.48 U	ABD	ABD	ABD	<0.48 U	<0.48 U
Oct-16	21.0	<0.35 U	3.3 J	NL	<0.35 U	<0.35 U	NA	<0.35 U	<0.35 U	<0.35 U	<0.35 U	16.0	7.5	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U	NI	9.0	<0.35 U	ABD	ABD	<0.35 U	ABD	ABD	ABD	<0.35 U	<0.35 U
Apr-17	72.0	<0.30 U	4.2 J	NL	<0.30 U	<0.30 U	NS	<0.30 U	4.3 J	<0.30 U	<0.30 U	3.9 J	15.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	NI	38.0	<0.30 U	ABD	ABD	<0.30 U	ABD	ABD	ABD	<0.30 U	1.9 J
Jul-17	NS	NS	NS	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.30	NS	NS	ABD	ABD	NS	ABD	ABD	ABD	NS	NS
Oct-17	<0.30 U	<0.30 U	5.6	NL	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	15.0	26.0	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	ABD	ABD	<0.30 U	ABD	ABD	ABD	<0.30 U	<0.30 U

McKenzie Tank Lines, Port Wentworth, GA

Table 3-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																																		
Date	MW-2D	MW-11D	MW-14D	MW-15D	MW-26	MW-35	MW-36/ MW-36R	MW-38D	MW-39D	MW-41D	MW-43D	MW-44D	MW-47D	MW-49D	MW-51D	MW-52D	MW-53D	MW-54D	MW-55D	MW-56D	MW-58D	PAW-4	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	RW-7	RW-8	RW-9
cis-1,2-Dichloroethylene	Type 4 RRS (µg/L)			204	Delineation Criteria (µg/L)			70																											
Mar-93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-94	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-96	<.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-96	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-97	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-97	<.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-97	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	3,990.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-98	3,450.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-98	<0.21	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-98	11,200.0	766.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-99	7,680.0	42.9	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	1,250.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	14,000.0	95.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
May-00	9,470.0	422.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	131.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-01	2,280.0		<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	79.7	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	5,400.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	5,200.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-01	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-01	NA	NA	1.6	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-02	NA	3.9	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	61.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-02	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	17.0	NI	630.0	1,500.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-03	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	9.8	NI	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	2,300.0	1,500.0	4,200.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.4	2,800.0	7,000.0	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
May-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jun-05	NA	10.0	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.0	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	1,700.0	7,600.0	<20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	2,000.0	120.0	NI	81,000.0	NI	NI	NI	NI	NI	NI
Oct-06	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	804.0	1,990.0	3,110.0	4,220.0	2,090.0	NI	16,500.0	NI	NI	NI	NI	NI	NI
Apr-07	NA	NA	NA	4.8	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.3	NA	NA	NA	2,100.0	NA	NI	NA	NI	NI	NI	NI	NI	NI	NI
Nov-07	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	1,100.0	NA	6,300.0	NA	NA	NI	NA	NI	NI	NI	NI	NI	NI	NI
Jun-08	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NI	11.0	NA	NI	NI	NI	NI	NI
Jun-09	360.0	NA	NA	3.2	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	200.0	NA	4,100.0	2,200.0	9,300.0	37.0	NA	NI	NI	NI	NI	NI	NI	NI
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	200.0	NA	NA	NA	NA	NA	NI	NA	NI	NI	NI	NI	NI	NI	NI
Dec-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5	NA	NA	8,500.0	NA	NA	NI	8,700.0	NI	NI	NI	NI	NI	NI	NI
Mar-11	1,800.0	18.0	0.2 U	0.2 U	0.2 U	14.0	300.0	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	850.0	3,500.0	NA	2,900.0	7,600.0	2.8 J	NA	NI	NI	NI	NI	NI	NI	NI
Nov-11	NA	NA	NA	NA	0.2 U	0.2 U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	850.0	170.0	2,700.0	2,900.0	20,000.0	NA	6,700.0	NI	NI	NI	NI	NI	NI	NI
Jun-12	650.0	NA	0.3 U	NL	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI
Aug-12	NA	0.7 J	NA	NA	0.3 U	0.2 U	3.9	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	12.0	37.0	6,700.0	1,200.0	3,100.0	5,800.0	1.7	4,400.0	NI	NI	NI	NI	NI	NI	NI
Mar-13	61.0	0.3 J	1.6	NL	NA	NA	2.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	14.0	30.0	7,400.0	1,700.0	2,600.0	4,100.0	1.7	7,400.0	NI	NI	NI	NI	NI	NI	NI
Aug-13	890.0 D	1.7	2.6	NL	<0.21	NA	2.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	86.0	6.9	4,800.0 D	3,500.0 D	1,200.0 D	9,200.0 D	3.3	11,000.0	NI	NI	NI	NI	NI	NI	NI
Feb-14	4,610.0 D	<0.210	5.2	NL	<0.21	NA	0.7 J	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	43.1	31.2	2,760.0 D	3,170.0 D	20.7	1,840.0 D	8.2	10,200.0	NI	NI	NI	NI	NI	NI	NI
Jul-14	1,780.0 D	<0.21	7.3	NA	<0.21	<0.21	<0.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	58.6	21.0	1,000.0 D	6,990.0 D	87.4	3,070.0 D	6.4	78,900.0 D	NI	NI	NI	NI	NI	NI	NI
Oct-14	1,600.0	1.0 J	4.0	NL	<0.15 U	<0.15 U	1.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	74.0	58.0	1,100.0	11,000.0	850.0	2,000.0	120.0	19,000.0	NI	NI	NI	NI	NI	NI	NI
Jan-15	3,100.0	<0.41 U	5.7	NL	<0.41 U	<0.41 U	1.1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	66.0	9.5	7.0	5,300.0	28.0	4,600.0	6.0	5,100.0	NI	NI	NI	NI	NI	NI	NI
Apr-15	4,600.0	<0.41 U	5.2	NL	<0.41 U	<0.41 U	1.0	<0.41 U	<0.41 U	<0.41 U	<0.41 U	18.0	39.0	450.0	400.0	<0.41 U	2.9	8.0	1,600.0	1.7	NI	38.0	8.8	NS	NS	1.8	NS	NS	NS	NI	NI	NI	NI	NI	NI	NI
Oct-15	2,900.0	<0.41 U	4.7	NL	<0.41 U	<0.41 U	0.7 J	<0.41 U	<0.41 U	<0.41 U	<0.41 U	30.0	39.0	340.0	7.2	<0.41 U	1.5	8.7	3.8	<0.41	NI	36.0	17.0	ABD	ABD	2.7	ABD	ABD	ABD	NI	NI	NI	NI	NI	NI	NI
Apr-16	3,200.0	0.7 J	4.8	NL	<0.41 U	0.6 J	0.8 J	<0.41 U	<0.41 U	<0.41 U	<0.41 U	15.0	36.0	3,100.0	19.0	<0.41 U	1.6	8.7	120.0	0.6 J	NI	35.0	8.3	ABD	ABD	1.9	ABD	ABD	ABD	2.2	160.0	NI	NI	NI	NI	NI
Oct-16	430.0	2.6 J	7.1	NL	<0.27 U	<0.27 U	NA	<0.27 U	<0.27 U	<0.27 U	<0.27 U	31.0	40.0	160.0	4.6 J	<0.27 U	7.4	8.6	19.0	<0.27 U	NI	180.0	5.0	ABD	ABD	2.6 J	ABD	ABD	ABD	2.7 J	150.0	NI	NI	NI	NI	NI
Apr-17	470.0	<0.28 U	6.7	NL	<0.28 U	<0.28 U	NS	<0.28 U	9.0	4.8 J	<0.28 U	12.0	32.0	1,000.0	620.0	<0.28 U	<0.28 U	5.4	9.3	<2.7 J	NI	230.0	5.2	ABD	ABD	1.4 J	ABD	ABD	ABD	2,500.0	590.0	NI	NI	NI	NI	NI
Jul-17	NS	NS	NS	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.28 U	NS	NS	ABD	ABD	NS	ABD	ABD	ABD	NS	NS	NI	NI	NI	NI	NI
Oct-17	170.0	1.5 J	4.3 J	NL	<0.28 U	<0.28 U	2.1 J	<0.28 U	1.0 J	<0.28 U	<0.28 U	26.0	41.0	140.0	37.0	38.0	48.0	8.2	27.0	<0.28 U	<0.28 U	200.0	12.0	ABD	ABD	2.5 J	ABD	ABD	ABD	89.0	130.0	NI	NI	NI	NI	NI

McKenzie Tank Lines, Port Wentworth, GA

Table 3-4: Deep Groundwater Constituents of Concern Cumulative Analytical Results

Constituent of Concern/Well ID	Deep Wells																														
Date	**MW-2D**	**MW-11D**	**MW-14D**	**MW-15D**	**MW-26**	**MW-35**	**MW-36/ MW-36R**	**MW-38D**	**MW-39D**	**MW-41D**	**MW-43D**	**MW-44D**	**MW-47D**	**MW-49D**	**MW-51D**	**MW-52D**	**MW-53D**	**MW-54D**	**MW-55D**	**MW-56D**	**MW-58D**	**PAW-4**	**RW-1**	**RW-2**	**RW-3**	**RW-4**	**RW-5**	**RW-6**	**RW-7**	**RW-8**	**RW-9**
Vinyl Chloride		**Type 4 RRS (µg/L)**		**3**		**Delineation Criteria (µg/L)**		**2**																							
Mar-93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-94	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-96	**31.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Mar-96	**1,000.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-96	**1,300.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-96	**676.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Apr-97	**140.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-97	**5,400.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-97	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**678.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-98	**120.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jul-98	**620.0**	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-98	**561.0**	2.6	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Feb-99	**187.0**	U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**467.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Oct-99	**900.0**	**1.2**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
May-00	**386.0**	**7.9**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**122.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-01	**102.0**	<1	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**144.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	**250.0**	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Aug-01	**360.0**	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Nov-01	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Dec-01	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI
Jan-02	NA	<1	<1	<1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**66.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI
Sep-02	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**13.0**	NI	<1	**52.0**	NI	NI	NI	NI	NI	NI
Oct-03	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**28.0**	NI	NA	NA	NI	NI	NI	NI	NI	NI
Jan-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**150.0**	**68.0**	**350.0**	NI	NI	NI	NI	NI	NI
Nov-04	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**9.2**	**300.0**	**290.0**	NA	NI	NI	NI	NI	NI	NI
May-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jun-05	NA	<1 U	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI
Jul-05	NA	NA	<1	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**10.0**	**180.0**	**620.0**	<20	NI	NI	NI	NI	NI	NI
Dec-05	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	**82.0**	<5	NI	**130.0**	NI	NI
Oct-06	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**121.0**	<40	**139.0**	**196.0**	**69.8**	NI	**262.0**	NI	NI
Apr-07	NA	NA	NA	<0.4	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3.8**	NA	NA	**190.0**	NA	NA	NI	NA	NI	NI
Nov-07	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NL	**130.0**	NA	NA	**60.0**	NA	NI	NA	NI	NI
Jun-08	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	<0.52	NA	NI	NI
Jun-09	**38.0**	NA	NA	**0.5** U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**52.0**	NA	**100.0**	**170.0**	**89.0**	**0.7** J	NA	NI	NI
Jul-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**33.0**	NA	NA	NA	NA	NA	NA	NA	NI	NI
Dec-10	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**33.0**	NA	NA	**190.0**	NA	NA	NA	**160.0**	NI	NI
Mar-11	**130.0**	**3.1**	**0.3** U	**0.3** U	**0.3** U	**0.3** U	**9.0**	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**47.0**	**430.0**	NA	**280.0**	**970.0**	**1.6** U	NA	NI	NI
Nov-11	NA	NA	NA	NA	**0.3** U	**0.3** U	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	**47.0**	**38.0**	**68.0**	**110.0**	**1,600.0**	NA	**130.0**	NI	NI
Jun-12	**70.0**	NA	**0.2** U	NL	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NA	NA	NA	NA	NA	NA	NA	NA	NI	NI
Aug-12	NA	**0.5** J	NA	NA	**0.2** U	**0.3** U	**0.3** U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**1.4**	**4.7**	**210.0**	**34.0**	**96.0**	**170.0**	**0.2** U	**100.0**	NI	NI
Mar-13	**32.0**	**0.2** U	**0.2** U	NL	NA	NA	**0.2** U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3.7**	**9.8**	**340.0**	**76.0**	**250.0**	**200.0**	**0.2** U	**240.0**	NI	NI
Aug-13	**92.0**	<0.19 U	<0.19 U	NL	NA	<0.19	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**25.0**	**3.8**	**370.0** D	**160.0**	**42.0**	**650.0**	<0.19	**490.0** D	NI	NI
Feb-14	**270.0** D	<0.19 U	<0.19 U	NL	NA	<0.19	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3.7**	**5.6**	**206.0** D	**162.0**	**3.4**	**91.9**	<0.19	**355.0**	NI	NI
Jul-14	**162.0**	<0.19 U	<0.19 U	NA	<0.190	<0.19	<0.19	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**12.2**	**4.1**	**76.2**	**236.0** D	**4.0**	**88.5**	<0.19	**573.0**	NI	NI
Oct-14	**290.0**	<0.18 U	<0.18 U	NL	<0.18 U	<0.18 U	<0.18 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**37.0**	**22.0**	**280.0**	**330.0**	**43.0**	**62.0**	**4.5**	**780.0**	NI	NI
Jan-15	**220.0**	<0.50 U	<0.50 U	NL	<0.50 U	<0.50 U	<0.50 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**5.0**	**3.0**	**2.1**	**370.0**	**2.1**	**220.0**	<0.50 U	**550.0**	NI	NI
Apr-15	**270.0**	<0.50 U	<0.50 U	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	**0.5** J	<0.50 U	**21.0**	**120.0**	<0.50 U	<0.50 U	**12.0**	**140.0**	<0.50 U	NI	**3.1**	**1.1**	NS	NS	**0.8** J	NS	NS	NS	NI	NI
Oct-15	**380.0**	<0.50 U	<0.50 U	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	**11.0**	**6.6**	<0.50 U	<0.50 U	**14.0**	**3.5**	<0.50 U	NI	**4.2**	**3.2**	ABD	ABD	<0.50 U	ABD	ABD	ABD	NI	NI
Apr-16	**310.0**	<0.50 U	<0.50 U	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	**120.0**	**18.0**	<0.50 U	<0.50 U	**17.0**	**7.2**	<0.50 U	NI	**4.4**	**2.5**	ABD	ABD	<0.50	ABD	ABD	ABD	**1.2**	**76.0**
Oct-16	**550.0**	<0.42 U	<0.42 U	NL	<0.42 U	<0.42 U	NA	<0.42 U	<0.42 U	<0.42 U	<0.42 U	**3.0**	<0.42 U	**44.0**	**10.0**	<0.42 U	**1.6** J	**15.0**	**16.0**	<0.42 U	NI	**38.0**	**2.4**	ABD	ABD	**1.3** J	ABD	ABD	ABD	**1.0** J	**94.0**
Apr-17	**160.0**	<0.30 U	<0.30 U	NL	<0.30 U	<0.30 U	NS	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	<0.30 U	**79.0**	**200.0**	<0.30 U	<1.0 U	**14.0**	**21.0**	<0.30 U	NI	**30.0**	<2.2 U	ABD	ABD	**1.1** J	ABD	ABD	ABD	<0.30 U	**150.0**
Jul-17	NS	NS	NS	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.30 U	NS	NS	ABD	ABD	NS	ABD	ABD	ABD	NS	NS
Oct-17	**300.0**	<0.30 U	<0.30 U	NL	<0.30 U	<0.30 U	**1.6** J	<0.30 U	<0.30 U	<0.30 U	<0.30 U	**3.3**	<0.30 U	**350.0**	**57.0**	<0.30 U	**98.0**	**19.0**	**47.0**	<0.30 U	<0.30 U	**63.0**	**3.0**	ABD	ABD	**1.2** J	ABD	ABD	ABD	**14.0**	**68.0**
1,1-Dichloroethene		**Type 4 RRS (µg/L)**		**NA**		**Delineation Criteria (µg/L)**		**7**																							
Oct-14	**18**	<0.11 U	<0.11 U	NL	<0.11 U	<0.11 U	<0.11 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.11 U	**0.43** J	**9.4** J	**46** J	**17**	<2.2 U	**0.39** J	**53** J	NI	NI
Jan-15	**63**	<0.36 U	<0.36 U	NL	<0.36 U	<0.36 U	<0.36 U	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0.36 U	<0.36 U	<0.36 U	**21** J	**0.67** J	<18 U	<0.36 U	**22** J	NI	NI
Apr-15	**78**	<0.36 U	<0.36 U	NL	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	**2.1** J	**2.2** J	<0.36 U	<0.36 U	<0.36 U	<3.6 U	<0.36 U	NI	<0.36 U	<0.36 U	NS	NS	<0.36 U	NS	NS	NS	NI	NI
Oct-15	**55**	<0.36 U	<0.36 U	NL	<0.37 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<1.8 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	NI	<0.36 U	<0.36 U	ABD	ABD	<0.36 U	ABD	ABD	ABD	NI	NI
Apr-16	**53**	<0.36 U	<0.36 U	NL	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	**6.2** J	<0.36 U	<0.36 U	<0.36 U	<0.36 U	**0.75** J	<0.36 U	NI	<0.36 U	<0.36 U	ABD	ABD	<0.36 U	ABD	ABD	ABD	<0.36 U	**3.4**
Oct-16	**4.9** J	<0.36 U	<0.36 U	NL	<0.36 U	<0.36 U	NS	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	<0.36 U	NI	**0.89** J	<0.36 U	ABD	ABD	<0.36 U	ABD	ABD	ABD	<0.36 U	**3.5** J
Apr-17	**22**	<0.4 U	<0.4 U	NL	<0.4 U	<0.4 U	NS	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	**3.3** J	**3** J	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	NI	**1.3** J	<0.4 U	ABD	ABD	<0.4 U	ABD	ABD	ABD	**13**	**3.8** J
Jul-17	NS	NS	NS	NL	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.4 U	NS	NS	ABD	ABD	NS	ABD	ABD	ABD	NS	NS
Oct-17	**2.6** J	<0.4 U	<0.4 U	NL	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	<0.4 U	ABD	ABD	<0.4 U	ABD	ABD	ABD	<0.4 U	**3.1** J

Notes:

110 - Value exceeds risk reduction standards
5 - Value exceeds delineation criteria
0.3 - Value exceeds detection limits
All data prior to August 2013 reported by previous environmental consultants
NA - Well not accessible
NS - Well not sampled
NI - Well not installed
NU - Well not utilized in groundwater sampling program
NL - Well not located
ABD - Well has been abandoned

U - Value is below detection limits
< - less than method detection limit (MDL)
J - this is an estimated value that is above the MDL but below the practical quantitation limit
I* - not certain

Table 3-5: Historical Groundwater Potentiometric Surface Elevations: Shallow Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)									MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16	Nov-16	Apr-17	Oct-17					
Shallow Wells															
G-17 (1)	8.94	6.40	3.94	6.39	6.26	4.79	3.84	3.64	4.25	3.75	3.64	6.40	2.76	4.81	1.45
G-19 (1)	9.85	5.94	3.40	5.67	5.48	4.80	3.85	3.85	4.05	3.66	3.40	5.94	2.54	4.52	0.93
G-22 (1)	9.36	4.05	2.59	4.33	4.28	3.51	2.51	2.40	ABD	ABD	2.40	4.33	1.93	3.38	0.75
G-22R (2)	17.17	NI	NI	NI	NI	NI	NI	NI	NI	3.07	3.07	3.07	N/A	N/A	N/A
MW-2S (2)	11.54	8.93	7.17	9.20	10.49	8.73	7.54	6.59	6.85	6.71	6.59	10.49	3.90	8.02	1.86
MW-4S (2)	10.86	5.29	4.58	5.67	6.03	5.21	4.62	5.03	5.17	4.69	4.58	6.03	1.45	5.14	0.24
MW-15S (1)	8.27	5.47	3.72	5.59	5.51	4.53	3.76	3.56	4.35	3.75	3.56	5.59	2.03	4.47	0.72
MW-29 (1)	9.39	7.31	5.35	6.93	7.43	6.22	6.50	4.98	5.22	5.54	4.98	7.43	2.45	6.16	0.87
MW-31 (1)	11.96	6.76	5.81	5.88	7.05	6.47	5.16	5.31	6.00	6.01	5.16	7.05	1.89	6.05	0.39
MW-32 (1)	12.02	7.00	6.04	7.24	7.51	6.82	6.52	5.56	6.17	6.21	5.56	7.51	1.95	6.56	0.40
MW-33 (1)	8.48	5.61	3.70	5.63	NM	4.36	3.81	3.75	4.42	3.76	3.70	5.63	1.93	4.38	0.66
MW-37S (2)	10.14	NI	NI	NI	5.59	5.21	4.89	4.81	5.08	4.88	4.81	5.59	0.78	5.08	0.09
MW-40S (2)	5.57	NI	NI	NI	5.39	4.48	3.97	4.14	4.52	4.05	3.97	5.39	1.42	4.42	0.27
MW-42S (2)	10.71	NI	NI	NI	7.22	6.47	6.31	5.60	6.44	6.51	5.60	7.22	1.62	6.42	0.27
MW-45S (2)	13.74	NI	NI	NI	7.93	7.27	6.99	6.41	7.03	6.69	6.41	7.93	1.52	7.06	0.27
MW-46S (2)	14.01	NI	NI	NI	7.90	7.67	7.32	6.47	7.03	7.13	6.47	7.90	1.43	7.26	0.26
MW-48S (2)	13.56	NI	NI	NI	8.32	7.46	7.11	5.90	6.74	6.81	5.90	8.32	2.42	7.06	0.65
MW-50S (2)	11.18	NI	NI	NI	6.72	5.75	5.40	4.96	5.63	5.42	4.96	6.72	1.76	5.65	0.35
MW-57S (2)	9.68	NI	NI	NI	NI	NI	NI	NI	NI	6.27	6.27	6.27	N/A	N/A	N/A
MW-U2 (2)	10.91	NL	NL	6.93	8.73	7.92	6.51	NM	ABD	ABD	6.51	8.73	2.22	7.52	1.00
PAW-3 (2)	11.83	7.31	6.38	7.41	7.99	7.33	6.42	6.03	6.08	6.05	6.03	7.99	1.96	6.78	0.54
Event Min.*[2] (ft.)		4.05	2.59	4.33	4.28	3.51	2.51	2.40	4.05	3.07	**Global Min.*[2]** (ft.)			2.40	
Event Max.*[2] (ft.)		8.93	7.17	9.20	10.49	8.73	7.54	6.59	7.03	7.13	**Global Max.*[2]** (ft.)			10.49	
Event Range*[2] (ft.)		4.88	4.58	4.87	6.21	5.22	5.03	4.19	2.98	4.06	**Global Range*[2]** (ft.)			8.09	
Event Avg.*[2] (ft.)		6.37	4.79	6.41	6.99	6.05	5.42	4.94	5.59	5.31	**Global Avg.*[2]** (ft.)			5.76	
Event Var.*[2] (ft.)		1.70	2.10	1.55	2.24	2.12	2.26	1.39	1.08	1.72	**Global Var.*[2]** (ft.)			2.17	

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016 and May 2017.

*** = Event Min, Max, Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

***[2] = MW Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

***[3]= Global Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

ABD - Abandoned NL - Not Located NM - Not Measured

NI - Not Installed N/A - Not Applicable

Table 3-6: Historical Groundwater Potentiometric Surface Elevations: Deep Wells

Well ID # (Well Diameter, in.)	TOC Elevation (ft.)	Groundwater Potentiometric Surface Elevation (ft.)									MW Min.* (ft.)	MW Max.* (ft.)	MW Range* (ft.)	MW Avg.* (ft.)	MW Var.* (ft.)
		Jul-14	Oct-14	Jan-15	Apr-15	Oct-15	Apr-16	Nov-16	Apr-17	Oct-17					
Deep Wells															
MW-2D (2)	11.39	6.76	6.16	7.34	7.41	6.97	6.48	6.11	6.80	6.42	6.11	7.41	1.30	6.72	0.22
MW-11D (2)	16.07	7.87	7.04	8.15	9.08	7.92	7.43	6.50	7.02	7.17	6.50	9.08	2.58	7.58	0.59
MW-14D (2)	12.06	6.87	5.38	6.09	6.44	5.86	5.63	5.32	5.53	5.60	5.32	6.87	1.55	5.86	0.27
MW-26 (1)	8.42	5.30	5.00	5.86	NM	5.50	5.01	5.02	5.18	5.13	5.00	5.86	0.86	5.25	0.09
MW-35 (0.75)	6.28	NL	NM	NM	6.08	5.57	5.18	4.96	5.22	5.31	4.96	6.08	1.12	5.39	0.15
MW-36 (0.75)	9.86	5.49	4.94	6.05	6.16	5.78	5.09	NM	ABD	ABD	4.94	6.16	1.22	5.59	0.25
MW-36R (2)	7.80	NI	NI	NI	NI	NI	NI	NI	NI	4.93	4.93	4.93	N/A	N/A	N/A
MW-38D (2)	10.08	NI	NI	NI	5.54	4.94	4.68	4.70	4.70	4.68	4.68	5.54	0.86	4.87	0.12
MW-39D (2)	7.25	NI	NI	NI	5.07	4.42	4.02	4.00	4.20	4.00	4.00	5.07	1.07	4.29	0.17
MW-41D (2)	9.59	NI	NI	NI	6.67	5.97	5.44	5.46	5.87	5.73	5.44	6.67	1.23	5.86	0.20
MW-43D (2)	10.77	NI	NI	NI	7.16	6.58	6.11	5.78	6.31	6.15	5.78	7.16	1.38	6.35	0.23
MW-44D (2)	13.83	NI	NI	NI	7.45	6.94	6.68	6.20	6.60	6.48	6.20	7.45	1.25	6.72	0.18
MW-47D (2)	13.63	NI	NI	NI	7.66	7.20	6.86	6.05	6.70	6.69	6.05	7.66	1.61	6.86	0.29
MW-49D (2)	11.09	NI	NI	NI	6.44	5.74	5.25	5.28	5.56	5.40	5.25	6.44	1.19	5.61	0.20
MW-51D (2)	9.87	NI	NI	NI	6.10	5.26	4.77	4.67	5.19	4.82	4.67	6.10	1.43	5.14	0.28
MW-52D (2)	8.29	NI	NI	NI	5.60	5.16	4.69	4.55	4.91	4.65	4.55	5.60	1.05	4.92	0.16
MW-53D (2)	7.62	NI	NI	NI	6.30	5.56	4.92	4.91	5.47	5.04	4.91	6.30	1.39	5.36	0.29
MW-54D (2)	10.91	NI	NI	NI	7.09	6.30	5.93	5.45	6.04	5.81	5.45	7.09	1.64	6.11	0.31
MW-55D (2)	11.78	NI	NI	NI	6.76	6.18	5.73	5.20	5.84	5.68	5.20	6.76	1.56	5.90	0.28
MW-56D (2)	10.68	NI	NI	NI	7.37	6.55	6.13	5.60	6.26	6.13	5.60	7.37	1.77	6.34	0.35
MW-58D (2)	9.82	NI	NI	NI	NI	NI	NI	NI	NI	6.40	6.40	6.40	N/A	N/A	N/A
PAW-4 (2)	11.99	6.67	5.99	6.96	7.49	6.77	6.21	5.66	6.32	6.13	5.66	7.49	1.83	6.47	0.31
RW-1 (4)	11.69	7.18	6.34	7.63	8.58	7.26	6.81	6.04	6.71	6.44	6.04	8.58	2.54	7.00	0.60
RW-2 (4)	9.24	6.62	5.76	7.03	NM	NM	NM	NM	NM	NM	5.76	7.03	1.27	6.47	0.42
RW-3 (6)	7.58	5.64	4.80	5.80	NM	NM	NM	NM	NM	NM	4.80	5.80	1.00	5.41	0.29
RW-4 (6)	13.25	6.90	6.15	7.27	8.10	7.19	6.57	5.91	6.65	6.40	5.91	8.10	2.19	6.79	0.44
RW-5 (6)	11.71	6.76	5.94	7.06	NM	NM	NM	NM	NM	NM	5.94	7.06	1.12	6.59	0.34
RW-6 (6)	10.12	5.44	4.67	5.64	NM	NM	NM	NM	NM	NM	4.67	5.64	0.97	5.25	0.26
RW-7 (6)	8.63	5.13	4.75	5.88	NM	NM	NM	NM	NM	NM	4.75	5.88	1.13	5.25	0.33
RW-8 (4)	7.43	NI	NI	NI	NI	NI	4.83	4.65	5.10	4.78	4.65	5.10	0.45	4.84	0.04
RW-9 (4)	11.79	NI	NI	NI	NI	NI	6.10	5.62	6.30	6.20	5.62	6.30	0.68	6.06	0.09
Event Min.*[2] (ft.)		5.13	4.67	5.64	5.07	4.42	4.02	4.00	4.20	4.00	**Global Min.*[2]** (ft.)			4.00	
Event Max.*[2] (ft.)		7.87	7.04	8.15	9.08	7.92	7.43	6.50	7.02	7.17	**Global Max.*[2]** (ft.)			9.08	
Event Range*[2] (ft.)		2.74	2.37	2.51	4.01	3.50	3.41	2.50	2.82	3.17	**Global Range*[2]** (ft.)			5.08	
Event Avg.*[2] (ft.)		6.36	5.61	6.67	6.88	6.16	5.69	5.38	5.85	5.69	**Global Avg.*[2]** (ft.)			6.03	
Event Var.*[2] (ft.)		0.73	0.55	0.68	1.02	0.78	0.75	0.39	0.59	0.62	**Global Var.*[2]** (ft.)			0.88	

Notes:

Top of casing (TOC) elevations are based on surveys conducted by Brewer Land Surveying in October 2013, EMC Engineering Services in June 2015, and Mock Surveying in January 2016 and May 2017.

*** = Event Min, Max, Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each respective groundwater gauging event.

***[2] = MW Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for each monitoring well throughout all gauging events from July 2014 to October 2015 where available.

***[3]= Global Min., Max., Range, Avg., and Var.** - are the minimum, maximum, range, average, and total variance for all monitoring wells throughout all events from July 2014 to APR 2016

ABD - Abandoned NL - Not Located NM - Not Measured

NI - Not Installed N/A - Not Applicable

Table 4-1: Excavation Sidewall Sample Results - AOC-3

Constituents	CAS No.	Type 3 Soil RRS	AOC-3 1	AOC-3 2	AOC-3 3	AOC-3 4
		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
Tetrachloroethene	127-18-4	500	<1.9	**5.7 J**	**8.0**	<1.8
Trichloroethene	79-01-6	500	<1.7	<1.9	<1.4	<1.6
1,2-Dichloroethene (cis)	156-59-2	7,000	<2.3	<2.5	<1.9	<2.1
Vinyl chloride	75-01-4	200	<2.6	<2.9	<2.2	<2.5
Benzene	71-43-2	500	<0.74	<0.81	<0.62	**1.1 J**
Ethylbenzene	100-41-4	70,000	**0.7 J**	<0.68	<0.53	<0.58
Toluene	108-88-3	100,000	<0.66	**8.2**	**4.0 J**	**1.4 J**
Total Xylenes*	1330-20-7	1,000,000	**2.0 J**	<1.3	<0.99	**2.4 J**

Notes:

* = Total Xylenes is calculated based on the total sum of individual isomer concentrations, if a "J" value was assigned to any of the isomers, the "J" value was added to the sum presented in the table

Final RRS values derived from Type 3 values listed in revised Table 1-4 included in the First VIRP Semi-annual Progress Report (2014)

5 - Concentration is above Type 3 RRS criteria (No concentrations exceeded Type 3 RRS)

5 - Concentration is above method detection limits but below RRS criteria

<1.3 - Concentration is below method detection limits

J - Concentration is less than the recovery limit but greater than or equal to the method detection limit and therefore the concentration is an appr

B - Compound was found in method blank and sample

Table 4-2: Excavation Sidewall Sample Results - AOC-4

Constituents	CAS No.	Type 3 Soil RRS	AOC-4 1	AOC-4 2	AOC-4 3	AOC-4 4	AOC-4 5	AOC-4 6
		(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
Tetrachloroethene	127-18-4	500	<1.7	**2.6 J**	**12**	<1.9	**3,600**	**13**
Trichloroethene	79-01-6	500	<1.5	<1.5	<1.6	<1.7	**9.7**	<1.6
1,2-Dichloroethene (cis)	156-59-2	7,000	<2.0	**6.5**	**13**	**4.5 J**	**2,900**	**4.9 J**
Vinyl chloride	75-01-4	200	<2.4	<2.3	<2.4	<2.6	**64**	<2.4
Benzene	71-43-2	500	<0.66	<0.64	<0.67	<0.73	<0.60	<0.68
Ethylbenzene	100-41-4	70,000	<0.56	<0.54	<0.56	**8.5**	**4.6 J**	<0.58
Toluene	108-88-3	100,000	<0.59	**1.4 J**	<0.60	**1.6 J**	**14**	<0.61
Total Xylenes*	1330-20-7	1,000,000	<1.1	<1.0	<1.1	**7.6 J**	**9.9 J**	<1.1

Notes:

* = Total xylenes is calculated based on the total sum of individual isomer concentrations, if a "J" value was assigned to any of the isomers, the "J" value was added to the sum presented in the table

Final RRS values derived from Type 3 values listed in revised Table 1-4 included in the First VIRP Semi-annual Progress Report (2014)

5 - Concentration is above Type 3 RRS criteria

5 - Concentration is above method detection limits but below RRS criteria

<1.3 - Concentration is below method detection limits

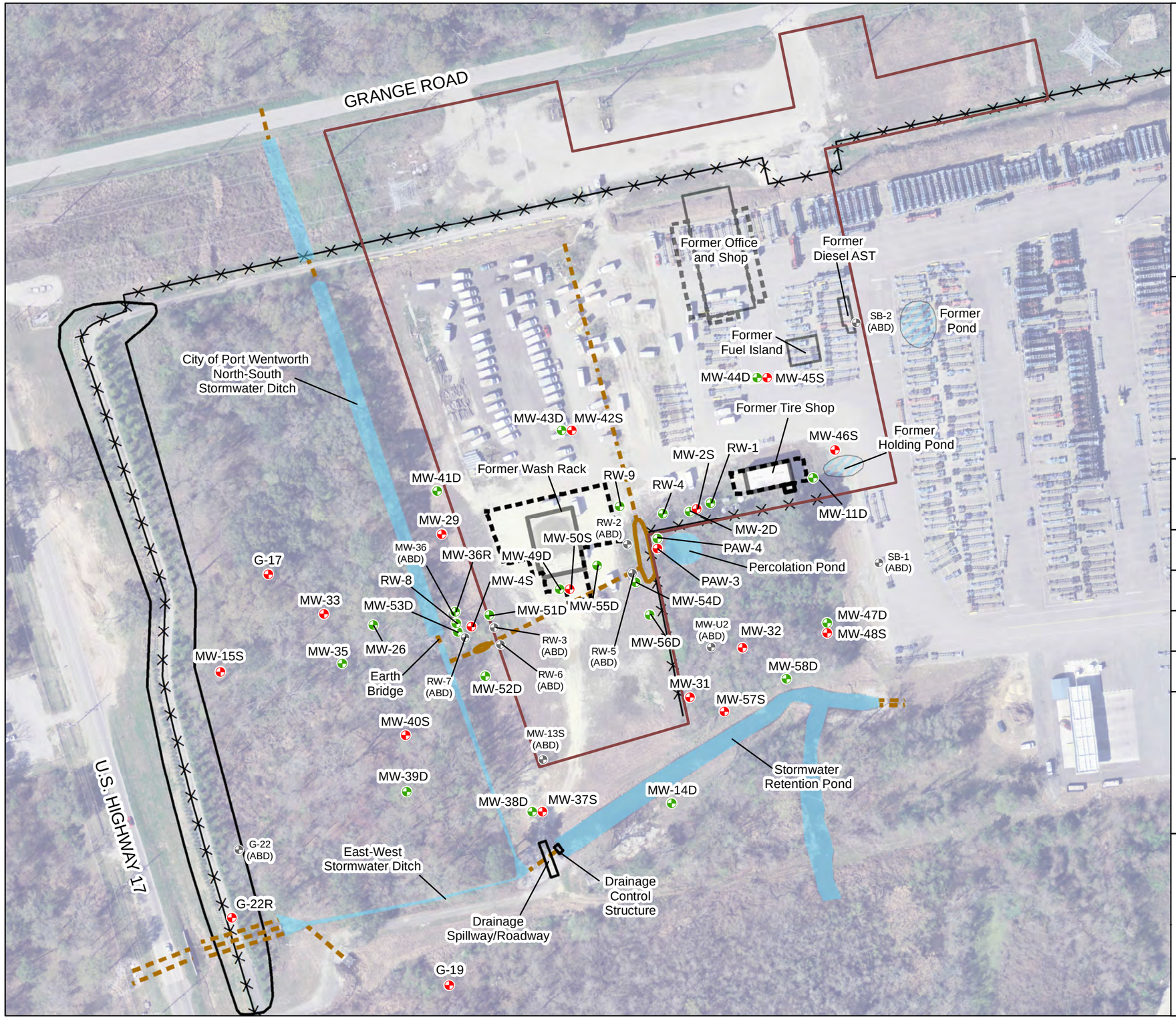
J - Concentration is less than the recovery limit but greater than or equal to the method detection limit and therefore the concentration is an approximate value

B - Compound was found in method blank and sample

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GEORGIA

EIGHTH SEMI-ANNUAL PROGRESS REPORT

FIGURES



Legend

- SHALLOW WELLS
- DEEP WELLS
- ABANDONED/NOT UTILIZED WELLS
- BERM OUTLINE
- SECURITY FENCE
- BELOW GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- FORMER WATER FEATURE
- (ABD) ABANDONED

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. OTHER FORMER SITE FEATURES WERE PLOTTED BASED UPON HISTORICAL SITE MAPS FROM McKENZIE TANK LINES. WELLS SCREENED AT INTERVALS APPROXIMATELY BETWEEN 10 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS. WELLS SCREENED AT INTERVALS APPROXIMATELY 20 FEET OR GREATER BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

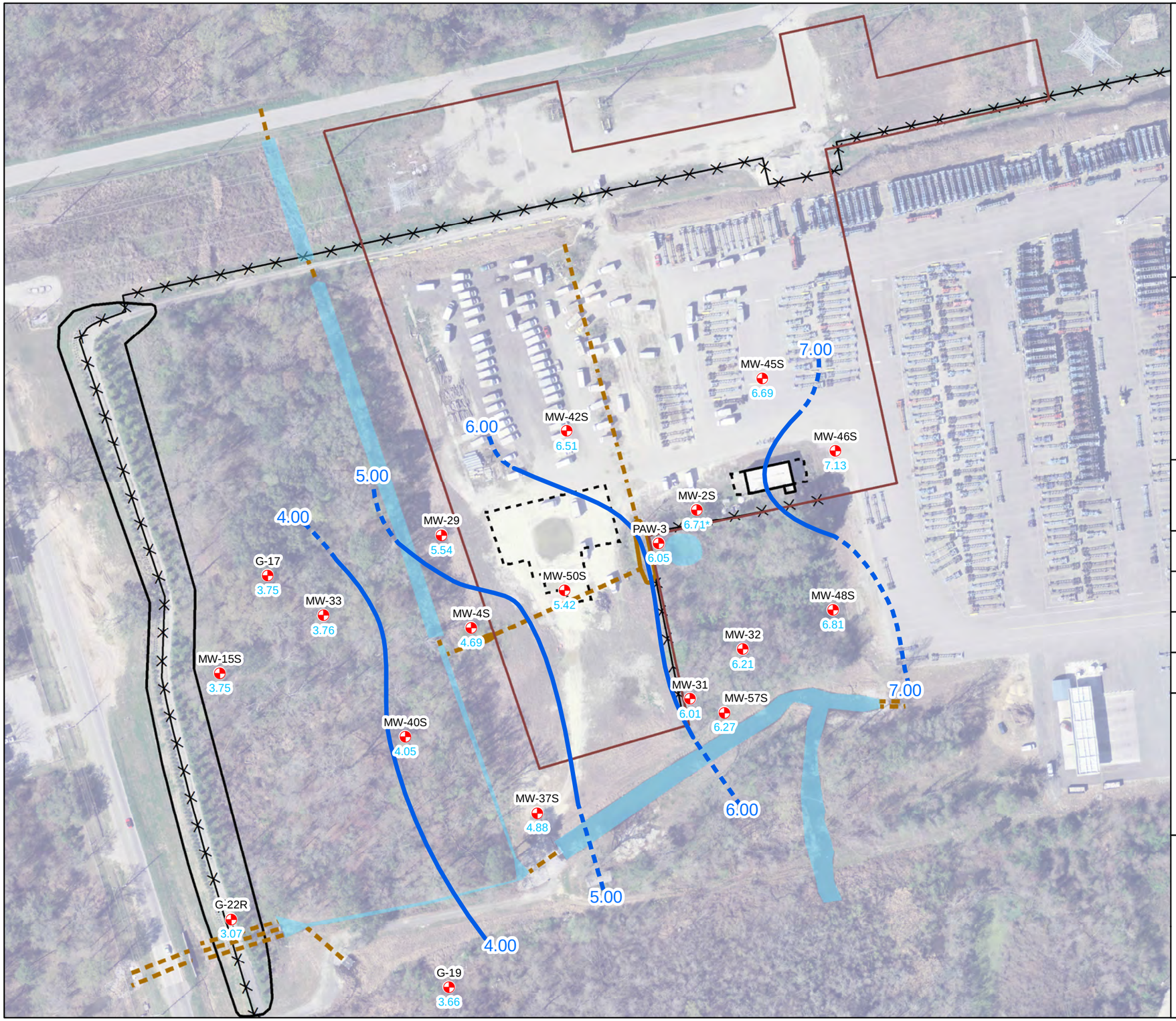
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 1-1: SITE LAYOUT MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (1 FOOT INTERVALS)
- ESTIMATED GROUNDWATER CONTOURS
- 6.81 GROUNDWATER ELEVATIONS (FT., NAVD 88)
- 6.71* DATA NOT CONSIDERED FOR CONTOURS

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.

N

150 75 0 150

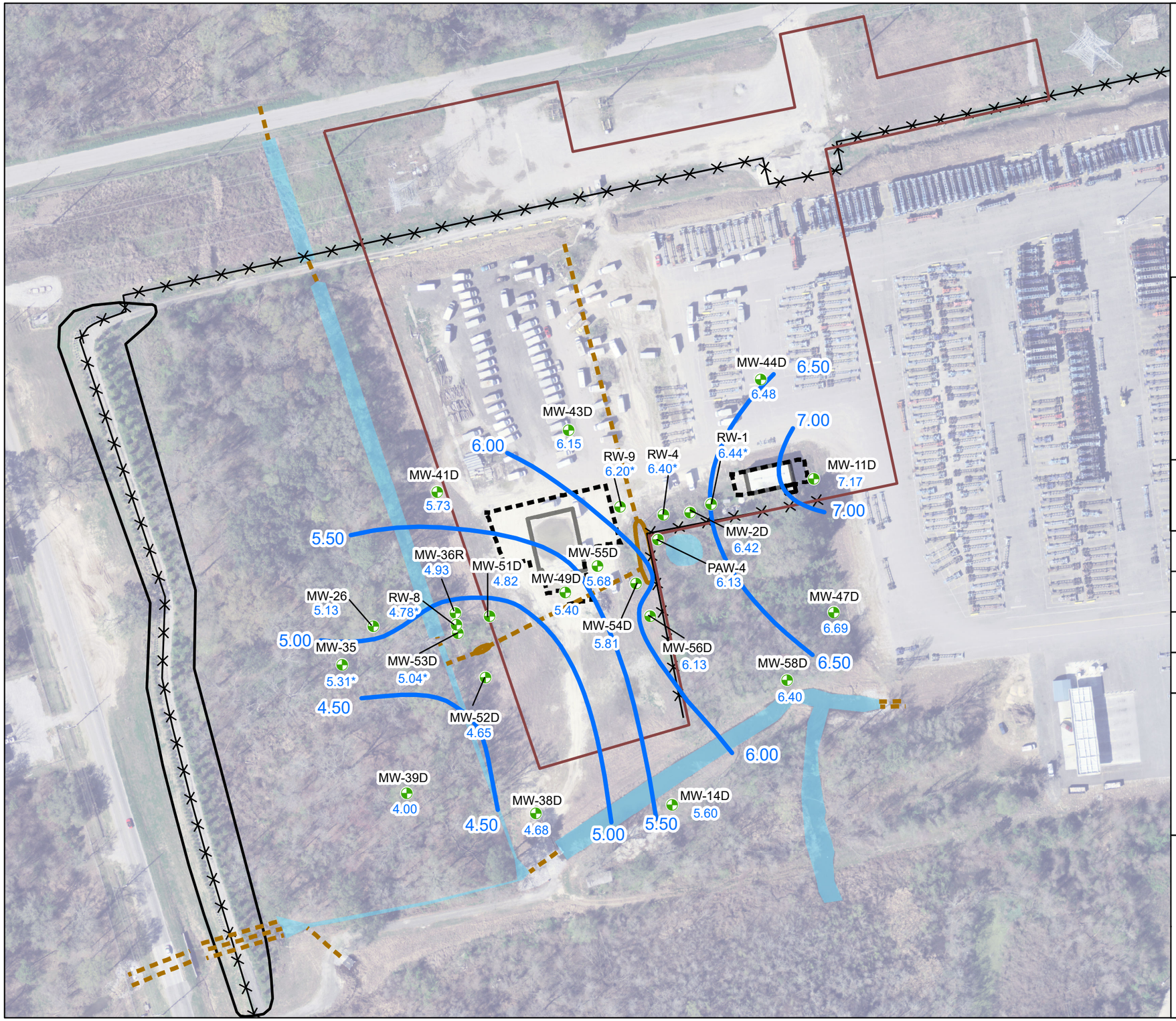
Feet

DESIGNED BY: S.F.H.	REVISIONS NO.	REVISIONS DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 3-1: OCTOBER 2017 SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD.
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

GROUNDWATER CONTOURS

- GROUNDWATER CONTOURS (0.5 FOOT INTERVALS)
- ESTIMATED GROUNDWATER CONTOURS
- 6.50 — GROUNDWATER ELEVATIONS (FT., NAVD 88)
- 6.40* — DATA NOT CONSIDERED FOR CONTOURS

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

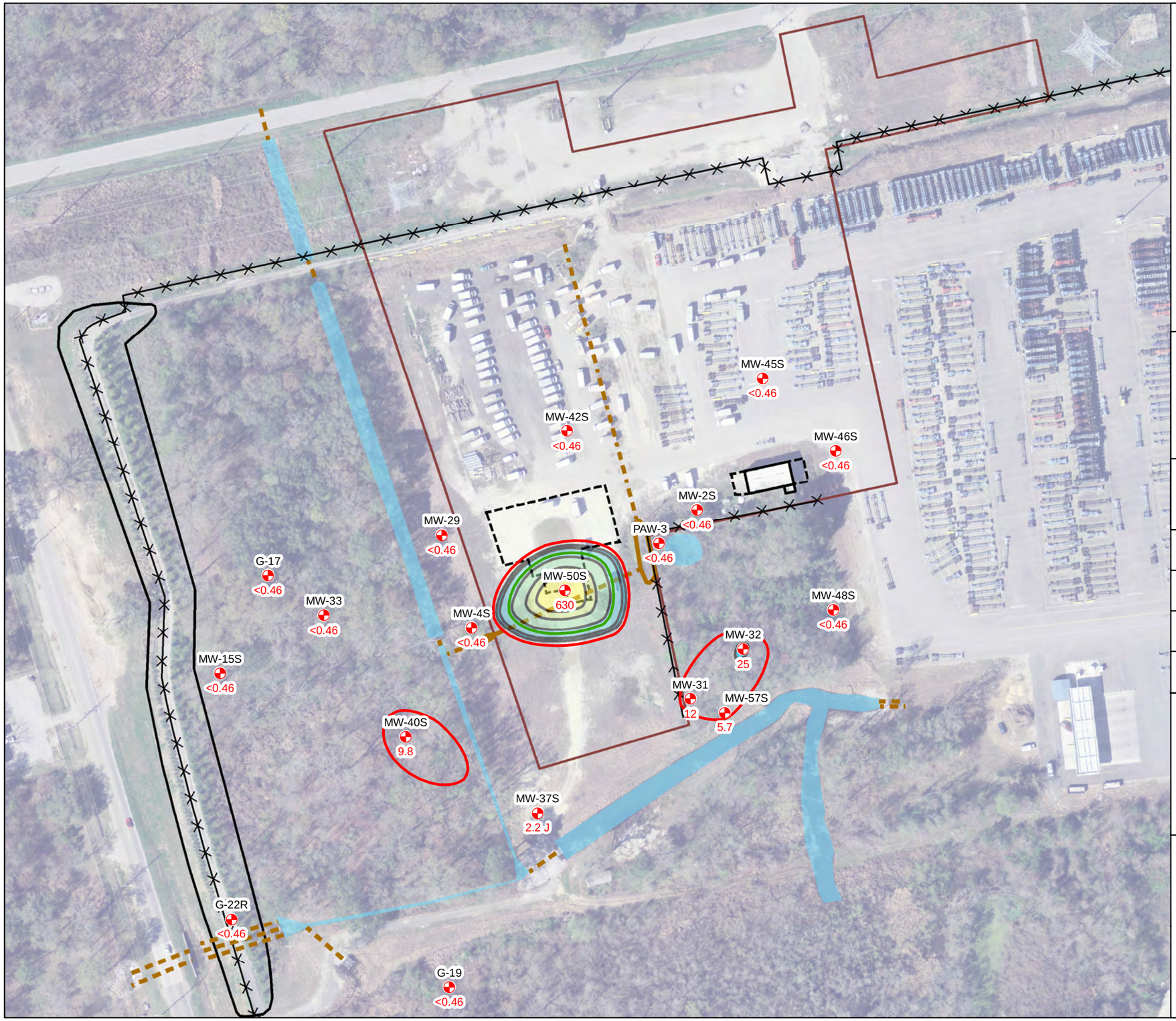
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-2: OCTOBER 2017 DEEP GROUNDWATER POTENTIOMETRIC SURFACE MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

PCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 98 µg/L

LABELS

- MW-40S — WELL ID
- <0.46 — CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.

N

150 75 0 150

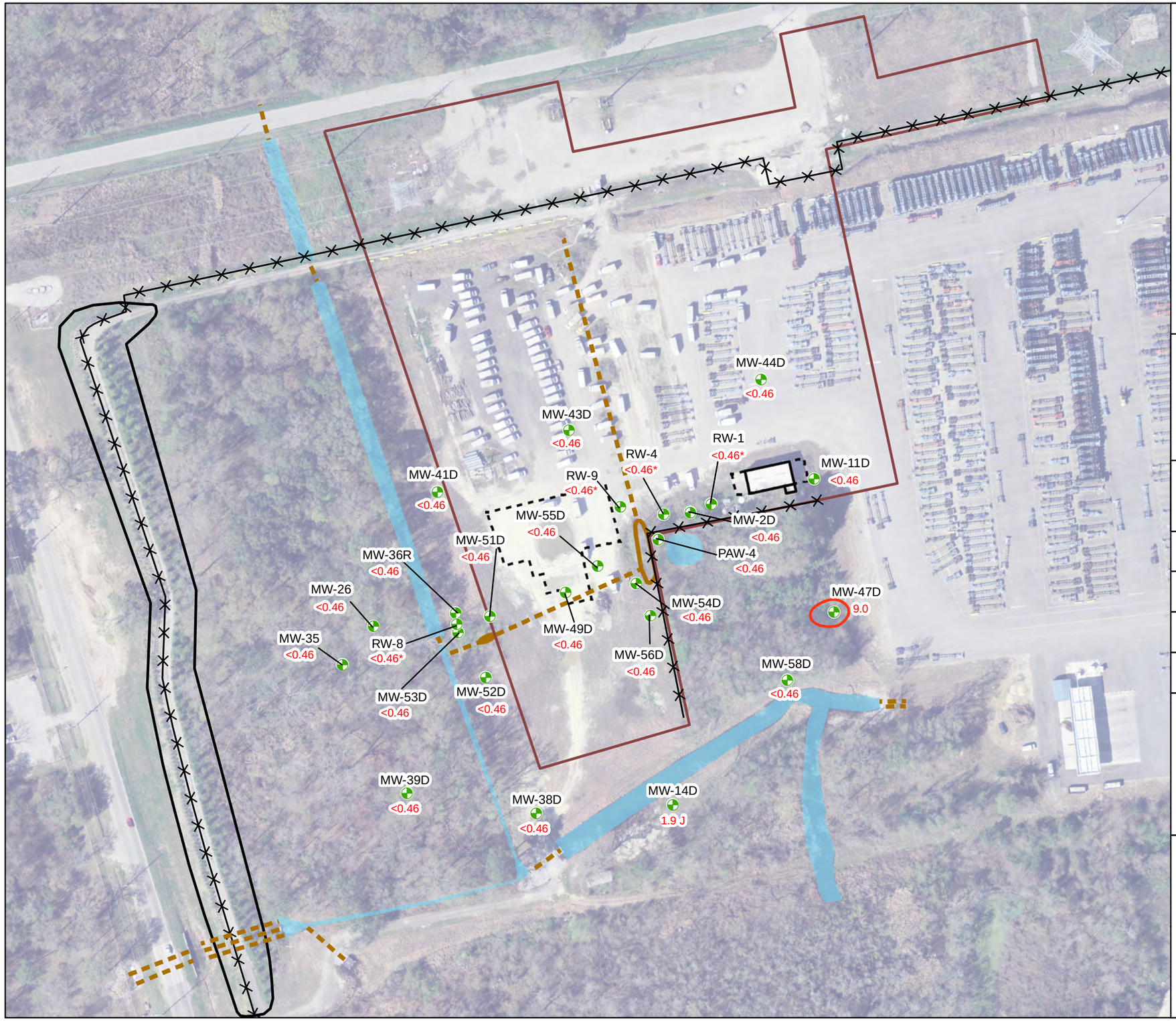
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 3-3: OCTOBER 2017 SHALLOW PCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

PCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 96 µg/L

LABELS

- MW-49D — WELL ID
- <0.46 — CONCENTRATION IN µg/L
- <0.46* — NOT CONSIDERED

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

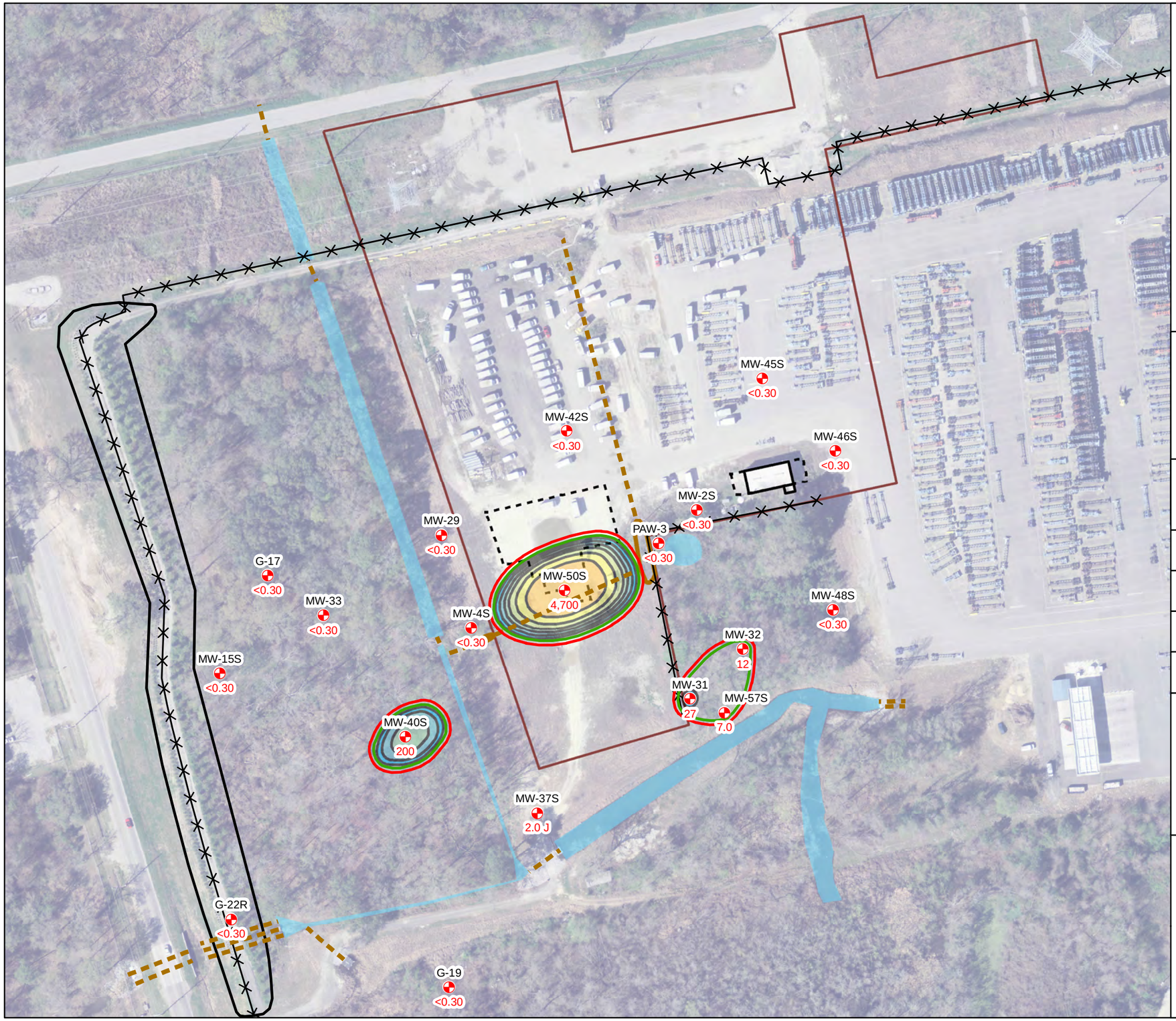
Feet

DESIGNED BY: A.G.	REVISIONS		DATE: 11/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-4: OCTOBER 2017 DEEP PCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

TCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-40S — WELL ID
- <0.30 — CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.

N

150 75 0 150

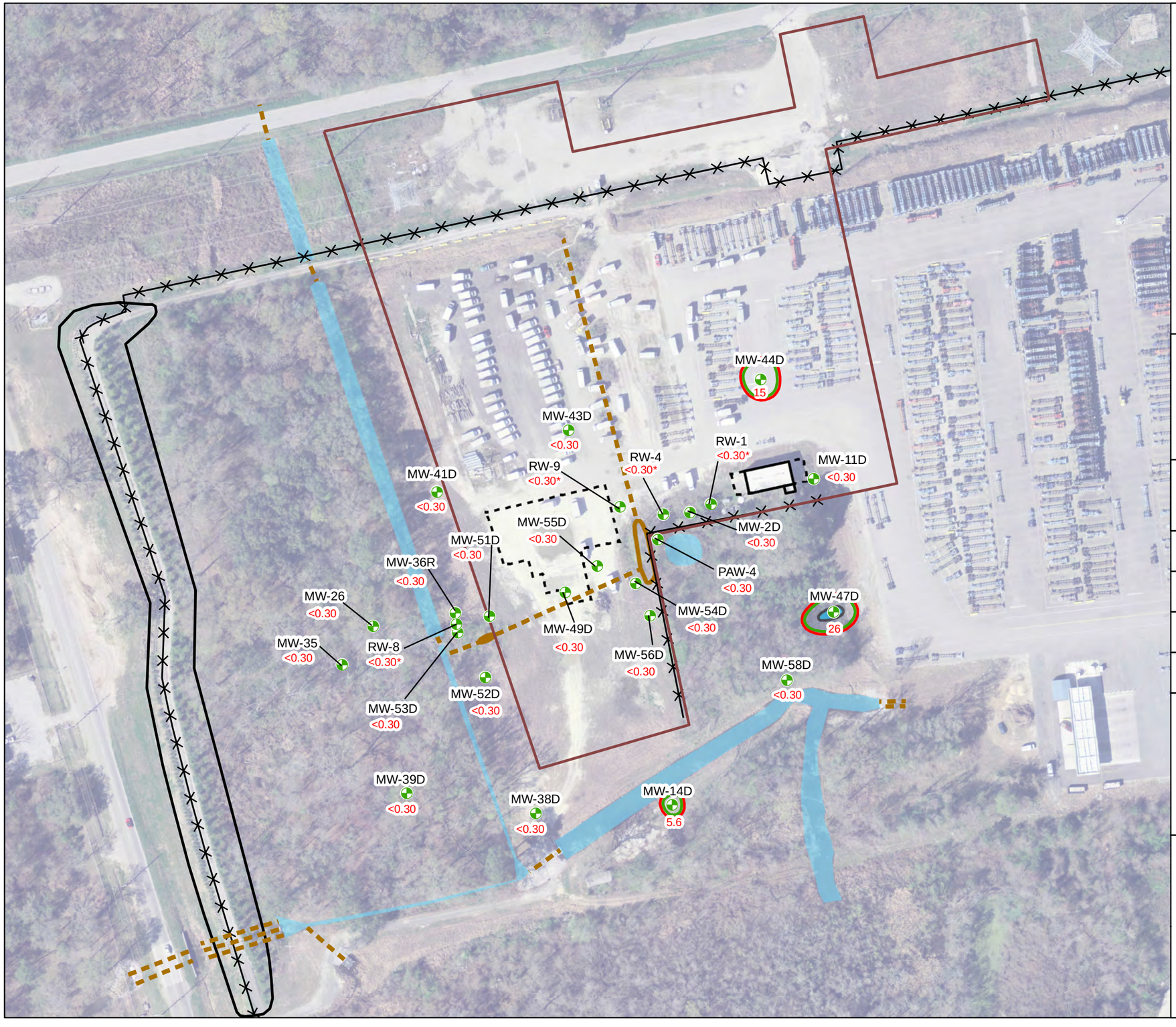
Feet

DESIGNED BY: A.G.	REVISIONS		DATE: 11/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-5: OCTOBER 2017 SHALLOW TCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

TCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 5 µg/L
- RRS TYPE 4 OF 5 µg/L

LABELS

- MW-49D — WELL ID
- <0.30 — CONCENTRATION IN µg/L
- <0.30* — NOT CONSIDERED

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

Feet

DESIGNED BY: A.G.	REVISIONS		DATE: 11/15/2017
	NO.	DATE	SCALE: SEE BAR SCALE
DRAWN BY: S.F.H.			
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-6: OCTOBER 2017 DEEP TCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

DCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

- MW-40S — WELL ID
- <0.28 — CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.

N

150 75 0 150

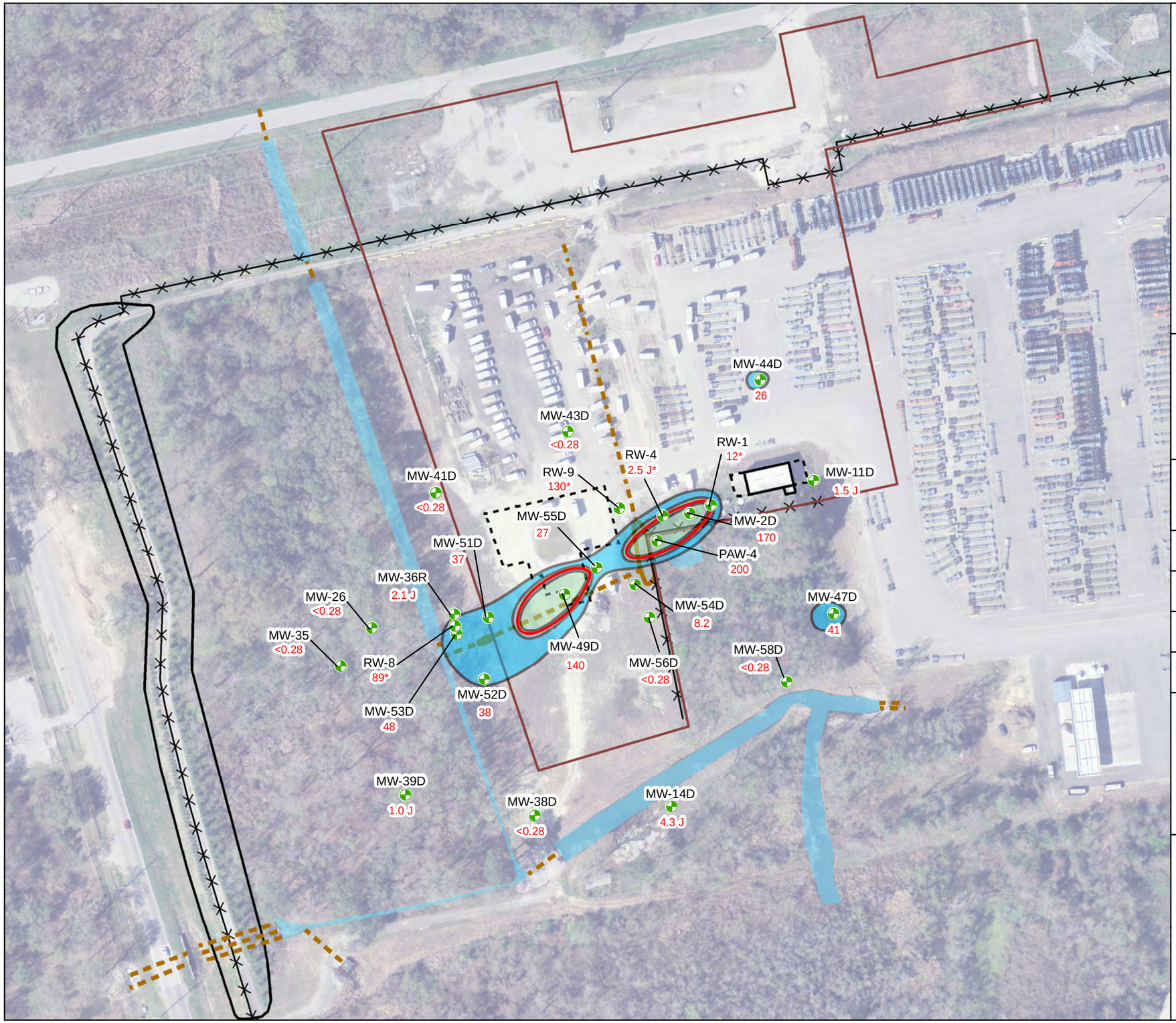
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 3-7: OCTOBER 2017 SHALLOW DCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

DCE CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 70 µg/L
- RRS TYPE 4 OF 204 µg/L

LABELS

- MW-40S — WELL ID
- <0.28 — CONCENTRATION IN µg/L
- <0.28* — NOT CONSIDERED

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

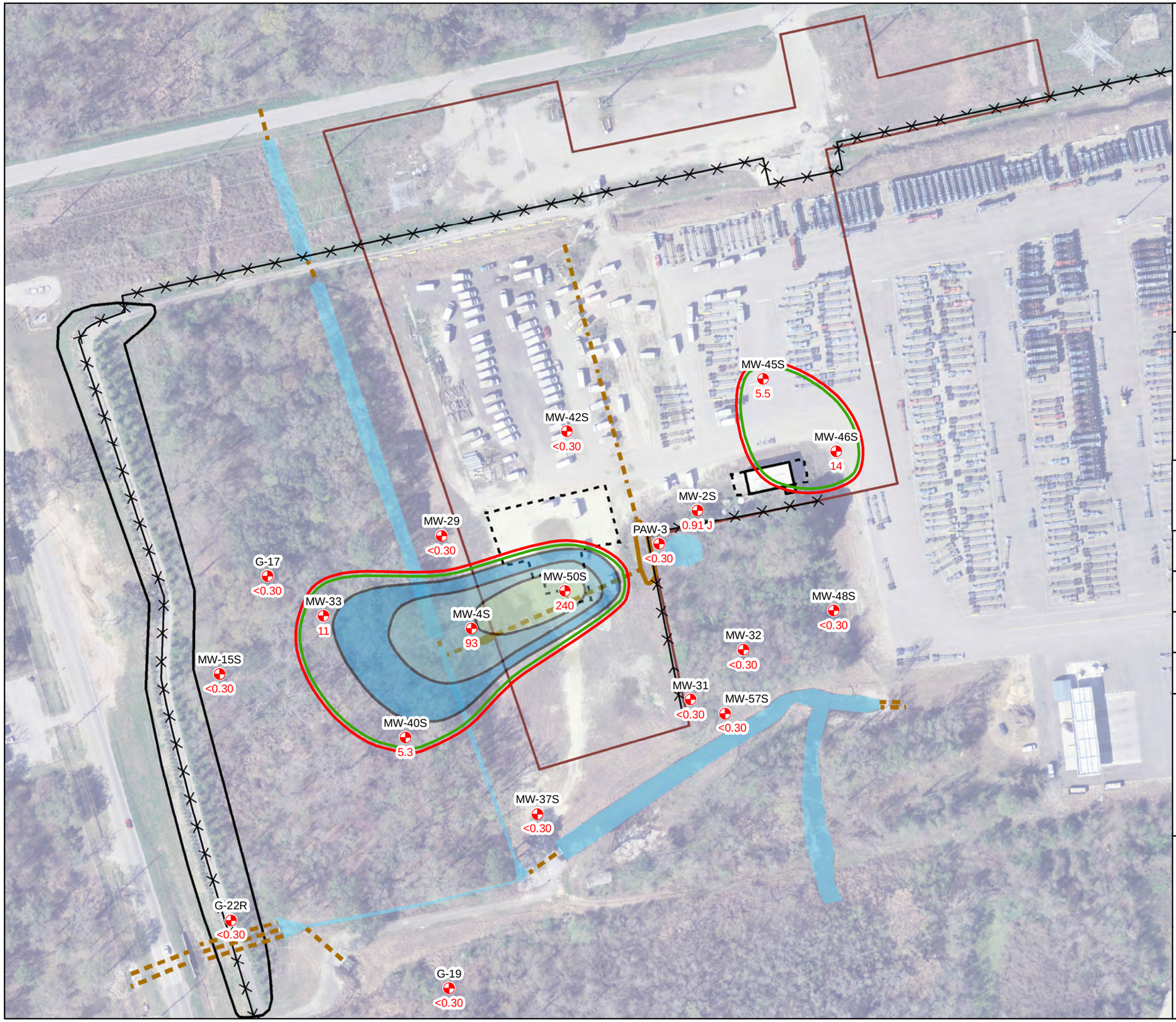
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-8: OCTOBER 2017 DEEP DCE ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- SHALLOW WELLS

VC CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-40S — WELL ID
- <0.30 — CONCENTRATION IN µg/L

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BETWEEN 0 AND 20 FEET BELOW GROUND SURFACE ARE CONSIDERED SHALLOW WELLS.

N

150 75 0 150

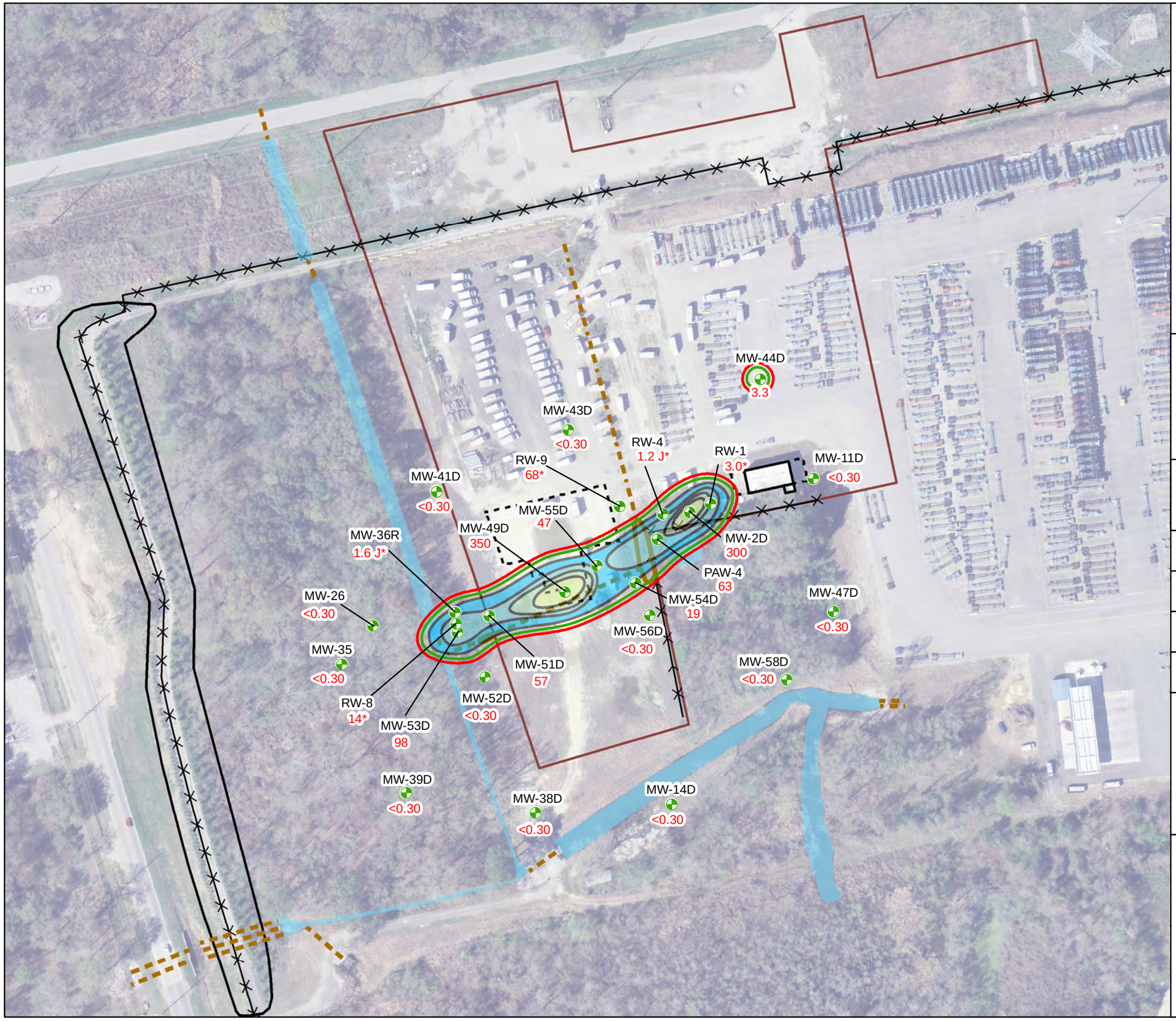
Feet

DESIGNED BY: A.G.	REVISIONS NO.	DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 3-9: OCTOBER 2017 SHALLOW VC ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Legend

SITE FEATURES

- BERM OUTLINE
- SECURITY FENCE
- BELOW-GRADE STORM WATER DRAINAGE PIPES
- BUILDINGS
- CONCRETE APRONS
- STORM WATER SWALES
- WATER FEATURES
- FORMER MCKENZIE PROPERTY BOUNDARY
- DEEP WELLS

VC CONCENTRATIONS

CONTOURS

- DELINIATION CRITERION OF 2 µg/L
- RRS TYPE 4 OF 3 µg/L

LABELS

- MW-40S — WELL ID
- <0.30 — CONCENTRATION IN µg/L
- 1.2* — NOT CONSIDERED

CONCENTRATIONS IN µg/L

25 - 50	500 - 1,000	10,000+
50 - 100	1,000 - 2,500	
100 - 250	2,500 - 5,000	
250 - 500	5,000 - 10,000	

NOTES: AERIAL PHOTO IS FROM USGS 0.15 m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEYS CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, EMC ENGINEERING SERVICES IN JUNE 2015 AND MOCK SURVEYING IN JANUARY 2016 AND MAY 2017. WELLS WITH SCREEN INTERVALS BELOW 20 FEET BELOW GROUND SURFACE ARE CONSIDERED DEEP WELLS.

N

150 75 0 150

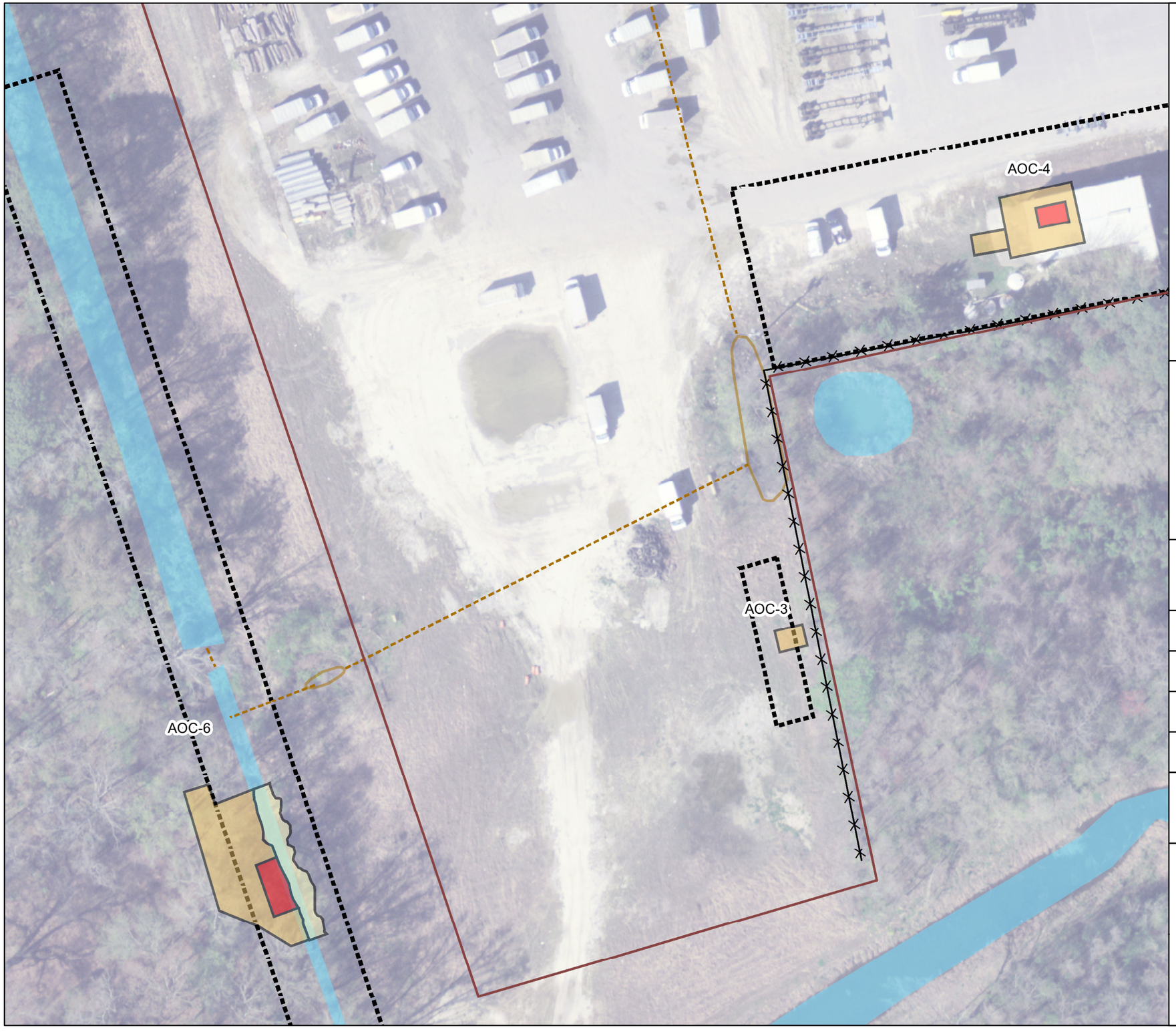
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 11/15/2017
DRAWN BY: S.F.H.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 3-10: OCTOBER 2017 DEEP VC ISOCONCENTRATION MAP

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31407

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



LEGEND

SITE FEATURES

- SECURITY FENCE
- FORMER PROPERTY BOUNDARY
- WATER FEATURE
- DRAINAGE SWALE
- STORMWATER DRAINAGE PIPE
- AREAS OF CONCERN

EXCAVATION FEATURES

- NON-HAZARDOUS EXCAVATION AREA
- SEDIMENT EXCAVATION AREA
- HAZARDOUS EXCAVATION AREA

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SECURITY FENCE AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED IN OCTOBER 2013.

N

50 25 0 50

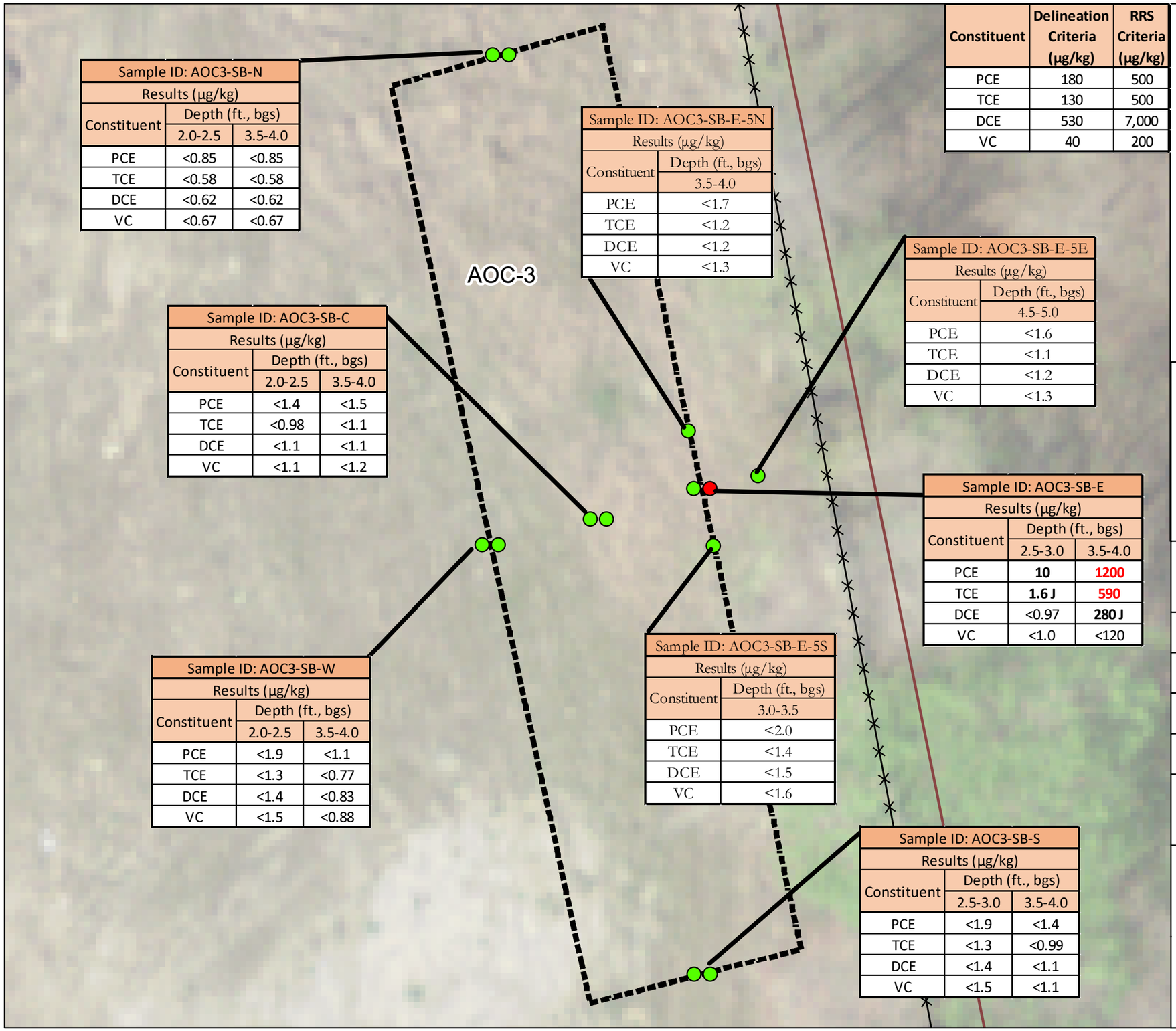
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-1: SITE LAYOUT ILLUSTRATING AREAS TARGETED FOR SOURCE REMOVAL

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Sample ID: AOC3-SB-N		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<0.85	<0.85
TCE	<0.58	<0.58
DCE	<0.62	<0.62
VC	<0.67	<0.67

Sample ID: AOC3-SB-E-5N	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	3.5-4.0
PCE	<1.7
TCE	<1.2
DCE	<1.2
VC	<1.3

Sample ID: AOC3-SB-E-5E	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	4.5-5.0
PCE	<1.6
TCE	<1.1
DCE	<1.2
VC	<1.3

Sample ID: AOC3-SB-C		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<1.4	<1.5
TCE	<0.98	<1.1
DCE	<1.1	<1.1
VC	<1.1	<1.2

Sample ID: AOC3-SB-E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	3.5-4.0
PCE	**10**	**1200**
TCE	**1.6 J**	**590**
DCE	<0.97	**280 J**
VC	<1.0	<120

Sample ID: AOC3-SB-W		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.5-4.0
PCE	<1.9	<1.1
TCE	<1.3	<0.77
DCE	<1.4	<0.83
VC	<1.5	<0.88

Sample ID: AOC3-SB-E-5S	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	3.0-3.5
PCE	<2.0
TCE	<1.4
DCE	<1.5
VC	<1.6

Sample ID: AOC3-SB-S		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	3.5-4.0
PCE	<1.9	<1.4
TCE	<1.3	<0.99
DCE	<1.4	<1.1
VC	<1.5	<1.1

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-3 — AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

SECURITY FENCE

FORMER MCKENZIE PROPERTY BOUNDARY

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. WELL LOCATIONS AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY AND MARCH 2015 SOIL SAMPLING EVENTS. CONSTIUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC, AND BTEX. SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) BELOW GROUND SURFACE IN THE VADOSE ZONE.

N

10 5 0 10 Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 4-2: EXTENT OF CONTAMINATION IN AOC-3

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Sample ID: AOC4-SB-N		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<0.91	<0.81
TCE	<0.62	<0.55
DCE	<0.67	**1 J**
VC	<0.72	<0.64

Sample ID: AOC4-SB-BLD-NW-15N	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	4.5-5.0
PCE	<1.1
TCE	<0.76
DCE	**11**
VC	**2.1 J**

Sample ID: AOC4-SB-BLD-NW-5E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.0-3.5	4.5-5.0
PCE	**<400**	**11,000,000**
TCE	**<280**	**150,000 J**
DCE	**33,000**	**470,000 J**
VC	**<320**	**<150,000**

Sample ID: AOC4-SB-BLD-NE		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	1.5-2.0	NS
PCE	<1.3	NS
TCE	<0.88	NS
DCE	<0.95	NS
VC	<1.0	NS

Sample ID: AOC4-SB-E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.5-4.0	4.0-4.5
PCE	<1.3	<77
TCE	<0.91	<53
DCE	**110**	**460**
VC	**16**	<61

Sample ID: AOC4-SB-C-5N	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	3.0-4.0
PCE	<2.4
TCE	<1.6
DCE	**16**
VC	**2.5 J**

Sample ID: AOC4-SB-BLD-NW		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	2.5-3.0
PCE	**<410**	**<250**
TCE	**<280**	**<170**
DCE	**20,000**	**14,000**
VC	**690 J**	**800**

Sample ID: AOC4-SB-C-5W	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	4.5-5.0
PCE	<1.7
TCE	<1.2
DCE	**2.0 J**
VC	<1.3

Sample ID: AOC4-SB-C-10E	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	4.5-5.0
PCE	<1.0
TCE	<0.69
DCE	**5.7**
VC	**5.7**

Sample ID: AOC4-SB-BLD-SE		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	NS
PCE	**4**	NS
TCE	<0.57	NS
DCE	**2.4**	NS
VC	<0.66	NS

Sample ID: AOC4-SB-W		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<0.74	<1.3
TCE	<0.51	<0.86
DCE	**1.3 J**	**36**
VC	<0.58	<0.99

Sample ID: AOC4-SB-C		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	<1.1	<300
TCE	<0.77	<200
DCE	**22**	**18,000**
VC	**2.2 J**	**1,800**

Sample ID: AOC4-SB-S		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.5-3.0	4.0-4.5
PCE	**2.2 J**	**1.7 J**
TCE	<0.75	**3.1**
DCE	<0.81	**8.4**
VC	<0.87	<0.88

Sample ID: AOC4-SB-BLD-NW-15E		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	3.0-3.5	4.5-5.0
PCE	<2.0	<2.1
TCE	<1.4	<1.4
DCE	**3.7 J**	**64**
VC	<1.6	**33**

Sample ID: AOC4-SB-C-5S	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	4.5-5.0
PCE	<2.0
TCE	<1.3
DCE	9
VC	<1.5

Sample ID: AOC4-SB-BLD-SW		
Results (µg/kg)		
Constituent	Depth (ft., bgs)	
	2.0-2.5	3.0-3.5
PCE	**2.2 J**	<0.83
TCE	<0.94	**0.68 J**
DCE	<1.0	**0.87 J**
VC	<1.1	<0.65

AOC-4

AOC-5

AOC-8

AOC-10

Legend

AOC-4 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

SECURITY FENCE

DRAINAGE PIPES

BUILDINGS

CONCRETE PADS

DRAINAGE SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY, MARCH, OCTOBER, AND NOVEMBER 2015 SOIL SAMPLING EVENTS. CONSTIUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC. SOIL SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) IN THE VADOSE ZONE.

N

30 15 0 30

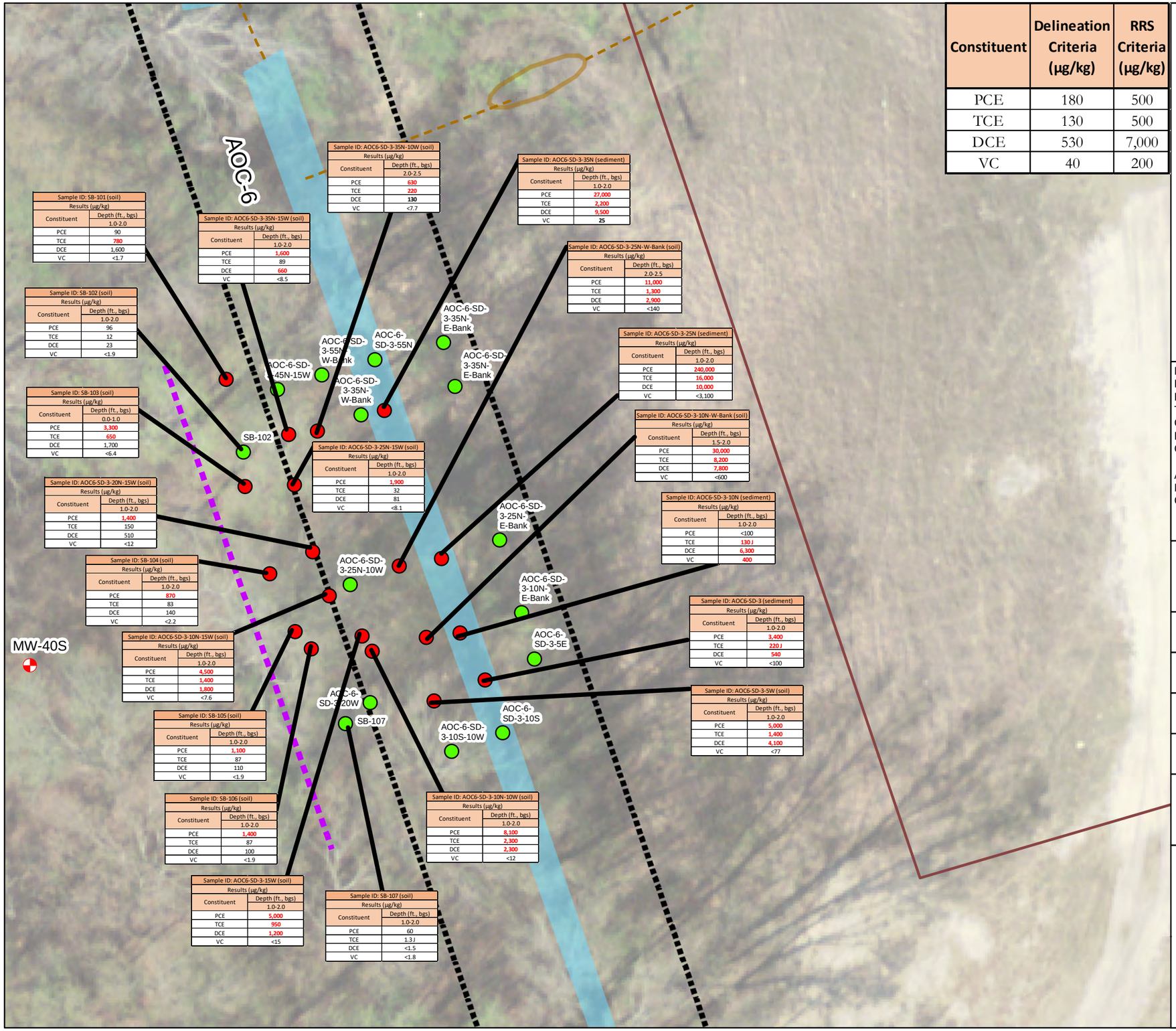
Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

FIGURE 4-3: EXTENT OF CONTAMINATION IN AOC-4

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009



Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Legend

AOC-6 AREA OF CONCERN

FORMER WATER FEATURE

AREA OF CONCERN EXTENTS

SHALLOW (LEFT) AND DEEP (RIGHT) SOIL ANALYTICAL RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION BUT BELOW RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

SITE FEATURES

DRAINAGE PIPES

DRAINAGE SWALES

WATER FEATURES

FORMER MCKENZIE PROPERTY BOUNDARY

APPROXIMATE SOIL SATURATION POINT AT SURFACE ALONG AOC-6

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013, BY EMC ENGINEERING SERVICES IN JUNE 2015, AND BY MOCK SURVEYING COMPANY IN JULY 2016 AND APRIL 2017.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY, MARCH, OCTOBER, AND NOVEMBER 2015, JUNE 2016, AND APRIL 2017 SOIL SAMPLING EVENTS. CONSTIUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC.

N

20 10 0 20

Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/14/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-4: EXTENT OF CONTAMINATION IN AOC-6

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200

Sample ID: AOC3-2	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**5.7 J**
TCE	<1.9
DCE	<2.5
VC	<2.9

Sample ID: AOC3-1	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	<1.9
TCE	<1.7
DCE	<2.3
VC	<2.6

Sample ID: AOC3-3	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**8.0**
TCE	<1.4
DCE	<1.9
VC	<2.2

Sample ID: AOC3-4	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	<1.8
TCE	<1.6
DCE	<2.1
VC	<2.5

AOC-3

LEGEND

AOC-3 AREA OF CONCERN

SECURITY FENCE

FORMER MCKENZIE PROPERTY BOUNDARY

AREA OF CONCERN EXTENTS

ACTUAL EXCAVATION EXTENTS

EXCAVATION SIDEWALL SAMPLE RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SECURITY FENCE AND OTHER SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

AOC SOIL SAMPLING RESULTS ARE FROM JANUARY AND MARCH 2015 SOIL SAMPLING EVENTS. CONSTIUENTS OF CONCERN (COCS) INCLUDE PCE, TCE, DCE, VC, AND BTEX. SAMPLES WERE COLLECTED AT BOTH SHALLOW (1-3 FT.) AND DEEP DEPTHS (3-5 FT.) BELOW GROUND SURFACE IN THE VADOSE ZONE.

N

10 5 0 10

Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
CHECKED BY: A.S.			SHEET NO.: 1 OF 1
APPROVED BY: R.M.			

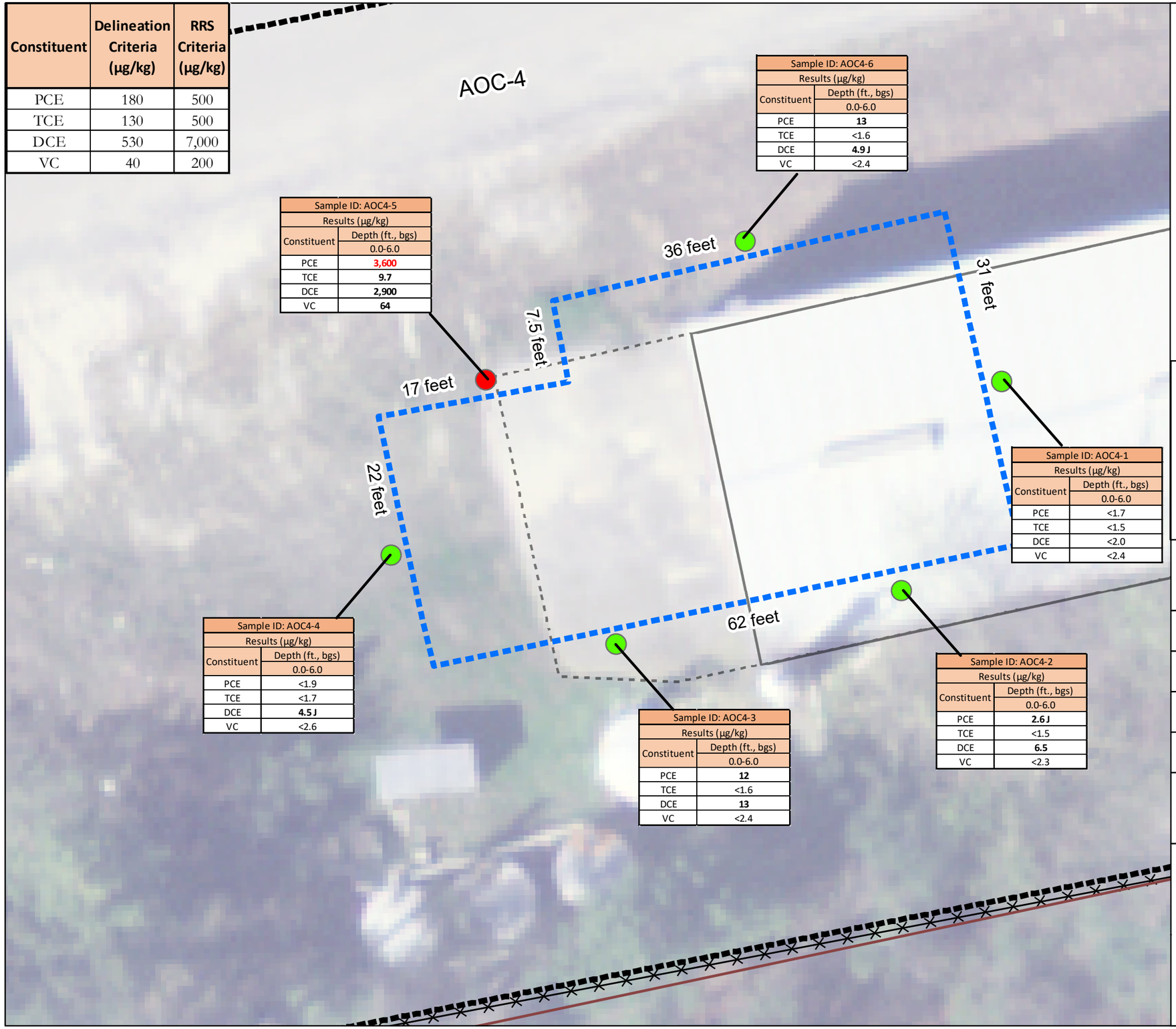
FIGURE 4-5: AOC-3 COMPLETED EXCAVATION SIDEWALL SAMPLE RESULTS

EIC

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

Constituent	Delineation Criteria (µg/kg)	RRS Criteria (µg/kg)
PCE	180	500
TCE	130	500
DCE	530	7,000
VC	40	200



Sample ID: AOC4-6	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**13**
TCE	<1.6
DCE	**4.9 J**
VC	<2.4

Sample ID: AOC4-5	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**3,600**
TCE	**9.7**
DCE	**2,900**
VC	**64**

Sample ID: AOC4-1	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	<1.7
TCE	<1.5
DCE	<2.0
VC	<2.4

Sample ID: AOC4-4	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	<1.9
TCE	<1.7
DCE	**4.5 J**
VC	<2.6

Sample ID: AOC4-3	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**12**
TCE	<1.6
DCE	**13**
VC	<2.4

Sample ID: AOC4-2	
Results (µg/kg)	
Constituent	Depth (ft., bgs)
	0.0-6.0
PCE	**2.6 J**
TCE	<1.5
DCE	**6.5**
VC	<2.3

Legend

AOC-4 — AREA OF CONCERN

SECURITY FENCE

FORMER MCKENZIE PROPERTY BOUNDARY

AREA OF CONCERN EXTENTS

FORMER CONCRETE PADS

ACTUAL EXCAVATION EXTENTS

EXCAVATION SIDEWALL SAMPLE RESULTS

RESULT IS BELOW DELINEATION AND RRS CRITERIA

RESULT IS ABOVE DELINEATION AND RRS CRITERIA

NOTES: AERIAL PHOTO IS FROM USGS 0.15m RESOLUTION ORTHOIMAGERY DATABASE. FORMER MCKENZIE PROPERTY BOUNDARY IS DERIVED FROM HISTORICAL TAX PLAT MAPS AVAILABLE FROM THE CHATHAM COUNTY TAX ASSESSORS OFFICE. SITE FEATURES ARE BASED UPON SURVEY CONDUCTED BY BREWER LAND SURVEYING COMPANY IN OCTOBER 2013.

N

10 5 0 10 Feet

DESIGNED BY: A.G.	REVISIONS NO.	REVISIONS DATE	DATE: 5/11/2018
DRAWN BY: A.G.			SCALE: SEE BAR SCALE
			SHEET NO.: 1 OF 1
CHECKED BY: A.S.			
APPROVED BY: R.M.			

FIGURE 4-6: AOC-4 COMPLETED EXCAVATION SIDEWALL SAMPLE RESULTS

EIC

MCKENZIE TANK LINES
111 GRANGE ROAD
PORT WENTWORTH, GEORGIA 31047

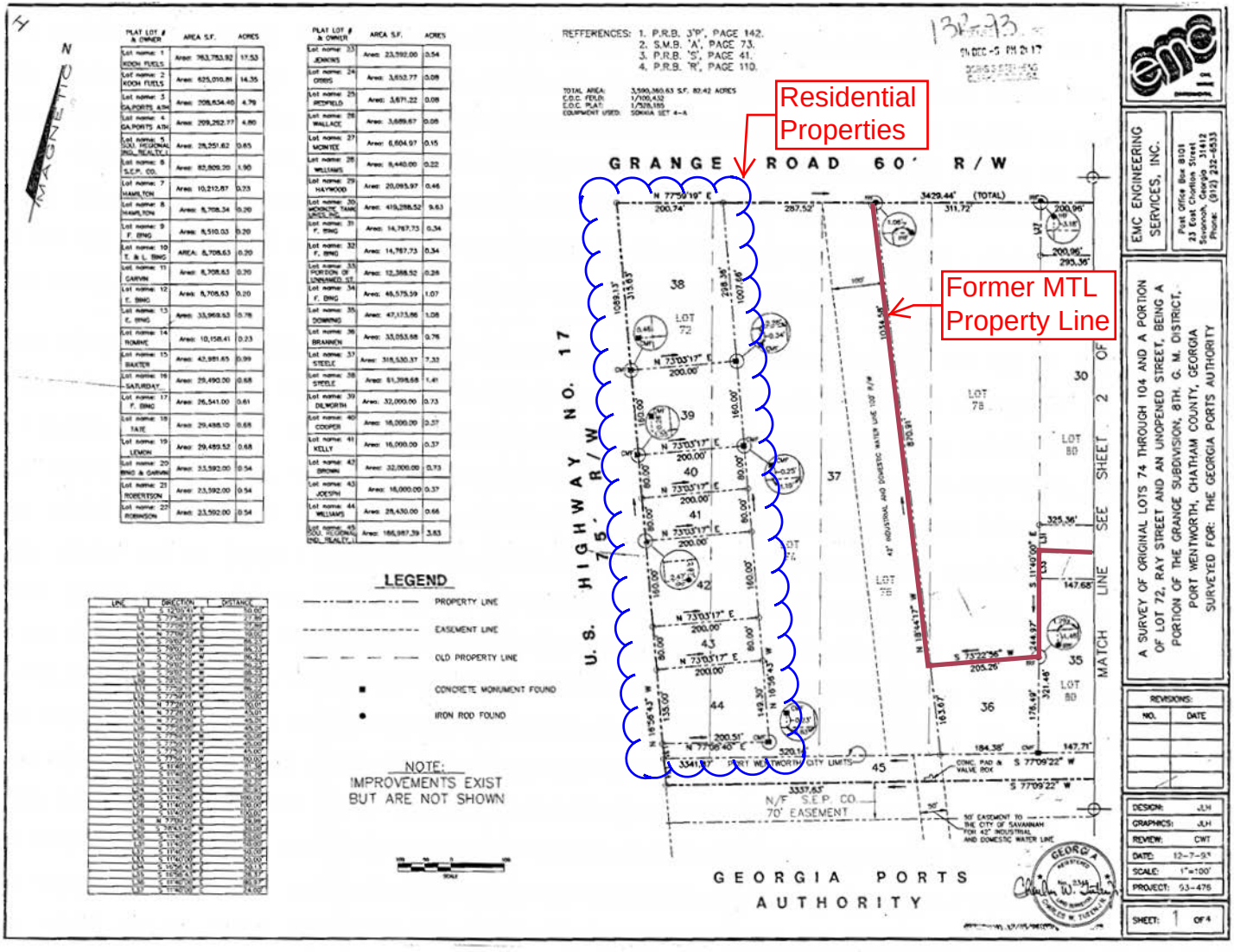
ENVIRONMENTAL INTERNATIONAL CORP.
161 KIMBALL BRIDGE RD
ALPHARETTA, GEORGIA 30009

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GEORGIA

EIGHTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 2-1 HISTORICAL PLAT MAP

Attachment 2-1: Historical Plat Map



HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GEORGIA

EIGHTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 3-1
EIC WELL PURGING AND SAMPLING DATA FIELD LOGS
OCTOBER 2017

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: G-17

DATE: 10-3-17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear 73°F Iran wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 7.00 FT. TO 12.00 FT.

HEIGHT OF STICK-UP: 2.40 FT. | BTOC WELL SCREEN INTERVAL: 9.40 FT. TO 14.40 FT.

TOTAL WELL DEPTH (BTOC): Reported 14.40 FT Measured 12.35 FT. | INITIAL WATER LEVEL (BTOC): 5.16 FT. | TIME: 11:06

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
11:12	0	25.81	6.75	67	0.755	21.2	2.18	NA	
11:20	480	26.54	6.81	44	0.755	20.0	1.34	NA	
11:25	720	26.76	6.78	43	0.770	12.0	1.18	NA	
11:30	960	26.94	6.77	43	0.791	9.2	1.03	NA	
								9.75	↑

COMMENTS:

SAMPLE COLLECTION TIME: 10:34

PREPARED BY: S.Ti

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	9.4
Final tubing depth (ft.) BTOC	9.4
Initial pump speed	2.01
Time pump speed was initialized	11:07
Pump speed at flow into cylinder	2.01
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: G-19

DATE: 10/4/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: Cloudy 70°F Norm		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 5 FT. TO 10 FT.	
HEIGHT OF STICK-UP: 2.77 FT.	BTOC WELL SCREEN INTERVAL: 7.77 FT. TO 12.77 FT.	
TOTAL WELL DEPTH (BTOC): Reported 12.77 FT Measured 12.66 FT.	INITIAL WATER LEVEL (BTOC): 6.14 FT.	TIME: 10:24
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY		
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —		
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
10:39	0	24.25	5.25	144	0.043	8.0	2.45	NA	yellow tint
10:44	340	24.48	5.05	145	0.050	7.8	2.17	NA	
10:49	580	24.76	4.96	142	0.051	9.2	1.93	NA	
10:56	890	25.04	5.01	139	0.044	13.5	1.00	NA	
11:01	1160	25.04	5.03	133	0.045	15.1	2.45	NA	
11:07	1400	25.20	5.06	132	0.047	17.2	1.28	NA	
11:12	1620	25.59	5.02	131	0.050	14.6	1.14	NA	
11:17	1820	25.97	5.02	134	0.054	13.1	1.03	NA	
11:22	2000	26.13	5.02	134	0.057	13.3	0.94	NA	
11:27	2200	26.66	4.95	133	0.059	12.0	0.84	NA	
11:33	2440	26.97	5.04	138	0.059	10.2	0.94	NA	
11:37	2660	26.70	4.94	141	0.058	9.9	0.78	NA	
								4.65	

COMMENTS:

SAMPLE COLLECTION TIME: 11:43

PREPARED BY: Sterling

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	10.2
Final tubing depth (ft.) BTOC	10.2
Initial pump speed	2.03
Time pump speed was initialized	10:29
Pump speed at flow into cylinder	1.73
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	11:00							
Actual Volume (ml)	11:22							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

PAGE 1 OF 1

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: G-22R

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear 63°F No wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.00 FT. TO 35.00 FT.

HEIGHT OF STICK-UP: -0.07 FT. | BTOC WELL SCREEN INTERVAL: 24.93 FT. TO 34.93 FT.

TOTAL WELL DEPTH (BTOC): Reported 35.35 FT. Measured 35.58 FT. | INITIAL WATER LEVEL (BTOC): 14.10 FT. | TIME: 9:01

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
9:16	0	22.95	7.72	132	0.274	22.7	2.13	14.34	
9:21	300	23.17	7.95	112	0.274	19.2	1.73	14.34	
9:26	700	23.24	8.03	95	0.264	23.9	1.50	14.34	
9:31	980	23.33	8.00	84	0.256	20.4	1.78	14.34	
9:36	1360	23.40	7.94	73	0.248	16.6	1.65	14.34	
9:41	1520	23.44	7.91	66	0.244	14.4	1.22	14.34	
9:46	1800	23.48	7.86	56	0.248	11.8	1.14	14.34	
9:51	2060	23.51	7.85	46	0.247	9.2	1.08	14.34	

COMMENTS:

SAMPLE COLLECTION TIME: 9:57

PREPARED BY: ADO

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	39
Initial tubing depth (ft.) BTOC	2[illegible]5
Final tubing depth (ft.) BTOC	23.5
Initial pump speed	2.17
Time pump speed was initialized	9:04
Pump speed at flow into cylinder	2.17
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

PAGE 1 OF 1

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-2D

DATE: 10/2/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: warm / cloudy 70°F		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 17.50 FT. TO 27.50 FT.	
HEIGHT OF STICK-UP: 0.05 FT.	BTOC WELL SCREEN INTERVAL: 17.50 FT. TO 27.50 FT.	
TOTAL WELL DEPTH (BTOC): Reported 27.50 FT. Measured 26.67 FT.	INITIAL WATER LEVEL (BTOC): 4.97 FT.	TIME: 15:03
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY		
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: ~	BENEATH OUTER CAP: ~	BENEATH INNER CAP: ~
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
15:12	0	27.53	6.62	.79	0.190	6.7	1.31	5.45	
15:17	300	25.73	6.52	61	0.197	8.4	1.14	5.59	
15:35	0	26.20	6.62	55	0.244	2.1	1.04	5.59	
15:41	389	25.02	6.64	44	0.350	2.3	1.04	5.62	
15:46	600	24.81	6.66	39	0.356	0.7	0.88	5.64	
15:51	890	24.97	6.67	34	0.360	0.6	0.82	5.64	

COMMENTS:

SAMPLE COLLECTION TIME: 15:57

PREPARED BY: Sterling

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	24.7
Initial tubing depth (ft.) BTOC	24.7
Final tubing depth (ft.) BTOC	21.7
Initial pump speed	2.03
Time pump speed was initialized	14:07
Pump speed at flow into cylinder	2.03
Started new roll of tubing at	

15:20 Florida leak. Drain & clean.

15:30 restart.

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

PAGE 1 OF 1

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-2S

DATE: 10/2/16	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: Cloudy, windy, 73°F		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 2.85 FT. TO 7.85 FT.	
HEIGHT OF STICK-UP: -0.11 FT.	BTOC WELL SCREEN INTERVAL: 2.10 FT. TO 7.10 FT.	
TOTAL WELL DEPTH (BTOC): Reported 6.35 FT Measured 7.10 FT.	INITIAL WATER LEVEL (BTOC): 4.83 FT.	TIME: 16:13
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY [ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: ✓ BENEATH OUTER CAP: — BENEATH INNER CAP: ~		
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:38	0	26.92	7.11	64	0.750	3.9	2.12	5.05	
16:43	240	26.28	7.10	49	0.760	5.0	1.68	5.12	
16:48	500	25.97	7.04	45	0.762	3.1	1.54	5.18	
16:53	730	25.95	7.03	43	0.760	0.7	1.28	5.21	

COMMENTS:

SAMPLE COLLECTION TIME: 16:56

PREPARED BY: J Helaly

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	6.00
Final tubing depth (ft.) BTOC	6.00
Initial pump speed	2.15
Time pump speed was initialized	16:25
Pump speed at flow into cylinder	2.09
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-4S

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 7 FT. TO 17 FT.

HEIGHT OF STICK-UP: 2.64 FT. | BTOC WELL SCREEN INTERVAL: 9.64 FT. TO 19.64 FT.

TOTAL WELL DEPTH (BTOC): Reported 19.64 FT Measured 18.24 FT. | INITIAL WATER LEVEL (BTOC): 6.17 FT. | TIME: 1753

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1755	—	26.76	5.57	42	1.52	21.2	0.96	6.37	clear / no odor
1800	480	26.52	5.49	16	1.54	20.82	0.81	6.37	↓
1805	820	26.39	5.47	10	1.54	17.2	0.80	6.37	
1810	1420	26.26	5.48	6	1.54	16.4	0.70	6.37	
1815	1600	26.17	5.51	3	1.54	16.5	0.70	6.37	

COMMENTS:

SAMPLE COLLECTION TIME: 1820

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1754
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks: Sampled due to time constraints, turbidity above 10 NTU, all other parameters stabilized.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-11D

DATE: 10/2/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009

WEATHER CONDITIONS: Overcast → Cloudy ~72°F light WNW

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER — BGS WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

HEIGHT OF STICK-UP: 3.10 FT. — BTOC WELL SCREEN INTERVAL: 13.10 FT. TO 23.10 FT.

TOTAL WELL DEPTH (BTOC): Reported 23.10 FT Measured 21.90 FT. — INITIAL WATER LEVEL (BTOC): 8.90 FT. — TIME: 13:30

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: ~ BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES — FLOW THROUGH CELL MODEL: Horiba U-52 — SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
13:30	0	24.33	7.36	67	0.249	14.1	2.47	9.13	
13:44	340	24.72	6.68	44	0.245	10.5	1.97	9.22	
13:47	660	24.93	6.64	42	0.241	7.3	1.55	9.27	
13:54	1020	24.92	6.62	40	0.239	7.0	1.37	9.31	

COMMENTS:

SAMPLE COLLECTION TIME: ~~Sitebook~~ S.H. 13:57

PREPARED BY: SFH

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	16.9
Final tubing depth (ft.) BTOC	16.8
Initial pump speed	2.45
Time pump speed was initialized	13:37
Pump speed at flow into cylinder	2.45 -SH.
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-14D

DATE: 10/4/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: Partly Cloudy 78°F light wind		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 26.34 FT. TO 31.34 FT.	
HEIGHT OF STICK-UP: 2.83 FT.	BTOC WELL SCREEN INTERVAL: 29.17 FT. TO 34.17 FT.	
TOTAL WELL DEPTH (BTOC): Reported 33.83 FT Measured 34.17 FT.	INITIAL WATER LEVEL (BTOC): 6.46 FT.	TIME: 14:00
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY [ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —		
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:05	0	28.66	6.52	121	0.126	7.5	3.67	6.92	
14:10	700	27.53	7.08	68	0.137	0.0	3.20	7.04	
14:15	620	27.68	7.18	49	0.135	0.2	2.43	7.13	
14:21	980	27.19	7.20	34	0.136	0.0	2.12	7.17	
14:28	1320	27.03	7.22	22	0.135	0.0	1.69	7.18	

COMMENTS:

SAMPLE COLLECTION TIME: 14:30

PREPARED BY: Glenn

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	36
Initial tubing depth (ft.) BTOC	32
Final tubing depth (ft.) BTOC	32
Initial pump speed	2.10
Time pump speed was initialized	14:00
Pump speed at flow into cylinder	2.10
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-15S

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: overcast (clear 80°F NO rain

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 9.79 FT. TO 19.79 FT.

HEIGHT OF STICK-UP: 2.58 FT. | BTOC WELL SCREEN INTERVAL: 12.37 FT. TO 22.37 FT.

TOTAL WELL DEPTH (BTOC): Reported 15.08 FT Measured 22.37 FT. | INITIAL WATER LEVEL (BTOC): 4.52 FT. | TIME: 9:43

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
9:32	0	23.03	7.50	145	0.253	84.1	6.06	NA	
9:39	400	23.16	7.56	49	0.254	54.2	5.31	NA	
9:44	690	~~23~~ 23	7.57	62	0.254	44.9	4.41	NA	
9:49	990	23.31	7.57	44	0.254	43.7	4.40	NA	
9:54	1220	23.40	7.58	32	0.254	34.0	4.24	NA	
9:59	1480	23.52	7.58	24	0.254	26.3	3.72	NA	
10:04	1820	23.03	7.58	17	0.255	24.1	3.26	NA	
10:12	2500	23.03	7.58	9	0.255	20.9	2.95	NA	
10:17	2900	23.03	7.59	3	0.257	~~17.7~~ 5th	2.47	NA	NTU = 17.1
10:22	3200	23.16	7.58	0	0.257	15.5	2.20	NA	
10:27	3440	23.02	7.54	−4	0.257	15.1	2.32	NA	
10:32	3720	24.11	7.54	−8	0.256	13.4	1.90	NA	
10:37	4020	24.29	7.54	−12	0.256	13.3	1.75	NA	
								4.75	

COMMENTS:

SAMPLE COLLECTION TIME: 10:40

PREPARED BY: SHolm

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	17.4
Final tubing depth (ft.) BTOC	17.4
Initial pump speed	2.12
Time pump speed was initialized	9:24
Pump speed at flow into cylinder	2.11
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	10:12							
Actual Volume (ml)	2500							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-26

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 27.42 FT. TO 37.42 FT.

HEIGHT OF STICK-UP: 2.75 FT. | BTOC WELL SCREEN INTERVAL: 30.17 FT. TO 40.17 FT.

TOTAL WELL DEPTH (BTOC): Reported 22.75 FT Measured 40.17 FT. | INITIAL WATER LEVEL (BTOC): 3.29 FT. | TIME: 1053

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1100	—	23.90	6.55	51	0.430	0.4	2.68	NA	clear/no odor
1105	410	24.01	6.76	45	0.433	0.3	3.64	NA	
1110	830	24.17	6.84	46	0.434	0.4	2.85	NA	
1115	1160	24.29	6.87	43	0.434	0.4	2.73	NA	
1120	1380	24.44	6.93	34	0.433	5.0	2.31	NA	
1125	1620	24.49	6.95	31	0.433	4.5	2.16	NA	
1130	1800	24.57	6.94	24	0.433	3.7	1.91	NA	
								3.48	

COMMENTS:

SAMPLE COLLECTION TIME: 1125

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	38.7
Initial tubing depth (ft.) BTOC	35
Final tubing depth (ft.) BTOC	35
Initial pump speed	low
Time pump speed was initialized	1044
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-29

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.42 FT. TO 20.42 FT.

HEIGHT OF STICK-UP: -0.01 FT. | BTOC WELL SCREEN INTERVAL: 10.42 FT. TO 20.42 FT.

TOTAL WELL DEPTH (BTOC): Reported 20.00 FT Measured 19.76 FT. | INITIAL WATER LEVEL (BTOC): 3.85 FT. | TIME: 1712

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1715	—	26.68	5.34	102	0.461	0.5	0.92	NA	clear / no odor
1720	220	26.46	5.26	100	0.440	0.7	0.98	NA	↓
1725	460	26.54	5.26	97	0.432	0.1	0.92	NA	↓
1730	880	26.52	5.25	98	0.427	0.4	0.87	NA	↓
								6.70	

COMMENTS:

SAMPLE COLLECTION TIME: 1735

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1713
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-31

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 12 FT. TO 22 FT.

HEIGHT OF STICK-UP: 2.42 FT. | BTOC WELL SCREEN INTERVAL: 14.42 FT. TO 24.42 FT.

TOTAL WELL DEPTH (BTOC): Rpt.-24.42' Meas.-24.42' | INITIAL WATER LEVEL (BTOC): 5.95 FT. | TIME: 1142

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSI: AES | WATER ANALYZER MODEL: Horiba U-52 | SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1150	—	25.93	5.75	37	0.368	16.1	1.15	NA	clear / no odor
1155	360	25.57	5.75	28	0.382	16.2	1.08	NA	↓
1200	740	26.05	5.78	32	0.377	14.5	1.02	NA	
1205	880	26.02	5.74	35	0.379	14.0	1.09	NA	↓
1215	1380	26.15	5.69	30	0.390	14.4	1.06	NA	clear / no odor
1220	1460	26.21	5.67	29	0.409	14.7	1.08	NA	↓
1225	1620	26.27	5.67	27	0.419	14.2	1.21	NA	
1230	1840	26.19	5.66	31	0.441	12.6	1.06	NA	
1235	2200	26.32	5.65	39	0.446	13.7	0.84	NA	
1240	2400	26.17	5.56	48	0.447	15.4	0.77	NA	↓
								5.99	

COMMENTS:

SAMPLE COLLECTION TIME: 1241

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	20
Final tubing depth (ft.) BTOC	20
Initial pump speed	low
Time pump speed was initialized	1145
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	1234							

Additional remarks: Sampled due to time constraints, turbidity above 10 NTU, all other parameters stabilized.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-32

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear 70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 12 FT. TO 22 FT.

HEIGHT OF STICK-UP: 2.37 FT. | BTOC WELL SCREEN INTERVAL: 14.37 FT. TO 24.37 FT.

TOTAL WELL DEPTH (BTOC): Rpt.-24.37' Meas.22.15' | INITIAL WATER LEVEL (BTOC): 5.81 FT. | TIME: 911

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSI: AES | WATER ANALYZER MODEL: Horiba U-52 | SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
915	—	22.48	4.69	222	0.384	1.0	14.78	NA	clear / no odor
920	580	22.61	4.53	250	0.386	0.4	5.54	NA	↓
925	800	22.67	4.48	257	0.387	0.5	3.90	NA	↓
930	1100	22.71	4.45	268	0.388	0.2	3.14	NA	↓
935	1380	22.74	4.44	266	0.389	0.1	2.78	NA	↓
								5.92	

COMMENTS:

SAMPLE COLLECTION TIME: 940

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	20
Final tubing depth (ft.) BTOC	20
Initial pump speed	low
Time pump speed was initialized	913
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-33

DATE: 12/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear Windy 75 °F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

HEIGHT OF STICK-UP: 2.38 FT. | BTOC WELL SCREEN INTERVAL: 12.38 FT. TO 22.38 FT.

TOTAL WELL DEPTH (BTOC): Reported 22.38 FT | Measured 22.13 FT. | INITIAL WATER LEVEL (BTOC): 4.72 FT. | TIME: 11:51

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: ~ BENEATH INNER CAP: _____

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
12:02	0	27.48	7.82	6	0.295	2.8	3.44	NA	
12:08	420	26.55	7.64	9	0.286	1.6	2.70	NA	
12:13	740	26.23	7.65	4	0.311	0.8	2.31	NA	
12:18	1100	25.92	7.60	0	0.314	0.1	1.95	NA	
12:23	1320	25.85	7.60	-4	0.314	0.0	1.75	NA	
								5.43	

COMMENTS:

SAMPLE COLLECTION TIME: 12:27

PREPARED BY: SH

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	21
Initial tubing depth (ft.) BTOC	17.1
Final tubing depth (ft.) BTOC	17.1
Initial pump speed	2.10
Time pump speed was initialized	11:45
Pump speed at flow into cylinder	2.11
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-35

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 28.02 FT. TO 38.02 FT.

HEIGHT OF STICK-UP: 1.18 FT. | BTOC WELL SCREEN INTERVAL: 29.20 FT. TO 39.20 FT.

TOTAL WELL DEPTH (BTOC): Reported 21.18 FT Measured 39.20 FT. | INITIAL WATER LEVEL (BTOC): 0.97 FT. | TIME: 1154

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1200	—	24.80	6.44	73	0.403	1.8	1.31	NA	clear / no odor
1205	760	24.76	6.58	27	0.407	1.7	1.23	NA	↓
1210	900	24.88	6.60	10	0.408	1.5	1.20	NA	
1215	1100	25.02	6.66	2	0.408	1.2	1.13	NA	
								5.15	

COMMENTS:

SAMPLE COLLECTION TIME: 1220

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	37.2
Initial tubing depth (ft.) BTOC	35
Final tubing depth (ft.) BTOC	35
Initial pump speed	low
Time pump speed was initialized	1156
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-36R

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 79°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 22.50 FT. TO 27.50 FT.

HEIGHT OF STICK-UP: 0.08 FT. | BTOC WELL SCREEN INTERVAL: 22.63 FT. TO 27.63 FT.

TOTAL WELL DEPTH (BTOC): Reported 27.84 FT. Measured 27.81 FT. | INITIAL WATER LEVEL (BTOC): 2.87 FT. | TIME: 1542

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1550	[redacted]	27.75	6.96	-20	0.361	5.6	1.03	2.91	clear/no odor
1555	600	26.90	7.06	-48	0.369	3.4	0.97	2.91	↓
1600	1200	27.06	7.08	-59	0.366	1.7	0.90	2.91	
1605	1800	26.95	7.10	-66	3.67	1.3	0.88	2.91	

COMMENTS:

SAMPLE COLLECTION TIME: 1610

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	25
Final tubing depth (ft.) BTOC	25
Initial pump speed	low
Time pump speed was initialized	1546
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-37S

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Part Cloudy Light wind 74°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.41 FT. TO 20.41 FT.

HEIGHT OF STICK-UP: -0.41 FT. | BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.02 FT. | INITIAL WATER LEVEL (BTOC): 5.26 FT. | TIME: 14:43

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: ~ BENEATH OUTER CAP: ~ BENEATH INNER CAP: ~

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:51	0	27.97	6.84	57	0.180	8.8	1.08	5.42	
14:58	550	27.07	6.86	30	0.188	1.1	0.92	5.38	
15:03	860	27.02	6.82	31	0.189	0.8	0.82	5.38	
15:08	1180	26.78	6.88	26	0.188	1.0	0.74	5.38	

COMMENTS:

SAMPLE COLLECTION TIME: 15:11

PREPARED BY: S.M.

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	1.45
Time pump speed was initialized	2.10
Pump speed at flow into cylinder	2.10
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

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ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-38D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Windy 80°F Part Cloudy

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.53 FT. TO 30.53 FT.

HEIGHT OF STICK-UP: -0.53 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 29.86 FT. | INITIAL WATER LEVEL (BTOC): 5.40 FT. | TIME: 15:17

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
15:26	0	27.34	7.04	31	0.248	1.6	1.53	5.89	
15:31	400	26.56	7.58	0	0.270	0.7	1.21	6.19	
15:38	740	26.92	7.74	-13	0.264	3.8	1.02	6.28	
15:43	1180	27.29	7.73	-21	0.264	2.0	0.84	6.56	
15:48	1600	27.51	7.76	-27	0.258	4.1	0.78	6.56	

COMMENTS: | SAMPLE COLLECTION TIME: 15:53

PREPARED BY: SH

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	30
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	2.13
Time pump speed was initialized	15:19
Pump speed at flow into cylinder	2.13
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-39D

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 68°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.07 FT. TO 30.07 FT.

HEIGHT OF STICK-UP: -0.07 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured FT. | INITIAL WATER LEVEL (BTOC): 3.25 FT. | TIME: 836

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
840	—	22.39	7.29	93	0.371	1.0	14.32	3.40	clear / no odor
845	600	22.40	7.06	68	0.382	0.4	5.24	3.40	
850	1200	22.40	6.97	26	0.389	0.5	2.50	3.40	
855	1800	22.40	6.95	15	0.392	0.6	2.14	3.40	
900	2200	22.39	6.92	2	0.396	0.4	1.81	3.40	
905	3200	22.40	6.90	-8	0.398	0.3	1.59	3.41	

COMMENTS:

SAMPLE COLLECTION TIME: 907

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	28
Final tubing depth (ft.) BTOC	28
Initial pump speed	low
Time pump speed was initialized	837
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	903							
Actual Volume (ml)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-40S

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 92°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.28 FT. TO 20.28 FT.

HEIGHT OF STICK-UP: -0.28 FT. | BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.12 FT. | INITIAL WATER LEVEL (BTOC): 1.52 FT. | TIME: 935

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL #: UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
940	—	22.90	6.56	-36	0.236	18.7	1.36	1.56	clear / no odor
945	600	22.93	6.55	-37	0.236	17.4	1.35	1.56	↓
950	1400	23.00	6.46	-39	0.232	12.0	1.22	1.56	
955	1800	23.06	6.42	-40	0.235	7.6	1.13	1.56	
1000	2200	23.10	6.09	-39	0.325	5.9	1.11	1.56	
1005	2420	23.08	6.05	-39	0.327	5.1	1.07	1.56	
1010	2760	23.06	6.03	-39	0.330	4.2	1.0	1.56	

COMMENTS:

SAMPLE COLLECTION TIME: 1015

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	937
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	959							
Actual Volume (ml)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-41D

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.04 FT. TO 30.04 FT.

HEIGHT OF STICK-UP: -0.04 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.25 FT. | INITIAL WATER LEVEL (BTOC): 3.86 FT. | TIME: 1550

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1600	—	30.11	6.35	-7	0.266	0.0	1.47	4.52	clear/no odor
1605	420	30.19	6.49	-29	0.266	0.0	1.05	4.42	
1610	800	29.87	6.64	-42	0.270	0.0	0.99	4.42	
1615	1200	29.80	6.66	-46	0.271	0.1	0.96	4.42	
1620	1540	29.69	6.79	-54	0.292	0.0	0.88	4.42	
1625	1970	29.56	6.87	-58	0.320	0.0	0.87	4.42	
1630	2240	29.50	6.89	-60	0.327	0.0	0.84	4.42	
1635	2560	29.36	6.93	-61	0.330	0.0	0.80	4.42	

COMMENTS:

SAMPLE COLLECTION TIME: 1640

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	low
Time pump speed was initialized	1554
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-42S

DATE: 10/2/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.39 FT. TO 20.39 FT.

HEIGHT OF STICK-UP: -0.39 FT. | BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured FT. | INITIAL WATER LEVEL (BTOC): 4.2 FT. | TIME: 1530

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1627	—	29.92	5.95	-6	1.58	2.3	1.30	5.25	clear / no odor
1632	520	30.16	5.98	-25	1.58	2.0	1.02	5.55	↓
1637	800	30.33	5.97	-29	1.61	2.1	0.94	5.46	
1642	1240	30.43	5.96	-30	1.62	2.0	0.92	5.45	
1647	1680	30.60	5.96	-30	1.64	2.0	0.89	5.45	

COMMENTS:

SAMPLE COLLECTION TIME: 1650

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1620
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-43D

DATE: 10/2/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.36 FT. TO 30.36 FT.

HEIGHT OF STICK-UP: -0.36 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured FT. | INITIAL WATER LEVEL (BTOC): 4.62 FT. | TIME: 1532

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1540	—	28.73	5.79	136	0.502	8.3	1.50	4.85	clear / no odor
1545	580	29.32	6.21	128	0.496	5.6	1.29	4.88	
1550	1120	30.01	6.33	128	0.490	4.3	1.06	4.91	
1555	1620	30.19	6.39	126	0.484	4.1	0.96	4.91	
1600	2100	30.09	6.44	123	0.478	4.4	0.90	4.91	
1605	2780	29.80	6.47	118	0.473	4.4	0.86	4.91	

COMMENTS:

SAMPLE COLLECTION TIME: 1610

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	29
Final tubing depth (ft.) BTOC	28
Initial pump speed	low
Time pump speed was initialized	1534
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	1559							
Actual Volume (ml)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-44D

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.26 FT. TO 30.26 FT.

HEIGHT OF STICK-UP: -0.26 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.48 FT. | INITIAL WATER LEVEL (BTOC): 7.35 FT. | TIME: 1410

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1420	—	29.24	5.29	98	0.491	2.2	2.83	7.42	clear / no odor
1425	400	29.87	4.96	98	0.538	1.4	2.07	7.43	
1430	800	30.26	4.94	88	0.576	0.9	1.71	7.45	
1435	1200	30.36	4.93	87	0.594	0.7	1.40	7.45	
1440	1700	30.55	4.91	85	0.595	0.5	1.36	7.45	
1445	2000	30.74	4.91	83	0.595	0.5	1.19	7.45	

COMMENTS:

SAMPLE COLLECTION TIME: 1450

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27
Final tubing depth (ft.) BTOC	27
Initial pump speed	low
Time pump speed was initialized	1416
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-45S

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Partly Cloudy, 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 10.38 FT. TO 20.38 FT.

HEIGHT OF STICK-UP: -0.38 FT. | BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.21 FT. | INITIAL WATER LEVEL (BTOC): 7.05 FT. | TIME: 1409

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1500	—	30.26	4.65	113	0.655	0.0	1.10	7.31	clear / no odor
1505	400	30.73	4.63	108	0.656	0.0	1.10	7.31	
1510	700	31.15	4.65	103	0.643	0.0	1.01	7.31	
1515	980	31.29	4.65	100	0.637	0.0	0.94	7.31	
1520	1180	31.46	4.66	97	0.632	0.0	0.87	7.31	
1525	1600	31.55	4.66	96	0.630	0.0	0.84	7.31	

COMMENTS:

SAMPLE COLLECTION TIME: 1530

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1456
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-46S

DATE: 10/2/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009

WEATHER CONDITIONS: cloudy windy 76°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER — BGS WELL SCREEN INTERVAL: 10.27 FT. TO 20.27 FT.

HEIGHT OF STICK-UP: -0.27 FT. — BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 19.63 FT. — INITIAL WATER LEVEL (BTOC): 6.88 FT. — TIME: 14:10

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: ~ BENEATH INNER CAP: ~

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES — FLOW THROUGH CELL MODEL: Horiba U-52 — SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:27	0	26.87	6.64	64	0.442	7.9	1.23	7.07	
14:32	380	27.41	6.46	84	0.441	8.7	1.04	7.08	
14:37	760	27.26	6.47	86	0.441	7.0	0.93	7.09	
14:42	1100	27.30	6.46	87	0.444	5.2	0.86	7.08	

COMMENTS:

SAMPLE COLLECTION TIME: 14:45

PREPARED BY: S.H.

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	2.41
Time pump speed was initialized	14:12
Pump speed at flow into cylinder	2.50
Started new roll of tubing at	

14:15 Horiba leak 14:20 restart pump.

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-47D

DATE: 10/2/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.03 FT. TO 30.03 FT.

HEIGHT OF STICK-UP: -0.03 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.13 FT. | INITIAL WATER LEVEL (BTOC): 6.94 FT. | TIME: 1345

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1350	—	23.88	6.23	156	0.348	22.2	3.27	7.12	clear, no odor
1355	800	24.34	5.51	112	0.320	2.5	2.32	7.07	
1400	980	24.63	5.45	111	0.320	0.9	2.09	7.07	
1405	1300	24.79	5.37	110	0.324	1.3	1.85	7.07	
1410	1920	25.20	5.32	96	0.324	0.8	1.81	7.07	
1415	2300	25.33	5.37	89	0.324	0.4	1.78	7.07	

COMMENTS:

SAMPLE COLLECTION TIME: 1420

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	29
Final tubing depth (ft.) BTOC	28
Initial pump speed	low
Time pump speed was initialized	1346
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	1412							
Actual Volume (ml)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-48S

DATE: 10/2/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Cloudy, 75°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 9.96 FT. TO 19.96 FT.

HEIGHT OF STICK-UP: 0.04 FT. | BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.05 FT. | INITIAL WATER LEVEL (BTOC): 6.75 FT. | TIME: 1435

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1440	—	26.07	4.53	241	0.173	3.8	2.68	6.80	clear / no odor
1445	400	26.03	4.23	272	0.162	3.8	2.50	6.80	
1450	800	25.99	4.04	292	0.155	1.7	2.40	6.80	
1455	1200	25.99	3.86	308	0.152	0.7	2.34	6.80	
1500	1540	26.01	3.85	321	0.152	0.1	2.27	6.80	
1505	1840	26.03	3.82	329	0.150	0.0	2.24	6.80	

COMMENTS:

SAMPLE COLLECTION TIME: 1510

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	30
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1430
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-49D

DATE: 10/4/12	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: clear 57°F light wind		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 25.08 FT. TO 30.08 FT.	
HEIGHT OF STICK-UP: -0.08 FT.	BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.	
TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.25 FT.	INITIAL WATER LEVEL (BTOC): 5.69 FT.	TIME: 17:35
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY		
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: ~	BENEATH OUTER CAP: ~	BENEATH INNER CAP: ~
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
17:46	0	30.76	6.80	42	0.309	15.1	2.07	6.02	
17:53	520	27.99	7.46	-2	0.336	3.6	1.40	6.27	
17:59	780	27.77	7.53	-12	0.337	4.1	1.24	6.33	
18:03	1060	27.50	7.57	-20	0.338	4.3	1.12	6.38	
18:08	1400	27.10	7.59	-27	0.334	2.9	1.02	6.41	

COMMENTS:

SAMPLE COLLECTION TIME: 18:11

PREPARED BY: S.H.

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	17:41
Time pump speed was initialized	2.12
Pump speed at flow into cylinder	2.12
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: ___

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-50S

DATE: 10/4/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009
WEATHER CONDITIONS: Partly Cloudy Windy 80°F		
SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER		
WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER	BGS WELL SCREEN INTERVAL: 10.12 FT. TO 20.12 FT.	
HEIGHT OF STICK-UP: -0.12 FT.	BTOC WELL SCREEN INTERVAL: 10 FT. TO 20 FT.	
TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 20.24 FT.	INITIAL WATER LEVEL (BTOC): 5.76 FT.	TIME: 17:03
PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED		
SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED		
EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY		
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE		
PID/FID READINGS (ppm): BACKGROUND: ✓ BENEATH OUTER CAP: — BENEATH INNER CAP:		
CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED		
ANALYTICAL PARAMETERS: 8260 B		
LABORATORY PERFORMING ANALYSIS: AES	FLOW THROUGH CELL MODEL: Horiba U-52	SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
17:09	0	32.21	5.81	91	0.422	4.2	1.29	5.84	
17:14	340	29.85	5.43	100	0.461	2.5	0.90	5.84	
17:20	780	29.15	5.41	103	0.459	1.2	0.80	5.84	
17:25	1060	29.16	5.40	103	0.495	1.1	0.72	5.84	

COMMENTS:

SAMPLE COLLECTION TIME: 17:30

PREPARED BY: S.M

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	17:05
Time pump speed was initialized	2.17
Pump speed at flow into cylinder	2.17
Started new roll of tubing at	

25

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-51D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 76°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.17 FT. TO 30.17 FT.

HEIGHT OF STICK-UP: -0.17 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.26 FT. | INITIAL WATER LEVEL (BTOC): 5.05 FT. | TIME: 1621

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1625	—	26.38	6.73	-14	0.309	3.5	1.04	5.34	clear / no odor
1630	400	25.92	6.79	-43	0.355	3.0	1.00	5.34	↓
1635	700	26.05	6.88	-57	0.355	2.3	0.97	5.34	
1640	880	26.15	6.88	-61	0.355	1.9	0.93	5.34	

COMMENTS:

SAMPLE COLLECTION TIME: 1645

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	low
Time pump speed was initialized	1622
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-52D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 76°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.39 FT. TO 30.39 FT.

HEIGHT OF STICK-UP: -0.39 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.07 FT. | INITIAL WATER LEVEL (BTOC): 3.64 FT. | TIME: 1702

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1705	—	27.87	6.72	16	0.416	21.4	1.20	3.93	no odor/clear
1710	480	27.43	6.68	-11	0.453	14.2	0.79	3.93	
1715	880	27.09	6.71	-23	0.541	11.8	0.71	3.93	
1720	1640	26.81	6.72	-31	0.602	9.8	0.67	3.93	
1725	1980	26.63	6.73	-36	0.637	6.6	0.67	3.93	
1730	2300	25.92	6.74	-41	0.654	5.7	0.66	3.93	
1735	2700	25.76	6.74	-43	0.660	5.3	0.66	3.93	

COMMENTS:

SAMPLE COLLECTION TIME: 1740

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	low
Time pump speed was initialized	1703
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	1736							
Actual Volume (ml)	2000							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-53D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.06 FT. TO 30.06 FT.

HEIGHT OF STICK-UP: -0.06 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured FT. | INITIAL WATER LEVEL (BTOC): 2.58 FT. | TIME: 1406

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1410	200	27.81	6.56	34	0.370	2.3	8.72	2.64	clear / no odor
1415	400	27.45	6.60	21	0.394	2.5	6.21	2.82	
1420	640	27.21	6.63	12	0.409	1.7	3.97	2.82	
1425	1000	27.26	6.65	4	0.435	1.3	2.46	2.82	
1430	1500	27.40	6.61	-3	0.478	0.9	1.84	2.82	
1435	1780	27.48	6.61	-5	0.484	0.8	1.64	2.82	
1440	2000	27.64	6.61	-8	0.517	0.6	1.44	2.82	
1445	2400	27.87	6.61	-10	0.539	0.4	1.26	2.82	
1450	2600	27.97	6.61	-11	0.553	0.4	1.19	2.82	
1455	3000	28.18	6.62	-12	0.560	0.2	1.11	2.82	

COMMENTS:

SAMPLE COLLECTION TIME: 1500

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	28
Final tubing depth (ft.) BTOC	28
Initial pump speed	low
Time pump speed was initialized	1407
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	→	1440						
Actual Volume (ml)	→	2000						

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-54D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 76°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.19 FT. TO 30.19 FT.

HEIGHT OF STICK-UP: -0.19 FT. | BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.42 FT. | INITIAL WATER LEVEL (BTOC): 5.10 FT. | TIME: 1753

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1800	—	26.26	6.89	6	0.300	1.0	0.91	5.60	no odor / clear
1805	600	26.24	6.86	-4	0.299	0.5	0.93	5.60	↓
1810	940	26.16	6.93	-20	0.302	0.5	0.93	5.60	
1815	1180	26.16	6.95	-24	0.302	0.4	0.89	5.60	

COMMENTS:

SAMPLE COLLECTION TIME: 1820

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	low
Time pump speed was initialized	1756
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-55D

DATE: 10/4/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009

WEATHER CONDITIONS: Clear 64°F low wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER

BGS WELL SCREEN INTERVAL: 25.15 FT. TO 30.15 FT.

HEIGHT OF STICK-UP: -0.15 FT.

BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.48 FT.

INITIAL WATER LEVEL (BTOC): 6.10 FT. TIME: 13:22

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: ~ BENEATH OUTER CAP: ~ BENEATH INNER CAP: ~

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
13:30	0	28.62	7.66	-24	0.207	1.0	1.98	6.24	
13:36	720	27.68	7.91	-38	0.218	1.4	1.69	6.26	
13:41	940	27.72	8.01	-42	0.218	0.8	1.37	6.27	
13:46	1240	27.51	8.05	-45	0.217	0.2	1.21	6.22	
13:52	1660	27.38	8.04	-48	0.216	0.0	1.04	6.22	

COMMENTS:

SAMPLE COLLECTION TIME: 13:55

PREPARED BY: S Freeman

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31.5
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	2.12
Time pump speed was initialized	13:26
Pump speed at flow into cylinder	2.12
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-56D

DATE: ~~10/5/12~~ 10/4/12 PROJECT NAME: McKenzie Tank Lines PROJECT NO: 460009

WEATHER CONDITIONS: 71°F clear 7.2mph wnw

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER BGS WELL SCREEN INTERVAL: 25.32 FT. TO 30.32 FT.

HEIGHT OF STICK-UP: -0.32 FT. BTOC WELL SCREEN INTERVAL: 25 FT. TO 30 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT. Measured 30.19 FT. INITIAL WATER LEVEL (BTOC): 4.55 FT. TIME: 16:09

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY

[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES FLOW THROUGH CELL MODEL: Horiba U-52 SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:16	0	29.91	7.56	-6	0.151	6.9	1.76	4.94	
16:22	420	29.76	7.69	-20	0.167	5.5	0.90	5.04	
16:30	960	27.87	7.91	-31	0.177	3.9	0.77	5.06	
16:35	1320	27.70	7.93	-34	0.179	4.0	0.71	5.07	
16:40	1660	27.70	7.93	-35	0.179	3.4	0.66	5.07	

COMMENTS:

SAMPLE COLLECTION TIME: 16:44

PREPARED BY: S.H

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	27.5
Final tubing depth (ft.) BTOC	27.5
Initial pump speed	2.12
Time pump speed was initialized	16:12
Pump speed at flow into cylinder	2.12
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: _____

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-57S

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 9.58 FT. TO 19.58 FT.

HEIGHT OF STICK-UP: 0.27 FT. | BTOC WELL SCREEN INTERVAL: 9.85 FT. TO 19.85 FT.

TOTAL WELL DEPTH (BTOC): Reported 20.26 FT. Measured 18.2 FT. | INITIAL WATER LEVEL (BTOC): 3.41 FT. | TIME: 1052

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1055	—	25.56	5.37	89	0.859	31.8	1.69	3.48	clear / no odor
1100	440	24.96	5.20	103	0.860	19.1	1.25	3.48	
1105	1000	25.17	5.19	105	0.861	16.6	1.15	3.48	
1110	1300	25.15	5.19	106	0.859	15.8	1.09	3.48	
1115	1580	25.14	5.19	107	0.857	15.0	1.05	3.48	
1120	1960	25.10	5.18	108	0.856	14.5	1.0	3.48	

COMMENTS:

SAMPLE COLLECTION TIME: 1125

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	15
Final tubing depth (ft.) BTOC	15
Initial pump speed	low
Time pump speed was initialized	1053
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks: Sampled due to time constraints, turbidity above 10 NTU, all other parameters stabilized.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: MW-58D

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 70°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 25.00 FT. TO 30.00 FT.

HEIGHT OF STICK-UP: 0.11 FT. | BTOC WELL SCREEN INTERVAL: 25.11 FT. TO 30.11 FT.

TOTAL WELL DEPTH (BTOC): Reported 30.53 FT. Measured 29.05 FT. | INITIAL WATER LEVEL (BTOC): 3.42 FT. | TIME: 1001

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1005	—	23.30	6.61	31	0.290	2.5	1.65	3.49	clear/ no odor
1010	380	23.47	6.72	-2	0.294	2.6	1.63	3.49	
1015	640	23.72	6.84	-39	0.296	3.6	1.62	3.49	
1020	1000	23.88	6.92	-59	0.293	5.5	1.53	3.49	
1025	1320	23.96	6.99	-68	0.290	5.1	1.45	3.49	
1030	158	24.03	6.99	-69	0.293	4.7	1.45	3.49	

COMMENTS:

SAMPLE COLLECTION TIME: 1035

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	31
Initial tubing depth (ft.) BTOC	28
Final tubing depth (ft.) BTOC	28
Initial pump speed	low
Time pump speed was initialized	1002
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: PAW-3

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: clear 75°F light wind

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 4.52 FT. TO 9.52 FT.

HEIGHT OF STICK-UP: 1.68 FT. | BTOC WELL SCREEN INTERVAL: 6.20 FT. TO 11.20 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT Measured 11.2 FT. | INITIAL WATER LEVEL (BTOC): 5.78 FT. | TIME: 14:21

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
14:14	0	24.07	7.35	81	0.342	2.1	3.12	5.45	
14:24	280	28.13	6.73	69	0.349	2.0	2.66	6.03	
14:27	600	28.20	6.67	62	0.348	0.8	2.16	6.09	
14:34	920	28.10	6.66	57	0.348	0.3	1.83	6.11	

COMMENTS:

SAMPLE COLLECTION TIME: 14:35

PREPARED BY: SHelms

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	20
Initial tubing depth (ft.) BTOC	9.7
Final tubing depth (ft.) BTOC	9.7
Initial pump speed	2.15
Time pump speed was initialized	14:12
Pump speed at flow into cylinder	2.16
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: PAW-4

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: 75°F Iron Wind Clear

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 14.66 FT. TO 24.66 FT.

HEIGHT OF STICK-UP: 1.69 FT. | BTOC WELL SCREEN INTERVAL: 16.35 FT. TO 26.35 FT.

TOTAL WELL DEPTH (BTOC): Reported NA FT Measured 26.35 FT. | INITIAL WATER LEVEL (BTOC): 5.86 FT. | TIME: 14:50

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
15:04	0	22.40	6.51	88	0.344	13.1	3.06	6.12	
15:15	500	26.05	6.97	49	0.390	6.0	2.37	6.12	
15:20	780	26.97	6.88	43	0.391	3.5	2.10	6.12	
15:25	1020	25.94	6.89	39	0.383	2.3	1.97	6.12	

COMMENTS:

SAMPLE COLLECTION TIME: 15:27

PREPARED BY: S.H

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	26
Initial tubing depth (ft.) BTOC	21.4
Final tubing depth (ft.) BTOC	21.4
Initial pump speed	14:54 52
Time pump speed was initialized	2.12
Pump speed at flow into cylinder	2.12
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: Well screen interval unknown.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-1

DATE: 10/3/17	PROJECT NAME: McKenzie Tank Lines	PROJECT NO: 460009

WEATHER CONDITIONS: 64°F Clear windy

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [X] 4 [ ] 6 [ ] OTHER — BGS WELL SCREEN INTERVAL: 20.02 FT. TO 30.02 FT.

HEIGHT OF STICK-UP: 0.48 FT. — BTOC WELL SCREEN INTERVAL: 20.50 FT. TO 30.50 FT.

TOTAL WELL DEPTH (BTOC): Reported 30.50 FT Measured 28.25 FT. — INITIAL WATER LEVEL (BTOC): 5.25 FT. — TIME: 16:40

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES — FLOW THROUGH CELL MODEL: Horiba U-52 — SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
16:47	0	27.12	6.71	33	0.453	1.2	1.61	5.34	
16:52	2.60	25.35	6.51	37	0.482	1.3	1.15	5.37	
16:57	5.40	24.54	6.48	34	0.495	1.1	1.01	5.42	
17:02	8.20	24.26	6.48	31	0.497	5.6	0.94	5.44	

COMMENTS:

SAMPLE COLLECTION TIME: 17:05

PREPARED BY: S Helms

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	28
Initial tubing depth (ft.) BTOC	23
Final tubing depth (ft.) BTOC	23
Initial pump speed	2.18
Time pump speed was initialized	16:42
Pump speed at flow into cylinder	2.18
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-4

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: 87°F Windy Clear

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [ ] 4 [X] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 20 FT. TO 30 FT.

HEIGHT OF STICK-UP: 2.05 FT. | BTOC WELL SCREEN INTERVAL: 22.80 FT. TO 32.80 FT.

TOTAL WELL DEPTH (BTOC): Reported 30.00 FT Measured 22.69 FT. | INITIAL WATER LEVEL (BTOC): 6.85 FT. | TIME: 15:46

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: ____ BENEATH OUTER CAP: ____ BENEATH INNER CAP: ____

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
15:58	0	26.82	7.15	44	0.648	3.5	1.25	6.92	
16:03	380	25.64	7.09	24	0.665	2.1	1.05	6.97	
16:08	640	25.34	7.07	17	0.673	1.0	0.94	6.98	
16:13	900	25.28	7.07	11	0.672	0.4	0.87	2.00	

COMMENTS:

SAMPLE COLLECTION TIME: 16:15

PREPARED BY: S.H

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	24
Initial tubing depth (ft.) BTOC	21
Final tubing depth (ft.) BTOC	21
Initial pump speed	2.19
Time pump speed was initialized	15:50
Pump speed at flow into cylinder	2.19
Started new roll of tubing at	

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks: Discarded small plug of black product tube.

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-8

DATE: 10/4/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: Clear, 78°F

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [X] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 19.97 FT. TO 29.97 FT.

HEIGHT OF STICK-UP: 0.03 FT. | BTOC WELL SCREEN INTERVAL: 20.00 FT. TO 30.00 FT.

TOTAL WELL DEPTH (BTOC): Reported 35.00 FT Measured FT. | INITIAL WATER LEVEL (BTOC): 2.65 FT. | TIME: 1511

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
1515	—	26.99	6.51	-17	0.482	5.7	1.30	2.71	no odor / clear
1520	420	26.49	6.50	-35	0.499	0.1	1.24	2.71	↓
1525	880	26.99	6.50	-42	0.497	0.3	1.06	2.71	↓

COMMENTS:

SAMPLE COLLECTION TIME: 1530

PREPARED BY: RA

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	28
Initial tubing depth (ft.) BTOC	25
Final tubing depth (ft.) BTOC	25
Initial pump speed	low
Time pump speed was initialized	1513
Pump speed at flow into cylinder	low
Started new roll of tubing at	—

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket	—							
Actual Volume (ml)	—							

Additional remarks:

ENVIRONMENTAL INTERNATIONAL CORPORATION

WELL PURGING AND SAMPLING DATA LOG

WELL/SAMPLE NO: RW-9

DATE: 10/3/17 | PROJECT NAME: McKenzie Tank Lines | PROJECT NO: 460009

WEATHER CONDITIONS: windy 50°F clear

SAMPLE TYPE: [X] GROUNDWATER [ ] WASTEWATER [ ] SURFACE WATER [ ] OTHER

WELL DIAMETER (IN.) [ ] 1 [ ] 2 [X] 4 [ ] 6 [ ] OTHER | BGS WELL SCREEN INTERVAL: 19.71 FT. TO 29.71 FT.

HEIGHT OF STICK-UP: 0.29 FT. | BTOC WELL SCREEN INTERVAL: 10.00 FT. TO 30.00 FT.

TOTAL WELL DEPTH (BTOC): Reported 35.00 FT Measured FT. | INITIAL WATER LEVEL (BTOC): 5.59 FT. | TIME: 17:33

PURGING DEVICE: Pegasus Alexis Peristaltic Pump [ ] DEDICATED [ ] DISPOSABLE [X] DECONTAMINATED

SAMPLING DEVICE: 1/4" Teflon lined tubing [ ] DEDICATED [X] DISPOSABLE [ ] DECONTAMINATED

EQUIP. DECON. [X] ALCONOX WASH [ ] ISOPROPANOL [X] DIST/DEION 1 RINSE [ ] DIST/DEION FINAL RINSE [X] AIR DRY
[ ] LIQUINOX WASH [ ] DIST/DEION 2 RINSE [ ] OTHER SOLVENT [ ] TAP WATER WASH [ ] TAP WATER FINAL RINSE

PID/FID READINGS (ppm): BACKGROUND: — BENEATH OUTER CAP: — BENEATH INNER CAP: —

CONTAINER PRESERVATION: [X] LAB PRESERVED [ ] FIELD PRESERVED

ANALYTICAL PARAMETERS: 8260 B

LABORATORY PERFORMING ANALYSIS: AES | FLOW THROUGH CELL MODEL: Horiba U-52 | SERIAL # UDRU5DA9

TIME	VOLUME PURGED (mL)	TEMP (°C)	pH	ORP (mV)	SPEC. COND. (mS/cm)	TURBIDITY (NTU)	DISS. OXYGEN. (mg/L)	DTW (ft.)	REMARKS (COLOR, ODOR, ETC.)
17:42	0	26.46	7.39	2	0.235	3.3	1.97	5.67	
17:47	390	26.35	7.54	-10	0.238	2.7	1.16	5.68	
17:52	680	26.32	7.57	-14	0.237	3.0	1.01	5.69	
17:57	1000	26.40	7.62	-19	0.235	6.0	0.90	5.61	

COMMENTS:

SAMPLE COLLECTION TIME: 19:00

PREPARED BY: STI

* Parameters are stabilized when 3 consecutive readings are within ± 0.1 FOR pH and ± 5% for specific conductivity is constant. Reasonable attempts must be made to reach a 0.2 mg/L dissolved oxygen reading and a turbidity reading below 10 NTU as per the Groundwater Sampling Operating Procedure, US EPA, Region 4, # SESDPROC-301-R3.

Length of tubing cut (ft.)	~~35~~ 23	23
Initial tubing depth (ft.) BTOC	~~28~~ 30	29
Final tubing depth (ft.) BTOC	~~—~~ 9	29
Initial pump speed	2.23	
Time pump speed was initialized	17:33	
Pump speed at flow into cylinder	2.23	
Started new roll of tubing at		

	Time	Time	Time	Time	Time	Time	Time	Time
2,000 mL volume poured into bucket								
Actual Volume (ml)								

Additional remarks:

HSI SITE 10406, FORMER MCKENZIE TANK LINES SITE
111 GRANGE ROAD, PORT WENTWORTH, GEORGIA

EIGHTH SEMI-ANNUAL PROGRESS REPORT

ATTACHMENT 3-2 LABORATORY ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES OCTOBER 2017