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June 27, 2018

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Bureau of Land and Waste Management
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Columbia, SC 29201

Subject: 2018 Annual Monitoring Report
Plantation Pipe Line Company
Lewis Drive Remediation Site
Belton, South Carolina
Site ID #18693, "Kinder Morgan Belton Pipeline Release"

Dear Ms. Coleman,

On behalf of Plantation Pipe Line Company (Plantation), CH2M HILL Engineers, Inc. (CH2M), now a wholly owned subsidiary of Jacobs Engineering Group Inc. (Jacobs), is submitting the attached 2018 Annual Monitoring Report for the Lewis Drive Remediation Site in Belton, South Carolina. This report summarizes the work performed at the site between April 1, 2017, and March 31, 2018. If you have any questions or concerns, please call me at 919-760-1777 or Mr. Jerry Aycock/Plantation at 770-751-4165.

Regards,
CH2M HILL Engineers, Inc.

William M. Waldron, P.E.
Program Manager

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File

REPORT

2018 Annual Monitoring Report
Lewis Drive Remediation Site
Belton, South Carolina
Site ID Number 18693
“Kinder Morgan Belton Pipeline Release”

Prepared for

Plantation Pipe Line Company

June 27, 2018



CH2M HILL Engineers, Inc.
A wholly owned subsidiary of Jacobs Engineering Group Inc.
3120 Highwoods Boulevard, Suite 214
Raleigh, North Carolina 27604

**2018 Annual Monitoring Report
Lewis Drive Remediation Site
Belton, South Carolina
Site ID Number 18693
"Kinder Morgan Belton Pipeline Release"**

PREPARED FOR



PLANTATION PIPE LINE COMPANY

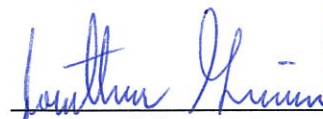
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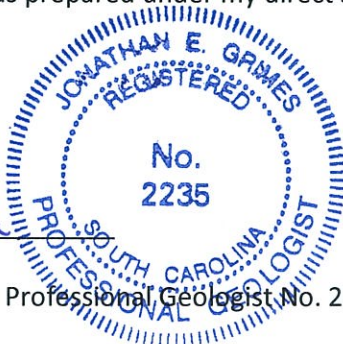
A wholly owned subsidiary of Jacobs Engineering Group Inc.
Raleigh, North Carolina

JUNE 27, 2018

I affirm that this report was prepared under my direct supervision.



Jonathan Grimes, P.G.
South Carolina Registered Professional Geologist No. 2235





Date

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Acronyms and Abbreviations

µg/L	microgram(s) per liter
1,2-DCA	1,2-dichloroethane
BCPZ	Brown's Creek Protection Zone
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Corrective Action Plan
CCPZ	Cupboard Creek Protection Zone
CH2M	CH2M HILL Engineers, Inc.
COC	chain-of-custody
CSA	Comprehensive Site Assessment
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
ID	identification
Jacobs	Jacobs Engineering Group Inc.
LNAPL	light non-aqueous phase liquid
mg/L	milligram(s) per liter
MTBE	methyl tertiary butyl ether
O&M	operation and maintenance
PID	photoionization detector
Plantation	Plantation Pipe Line Company
QAPP	Quality Assurance Project Plan
SCDHEC	South Carolina Department of Health and Environmental Control
scfm	standard cubic feet per minute
scfm/ft	standard cubic feet per minute per foot
UST	underground storage tank

Introduction

On behalf of Plantation Pipe Line Company (Plantation), CH2M HILL Engineers, Inc. (CH2M), a wholly owned subsidiary of Jacobs Engineering Group Inc. (Jacobs), is submitting this 2018 Annual Monitoring Report for the Lewis Drive Remediation Site in Belton, South Carolina. This report summarizes the work performed at the site between April 1, 2017, and March 31, 2018.

On December 8, 2014, a release of an estimated 8,800 barrels (369,600 gallons) of gasoline and a small amount of diesel fuel (Plantation, 2015) was discovered from a sleeve on Plantation's 26-inch product pipeline near Lewis Drive, Belton, South Carolina (Figure 1). The site is located on the pipeline right-of-way between Lewis Drive, a rural two-lane undivided asphalt road, to the east and a hayfield to the west. The release location and site features (including the location of monitoring wells, recovery sumps, temporary wells [piezometers], recovery trenches, etc.) are shown on Figure 1.

This site has been designated by the South Carolina Department of Health and Environmental Control (SCDHEC) as Site Number 18693 "Kinder Morgan Belton Pipeline Release." This Annual Monitoring Report was prepared in accordance with the Corrective Action Plan (CAP) (CH2M, 2016b), CAP Addendum, Revision 1 (CH2M, 2017j), CAP Addendum, Revision 2 (CH2M, 2017u), Comprehensive Site Assessment (CSA) Report (CH2M, 2016a), and Quality Assurance Project Plan (QAPP), Revision 3 (CH2M, 2017g), which was updated in February 2018 with the project QAPP, Revision 4 (CH2M, 2018d). Significant correspondence between Plantation and SCDHEC during this reporting period is summarized below:

- Monthly status reports April 2017 through March 2018 (CH2M, 2017l, 2017m, 2017p, 2017q, 2017s, 2017v, 2017w, 2017y, 2018a, 2018g, 2018j, 2018l).
- April 11, 2017 – *Request for Authorization to Initiate Remediation in the Hayfield Zone* (CH2M, 2017a).
- April 11, 2017 – *Response to Comments in SCDHEC Letter titled "Weekly Report Reviews" dated March 31, 2017* (CH2M, 2017b).
- April 13, 2017 – *Lewis Drive – Weekly Startup Data Transmittal for Week 4, March 28 to April 3, 2017* (CH2M, 2017c).
- May 8, 2017 – *Shallow Bedrock Zone – Biosparging Pilot Study Plan* (CH2M, 2017d).
- May 8, 2017 – *Request for Well Permit to Install Additional Monitoring Wells* (CH2M, 2017e).
- May 24, 2017 – *Response to Comments on SCDHEC Letter titled "Quality Assurance Project Plan Revision Request," dated April 26, 2017* (CH2M, 2017f).
- May 24, 2017 – *Quality Assurance Project Plan, Revision 3. Addendum to the SCDHEC UST Programmatic Quality Assurance Program Plan for Plantation Pipe Line Company/Site ID No. 18693* (CH2M, 2017g).
- May 25, 2017 – *Response to SCDHEC Letter titled "Corrective Action Plan, Response to Comments, and Monthly Report Review & Request for a Revised Correction Action Plan Addendum," dated April 26, 2017* (CH2M, 2017h).
- May 25, 2017 – *Technical Memorandum: Light Non-Aqueous Phase Liquid Mobility Testing* (CH2M, 2017i).
- May 25, 2017 – *Corrective Action Plan Addendum, Revision 1* (CH2M, 2017j).

- July 26, 2017 – *Sparging Operating Limits* (CH2M, 2017k).
- August 4, 2017 – *Interim Free Product Recovery Plan – Revision 3* (CH2M, 2017n).
- August 11, 2017 – *Response to Comments in SCDHEC Letter titled “Weekly and Monthly Report Reviews, Monitoring Well Installation Approval, and Pilot Study Plan Review, Weekly Startup Status Update for Week 3, March 21-27, 2017, e-mailed March 31, 2017, Weekly Startup Status Update for Week 4, March 28, 2017- April 4, 2017, received April 13, 2017, Weekly Startup Supplemental Data Transmittal for Week 4, April 4-6, 2017, received April 21, 2017, Response to Comments received April 12, 2017, March 2017 Final Monthly Status Update, received May 3, 2017, Request for Well Permit to Install Additional Monitoring Wells, received May 9, 2017, Shallow Bedrock Zone-Biosparging Pilot Study Plan, received May 9, 2017” dated June 16, 2017* (CH2M, 2017o).
- October 6, 2017 – *Second Quarter 2017 Monitoring Report* (CH2M, 2017r).
- October 12, 2017 – *Response to Comments in SCDHEC Letter titled “Final Revisions to Corrective Action Plan Addendum Request” dated September 12, 2017* (CH2M, 2017t).
- October 12, 2017 – *Corrective Action Plan Addendum, Revision 2* (CH2M, 2017u).
- December 6, 2017 – *Third Quarter 2017 Monitoring Report* (CH2M, 2017x).
- December 26, 2017 – *Technical Memorandum – Review of Chandler AG Well Data* (Environmental Standards, Inc., 2017).
- February 6, 2018 – *Free-Product Recovery Plan – Revision 4* (CH2M, 2018b).
- February 9, 2018 – *Response to Comments in SCDHEC Letter titled “QAPP Revision, Monitoring Well Installation and Well Log Information, Receptor Survey, Plume Definition Plan, and Bedrock Plan Request” dated December 14, 2017* (CH2M, 2018c).
- February 9, 2018 – *Quality Assurance Project Plan, Revision 4. Addendum to the SCDHEC UST Programmatic Quality Assurance Program Plan for Plantation Pipe Line Company/Site ID No. 18693.* (CH2M 2018d).
- February 23, 2018 – *Well Abandonment and Well Completion Summary* (CH2M, 2018e).
- February 27, 2018 – *Fourth Quarter 2017 Monitoring Report* (CH2M, 2018f).
- March 13, 2018 – *Lewis Drive – Memorandums from Environmental Standards, Inc. Certified on January 26, 2018 and March 12, 2018* (CH2M, 2018h).
- March 22, 2018 – *Product Recovery Skimmer Results* (CH2M, 2018i).
- March 26, 2018 – *Request for Well Permit to Install Additional Monitoring Wells* (CH2M, 2018k).
- May 4, 2018 – *Request for Well Permit to Install Additional Vertical Sparging Wells for Biosparging System Expansion* (CH2M, 2018m).

Work Activities

The following remediation-related activities were performed during this first annual reporting period since system startup in accordance with the CAP (CH2M, 2016b), CAP Addendum, Revision 1 (CH2M, 2017j), CAP Addendum, Revision 2 (CH2M, 2017u), and QAPP, Revision 3 (CH2M, 2017g), which was updated in February 2018 with the project QAPP, Revision 4 (CH2M, 2018d):

- Conducted 12 groundwater sampling events and 10 surface water sampling events.
- Started and operated vertical sparging wells in the areas of Brown's Creek and Cupboard Creek (Figure 1).
- Started and operated stream aerators in Brown's Creek.
- Started and operated three horizontal sparging wells in the Hayfield Zone (Figure 1).
- Performed routine operation and maintenance (O&M) events on the sparging system.
- Recorded changes in groundwater levels and barometric pressures using In Situ Rugged Troll 100 water level data loggers.
- Performed free product recovery in wells with measurable product thickness in the Brown's Creek Protection Zone (BCPZ) and Cupboard Creek Protection Zone (CCPZ).
- Performed light non-aqueous phase liquid (LNAPL) mobility tests on select recovery wells. Mobility testing was performed to quantify LNAPL transmissivity and evaluate the efficacy of continuing LNAPL recovery.
- Installed residuum monitoring wells MW-43, MW-46, MW-47, and MW-49 and bedrock monitoring wells MW-06B, MW-09B, MW-43B, MW-48B, and MW-50B.
- Rehabilitated existing monitoring well MW-02B.
- Abandoned RS-19, RT-2H, and TW-46 on September 13, 2017, because of damage.
- Installed reactive core mat adjacent to recovery trench riser RT-2B to address seeps near Brown's Creek.
- Established surface water sampling location SW-14 in the Cupboard Creek drainage area.
- Transported and disposed of liquid and soil waste generated during the completion of work onsite.
- Performed inspections of surface water features at Brown's Creek and Cupboard Creek.

Work Procedures

3.1 Gauging Events

Monitoring wells, surface water locations, and piezometers were gauged monthly. Gauging sheets for this reporting period can be found in Appendix A. Product recovery features (recovery sumps, trenches, and wells) were gauged once per week until February 2018, and at that time the gauging frequency became monthly for all features in accordance with the Free-Product Recovery Plan – Revision 4 (CH2M, 2018b). Observations made during this reporting period are summarized in Table 1 and discussed in Section 3.2. Field notes for this reporting period can be found in Appendix A.

3.2 Product Recovery

As agreed upon with the SCDHEC (CH2M, 2017n), free product recovery was focused on the BCPZ and CCPZ during this reporting period. Product recovery was performed once weekly in these two zones in recovery wells, sumps, and trenches that had measurable product thickness. Product recovery outside of these zones was performed as time permitted. Vacuum trucks were used to recover and transfer the product and petroleum-contact water into two onsite poly tanks for temporary storage and separation. During product recovery, color changes of the extracted fluids were monitored, and extraction ceased when recovered liquids from the recovery features were observed to be clear and emulsification was minimal. During each recovery event, the operator recorded the duration of product recovery from each recovery feature or well. The quantity of recovered product and petroleum-contact water was tracked by measuring these fluid levels in the onsite poly tanks prior to and after the recovery event. When the fluid levels of both poly tanks were full (at the poly tank neck), the fluids were decanted and transported to the A&D Environmental facility in Archdale, North Carolina, for disposal.

To improve the effectiveness of product recovery, product recovery transitioned from vacuum truck to product-skimming canisters (skimmers) and petroleum-absorbent socks (socks) in February 2018 in accordance with the Free-Product Recovery Plan – Revision 4 (CH2M, 2018b). Using skimmers and socks will allow for more accurate quantification of the amount of product recovered on a well-by-well basis. The last vacuum truck event for product recovery was performed on February 2, 2018. Skimmers and socks were deployed on February 13, 2018, in locations that had measurable product in December 2017. These skimmers and socks were checked weekly for one month to record product recovery. Due to low product recovery volumes, in accordance with Plantation's report to SCDHEC on the Product Recovery Skimmer Results (CH2M, 2018i), the frequency of product recovery changed to monthly after March 2018 and was scheduled to coincide with monthly monitoring events. Recovered fluids from the skimmers are placed into the onsite poly tanks for temporary storage and separation. Used socks are placed in a drum for eventual offsite disposal.

3.3 Surface Water

Inspections of surface water features were performed weekly at the site until February 2, 2018, and monthly thereafter. The inspection route used is illustrated on Figures 1, 2A, and 2B.

Surface water samples were collected in accordance with the CAP Addendum, Revision 2 (CH2M, 2017u). Surface water samples were collected monthly during this reporting period except for October and November 2017.

Surface water samples were scheduled to be collected from 16 locations (an additional location, SW-14, was established in late June 2017). Because of an anomalous detection of hydrocarbons at SW-02 from

December 5, 2017, an additional sampling event was performed on December 14, 2017. During this reporting period, location SW-06 in Cupboard Creek was not sampled because it was dry, and location SW-05 in Cupboard Creek was not sampled because it was dry 8 of the 10 times it was scheduled to be sampled. Location FP-03 was not sampled in April 2017 due to thunderstorms. Location SW-03 was not sampled in January 2018 because the location was frozen over. Location SW-07, in Brown's Creek, was not sampled in August and September 2017 because it was dry.

Samples were collected in accordance with the project QAPP, Revision 3 (CH2M, 2017g), which was updated in February 2018 with the project QAPP, Revision 4 (CH2M, 2018d), and were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and naphthalene using U.S. Environmental Protection Agency (EPA) Method 8260B (see Table 2). Methyl tertiary butyl ether (MTBE) was added to the analyte list in February 2018 using EPA Method 8260B. The samples were packed in wet ice and transported by FedEx under standard chain-of-custody (COC) procedures to ESC Lab Sciences in Mount Juliet, Tennessee. Laboratory reports for surface water samples and COC records for January through March 2018 are included in Appendix B. All previous laboratory reports and COC records were submitted in Quarterly Reports (CH2M, 2017r, 2017x, 2018f). Laboratory results are summarized in Table 2. Field notes for this reporting period can be found in Appendix A.

3.4 Groundwater Sampling Events

Twelve groundwater sampling events were performed during the reporting period. Prior to each sampling event, a comprehensive round of groundwater gauging was conducted using an oil-water interface probe to measure the depth to water and test for the presence and thickness (if present) of product. The oil-water interface probe was decontaminated before each measurement. Groundwater elevation and product thickness data are summarized in Table 3. Gauging sheets and field notes for this reporting period can be found in Appendix A. Figures 2A and 2B show groundwater elevations in the residuum and bedrock aquifers, respectively, while Figure 3 shows the product thickness data.

Groundwater wells without free product were sampled using either HydraSleeves or a peristaltic pump using low-flow purge methods. The height of the water column determined if a well was sampled using a HydraSleeve or peristaltic pump according to the following:

- Water column greater than 3 feet — A HydraSleeve was used to sample the well, and dissolved oxygen (DO) concentrations were measured using a YSI ProODO meter. DO concentrations were recorded in the field logbook and are summarized in Table 4.
- Water column less than 3 feet but greater than 0.5 foot — A peristaltic pump was used to purge the well, and field parameters were measured using a YSI 6920 V2-2 Multi-Parameter Water Quality Sonde meter to confirm stabilization of field parameters, in accordance with the SCDHEC Programmatic Quality Assurance Program Plan, Revision 3.1 (Programmatic QAPP) (South Carolina Underground Storage Tank [UST] Management Division, 2016). Once the parameters stabilized, a sample was collected from the well using the straw method. DO concentrations were measured using a YSI ProODO meter. Upon stabilization, the field parameters were recorded on a separate purge log. DO measurements are summarized in Table 4.
- Water column less than 0.5 foot — The well was reported dry, was documented in the field logbook as dry, was not sampled, and DO measurements were not collected.

Samples were packed on wet ice, and transported by FedEx under standard COC procedures to ESC Lab Sciences in Mount Juliet, Tennessee. Samples were analyzed for BTEX, 1,2-dichloroethane (1,2-DCA), MTBE, and naphthalene using EPA Method 8260B. Laboratory data sheets for groundwater samples and COC records for January through March 2018 are included in Appendix C. All previous laboratory reports and COC records were submitted in Quarterly Reports (CH2M, 2017r, 2017x, 2018f). Laboratory results are summarized in Table 5. Field notes and purge logs for this reporting period can be found in Appendix A.

3.5 Sparging System Operation and Maintenance

Sparging was initiated on March 6, 2017, according to the Startup Plan, Appendix B (CH2M, 2017k), with routine O&M activities performed during this reporting period. O&M logs for January through March 2018 are provided in Appendix D; previous O&M logs were submitted in Quarterly Reports (CH2M, 2017r, 2017x, 2018f). Sparging activities are summarized by remediation area below. When sparging rates were increased in any of the wells, air monitoring was performed with a photoionization detector (PID) and visual observations were made near the sparging wells.

- **BCPZ:** Sparging in the BCPZ was performed using a curtain of 27 vertical sparging wells. The flow rates in these wells were increased incrementally from 1 to 10 standard cubic feet per minute (scfm) by the end of the reporting period. Additionally, air was injected into two submersible diffusion aerators installed in Brown's Creek. The flow rates in these aerators were increased from 1 to 15 scfm during this reporting period.
- **CCPZ:** Sparging in the CCPZ was performed using a curtain of 19 vertical sparging wells. The flow rates in these wells were increased incrementally from 1 to 10 scfm during this reporting period.
- **Shallow Bedrock Zone:** No sparging has been performed in the Shallow Bedrock Zone to date. A pilot plan for sparging in the Shallow Bedrock Zone was approved on December 14, 2017. However, based on a meeting with SCDHEC on March 7, 2018, Plantation is deferring the bedrock sparging pilot study and installation of these wells at this time. Plantation is planning to expand the BCPZ and the CCPZ sparging systems, which will address key areas of impact within the Shallow Bedrock Zone.
- **Hayfield Zone:** Air sparging was initiated in the Hayfield Zone on May 9, 2017, in accordance with Plantation's "Request for Authorization to Initiate Remediation in the Hayfield Zone," dated April 11, 2017. Air sparging was initiated at a rate of 0.05 scfm per foot of screen (scfm/ft) in each of the three horizontal wells (HAS-1, HAS-2, and HAS-3). These wells have screen lengths of approximately 752 feet, 715 feet, and 377 feet, respectively. Therefore, the initial total injection rate in the Hayfield Zone was approximately 92 scfm. The flow rate into the injection wells was increased during this reporting period until a flow rate of 1,070 scfm was achieved. The horizontal wells were briefly turned off between September 26, 2017, and October 9, 2017, to allow for well installation and repair activities in the Hayfield Zone. Subsequently, flow rates in these wells were increased weekly by approximately 0.04 scfm/ft to 0.70 scfm/ft by the end of March 2018.

Water levels were measured in the BCPZ, CCPZ, and Hayfield Zone to document the influence of the sparging system on the residuum aquifer. Since the system was started, water level data loggers (In Situ Rugged Troll 100) have measured groundwater elevations continuously at various locations around the site. Data loggers were positioned in MW-02, MW-12, MW-15, and MW-20, and a barometric pressure logger in MW-01, for most of the reporting period. In June 2017, two additional water level data loggers were installed in MW-08 and MW-25, and a barometric pressure logger was installed in MW-10. The water level data logger in MW-25 was removed, cleaned, and relocated to MW-40 in September 2017. In November 2017, the water level data logger in MW-08 was removed, cleaned, and relocated to MW-25. In February 2018, the water level data loggers in MW-15 and MW-20 were cleaned and relocated to MW-29 and MW-30, respectively, because skimmers were placed in MW-15 and MW-20 to aid in product recovery.

3.6 Additional Activities

Additional activities for March 2017 through December 2017 were discussed in the Second Quarter 2017 Monitoring Report (April through June 2017; CH2M, 2017r), Third Quarter 2017 Monitoring Report (July through September 2017; CH2M, 2017x), and Fourth Quarter 2017 Monitoring Report (October through December 2017; CH2M, 2018f). In addition, recovered fluids were transported to the A&D Environmental facility in Archdale, North Carolina, in January 2018 for disposal. See Appendix E for the Bills of Lading and Table 6 for a summary of the total product transported and disposed of offsite.

Discussion of Results

4.1 Product Recovery

Since the beginning of free product recovery through March 31, 2018, approximately 222,980 gallons (5,309 barrels) of product have been recovered. During this reporting period, 4,212 gallons of product were recovered at the site. Of this, 4,200 gallons were recovered from vacuum truck operations through September 2017; after September 2017, the amount of product recovered could not be measured.

To more accurately quantify the amount of product recovered by well, the method of product recovery transitioned to in-well skimmers and socks in February 2018; 5.75 gallons of product were recovered by these methods in February and March 2018. This most recent recovery data indicate that very little product is available for recovery and in fact, the majority (67 percent) of product recovered in February and March 2018 was from one well (RS-05).

Table 3 summarizes the dates, times, and recovery features used for product recovery while vacuum truck operations were performed. Table 6 shows the dates and quantities of product that were shipped offsite for disposal. Table 7 shows the dates and quantities of product that were recovered while using skimmers and socks. Field notes for this reporting period can be found in Appendix A. Appendix E contains the Bills of Lading from January through March 2018 for transportation of fluids offsite for disposal. Prior Bills of Lading were presented in Quarterly Reports (CH2M, 2017r, 2017x, 2018f).

4.2 Surface Water

Observations made during this reporting period are summarized in Table 1. Field notes for this reporting period can be found in Appendix A. No new signs of distressed vegetation, hydrocarbon sheens, or odors were observed during the inspections for this reporting period. However, naturally occurring biological sheens (not from the hydrocarbon release at the site) were frequently observed on Brown's Creek. During the end of May and into June 2017, occasional hydrocarbon sheens were noted in a depressed area (due to recovery trench settlement) adjacent to Brown's Creek near recovery trench risers RT-2B, RT-2C, and RT-2K. However, through naturally occurring biological degradative processes, the hydrocarbon sheen did not migrate to Brown's Creek. Also, during February 2018, new turbidity was observed in Brown's Creek, associated with the replacement of the culvert under Lewis Road, performed by Anderson County Roads and Bridges Department. This turbidity was no longer observed in March 2018.

From April 2017 through March 2018, BTEX concentrations were detected in surface water at SW-01, SW-02, SW-04, SW-08, SW-12, and SW-13 (Table 2). Benzene was the only constituent that exceeded the surface water standard for protection of human health for consumption of water and organisms of 2.2 micrograms per liter ($\mu\text{g/L}$) (SCDHEC, 2014).

Surface water samples collected from SW-12 exceeded benzene screening criteria during 11 sampling events. SW-12 is located near a known seep where groundwater impacts enter Brown's Creek. Concentrations at SW-12 have decreased 95 percent since April 2017.

Surface water samples collected from SW-02 exceeded benzene screening criteria between December 2017 and March 2018. Plantation contracted Environmental Standards, Inc. to perform a forensic review of the detections at SW-02 (Environmental Standards, Inc., 2018). The review concluded that the chemical profile of the samples collected at SW-02 differed significantly from SW-12, and therefore the impacts at SW-02 cannot be attributed to the release at the site. The summary of this review was transmitted to SCDHEC earlier this year under a separate cover. The detections at SW-02 since December 2017 have decreased 88 percent.

Isolated benzene exceedances were detected in samples collected from SW-01 and SW-04 in December 2017 and February 2018, respectively.

Construction details for the stream gauges are presented in Table 8. Surface water sample results are summarized in Table 2. Field notes for this reporting period can be found in Appendix A. Trends for surface water sampling locations SW-01, SW-02, and SW-12 are presented in Appendix F. Analytical data sheets and COC records are included in Appendix B for the events in January through March 2018. Prior analytical data sheets and COC records were presented in Quarterly Reports (CH2M, 2017r, 2017x, 2018f).

4.3 Groundwater Flow and Product Distribution

Water levels from the March 2018 gauging event were used to create potentiometric surface maps for the site (Figures 2A and 2B). Groundwater in both the residuum (Figure 2A) and bedrock (Figure 2B) aquifers mimics the topography of the site and generally flows from topographic highs to topographic lows. Cupboard Creek flows intermittently, indicating the primary direction of groundwater flow is northeast toward Brown's Creek. The March 2018 water table configurations and direction of groundwater flow are consistent with previous findings.

Product thicknesses sitewide decreased significantly from April 2017 through March 2018, and are presented alongside well gauging data in Table 3. This decrease in product thickness is directly attributable to the startup of the biosparging system. Gauging sheets for this reporting period can be found in Appendix A. Hydrographs for nonrecovery (monitoring wells and piezometers) and recovery (recovery sumps, recovery trenches, and recovery wells) features representative of general product thickness trends are presented in Appendix G. Results are summarized as follows:

- Nonrecovery Features:
 - Decreasing product thickness trends were noted in groundwater monitoring wells MW-09, MW-11, MW-12, MW-16, and MW-20.
 - A stable product thickness trend is noted in monitoring well MW-18.
- Recovery Features:
 - Decreasing product thickness trends were noted in recovery sumps RS-01, RS-02, RS-05, RS-06, RS-07, RS-08, RS-09, RS-11, RS-12, and RS-18; in recovery trench risers RT-1A, RT-1B, RT-1C, RT-2K, RT-2L; and in recovery wells RW-02, RW-07, RW-08, RW-09, RW-10, RW-11, and RW-13.
 - Stable product thickness trends are noted in recovery sumps RS-10, RS-14, and RS-15; and in recovery wells RW-04, RW-05, and RW-15.

The product extent in June 2016 is compared to that in March 2018 on Figure 3, demonstrating the decrease of product thickness and extent over the last 21 months. The extent of product has decreased since product is no longer measurable in MW-09, MW-11, MW-12, MW-16, RS-06, RS-07, RS-08, RS-09, RS-11, RS-12, RS-13, RT-1A, RT-1B, RT-1C, RW-03, RW-06, RW-07, RW-08, RW-10, RW-11, RW-13, RW-14, TW-84, and TW-94.

Stream elevations are tabulated in Table 3 and are presented with groundwater elevations on Figure 2A. Construction details for recovery and nonrecovery features are presented in Table 9.

4.4 Dissolved Oxygen Distribution

DO measurements in groundwater are provided in Table 4. Field notes for this reporting period can be found in Appendix A. The average DO concentration has increased in both the residuum and bedrock wells. In residuum wells, the average DO concentration increased from 3.98 milligrams per liter (mg/L) in

March 2017 to 7.10 mg/L in April 2018. In bedrock wells, the average DO concentration increased from 0.89 mg/L in March 2017 to 2.73 mg/L in April 2018.

4.4.1 Brown's Creek Protection Zone

DO concentrations in the BCPZ increased from 1.25 mg/L in April 2017 to 3.69 mg/L in March 2018.

4.4.2 Cupboard Creek Protection Zone

DO concentrations in the CCPZ decreased from 4.25 mg/L in April 2017 to 3.06 mg/L in March 2018.

4.4.3 Hayfield Zone

The average DO concentration in the Hayfield Zone increased from 5.62 mg/L in April 2017 to 9.48 mg/L in March 2018.

4.4.4 Shallow Bedrock Zone

DO levels in this zone have declined from 4.05 mg/L in September 2017 (first time DO readings were collected) to 0.71 mg/L in April 2018.

4.5 Groundwater Monitoring Results

Groundwater monitoring results for this reporting period indicate that there are significant decreases in dissolved concentrations of hydrocarbons in the BCPZ, CCPZ, and Hayfield Zone, and stable trends in the Shallow Bedrock Zone, in bedrock wells, and in other locations outside the influence of the sparging systems. Table 5 presents analytical results for all groundwater samples that have been collected at the site since July 2015. Field notes and purge logs for this reporting period can be found in Appendix A. The laboratory analytical reports for the sampling events in January through March 2018 are provided in Appendix C. Prior analytical data reports were presented in Quarterly Reports (CH2M, 2017r, 2017x, 2018f). Groundwater analytical results are screened against the risk-based screening levels listed in the South Carolina Programmatic QAPP, Table D1 (South Carolina UST Management Division, 2016), which are provided at the top of Table 5. The March 2018 results are shown on Figures 4A and 4B, and summarized in the sections that follow. Trends for select groundwater monitoring wells are shown in Appendix H. If the monitoring well is influenced by the sparging system, there will be a gray shaded area on the trend charts. Trends were not created for monitoring wells that were nondetect since sampling commenced.

4.5.1 Brown's Creek Protection Zone

Dissolved concentrations show an overall decreasing trend in the residuum aquifer of the BCPZ. For example, in monitoring wells MW-15, MW-25, MW-28, MW-39, MW-41, and MW-42, benzene concentrations have decreased by one to three orders of magnitude. Concentrations of BTEX constituents were decreasing in MW-12, but have stabilized since September 2017. Concentrations of BTEX constituents in MW-40 remain stable, with benzene detected in March 2018 at 8,450 µg/L. Benzene concentrations are also observed to be increasing at MW-34 (with a low of 147 µg/L in January 2018 to 696 µg/L in March 2018) and MW-38 (from nondetect in September 2017 to 364 µg/L in March 2018).

Benzene concentrations appear to be stable in bedrock wells (1,290 µg/L in MW-15B in March 2018, and at or near nondetect in all other bedrock monitoring wells). MW-12B is the only exception, showing a decreasing trend in benzene concentration (126 µg/L in September 2017 to 3.06 µg/L in March 2018).

4.5.2 Cupboard Creek Protection Zone

Dissolved concentrations in the CCPZ were increasing, but have stabilized since initiating air sparging. Benzene concentrations have decreased in MW-23 from a historical high of 1,110 µg/L in September 2017, to nondetect in March 2018. MW-19 and MW-20 have not been able to be sampled on a regular frequency because of insufficient water and the presence of free product, respectively. Since MW-46 was installed in September 2017, BTEX concentrations have been increasing and will continue to be evaluated.

No constituents were detected above screening levels in bedrock monitoring wells in the CCPZ.

4.5.3 Hayfield Zone

Dissolved concentrations are decreasing overall in the Hayfield Zone. For example, in MW-02, MW-03, MW-09, and MW-30, benzene concentrations have decreased by one to three orders of magnitude; constituents analyzed in MW-02 and MW-16 are on a downward trend; and constituents analyzed in monitoring wells MW-04, MW-05, MW-06, MW-08, MW-10, MW-14, MW-21, MW-31, MW-32, MW-33T, and MW-47 were nondetect. Five residuum monitoring wells in the Hayfield Zone (MW-07, MW-13, MW-17, MW-30, and MW-45) had insufficient water volume to sample due to severe drought conditions experienced in Anderson County in 2016 and 2017. By the last sampling event of the reporting period in March 2018, the water column had been restored and all but MW-17 were able to be sampled. Monitoring wells MW-16 and MW-18 were not sampled due to the presence of product.

Declining benzene trends at MW-09B and MW-14B were observed. Constituents in monitoring wells MW-02B, MW-06B, MW-36B, MW-45B, MW-48B, and MW-50B were below screening levels. All bedrock monitoring wells in the Hayfield Zone were sampled.

Concentrations at locations outside the influence of the sparging system remain stable, notably near residuum well MW-07 and bedrock wells MW-13B and MW-17B.

4.5.4 Shallow Bedrock Zone

In the residuum of the Shallow Bedrock Zone, one well contained product (MW-11) and one well was consistently dry (MW-22). Benzene was detected above its screening level in groundwater in MW-22 and MW-27 during this reporting period. BTEX constituents and MTBE were detected in MW-11 in June 2017, but no sample has been collected from MW-11 since then due to the presence of product.

No constituents were detected above screening levels in bedrock monitoring wells in the Shallow Bedrock Zone.

4.6 Sparging System Operating Efficiency and Performance Data

Between April 1, 2017, and March 31, 2018, the sparging system operated a total of approximately 8,271 hours, with an operating uptime of 95 percent. Since two compressors were operating during this timeframe, system maintenance activities could be conducted with minimal system downtime. During this reporting period, the only downtime was due to power grid fluctuations caused by local area storms, scheduled system maintenance, and a faulty valve (since repaired). The horizontal wells were briefly turned off between September 26, 2017, and October 9, 2017, to allow for well installation and repair activities in the Hayfield Zone. In March 2018, sparging flow rates in the stream aerators, horizontal wells, and vertical wells were at 100 percent, 93 percent, and 66 percent of design flow capacity, respectively.

Conclusions

The following conclusions are based on the site work performed between April 1, 2017, and March 31, 2018:

- Since starting the site biosparging system, product thickness values have declined in both recovery and nonrecovery features across the site. The number of locations with product thicknesses greater than 0.5 foot has decreased from 21 locations in April 2017 to 7 locations in March 2018. The locations that have measurable product thickness are not near surface water bodies at the site.
- The volume of product recovered has decreased significantly compared to the prior year. Approximately, 9,800 gallons were recovered from April 2016 to March 2017, and 4,200 gallons were recovered from April 2017 to September 2017. Only 11.7 gallons were collected between October 2017 and March 2018.
- Ten surface water sampling events were performed during this reporting period. Periodic exceedances of the benzene surface water screening value were recorded at sampling points SW-02 and SW-12. The detection at SW-02 has a different chemical profile than SW-12 and cannot be attributed to the release at the site. Concentrations at SW-12, near a known seep, are on a decreasing trend.
- The average DO concentration in residuum and bedrock wells has increased for this reporting period. This shows the effectiveness of the system at introducing oxygen into the subsurface. Sparging will continue to be increased to design flow rates during the next quarter to meet the increasing biomass oxygen demand.
- Groundwater monitoring results for this reporting period indicate that due to operation of the biosparging system there are significant decreases in dissolved concentrations of hydrocarbons in the BCPZ, CCPZ, and Hayfield Zone, and stable trends in the Shallow Bedrock Zone, in bedrock wells, and in other locations outside the influence of the sparging system. Stable concentrations in MW-40 despite its proximity to the Brown's Creek sparging curtain may be the result of incomplete communication with the surrounding aquifer.
- During this reporting period, the sparging system had an operating uptime of 95 percent. Operating flows in the stream aerators, horizontal wells, and vertical wells were at 100 percent, 93 percent, and 66 percent of design flow capacity, respectively.

Future Activities

This section describes future activities planned for the site.

6.1 Groundwater and Surface Water Monitoring

- Continue monthly gauging of monitoring wells and surface water sampling locations in accordance with the CAP Addendum, Revision 2 (CH2M, 2017u) submitted to SCDHEC on October 12, 2017.
- Reduce sampling of monitoring wells and surface water sampling locations from monthly to quarterly starting in July 2018 per Section 3 and Table 2 of the CAP Addendum, Revision 2 (CH2M, 2017u).
- Reduce frequency of DO concentration measurements from monthly to quarterly, starting in July 2018 per Section 3 and Table 2 of the CAP Addendum, Revision 2 (CH2M, 2017u).
- Reduce reporting frequency from monthly to quarterly starting in July 2018 per Section 3 and Table 2 of the CAP Addendum, Revision 2 (CH2M, 2017u).
- Continue routine visual inspection of Brown's Creek and Cupboard Creek as outlined in the CAP Addendum, Revision 2 (CH2M, 2017u).
- Install additional monitoring wells to expand the monitoring network north of MW-30, west of MW-30, and upgradient of MW-38 in accordance with the Request for Well Permit to Install Additional Monitoring Wells (CH2M, 2018k).
- Abandon 1-inch-diameter wells (piezometers) because their narrow diameter exaggerates product thickness measurements and because the existing 2-inch monitoring well network is now sufficient for groundwater elevation and product thickness measurements.
- Abandon monitoring wells MW-17 and MW-19 without replacement. These wells have consistently experienced insufficient water for sampling, and additional downgradient and cross-gradient wells have since been installed in their vicinity that have had sufficient water to sample.
- Analyze concentration trends in the monitoring well network to identify areas for additional remediation, if necessary, and to optimize the monitoring well network.

6.2 Product Recovery

Continue monthly product recovery efforts using skimmers and socks in accordance with the Product Recovery Skimmer Results report (CH2M, 2018i). This will allow more accurate tracking of free product recovered by wells.

6.3 System Operation and Maintenance

- Continue routine O&M activities for the sparging system as described in the CAP Addendum, Revision 2 (CH2M, 2017u).
- Continue sparging in the BCPZ and CCPZ. Stable concentrations in MW-40 and persistent free product in MW-20 will be addressed by maximizing air flow in the vertical sparging wells in the vicinity of these features up to the maximum design flow rate of 15 scfm per well.

- Continue sparging in the horizontal wells in the Hayfield Zone up to the maximum design flow rate of 0.75 scfm/ft.
- Continue operating the stream diffusion aerators at the design flow rate of 15 scfm in each, according to the Sparging Operating Limits letter (CH2M, 2017k).

6.4 Remediation System Expansion

In order to address persistent concentrations in the vicinity of MW-11 and MW-17, Plantation proposed expanding the existing sparging system in correspondence dated May 4, 2018 (CH2M, 2018m). The plan proposed installing 13 new vertical sparging wells to the top of bedrock. Five of these wells would be installed to extend the remedial zone of influence of the CCPZ sparging curtain to the northwest across Lewis Drive beyond monitoring well MW-17 (Figure 1). The remaining eight wells would be installed to extend the remedial zone of influence of the BCPZ sparging curtain southwest toward monitoring well MW-11 (Figure 1).

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Tables

Table 1. Field Observation Log*Plantation Pipe Line Company**Lewis Drive Remediation Site, Belton, South Carolina**Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Date	Inspect Wetlands South of Calhoun Road (Any odor, sheen, or distressed vegetation? Describe.)	Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen, or distressed vegetation? Describe.)
4/3/2017	No odors, sheen, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2 at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
4/6/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen near RT-2K and petroleum sheen around RT-2A at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
4/10/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen near RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
4/13/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen from area of RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
4/16/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
4/20/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive
4/25/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
4/27/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/4/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/6/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/7/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.
5/15/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
5/18/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	Micro bio sheen from area of RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed.
5/22/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Micro bio sheen coming from RT-2K at Brown's Creek. No other sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive.

Table 1. Field Observation Log*Plantation Pipe Line Company**Lewis Drive Remediation Site, Belton, South Carolina**Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Date	Inspect Wetlands South of Calhoun Road (Any odor, sheen, or distressed vegetation? Describe.)	Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen, or distressed vegetation? Describe.)
5/24/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2C. No other sheens, odors, or distressed vegetation observed. Hydrocarbon sheen not noted in Brown's Creek.
5/31/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2C. No other sheens, odors, or distressed vegetation observed. Hydrocarbon sheen not noted in Brown's Creek.
6/2/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2B and RT-2C were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/4&5/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen in the trench coming from bank near Brown's Creek around RT-2B and RT-2C were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/9/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen coming from side slope near Brown's Creek around RT-2C (~30 feet in length) and micro bio sheen coming from RT-2K were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/12/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No sheens, odors, or distressed vegetation observed in wetlands upstream and downstream of culvert under Lewis Drive. Hydrocarbon sheen coming from side slope near Brown's Creek around RT-2C and micro bio sheen coming from RT-2K were observed. Hydrocarbon sheen not noted in Brown's Creek.
6/15/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No odors, hydrocarbon sheens, or distressed vegetation observed.
6/19/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No odors, hydrocarbon sheens, or distressed vegetation observed.
6/22/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No odors, hydrocarbon sheens, or distressed vegetation observed.
6/29/2017	No odors, hydrocarbon sheens, or distressed vegetation observed.	No odors, hydrocarbon sheens, or distressed vegetation observed.
7/2&3/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
7/6/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.

Table 1. Field Observation Log*Plantation Pipe Line Company**Lewis Drive Remediation Site, Belton, South Carolina**Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Date	Inspect Wetlands South of Calhoun Road (Any odor, sheen, or distressed vegetation? Describe.)	Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen, or distressed vegetation? Describe.)
9/21/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
9/28/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
10/6/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
10/12/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
10/20-21/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
10/26/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
11/3/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
11/10/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
11/12&17/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
11/22/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
12/1/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
12/7/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
12/21/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
12/27/2017	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, hydrocarbon sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
1/5/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
1/10/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
1/20/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
1/26/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.

Table 1. Field Observation Log*Plantation Pipe Line Company**Lewis Drive Remediation Site, Belton, South Carolina**Site ID #18693 "Kinder Morgan Belton Pipeline Release"*

Date	Inspect Wetlands South of Calhoun Road (Any odor, sheen, or distressed vegetation? Describe.)	Inspect Brown's Creek Upstream and Downstream of the Culvert Under Lewis Drive (Any odor, sheen, or distressed vegetation? Describe.)
2/3/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive.
2/26/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive. Culvert replacement is causing increased turbidity downstream of the intersection of Lewis Drive and Brown's Creek.
3/9/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive. Culvert replacement is causing increased turbidity downstream of the intersection of Lewis Drive and Brown's Creek.
3/15/2018	No odors, sheens, or distressed vegetation observed in wetlands South of Calhoun Road.	No odors, sheens, or distressed vegetation observed in wetlands either upstream or downstream of culvert under Lewis Drive. Culvert replacement is causing increased turbidity downstream of the intersection of Lewis Drive and Brown's Creek.

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-RELEASE	SW-RELEASE	1/20/2015	µg/L	330	490	2,400	2,100	940	140	5.7 J
	SW01-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U	1 U
	SW01-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-033115	3/31/2015	µg/L	5 U ^c	5 U	17.6	10 U	5 U	5 U	NA
	SW01-042215	4/22/2015	µg/L	5 U ^c	5 U	14.9	10 U	5 U	5 U	NA
	SW01-050715	5/7/2015	µg/L	5 U ^c	5 U	7.0	10 U	5 U	5 U	NA
	SW01-051915	5/19/2015	µg/L	5 U ^c	5 U	8.8	10.6	6.4	5 U	NA
	SW01-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW01-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW-01	SW01-112415	11/24/2015	µg/L	7.8	1.5	13.0	9.3	4.6	1 U	NA
	SW01-122215	12/22/2015	µg/L	4.6	1 U	8.8	5.5	3.1	1 U	NA
	SW01-012516	1/25/2016	µg/L	17.6	2.3	36.0	11.3	6.3	1 U	NA
	SW01-021816	2/18/2016	µg/L	23.4	3.0	55.6	15.0	9.1	1 U	NA
	SW01-031616	3/16/2016	µg/L	20.1	2.4	42.3	13.3	7.6	1 U	NA
	SW01-042716	4/27/2016	µg/L	20.8	1 U	30.6	2.9	2.0	1 U	NA
	SW01-050916	5/9/2016	µg/L	16.5	1.4	16.3	7.0	4.8	1 U	NA
	SW01-062716	6/27/2016	µg/L	9	1 U	3.3	2 U	1 U	1 U	NA
	SW01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW01-112816	11/28/2016	µg/L	5.0	1 U	10.4	4.9	8.3	1 U	NA
	SW01-122916	12/29/2016	µg/L	12.6	1 U	22.1	11.2	13.5	1 U	NA
	SW01-012017	1/20/2017	µg/L	1.0	1 U	2.3	2 U	3.5	1 U	NA
	SW01-022817	2/28/2017	µg/L	18.5	1.93	37.0	13.8	10.2	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
Screening Value (µg/L):				2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-01	SW01-031517	3/15/2017	µg/L	3.02	1 U	5.13	2.16	1.74	5 U	NA
	SW01-032117	3/21/2017	µg/L	1 U	1 U	1.57	2 U	1 U	5 U	NA
	SW01-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW01-040517	4/5/2017	µg/L	1 U	1 U	2.25	2 U	1 U	5 U	NA
	SW01-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW01-061317	6/13/2017	µg/L	1 U	1 U	1.90	2 U	1 U	5 U	NA
	SW01-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW01-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW01-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW01-120517	12/5/2017	µg/L	1.5	1 U	1.15	2 U	2.14	5 U	NA
	SW01-121417	12/14/2017	µg/L	4.52	1 U	4.52	3.48	3.2	5 U	NA
	SW01-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1.15	5 U	NA
	SW01-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW01-030918	3/9/2018	µg/L	1.15	1 U	1 U	2 U	1 U	5 U	1 U
SW-02	SW02-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U	1 U
	SW02-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-033115	3/31/2015	µg/L	5 U ^c	5 U	6.0	10 U	5 U	5 U	NA
	SW02-042215	4/22/2015	µg/L	5 U ^c	5 U	13.0	10 U	5 U	5 U	NA
	SW02-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW02-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-112415	11/24/2015	µg/L	6	1.3	10.0	7.8	4.0	1 U	NA
	SW02-122215	12/22/2015	µg/L	4.1	1 U	7.6	5.1	3.1	1 U	NA
	SW02-012516	1/25/2016	µg/L	12	1.5	25.0	8.4	4.6	1 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
Screening Value (µg/L):				2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-02	SW02-021816	2/18/2016	µg/L	15.5	1.8	35.3	10.1	5.9	1 U	NA
	SW02-031616	3/16/2016	µg/L	8	1.0	17.5	5.8	3.9	1 U	NA
	SW02-042716	4/27/2016	µg/L	5.6	1 U	7.1	2 U	1 U	1 U	NA
	SW02-050916	5/9/2016	µg/L	7.1	1 U	4.5	2.2	1.6	1 U	NA
	SW02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-112816	11/28/2016	µg/L	5.4	1 U	1.6	2.6	4.8	1 U	NA
	SW02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1.4	1 U	NA
	SW02-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW02-022817	2/28/2017	µg/L	10.7	1 U	11.0	4.14	4.23	5 U	NA
	SW02-031517	3/15/2017	µg/L	11.4	1 U	8.6	4.45	3.6	5 U	NA
	SW02-032117	3/21/2017	µg/L	8.42	1 U	2.45	2.48	2.68	5 U	NA
	SW02-033017	3/30/2017	µg/L	2.18	1 U	1 U	2 U	1 U	5 U	NA
	SW02-040517	4/5/2017	µg/L	2.87	1 U	1.12	2 U	1.14	5 U	NA
	SW02-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW02-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW02-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
SW02-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA	
SW02-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA	
SW02-120517	12/5/2017	µg/L	26.6	1.8	8.39	10.2	7.17	5 U	NA	
SW02-121417	12/14/2017	µg/L	21.1	1.53	9.40	9.74	7.32	5 U	NA	
SW02-010918	1/9/2018	µg/L	25.0	1.56	12.4	11	8.24	5 U	NA	
SW02-020618	2/6/2018	µg/L	6.69	1 U	2.65	2.75	1.87	5 U	1 U	
SW02-030918	3/9/2018	µg/L	3.19	1 U	1.39	2 U	1.11	5 U	1 U	
SW-03	SW-UPGRADIENT	1/20/2015	µg/L	0.5 U	1 U	0.23 J	2 U	1 U	1 U	1 U
	SW03-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	SW03-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW03-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5	NA
	--	9/24/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW03-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW-03	SW03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	--	8/19/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW03-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-03	SW03-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW03-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	--	1/9/2018	--	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS
	SW03-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW03-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
SW-DOWNGRADIENT			µg/L	95	27	310	110	63	94	2.7
SW-04	SW04-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW04-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-112415	11/24/2015	µg/L	1.7	1 U	2.7	2.9	1.6	1 U	NA
	SW04-122215	12/22/2015	µg/L	3.3	1 U	7.3	5.2	2.7	1 U	NA
	SW04-012516	1/25/2016	µg/L	6.9	1 U	14.0	4.9	2.8	1 U	NA
	SW04-021816	2/18/2016	µg/L	10.9	1.1	25.4	7.0	4.3	1 U	NA
	SW04-031616	3/16/2016	µg/L	1 U	1 U	2.0	2 U	1.8	1 U	NA
	SW04-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW04-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA	
SW04-062716	6/27/2016	µg/L	1 U	1 U	1.1	2 U	1 U	1 U	NA	
SW04-072816	7/28/2016	µg/L	1 U	1 U	23.5	2 U	1 U	1 U	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-04	SW04-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW04-022817	2/28/2017	µg/L	1 U	1 U	1.13	2 U	1 U	5 U	NA
	SW04-031517	3/15/2017	µg/L	1 U	1 U	2.90	2 U	1 U	5 U	NA
	SW04-032117	3/21/2017	µg/L	1 U	1 U	3.28	2 U	1 U	5 U	NA
	SW04-033017	3/30/2017	µg/L	1 U	1 U	6.15	2 U	1 U	5 U	NA
	SW04-040517	4/5/2017	µg/L	1 U	1 U	9.47	2 U	1 U	5 U	NA
	SW04-050417	5/4/2017	µg/L	1 U	1 U	13.8	2 U	1 U	5 U	NA
	SW04-061317	6/13/2017	µg/L	1 U	1 U	1.37	2 U	1 U	5 U	NA
	SW04-071817	7/18/2017	µg/L	1 U	1 U	1.92	2 U	1 U	5 U	NA
	SW04-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW04-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW04-120517	12/5/2017	µg/L	1 U	1 U	5.53	2 U	1 U	5 U	NA
	SW04-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
SW04-010918	1/9/2018	µg/L	1 U	1 U	4.09	2 U	1 U	5 U	NA	
SW04-020618	2/6/2018	µg/L	3.04	1 U	1.73	2 U	1.12	5 U	1 U	
SW04-030918	3/9/2018	µg/L	1 U	1 U	1.37	2 U	1 U	5 U	1 U	
SW-05	SW05-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW05-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	--	5/19/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/3/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/18/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
--	7/15/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte							
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE	
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b	
SW-05	--	8/13/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/24/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/22/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW05-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW05-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW05-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW05-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW05-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	--	4/27/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	5/9/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/27/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/19/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/31/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/28/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/15/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/21/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/30/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	5/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/18/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/2/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
--	9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
--	12/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
--	12/14/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
--	1/9/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	SW05-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-05	SW05-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW06-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW06-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW06-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW06-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	--	3/31/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW06-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	--	5/7/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	5/19/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/3/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/18/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/15/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/13/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/24/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/22/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/24/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
SW-06	SW06-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW06-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW06-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	--	3/16/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/27/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	5/9/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/27/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/19/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/31/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/28/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/15/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte							
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE	
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b	
SW-06	--	3/21/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	3/30/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	4/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	5/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	6/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/18/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/2/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/14/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/9/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/6/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
--	3/9/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
SW-07	SW07-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	SW07-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	5 U	NA
	--	8/13/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/24/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW07-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW07-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
	SW07-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA
SW07-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA	
SW07-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA	
SW07-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	SW07-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW07-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	--	6/27/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	7/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	8/19/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/31/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/29/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/28/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
SW-07	SW07-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	--	8/2/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	SW07-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW07-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
SW07-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
SW-08	SW08-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	SW08-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW08-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-122215	12/22/2015	µg/L	1.6	1 U	3.8	2.5	1.6	1 U	NA
	SW08-012516	1/25/2016	µg/L	2.4	1 U	5.6	2	1.3	1 U	NA
	SW08-021816	2/18/2016	µg/L	2.9	1 U	7.6	2.3	1.5	1 U	NA
	SW08-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW-08	SW08-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW08-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-08	SW08-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW08-010918	1/9/2018	µg/L	1.16	1 U	1 U	2 U	1.87	5 U	NA
	SW08-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW08-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
SW-09	SW09-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW09-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-122215	12/22/2015	µg/L	2.1	1 U	4.8	3.3	2.1	1 U	NA
	SW09-012516	1/25/2016	µg/L	3.3	1 U	7.1	2.4	1.5	1 U	NA
	SW09-021816	2/18/2016	µg/L	2.2	1 U	5.9	2 U	1.2	1 U	NA
	SW09-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW09-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA	
SW09-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-09	SW09-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW09-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW09-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
SW09-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
SW09-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
SW-10	SW10-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW10-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
SW10-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA	
SW10-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	SW10-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW10-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW-10	SW10-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-10-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-10-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-10-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW10-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW10-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	SW11-022515	2/25/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
SW-11	SW11-030215	3/2/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-031115	3/11/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	SW11-031815	3/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-033115	3/31/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-042215	4/22/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-050715	5/7/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-051915	5/19/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-060315	6/3/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-061815	6/18/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-071515	7/15/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-081315	8/13/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-092415	9/24/2015	µg/L	5 U ^c	5 U	5 U	10 U	5 U	5 U	NA
	SW11-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
SW-11	SW11-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW11-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-11-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-11-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW-11-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-11	SW11-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW11-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
SW11-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
SW-12	SW12-081916	8/19/2016	µg/L	6,430	764	15,400	3,360	1,730	128	NA
	SW12-092916	9/29/2016	µg/L	7,850	1,030	19,000	3,910	1,940	143	NA
	SW12-103116	10/31/2016	µg/L	165	17.7	302	103	58.2	4.7	NA
	SW12-112816	11/28/2016	µg/L	486	59.6	976	351	181	14.2	NA
	SW12-122916	12/29/2016	µg/L	707	97.3	1,790	408	213	16.8	NA
	SW12-012017	1/20/2017	µg/L	212	19.8	396	104	58	3.8	NA
	SW12-022817	2/28/2017	µg/L	26.1	4.04	62.3	18.0	9.73	5 U	NA
	SW12-031517	3/15/2017	µg/L	125	15.3	185	67.9	35.5	5 U	NA
	SW12-032117	3/21/2017	µg/L	134	12.1	45.0	60.8	33.6	5 U	NA
	SW12-033017	3/30/2017	µg/L	48.5	5.69	86.3	27.7	15.8	5 U	NA
	SW12-040517	4/5/2017	µg/L	67.1	9.24	127.0	43.6	23.7	5 U	NA
	SW12-050417	5/4/2017	µg/L	52.8	7.96	91.7	42	23.2	5 U	NA
	SW12-061317	6/13/2017	µg/L	102	16.6	166	85.1	46.2	5 U	NA
	SW12-071817	7/18/2017	µg/L	65	5.8	116	43.3	24.8	5 U	NA
	SW12-080217	8/2/2017	µg/L	125	14.7	204	102	67	5 U	NA
	SW12-090517	9/5/2017	µg/L	46.7	4.72	72	39	26.2	5 U	NA
	SW12-120517	12/5/2017	µg/L	16.6	2.91	12.6	20.1	13.3	5 U	NA
SW12-121417	12/14/2017	µg/L	9.19	2.66	8.26	18	12.1	5 U	NA	
SW12-010918	1/9/2018	µg/L	12.3	2.16	5.65	14.6	11.1	5 U	NA	
SW12-020618	2/6/2018	µg/L	2.53	1 U	1.20	4.04	2.44	5 U	1 U	
SW12-030918	3/9/2018	µg/L	3.24	1.79	12.2	9.75	4.28	5 U	1 U	
SW-13	SW13-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW13-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
SW-13	SW13-103116	10/31/2016	µg/L	1 U	1 U	2.0	2 U	1 U	1 U	NA
	SW13-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW13-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW13-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	SW13-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-040517	4/5/2017	µg/L	1 U	1 U	1.21	2 U	1 U	5 U	NA
	SW13-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW13-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
SW13-020618	2/6/2018	µg/L	1.78	1 U	1 U	2 U	1 U	5 U	4.26	
SW13-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	2.07	
SW-14	SW14-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW14-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW14-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW14-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	--	12/14/2017	--	NS-DW	NS-DW	NS-DW	NS-DW	NS-DW	NS-DW	NS-DW
	SW14-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	SW14-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
SW14-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
FP-01	FP01-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
FP-01	FP01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP01-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP01-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-01-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP01-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP01-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
FP01-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U	
FP-02	FP02-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP02-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
FP-02	FP02-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP02-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-040517	4/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-02-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP02-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP02-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	FP02-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
FP-03	FP03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	--	8/19/2016	--	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS
	FP03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-012017	1/20/2017	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	NA
	FP03-022817	2/28/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP03-031517	3/15/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-032117	3/21/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-033017	3/30/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
--	4/5/2017	--	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	
FP-03-050417	5/4/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA	

Table 2. Analytical Results for Surface Water

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Units	Analyte						
				Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
			Screening Value (µg/L):	2.2 ^a	530 ^a	1,000 ^a	NA ^b	NA ^b	NA ^b	NA ^b
	FP-03-061317	6/13/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-071817	7/18/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-080217	8/2/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-090517	9/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
FP-03	FP-03-120517	12/5/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP-03-121417	12/14/2017	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP03-010918	1/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	NA
	FP03-020618	2/6/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U
	FP03-030918	3/9/2018	µg/L	1 U	1 U	1 U	2 U	1 U	5 U	1 U

Notes:

^a South Carolina Department of Health and Environmental Control (SCDHEC) R.61-68, Water Classifications and Standards, Human Health for consumption of water and organism, June 27, 2014.

^b Screening levels for these compounds are not specified in SCDHEC R. 61-68.

^c The analyte was analyzed for, but was not detected above the laboratory reporting/quantitation limit. However, the laboratory reporting/quantitation limit is above the screening criteria. The actual absence or presence of this analyte between the screening criteria and the laboratory reporting/quantitation limit cannot be determined.

Samples analyzed by EPA Methods SW 8260B.

Bold indicates the analyte was detected above the method detection limit.

Gray shading indicates the analyte exceeded its screening value.

µg/L = microgram(s) per liter

FP = free product

ID = identification

J = estimated

MTBE = methyl tertiary butyl ether

NA = not applicable

SW = surface water

U = analyte was not detected above the reported sample quantitation limit

NS-HS = sample not collected due to health and safety concerns

NS-IW = sample not collected due to insufficient volume of water in well

NS-DW = sample not collected due to locations being in a different watershed

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-01					853.07					
	3/5/2018	-	3.80	-		849.27	-	-	-	-
	2/21/2018	-	4.73	-		848.34	-	-	-	-
	2/5/2018	-	3.51	-		849.56	-	-	-	-
	2/3/2018	-	5.93	-		847.14	-	-	-	-
	1/8/2018	-	9.50	-		843.57	-	-	-	-
	12/27/2017	-	8.01	-		845.06	-	-	-	-
	12/4/2017	-	9.85	-		843.22	-	-	-	-
	11/12/2017	-	7.75	-		845.32	-	-	-	-
	11/7/2017	-	6.63	-		846.44	-	-	-	-
	10/21/2017	-	10.60	-		842.47	-	-	-	-
	10/3/2017	-	9.79	-		843.28	-	-	-	-
	9/10/2017	-	9.05	-		844.02	-	-	-	-
	9/6/2017	-	8.30	-		844.77	-	-	-	-
	8/12/2017	-	9.78	-		843.29	-	-	-	-
	8/1/2017	-	9.05	-		844.02	-	-	-	-
	7/2/2017	-	6.42	-		846.65	-	-	-	-
	6/26/2017	-	5.64	-		847.43	-	-	-	-
	6/4/2017	-	6.22	-		846.85	-	-	-	-
	5/4/2017	-	5.40	-		847.67	-	-	-	-
	4/6/2017	-	4.60	-		848.47	-	-	-	-
MW-01B					852.99					
	3/5/2018	-	7.40	-		845.59	-	-	-	-
	2/21/2018	-	7.90	-		845.09	-	-	-	-
	2/5/2018	-	9.70	-		843.29	-	-	-	-
	2/3/2018	-	9.98	-		843.01	-	-	-	-
	1/8/2018	-	10.55	-		842.44	-	-	-	-
	12/27/2017	-	10.45	-		842.54	-	-	-	-
	12/4/2017	-	10.24	-		842.75	-	-	-	-
	11/12/2017	-	9.47	-		843.52	-	-	-	-
	11/7/2017	-	9.55	-		843.44	-	-	-	-
	10/21/2017	-	11.07	-		841.92	-	-	-	-
	10/3/2017	-	10.45	-		842.54	-	-	-	-
	9/10/2017	-	10.77	-		842.22	-	-	-	-
	9/6/2017	-	10.78	-		842.21	-	-	-	-
	8/12/2017	-	9.24	-		843.75	-	-	-	-
	8/1/2017	-	9.17	-		843.82	-	-	-	-
	7/2/2017	-	8.05	-		844.94	-	-	-	-
	6/26/2017	-	7.92	-		845.07	-	-	-	-
	6/4/2017	-	7.90	-		845.09	-	-	-	-
	5/4/2017	-	8.65	-		844.34	-	-	-	-
	4/6/2017	-	10.85	-		842.14	-	-	-	-
MW-02					841.04					
	3/5/2018	-	3.00	-		838.04	-	-	-	-
	2/21/2018	-	-	-		841.04	-	-	-	-
	2/5/2018	-	-	-		841.04	-	-	-	-
	2/3/2018	-	-	-		841.04	-	-	-	-
	1/8/2018	-	14.26	-		826.78	-	-	-	-
	12/27/2017	-	9.50	-		831.54	-	-	-	-
	12/4/2017	-	2.54	-		838.50	-	-	-	-
	11/12/2017	-	3.47	-		837.57	-	-	-	-
	11/7/2017	-	4.20	-		836.84	-	-	-	-
	10/21/2017	-	6.48	-		834.56	-	-	-	-
	10/3/2017	-	16.03	-		825.01	-	-	-	-
	9/10/2017	-	3.42	-		837.62	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-02 (cont'd)	9/6/2017	-	4.21	-		836.83	-	-	-	-
	8/12/2017	-	3.98	-		837.06	-	-	-	-
	8/1/2017	-	3.80	-		837.24	-	-	-	-
	7/2/2017	-	3.21	-		837.83	-	-	-	-
	6/26/2017	-	1.82	-		839.22	-	-	-	-
	6/4/2017	-	2.44	-		838.60	-	-	-	-
	5/4/2017	-	6.80	-		834.24	-	-	-	-
	4/6/2017	-	7.07	-		833.97	-	-	-	-
MW-02B					841.19					
	3/5/2018	-	1.50	-		839.69	-	-	-	-
	2/21/2018	-	0.96	-		840.23	-	-	-	-
	2/5/2018	-	0.10	-		841.09	-	-	-	-
	2/3/2018	-	0.10	-		841.09	-	-	-	-
	1/8/2018	-	23.70	-		817.49	-	-	-	-
	12/27/2017	-	16.41	-		824.78	-	-	-	-
	12/4/2017	-	24.56	-		816.63	-	-	-	-
	11/12/2017	-	23.45	-		817.74	-	-	-	-
	11/10/2017	-	7.03	-		834.16	-	-	-	-
	11/7/2017	-	13.41	-		827.78	-	-	-	-
	10/21/2017	-	27.50	-		813.69	-	-	-	-
	10/3/2017	-	21.87	-		819.32	-	-	-	-
	9/10/2017	-	2.42	-		838.77	-	-	-	-
	9/6/2017	-	1.94	-		839.25	-	-	-	-
	8/12/2017	-	0.37	-		840.82	-	-	-	-
	8/1/2017	-	4.35	-		836.84	-	-	-	-
	7/2/2017	-	4.04	-		837.15	-	-	-	-
	6/26/2017	-	2.41	-		838.78	-	-	-	-
	6/4/2017	-	2.31	-		838.88	-	-	-	-
	5/4/2017	-	8.20	-		832.99	-	-	-	-
	4/6/2017	-	8.38	-		832.81	-	-	-	-
MW-03					838.36					
	3/5/2018	-	4.12	-		834.24	-	-	-	-
	2/21/2018	-	-	-		838.36	-	-	-	-
	2/5/2018	-	-	-		838.36	-	-	-	-
	2/3/2018	-	-	-		838.36	-	-	-	-
	1/8/2018	-	19.98	-		818.38	-	-	-	-
	12/27/2017	-	14.80	-		823.56	-	-	-	-
	12/4/2017	-	18.00	-		820.36	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-
	11/7/2017	-	1.50	-		836.86	-	-	-	-
	10/21/2017	-	9.00	-		829.36	-	-	-	-
	10/3/2017	-	19.87	-		818.49	-	-	-	-
	9/10/2017	-	6.00	-		832.36	-	-	-	-
	9/6/2017	-	NM	-		-	-	-	-	-
	8/12/2017	-	5.00	-		833.36	-	-	-	-
	8/1/2017	-	9.50	-		828.86	-	-	-	-
	7/2/2017	-	9.20	-		829.16	-	-	-	-
	6/26/2017	-	8.15	-		830.21	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	8.43	-		829.93	-	-	-	-
	4/6/2017	-	10.61	-		827.75	-	-	-	-
MW-04					844.42					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	7.30	-		837.12	-	-	-	-
	2/5/2018	-	7.80	-		836.62	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-04 (cont'd)	2/3/2018	-	8.70	-		835.72	-	-	-	-
	1/8/2018	-	14.97	-		829.45	-	-	-	-
	12/27/2017	-	10.20	-		834.22	-	-	-	-
	12/4/2017	-	10.07	-		834.35	-	-	-	-
	11/12/2017	-	10.68	-		833.74	-	-	-	-
	11/7/2017	-	11.03	-		833.39	-	-	-	-
	10/21/2017	-	12.45	-		831.97	-	-	-	-
	10/3/2017	-	14.78	-		829.64	-	-	-	-
	9/10/2017	-	10.82	-		833.60	-	-	-	-
	9/6/2017	-	11.07	-		833.35	-	-	-	-
	8/12/2017	-	9.49	-		834.93	-	-	-	-
	8/1/2017	-	9.51	-		834.91	-	-	-	-
	7/2/2017	-	8.57	-		835.85	-	-	-	-
	6/26/2017	-	8.21	-		836.21	-	-	-	-
	6/4/2017	-	7.90	-		836.52	-	-	-	-
	5/4/2017	-	10.92	-		833.50	-	-	-	-
	4/6/2017	-	13.99	-		830.43	-	-	-	-
MW-05					851.11					
	3/5/2018	-	13.06	-		838.05	-	-	-	-
	2/21/2018	-	14.14	-		836.97	-	-	-	-
	2/5/2018	-	15.87	-		835.24	-	-	-	-
	2/3/2018	-	16.03	-		835.08	-	-	-	-
	1/8/2018	-	16.57	-		834.54	-	-	-	-
	12/27/2017	-	16.40	-		834.71	-	-	-	-
	12/4/2017	-	16.55	-		834.56	-	-	-	-
	11/12/2017	-	16.95	-		834.16	-	-	-	-
	11/7/2017	-	17.18	-		833.93	-	-	-	-
	10/21/2017	-	17.55	-		833.56	-	-	-	-
	10/3/2017	-	17.03	-		834.08	-	-	-	-
	9/10/2017	-	16.65	-		834.46	-	-	-	-
	9/6/2017	-	16.50	-		834.61	-	-	-	-
	8/12/2017	-	15.41	-		835.70	-	-	-	-
	8/1/2017	-	15.01	-		836.10	-	-	-	-
	7/2/2017	-	14.50	-		836.61	-	-	-	-
	6/26/2017	-	14.52	-		836.59	-	-	-	-
	6/4/2017	-	14.90	-		836.21	-	-	-	-
	5/4/2017	-	16.38	-		834.73	-	-	-	-
	5/3/2017	-	16.68	-		834.43	-	-	-	-
	4/6/2017	-	18.18	-		832.93	-	-	-	-
MW-06					852.92					
	3/5/2018	-	13.25	-		839.67	-	-	-	-
	2/21/2018	-	13.91	-		839.01	-	-	-	-
	2/3/2018	-	14.95	-		837.97	-	-	-	-
	12/27/2017	-	15.30	-		837.62	-	-	-	-
	12/4/2017	-	15.45	-		837.47	-	-	-	-
	11/12/2017	-	15.90	-		837.02	-	-	-	-
	10/21/2017	-	16.40	-		836.52	-	-	-	-
	9/10/2017	-	15.40	-		837.52	-	-	-	-
	9/6/2017	-	15.34	-		837.58	-	-	-	-
	8/12/2017	-	14.84	-		838.08	-	-	-	-
	7/2/2017	-	14.70	-		838.22	-	-	-	-
	6/26/2017	-	14.85	-		838.07	-	-	-	-
	6/4/2017	-	15.55	-		837.37	-	-	-	-
	5/4/2017	-	16.78	-		836.14	-	-	-	-
	4/6/2017	-	17.55	-		835.37	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-06B					852.57					
	3/5/2018	-	13.00	-		839.57	-	-	-	-
	2/21/2018	-	13.63	-		838.94	-	-	-	-
	2/3/2018	-	14.57	-		838.00	-	-	-	-
	12/27/2017	-	15.13	-		837.44	-	-	-	-
	12/4/2017	-	16.14	-		836.43	-	-	-	-
	11/12/2017	-	15.57	-		837.00	-	-	-	-
	11/10/2017	-	15.59	-		836.98	-	-	-	-
	10/21/2017	-	22.16	-		830.41	-	-	-	-
MW-07					853.02					
	3/5/2018	-	11.77	-		841.25	-	-	-	-
	2/21/2018	-	12.15	-		840.87	-	-	-	-
	2/5/2018	-	13.19	-		839.83	-	-	-	-
	2/3/2018	-	13.20	-		839.82	-	-	-	-
	1/8/2018	-	13.21	-		839.81	-	-	-	-
	12/27/2017	-	13.17	-		839.85	-	-	-	-
	12/4/2017	-	13.21	-		839.81	-	-	-	-
	11/12/2017	-	13.20	-		839.82	-	-	-	-
	11/7/2017	-	13.20	-		839.82	-	-	-	-
	10/21/2017	-	13.20	-		839.82	-	-	-	-
	10/3/2017	-	13.20	-		839.82	-	-	-	-
	9/10/2017	-	13.17	-		839.85	-	-	-	-
	9/6/2017	-	13.20	-		839.82	-	-	-	-
	8/12/2017	13.08	13.09	0.01		839.93	839.93	-	-	-
	7/2/2017	-	12.75	-		840.27	-	-	-	-
	6/26/2017	-	12.73	-		840.29	-	-	-	-
	6/4/2017	-	12.68	-		840.34	-	-	-	-
	5/4/2017	-	13.19	-		839.83	-	-	-	-
	4/6/2017	-	13.20	-		839.82	-	-	-	-
MW-08					844.72					
	3/5/2018	-	7.50	-		837.22	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	3.87	3.88	0.01		840.84	840.85	-	-	-
	2/5/2018	-	4.35	-		840.37	-	-	-	-
	2/3/2018	-	5.50	-		839.22	-	-	-	-
	1/8/2018	-	19.43	-		825.29	-	-	-	-
	12/27/2017	11.60	11.61	0.01		833.11	833.12	-	-	-
	12/4/2017	-	10.47	-		834.25	-	-	-	-
	11/12/2017	-	10.25	-		834.47	-	-	-	-
	11/7/2017	-	10.38	-		834.34	-	-	-	-
	10/21/2017	-	14.35	-		830.37	-	-	-	-
	10/3/2017	-	16.86	-		827.86	-	-	-	-
	9/10/2017	-	11.20	-		833.52	-	-	-	-
	9/6/2017	-	11.92	-		832.80	-	-	-	-
	8/12/2017	-	11.70	-		833.02	-	-	-	-
	8/1/2017	-	11.32	-		833.40	-	-	-	-
	7/2/2017	-	9.68	-		835.04	-	-	-	-
	6/26/2017	-	8.25	-		836.47	-	-	-	-
	6/4/2017	-	8.90	-		835.82	-	-	-	-
	5/4/2017	-	12.31	-		832.41	-	-	-	-
	4/6/2017	-	9.68	-		835.04	-	-	-	-
MW-09					843.63					
	3/5/2018	-	0.50	-		843.13	-	-	-	-
	2/21/2018	-	-	-		843.63	-	-	-	-
	2/5/2018	-	0.10	-		843.53	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-09 (cont'd)	2/3/2018	-	-	-		843.63	-	-	-	-
	1/8/2018	-	18.30	-		825.33	-	-	-	-
	12/27/2017	-	6.20	-		837.43	-	-	-	-
	12/4/2017	-	3.05	-		840.58	-	-	-	-
	11/12/2017	-	4.57	-		839.06	-	-	-	-
	11/7/2017	-	5.56	-		838.07	-	-	-	-
	10/21/2017	-	6.82	-		836.81	-	-	-	-
	10/3/2017	-	19.78	-		823.85	-	-	-	-
	9/10/2017	-	3.50	-		840.13	-	-	-	-
	9/6/2017	2.81	3.00	0.19		840.63	840.77	-	-	-
	8/12/2017	-	4.90	-		838.73	-	-	-	-
	8/1/2017	-	4.15	-		839.48	-	-	-	-
	7/2/2017	-	3.35	-		840.28	-	-	-	-
	6/26/2017	-	2.30	-		841.33	-	-	-	-
	6/4/2017	-	2.66	-		840.97	-	-	-	-
	5/4/2017	-	6.99	-		836.64	-	-	-	-
	4/6/2017	5.61	5.62	0.01		838.01	838.02	-	-	-
MW-09B					843.92					
	3/5/2018	-	-	-		843.92	-	-	-	-
	2/21/2018	-	3.37	-		840.55	-	-	-	-
	2/3/2018	-	2.15	-		841.77	-	-	-	-
	12/27/2017	-	17.40	-		826.52	-	-	-	-
	12/4/2017	-	9.15	-		834.77	-	-	-	-
	11/12/2017	-	32.08	-		811.84	-	-	-	-
	11/10/2017	-	40.58	-		803.34	-	-	-	-
MW-10					845.41					
	3/5/2018	-	5.11	-		840.30	-	-	-	-
	2/21/2018	-	5.40	-		840.01	-	-	-	-
	2/5/2018	-	6.81	-		838.60	-	-	-	-
	2/3/2018	-	8.20	-		837.21	-	-	-	-
	1/8/2018	-	15.08	-		830.33	-	-	-	-
	12/27/2017	-	13.71	-		831.70	-	-	-	-
	12/4/2017	-	10.85	-		834.56	-	-	-	-
	11/12/2017	-	11.95	-		833.46	-	-	-	-
	11/7/2017	-	12.64	-		832.77	-	-	-	-
	10/21/2017	-	15.60	-		829.81	-	-	-	-
	10/3/2017	-	17.33	-		828.08	-	-	-	-
	9/10/2017	-	13.02	-		832.39	-	-	-	-
	9/6/2017	-	13.50	-		831.91	-	-	-	-
	8/12/2017	-	14.05	-		831.36	-	-	-	-
	8/1/2017	-	12.40	-		833.01	-	-	-	-
	7/2/2017	-	10.48	-		834.93	-	-	-	-
	6/26/2017	-	9.60	-		835.81	-	-	-	-
	6/4/2017	-	9.33	-		836.08	-	-	-	-
	5/4/2017	-	12.75	-		832.66	-	-	-	-
	5/3/2017	-	12.83	-		832.58	-	-	-	-
	4/6/2017	-	15.47	-		829.94	-	-	-	-
MW-11					855.63					
	3/5/2018	-	28.10	-		827.53	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	28.80	28.81	0.01		826.82	826.83	-	-	-
	2/5/2018	29.56	29.60	0.04		826.03	826.06	-	-	-
	2/3/2018	29.68	29.79	0.11		825.84	825.92	-	-	-
	1/8/2018	30.68	30.90	0.22		824.73	824.89	-	-	-
	12/27/2017	30.02	30.45	0.43		825.18	825.49	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-11 (cont'd)	12/4/2017	29.72	29.86	0.14		825.77	825.87	-	-	-
	11/12/2017	30.00	30.35	0.35		825.28	825.53	-	-	-
	11/7/2017	30.26	30.52	0.26		825.11	825.30	-	-	-
	10/21/2017	30.87	31.20	0.33		824.43	824.67	-	-	-
	10/3/2017	-	30.37	-		825.26	-	-	-	-
	9/10/2017	29.68	30.04	0.36		825.59	825.85	-	-	-
	9/6/2017	29.69	30.04	0.35		825.59	825.84	-	-	-
	8/12/2017	29.05	29.15	0.10		826.48	826.55	-	-	-
	8/1/2017	28.54	28.63	0.09		827.00	827.07	-	-	-
	7/2/2017	-	28.20	-		827.43	-	-	-	-
	6/26/2017	-	28.26	-		827.37	-	-	-	-
	6/4/2017	28.72	28.73	0.01		826.90	826.91	-	-	-
	5/4/2017	30.15	30.57	0.42		825.06	825.37	-	-	-
	4/6/2017	-	32.00	-		823.63	-	-	-	-
	MW-12					834.53			-	-
	3/5/2018	-	12.83	-		821.70	-	-	-	-
	2/21/2018	-	14.05	-		820.48	-	-	-	-
	2/5/2018	-	13.35	-		821.18	-	-	-	-
	2/3/2018	-	14.07	-		820.46	-	-	-	-
	1/8/2018	-	15.11	-		819.42	-	-	-	-
	12/27/2017	-	14.53	-		820.00	-	-	-	-
	12/4/2017	-	15.55	-		818.98	-	-	-	-
	11/12/2017	-	14.45	-		820.08	-	-	-	-
	11/7/2017	-	14.00	-		820.53	-	-	-	-
	10/21/2017	-	15.06	-		819.47	-	-	-	-
	10/3/2017	-	14.61	-		819.92	-	-	-	-
	9/10/2017	-	14.90	-		819.63	-	-	-	-
	9/6/2017	-	14.84	-		819.69	-	-	-	-
	8/12/2017	-	14.41	-		820.12	-	-	-	-
	8/1/2017	-	13.83	-		820.70	-	-	-	-
	7/2/2017	-	13.65	-		820.88	-	-	-	-
	6/26/2017	-	13.29	-		821.24	-	-	-	-
	6/4/2017	-	13.70	-		820.83	-	-	-	-
	5/4/2017	13.90	13.91	0.01		820.62	820.63	-	-	-
	4/26/2017	-	13.69	-		820.84	-	-	-	-
	4/6/2017	14.42	14.50	0.08		820.03	820.09	-	-	-
	4/3/2017	15.05	15.23	0.18		819.30	819.43	-	-	-
MW-12B					834.98			-	-	-
	3/5/2018	-	12.92	-		822.06	-	-	-	-
	2/21/2018	-	14.51	-		820.47	-	-	-	-
	2/5/2018	-	13.61	-		821.37	-	-	-	-
	2/3/2018	-	14.60	-		820.38	-	-	-	-
	1/8/2018	-	15.50	-		819.48	-	-	-	-
	12/27/2017	-	15.04	-		819.94	-	-	-	-
	12/4/2017	-	16.12	-		818.86	-	-	-	-
	11/12/2017	-	14.91	-		820.07	-	-	-	-
	11/7/2017	-	14.25	-		820.73	-	-	-	-
	10/21/2017	-	15.44	-		819.54	-	-	-	-
	10/3/2017	-	14.93	-		820.05	-	-	-	-
	9/10/2017	-	15.35	-		819.63	-	-	-	-
	9/6/2017	-	15.20	-		819.78	-	-	-	-
	8/12/2017	-	14.82	-		820.16	-	-	-	-
	8/1/2017	-	14.17	-		820.81	-	-	-	-
	7/2/2017	-	14.02	-		820.96	-	-	-	-
	6/26/2017	-	13.63	-		821.35	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-12B (cont'd)	6/4/2017	-	14.03	-		820.95	-	-	-	-
	5/4/2017	-	14.22	-		820.76	-	-	-	-
	4/26/2017	-	14.03	-		820.95	-	-	-	-
	4/6/2017	-	14.66	-		820.32	-	-	-	-
	4/3/2017	-	15.43	-		819.55	-	-	-	-
MW-13					848.84					
	3/5/2018	-	20.40	-		828.44	-	-	-	-
	2/21/2018	-	20.95	-		827.89	-	-	-	-
	2/3/2018	-	21.88	-		826.96	-	-	-	-
	12/27/2017	-	21.85	-		826.99	-	-	-	-
	12/4/2017	-	21.87	-		826.97	-	-	-	-
	11/12/2017	-	21.85	-		826.99	-	-	-	-
	10/21/2017	-	21.84	-		827.00	-	-	-	-
	9/10/2017	-	21.85	-		826.99	-	-	-	-
	9/6/2017	-	21.85	-		826.99	-	-	-	-
	8/12/2017	-	21.70	-		827.14	-	-	-	-
	7/2/2017	-	20.73	-		828.11	-	-	-	-
	6/26/2017	-	20.78	-		828.06	-	-	-	-
	6/4/2017	-	21.20	-		827.64	-	-	-	-
	5/4/2017	-	22.04	-		826.80	-	-	-	-
	4/6/2017	-	22.05	-		826.79	-	-	-	-
MW-13B					849.82					
	3/5/2018	-	21.00	-		828.82	-	-	-	-
	2/21/2018	-	21.45	-		828.37	-	-	-	-
	2/3/2018	-	22.37	-		827.45	-	-	-	-
	12/27/2017	-	23.41	-		826.41	-	-	-	-
	12/4/2017	-	22.66	-		827.16	-	-	-	-
	11/12/2017	-	22.83	-		826.99	-	-	-	-
	11/7/2017	-	23.08	-		826.74	-	-	-	-
	10/21/2017	-	23.63	-		826.19	-	-	-	-
	9/10/2017	-	22.75	-		827.07	-	-	-	-
	9/6/2017	-	22.70	-		827.12	-	-	-	-
	8/12/2017	-	22.22	-		827.60	-	-	-	-
	7/2/2017	-	21.25	-		828.57	-	-	-	-
	6/26/2017	-	21.30	-		828.52	-	-	-	-
	6/4/2017	-	21.58	-		828.24	-	-	-	-
	5/4/2017	-	23.02	-		826.80	-	-	-	-
	4/6/2017	-	24.37	-		825.45	-	-	-	-
MW-14					838.70					
	3/5/2018	-	15.11	-		823.59	-	-	-	-
	2/21/2018	-	15.79	-		822.91	-	-	-	-
	2/3/2018	-	17.29	-		821.41	-	-	-	-
	12/27/2017	-	17.50	-		821.20	-	-	-	-
	12/4/2017	-	17.62	-		821.08	-	-	-	-
	11/12/2017	-	17.80	-		820.90	-	-	-	-
	10/21/2017	-	18.62	-		820.08	-	-	-	-
	9/10/2017	-	18.07	-		820.63	-	-	-	-
	9/6/2017	-	18.08	-		820.62	-	-	-	-
	8/12/2017	-	17.52	-		821.18	-	-	-	-
	7/2/2017	-	16.57	-		822.13	-	-	-	-
	6/26/2017	-	16.51	-		822.19	-	-	-	-
	6/4/2017	-	16.52	-		822.18	-	-	-	-
	5/4/2017	-	16.90	-		821.80	-	-	-	-
	4/6/2017	-	18.26	-		820.44	-	-	-	-
MW-14B					840.20					

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-14B (cont'd)	3/5/2018	-	16.95	-		823.25	-	-	-	-
	2/21/2018	-	18.70	-		821.50	-	-	-	-
	2/3/2018	-	19.01	-		821.19	-	-	-	-
	12/27/2017	-	19.06	-		821.14	-	-	-	-
	12/4/2017	-	19.22	-		820.98	-	-	-	-
	11/12/2017	-	19.36	-		820.84	-	-	-	-
	10/21/2017	-	19.35	-		820.85	-	-	-	-
	9/10/2017	-	18.97	-		821.23	-	-	-	-
	9/6/2017	-	18.84	-		821.36	-	-	-	-
	8/12/2017	-	18.37	-		821.83	-	-	-	-
	7/2/2017	-	17.87	-		822.33	-	-	-	-
	6/26/2017	-	17.85	-		822.35	-	-	-	-
	6/4/2017	-	18.13	-		822.07	-	-	-	-
	5/4/2017	-	19.08	-		821.12	-	-	-	-
	4/6/2017	-	20.07	-		820.13	-	-	-	-
MW-15					831.03					
	3/5/2018	-	10.04	-		820.99	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	9.91	9.92	0.01		821.11	821.12	-	-	-
	2/5/2018	-	12.28	-		818.75	-	-	-	-
	2/3/2018	-	13.42	-		817.61	-	-	-	-
	1/8/2018	-	12.84	-		818.19	-	-	-	-
	12/27/2017	14.01	14.02	0.01		817.01	817.02	-	-	-
	12/4/2017	-	13.66	-		817.37	-	-	-	-
	11/12/2017	-	14.75	-		816.28	-	-	-	-
	11/7/2017	-	13.32	-		817.71	-	-	-	-
	10/21/2017	14.16	14.17	0.01		816.86	816.87	-	-	-
	10/3/2017	-	11.65	-		819.38	-	-	-	-
	9/10/2017	-	14.12	-		816.91	-	-	-	-
	9/6/2017	-	13.87	-		817.16	-	-	-	-
	8/12/2017	-	13.25	-		817.78	-	-	-	-
	8/1/2017	-	11.20	-		819.83	-	-	-	-
	7/2/2017	-	13.01	-		818.02	-	-	-	-
	6/26/2017	-	11.09	-		819.94	-	-	-	-
	6/4/2017	-	13.68	-		817.35	-	-	-	-
	5/4/2017	-	13.00	-		818.03	-	-	-	-
	4/26/2017	-	12.80	-		818.23	-	-	-	-
	4/6/2017	-	12.29	-		818.75	-	-	-	-
	4/3/2017	-	13.43	-		817.60	-	-	-	-
MW-15B					831.29					
	3/5/2018	-	14.66	-		816.63	-	-	-	-
	2/21/2018	-	15.11	-		816.18	-	-	-	-
	2/5/2018	-	15.60	-		815.69	-	-	-	-
	2/3/2018	-	15.65	-		815.64	-	-	-	-
	1/8/2018	-	16.23	-		815.06	-	-	-	-
	12/27/2017	-	15.90	-		815.39	-	-	-	-
	12/4/2017	-	16.25	-		815.04	-	-	-	-
	11/12/2017	-	15.91	-		815.38	-	-	-	-
	11/7/2017	-	16.08	-		815.21	-	-	-	-
	10/21/2017	-	16.63	-		814.66	-	-	-	-
	10/3/2017	-	16.65	-		814.64	-	-	-	-
	9/10/2017	-	16.37	-		814.92	-	-	-	-
	9/6/2017	-	16.40	-		814.89	-	-	-	-
	8/12/2017	-	16.42	-		814.87	-	-	-	-
	8/1/2017	-	16.28	-		815.01	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-15B (cont'd)	7/2/2017	-	15.64	-		815.65	-	-	-	-
	6/26/2017	-	15.78	-		815.51	-	-	-	-
	6/4/2017	-	15.56	-		815.73	-	-	-	-
	5/4/2017	-	15.80	-		815.49	-	-	-	-
	4/26/2017	-	15.83	-		815.46	-	-	-	-
	4/6/2017	-	16.31	-		814.98	-	-	-	-
	4/3/2017	-	16.54	-		814.75	-	-	-	-
MW-16					847.67					
	3/5/2018	-	3.00	-		844.67	-	-	-	-
	2/21/2018	-	-	-		847.67	-	-	-	-
	2/5/2018	-	18.00	-		829.67	-	-	-	-
	2/3/2018	-	3.00	-		844.67	-	-	-	-
	1/8/2018	-	18.19	-		829.48	-	-	-	-
	12/27/2017	-	10.60	-		837.07	-	-	-	-
	12/4/2017	-	7.00	-		840.67	-	-	-	-
	11/12/2017	-	10.00	-		837.67	-	-	-	-
	11/7/2017	-	11.00	-		836.67	-	-	-	-
	10/21/2017	-	11.10	-		836.57	-	-	-	-
	10/3/2017	15.00	15.21	0.21		832.46	832.61	-	-	-
	9/10/2017	-	8.50	-		839.17	-	-	-	-
	9/6/2017	8.95	9.10	0.15		838.57	838.67	-	-	-
	8/12/2017	-	7.00	-		840.67	-	-	-	-
	8/1/2017	8.70	8.75	0.05		838.92	838.95	-	-	-
	7/2/2017	-	9.05	-		838.62	-	-	-	-
	6/26/2017	-	8.71	-		838.96	-	-	-	-
	6/4/2017	9.26	9.30	0.04		838.37	838.39	-	-	-
	5/4/2017	13.02	14.82	1.80		832.85	834.16	-	-	-
	4/6/2017	14.86	17.74	2.88		829.93	832.03	-	-	-
MW-17					855.35					
	3/5/2018	-	10.85	-		844.50	-	-	-	-
	2/21/2018	-	10.83	-		844.52	-	-	-	-
	2/3/2018	-	10.85	-		844.50	-	-	-	-
	12/27/2017	-	16.85	-		838.50	-	-	-	-
	12/4/2017	-	10.85	-		844.50	-	-	-	-
	11/12/2017	-	10.85	-		844.50	-	-	-	-
	10/21/2017	-	10.83	-		844.52	-	-	-	-
	9/10/2017	-	10.83	-		844.52	-	-	-	-
	9/6/2017	-	10.85	-		844.50	-	-	-	-
	8/12/2017	-	16.82	-		838.53	-	-	-	-
	7/2/2017	-	10.82	-		844.53	-	-	-	-
	6/26/2017	-	10.82	-		844.53	-	-	-	-
	6/4/2017	-	10.82	-		844.53	-	-	-	-
	5/4/2017	-	10.82	-		844.53	-	-	-	-
	4/6/2017	-	10.53	-		844.82	-	-	-	-
MW-17B					855.37					
	3/5/2018	-	14.80	-		840.57	-	-	-	-
	2/21/2018	-	15.40	-		839.97	-	-	-	-
	2/3/2018	-	16.55	-		838.82	-	-	-	-
	12/27/2017	-	16.90	-		838.47	-	-	-	-
	12/4/2017	-	17.05	-		838.32	-	-	-	-
	11/12/2017	-	17.20	-		838.17	-	-	-	-
	10/21/2017	-	17.60	-		837.77	-	-	-	-
	9/10/2017	-	16.75	-		838.62	-	-	-	-
	9/6/2017	-	16.71	-		838.66	-	-	-	-
	8/12/2017	-	16.07	-		839.30	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-17B (cont'd)	7/2/2017	-	16.85	-		838.52	-	-	-	-
	6/26/2017	-	16.96	-		838.41	-	-	-	-
	6/4/2017	-	16.55	-		838.82	-	-	-	-
	5/4/2017	-	17.78	-		837.59	-	-	-	-
	4/6/2017	-	18.77	-		836.60	-	-	-	-
MW-18					846.89					
	3/5/2018	17.20	18.25	1.05		828.64	829.40	-	-	-
	2/21/2018	-	-	-		846.89	-	-	-	-
	2/5/2018	16.96	16.97	0.01		829.92	829.92	-	-	-
	2/3/2018	-	14.50	-		832.39	-	-	-	-
	1/8/2018	-	19.60	-		827.29	-	-	-	-
	12/27/2017	-	12.60	-		834.29	-	-	-	-
	12/4/2017	11.61	11.64	0.03		835.25	835.27	-	-	-
	11/12/2017	-	12.00	-		834.89	-	-	-	-
	11/7/2017	12.35	12.37	0.02		834.52	834.53	-	-	-
	10/21/2017	15.04	15.10	0.06		831.79	831.83	-	-	-
	10/3/2017	18.02	18.47	0.45		828.42	828.74	-	-	-
	9/10/2017	-	11.10	-		835.79	-	-	-	-
	9/6/2017	12.68	12.71	0.03		834.18	834.20	-	-	-
	8/12/2017	11.98	12.05	0.07		834.84	834.89	-	-	-
	8/1/2017	12.30	13.39	1.09		833.50	834.29	-	-	-
	7/2/2017	10.50	11.70	1.20		835.19	836.06	-	-	-
	6/26/2017	9.65	11.04	1.39		835.85	836.86	-	-	-
	6/4/2017	10.57	11.97	1.40		834.92	835.94	-	-	-
	5/4/2017	13.84	16.70	2.86		830.19	832.27	-	-	-
	4/6/2017	16.10	19.48	3.38		827.41	829.87	-	-	-
MW-19					853.94					
	3/5/2018	-	11.75	-		842.19	-	-	-	-
	2/21/2018	-	9.76	-		844.18	-	-	-	-
	2/5/2018	-	10.80	-		843.14	-	-	-	-
	2/3/2018	-	11.20	-		842.74	-	-	-	-
	1/8/2018	-	11.78	-		842.16	-	-	-	-
	12/27/2017	-	11.75	-		842.19	-	-	-	-
	12/4/2017	-	11.77	-		842.17	-	-	-	-
	11/12/2017	-	11.74	-		842.20	-	-	-	-
	11/7/2017	-	11.80	-		842.14	-	-	-	-
	10/21/2017	-	11.76	-		842.18	-	-	-	-
	10/3/2017	-	11.78	-		842.16	-	-	-	-
	9/10/2017	-	11.77	-		842.17	-	-	-	-
	9/6/2017	-	11.76	-		842.18	-	-	-	-
	8/12/2017	-	11.74	-		842.20	-	-	-	-
	8/1/2017	-	11.35	-		842.59	-	-	-	-
	7/2/2017	-	10.68	-		843.26	-	-	-	-
	6/26/2017	-	10.12	-		843.82	-	-	-	-
	6/4/2017	-	10.85	-		843.09	-	-	-	-
	5/4/2017	-	11.61	-		842.33	-	-	-	-
	4/26/2017	-	10.21	-		843.73	-	-	-	-
	4/6/2017	-	9.16	-		844.78	-	-	-	-
	4/3/2017	-	11.78	-		842.16	-	-	-	-
MW-20					852.89					
	3/5/2018	10.80	10.90	0.10		841.99	842.06	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	-	11.81	-		841.08	-	-	-	-
	2/5/2018	-	12.57	-		840.32	-	-	-	-
	2/3/2018	12.90	12.97	0.07		839.92	839.97	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-20 (cont'd)	1/8/2018	13.71	14.64	0.93		838.25	838.92	-	-	-
	12/27/2017	13.15	13.50	0.35		839.39	839.64	-	-	-
	12/4/2017	13.30	14.64	1.34		838.25	839.22	-	-	-
	11/12/2017	13.15	13.40	0.25		839.49	839.67	-	-	-
	11/7/2017	13.12	13.61	0.49		839.28	839.63	-	-	-
	10/21/2017	13.60	14.07	0.47		838.82	839.16	-	-	-
	10/3/2017	13.25	13.79	0.54		839.10	839.49	-	-	-
	9/10/2017	12.94	13.45	0.51		839.44	839.81	-	-	-
	9/6/2017	12.99	13.71	0.72		839.18	839.70	-	-	-
	8/12/2017	12.33	13.10	0.77		839.79	840.35	-	-	-
	8/1/2017	12.08	13.10	1.02		839.79	840.53	-	-	-
	7/2/2017	11.63	12.90	1.27		839.99	840.91	-	-	-
	6/26/2017	11.62	12.95	1.33		839.94	840.91	-	-	-
	6/4/2017	12.08	13.27	1.19		839.62	840.48	-	-	-
	5/4/2017	12.93	14.00	1.07		838.89	839.67	-	-	-
	4/26/2017	13.40	14.49	1.09		838.40	839.19	-	-	-
	4/6/2017	14.10	15.72	1.62		837.17	838.35	-	-	-
4/3/2017	14.28	15.81	1.53		837.08	838.19	-	-	-	
MW-21					855.77			-	-	-
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	15.62	-		840.15	-	-	-	-
	2/3/2018	-	16.73	-		839.04	-	-	-	-
	12/27/2017	-	17.17	-		838.60	-	-	-	-
	12/4/2017	-	17.42	-		838.35	-	-	-	-
	11/12/2017	-	17.43	-		838.34	-	-	-	-
	10/21/2017	-	17.95	-		837.82	-	-	-	-
	9/10/2017	-	17.39	-		838.38	-	-	-	-
	9/6/2017	-	17.34	-		838.43	-	-	-	-
	8/12/2017	-	16.80	-		838.97	-	-	-	-
	7/2/2017	-	16.16	-		839.61	-	-	-	-
	6/26/2017	-	16.14	-		839.63	-	-	-	-
	6/4/2017	-	16.61	-		839.16	-	-	-	-
	5/4/2017	-	17.08	-		838.69	-	-	-	-
	4/6/2017	-	18.23	-		837.54	-	-	-	-
MW-22					854.60			-	-	-
	3/5/2018	-	8.05	-		846.55	-	-	-	-
	2/21/2018	-	9.03	-		845.57	-	-	-	-
	2/5/2018	-	9.81	-		844.79	-	-	-	-
	2/3/2018	-	10.01	-		844.59	-	-	-	-
	1/8/2018	-	10.01	-		844.59	-	-	-	-
	12/27/2017	-	DRY	-		-	-	-	-	-
	12/4/2017	-	9.99	-		844.61	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-
	11/7/2017	-	9.96	-		844.64	-	-	-	-
	10/21/2017	-	DRY	-		-	-	-	-	-
	10/3/2017	-	9.94	-		844.66	-	-	-	-
	9/10/2017	-	DRY	-		-	-	-	-	-
	9/6/2017	-	10.35	-		844.25	-	-	-	-
	8/12/2017	-	10.35	-		844.25	-	-	-	-
	8/1/2017	-	9.98	-		844.62	-	-	-	-
	7/2/2017	-	9.65	-		844.95	-	-	-	-
	6/26/2017	-	4.44	-		850.16	-	-	-	-
	6/4/2017	-	9.66	-		844.94	-	-	-	-
	5/4/2017	-	9.95	-		844.65	-	-	-	-
	5/3/2017	-	9.93	-		844.67	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-22 (cont'd)	4/6/2017	-	9.85	-		844.75	-	-	-	-
MW-23					849.57					
	3/5/2018	-	8.27	-		841.30	-	-	-	-
	2/21/2018	-	9.03	-		840.54	-	-	-	-
	2/5/2018	-	9.76	-		839.81	-	-	-	-
	2/3/2018	-	10.25	-		839.32	-	-	-	-
	1/8/2018	-	11.02	-		838.55	-	-	-	-
	12/27/2017	-	10.81	-		838.76	-	-	-	-
	12/4/2017	-	11.13	-		838.44	-	-	-	-
	11/12/2017	-	11.02	-		838.55	-	-	-	-
	11/7/2017	-	11.10	-		838.47	-	-	-	-
	10/21/2017	-	11.83	-		837.74	-	-	-	-
	10/3/2017	-	11.52	-		838.05	-	-	-	-
	9/10/2017	-	11.28	-		838.29	-	-	-	-
	9/6/2017	-	11.22	-		838.35	-	-	-	-
	8/12/2017	-	10.70	-		838.87	-	-	-	-
	8/1/2017	-	10.55	-		839.02	-	-	-	-
	7/2/2017	-	9.85	-		839.72	-	-	-	-
	6/26/2017	-	9.72	-		839.85	-	-	-	-
	6/4/2017	-	10.01	-		839.56	-	-	-	-
	5/4/2017	-	10.42	-		839.15	-	-	-	-
	4/6/2017	-	11.50	-		838.07	-	-	-	-
MW-23B					849.69					
	3/5/2018	-	10.88	-		838.81	-	-	-	-
	2/21/2018	-	11.04	-		838.65	-	-	-	-
	2/3/2018	-	11.35	-		838.34	-	-	-	-
	12/27/2017	-	11.45	-		838.24	-	-	-	-
	12/4/2017	-	11.45	-		838.24	-	-	-	-
	11/12/2017	-	11.42	-		838.27	-	-	-	-
	10/21/2017	-	11.45	-		838.24	-	-	-	-
	9/10/2017	-	11.33	-		838.36	-	-	-	-
	9/6/2017	-	11.21	-		838.48	-	-	-	-
	8/12/2017	-	11.22	-		838.47	-	-	-	-
	7/2/2017	-	11.80	-		837.89	-	-	-	-
	6/26/2017	-	11.50	-		838.19	-	-	-	-
	6/4/2017	-	11.93	-		837.76	-	-	-	-
	5/4/2017	-	12.44	-		837.25	-	-	-	-
	4/6/2017	-	12.81	-		836.88	-	-	-	-
MW-24					817.92					
	3/5/2018	-	4.15	-		813.77	-	-	-	-
	2/21/2018	-	4.35	-		813.57	-	-	-	-
	2/3/2018	-	4.41	-		813.51	-	-	-	-
	12/27/2017	-	4.50	-		813.42	-	-	-	-
	12/4/2017	-	4.51	-		813.41	-	-	-	-
	11/17/2017	-	4.52	-		813.40	-	-	-	-
	10/21/2017	-	4.75	-		813.17	-	-	-	-
	9/10/2017	-	4.65	-		813.27	-	-	-	-
	9/6/2017	-	4.47	-		813.45	-	-	-	-
	8/12/2017	-	4.62	-		813.30	-	-	-	-
	7/2/2017	-	4.47	-		813.45	-	-	-	-
	6/26/2017	-	4.51	-		813.41	-	-	-	-
	6/4/2017	-	4.49	-		813.43	-	-	-	-
	5/4/2017	-	4.49	-		813.43	-	-	-	-
	4/6/2017	-	4.13	-		813.79	-	-	-	-
MW-24B					818.72					

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-24B (cont'd)	3/5/2018	-	5.03	-		813.69	-	-	-	-
	2/21/2018	-	5.29	-		813.43	-	-	-	-
	2/3/2018	-	5.45	-		813.27	-	-	-	-
	12/27/2017	-	5.58	-		813.14	-	-	-	-
	12/4/2017	-	5.69	-		813.03	-	-	-	-
	11/17/2017	-	5.56	-		813.16	-	-	-	-
	10/21/2017	-	5.85	-		812.87	-	-	-	-
	9/10/2017	-	5.79	-		812.93	-	-	-	-
	9/6/2017	-	5.83	-		812.89	-	-	-	-
	8/12/2017	-	5.92	-		812.80	-	-	-	-
	7/2/2017	-	5.43	-		813.29	-	-	-	-
	6/26/2017	-	5.41	-		813.31	-	-	-	-
	6/4/2017	-	5.44	-		813.28	-	-	-	-
	5/4/2017	-	5.41	-		813.31	-	-	-	-
	4/6/2017	-	5.18	-		813.54	-	-	-	-
MW-25					826.18					
	3/5/2018	-	7.84	-		818.34	-	-	-	-
	2/21/2018	-	8.09	-		818.09	-	-	-	-
	2/5/2018	-	8.15	-		818.03	-	-	-	-
	2/3/2018	-	8.39	-		817.79	-	-	-	-
	1/8/2018	-	8.80	-		817.38	-	-	-	-
	12/27/2017	-	8.69	-		817.49	-	-	-	-
	12/4/2017	-	7.10	-		819.08	-	-	-	-
	11/12/2017	-	8.47	-		817.71	-	-	-	-
	11/7/2017	-	8.35	-		817.83	-	-	-	-
	10/21/2017	-	8.80	-		817.38	-	-	-	-
	10/3/2017	-	8.52	-		817.66	-	-	-	-
	9/10/2017	-	8.88	-		817.30	-	-	-	-
	9/6/2017	-	8.83	-		817.35	-	-	-	-
	8/12/2017	-	8.61	-		817.57	-	-	-	-
	8/1/2017	-	8.21	-		817.97	-	-	-	-
	7/2/2017	-	8.05	-		818.13	-	-	-	-
	6/26/2017	-	7.81	-		818.37	-	-	-	-
	6/4/2017	-	8.05	-		818.13	-	-	-	-
	5/4/2017	-	8.15	-		818.03	-	-	-	-
	5/3/2017	-	8.21	-		817.97	-	-	-	-
	4/26/2017	-	8.09	-		818.09	-	-	-	-
	4/6/2017	-	8.02	-		818.16	-	-	-	-
	4/3/2017	-	8.58	-		817.60	-	-	-	-
MW-25B					823.81					
	3/5/2018	-	4.12	-		819.69	-	-	-	-
	2/21/2018	-	4.41	-		819.40	-	-	-	-
	2/5/2018	-	4.48	-		819.33	-	-	-	-
	2/3/2018	-	4.80	-		819.01	-	-	-	-
	1/8/2018	-	5.53	-		818.28	-	-	-	-
	12/27/2017	-	5.25	-		818.56	-	-	-	-
	12/4/2017	-	5.30	-		818.51	-	-	-	-
	11/12/2017	-	5.26	-		818.55	-	-	-	-
	11/7/2017	-	5.47	-		818.34	-	-	-	-
	10/21/2017	-	5.75	-		818.06	-	-	-	-
	10/3/2017	-	5.83	-		817.98	-	-	-	-
	9/10/2017	-	5.37	-		818.44	-	-	-	-
	9/6/2017	-	5.62	-		818.19	-	-	-	-
	8/12/2017	-	5.65	-		818.16	-	-	-	-
	8/1/2017	-	5.55	-		818.26	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-25B (cont'd)	7/2/2017	-	4.88	-		818.93	-	-	-	-
	6/26/2017	-	4.85	-		818.96	-	-	-	-
	6/4/2017	-	5.01	-		818.80	-	-	-	-
	5/4/2017	-	5.22	-		818.59	-	-	-	-
	4/26/2017	-	5.18	-		818.63	-	-	-	-
	4/6/2017	-	5.52	-		818.29	-	-	-	-
	4/3/2017	-	5.72	-		818.09	-	-	-	-
MW-26					847.56					
	3/5/2018	-	2.94	-		844.62	-	-	-	-
	2/21/2018	-	3.81	-		843.75	-	-	-	-
	2/5/2018	-	4.37	-		843.19	-	-	-	-
	2/3/2018	-	5.58	-		841.98	-	-	-	-
	1/8/2018	-	6.68	-		840.88	-	-	-	-
	12/27/2017	-	6.35	-		841.21	-	-	-	-
	12/4/2017	-	6.83	-		840.73	-	-	-	-
	11/12/2017	-	6.65	-		840.91	-	-	-	-
	11/7/2017	-	6.56	-		841.00	-	-	-	-
	10/21/2017	-	8.01	-		839.55	-	-	-	-
	10/3/2017	-	7.71	-		839.85	-	-	-	-
	9/10/2017	-	7.35	-		840.21	-	-	-	-
	9/6/2017	-	7.18	-		840.38	-	-	-	-
	8/12/2017	-	6.70	-		840.86	-	-	-	-
	8/1/2017	-	6.58	-		840.98	-	-	-	-
	7/2/2017	-	5.15	-		842.41	-	-	-	-
	6/26/2017	-	4.93	-		842.63	-	-	-	-
	6/4/2017	-	5.14	-		842.42	-	-	-	-
	5/4/2017	-	5.08	-		842.48	-	-	-	-
	5/3/2017	-	5.20	-		842.36	-	-	-	-
	4/6/2017	-	5.93	-		841.63	-	-	-	-
MW-26B					847.81					
	3/5/2018	-	6.30	-		841.51	-	-	-	-
	2/21/2018	-	7.01	-		840.80	-	-	-	-
	2/3/2018	-	8.48	-		839.33	-	-	-	-
	12/27/2017	-	9.34	-		838.47	-	-	-	-
	12/4/2017	-	9.17	-		838.64	-	-	-	-
	11/12/2017	-	8.95	-		838.86	-	-	-	-
	10/21/2017	-	9.71	-		838.10	-	-	-	-
	9/10/2017	-	9.08	-		838.73	-	-	-	-
	9/6/2017	-	8.95	-		838.86	-	-	-	-
	8/12/2017	-	8.65	-		839.16	-	-	-	-
	7/2/2017	-	7.28	-		840.53	-	-	-	-
	6/26/2017	-	7.23	-		840.58	-	-	-	-
	6/4/2017	-	7.25	-		840.56	-	-	-	-
	5/4/2017	-	7.88	-		839.93	-	-	-	-
	4/6/2017	-	9.45	-		838.36	-	-	-	-
MW-27					854.11					
	3/5/2018	-	25.29	-		828.82	-	-	-	-
	2/21/2018	-	26.05	-		828.06	-	-	-	-
	2/3/2018	-	27.18	-		826.93	-	-	-	-
	12/27/2017	-	27.40	-		826.71	-	-	-	-
	12/4/2017	-	27.46	-		826.65	-	-	-	-
	11/12/2017	-	27.66	-		826.45	-	-	-	-
	10/21/2017	-	27.95	-		826.16	-	-	-	-
	9/10/2017	-	27.33	-		826.78	-	-	-	-
	9/6/2017	-	27.28	-		826.83	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-27 (cont'd)	8/12/2017	-	26.47	-		827.64	-	-	-	-
	7/2/2017	-	25.60	-		828.51	-	-	-	-
	6/26/2017	-	25.61	-		828.50	-	-	-	-
	6/4/2017	-	25.86	-		828.25	-	-	-	-
	5/4/2017	-	26.70	-		827.41	-	-	-	-
	4/6/2017	-	27.98	-		826.13	-	-	-	-
MW-27B					857.14					
	3/5/2018	-	3.20	-		853.94	-	-	-	-
	2/21/2018	-	30.41	-		826.73	-	-	-	-
	2/3/2018	-	30.70	-		826.44	-	-	-	-
	12/27/2017	-	30.71	-		826.43	-	-	-	-
	12/4/2017	-	30.70	-		826.44	-	-	-	-
	11/12/2017	-	30.72	-		826.42	-	-	-	-
	10/21/2017	-	30.63	-		826.51	-	-	-	-
	9/10/2017	-	30.15	-		826.99	-	-	-	-
	9/6/2017	30.06	30.07	0.01		827.07	827.08	-	-	-
	8/12/2017	-	29.80	-		827.34	-	-	-	-
	7/2/2017	-	29.95	-		827.19	-	-	-	-
	6/26/2017	-	29.95	-		827.19	-	-	-	-
	6/4/2017	-	30.37	-		826.77	-	-	-	-
	5/4/2017	-	31.07	-		826.07	-	-	-	-
	4/6/2017	-	31.66	-		825.48	-	-	-	-
MW-28					844.31					
	3/5/2018	-	21.65	-		822.66	-	-	-	-
	2/21/2018	-	22.33	-		821.98	-	-	-	-
	2/5/2018	-	22.60	-		821.71	-	-	-	-
	2/3/2018	-	24.21	-		820.10	-	-	-	-
	1/8/2018	-	24.15	-		820.16	-	-	-	-
	12/27/2017	-	24.55	-		819.76	-	-	-	-
	12/4/2017	-	23.94	-		820.37	-	-	-	-
	11/12/2017	-	24.74	-		819.57	-	-	-	-
	11/7/2017	-	23.78	-		820.53	-	-	-	-
	10/21/2017	-	23.99	-		820.32	-	-	-	-
	10/3/2017	-	23.80	-		820.51	-	-	-	-
	9/10/2017	-	25.04	-		819.27	-	-	-	-
	9/6/2017	-	23.48	-		820.83	-	-	-	-
	8/12/2017	-	23.50	-		820.81	-	-	-	-
	8/1/2017	-	23.04	-		821.27	-	-	-	-
	7/2/2017	-	22.45	-		821.86	-	-	-	-
	6/26/2017	-	22.63	-		821.68	-	-	-	-
	6/4/2017	-	22.52	-		821.79	-	-	-	-
	5/4/2017	-	22.88	-		821.43	-	-	-	-
	5/3/2017	-	22.86	-		821.45	-	-	-	-
	4/26/2017	-	23.61	-		820.70	-	-	-	-
	4/6/2017	-	25.49	-		818.82	-	-	-	-
	4/3/2017	-	25.69	-		818.62	-	-	-	-
MW-29					852.20					
	3/5/2018	-	4.20	-		848.00	-	-	-	-
	2/21/2018	-	6.30	-		845.90	-	-	-	-
	2/5/2018	-	7.80	-		844.40	-	-	-	-
	2/3/2018	-	9.18	-		843.02	-	-	-	-
	1/8/2018	-	10.36	-		841.84	-	-	-	-
	12/27/2017	-	10.06	-		842.14	-	-	-	-
	12/4/2017	-	10.39	-		841.81	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-29 (cont'd)	11/7/2017	-	10.06	-		842.14	-	-	-	-
	10/21/2017	-	11.23	-		840.97	-	-	-	-
	10/3/2017	-	10.85	-		841.35	-	-	-	-
	9/10/2017	-	10.50	-		841.70	-	-	-	-
	9/6/2017	-	10.41	-		841.79	-	-	-	-
	8/12/2017	-	9.65	-		842.55	-	-	-	-
	8/1/2017	-	9.32	-		842.88	-	-	-	-
	7/2/2017	-	8.02	-		844.18	-	-	-	-
	6/26/2017	-	7.68	-		844.52	-	-	-	-
	6/4/2017	-	7.71	-		844.49	-	-	-	-
	5/4/2017	-	8.32	-		843.88	-	-	-	-
	5/3/2017	-	8.39	-		843.81	-	-	-	-
	4/26/2017	-	7.77	-		844.43	-	-	-	-
	4/6/2017	-	10.11	-		842.09	-	-	-	-
	4/3/2017	-	10.95	-		841.25	-	-	-	-
MW-30					841.28					
	3/5/2018	-	11.43	-		829.85	-	-	-	-
	2/21/2018	-	12.17	-		829.11	-	-	-	-
	2/5/2018	-	13.11	-		828.17	-	-	-	-
	2/3/2018	-	13.49	-		827.79	-	-	-	-
	1/8/2018	-	14.59	-		826.69	-	-	-	-
	12/27/2017	-	14.55	-		826.73	-	-	-	-
	12/4/2017	-	14.47	-		826.81	-	-	-	-
	11/12/2017	-	14.52	-		826.76	-	-	-	-
	11/7/2017	-	14.60	-		826.68	-	-	-	-
	10/21/2017	-	14.55	-		826.73	-	-	-	-
	10/3/2017	-	14.58	-		826.70	-	-	-	-
	9/10/2017	-	14.45	-		826.83	-	-	-	-
	9/6/2017	-	14.56	-		826.72	-	-	-	-
	8/12/2017	-	13.48	-		827.80	-	-	-	-
	8/1/2017	-	13.25	-		828.03	-	-	-	-
	7/2/2017	-	12.52	-		828.76	-	-	-	-
	6/26/2017	-	12.06	-		829.22	-	-	-	-
	6/4/2017	-	11.79	-		829.49	-	-	-	-
	5/4/2017	-	13.65	-		827.63	-	-	-	-
	5/3/2017	-	13.66	-		827.62	-	-	-	-
	4/6/2017	-	14.51	-		826.77	-	-	-	-
MW-31					845.04					
	3/5/2018	-	18.01	-		827.03	-	-	-	-
	2/21/2018	-	18.54	-		826.50	-	-	-	-
	2/5/2018	-	18.90	-		826.14	-	-	-	-
	2/3/2018	-	19.23	-		825.81	-	-	-	-
	1/8/2018	-	22.55	-		822.49	-	-	-	-
	12/27/2017	-	22.35	-		822.69	-	-	-	-
	12/4/2017	-	20.05	-		824.99	-	-	-	-
	11/12/2017	-	20.41	-		824.63	-	-	-	-
	11/7/2017	-	20.81	-		824.23	-	-	-	-
	10/21/2017	-	21.73	-		823.31	-	-	-	-
	10/3/2017	-	22.70	-		822.34	-	-	-	-
	9/10/2017	-	20.26	-		824.78	-	-	-	-
	9/6/2017	-	20.35	-		824.69	-	-	-	-
	8/12/2017	-	20.10	-		824.94	-	-	-	-
	8/1/2017	-	18.98	-		826.06	-	-	-	-
	7/2/2017	-	18.11	-		826.93	-	-	-	-
	6/26/2017	-	17.75	-		827.29	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-31 (cont'd)	6/4/2017	-	17.75	-		827.29	-	-	-	-
	5/4/2017	-	19.85	-		825.19	-	-	-	-
	5/3/2017	-	19.99	-		825.05	-	-	-	-
	4/6/2017	-	21.45	-		823.59	-	-	-	-
MW-31B					844.94					
	3/5/2018	-	18.81	-		826.13	-	-	-	-
	2/21/2018	-	19.13	-		825.81	-	-	-	-
	2/3/2018	-	20.25	-		824.69	-	-	-	-
	12/27/2017	-	21.10	-		823.84	-	-	-	-
	11/12/2017	-	21.05	-		823.89	-	-	-	-
	10/21/2017	-	22.21	-		822.73	-	-	-	-
	9/10/2017	-	20.32	-		824.62	-	-	-	-
	9/6/2017	-	20.34	-		824.60	-	-	-	-
	8/12/2017	-	19.71	-		825.23	-	-	-	-
	7/2/2017	-	18.36	-		826.58	-	-	-	-
	6/26/2017	-	18.33	-		826.61	-	-	-	-
	6/4/2017	-	18.45	-		826.49	-	-	-	-
	5/4/2017	-	20.45	-		824.49	-	-	-	-
	4/6/2017	-	21.73	-		823.21	-	-	-	-
MW-32					842.93					
	3/5/2018	-	6.82	-		836.11	-	-	-	-
	2/21/2018	-	6.32	-		836.61	-	-	-	-
	2/3/2018	-	6.73	-		836.20	-	-	-	-
	12/27/2017	-	18.85	-		824.08	-	-	-	-
	12/4/2017	-	10.02	-		832.91	-	-	-	-
	11/12/2017	-	10.45	-		832.48	-	-	-	-
	10/21/2017	-	14.27	-		828.66	-	-	-	-
	9/10/2017	-	11.51	-		831.42	-	-	-	-
	9/6/2017	-	12.32	-		830.61	-	-	-	-
	8/12/2017	-	12.08	-		830.85	-	-	-	-
	7/2/2017	-	8.98	-		833.95	-	-	-	-
	6/26/2017	-	7.56	-		835.37	-	-	-	-
	6/4/2017	-	7.30	-		835.63	-	-	-	-
	5/4/2017	-	11.77	-		831.16	-	-	-	-
	4/6/2017	-	13.60	-		829.33	-	-	-	-
MW-33					849.20					
	3/5/2018	-	23.89	-		825.31	-	-	-	-
	2/21/2018	-	24.31	-		824.89	-	-	-	-
	2/3/2018	-	25.17	-		824.03	-	-	-	-
	12/27/2017	-	26.35	-		822.85	-	-	-	-
	11/12/2017	-	26.15	-		823.05	-	-	-	-
	10/21/2017	-	26.80	-		822.40	-	-	-	-
	9/10/2017	-	25.35	-		823.85	-	-	-	-
	9/6/2017	-	25.30	-		823.90	-	-	-	-
	8/12/2017	-	24.80	-		824.40	-	-	-	-
	7/2/2017	-	23.90	-		825.30	-	-	-	-
	6/26/2017	-	23.86	-		825.34	-	-	-	-
	6/4/2017	-	24.21	-		824.99	-	-	-	-
	5/4/2017	-	25.69	-		823.51	-	-	-	-
	4/6/2017	-	26.67	-		822.53	-	-	-	-
MW-33T					849.11					
	3/5/2018	-	25.23	-		823.88	-	-	-	-
	2/21/2018	-	25.60	-		823.51	-	-	-	-
	2/3/2018	-	26.44	-		822.67	-	-	-	-
	12/27/2017	-	27.60	-		821.51	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-33T (cont'd)	12/4/2017	-	27.12	-		821.99	-	-	-	-
	11/12/2017	-	27.47	-		821.64	-	-	-	-
	10/21/2017	-	27.89	-		821.22	-	-	-	-
	9/10/2017	-	26.75	-		822.36	-	-	-	-
	9/6/2017	-	26.71	-		822.40	-	-	-	-
	8/12/2017	-	26.20	-		822.91	-	-	-	-
	7/2/2017	-	25.55	-		823.56	-	-	-	-
	6/26/2017	-	25.49	-		823.62	-	-	-	-
	6/4/2017	-	25.75	-		823.36	-	-	-	-
	5/4/2017	-	27.00	-		822.11	-	-	-	-
4/6/2017	-	27.93	-		821.18	-	-	-	-	
MW-34					816.35					
	3/5/2018	-	2.23	-		814.12	-	-	-	-
	2/21/2018	-	2.28	-		814.07	-	-	-	-
	2/5/2018	-	2.27	-		814.08	-	-	-	-
	2/3/2018	-	2.37	-		813.98	-	-	-	-
	1/8/2018	-	2.48	-		813.87	-	-	-	-
	12/27/2017	-	2.43	-		813.92	-	-	-	-
	12/4/2017	-	2.52	-		813.83	-	-	-	-
	11/7/2017	-	2.48	-		813.87	-	-	-	-
	10/21/2017	-	2.62	-		813.73	-	-	-	-
	10/3/2017	-	2.76	-		813.59	-	-	-	-
	9/10/2017	-	2.61	-		813.74	-	-	-	-
	9/6/2017	-	2.53	-		813.82	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	8/1/2017	-	2.62	-		813.73	-	-	-	-
	7/2/2017	-	NM	-		-	-	-	-	-
	6/26/2017	-	7.43	-		808.92	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	5/3/2017	-	2.55	-		813.80	-	-	-	-
	4/6/2017	-	2.50	-		813.85	-	-	-	-
MW-35					829.40					
	3/5/2018	-	8.33	-		821.07	-	-	-	-
	2/21/2018	-	8.12	-		821.28	-	-	-	-
	2/5/2018	-	9.00	-		820.40	-	-	-	-
	2/3/2018	-	8.18	-		821.22	-	-	-	-
	1/8/2018	-	10.57	-		818.83	-	-	-	-
	12/27/2017	-	8.62	-		820.78	-	-	-	-
	12/4/2017	-	10.41	-		818.99	-	-	-	-
	11/12/2017	-	7.61	-		821.79	-	-	-	-
	11/7/2017	-	8.94	-		820.46	-	-	-	-
	10/21/2017	-	9.98	-		819.42	-	-	-	-
	10/3/2017	-	10.34	-		819.06	-	-	-	-
	9/10/2017	-	8.98	-		820.42	-	-	-	-
	9/6/2017	-	9.74	-		819.66	-	-	-	-
	8/12/2017	-	9.45	-		819.95	-	-	-	-
	8/1/2017	-	10.23	-		819.17	-	-	-	-
	7/2/2017	-	7.90	-		821.50	-	-	-	-
	6/26/2017	-	9.68	-		819.72	-	-	-	-
	6/4/2017	-	7.93	-		821.47	-	-	-	-
	5/4/2017	-	8.82	-		820.58	-	-	-	-
	5/3/2017	-	9.08	-		820.32	-	-	-	-
	4/26/2017	-	8.28	-		821.12	-	-	-	-
	4/6/2017	-	8.43	-		820.97	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-35 (cont'd)	4/3/2017	-	9.44	-		819.96	-	-	-	-
MW-36					858.47					
	3/5/2018	-	18.11	-		840.36	-	-	-	-
	2/21/2018	-	18.76	-		839.71	-	-	-	-
	2/3/2018	-	19.69	-		838.78	-	-	-	-
	12/27/2017	-	19.98	-		838.49	-	-	-	-
	12/4/2017	-	20.14	-		838.33	-	-	-	-
	11/17/2017	-	20.21	-		838.26	-	-	-	-
	10/21/2017	-	20.55	-		837.92	-	-	-	-
	9/10/2017	-	19.89	-		838.58	-	-	-	-
	9/6/2017	-	19.82	-		838.65	-	-	-	-
	8/12/2017	-	19.22	-		839.25	-	-	-	-
	7/2/2017	-	19.09	-		839.38	-	-	-	-
	6/29/2017	-	19.19	-		839.28	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	19.80	-		838.67	-	-	-	-
	5/4/2017	-	20.69	-		837.78	-	-	-	-
	4/6/2017	-	21.55	-		836.92	-	-	-	-
MW-36B					858.15					
	3/5/2018	-	17.81	-		840.34	-	-	-	-
	2/21/2018	-	18.46	-		839.69	-	-	-	-
	2/3/2018	-	19.43	-		838.72	-	-	-	-
	12/27/2017	-	19.68	-		838.47	-	-	-	-
	12/4/2017	-	20.90	-		837.25	-	-	-	-
	11/17/2017	-	19.92	-		838.23	-	-	-	-
	10/21/2017	-	20.25	-		837.90	-	-	-	-
	9/10/2017	-	19.60	-		838.55	-	-	-	-
	9/6/2017	-	19.53	-		838.62	-	-	-	-
	8/12/2017	-	18.95	-		839.20	-	-	-	-
	7/2/2017	-	18.77	-		839.38	-	-	-	-
	6/29/2017	-	18.90	-		839.25	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	19.48	-		838.67	-	-	-	-
	5/4/2017	-	20.38	-		837.77	-	-	-	-
	4/6/2017	-	21.26	-		836.89	-	-	-	-
MW-37					813.92					
	3/5/2018	-	3.28	-		810.64	-	-	-	-
	2/21/2018	-	3.34	-		810.58	-	-	-	-
	2/3/2018	-	3.39	-		810.53	-	-	-	-
	12/27/2017	-	3.41	-		810.51	-	-	-	-
	12/4/2017	-	3.47	-		810.45	-	-	-	-
	11/17/2017	-	3.42	-		810.50	-	-	-	-
	10/21/2017	-	3.64	-		810.28	-	-	-	-
	9/10/2017	-	3.50	-		810.42	-	-	-	-
	9/6/2017	-	3.46	-		810.46	-	-	-	-
	8/12/2017	-	3.55	-		810.37	-	-	-	-
	7/2/2017	-	3.49	-		810.43	-	-	-	-
	6/26/2017	-	3.42	-		810.50	-	-	-	-
	6/5/2017	-	3.46	-		810.46	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	3.48	-		810.44	-	-	-	-
	4/6/2017	-	3.28	-		810.64	-	-	-	-
MW-38					813.28					
	3/5/2018	-	1.25	-		812.03	-	-	-	-
	2/21/2018	-	1.69	-		811.59	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time	
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)				
MW-38 (cont'd)	2/5/2018	-	1.58	-		811.70	-	-	-	-	
	2/3/2018	-	1.84	-		811.44	-	-	-	-	
	1/8/2018	-	1.95	-		811.33	-	-	-	-	
	12/27/2017	-	1.91	-		811.37	-	-	-	-	
	12/4/2017	-	2.01	-		811.27	-	-	-	-	
	11/17/2017	-	1.87	-		811.41	-	-	-	-	
	11/7/2017	-	1.88	-		811.40	-	-	-	-	
	10/21/2017	-	2.19	-		811.09	-	-	-	-	
	10/3/2017	-	2.23	-		811.05	-	-	-	-	
	9/10/2017	-	1.99	-		811.29	-	-	-	-	
	9/6/2017	-	1.88	-		811.40	-	-	-	-	
	8/12/2017	-	2.05	-		811.23	-	-	-	-	
	8/1/2017	-	2.10	-		811.18	-	-	-	-	
	7/2/2017	-	1.83	-		811.45	-	-	-	-	
	6/26/2017	-	1.80	-		811.48	-	-	-	-	
	6/5/2017	-	1.86	-		811.42	-	-	-	-	
	6/4/2017	-	NM	-		-	-	-	-	-	-
	5/4/2017	-	1.88	-		811.40	-	-	-	-	-
	5/3/2017	-	1.89	-		811.39	-	-	-	-	-
	4/6/2017	-	1.52	-		811.76	-	-	-	-	-
MW-39					819.90						
	3/5/2018	-	4.66	-		815.24	-	-	-	-	
	2/21/2018	-	5.29	-		814.61	-	-	-	-	
	2/5/2018	-	4.85	-		815.05	-	-	-	-	
	2/3/2018	-	5.22	-		814.68	-	-	-	-	
	1/8/2018	-	4.86	-		815.04	-	-	-	-	
	12/27/2017	-	5.39	-		814.51	-	-	-	-	
	12/4/2017	-	5.72	-		814.18	-	-	-	-	
	11/12/2017	-	6.25	-		813.65	-	-	-	-	
	11/7/2017	-	4.89	-		815.01	-	-	-	-	
	10/21/2017	-	5.46	-		814.44	-	-	-	-	
	10/3/2017	-	3.75	-		816.15	-	-	-	-	
	9/10/2017	-	6.04	-		813.86	-	-	-	-	
	9/6/2017	-	5.50	-		814.40	-	-	-	-	
	8/12/2017	-	5.15	-		814.75	-	-	-	-	
	8/1/2017	-	3.81	-		816.09	-	-	-	-	
	7/2/2017	-	5.57	-		814.33	-	-	-	-	
	6/26/2017	-	4.13	-		815.77	-	-	-	-	
	6/4/2017	-	4.85	-		815.05	-	-	-	-	
	5/4/2017	-	5.21	-		814.69	-	-	-	-	
	4/26/2017	-	5.09	-		814.81	-	-	-	-	
	4/6/2017	-	4.83	-		815.07	-	-	-	-	
	4/3/2017	-	5.34	-		814.56	-	-	-	-	
MW-40					817.79						
	3/5/2018	-	2.44	-		815.35	-	-	-	-	
	2/21/2018	-	2.95	-		814.84	-	-	-	-	
	2/5/2018	-	2.75	-		815.04	-	-	-	-	
	2/3/2018	-	2.63	-		815.16	-	-	-	-	
	1/8/2018	-	2.72	-		815.07	-	-	-	-	
	12/27/2017	-	2.72	-		815.07	-	-	-	-	
	12/4/2017	-	3.43	-		814.36	-	-	-	-	
	11/12/2017	-	3.53	-		814.26	-	-	-	-	
	11/7/2017	-	2.11	-		815.68	-	-	-	-	
	10/21/2017	-	2.87	-		814.92	-	-	-	-	
	10/3/2017	-	1.95	-		815.84	-	-	-	-	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-40 (cont'd)	9/10/2017	-	3.22	-		814.57	-	-	-	-
	9/6/2017	-	2.88	-		814.91	-	-	-	-
	8/12/2017	-	2.53	-		815.26	-	-	-	-
	8/1/2017	-	1.97	-		815.82	-	-	-	-
	7/2/2017	-	2.95	-		814.84	-	-	-	-
	6/26/2017	-	2.03	-		815.76	-	-	-	-
	6/4/2017	-	3.13	-		814.66	-	-	-	-
	5/4/2017	-	2.35	-		815.44	-	-	-	-
	4/6/2017	-	2.61	-		815.18	-	-	-	-
MW-41					819.68					
	3/5/2018	-	3.94	-		815.74	-	-	-	-
	2/21/2018	-	4.25	-		815.43	-	-	-	-
	2/5/2018	-	3.82	-		815.86	-	-	-	-
	2/3/2018	-	4.38	-		815.30	-	-	-	-
	1/8/2018	-	4.40	-		815.28	-	-	-	-
	12/27/2017	-	4.47	-		815.21	-	-	-	-
	12/4/2017	-	5.55	-		814.13	-	-	-	-
	11/12/2017	-	4.50	-		815.18	-	-	-	-
	11/7/2017	-	4.39	-		815.29	-	-	-	-
	10/21/2017	-	4.55	-		815.13	-	-	-	-
	10/3/2017	-	4.37	-		815.31	-	-	-	-
	9/10/2017	-	4.64	-		815.04	-	-	-	-
	9/6/2017	-	4.49	-		815.19	-	-	-	-
	8/12/2017	-	4.53	-		815.15	-	-	-	-
	8/1/2017	-	4.33	-		815.35	-	-	-	-
	7/2/2017	-	3.98	-		815.70	-	-	-	-
	6/26/2017	-	3.79	-		815.89	-	-	-	-
	6/4/2017	-	4.00	-		815.68	-	-	-	-
	5/4/2017	-	3.95	-		815.73	-	-	-	-
	4/26/2017	-	3.85	-		815.83	-	-	-	-
	4/6/2017	-	3.85	-		815.83	-	-	-	-
	4/3/2017	-	4.07	-		815.61	-	-	-	-
MW-42					820.33					
	3/5/2018	-	4.86	-		815.47	-	-	-	-
	2/21/2018	-	5.60	-		814.73	-	-	-	-
	2/3/2018	-	5.12	-		815.21	-	-	-	-
	12/27/2017	-	5.14	-		815.19	-	-	-	-
	12/4/2017	-	5.26	-		815.07	-	-	-	-
	11/12/2017	-	5.10	-		815.23	-	-	-	-
	11/7/2017	-	5.10	-		815.23	-	-	-	-
	10/21/2017	-	5.22	-		815.11	-	-	-	-
	9/10/2017	-	5.24	-		815.09	-	-	-	-
	9/6/2017	-	5.16	-		815.17	-	-	-	-
	8/12/2017	-	5.19	-		815.14	-	-	-	-
	7/2/2017	-	4.53	-		815.80	-	-	-	-
	6/26/2017	-	4.46	-		815.87	-	-	-	-
	6/4/2017	-	4.57	-		815.76	-	-	-	-
	5/4/2017	-	4.50	-		815.83	-	-	-	-
	4/6/2017	-	4.55	-		815.78	-	-	-	-
MW-43					818.12					
	3/5/2018	-	3.90	-		814.22	-	-	-	-
	2/21/2018	-	4.11	-		814.01	-	-	-	-
	2/5/2018	-	3.70	-		814.42	-	-	-	-
	2/3/2018	-	4.15	-		813.97	-	-	-	-
	1/8/2018	-	4.35	-		813.77	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-43 (cont'd)	12/27/2017	-	4.30	-		813.82	-	-	-	-
	12/4/2017	-	4.50	-		813.62	-	-	-	-
	11/10/2017	-	4.31	-		813.81	-	-	-	-
	11/7/2017	-	4.45	-		813.67	-	-	-	-
	10/21/2017	-	5.20	-		812.92	-	-	-	-
MW-43B					818.80					
	3/5/2018	-	1.21	-		817.59	-	-	-	-
	2/21/2018	-	1.51	-		817.29	-	-	-	-
	2/3/2018	-	2.10	-		816.70	-	-	-	-
	12/27/2017	-	2.12	-		816.68	-	-	-	-
	12/4/2017	-	4.08	-		814.72	-	-	-	-
	11/10/2017	-	18.33	-		800.47	-	-	-	-
	10/21/2017	-	47.05	-		771.75	-	-	-	-
MW-44					853.67					
	3/5/2018	-	4.80	-		848.87	-	-	-	-
	2/21/2018	-	5.97	-		847.70	-	-	-	-
	2/3/2018	-	8.63	-		845.04	-	-	-	-
	12/27/2017	-	9.38	-		844.29	-	-	-	-
	12/4/2017	-	9.40	-		844.27	-	-	-	-
	10/21/2017	-	9.32	-		844.35	-	-	-	-
	9/10/2017	-	9.35	-		844.32	-	-	-	-
	9/6/2017	-	9.38	-		844.29	-	-	-	-
	8/12/2017	-	9.30	-		844.37	-	-	-	-
	7/2/2017	-	7.80	-		845.87	-	-	-	-
	6/26/2017	-	7.36	-		846.31	-	-	-	-
	6/4/2017	-	7.28	-		846.39	-	-	-	-
	5/4/2017	-	7.78	-		845.89	-	-	-	-
	4/6/2017	-	8.09	-		845.58	-	-	-	-
MW-44B					853.38					
	3/5/2018	-	12.10	-		841.28	-	-	-	-
	2/21/2018	-	12.65	-		840.73	-	-	-	-
	2/3/2018	-	14.25	-		839.13	-	-	-	-
	12/27/2017	-	14.55	-		838.83	-	-	-	-
	12/4/2017	-	14.32	-		839.06	-	-	-	-
	10/21/2017	-	14.70	-		838.68	-	-	-	-
	9/10/2017	-	14.15	-		839.23	-	-	-	-
	9/6/2017	-	13.95	-		839.43	-	-	-	-
	8/12/2017	-	13.28	-		840.10	-	-	-	-
	7/2/2017	-	12.62	-		840.76	-	-	-	-
	6/26/2017	-	12.45	-		840.93	-	-	-	-
	6/4/2017	-	12.54	-		840.84	-	-	-	-
	5/4/2017	-	13.45	-		839.93	-	-	-	-
	4/6/2017	-	15.15	-		838.23	-	-	-	-
MW-45					852.47					
	3/5/2018	-	12.31	-		840.16	-	-	-	-
	2/21/2018	-	12.91	-		839.56	-	-	-	-
	2/5/2018	-	13.95	-		838.52	-	-	-	-
	2/3/2018	-	14.23	-		838.24	-	-	-	-
	1/8/2018	-	14.25	-		838.22	-	-	-	-
	12/27/2017	-	14.21	-		838.26	-	-	-	-
	12/4/2017	-	14.22	-		838.25	-	-	-	-
	11/7/2017	-	14.24	-		838.23	-	-	-	-
	10/21/2017	-	14.21	-		838.26	-	-	-	-
	10/3/2017	-	14.25	-		838.22	-	-	-	-
	9/10/2017	-	14.21	-		838.26	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
MW-45 (cont'd)	9/6/2017	-	14.19	-		838.28	-	-	-	-
	8/12/2017	-	14.05	-		838.42	-	-	-	-
	8/1/2017	-	13.84	-		838.63	-	-	-	-
	7/2/2017	-	13.40	-		839.07	-	-	-	-
	6/26/2017	-	13.38	-		839.09	-	-	-	-
	6/4/2017	-	13.48	-		838.99	-	-	-	-
	5/4/2017	-	13.92	-		838.55	-	-	-	-
	5/3/2017	-	14.00	-		838.47	-	-	-	-
	4/6/2017	-	14.23	-		838.24	-	-	-	-
MW-45B					852.85					
	3/5/2018	-	14.65	-		838.20	-	-	-	-
	2/21/2018	-	14.99	-		837.86	-	-	-	-
	2/3/2018	-	15.63	-		837.22	-	-	-	-
	12/27/2017	-	15.88	-		836.97	-	-	-	-
	12/4/2017	-	15.93	-		836.92	-	-	-	-
	10/21/2017	-	16.09	-		836.76	-	-	-	-
	9/10/2017	-	15.72	-		837.13	-	-	-	-
	9/6/2017	-	15.70	-		837.15	-	-	-	-
	8/12/2017	-	15.33	-		837.52	-	-	-	-
	7/2/2017	-	15.41	-		837.44	-	-	-	-
	6/26/2017	-	15.35	-		837.50	-	-	-	-
	6/4/2017	-	15.75	-		837.10	-	-	-	-
	5/4/2017	-	16.53	-		836.32	-	-	-	-
	4/6/2017	-	18.15	-		834.70	-	-	-	-
MW-46					845.47					
	3/5/2018	-	6.33	-		839.14	-	-	-	-
	2/21/2018	-	7.08	-		838.39	-	-	-	-
	2/3/2018	-	8.35	-		837.12	-	-	-	-
	12/27/2017	-	9.11	-		836.36	-	-	-	-
	12/4/2017	-	9.48	-		835.99	-	-	-	-
	11/12/2017	-	9.53	-		835.94	-	-	-	-
	11/10/2017	-	9.57	-		835.90	-	-	-	-
MW-47					842.98					
	3/5/2018	-	14.74	-		828.24	-	-	-	-
	2/21/2018	-	15.50	-		827.48	-	-	-	-
	2/3/2018	-	16.38	-		826.60	-	-	-	-
	12/27/2017	-	19.92	-		823.06	-	-	-	-
	12/4/2017	-	17.75	-		825.23	-	-	-	-
	11/17/2017	-	17.85	-		825.13	-	-	-	-
	11/10/2017	-	17.85	-		825.13	-	-	-	-
	10/21/2017	-	19.27	-		823.71	-	-	-	-
MW-48B					832.34					
	3/5/2018	-	15.70	-		816.64	-	-	-	-
	2/21/2018	-	17.12	-		815.22	-	-	-	-
	2/3/2018	-	17.90	-		814.44	-	-	-	-
	12/27/2017	-	18.17	-		814.17	-	-	-	-
	12/4/2017	-	18.22	-		814.12	-	-	-	-
	11/12/2017	-	8.51	-		823.83	-	-	-	-
	11/10/2017	-	18.74	-		813.60	-	-	-	-
MW-49					846.78					
	3/5/2018	-	17.68	-		829.10	-	-	-	-
	2/21/2018	-	18.52	-		828.26	-	-	-	-
	2/3/2018	-	19.87	-		826.91	-	-	-	-
	12/27/2017	-	20.18	-		826.60	-	-	-	-
	12/4/2017	-	20.29	-		826.49	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
MW-49 (cont'd)	11/12/2017	-	20.47	-		826.31	-	-	-	-
	11/10/2017	-	20.47	-		826.31	-	-	-	-
MW-50B					850.34			-	-	-
	3/5/2018	-	19.10	-		831.24	-	-	-	-
	2/21/2018	-	19.51	-		830.83	-	-	-	-
	2/3/2018	-	20.45	-		829.89	-	-	-	-
	12/27/2017	-	23.82	-		826.52	-	-	-	-
	12/4/2017	-	21.37	-		828.97	-	-	-	-
	11/12/2017	-	21.66	-		828.68	-	-	-	-
	11/10/2017	-	21.42	-		828.92	-	-	-	-
RS-01					849.13			-	-	-
	3/5/2018	7.38	7.42	0.04		841.71	841.74	-	-	-
	2/21/2018	8.45	8.52	0.07		840.61	840.66	-	-	-
	2/13/2018	8.05	8.11	0.06		841.02	841.06	-	-	-
	2/9/2018	8.93	9.01	0.08		840.12	840.18	-	-	-
	2/2/2018	-	NM	-		-	-	-	-	-
	12/27/2017	13.58	14.00	0.42		835.13	835.44	1/2/2018	10:23	10:28
	11/12/2017	11.77	12.20	0.43		836.93	837.24	-	-	-
	10/21/2017	14.40	14.72	0.32		834.41	834.64	-	-	-
	9/10/2017	11.45	11.77	0.32		837.36	837.59	-	-	-
	8/21/2017	11.12	11.52	0.40		837.61	837.90	-	-	-
	8/17/2017	11.10	11.46	0.36		837.67	837.93	-	-	-
	8/14/2017	11.02	11.32	0.30		837.81	838.03	-	-	-
	8/9/2017	11.33	11.63	0.30		837.50	837.72	-	-	-
	8/2/2017	11.12	11.41	0.29		837.72	837.93	-	-	-
	7/31/2017	11.09	11.44	0.35		837.69	837.95	-	-	-
	7/27/2017	10.01	11.08	1.07		838.05	838.83	-	-	-
	7/24/2017	10.73	11.02	0.29		838.11	838.32	-	-	-
	7/20/2017	10.65	10.85	0.20		838.28	838.43	-	-	-
	7/17/2017	10.71	10.95	0.24		838.18	838.36	-	-	-
	7/13/2017	10.58	10.79	0.21		838.34	838.49	-	-	-
	7/10/2017	10.33	10.55	0.22		838.58	838.74	-	-	-
	7/6/2017	10.88	11.02	0.14		838.11	838.21	-	-	-
	7/3/2017	-	12.44	-		836.69	-	7/3/2017	10:20	10:31
	6/29/2017	10.19	10.30	0.11		838.83	838.91	-	-	-
	6/22/2017	11.75	11.85	0.10		837.28	837.35	6/24/2017	12:25	12:36
	6/19/2017	11.00	11.49	0.49		837.64	838.00	6/21/2017	13:01	13:09
	6/15/2017	10.86	11.29	0.43		837.84	838.15	6/16/2017	13:08	13:16
	6/12/2017	10.68	11.05	0.37		838.08	838.35	-	-	-
	6/9/2017	10.52	10.81	0.29		838.32	838.53	-	-	-
	6/5/2017	10.57	10.81	0.24		838.32	838.50	-	-	-
	6/2/2017	11.01	11.24	0.23		837.89	838.06	-	-	-
5/31/2017	10.69	11.05	0.36		838.08	838.34	5/31/2017	14:51	14:59	
5/24/2017	11.25	11.53	0.28		837.60	837.80	-	-	-	
5/22/2017	12.62	12.92	0.30		836.21	836.43	-	-	-	
5/18/2017	12.24	12.40	0.16		836.73	836.85	-	-	-	
5/15/2017	12.39	12.75	0.36		836.38	836.64	5/16/2017	13:32	13:40	
5/11/2017	13.07	13.24	0.17		835.89	836.01	-	-	-	
5/7/2017	14.34	15.09	0.75		834.04	834.59	5/9/2017	8:52	9:17	
5/4/2017	14.40	14.95	0.55		834.18	834.58	-	-	-	
4/27/2017	15.46	15.96	0.50		833.17	833.54	-	-	-	
4/25/2017	16.16	16.58	0.42		832.55	832.86	-	-	-	
4/20/2017	16.62	16.92	0.30		832.21	832.43	-	-	-	
4/16/2017	16.69	17.20	0.51		831.93	832.30	4/17/2017	10:21	10:33	
4/13/2017	17.19	17.58	0.39		831.55	831.83	-	-	-	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-01 (cont'd)	4/10/2017	16.87	17.78	0.91		831.35	832.01	4/11/2017	12:49	12:58
	4/6/2017	17.65	18.36	0.71		830.77	831.29	-	-	-
	4/3/2017	17.90	18.30	0.40		830.83	831.12	-	-	-
RS-02					849.52			-	-	-
	3/5/2018	5.90	5.91	0.01		843.61	843.62	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	6.78	6.80	0.02		842.72	842.73	-	-	-
	2/3/2018	9.94	9.96	0.02		839.56	839.57	-	-	-
	12/27/2017	12.11	12.15	0.04		837.37	837.40	-	-	-
	11/12/2017	11.27	11.37	0.10		838.15	838.22	-	-	-
	10/21/2017	14.25	14.32	0.07		835.20	835.25	-	-	-
	9/10/2017	11.17	11.37	0.20		838.15	838.30	-	-	-
	8/21/2017	11.14	11.48	0.34		838.04	838.29	-	-	-
	8/17/2017	11.14	11.43	0.29		838.09	838.30	-	-	-
	8/14/2017	11.16	11.42	0.26		838.10	838.29	-	-	-
	8/9/2017	11.20	11.43	0.23		838.09	838.26	-	-	-
	8/2/2017	10.80	11.12	0.32		838.40	838.63	-	-	-
	7/31/2017	10.72	11.06	0.34		838.46	838.71	-	-	-
	7/27/2017	10.42	10.76	0.34		838.76	839.01	-	-	-
	7/24/2017	10.20	10.47	0.27		839.05	839.25	-	-	-
	7/20/2017	10.08	10.32	0.24		839.20	839.38	-	-	-
	7/17/2017	10.36	10.61	0.25		838.91	839.09	-	-	-
	7/13/2017	10.21	10.48	0.27		839.04	839.24	-	-	-
	7/10/2017	9.98	10.38	0.40		839.14	839.43	-	-	-
	7/6/2017	10.07	10.30	0.23		839.22	839.39	-	-	-
	7/3/2017	10.60	10.80	0.20		838.72	838.87	7/3/2017	10:07	10:17
	6/29/2017	9.47	9.74	0.27		839.78	839.98	-	-	-
	6/22/2017	10.22	10.46	0.24		839.06	839.24	6/24/2017	12:10	12:19
	6/19/2017	10.50	10.95	0.45		838.57	838.90	6/21/2017	13:13	13:21
	6/15/2017	10.25	10.64	0.39		838.88	839.16	-	-	-
	6/12/2017	9.96	10.30	0.34		839.22	839.47	-	-	-
	6/9/2017	9.74	10.00	0.26		839.52	839.71	-	-	-
	6/5/2017	10.06	10.30	0.24		839.22	839.40	-	-	-
	6/2/2017	9.99	10.17	0.18		839.35	839.48	-	-	-
	5/31/2017	9.87	10.25	0.38		839.27	839.55	5/31/2017	14:41	14:48
	5/24/2017	10.31	10.57	0.26		838.95	839.14	-	-	-
	5/22/2017	11.87	12.13	0.26		837.39	837.58	-	-	-
	5/18/2017	11.77	12.05	0.28		837.47	837.67	-	-	-
	5/15/2017	11.86	12.12	0.26		837.40	837.59	-	-	-
	5/11/2017	12.10	12.27	0.17		837.25	837.37	-	-	-
	5/7/2017	13.11	13.33	0.22		836.19	836.35	-	-	-
	5/4/2017	13.02	13.25	0.23		836.27	836.44	-	-	-
	4/27/2017	13.32	13.49	0.17		836.03	836.15	-	-	-
	4/25/2017	14.64	14.81	0.17		834.71	834.83	-	-	-
	4/20/2017	15.37	15.64	0.27		833.88	834.08	-	-	-
	4/16/2017	15.23	15.52	0.29		834.00	834.21	-	-	-
	4/13/2017	15.15	15.43	0.28		834.09	834.29	-	-	-
	4/10/2017	15.15	15.50	0.35		834.02	834.28	-	-	-
	4/6/2017	16.70	17.10	0.40		832.42	832.71	-	-	-
	4/3/2017	17.15	17.60	0.45		831.92	832.25	-	-	-
RS-04					851.47			-	-	-
	3/5/2018	-	7.58	-		843.89	-	-	-	-
	2/21/2018	-	9.68	-		841.79	-	-	-	-
	2/3/2018	-	9.75	-		841.72	-	-	-	-
	12/27/2017	-	9.75	-		841.72	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-04 (cont'd)	11/12/2017	-	9.70	-		841.77	-	-	-	-
	10/21/2017	-	9.70	-		841.77	-	-	-	-
	9/10/2017	-	9.70	-		841.77	-	-	-	-
	8/21/2017	-	9.68	-		841.79	-	-	-	-
	8/17/2017	-	9.68	-		841.79	-	-	-	-
	8/14/2017	-	9.69	-		841.78	-	-	-	-
	8/9/2017	-	9.71	-		841.76	-	-	-	-
	8/2/2017	-	9.70	-		841.77	-	-	-	-
	7/31/2017	-	9.68	-		841.79	-	-	-	-
	7/27/2017	-	9.68	-		841.79	-	-	-	-
	7/24/2017	-	9.67	-		841.80	-	-	-	-
	7/20/2017	-	9.71	-		841.76	-	-	-	-
	7/17/2017	-	10.69	-		840.78	-	-	-	-
	7/13/2017	-	9.69	-		841.78	-	-	-	-
	7/10/2017	-	10.38	-		841.09	-	-	-	-
	7/6/2017	-	9.71	-		841.76	-	-	-	-
	7/3/2017	-	10.68	-		840.79	-	-	-	-
	6/29/2017	-	9.68	-		841.79	-	6/29/2017	12:47	12:56
	6/22/2017	-	9.68	-		841.79	-	-	-	-
	6/19/2017	-	9.70	-		841.77	-	-	-	-
	6/15/2017	-	9.67	-		841.80	-	-	-	-
	6/12/2017	-	9.67	-		841.80	-	-	-	-
	6/9/2017	-	9.68	-		841.79	-	-	-	-
	6/5/2017	-	9.67	-		841.80	-	-	-	-
	6/2/2017	-	9.66	-		841.81	-	-	-	-
	5/31/2017	-	9.67	-		841.80	-	-	-	-
	5/24/2017	-	9.30	-		842.17	-	-	-	-
	5/22/2017	-	8.80	-		842.67	-	-	-	-
	5/18/2017	-	9.68	-		841.79	-	-	-	-
	5/15/2017	-	9.69	-		841.78	-	-	-	-
	5/11/2017	9.68	10.25	0.57		841.22	841.64	-	-	-
	5/7/2017	-	9.72	-		841.75	-	-	-	-
5/4/2017	-	9.70	-		841.77	-	-	-	-	
4/27/2017	-	9.70	-		841.77	-	-	-	-	
4/25/2017	-	8.38	-		843.09	-	-	-	-	
4/20/2017	9.70	9.71	0.01		841.76	841.77	-	-	-	
4/16/2017	9.71	9.72	0.01		841.75	841.76	-	-	-	
4/13/2017	-	9.71	-		841.76	-	-	-	-	
4/10/2017	9.67	9.68	0.01		841.79	841.80	-	-	-	
4/6/2017	-	8.48	-		842.99	-	4/7/2017	13:43	13:49	
4/3/2017	9.69	9.70	0.01		841.77	841.78	-	-	-	
RS-05					848.31		-	-	-	
	3/5/2018	7.32	7.47	0.15		840.84	840.95	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	19.80	20.23	0.44		828.08	828.40	-	-	-
	2/9/2018	8.09	8.29	0.20		840.02	840.17	-	-	-
	2/2/2018	-	NM	-		-	-	-	-	-
	12/27/2017	12.50	13.15	0.65		835.16	835.63	1/2/2018	10:16	10:21
	11/12/2017	11.20	11.80	0.60		836.51	836.95	-	-	-
	10/21/2017	12.75	13.35	0.60		834.96	835.40	-	-	-
	9/10/2017	10.35	10.95	0.60		837.36	837.80	-	-	-
	8/21/2017	9.88	10.44	0.56		837.87	838.28	8/24/2017	8:35	8:40
	8/17/2017	10.14	10.61	0.47		837.70	838.04	8/17/2017	9:25	9:30
	8/14/2017	9.49	9.94	0.45		838.37	838.70	-	-	-
	8/9/2017	9.83	10.30	0.47		838.01	838.35	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-05 (cont'd)	8/2/2017	10.25	10.80	0.55		837.51	837.91	8/7/2017	9:35	9:40
	7/31/2017	10.31	10.89	0.58		837.42	837.84	-	-	-
	7/27/2017	10.08	10.59	0.51		837.72	838.09	-	-	-
	7/24/2017	10.19	10.70	0.51		837.61	837.98	-	-	-
	7/20/2017	10.07	10.55	0.48		837.76	838.11	7/20/2017	10:35	10:40
	7/17/2017	9.92	10.36	0.44		837.95	838.27	7/17/2017	10:20	10:25
	7/13/2017	9.86	10.26	0.40		838.05	838.34	-	-	-
	7/10/2017	9.65	10.08	0.43		838.23	838.54	-	-	-
	7/6/2017	10.49	10.89	0.40		837.42	837.71	-	-	-
	7/3/2017	10.23	10.60	0.37		837.71	837.98	-	-	-
	6/29/2017	10.02	10.42	0.40		837.89	838.18	6/29/2017	12:32	12:39
	6/22/2017	10.67	11.07	0.40		837.24	837.53	6/24/2017	11:51	11:59
	6/19/2017	10.58	10.99	0.41		837.32	837.62	-	-	-
	6/15/2017	10.82	11.20	0.38		837.11	837.39	-	-	-
	6/12/2017	10.94	11.22	0.28		837.09	837.29	-	-	-
	6/9/2017	10.51	10.95	0.44		837.36	837.68	6/11/2017	11:30	11:43
	6/5/2017	10.30	10.62	0.32		837.69	837.92	-	-	-
	6/2/2017	10.73	11.06	0.33		837.25	837.49	-	-	-
	5/31/2017	11.65	12.14	0.49		836.17	836.53	5/31/2017	14:31	14:39
	5/24/2017	10.41	10.75	0.34		837.56	837.81	-	-	-
	5/22/2017	11.80	12.18	0.38		836.13	836.41	-	-	-
	5/18/2017	11.33	11.61	0.28		836.70	836.90	-	-	-
	5/15/2017	11.66	12.12	0.46		836.19	836.53	5/16/2017	13:07	13:17
	5/11/2017	11.37	11.67	0.30		836.64	836.86	-	-	-
	5/7/2017	14.13	15.83	1.70		832.48	833.72	5/9/2017	9:21	9:37
	5/4/2017	14.22	15.80	1.58		832.51	833.66	-	-	-
	4/27/2017	15.01	16.34	1.33		831.97	832.94	-	-	-
	4/25/2017	15.38	16.63	1.25		831.68	832.59	-	-	-
	4/20/2017	15.90	16.85	0.95		831.46	832.15	-	-	-
	4/16/2017	16.17	16.80	0.63		831.51	831.97	-	-	-
4/13/2017	16.57	16.95	0.38		831.36	831.64	-	-	-	
4/10/2017	16.42	17.00	0.58		831.31	831.73	4/11/2017	12:10	12:21	
4/6/2017	16.72	17.73	1.01		830.58	831.32	4/7/2017	13:09	13:32	
4/3/2017	16.99	17.75	0.76		830.56	831.11	-	-	-	
RS-06					849.47					
	3/5/2018	-	8.17	-		841.30	-	-	-	-
	2/21/2018	-	8.65	-		840.82	-	-	-	-
	2/3/2018	-	10.87	-		838.60	-	-	-	-
	12/27/2017	-	12.21	-		837.26	-	-	-	-
	11/12/2017	-	12.20	-		837.27	-	-	-	-
	10/21/2017	13.51	13.54	0.03		835.93	835.95	-	-	-
	9/10/2017	11.36	11.46	0.10		838.01	838.08	-	-	-
	8/21/2017	10.95	11.12	0.17		838.35	838.47	-	-	-
	8/17/2017	10.87	11.03	0.16		838.44	838.56	-	-	-
	8/14/2017	10.45	10.59	0.14		838.88	838.98	-	-	-
	8/9/2017	10.58	10.70	0.12		838.77	838.86	-	-	-
	8/2/2017	10.90	11.10	0.20		838.37	838.52	-	-	-
	7/31/2017	10.86	11.07	0.21		838.40	838.55	-	-	-
	7/27/2017	10.67	10.86	0.19		838.61	838.75	-	-	-
	7/24/2017	10.68	10.85	0.17		838.62	838.74	-	-	-
	7/20/2017	10.71	10.87	0.16		838.60	838.72	-	-	-
	7/17/2017	10.67	10.81	0.14		838.66	838.76	-	-	-
	7/13/2017	10.60	10.76	0.16		838.71	838.83	-	-	-
	7/10/2017	10.41	10.60	0.19		838.87	839.01	-	-	-
	7/6/2017	10.63	10.76	0.13		838.71	838.80	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-06 (cont'd)	7/3/2017	10.61	10.78	0.17		838.69	838.81	-	-	-
	6/29/2017	10.59	10.65	0.06		838.82	838.86	-	-	-
	6/22/2017	11.26	11.45	0.19		838.02	838.16	-	-	-
	6/19/2017	11.18	11.41	0.23		838.06	838.23	-	-	-
	6/15/2017	11.27	11.51	0.24		837.96	838.14	-	-	-
	6/12/2017	11.20	11.39	0.19		838.08	838.22	-	-	-
	6/9/2017	11.16	11.38	0.22		838.09	838.25	-	-	-
	6/5/2017	11.17	11.35	0.18		838.12	838.25	-	-	-
	6/2/2017	10.95	11.03	0.08		838.44	838.50	-	-	-
	5/31/2017	12.05	12.31	0.26		837.16	837.35	-	-	-
	5/24/2017	11.78	11.94	0.16		837.53	837.65	-	-	-
	5/22/2017	12.50	12.71	0.21		836.76	836.91	-	-	-
	5/18/2017	12.58	12.77	0.19		836.70	836.84	-	-	-
	5/15/2017	12.70	15.10	2.40		834.37	836.12	5/16/2017	13:20	13:29
	5/11/2017	12.34	12.49	0.15		836.98	837.09	-	-	-
	5/7/2017	14.88	15.38	0.50		834.09	834.46	5/9/2017	9:41	9:55
	5/4/2017	-	15.35	-		834.12	-	-	-	-
	4/27/2017	15.85	16.20	0.35		833.27	833.53	-	-	-
	4/25/2017	16.20	16.53	0.33		832.94	833.18	-	-	-
	4/20/2017	16.55	16.82	0.27		832.65	832.85	-	-	-
	4/16/2017	16.72	16.95	0.23		832.52	832.69	-	-	-
4/13/2017	17.12	17.32	0.20		832.15	832.30	-	-	-	
4/10/2017	16.86	17.37	0.51		832.10	832.47	4/11/2017	12:24	12:32	
4/6/2017	17.27	17.74	0.47		831.73	832.07	-	-	-	
4/3/2017	17.47	17.89	0.42		831.58	831.89	-	-	-	
RS-07					855.08					
	3/5/2018	-	11.91	-		843.17	-	-	-	-
	2/21/2018	-	12.66	-		842.42	-	-	-	-
	2/3/2018	13.74	13.75	0.01		841.33	841.34	-	-	-
	1/26/2018	-	14.07	-		841.01	-	-	-	-
	1/20/2018	-	14.07	-		841.01	-	-	-	-
	1/10/2018	14.32	14.33	0.01		840.75	840.76	1/15/2018	9:45	9:50
	1/5/2018	14.15	14.16	0.01		840.92	840.93	-	-	-
	12/27/2017	-	14.06	-		841.02	-	-	-	-
	12/21/2017	-	14.17	0.13		840.91	841.01	12/22/2017	10:15	10:20
	12/13/2017	14.07	14.08	0.01		841.00	841.01	12/14/2017	10:05	10:10
	12/7/2017	14.11	14.12	0.01		840.96	840.97	-	-	-
	12/1/2017	-	14.05	-		841.03	-	-	-	-
	11/22/2017	-	13.83	-		841.25	-	-	-	-
	11/17/2017	-	14.81	-		840.27	-	-	-	-
	11/12/2017	-	13.87	-		841.21	-	-	-	-
	11/10/2017	-	13.76	-		841.32	-	11/9/2017	11:40	11:45
	11/3/2017	-	13.82	-		841.26	-	11/3/2017	9:10	9:15
	10/26/2017	14.03	14.04	0.01		841.04	841.05	10/25/2017	10:15	10:20
	10/21/2017	14.31	14.37	0.06		840.71	840.76	10/21/2017	9:15	9:20
	10/20/2017	14.26	14.32	0.06		840.76	840.81	-	-	-
	10/12/2017	14.19	14.25	0.06		840.83	840.88	10/10/2017	9:15	9:20
	10/6/2017	14.11	14.12	0.01		840.96	840.97	10/7/2017	11:40	11:45
	9/28/2017	13.92	13.95	0.03		841.13	841.15	9/28/2017	13:30	13:35
	9/21/2017	13.76	13.77	0.01		841.31	841.32	-	-	-
	9/15/2017	13.70	13.71	0.01		841.37	841.38	-	-	-
	9/10/2017	13.91	13.98	0.07		841.10	841.15	-	-	-
	9/5/2017	13.89	13.99	0.10		841.09	841.17	9/5/2017	8:25	8:30
	8/31/2017	13.81	13.90	0.09		841.18	841.25	-	-	-
	8/24/2017	13.60	13.70	0.10		841.38	841.46	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-07 (cont'd)	8/21/2017	13.58	13.69	0.11		841.39	841.47	-	-	-
	8/17/2017	13.46	13.54	0.08		841.54	841.60	-	-	-
	8/14/2017	13.39	13.48	0.09		841.60	841.67	-	-	-
	8/9/2017	14.30	14.37	0.07		840.71	840.76	-	-	-
	8/2/2017	13.01	13.10	0.09		841.98	842.05	-	-	-
	7/31/2017	12.99	13.07	0.08		842.01	842.07	-	-	-
	7/27/2017	12.87	12.94	0.07		842.14	842.19	-	-	-
	7/24/2017	12.83	12.91	0.08		842.17	842.23	-	-	-
	7/20/2017	12.80	12.88	0.08		842.20	842.26	-	-	-
	7/17/2017	12.73	12.78	0.05		842.30	842.34	-	-	-
	7/13/2017	12.71	12.76	0.05		842.32	842.36	-	-	-
	7/10/2017	12.55	12.57	0.02		842.51	842.53	-	-	-
	7/6/2017	12.63	12.65	0.02		842.43	842.45	-	-	-
	7/3/2017	12.54	12.55	0.01		842.53	842.54	-	-	-
	6/29/2017	-	12.55	-		842.53	-	-	-	-
	6/22/2017	-	12.62	-		842.46	-	-	-	-
	6/19/2017	12.73	12.76	0.03		842.32	842.34	-	-	-
	6/15/2017	12.70	12.71	0.01		842.37	842.38	-	-	-
	6/12/2017	12.71	12.75	0.04		842.33	842.36	-	-	-
	6/9/2017	12.75	12.76	0.01		842.32	842.33	-	-	-
	6/5/2017	-	12.81	-		842.27	-	-	-	-
	6/2/2017	-	12.91	-		842.17	-	-	-	-
	5/31/2017	-	13.00	-		842.08	-	-	-	-
	5/24/2017	-	13.16	-		841.92	-	-	-	-
	5/22/2017	13.31	13.32	0.01		841.76	841.77	-	-	-
	5/18/2017	13.52	13.56	0.04		841.52	841.55	-	-	-
	5/15/2017	13.50	13.56	0.06		841.52	841.57	-	-	-
	5/11/2017	-	13.49	-		841.59	-	-	-	-
	5/7/2017	13.61	13.62	0.01		841.46	841.47	-	-	-
	5/4/2017	13.76	13.78	0.02		841.30	841.32	-	-	-
4/27/2017	-	14.01	-		841.07	-	-	-	-	
4/25/2017	14.01	14.02	0.01		841.06	841.07	-	-	-	
4/20/2017	14.45	14.50	0.05		840.58	840.62	-	-	-	
4/16/2017	14.62	14.64	0.02		840.44	840.46	-	-	-	
4/13/2017	14.64	14.66	0.02		840.42	840.44	-	-	-	
4/10/2017	14.66	14.68	0.02		840.40	840.42	4/11/2017	9:36	9:42	
4/6/2017	14.42	14.44	0.02		840.64	840.66	4/7/2017	14:10	14:11	
4/3/2017	14.95	14.97	0.02		840.11	840.13	-	-	-	
RS-08					854.00					
	3/5/2018	-	12.62	-		841.38	-	-	-	-
	2/21/2018	-	13.40	-		840.60	-	-	-	-
	2/13/2018	13.79	13.80	0.01		840.20	840.21	-	-	-
	2/3/2018	14.62	14.63	0.01		839.37	839.38	-	-	-
	1/26/2018	14.89	14.97	0.08		839.03	839.09	1/26/2018	9:05	9:10
	1/20/2018	14.72	14.78	0.06		839.22	839.26	-	-	-
	1/10/2018	14.68	14.75	0.07		839.25	839.30	1/15/2018	9:55	10:00
	1/5/2018	14.87	14.94	0.07		839.06	839.11	1/8/2018	11:51	11:56
	12/27/2017	14.90	15.00	0.10		839.00	839.07	1/2/2018	13:15	13:20
	12/21/2017	15.03	15.16	0.13		838.84	838.93	12/22/2017	10:25	10:30
	12/13/2017	14.94	15.02	0.08		838.98	839.04	12/14/2017	10:15	10:20
	12/7/2017	15.05	15.20	0.15		838.80	838.91	12/7/2017	9:40	9:45
	12/1/2017	14.83	14.95	0.12		839.05	839.14	-	-	-
	11/22/2017	14.75	14.90	0.15		839.10	839.21	11/22/2017	12:00	12:05
	11/17/2017	14.61	14.89	0.28		839.11	839.31	-	-	-
	11/12/2017	14.42	14.55	0.13		839.45	839.54	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-08 (cont'd)	11/10/2017	14.63	14.79	0.16		839.21	839.33	11/9/2017	11:30	11:35
	11/3/2017	14.57	14.71	0.14		839.29	839.39	11/3/2017	9:20	9:25
	10/26/2017	14.80	15.00	0.20		839.00	839.15	10/25/2017	10:25	10:30
	10/21/2017	14.97	15.24	0.27		838.76	838.96	10/21/2017	9:20	9:25
	10/20/2017	14.93	15.20	0.27		838.80	839.00	-	-	-
	10/12/2017	14.74	15.00	0.26		839.00	839.19	10/10/2017	9:20	9:25
	10/6/2017	14.64	14.81	0.17		839.19	839.31	10/7/2017	11:45	11:50
	9/28/2017	14.41	14.69	0.28		839.31	839.51	9/28/2017	13:35	13:40
	9/21/2017	14.23	14.42	0.19		839.58	839.72	-	-	-
	9/15/2017	14.21	14.41	0.20		839.59	839.74	-	-	-
	9/10/2017	14.39	14.68	0.29		839.32	839.53	-	-	-
	9/5/2017	14.31	14.58	0.27		839.42	839.62	9/5/2017	8:30	8:35
	8/31/2017	14.25	14.50	0.25		839.50	839.68	-	-	-
	8/24/2017	14.03	14.32	0.29		839.68	839.89	-	-	-
	8/21/2017	13.87	14.12	0.25		839.88	840.06	-	-	-
	8/17/2017	13.83	14.10	0.27		839.90	840.10	-	-	-
	8/14/2017	13.71	13.97	0.26		840.03	840.22	-	-	-
	8/9/2017	13.60	13.77	0.17		840.23	840.35	-	-	-
	8/2/2017	13.35	13.55	0.20		840.45	840.60	-	-	-
	7/31/2017	13.30	13.57	0.27		840.43	840.63	-	-	-
	7/27/2017	13.18	13.42	0.24		840.58	840.76	-	-	-
	7/24/2017	13.10	13.31	0.21		840.69	840.84	-	-	-
	7/20/2017	12.97	13.15	0.18		840.85	840.98	-	-	-
	7/17/2017	12.98	13.18	0.20		840.82	840.97	-	-	-
	7/13/2017	12.92	13.10	0.18		840.90	841.03	-	-	-
	7/10/2017	12.90	13.10	0.20		840.90	841.05	-	-	-
	7/6/2017	12.79	12.92	0.13		841.08	841.17	-	-	-
	7/3/2017	12.78	12.94	0.16		841.06	841.18	-	-	-
	6/29/2017	12.81	12.99	0.18		841.01	841.14	-	-	-
	6/22/2017	12.95	13.15	0.20		840.85	841.00	-	-	-
	6/19/2017	13.10	13.35	0.25		840.65	840.83	-	-	-
	6/15/2017	13.07	13.25	0.18		840.75	840.88	-	-	-
	6/12/2017	13.10	13.28	0.18		840.72	840.85	-	-	-
	6/9/2017	13.03	13.25	0.22		840.75	840.91	-	-	-
	6/5/2017	13.18	13.34	0.16		840.66	840.78	-	-	-
	6/2/2017	13.16	13.37	0.21		840.63	840.78	-	-	-
5/31/2017	13.29	13.57	0.28		840.43	840.63	-	-	-	
5/24/2017	13.59	13.78	0.19		840.22	840.36	-	-	-	
5/22/2017	13.89	14.10	0.21		839.90	840.05	-	-	-	
5/18/2017	13.99	14.19	0.20		839.81	839.96	-	-	-	
5/15/2017	13.90	14.19	0.29		839.81	840.02	5/16/2017	12:42	12:51	
5/11/2017	13.96	14.20	0.24		839.80	839.98	-	-	-	
5/7/2017	14.01	14.20	0.19		839.80	839.94	-	-	-	
5/4/2017	13.97	14.24	0.27		839.76	839.96	-	-	-	
4/27/2017	14.37	14.87	0.50		839.13	839.50	4/28/2017	12:34	12:45	
4/25/2017	14.61	14.62	0.01		839.38	839.39	-	-	-	
4/20/2017	14.85	15.33	0.48		838.67	839.02	-	-	-	
4/16/2017	14.90	15.33	0.43		838.67	838.98	-	-	-	
4/13/2017	15.03	15.45	0.42		838.55	838.86	-	-	-	
4/10/2017	15.10	15.51	0.41		838.49	838.79	-	-	-	
4/6/2017	15.33	16.20	0.87		837.80	838.44	4/7/2017	10:21	10:34	
4/3/2017	15.46	16.27	0.81		837.73	838.32	-	-	-	
RS-09					847.60					
	3/5/2018	-	5.96	-		841.64	-	-	-	-
	2/21/2018	-	6.45	-		841.15	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-09 (cont'd)	2/3/2018	-	8.10	-		839.50	-	-	-	-
	12/27/2017	-	14.13	-		833.47	-	-	-	-
	11/12/2017	-	10.29	-		837.31	-	-	-	-
	10/21/2017	-	12.51	-		835.09	-	-	-	-
	9/10/2017	9.15	9.20	0.05		838.40	838.44	-	-	-
	8/21/2017	8.85	8.93	0.08		838.67	838.73	-	-	-
	8/17/2017	9.12	9.16	0.04		838.44	838.47	-	-	-
	8/14/2017	9.71	9.84	0.13		837.76	837.85	-	-	-
	8/9/2017	10.91	10.98	0.07		836.62	836.67	-	-	-
	8/2/2017	9.61	9.75	0.14		837.85	837.95	-	-	-
	7/31/2017	9.58	9.78	0.20		837.82	837.97	-	-	-
	7/27/2017	9.42	9.62	0.20		837.98	838.13	-	-	-
	7/24/2017	9.33	9.52	0.19		838.08	838.22	-	-	-
	7/20/2017	8.99	9.20	0.21		838.40	838.55	-	-	-
	7/17/2017	8.74	8.89	0.15		838.71	838.82	-	-	-
	7/13/2017	8.97	9.13	0.16		838.47	838.59	-	-	-
	7/10/2017	8.86	9.01	0.15		838.59	838.70	-	-	-
	7/6/2017	10.22	10.45	0.23		837.15	837.32	-	-	-
	7/3/2017	9.26	9.49	0.23		838.11	838.28	-	-	-
	6/29/2017	9.07	9.39	0.32		838.21	838.44	-	-	-
	6/22/2017	9.67	9.89	0.22		837.71	837.87	-	-	-
	6/19/2017	10.04	10.22	0.18		837.38	837.51	-	-	-
	6/15/2017	10.08	10.32	0.24		837.28	837.46	-	-	-
	6/12/2017	9.81	10.51	0.70		837.09	837.60	6/13/2017	15:38	15:46
	6/9/2017	9.38	9.90	0.52		837.70	838.08	-	-	-
	6/5/2017	9.30	9.48	0.18		838.12	838.25	-	-	-
	6/2/2017	11.12	11.33	0.21		836.27	836.42	-	-	-
	5/31/2017	9.38	9.67	0.29		837.93	838.14	-	-	-
	5/24/2017	9.15	9.30	0.15		838.30	838.41	-	-	-
	5/22/2017	9.90	10.15	0.25		837.45	837.63	-	-	-
5/18/2017	9.98	10.18	0.20		837.42	837.57	-	-	-	
5/15/2017	10.12	10.34	0.22		837.26	837.42	-	-	-	
5/11/2017	10.86	11.10	0.24		836.50	836.68	-	-	-	
5/7/2017	14.36	14.82	0.46		832.78	833.12	-	-	-	
5/4/2017	14.48	14.86	0.38		832.74	833.02	-	-	-	
4/27/2017	14.49	14.90	0.41		832.70	833.00	-	-	-	
4/25/2017	13.80	14.15	0.35		833.45	833.71	-	-	-	
4/20/2017	15.98	16.36	0.38		831.24	831.52	-	-	-	
4/16/2017	16.14	16.48	0.34		831.12	831.37	-	-	-	
4/13/2017	16.18	16.69	0.51		830.91	831.28	4/13/2017	9:27	9:34	
4/10/2017	16.08	16.82	0.74		830.78	831.32	4/11/2017	13:15	13:19	
4/6/2017	15.61	16.22	0.61		831.38	831.83	4/7/2017	14:01	14:09	
4/3/2017	16.90	17.15	0.25		830.45	830.63	-	-	-	
RS-10					847.42		-	-	-	
	3/5/2018	5.84	5.89	0.05		841.53	841.57	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	5.82	5.92	0.10		841.50	841.57	-	-	-
	2/3/2018	6.91	6.92	0.01		840.50	840.51	-	-	-
	12/27/2017	10.05	10.15	0.10		837.27	837.34	-	-	-
	11/12/2017	-	9.65	-		837.77	-	-	-	-
	10/21/2017	11.20	11.22	0.02		836.20	836.21	-	-	-
	9/10/2017	-	8.47	-		838.95	-	-	-	-
	8/21/2017	8.17	8.20	0.03		839.22	839.24	-	-	-
	8/17/2017	8.09	8.10	0.01		839.32	839.33	-	-	-
	8/14/2017	7.88	7.89	0.01		839.53	839.54	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-10 (cont'd)	8/9/2017	8.50	8.51	0.01		838.91	838.92	-	-	-
	8/2/2017	8.85	9.20	0.35		838.22	838.48	-	-	-
	7/31/2017	8.85	9.22	0.37		838.20	838.47	-	-	-
	7/27/2017	8.68	9.06	0.38		838.36	838.64	-	-	-
	7/24/2017	8.84	9.21	0.37		838.21	838.48	-	-	-
	7/20/2017	8.64	9.01	0.37		838.41	838.68	-	-	-
	7/17/2017	8.44	8.81	0.37		838.61	838.88	-	-	-
	7/13/2017	8.44	8.81	0.37		838.61	838.88	-	-	-
	7/10/2017	8.13	8.50	0.37		838.92	839.19	-	-	-
	7/6/2017	8.99	9.35	0.36		838.07	838.33	-	-	-
	7/3/2017	8.83	9.08	0.25		838.34	838.52	-	-	-
	6/29/2017	8.60	8.87	0.27		838.55	838.75	-	-	-
	6/22/2017	9.22	9.48	0.26		837.94	838.13	-	-	-
	6/19/2017	9.30	9.57	0.27		837.85	838.05	-	-	-
	6/15/2017	9.60	9.97	0.37		837.45	837.72	6/16/2017	13:22	13:29
	6/12/2017	9.41	9.73	0.32		837.69	837.92	-	-	-
	6/9/2017	9.05	9.40	0.35		838.02	838.28	-	-	-
	6/5/2017	9.73	10.06	0.33		837.36	837.60	-	-	-
	6/2/2017	8.91	9.22	0.31		838.20	838.43	-	-	-
	5/31/2017	11.25	11.73	0.48		835.69	836.04	5/31/2017	14:09	14:17
	5/24/2017	8.02	8.03	0.01		839.39	839.40	-	-	-
	5/22/2017	9.41	9.42	0.01		838.00	838.01	-	-	-
	5/18/2017	9.46	9.92	0.46		837.50	837.84	-	-	-
	5/15/2017	9.97	10.41	0.44		837.01	837.33	-	-	-
	5/11/2017	9.19	9.62	0.43		837.80	838.11	-	-	-
	5/7/2017	13.46	13.91	0.45		833.51	833.84	-	-	-
	5/4/2017	13.57	13.90	0.33		833.52	833.76	-	-	-
	4/27/2017	14.00	14.28	0.28		833.14	833.34	-	-	-
	4/25/2017	13.97	14.31	0.34		833.11	833.36	-	-	-
	4/20/2017	15.02	15.25	0.23		832.17	832.34	-	-	-
4/16/2017	15.05	15.54	0.49		831.88	832.24	4/17/2017	10:01	10:16	
4/13/2017	15.14	15.56	0.42		831.86	832.17	-	-	-	
4/10/2017	15.15	15.60	0.45		831.82	832.15	-	-	-	
4/6/2017	14.94	15.36	0.42		832.06	832.37	-	-	-	
4/3/2017	15.88	16.20	0.32		831.22	831.45	-	-	-	
RS-11					847.44					
	3/5/2018	-	6.84	-		840.60	-	-	-	-
	2/21/2018	-	6.42	-		841.02	-	-	-	-
	2/3/2018	-	7.57	-		839.87	-	-	-	-
	12/27/2017	-	9.00	-		838.44	-	-	-	-
	11/12/2017	-	9.76	-		837.68	-	-	-	-
	10/21/2017	-	10.73	-		836.71	-	-	-	-
	9/10/2017	-	8.35	-		839.09	-	-	-	-
	8/21/2017	-	8.12	-		839.32	-	-	-	-
	8/17/2017	-	7.96	-		839.48	-	-	-	-
	8/14/2017	-	7.92	-		839.52	-	-	-	-
	8/9/2017	-	8.18	-		839.26	-	-	-	-
	8/2/2017	-	8.60	-		838.84	-	-	-	-
	7/31/2017	-	8.87	-		838.57	-	-	-	-
	7/27/2017	-	8.47	-		838.97	-	-	-	-
	7/24/2017	-	8.58	-		838.86	-	-	-	-
	7/20/2017	-	8.53	-		838.91	-	-	-	-
	7/17/2017	-	8.37	-		839.07	-	-	-	-
	7/13/2017	-	8.36	-		839.08	-	-	-	-
	7/10/2017	-	8.11	-		839.33	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-11 (cont'd)	7/6/2017	-	8.47	-		838.97	-	-	-	-
	7/3/2017	-	8.71	-		838.73	-	-	-	-
	6/29/2017	-	8.45	-		838.99	-	-	-	-
	6/22/2017	-	9.01	-		838.43	-	-	-	-
	6/19/2017	-	9.07	-		838.37	-	-	-	-
	6/15/2017	-	9.47	-		837.97	-	-	-	-
	6/12/2017	-	9.36	-		838.08	-	-	-	-
	6/9/2017	-	9.19	-		838.25	-	-	-	-
	6/5/2017	-	8.86	-		838.58	-	-	-	-
	6/2/2017	-	8.49	-		838.95	-	-	-	-
	5/31/2017	12.72	12.73	0.01		834.71	834.72	-	-	-
	5/24/2017	8.31	8.33	0.02		839.11	839.12	-	-	-
	5/22/2017	9.60	9.63	0.03		837.81	837.83	-	-	-
	5/18/2017	9.76	9.79	0.03		837.65	837.67	-	-	-
	5/15/2017	10.27	10.33	0.06		837.11	837.15	-	-	-
	5/11/2017	8.93	9.97	1.04		837.47	838.23	5/14/2017	11:31	11:42
	5/7/2017	13.20	13.63	0.43		833.81	834.12	-	-	-
	5/4/2017	13.30	13.67	0.37		833.77	834.04	-	-	-
	4/27/2017	13.89	14.20	0.31		833.24	833.47	-	-	-
	4/25/2017	14.16	14.67	0.51		832.77	833.14	-	-	-
	4/20/2017	14.53	15.01	0.48		832.43	832.78	-	-	-
	4/16/2017	14.63	15.10	0.47		832.34	832.68	-	-	-
	4/13/2017	14.73	15.18	0.45		832.26	832.59	-	-	-
4/10/2017	14.78	15.24	0.46		832.20	832.54	-	-	-	
4/6/2017	15.19	15.61	0.42		831.83	832.14	-	-	-	
4/3/2017	15.35	15.74	0.39		831.70	831.98	-	-	-	
RS-12					847.74		-	-	-	-
	3/5/2018	-	7.21	-		840.53	-	-	-	-
	2/21/2018	-	6.78	-		840.96	-	-	-	-
	2/3/2018	-	7.92	-		839.82	-	-	-	-
	12/27/2017	-	9.20	-		838.54	-	-	-	-
	11/12/2017	-	10.00	-		837.74	-	-	-	-
	10/21/2017	-	11.20	-		836.54	-	-	-	-
	9/10/2017	-	8.70	-		839.04	-	-	-	-
	8/21/2017	8.44	8.45	0.01		839.29	839.30	-	-	-
	8/17/2017	-	8.29	-		839.45	-	-	-	-
	8/14/2017	7.94	7.95	0.01		839.79	839.80	-	-	-
	8/9/2017	-	8.50	-		839.24	-	-	-	-
	8/2/2017	8.91	8.92	0.01		838.82	838.83	-	-	-
	7/31/2017	8.89	8.90	0.01		838.84	838.85	-	-	-
	7/27/2017	8.79	8.81	0.02		838.93	838.94	-	-	-
	7/24/2017	8.91	8.93	0.02		838.81	838.82	-	-	-
	7/20/2017	8.85	8.86	0.01		838.88	838.89	-	-	-
	7/17/2017	8.70	8.71	0.01		839.03	839.04	-	-	-
	7/13/2017	8.69	8.70	0.01		839.04	839.05	-	-	-
	7/10/2017	-	7.87	-		839.87	-	-	-	-
	7/6/2017	-	8.78	-		838.96	-	-	-	-
	7/3/2017	9.03	9.05	0.02		838.69	838.70	-	-	-
	6/29/2017	8.77	8.80	0.03		838.94	838.96	-	-	-
	6/22/2017	9.33	9.34	0.01		838.40	838.41	-	-	-
	6/19/2017	9.38	9.40	0.02		838.34	838.35	-	-	-
	6/15/2017	9.77	9.81	0.04		837.93	837.96	-	-	-
	6/12/2017	9.68	9.72	0.04		838.02	838.05	-	-	-
	6/9/2017	9.51	9.53	0.02		838.21	838.22	-	-	-
	6/5/2017	9.18	9.21	0.03		838.53	838.55	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-12 (cont'd)	6/2/2017	8.78	8.81	0.03		838.93	838.95	-	-	-
	5/31/2017	13.03	13.10	0.07		834.64	834.69	-	-	-
	5/24/2017	8.62	8.73	0.11		839.01	839.09	-	-	-
	5/22/2017	9.91	9.95	0.04		837.79	837.82	-	-	-
	5/18/2017	10.02	10.31	0.29		837.43	837.64	-	-	-
	5/15/2017	10.62	10.69	0.07		837.05	837.10	-	-	-
	5/11/2017	9.16	9.93	0.77		837.81	838.37	5/14/2017	11:45	11:54
	5/7/2017	13.49	13.93	0.44		833.81	834.13	-	-	-
	5/4/2017	13.57	13.92	0.35		833.82	834.08	-	-	-
	4/27/2017	14.18	14.49	0.31		833.25	833.48	-	-	-
	4/25/2017	14.44	14.94	0.50		832.80	833.17	-	-	-
	4/20/2017	14.81	15.30	0.49		832.44	832.80	-	-	-
	4/16/2017	14.92	15.39	0.47		832.35	832.69	-	-	-
	4/13/2017	15.02	15.45	0.43		832.29	832.60	-	-	-
	4/10/2017	15.06	15.62	0.56		832.12	832.53	-	-	-
	4/6/2017	15.46	15.88	0.42		831.86	832.17	-	-	-
	4/3/2017	15.62	16.00	0.38		831.74	832.02	-	-	-
RS-13					845.98					
	3/5/2018	-	2.95	-		843.03	-	-	-	-
	2/21/2018	-	2.84	-		843.14	-	-	-	-
	2/3/2018	-	3.75	-		842.23	-	-	-	-
	12/27/2017	-	14.34	-		831.64	-	-	-	-
	11/12/2017	-	6.45	-		839.53	-	-	-	-
	10/21/2017	-	11.55	-		834.43	-	-	-	-
	9/10/2017	-	6.43	-		839.55	-	-	-	-
	8/21/2017	-	7.15	-		838.83	-	-	-	-
	8/17/2017	-	7.81	-		838.17	-	-	-	-
	8/14/2017	-	8.71	-		837.27	-	-	-	-
	8/9/2017	-	9.50	-		836.48	-	-	-	-
	8/2/2017	-	7.83	-		838.15	-	-	-	-
	7/31/2017	-	7.87	-		838.11	-	-	-	-
	7/27/2017	-	7.60	-		838.38	-	-	-	-
	7/24/2017	-	7.55	-		838.43	-	-	-	-
	7/20/2017	-	6.90	-		839.08	-	-	-	-
	7/17/2017	-	6.77	-		839.21	-	-	-	-
	7/13/2017	-	6.88	-		839.10	-	-	-	-
	7/10/2017	-	6.77	-		839.21	-	-	-	-
	7/6/2017	-	8.17	-		837.81	-	-	-	-
	7/3/2017	-	6.96	-		839.02	-	-	-	-
	6/29/2017	-	6.08	-		839.90	-	-	-	-
	6/22/2017	-	5.55	-		840.43	-	-	-	-
	6/19/2017	-	8.10	-		837.88	-	-	-	-
	6/15/2017	-	7.84	-		838.14	-	-	-	-
	6/12/2017	-	6.75	-		839.23	-	-	-	-
	6/9/2017	-	5.13	-		840.85	-	-	-	-
	6/5/2017	-	6.78	-		839.20	-	-	-	-
	6/2/2017	-	7.90	-		838.08	-	-	-	-
	5/31/2017	-	5.75	-		840.23	-	-	-	-
	5/24/2017	-	2.75	-		843.23	-	-	-	-
	5/22/2017	-	3.85	-		842.13	-	-	-	-
	5/18/2017	-	5.45	-		840.53	-	-	-	-
	5/15/2017	-	5.67	-		840.31	-	-	-	-
	5/11/2017	-	7.01	-		838.97	-	-	-	-
	5/7/2017	-	13.53	-		832.45	-	-	-	-
	5/4/2017	-	13.35	-		832.63	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-13 (cont'd)	4/27/2017	-	10.73	-		835.25	-	-	-	-
	4/25/2017	-	7.78	-		838.20	-	-	-	-
	4/20/2017	15.20	15.23	0.03		830.75	830.77	-	-	-
	4/16/2017	15.04	15.06	0.02		830.92	830.93	-	-	-
	4/13/2017	14.82	14.83	0.01		831.15	831.16	-	-	-
	4/10/2017	14.59	14.60	0.01		831.38	831.39	-	-	-
	4/6/2017	-	14.26	-		831.72	-	-	-	-
	4/3/2017	16.44	16.46	0.02		829.52	829.53	-	-	-
RS-14					845.97					
	3/5/2018	-	3.29	-		842.68	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	2.53	2.58	0.05		843.39	843.43	-	-	-
	2/3/2018	-	4.82	-		841.15	-	-	-	-
	12/27/2017	7.47	7.49	0.02		838.48	838.49	-	-	-
	11/12/2017	7.31	7.33	0.02		838.64	838.65	-	-	-
	10/21/2017	11.35	11.38	0.03		834.59	834.61	-	-	-
	9/10/2017	-	5.40	-		840.57	-	-	-	-
	8/21/2017	5.80	5.89	0.09		840.08	840.15	-	-	-
	8/17/2017	5.69	5.77	0.08		840.20	840.26	-	-	-
	8/14/2017	6.41	6.50	0.09		839.47	839.54	-	-	-
	8/9/2017	7.27	7.35	0.08		838.62	838.68	-	-	-
	8/2/2017	6.14	6.20	0.06		839.77	839.81	-	-	-
	7/31/2017	6.06	6.13	0.07		839.84	839.89	-	-	-
	7/27/2017	5.85	5.94	0.09		840.03	840.10	-	-	-
	7/24/2017	5.64	5.71	0.07		840.26	840.31	-	-	-
	7/20/2017	5.08	5.16	0.08		840.81	840.87	-	-	-
	7/17/2017	4.71	4.79	0.08		841.18	841.24	-	-	-
	7/13/2017	5.39	5.46	0.07		840.51	840.56	-	-	-
	7/10/2017	5.13	5.21	0.08		840.76	840.82	-	-	-
	7/6/2017	5.62	5.68	0.06		840.29	840.33	-	-	-
	7/3/2017	5.02	5.09	0.07		840.88	840.93	-	-	-
	6/29/2017	4.79	4.87	0.08		841.10	841.16	-	-	-
	6/22/2017	4.47	4.53	0.06		841.44	841.48	-	-	-
	6/19/2017	6.20	6.28	0.08		839.69	839.75	-	-	-
	6/15/2017	5.72	5.81	0.09		840.16	840.23	-	-	-
	6/12/2017	5.10	5.20	0.10		840.77	840.84	-	-	-
	6/9/2017	4.32	4.40	0.08		841.57	841.63	-	-	-
	6/5/2017	5.13	5.20	0.07		840.77	840.82	-	-	-
	6/2/2017	5.46	5.52	0.06		840.45	840.49	-	-	-
	5/31/2017	4.55	4.65	0.10		841.32	841.39	-	-	-
	5/24/2017	3.17	3.26	0.09		842.71	842.78	-	-	-
	5/22/2017	3.97	4.04	0.07		841.93	841.98	-	-	-
	5/18/2017	6.08	6.14	0.06		839.83	839.87	-	-	-
	5/15/2017	6.26	6.35	0.09		839.62	839.69	-	-	-
	5/11/2017	8.13	8.21	0.08		837.76	837.82	-	-	-
	5/7/2017	9.60	9.74	0.14		836.23	836.33	-	-	-
	5/4/2017	9.41	9.88	0.47		836.09	836.43	-	-	-
	4/27/2017	6.05	6.19	0.14		839.78	839.88	-	-	-
	4/25/2017	4.45	4.64	0.19		841.33	841.47	-	-	-
	4/20/2017	11.71	11.89	0.18		834.08	834.21	-	-	-
	4/16/2017	11.15	11.35	0.20		834.62	834.77	-	-	-
	4/13/2017	10.43	10.62	0.19		835.35	835.49	-	-	-
	4/10/2017	9.69	9.92	0.23		836.05	836.22	-	-	-
	4/6/2017	6.25	6.47	0.22		839.50	839.66	-	-	-
	4/3/2017	12.70	12.93	0.23		833.04	833.21	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
RS-15					846.41					
	3/5/2018	-	3.58	-		842.83	-	-	-	-
	2/21/2018	-	3.94	-		842.47	-	-	-	-
	2/3/2018	-	5.10	-		841.31	-	-	-	-
	12/27/2017	-	6.99	-		839.42	-	-	-	-
	11/12/2017	-	8.05	-		838.36	-	-	-	-
	10/21/2017	-	10.65	-		835.76	-	-	-	-
	9/10/2017	6.17	6.18	0.01		840.23	840.24	-	-	-
	8/21/2017	-	6.41	-		840.00	-	-	-	-
	8/17/2017	-	6.20	-		840.21	-	-	-	-
	8/14/2017	-	6.64	-		839.77	-	-	-	-
	8/9/2017	-	7.11	-		839.30	-	-	-	-
	8/2/2017	6.48	6.50	0.02		839.91	839.92	-	-	-
	7/31/2017	6.40	6.41	0.01		840.00	840.01	-	-	-
	7/27/2017	6.17	6.19	0.02		840.22	840.23	-	-	-
	7/24/2017	6.01	6.03	0.02		840.38	840.39	-	-	-
	7/20/2017	5.59	5.60	0.01		840.81	840.82	-	-	-
	7/17/2017	5.30	5.32	0.02		841.09	841.10	-	-	-
	7/13/2017	5.78	5.80	0.02		840.61	840.62	-	-	-
	7/10/2017	5.55	5.57	0.02		840.84	840.85	-	-	-
	7/6/2017	5.90	5.91	0.01		840.50	840.51	-	-	-
	7/3/2017	5.49	5.51	0.02		840.90	840.91	-	-	-
	6/29/2017	5.32	5.35	0.03		841.06	841.08	-	-	-
	6/22/2017	6.31	6.33	0.02		840.08	840.09	-	-	-
	6/19/2017	6.38	6.40	0.02		840.01	840.02	-	-	-
	6/15/2017	6.06	6.08	0.02		840.33	840.34	-	-	-
	6/12/2017	5.67	5.70	0.03		840.71	840.73	-	-	-
	6/9/2017	5.09	5.12	0.03		841.29	841.31	-	-	-
	6/5/2017	5.60	5.62	0.02		840.79	840.80	-	-	-
	6/2/2017	5.78	5.80	0.02		840.61	840.62	-	-	-
	5/31/2017	5.08	5.10	0.02		841.31	841.32	-	-	-
	5/24/2017	3.89	3.91	0.02		842.50	842.51	-	-	-
	5/22/2017	4.90	4.94	0.04		841.47	841.50	-	-	-
	5/18/2017	-	7.01	-		839.40	-	-	-	-
	5/15/2017	7.20	7.21	0.01		839.20	839.21	-	-	-
	5/11/2017	8.00	8.01	0.01		838.40	838.41	-	-	-
	5/7/2017	9.07	9.10	0.03		837.31	837.33	-	-	-
	5/4/2017	8.70	8.75	0.05		837.66	837.70	-	-	-
	4/27/2017	6.71	6.80	0.09		839.61	839.68	-	-	-
	4/25/2017	5.30	5.38	0.08		841.03	841.09	-	-	-
	4/20/2017	11.07	11.19	0.12		835.22	835.31	-	-	-
	4/16/2017	10.65	10.75	0.10		835.66	835.73	-	-	-
	4/13/2017	10.18	10.28	0.10		836.13	836.20	-	-	-
	4/10/2017	9.77	9.88	0.11		836.53	836.61	-	-	-
	4/6/2017	7.90	7.96	0.06		838.45	838.49	-	-	-
	4/3/2017	12.79	12.85	0.06		833.56	833.60	-	-	-
RS-16					845.44					
	3/5/2018	-	3.03	-		842.41	-	-	-	-
	2/21/2018	-	2.78	-		842.66	-	-	-	-
	2/3/2018	-	3.83	-		841.61	-	-	-	-
	12/27/2017	-	6.80	-		838.64	-	-	-	-
	11/12/2017	-	6.35	-		839.09	-	-	-	-
	10/21/2017	-	10.00	-		835.44	-	-	-	-
	9/10/2017	-	4.94	-		840.50	-	-	-	-
	8/21/2017	-	5.35	-		840.09	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
RS-16 (cont'd)	8/17/2017	5.26	5.27	0.01		840.17	840.18	-	-	-
	8/14/2017	-	5.47	-		839.97	-	-	-	-
	8/9/2017	-	5.95	-		839.49	-	-	-	-
	8/2/2017	-	5.45	-		839.99	-	-	-	-
	7/31/2017	-	5.37	-		840.07	-	-	-	-
	7/27/2017	-	5.11	-		840.33	-	-	-	-
	7/24/2017	-	4.87	-		840.57	-	-	-	-
	7/20/2017	-	4.32	-		841.12	-	-	-	-
	7/17/2017	-	3.95	-		841.49	-	-	-	-
	7/13/2017	-	4.60	-		840.84	-	-	-	-
	7/10/2017	-	4.36	-		841.08	-	-	-	-
	7/6/2017	-	4.68	-		840.76	-	-	-	-
	7/3/2017	-	4.17	-		841.27	-	-	-	-
	6/29/2017	-	4.00	-		841.44	-	-	-	-
	6/22/2017	-	3.61	-		841.83	-	-	-	-
	6/19/2017	-	5.38	-		840.06	-	-	-	-
	6/15/2017	-	4.87	-		840.57	-	-	-	-
	6/12/2017	-	4.25	-		841.19	-	-	-	-
	6/9/2017	-	3.50	-		841.94	-	-	-	-
	6/5/2017	-	4.24	-		841.20	-	-	-	-
	6/2/2017	-	4.23	-		841.21	-	-	-	-
	5/31/2017	-	3.80	-		841.64	-	-	-	-
	5/24/2017	-	2.27	-		843.17	-	-	-	-
	5/22/2017	-	3.03	-		842.41	-	-	-	-
	5/18/2017	-	4.84	-		840.60	-	-	-	-
	5/15/2017	-	4.98	-		840.46	-	-	-	-
	5/11/2017	-	5.71	-		839.73	-	-	-	-
	5/7/2017	-	9.74	-		835.70	-	-	-	-
	5/4/2017	-	9.67	-		835.77	-	-	-	-
	4/27/2017	-	5.05	-		840.39	-	-	-	-
	4/25/2017	-	3.68	-		841.76	-	-	-	-
	4/20/2017	11.98	11.99	0.01		833.45	833.46	-	-	-
4/16/2017	11.71	11.72	0.01		833.72	833.73	-	-	-	
4/13/2017	-	11.25	-		834.19	-	-	-	-	
4/10/2017	10.61	10.62	0.01		834.82	834.83	-	-	-	
4/6/2017	-	5.34	-		840.10	-	-	-	-	
4/3/2017	13.07	13.10	0.03		832.34	832.36	-	-	-	
RS-17					844.22					
	3/5/2018	-	2.37	-		841.85	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	1.70	1.73	0.03		842.49	842.51	-	-	-
	2/3/2018	-	3.05	-		841.17	-	-	-	-
	12/27/2017	6.38	6.39	0.01		837.83	837.84	-	-	-
	11/12/2017	5.99	6.00	0.01		838.22	838.23	-	-	-
	10/21/2017	-	9.59	-		834.63	-	-	-	-
	9/10/2017	-	4.61	-		839.61	-	-	-	-
	8/21/2017	-	5.11	-		839.11	-	-	-	-
	8/17/2017	-	5.15	-		839.07	-	-	-	-
	8/14/2017	-	5.72	-		838.50	-	-	-	-
	8/9/2017	-	6.13	-		838.09	-	-	-	-
	8/2/2017	-	5.06	-		839.16	-	-	-	-
	7/31/2017	-	4.97	-		839.25	-	-	-	-
	7/27/2017	-	4.72	-		839.50	-	-	-	-
	7/24/2017	-	4.46	-		839.76	-	-	-	-
	7/20/2017	-	3.92	-		840.30	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-17 (cont'd)	7/17/2017	-	3.26	-		840.96	-	-	-	-
	7/13/2017	-	4.14	-		840.08	-	-	-	-
	7/10/2017	-	3.87	-		840.35	-	-	-	-
	7/6/2017	-	4.19	-		840.03	-	-	-	-
	7/3/2017	-	3.46	-		840.76	-	-	-	-
	6/29/2017	-	3.45	-		840.77	-	-	-	-
	6/22/2017	-	2.83	-		841.39	-	-	-	-
	6/19/2017	-	4.85	-		839.37	-	-	-	-
	6/15/2017	-	4.27	-		839.95	-	-	-	-
	6/12/2017	-	3.69	-		840.53	-	-	-	-
	6/9/2017	-	1.26	-		842.96	-	-	-	-
	6/5/2017	-	3.75	-		840.47	-	-	-	-
	6/2/2017	-	4.99	-		839.23	-	-	-	-
	5/31/2017	-	3.25	-		840.97	-	-	-	-
	5/24/2017	-	1.30	-		842.92	-	-	-	-
	5/22/2017	-	2.05	-		842.17	-	-	-	-
	5/18/2017	-	4.35	-		839.87	-	-	-	-
	5/15/2017	-	5.02	-		839.20	-	-	-	-
	5/11/2017	-	5.85	-		838.37	-	-	-	-
	5/7/2017	-	6.43	-		837.79	-	-	-	-
	5/4/2017	-	7.36	-		836.86	-	-	-	-
	4/27/2017	-	4.30	-		839.92	-	-	-	-
	4/25/2017	-	2.63	-		841.59	-	-	-	-
	4/20/2017	11.43	11.44	0.01		832.78	832.79	-	-	-
	4/16/2017	9.10	9.11	0.01		835.11	835.12	-	-	-
	4/13/2017	-	8.55	-		835.67	-	-	-	-
4/10/2017	7.97	7.98	0.01		836.24	836.25	-	-	-	
4/6/2017	-	3.23	-		840.99	-	-	-	-	
4/3/2017	9.94	9.95	0.01		834.27	834.28	-	-	-	
RS-18					847.89					
	3/5/2018	-	5.05	-		842.84	-	-	-	-
	2/21/2018	-	6.59	-		841.30	-	-	-	-
	2/3/2018	-	8.27	-		839.62	-	-	-	-
	12/27/2017	-	15.92	-		831.97	-	-	-	-
	11/12/2017	-	10.69	-		837.20	-	-	-	-
	10/21/2017	-	13.05	-		834.84	-	-	-	-
	9/10/2017	-	10.00	-		837.89	-	-	-	-
	8/21/2017	9.71	9.79	0.08		838.10	838.16	-	-	-
	8/17/2017	9.72	9.77	0.05		838.12	838.16	-	-	-
	8/14/2017	9.97	10.02	0.05		837.87	837.91	-	-	-
	8/9/2017	10.91	10.96	0.05		836.93	836.97	-	-	-
	8/2/2017	10.35	10.45	0.10		837.44	837.51	-	-	-
	7/31/2017	10.38	10.54	0.16		837.35	837.47	-	-	-
	7/27/2017	10.11	10.25	0.14		837.64	837.74	-	-	-
	7/24/2017	10.05	10.22	0.17		837.67	837.79	-	-	-
	7/20/2017	9.65	9.81	0.16		838.08	838.20	-	-	-
	7/17/2017	-	8.61	-		839.28	-	-	-	-
	7/13/2017	9.64	9.78	0.14		838.11	838.21	-	-	-
	7/10/2017	9.44	9.59	0.15		838.30	838.41	-	-	-
	7/6/2017	10.82	11.02	0.20		836.87	837.02	-	-	-
	7/3/2017	9.78	9.99	0.21		837.90	838.05	-	-	-
	6/29/2017	9.60	9.77	0.17		838.12	838.24	-	-	-
	6/22/2017	9.52	9.72	0.20		838.17	838.32	-	-	-
	6/19/2017	10.55	10.75	0.20		837.14	837.29	-	-	-
	6/15/2017	10.52	10.75	0.23		837.14	837.31	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-18 (cont'd)	6/12/2017	10.30	10.51	0.21		837.38	837.53	-	-	-
	6/9/2017	9.98	10.04	0.06		837.85	837.89	-	-	-
	6/5/2017	9.77	9.94	0.17		837.95	838.07	-	-	-
	6/2/2017	11.82	12.01	0.19		835.88	836.02	-	-	-
	5/31/2017	9.95	10.40	0.45		837.49	837.82	5/31/2017	14:21	14:29
	5/24/2017	9.48	9.87	0.39		838.02	838.30	-	-	-
	5/22/2017	9.27	9.65	0.38		838.24	838.52	-	-	-
	5/18/2017	10.56	11.01	0.45		836.88	837.21	-	-	-
	5/15/2017	10.95	11.15	0.20		836.74	836.89	-	-	-
	5/11/2017	11.23	11.65	0.42		836.24	836.55	-	-	-
	5/7/2017	14.19	14.67	0.48		833.22	833.57	-	-	-
	5/4/2017	14.25	14.65	0.40		833.24	833.53	-	-	-
	4/27/2017	14.06	14.43	0.37		833.46	833.73	-	-	-
	4/25/2017	11.44	11.80	0.36		836.09	836.35	-	-	-
	4/20/2017	16.02	16.38	0.36		831.51	831.77	-	-	-
	4/16/2017	16.23	16.50	0.27		831.39	831.59	-	-	-
	4/13/2017	16.73	16.94	0.21		830.95	831.10	-	-	-
	4/10/2017	16.15	16.70	0.55		831.19	831.59	4/11/2017	13:23	13:27
	4/6/2017	12.80	13.30	0.50		834.59	834.96	-	-	-
	4/3/2017	17.07	17.48	0.41		830.41	830.71	-	-	-
RS-19					850.40					
	3/5/2018	-	NM	-		-	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	8/21/2017	-	NM	-		-	-	-	-	-
	8/17/2017	-	NM	-		-	-	-	-	-
	8/14/2017	-	NM	-		-	-	-	-	-
	8/9/2017	-	NM	-		-	-	-	-	-
	8/2/2017	-	NM	-		-	-	-	-	-
	7/31/2017	-	NM	-		-	-	-	-	-
	7/27/2017	-	NM	-		-	-	-	-	-
	7/24/2017	-	NM	-		-	-	-	-	-
	7/20/2017	-	NM	-		-	-	-	-	-
	7/17/2017	-	NM	-		-	-	-	-	-
	7/13/2017	-	NM	-		-	-	-	-	-
	7/10/2017	-	NM	-		-	-	-	-	-
	7/6/2017	-	NM	-		-	-	-	-	-
	7/3/2017	-	NM	-		-	-	-	-	-
	6/29/2017	-	NM	-		-	-	-	-	-
	6/22/2017	-	NM	-		-	-	-	-	-
	6/19/2017	-	NM	-		-	-	-	-	-
	6/15/2017	-	NM	-		-	-	-	-	-
	6/12/2017	-	NM	-		-	-	-	-	-
	6/9/2017	-	NM	-		-	-	-	-	-
	6/5/2017	-	NM	-		-	-	-	-	-
	6/2/2017	-	NM	-		-	-	-	-	-
	5/31/2017	-	NM	-		-	-	-	-	-
	5/24/2017	-	NM	-		-	-	-	-	-
	5/22/2017	-	NM	-		-	-	-	-	-
	5/18/2017	-	NM	-		-	-	-	-	-
	5/15/2017	-	NM	-		-	-	-	-	-
	5/11/2017	-	NM	-		-	-	-	-	-
	5/7/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/27/2017	-	NM	-		-	-	-	-	-
	4/25/2017	-	NM	-		-	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RS-19 (cont'd)	4/20/2017	-	NM	-	-	-	-	-	-	-
	4/16/2017	-	NM	-	-	-	-	-	-	-
	4/13/2017	-	NM	-	-	-	-	-	-	-
	4/10/2017	-	NM	-	-	-	-	-	-	-
	4/6/2017	-	NM	-	-	-	-	-	-	-
	4/3/2017	-	NM	-	-	-	-	-	-	-
RS-20					842.69					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	3.02	-		839.67	-	-	-	-
	2/3/2018	-	3.40	-		839.29	-	-	-	-
	12/27/2017	-	6.55	-		836.14	-	-	-	-
	11/12/2017	-	5.82	-		836.87	-	-	-	-
	10/21/2017	-	9.39	-		833.30	-	-	-	-
	9/10/2017	-	5.68	-		837.01	-	-	-	-
	8/21/2017	-	5.70	-		836.99	-	-	-	-
	8/17/2017	-	5.93	-		836.76	-	-	-	-
	8/14/2017	-	6.32	-		836.37	-	-	-	-
	8/9/2017	-	6.56	-		836.13	-	-	-	-
	8/2/2017	-	5.65	-		837.04	-	-	-	-
	7/31/2017	-	5.60	-		837.09	-	-	-	-
	7/27/2017	-	5.35	-		837.34	-	-	-	-
	7/24/2017	-	5.27	-		837.42	-	-	-	-
	7/20/2017	-	4.94	-		837.75	-	-	-	-
	7/17/2017	-	4.66	-		838.03	-	-	-	-
	7/13/2017	-	4.80	-		837.89	-	-	-	-
	7/10/2017	-	4.55	-		838.14	-	-	-	-
	7/6/2017	-	5.08	-		837.61	-	-	-	-
	7/3/2017	-	4.61	-		838.08	-	-	-	-
	6/29/2017	-	4.43	-		838.26	-	-	-	-
	6/22/2017	-	4.59	-		838.10	-	-	-	-
	6/19/2017	-	5.39	-		837.30	-	-	-	-
	6/15/2017	-	5.21	-		837.48	-	-	-	-
	6/12/2017	-	4.78	-		837.91	-	-	-	-
	6/9/2017	-	4.12	-		838.57	-	-	-	-
	6/5/2017	-	4.34	-		838.35	-	-	-	-
	6/2/2017	-	5.11	-		837.58	-	-	-	-
	5/31/2017	-	4.40	-		838.29	-	-	-	-
	5/24/2017	-	2.08	-		840.61	-	-	-	-
	5/22/2017	-	3.25	-		839.44	-	-	-	-
	5/18/2017	-	3.93	-		838.76	-	-	-	-
	5/15/2017	-	4.12	-		838.57	-	-	-	-
	5/11/2017	-	12.40	-		830.29	-	-	-	-
	5/7/2017	-	8.93	-		833.76	-	-	-	-
	5/4/2017	-	8.63	-		834.06	-	-	-	-
	4/27/2017	-	6.65	-		836.04	-	-	-	-
	4/25/2017	-	6.59	-		836.10	-	-	-	-
	4/20/2017	-	10.48	-		832.21	-	-	-	-
	4/16/2017	-	10.48	-		832.21	-	-	-	-
	4/13/2017	-	10.50	-		832.19	-	-	-	-
	4/10/2017	-	10.47	-		832.22	-	-	-	-
	4/6/2017	-	10.15	-		832.54	-	-	-	-
	4/3/2017	-	10.53	-		832.16	-	-	-	-
RT-1A					854.06					
	3/5/2018	-	12.13	-		841.93	-	-	-	-
	2/21/2018	-	13.25	-		840.81	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-1A (cont'd)	2/13/2018	13.25	13.26	0.01		840.80	840.81	-	-	-
	2/9/2018	-	13.71	-		840.35	-	-	-	-
	2/2/2018	14.23	14.25	0.02		839.81	839.82	2/2/2018	12:45	12:50
	1/26/2018	14.64	14.68	0.04		839.38	839.41	1/26/2018	9:10	9:15
	1/20/2018	14.52	14.57	0.05		839.49	839.53	-	-	-
	1/10/2018	14.70	14.74	0.04		839.32	839.35	1/15/2018	9:30	9:35
	1/5/2018	14.66	14.73	0.07		839.33	839.38	1/8/2018	11:58	12:03
	12/27/2017	14.62	14.65	0.03		839.41	839.43	1/2/2018	13:20	13:25
	12/21/2017	14.82	14.87	0.05		839.19	839.23	12/22/2017	9:45	9:50
	12/13/2017	14.77	14.82	0.05		839.24	839.28	12/14/2017	9:35	9:40
	12/7/2017	15.03	15.12	0.09		838.94	839.01	12/7/2017	9:00	9:05
	12/1/2017	14.74	14.84	0.10		839.22	839.29	-	-	-
	11/22/2017	14.65	14.71	0.06		839.35	839.39	11/22/2017	12:07	12:12
	11/17/2017	14.63	14.68	0.05		839.38	839.42	-	-	-
	11/10/2017	14.73	14.82	0.09		839.24	839.31	11/9/2017	11:15	11:20
	11/3/2017	14.67	14.77	0.10		839.29	839.36	11/3/2017	9:25	9:30
	10/26/2017	14.95	15.02	0.07		839.04	839.09	10/25/2017	10:35	10:40
	10/20/2017	15.08	15.18	0.10		838.88	838.95	10/21/2017	9:00	9:05
	10/12/2017	14.95	15.03	0.08		839.03	839.09	10/10/2017	9:00	9:05
	10/6/2017	14.85	15.02	0.17		839.04	839.16	10/7/2017	11:25	11:30
	9/28/2017	14.62	14.72	0.10		839.34	839.41	9/28/2017	13:05	13:10
	9/21/2017	14.43	14.50	0.07		839.56	839.61	-	-	-
	9/15/2017	14.38	14.42	0.04		839.64	839.67	-	-	-
	9/5/2017	14.54	14.68	0.14		839.38	839.48	9/5/2017	8:35	8:40
	8/31/2017	14.51	14.61	0.10		839.45	839.52	-	-	-
	8/24/2017	14.32	14.40	0.08		839.66	839.72	8/24/2017	8:50	8:55
	8/21/2017	14.22	14.33	0.11		839.73	839.81	-	-	-
	8/17/2017	14.22	14.32	0.10		839.74	839.81	8/17/2017	9:00	9:05
	8/14/2017	14.01	14.11	0.10		839.95	840.02	-	-	-
	8/9/2017	14.00	14.09	0.09		839.97	840.04	-	-	-
	8/2/2017	13.79	13.85	0.06		840.21	840.25	8/7/2017	11:25	11:30
	7/31/2017	13.71	13.79	0.08		840.27	840.33	-	-	-
	7/27/2017	13.61	13.67	0.06		840.39	840.43	-	-	-
	7/24/2017	13.50	13.55	0.05		840.51	840.55	-	-	-
	7/20/2017	13.48	13.53	0.05		840.53	840.57	-	-	-
	7/17/2017	13.42	13.47	0.05		840.59	840.63	7/17/2017	9:50	9:53
	7/13/2017	13.43	13.48	0.05		840.58	840.62	-	-	-
	7/10/2017	13.35	13.39	0.04		840.67	840.70	7/11/2017	16:30	16:34
	7/6/2017	-	13.37	-		840.69	-	7/6/2017	10:50	10:53
	7/3/2017	13.34	13.36	0.02		840.70	840.71	7/3/2017	13:33	13:37
	6/29/2017	13.69	13.75	0.06		840.31	840.35	6/29/2017	13:15	13:23
	6/22/2017	13.49	13.52	0.03		840.54	840.56	6/24/2017	13:08	13:15
	6/19/2017	13.76	13.88	0.12		840.18	840.27	6/21/2017	12:21	12:26
	6/15/2017	13.65	13.69	0.04		840.37	840.40	6/16/2017	13:44	13:49
	6/12/2017	13.86	13.95	0.09		840.11	840.18	6/13/2017	15:10	15:16
	6/9/2017	13.74	13.86	0.12		840.20	840.29	6/11/2017	12:13	12:17
	6/5/2017	13.80	13.82	0.02		840.24	840.25	6/5/2017	14:19	14:23
	6/2/2017	13.88	13.93	0.05		840.13	840.17	6/2/2017	14:51	14:54
	5/31/2017	14.03	14.15	0.12		839.91	840.00	5/31/2017	13:31	13:37
	5/24/2017	14.17	14.27	0.10		839.79	839.86	5/26/2017	15:17	15:24
	5/22/2017	14.40	14.45	0.05		839.61	839.65	-	-	-
	5/18/2017	14.55	14.61	0.06		839.45	839.49	5/19/2017	13:22	13:27
	5/15/2017	14.56	14.61	0.05		839.45	839.49	5/16/2017	12:17	12:24
	5/11/2017	14.50	14.54	0.04		839.52	839.55	5/14/2017	12:15	12:25
	5/7/2017	14.60	14.67	0.07		839.39	839.44	5/9/2017	10:43	10:49

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-1A (cont'd)	5/4/2017	14.69	14.80	0.11		839.26	839.34	5/5/2017	9:43	9:49
	4/27/2017	14.89	14.94	0.05		839.12	839.16	-	-	-
	4/25/2017	15.08	15.12	0.04		838.94	838.97	4/25/2017	10:57	11:01
	4/20/2017	15.37	15.47	0.10		838.59	838.66	4/21/2017	12:59	13:12
	4/16/2017	15.40	15.50	0.10		838.56	838.63	4/17/2017	9:33	9:38
	4/13/2017	15.50	15.61	0.11		838.45	838.53	-	-	-
	4/10/2017	15.57	15.77	0.20		838.29	838.44	-	-	-
	4/6/2017	15.84	16.09	0.25		837.97	838.15	4/7/2017	10:01	10:06
	4/3/2017	15.98	16.20	0.22		837.86	838.02	-	-	-
RT-1B					854.15					
	3/5/2018	-	12.10	-		842.05	-	-	-	-
	2/21/2018	-	13.23	-		840.92	-	-	-	-
	2/13/2018	-	13.28	-		840.87	-	-	-	-
	2/9/2018	-	13.68	-		840.47	-	-	-	-
	2/2/2018	14.19	14.21	0.02		839.94	839.95	2/2/2018	12:55	13:00
	1/26/2018	14.60	14.64	0.04		839.51	839.54	1/26/2018	9:15	9:20
	1/20/2018	14.48	14.53	0.05		839.62	839.66	-	-	-
	1/10/2018	14.66	14.71	0.05		839.44	839.48	1/15/2018	9:35	9:40
	1/5/2018	14.62	14.69	0.07		839.46	839.51	1/8/2018	12:03	12:08
	12/27/2017	14.59	14.62	0.03		839.53	839.55	1/2/2018	13:25	13:30
	12/21/2017	14.77	14.82	0.05		839.33	839.37	12/22/2017	9:55	10:00
	12/13/2017	14.72	14.77	0.05		839.38	839.42	12/14/2017	9:45	9:50
	12/7/2017	14.99	15.08	0.09		839.07	839.14	12/7/2017	9:10	9:15
	12/1/2017	14.71	14.79	0.08		839.36	839.42	-	-	-
	11/22/2017	14.61	14.67	0.06		839.48	839.52	11/22/2017	12:12	12:17
	11/17/2017	14.60	14.65	0.05		839.50	839.54	-	-	-
	11/10/2017	14.69	14.78	0.09		839.37	839.44	11/9/2017	11:10	11:15
	11/3/2017	14.62	14.71	0.09		839.44	839.51	11/3/2017	9:30	9:35
	10/26/2017	14.91	14.98	0.07		839.17	839.22	10/25/2017	10:45	10:50
	10/20/2017	15.04	15.14	0.10		839.01	839.08	10/21/2017	9:05	9:10
	10/12/2017	14.91	15.00	0.09		839.15	839.22	10/10/2007	9:05	9:10
	10/6/2017	14.82	14.95	0.13		839.20	839.29	10/7/2017	11:30	11:35
	9/28/2017	14.58	14.68	0.10		839.47	839.54	9/28/2017	13:15	13:20
	9/21/2017	14.39	14.46	0.07		839.69	839.74	-	-	-
	9/15/2017	14.34	14.38	0.04		839.77	839.80	-	-	-
	9/5/2017	14.50	14.63	0.13		839.52	839.61	9/5/2017	8:45	8:50
	8/31/2017	14.46	14.56	0.10		839.59	839.66	-	-	-
	8/24/2017	14.28	14.38	0.10		839.77	839.84	8/24/2017	8:55	9:00
	8/21/2017	14.17	14.28	0.11		839.87	839.95	-	-	-
	8/17/2017	14.19	14.29	0.10		839.86	839.93	8/17/2017	9:05	9:10
8/14/2017	13.97	14.07	0.10		840.08	840.15	-	-	-	
8/9/2017	13.96	14.05	0.09		840.10	840.17	-	-	-	
8/2/2017	13.75	13.81	0.06		840.34	840.38	8/7/2017	11:35	11:40	
7/31/2017	13.67	13.74	0.07		840.41	840.46	8/1/2017	14:50	15:00	
7/27/2017	13.57	13.60	0.03		840.55	840.57	-	-	-	
7/24/2017	13.45	13.53	0.08		840.62	840.68	-	-	-	
7/20/2017	13.45	13.50	0.05		840.65	840.69	7/20/2017	10:15	10:20	
7/17/2017	13.38	13.43	0.05		840.72	840.76	7/17/2017	9:53	9:56	
7/13/2017	13.40	13.44	0.04		840.71	840.74	7/14/2017	9:15	9:20	
7/10/2017	13.31	13.37	0.06		840.78	840.82	7/11/2017	16:34	16:38	
7/6/2017	13.34	13.38	0.04		840.77	840.80	7/6/2017	10:53	10:56	
7/3/2017	13.29	13.33	0.04		840.82	840.85	7/3/2017	13:37	13:41	
6/29/2017	13.65	13.70	0.05		840.45	840.49	6/29/2017	13:24	13:32	
6/22/2017	13.46	13.48	0.02		840.67	840.68	6/24/2017	13:16	13:23	
6/19/2017	13.71	13.83	0.12		840.32	840.41	6/21/2017	12:26	12:31	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-1B (cont'd)	6/15/2017	13.61	13.65	0.04		840.50	840.53	6/16/2017	13:49	13:54
	6/12/2017	13.82	13.92	0.10		840.23	840.30	6/13/2017	15:17	15:23
	6/9/2017	13.69	13.81	0.12		840.34	840.43	6/11/2017	12:18	12:22
	6/5/2017	13.76	13.79	0.03		840.36	840.38	6/5/2017	14:24	14:28
	6/2/2017	13.83	13.88	0.05		840.27	840.31	6/2/2017	14:55	14:58
	5/31/2017	13.98	14.12	0.14		840.03	840.13	5/31/2017	13:37	13:43
	5/24/2017	14.12	14.22	0.10		839.93	840.00	5/26/2017	15:24	15:31
	5/22/2017	14.35	14.40	0.05		839.75	839.79	-	-	-
	5/18/2017	14.51	14.56	0.05		839.59	839.63	5/19/2017	13:27	13:32
	5/15/2017	14.49	14.65	0.16		839.50	839.62	5/16/2017	12:24	12:31
	5/11/2017	14.46	14.49	0.03		839.66	839.68	5/14/2017	12:25	12:35
	5/7/2017	14.56	14.62	0.06		839.53	839.57	5/9/2017	10:49	10:55
	5/4/2017	14.65	14.76	0.11		839.39	839.47	5/5/2017	9:50	9:56
	4/27/2017	14.85	14.89	0.04		839.26	839.29	-	-	-
	4/25/2017	15.03	15.09	0.06		839.06	839.10	4/25/2017	11:02	11:06
	4/20/2017	-	NM	-		-	-	4/21/2017	13:13	13:26
	4/16/2017	-	NM	-		-	-	4/17/2017	9:39	9:44
	4/13/2017	-	NM	-		-	-	-	-	-
	4/10/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	4/7/2017	10:07	10:12
4/3/2017	-	NM	-		-	-	-	-	-	
RT-1C					854.55					
	3/5/2018	-	12.70	-		841.85	-	-	-	-
	2/21/2018	-	13.82	-		840.73	-	-	-	-
	2/13/2018	-	13.88	-		840.67	-	-	-	-
	2/9/2018	-	14.29	-		840.26	-	-	-	-
	2/2/2018	15.81	15.83	0.02		838.72	838.73	2/2/2018	13:00	13:05
	1/26/2018	15.19	15.23	0.04		839.32	839.35	1/26/2018	9:25	9:30
	1/20/2018	15.06	15.11	0.05		839.44	839.48	-	-	-
	1/10/2018	15.24	15.29	0.05		839.26	839.30	1/15/2018	9:40	9:45
	1/5/2018	15.23	15.29	0.06		839.26	839.30	1/8/2018	12:08	12:13
	12/27/2017	15.17	15.20	0.03		839.35	839.37	1/2/2018	13:30	13:35
	12/21/2017	15.36	15.41	0.05		839.14	839.18	12/22/2017	10:00	10:05
	12/13/2017	15.31	15.36	0.05		839.19	839.23	12/14/2017	9:55	10:00
	12/7/2017	15.57	15.66	0.09		838.89	838.96	12/7/2017	9:20	9:25
	12/1/2017	15.30	15.37	0.07		839.18	839.23	-	-	-
	11/22/2017	15.20	15.26	0.06		839.29	839.33	11/22/2017	12:17	12:22
	11/17/2017	15.19	15.24	0.05		839.31	839.35	-	-	-
	11/10/2017	15.29	15.38	0.09		839.17	839.24	11/9/2017	11:05	11:10
	11/3/2017	15.22	15.31	0.09		839.24	839.31	11/3/2017	9:35	9:40
	10/26/2017	15.58	15.65	0.07		838.90	838.95	10/25/2017	10:50	10:55
	10/20/2017	15.47	15.58	0.11		838.97	839.05	10/21/2017	9:10	9:15
	10/12/2017	15.34	15.43	0.09		839.12	839.19	10/10/2017	9:10	9:15
	10/6/2017	15.26	15.39	0.13		839.16	839.25	10/7/2017	11:35	11:40
	9/28/2017	15.02	15.11	0.09		839.44	839.51	9/28/2017	13:25	13:30
	9/21/2017	14.82	14.90	0.08		839.65	839.71	-	-	-
	9/15/2017	14.78	14.82	0.04		839.73	839.76	-	-	-
	9/5/2017	14.94	15.05	0.11		839.50	839.58	9/5/2017	8:50	8:55
	8/31/2017	14.91	15.01	0.10		839.54	839.61	-	-	-
	8/24/2017	14.72	14.81	0.09		839.74	839.81	8/24/2017	9:05	9:10
	8/21/2017	14.62	14.73	0.11		839.82	839.90	-	-	-
	8/17/2017	14.62	14.71	0.09		839.84	839.91	8/17/2017	9:10	9:15
	8/14/2017	14.43	14.53	0.10		840.02	840.09	-	-	-
	8/9/2017	14.44	14.51	0.07		840.04	840.09	-	-	-
	8/2/2017	14.19	14.24	0.05		840.31	840.35	8/7/2017	11:40	11:45

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-1C (cont'd)	7/31/2017	14.01	14.07	0.06		840.48	840.52	-	-	-
	7/27/2017	14.00	14.07	0.07		840.48	840.53	-	-	-
	7/24/2017	13.91	13.98	0.07		840.57	840.62	-	-	-
	7/20/2017	13.87	13.94	0.07		840.61	840.66	-	-	-
	7/17/2017	13.83	13.88	0.05		840.67	840.71	7/17/2017	9:56	10:00
	7/13/2017	13.82	13.87	0.05		840.68	840.72	-	-	-
	7/10/2017	13.75	13.80	0.05		840.75	840.79	7/11/2017	16:38	16:41
	7/6/2017	13.76	13.79	0.03		840.76	840.78	7/6/2017	10:56	10:59
	7/3/2017	13.73	13.77	0.04		840.78	840.81	7/3/2017	13:41	13:45
	6/29/2017	14.08	14.14	0.06		840.41	840.45	6/29/2017	13:33	13:41
	6/22/2017	13.88	13.91	0.03		840.64	840.66	6/24/2017	13:24	13:31
	6/19/2017	14.18	14.28	0.10		840.27	840.34	6/21/2017	12:31	12:36
	6/15/2017	14.03	14.08	0.05		840.47	840.51	6/16/2017	13:54	13:59
	6/12/2017	14.27	14.36	0.09		840.19	840.26	6/13/2017	15:24	15:30
	6/9/2017	14.14	14.25	0.11		840.30	840.38	6/11/2017	12:23	12:27
	6/5/2017	14.19	14.21	0.02		840.34	840.35	6/5/2017	14:29	14:32
	6/2/2017	14.27	14.32	0.05		840.23	840.27	6/2/2017	14:59	15:02
	5/31/2017	14.42	14.55	0.13		840.00	840.09	5/31/2017	13:43	13:50
	5/24/2017	14.57	14.65	0.08		839.90	839.96	5/26/2017	15:31	15:39
	5/22/2017	14.80	14.85	0.05		839.70	839.74	-	-	-
	5/18/2017	14.95	14.99	0.04		839.56	839.59	5/19/2017	13:32	13:37
	5/15/2017	14.95	15.01	0.06		839.54	839.58	5/16/2017	12:31	12:38
	5/11/2017	14.89	14.94	0.05		839.61	839.65	5/14/2017	12:35	12:45
	5/7/2017	14.99	15.05	0.06		839.50	839.54	5/9/2017	10:55	11:01
	5/4/2017	15.10	15.16	0.06		839.39	839.43	5/5/2017	9:57	10:02
	4/27/2017	15.29	15.33	0.04		839.22	839.25	-	-	-
4/25/2017	15.48	15.52	0.04		839.03	839.06	4/25/2017	11:07	11:11	
4/20/2017	15.80	15.90	0.10		838.65	838.72	4/21/2017	13:27	13:39	
4/16/2017	15.80	15.90	0.10		838.65	838.72	4/17/2017	9:45	9:49	
4/13/2017	15.92	16.02	0.10		838.53	838.60	-	-	-	
4/10/2017	15.97	16.17	0.20		838.38	838.53	-	-	-	
4/6/2017	16.25	16.48	0.23		838.07	838.24	4/7/2017	10:13	10:18	
4/3/2017	16.37	16.50	0.13		838.05	838.14	-	-	-	
RT-2A					817.48					
	3/5/2018	-	0.61	-		816.87	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/9/2018	-	0.54	-		816.94	-	-	-	-
	2/2/2018	-	0.85	-		816.63	-	-	-	-
	1/26/2018	-	0.96	-		816.52	-	-	-	-
	1/20/2018	-	0.95	-		816.53	-	-	-	-
	1/10/2018	-	1.07	-		816.41	-	1/15/2018	11:00	11:05
	1/5/2018	-	1.25	-		816.23	-	1/8/2018	10:38	10:43
	12/27/2017	-	1.05	-		816.43	-	1/2/2018	12:05	12:10
	12/21/2017	-	0.84	-		816.64	-	-	-	-
	12/13/2017	-	1.00	-		816.48	-	-	-	-
	12/7/2017	-	1.23	-		816.25	-	12/7/2017	11:00	11:05
	12/1/2017	-	1.18	-		816.30	-	-	-	-
	11/22/2017	-	1.12	-		816.36	-	11/22/2017	10:10	10:15
	11/17/2017	-	1.04	-		816.44	-	-	-	-
	11/10/2017	-	0.75	-		816.73	-	-	-	-
	11/3/2017	-	0.97	-		816.51	-	-	-	-
	10/26/2017	-	1.01	-		816.47	-	10/25/2017	8:50	8:55
	10/20/2017	-	1.43	-		816.05	-	10/21/2017	10:20	10:25
	10/12/2017	-	1.25	-		816.23	-	10/10/2017	10:20	10:25
	10/6/2017	-	1.34	-		816.14	-	10/7/2017	10:00	10:05

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2A (cont'd)	9/28/2017	-	1.39	-		816.09	-	9/28/2017	11:20	11:25
	9/21/2017	-	1.28	-		816.20	-	-	-	-
	9/15/2017	-	0.95	-		816.53	-	-	-	-
	9/5/2017	-	1.21	-		816.27	-	9/5/2017	9:40	9:45
	8/31/2017	-	1.37	-		816.11	-	-	-	-
	8/24/2017	-	1.38	-		816.10	-	8/24/2017	9:40	9:45
	8/21/2017	-	1.07	-		816.41	-	-	-	-
	8/17/2017	-	1.31	-		816.17	-	8/17/2017	10:20	10:25
	8/14/2017	-	1.02	-		816.46	-	-	-	-
	8/9/2017	-	1.26	-		816.22	-	-	-	-
	8/2/2017	-	1.30	-		816.18	-	8/7/2017	9:55	10:00
	7/31/2017	-	1.25	-		816.23	-	8/1/2017	13:30	13:35
	7/27/2017	-	1.16	-		816.32	-	-	-	-
	7/24/2017	-	1.12	-		816.36	-	-	-	-
	7/20/2017	-	1.07	-		816.41	-	7/20/2017	11:00	11:05
	7/17/2017	-	1.33	-		816.15	-	7/17/2017	11:05	11:10
	7/13/2017	-	1.06	-		816.42	-	7/14/2017	9:21	9:32
	7/10/2017	-	0.98	-		816.50	-	7/11/2017	16:21	16:25
	7/6/2017	-	0.75	-		816.73	-	7/6/2017	12:15	12:18
	7/3/2017	-	0.80	-		816.68	-	7/3/2017	13:18	13:21
	6/29/2017	-	0.95	-		816.53	-	-	-	-
	6/22/2017	-	0.80	-		816.68	-	6/24/2017	10:46	10:51
	6/19/2017	-	1.04	-		816.44	-	6/21/2017	10:51	10:54
	6/15/2017	-	1.09	-		816.39	-	6/16/2017	11:59	12:03
	6/12/2017	-	0.70	-		816.78	-	-	-	-
	6/9/2017	-	0.48	-		817.00	-	-	-	-
	6/5/2017	-	1.00	-		816.48	-	6/5/2017	11:30	11:36
	6/2/2017	-	0.88	-		816.60	-	-	-	-
	5/31/2017	-	0.70	-		816.78	-	-	-	-
	5/24/2017	-	0.70	-		816.78	-	5/26/2017	14:44	14:51
	5/22/2017	-	0.68	-		816.80	-	5/22/2017	11:01	11:06
	5/18/2017	-	1.12	-		816.36	-	5/19/2017	11:17	11:21
5/15/2017	-	1.20	-		816.28	-	5/16/2017	10:40	10:44	
5/11/2017	-	1.13	-		816.35	-	-	-	-	
5/7/2017	-	0.73	-		816.75	-	5/9/2017	11:40	11:45	
5/4/2017	1.02	1.03	0.01		816.45	816.46	5/5/2017	12:42	12:47	
4/27/2017	-	0.84	-		816.64	-	4/28/2017	10:13	10:17	
4/25/2017	-	0.63	-		816.85	-	4/25/2017	9:59	10:04	
4/20/2017	1.07	1.08	0.01		816.40	816.41	-	-	-	
4/16/2017	-	1.16	-		816.32	-	-	-	-	
4/13/2017	-	1.18	-		816.30	-	4/13/2017	11:20	11:23	
4/10/2017	-	1.08	-		816.40	-	4/11/2017	9:50	9:53	
4/6/2017	-	0.70	-		816.78	-	4/7/2017	14:31	14:34	
4/3/2017	-	1.25	-		816.23	-	-	-	-	
RT-2B					817.61		-	-	-	
	3/5/2018	-	0.81	-		816.80	-	-	-	-
	2/21/2018	-	0.75	-		816.86	-	-	-	-
	2/9/2018	-	0.68	-		816.93	-	-	-	-
	2/2/2018	-	0.95	-		816.66	-	-	-	-
	1/26/2018	-	1.12	-		816.49	-	-	-	-
	1/20/2018	-	1.07	-		816.54	-	-	-	-
	1/10/2018	-	1.27	-		816.34	-	1/15/2018	11:05	11:10
	1/5/2018	-	1.42	-		816.19	-	1/8/2018	10:43	10:48
	12/27/2017	-	1.20	-		816.41	-	1/2/2018	12:10	12:15
	12/21/2017	-	1.00	-		816.61	-	12/22/2017	11:30	11:35

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2B (cont'd)	12/13/2017	1.15	1.16	0.01		816.45	816.46	12/14/2017	11:15	11:20
	12/7/2017	1.35	1.36	0.01		816.25	816.26	12/7/2017	11:10	11:15
	12/1/2017	-	1.77	-		815.84	-	-	-	-
	11/22/2017	-	1.22	-		816.39	-	11/22/2017	10:15	10:20
	11/17/2017	-	1.21	-		816.40	-	-	-	-
	11/10/2017	-	0.95	-		816.66	-	-	-	-
	11/3/2017	-	1.11	-		816.50	-	-	-	-
	10/26/2017	-	1.14	-		816.47	-	10/25/2017	8:55	9:10
	10/20/2017	-	1.55	-		816.06	-	10/21/2017	10:25	10:30
	10/12/2017	1.36	1.37	0.01		816.24	816.25	10/10/2017	10:30	10:35
	10/6/2017	-	1.45	-		816.16	-	10/7/2017	10:05	10:10
	9/28/2017	-	1.51	-		816.10	-	9/28/2017	11:25	11:30
	9/21/2017	-	1.46	-		816.15	-	-	-	-
	9/15/2017	-	1.07	-		816.54	-	-	-	-
	9/5/2017	-	1.29	-		816.32	-	9/5/2017	9:45	9:50
	8/31/2017	-	1.50	-		816.11	-	-	-	-
	8/24/2017	-	1.48	-		816.13	-	8/24/2017	9:50	9:55
	8/21/2017	-	1.15	-		816.46	-	-	-	-
	8/17/2017	-	1.42	-		816.19	-	8/17/2017	10:25	10:30
	8/14/2017	-	1.12	-		816.49	-	-	-	-
	8/9/2017	-	1.37	-		816.24	-	-	-	-
	8/2/2017	-	1.37	-		816.24	-	8/7/2017	10:05	10:10
	7/31/2017	-	1.36	-		816.25	-	8/1/2017	13:38	13:42
	7/27/2017	-	1.28	-		816.33	-	-	-	-
	7/24/2017	-	1.23	-		816.38	-	-	-	-
	7/20/2017	-	1.18	-		816.43	-	7/20/2017	11:05	11:10
	7/17/2017	-	1.39	-		816.22	-	7/17/2017	11:10	11:15
	7/13/2017	-	1.18	-		816.43	-	7/14/2017	9:35	9:40
	7/10/2017	-	1.08	-		816.53	-	7/11/2017	16:13	16:16
	7/6/2017	-	0.95	-		816.66	-	7/6/2017	12:08	12:13
	7/3/2017	-	0.96	-		816.65	-	7/3/2017	13:10	13:14
	6/29/2017	-	1.02	-		816.59	-	-	-	-
	6/22/2017	-	0.88	-		816.73	-	6/24/2017	10:36	10:40
	6/19/2017	-	1.12	-		816.49	-	6/21/2017	10:44	10:47
	6/15/2017	-	1.17	-		816.44	-	6/16/2017	11:54	11:58
	6/12/2017	-	1.11	-		816.50	-	6/13/2017	11:40	11:45
	6/9/2017	-	0.50	-		817.11	-	6/11/2017	10:28	10:33
	6/5/2017	-	1.11	-		816.50	-	6/5/2017	11:17	11:22
	6/2/2017	-	0.98	-		816.63	-	6/2/2017	13:59	14:08
	5/31/2017	-	0.90	-		816.71	-	5/31/2017	11:22	11:26
	5/24/2017	-	0.78	-		816.83	-	5/26/2017	14:32	14:40
	5/22/2017	-	0.85	-		816.76	-	5/22/2017	10:51	10:55
	5/18/2017	-	1.22	-		816.39	-	5/19/2017	11:10	11:15
	5/15/2017	-	1.31	-		816.30	-	5/16/2017	10:32	10:36
	5/11/2017	-	1.23	-		816.38	-	5/14/2017	9:37	9:42
	5/7/2017	-	0.92	-		816.69	-	5/9/2017	11:50	11:54
	5/4/2017	1.15	1.16	0.01		816.45	816.46	5/5/2017	12:36	12:41
	4/27/2017	0.96	0.97	0.01		816.64	816.65	4/28/2017	10:02	10:10
	4/25/2017	-	0.79	-		816.82	-	4/25/2017	9:49	9:54
	4/20/2017	1.14	1.15	0.01		816.46	816.47	4/21/2017	11:12	11:16
	4/16/2017	1.18	1.19	0.01		816.42	816.43	-	-	-
	4/13/2017	1.28	1.30	0.02		816.31	816.32	4/13/2017	11:25	11:29
	4/10/2017	1.14	1.15	0.01		816.46	816.47	4/11/2017	9:55	10:00
	4/6/2017	0.82	0.84	0.02		816.77	816.78	4/7/2017	14:38	14:51
	4/3/2017	1.37	1.38	0.01		816.23	816.24	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2C					818.06					
	3/5/2018	-	1.21	-		816.85	-	-	-	-
	2/21/2018	-	1.21	-		816.85	-	-	-	-
	2/9/2018	-	1.14	-		816.92	-	-	-	-
	2/2/2018	-	1.38	-		816.68	-	-	-	-
	1/26/2018	-	1.58	-		816.48	-	-	-	-
	1/20/2018	-	NM	-		-	-	-	-	-
	1/10/2018	-	1.72	-		816.34	-	1/15/2018	11:10	11:15
	1/5/2018	-	1.87	-		816.19	-	1/8/2018	10:48	10:53
	12/27/2017	-	1.63	-		816.43	-	1/2/2018	12:15	12:20
	12/21/2017	-	1.46	-		816.60	-	-	-	-
	12/13/2017	-	1.60	-		816.46	-	-	-	-
	12/7/2017	-	1.81	-		816.25	-	12/7/2017	11:20	11:25
	12/1/2017	-	1.83	-		816.23	-	-	-	-
	11/22/2017	-	1.71	-		816.35	-	11/22/2017	10:20	10:25
	11/17/2017	-	1.65	-		816.41	-	-	-	-
	11/10/2017	-	1.46	-		816.60	-	-	-	-
	11/3/2017	-	1.59	-		816.47	-	-	-	-
	10/26/2017	-	1.62	-		816.44	-	10/25/2017	9:00	9:05
	10/20/2017	-	2.00	-		816.06	-	10/21/2017	10:30	10:35
	10/12/2017	1.81	1.83	0.02		816.23	816.24	10/10/2017	10:35	10:35
	10/6/2017	-	1.92	-		816.14	-	10/7/2017	10:10	10:15
	9/28/2017	-	1.95	-		816.11	-	9/28/2017	11:30	11:35
	9/21/2017	-	1.84	-		816.22	-	-	-	-
	9/15/2017	-	1.51	-		816.55	-	-	-	-
	9/5/2017	-	1.75	-		816.31	-	9/5/2017	9:50	9:55
	8/31/2017	-	1.92	-		816.14	-	-	-	-
	8/24/2017	-	1.92	-		816.14	-	8/24/2017	9:55	10:00
	8/21/2017	1.89	1.91	0.02		816.15	816.16	-	-	-
	8/17/2017	-	1.86	-		816.20	-	8/17/2017	10:30	10:35
	8/14/2017	-	1.37	-		816.69	-	-	-	-
	8/9/2017	-	1.81	-		816.25	-	-	-	-
	8/2/2017	-	1.85	-		816.21	-	8/7/2017	10:06	10:11
	7/31/2017	-	1.78	-		816.28	-	8/1/2017	13:43	13:46
	7/27/2017	-	1.72	-		816.34	-	-	-	-
	7/24/2017	-	1.67	-		816.39	-	-	-	-
	7/20/2017	-	1.61	-		816.45	-	7/20/2017	11:10	11:15
	7/17/2017	-	1.83	-		816.23	-	7/17/2017	11:15	11:20
	7/13/2017	-	1.61	-		816.45	-	7/14/2017	9:45	9:47
	7/10/2017	-	1.56	-		816.50	-	7/11/2017	16:09	16:11
	7/6/2017	-	1.40	-		816.66	-	7/6/2017	12:01	12:05
	7/3/2017	-	1.41	-		816.65	-	7/3/2017	13:01	13:08
	6/29/2017	-	1.48	-		816.58	-	-	-	-
	6/22/2017	1.39	1.40	0.01		816.66	816.67	6/24/2017	10:29	10:31
	6/19/2017	-	1.59	-		816.47	-	6/21/2017	10:39	10:41
	6/15/2017	-	1.66	-		816.40	-	6/16/2017	11:48	11:51
	6/12/2017	-	1.57	-		816.49	-	6/13/2017	11:30	11:35
	6/9/2017	-	1.40	-		816.66	-	6/11/2017	10:18	10:24
	6/5/2017	-	1.56	-		816.50	-	6/5/2017	10:59	11:06
	6/2/2017	-	1.43	-		816.63	-	6/2/2017	13:52	13:57
	5/31/2017	-	1.49	-		816.57	-	5/31/2017	11:15	11:20
	5/24/2017	-	1.30	-		816.76	-	5/26/2017	14:15	14:21
	5/22/2017	-	1.30	-		816.76	-	5/22/2017	10:43	10:47
	5/18/2017	-	1.66	-		816.40	-	5/19/2017	11:03	11:07
	5/15/2017	-	1.78	-		816.28	-	5/16/2017	10:26	10:30

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2C (cont'd)	5/11/2017	-	1.66	-		816.40	-	5/14/2017	9:23	9:31
	5/7/2017	-	1.38	-		816.68	-	5/9/2017	11:59	12:04
	5/4/2017	1.59	1.60	0.01		816.46	816.47	5/5/2017	12:30	12:34
	4/27/2017	-	1.41	-		816.65	-	4/28/2017	9:41	9:46
	4/25/2017	-	1.21	-		816.85	-	4/25/2017	9:40	9:44
	4/20/2017	-	1.59	-		816.47	-	4/21/2017	11:04	11:09
	4/16/2017	-	1.61	-		816.45	-	-	-	-
	4/13/2017	-	1.73	-		816.33	-	4/13/2017	11:32	11:35
	4/10/2017	1.61	1.62	0.01		816.44	816.45	4/11/2017	10:02	10:07
	4/6/2017	-	1.30	-		816.76	-	4/7/2017	14:53	14:56
4/3/2017	-	1.80	-		816.26	-	-	-	-	
RT-2D					818.12			-	-	-
	3/5/2018	-	1.34	-		816.78	-	-	-	-
	2/21/2018	-	1.32	-		816.80	-	-	-	-
	2/9/2018	-	1.25	-		816.87	-	-	-	-
	2/2/2018	-	1.46	-		816.66	-	-	-	-
	1/26/2018	-	1.67	-		816.45	-	-	-	-
	1/20/2018	-	1.62	-		816.50	-	-	-	-
	1/10/2018	-	1.80	-		816.32	-	1/15/2018	11:15	11:20
	1/5/2018	-	1.92	-		816.20	-	1/8/2018	10:53	10:58
	12/27/2017	-	1.71	-		816.41	-	1/2/2018	12:20	12:25
	12/21/2017	-	1.53	-		816.59	-	12/22/2017	11:40	11:45
	12/13/2017	1.67	1.68	0.01		816.44	816.45	12/14/2017	11:25	11:30
	12/7/2017	-	1.88	-		816.24	-	-	-	-
	12/1/2017	-	1.93	-		816.19	-	-	-	-
	11/22/2017	-	1.78	-		816.34	-	11/22/2017	10:25	10:30
	11/17/2017	-	1.72	-		816.40	-	-	-	-
	11/10/2017	-	1.52	-		816.60	-	-	-	-
	11/3/2017	-	1.66	-		816.46	-	-	-	-
	10/26/2017	-	1.68	-		816.44	-	10/25/2017	9:05	9:10
	10/20/2017	-	2.06	-		816.06	-	10/21/2017	10:35	10:40
	10/12/2017	1.98	1.99	0.01		816.13	816.14	10/10/2017	10:35	10:40
	10/6/2017	-	1.98	-		816.14	-	10/7/2017	10:15	10:20
	9/28/2017	-	2.03	-		816.09	-	9/28/2017	11:35	11:40
	9/21/2017	-	1.91	-		816.21	-	-	-	-
	9/15/2017	-	1.59	-		816.53	-	-	-	-
	9/5/2017	-	1.83	-		816.29	-	-	-	-
	8/31/2017	-	2.01	-		816.11	-	-	-	-
	8/24/2017	-	1.99	-		816.13	-	-	-	-
	8/21/2017	-	1.94	-		816.18	-	-	-	-
	8/17/2017	-	1.93	-		816.19	-	-	-	-
	8/14/2017	1.81	1.82	0.01		816.30	816.31	-	-	-
	8/9/2017	-	1.90	-		816.22	-	-	-	-
8/2/2017	-	1.91	-		816.21	-	8/7/2017	10:15	10:20	
7/31/2017	-	1.87	-		816.25	-	8/1/2017	13:48	13:51	
7/27/2017	-	1.80	-		816.32	-	-	-	-	
7/24/2017	-	1.75	-		816.37	-	-	-	-	
7/20/2017	-	1.69	-		816.43	-	7/20/2017	11:15	11:20	
7/17/2017	-	1.92	-		816.20	-	7/17/2017	11:20	11:25	
7/13/2017	-	1.69	-		816.43	-	7/14/2017	9:50	10:00	
7/10/2017	-	1.64	-		816.48	-	7/11/2017	16:02	16:07	
7/6/2017	-	1.47	-		816.65	-	7/6/2017	11:47	11:52	
7/3/2017	-	1.50	-		816.62	-	7/3/2017	12:49	12:55	
6/29/2017	-	1.57	-		816.55	-	6/29/2017	11:10	11:15	
6/22/2017	-	1.46	-		816.66	-	6/24/2017	10:22	10:26	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2D (cont'd)	6/19/2017	-	1.70	-		816.42	-	6/21/2017	10:30	10:34
	6/15/2017	-	1.71	-		816.41	-	6/16/2017	11:40	11:43
	6/12/2017	-	1.56	-		816.56	-	6/13/2017	11:17	11:22
	6/9/2017	-	1.57	-		816.55	-	6/11/2017	10:09	10:13
	6/5/2017	-	1.65	-		816.47	-	6/5/2017	10:50	10:56
	6/2/2017	-	1.52	-		816.60	-	6/2/2017	13:44	13:49
	5/31/2017	-	1.60	-		816.52	-	5/31/2017	11:05	11:10
	5/24/2017	-	1.38	-		816.74	-	5/26/2017	14:01	14:10
	5/22/2017	-	1.38	-		816.74	-	5/22/2017	10:37	10:41
	5/18/2017	-	1.75	-		816.37	-	5/19/2017	10:57	10:59
	5/15/2017	-	1.89	-		816.23	-	5/16/2017	10:21	10:24
	5/11/2017	-	1.76	-		816.36	-	5/14/2017	9:11	9:17
	5/7/2017	-	1.44	-		816.68	-	5/9/2017	12:16	12:20
	5/4/2017	-	1.69	-		816.43	-	5/5/2017	12:23	12:27
	4/27/2017	-	1.52	-		816.60	-	4/28/2017	9:30	9:35
	4/25/2017	-	1.31	-		816.81	-	4/25/2017	9:30	9:35
	4/20/2017	-	1.71	-		816.41	-	4/21/2017	10:52	11:00
	4/16/2017	-	1.77	-		816.35	-	-	-	-
	4/13/2017	-	1.82	-		816.30	-	4/13/2017	11:38	11:41
	4/10/2017	-	1.72	-		816.40	-	4/11/2017	10:10	10:14
4/6/2017	-	1.35	-		816.77	-	4/7/2017	15:01	15:05	
4/3/2017	-	1.86	-		816.26	-	-	-	-	
RT-2E					818.25					
	3/5/2018	-	1.44	-		816.81	-	-	-	-
	2/21/2018	-	1.41	-		816.84	-	-	-	-
	2/9/2018	-	1.33	-		816.92	-	-	-	-
	2/2/2018	1.57	1.58	0.01		816.67	816.68	-	-	-
	1/26/2018	-	1.78	-		816.47	-	-	-	-
	1/20/2018	-	NM	-		-	-	-	-	-
	1/10/2018	-	1.89	-		816.36	-	1/15/2018	11:20	11:25
	1/5/2018	-	NM	-		-	-	1/8/2018	10:58	11:03
	12/27/2017	-	1.82	-		816.43	-	1/2/2018	12:25	12:30
	12/21/2017	-	1.63	-		816.62	-	-	-	-
	12/13/2017	-	NM	-		-	-	-	-	-
	12/7/2017	-	1.99	-		816.26	-	12/7/2017	11:30	11:35
	12/1/2017	-	2.28	-		815.97	-	-	-	-
	11/22/2017	-	1.89	-		816.36	-	11/22/2017	10:30	10:35
	11/17/2017	-	1.83	-		816.42	-	-	-	-
	11/10/2017	-	1.63	-		816.62	-	-	-	-
	11/3/2017	-	1.76	-		816.49	-	-	-	-
	10/26/2017	-	1.80	-		816.45	-	10/25/2017	9:10	9:15
	10/20/2017	-	2.16	-		816.09	-	10/21/2017	10:40	10:45
	10/12/2017	-	2.00	-		816.25	-	10/10/2017	10:40	10:45
	10/6/2017	-	2.08	-		816.17	-	10/7/2017	10:20	10:25
	9/28/2017	-	2.14	-		816.11	-	9/28/2017	11:40	11:45
	9/21/2017	-	2.03	-		816.22	-	-	-	-
	9/15/2017	-	1.70	-		816.55	-	-	-	-
	9/5/2017	-	1.93	-		816.32	-	9/5/2017	9:55	10:00
	8/31/2017	-	2.11	-		816.14	-	-	-	-
	8/24/2017	-	2.10	-		816.15	-	8/24/2017	10:05	10:10
	8/21/2017	-	2.06	-		816.19	-	-	-	-
	8/17/2017	-	2.04	-		816.21	-	-	-	-
	8/14/2017	-	1.88	-		816.37	-	-	-	-
	8/9/2017	-	3.01	-		815.24	-	-	-	-
	8/2/2017	-	2.04	-		816.21	-	8/7/2017	10:25	10:30

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2E (cont'd)	7/31/2017	-	1.98	-		816.27	-	8/1/2017	13:52	13:58
	7/27/2017	-	1.91	-		816.34	-	-	-	-
	7/24/2017	-	1.85	-		816.40	-	-	-	-
	7/20/2017	-	1.80	-		816.45	-	7/20/2017	11:20	11:25
	7/17/2017	-	2.04	-		816.21	-	7/17/2017	11:25	11:30
	7/13/2017	-	1.80	-		816.45	-	7/14/2017	10:15	10:19
	7/10/2017	-	1.75	-		816.50	-	7/11/2017	15:49	15:52
	7/6/2017	-	1.59	-		816.66	-	7/6/2017	11:41	11:45
	7/3/2017	-	1.61	-		816.64	-	7/3/2017	12:40	12:46
	6/29/2017	-	1.68	-		816.57	-	6/29/2017	11:01	11:06
	6/22/2017	-	1.58	-		816.67	-	6/24/2017	10:15	10:19
	6/19/2017	-	1.79	-		816.46	-	6/21/2017	10:23	10:27
	6/15/2017	-	1.81	-		816.44	-	6/16/2017	11:33	11:37
	6/12/2017	-	1.72	-		816.53	-	6/13/2017	10:52	11:00
	6/9/2017	-	1.48	-		816.77	-	6/11/2017	10:01	10:06
	6/5/2017	-	1.76	-		816.49	-	6/5/2017	10:40	10:46
	6/2/2017	-	1.63	-		816.62	-	6/2/2017	13:37	13:41
	5/31/2017	-	1.96	-		816.29	-	-	-	-
	5/24/2017	-	1.48	-		816.77	-	5/26/2017	13:43	13:50
	5/22/2017	-	1.53	-		816.72	-	5/22/2017	10:32	10:35
	5/18/2017	-	1.85	-		816.40	-	5/19/2017	10:51	10:54
	5/15/2017	-	1.96	-		816.29	-	5/16/2017	10:14	10:18
	5/11/2017	-	1.87	-		816.38	-	5/14/2017	9:01	9:07
	5/7/2017	-	1.56	-		816.69	-	5/9/2017	12:23	12:27
	5/4/2017	-	1.80	-		816.45	-	5/5/2017	12:16	12:21
	4/27/2017	-	1.60	-		816.65	-	4/28/2017	9:23	9:27
	4/25/2017	-	1.44	-		816.81	-	4/25/2017	9:20	9:26
	4/20/2017	-	1.80	-		816.45	-	4/21/2017	10:26	10:32
	4/16/2017	-	1.82	-		816.43	-	-	-	-
	4/13/2017	-	1.95	-		816.30	-	4/13/2017	11:53	11:56
4/10/2017	1.82	1.83	0.01		816.42	816.43	4/11/2017	10:16	10:20	
4/6/2017	-	1.48	-		816.77	-	4/7/2017	15:07	15:10	
4/3/2017	-	2.00	-		816.25	-	-	-	-	
RT-2F					818.57		-	-	-	
	3/5/2018	-	1.77	-		816.80	-	-	-	-
	2/21/2018	-	1.75	-		816.82	-	-	-	-
	2/9/2018	-	1.67	-		816.90	-	-	-	-
	2/2/2018	1.87	1.88	0.01		816.69	816.70	-	-	-
	1/26/2018	-	2.11	-		816.46	-	-	-	-
	1/20/2018	-	NM	-		-	-	-	-	-
	1/10/2018	-	2.22	-		816.35	-	1/15/2018	11:25	11:30
	1/5/2018	-	NM	-		-	-	1/8/2018	11:03	11:08
	12/27/2017	-	2.15	-		816.42	-	1/2/2018	12:30	12:35
	12/21/2017	-	1.97	-		816.60	-	12/22/2017	11:50	11:55
	12/13/2017	2.12	2.13	0.01		816.44	816.45	12/14/2017	11:35	11:40
	12/7/2017	-	2.33	-		816.24	-	12/7/2017	11:35	11:40
	12/1/2017	-	2.43	-		816.14	-	-	-	-
	11/22/2017	-	2.25	-		816.32	-	11/22/2017	10:35	10:40
	11/17/2017	-	2.18	-		816.39	-	-	-	-
	11/10/2017	-	1.97	-		816.60	-	-	-	-
	11/3/2017	-	2.10	-		816.47	-	-	-	-
	10/26/2017	-	2.15	-		816.42	-	10/25/2017	9:15	9:20
	10/20/2017	-	2.51	-		816.06	-	10/21/2017	10:45	10:50
	10/12/2017	2.34	2.35	0.01		816.22	816.23	10/10/2017	10:45	10:50
	10/6/2017	-	2.43	-		816.14	-	10/7/2017	10:25	10:30

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2F (cont'd)	9/28/2017	-	2.49	-		816.08	-	9/28/2017	11:45	11:50
	9/21/2017	-	2.37	-		816.20	-	-	-	-
	9/15/2017	-	2.03	-		816.54	-	-	-	-
	9/5/2017	-	2.27	-		816.30	-	9/5/2017	10:00	10:05
	8/31/2017	-	2.47	-		816.10	-	-	-	-
	8/24/2017	-	2.44	-		816.13	-	8/24/2017	10:10	10:15
	8/21/2017	-	2.35	-		816.22	-	-	-	-
	8/17/2017	-	2.38	-		816.19	-	-	-	-
	8/14/2017	2.00	2.01	0.01		816.56	816.57	-	-	-
	8/9/2017	-	2.36	-		816.21	-	-	-	-
	8/2/2017	-	2.40	-		816.17	-	8/7/2017	10:35	10:45
	7/31/2017	-	2.32	-		816.25	-	8/1/2017	14:00	14:02
	7/27/2017	-	2.25	-		816.32	-	-	-	-
	7/24/2017	-	2.20	-		816.37	-	-	-	-
	7/20/2017	-	2.14	-		816.43	-	7/20/2017	11:25	11:30
	7/17/2017	-	2.37	-		816.20	-	7/17/2017	11:30	11:35
	7/13/2017	-	2.15	-		816.42	-	7/14/2017	10:20	10:24
	7/10/2017	-	2.08	-		816.49	-	7/11/2017	15:42	15:47
	7/6/2017	-	1.94	-		816.63	-	7/6/2017	11:35	11:39
	7/3/2017	-	1.94	-		816.63	-	7/3/2017	12:30	12:37
	6/29/2017	-	2.01	-		816.56	-	6/29/2017	10:51	10:55
	6/22/2017	-	1.90	-		816.67	-	6/24/2017	10:07	10:10
	6/19/2017	-	2.11	-		816.46	-	6/21/2017	10:16	10:20
	6/15/2017	-	2.17	-		816.40	-	6/16/2017	11:26	11:30
	6/12/2017	-	2.04	-		816.53	-	6/13/2017	10:41	10:48
	6/9/2017	-	1.92	-		816.65	-	6/11/2017	9:52	9:58
	6/5/2017	-	2.08	-		816.49	-	6/5/2017	10:32	10:37
	6/2/2017	-	1.99	-		816.58	-	-	-	-
	5/31/2017	-	2.06	-		816.51	-	5/31/2017	10:56	11:01
	5/24/2017	-	1.85	-		816.72	-	5/26/2017	13:32	13:38
	5/22/2017	-	1.84	-		816.73	-	5/22/2017	10:26	10:30
	5/18/2017	-	2.19	-		816.38	-	5/19/2017	10:39	10:43
	5/15/2017	-	2.29	-		816.28	-	5/16/2017	10:09	10:13
5/11/2017	-	2.22	-		816.35	-	5/14/2017	8:50	8:56	
5/7/2017	-	1.92	-		816.65	-	5/9/2017	12:31	12:34	
5/4/2017	-	2.18	-		816.39	-	5/5/2017	12:10	12:14	
4/27/2017	-	1.98	-		816.59	-	4/28/2017	9:15	9:21	
4/25/2017	-	1.77	-		816.80	-	4/25/2017	9:13	9:18	
4/20/2017	-	2.27	-		816.30	-	4/21/2017	10:17	10:22	
4/16/2017	2.15	2.16	0.01		816.41	816.42	-	-	-	
4/13/2017	-	2.28	-		816.29	-	4/13/2017	11:59	12:03	
4/10/2017	2.18	2.19	0.01		816.38	816.39	4/11/2017	10:22	10:26	
4/6/2017	-	1.84	-		816.73	-	4/7/2017	15:11	15:14	
4/3/2017	-	2.34	-		816.23	-	-	-	-	
RT-2G					820.07					
	3/5/2018	-	2.99	-		817.08	-	-	-	-
	2/21/2018	-	0.96	-		819.11	-	-	-	-
	2/9/2018	-	0.98	-		819.09	-	-	-	-
	2/2/2018	-	0.95	-		819.12	-	-	-	-
	1/26/2018	-	0.92	-		819.15	-	-	-	-
	1/20/2018	-	NM	-		-	-	-	-	-
	1/10/2018	-	4.44	-		815.63	-	1/15/2018	11:30	11:35
	1/5/2018	-	NM	-		-	-	1/8/2018	11:08	11:13
	12/27/2017	-	4.25	-		815.82	-	1/2/2018	12:35	12:40
	12/21/2017	-	3.62	-		816.45	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2G (cont'd)	12/13/2017	-	4.43	-	-	815.64	-	-	-	-
	12/7/2017	-	3.82	-	-	816.25	-	12/7/2017	11:40	11:45
	12/1/2017	-	0.39	-	-	819.68	-	-	-	-
	11/22/2017	-	4.27	-	-	815.80	-	11/22/2017	10:40	10:45
	11/17/2017	-	4.11	-	-	815.96	-	-	-	-
	11/10/2017	-	0.25	-	-	819.82	-	-	-	-
	11/3/2017	-	0.25	-	-	819.82	-	-	-	-
	10/26/2017	-	3.43	-	-	816.64	-	10/25/2017	9:20	9:25
	10/20/2017	-	1.74	-	-	818.33	-	10/21/2017	10:50	10:55
	10/12/2017	-	3.65	-	-	816.42	-	10/10/2017	10:50	10:55
	10/6/2017	-	1.45	-	-	818.62	-	10/7/2017	10:30	10:35
	9/28/2017	-	3.42	-	-	816.65	-	9/28/2017	12:00	12:05
	9/21/2017	-	3.30	-	-	816.77	-	-	-	-
	9/15/2017	-	1.32	-	-	818.75	-	-	-	-
	9/5/2017	-	1.37	-	-	818.70	-	9/5/2017	10:05	10:10
	8/31/2017	-	3.47	-	-	816.60	-	-	-	-
	8/24/2017	-	2.98	-	-	817.09	-	8/24/2017	10:15	10:20
	8/21/2017	3.40	3.41	0.01	-	816.66	816.67	-	-	-
	8/17/2017	-	4.63	-	-	815.44	-	-	-	-
	8/14/2017	-	2.32	-	-	817.75	-	-	-	-
	8/9/2017	-	3.10	-	-	816.97	-	-	-	-
	8/2/2017	-	3.09	-	-	816.98	-	8/7/2017	10:45	10:50
	7/31/2017	-	3.19	-	-	816.88	-	8/1/2017	14:03	14:06
	7/27/2017	-	3.05	-	-	817.02	-	-	-	-
	7/24/2017	-	2.93	-	-	817.14	-	-	-	-
	7/20/2017	-	2.91	-	-	817.16	-	7/20/2017	11:30	11:35
	7/17/2017	-	3.21	-	-	816.86	-	7/17/2017	11:35	11:40
	7/13/2017	-	2.93	-	-	817.14	-	7/14/2017	10:30	10:38
	7/10/2017	-	2.58	-	-	817.49	-	7/11/2017	15:36	15:39
	7/6/2017	-	1.15	-	-	818.92	-	7/6/2017	11:30	11:33
	7/3/2017	-	2.65	-	-	817.42	-	7/3/2017	12:18	12:26
	6/29/2017	-	1.70	-	-	818.37	-	6/29/2017	10:42	10:48
	6/22/2017	-	2.79	-	-	817.28	-	6/24/2017	9:58	10:02
	6/19/2017	-	2.26	-	-	817.81	-	6/21/2017	10:11	10:14
	6/15/2017	-	2.91	-	-	817.16	-	6/16/2017	11:18	11:21
	6/12/2017	-	2.28	-	-	817.79	-	6/13/2017	10:26	10:32
	6/9/2017	-	0.98	-	-	819.09	-	-	-	-
	6/5/2017	-	2.81	-	-	817.26	-	6/5/2017	10:25	10:30
	6/2/2017	-	0.96	-	-	819.11	-	6/2/2017	12:51	12:56
	5/31/2017	-	2.41	-	-	817.66	-	5/31/2017	10:51	10:54
	5/24/2017	-	2.90	-	-	817.17	-	5/26/2017	11:30	11:37
	5/22/2017	-	2.76	-	-	817.31	-	5/22/2017	10:17	10:21
	5/18/2017	-	3.17	-	-	816.90	-	5/19/2017	10:34	10:38
	5/15/2017	-	2.99	-	-	817.08	-	5/16/2017	10:03	10:07
	5/11/2017	-	3.04	-	-	817.03	-	5/14/2017	8:40	8:47
	5/7/2017	-	4.08	-	-	815.99	-	5/9/2017	12:37	12:41
	5/4/2017	-	3.26	-	-	816.81	-	5/5/2017	12:01	12:06
	4/27/2017	-	3.13	-	-	816.94	-	4/28/2017	9:07	9:11
	4/25/2017	-	1.20	-	-	818.87	-	4/25/2017	9:04	9:10
	4/20/2017	-	3.41	-	-	816.66	-	4/21/2017	10:08	10:16
	4/16/2017	3.20	3.21	0.01	-	816.86	816.87	-	-	-
	4/13/2017	-	3.52	-	-	816.55	-	4/13/2017	12:07	12:11
	4/10/2017	2.06	2.07	0.01	-	818.00	818.01	4/11/2017	10:30	10:34
	4/6/2017	-	3.12	-	-	816.95	-	4/7/2017	15:16	15:18
	4/3/2017	-	3.65	-	-	816.42	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2H					822.17					
	3/5/2018	-	NM	-		-	-	-	-	-
	9/5/2017	-	NM	-		-	-	9/5/2017	10:10	10:15
	8/31/2017	-	NM	-		-	-	-	-	-
	8/24/2017	-	NM	-		-	-	8/24/2017	10:20	10:25
	8/21/2017	-	NM	-		-	-	-	-	-
	8/17/2017	-	NM	-		-	-	-	-	-
	8/14/2017	-	NM	-		-	-	-	-	-
	8/9/2017	-	NM	-		-	-	-	-	-
	8/2/2017	-	NM	-		-	-	-	-	-
	7/31/2017	-	NM	-		-	-	-	-	-
	7/27/2017	-	NM	-		-	-	-	-	-
	7/24/2017	-	NM	-		-	-	-	-	-
	7/20/2017	-	NM	-		-	-	-	-	-
	7/17/2017	-	NM	-		-	-	-	-	-
	7/13/2017	-	NM	-		-	-	-	-	-
	7/10/2017	-	NM	-		-	-	-	-	-
	7/6/2017	-	NM	-		-	-	-	-	-
	7/3/2017	-	NM	-		-	-	-	-	-
	6/29/2017	-	NM	-		-	-	-	-	-
	6/22/2017	-	NM	-		-	-	-	-	-
	6/19/2017	-	NM	-		-	-	-	-	-
	6/15/2017	-	NM	-		-	-	-	-	-
	6/12/2017	-	NM	-		-	-	-	-	-
	6/9/2017	-	NM	-		-	-	-	-	-
	6/5/2017	-	NM	-		-	-	-	-	-
	6/2/2017	-	NM	-		-	-	-	-	-
	5/31/2017	-	NM	-		-	-	-	-	-
	5/24/2017	-	NM	-		-	-	-	-	-
	5/22/2017	-	NM	-		-	-	-	-	-
	5/18/2017	-	NM	-		-	-	-	-	-
	5/15/2017	-	NM	-		-	-	-	-	-
	5/11/2017	-	NM	-		-	-	-	-	-
	5/7/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/27/2017	-	NM	-		-	-	-	-	-
	4/25/2017	-	NM	-		-	-	-	-	-
	4/20/2017	-	NM	-		-	-	-	-	-
	4/16/2017	-	NM	-		-	-	-	-	-
	4/13/2017	-	NM	-		-	-	-	-	-
	4/10/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
	4/3/2017	-	NM	-		-	-	-	-	-
RT-2I					819.51					
	3/5/2018	-	2.00	-		817.51	-	-	-	-
	2/21/2018	-	0.35	-		819.16	-	-	-	-
	2/9/2018	-	0.23	-		819.28	-	-	-	-
	2/2/2018	-	0.64	-		818.87	-	-	-	-
	1/26/2018	-	1.03	-		818.48	-	-	-	-
	1/20/2018	-	2.79	-		816.72	-	-	-	-
	1/10/2018	-	3.17	-		816.34	-	1/15/2018	11:35	11:40
	1/5/2018	-	NM	-		-	-	1/8/2018	11:13	11:18
	12/27/2017	-	3.12	-		816.39	-	1/2/2018	12:40	12:45
	12/21/2017	-	3.39	-		816.12	-	-	-	-
	12/13/2017	-	2.82	-		816.69	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2I (cont'd)	12/7/2017	-	3.60	-		815.91	-	12/7/2017	11:50	11:55
	12/1/2017	-	3.12	-		816.39	-	-	-	-
	11/22/2017	-	2.58	-		816.93	-	11/22/2017	10:45	10:50
	11/17/2017	-	2.30	-		817.21	-	-	-	-
	11/10/2017	-	0.25	-		819.26	-	-	-	-
	11/3/2017	-	1.56	-		817.95	-	-	-	-
	10/26/2017	-	3.33	-		816.18	-	10/25/2017	9:25	9:30
	10/20/2017	-	3.46	-		816.05	-	10/21/2017	10:55	11:00
	10/12/2017	-	3.42	-		816.09	-	10/10/2017	10:55	11:00
	10/6/2017	-	1.34	-		818.17	-	10/7/2017	10:35	10:40
	9/28/2017	-	3.40	-		816.11	-	9/28/2017	12:10	12:15
	9/21/2017	-	3.30	-		816.21	-	-	-	-
	9/15/2017	-	NM	-		-	-	-	-	-
	9/5/2017	-	1.27	-		818.24	-	9/5/2017	10:15	10:20
	8/31/2017	-	3.38	-		816.13	-	-	-	-
	8/24/2017	-	3.38	-		816.13	-	8/24/2017	10:30	10:35
	8/21/2017	-	3.30	-		816.21	-	-	-	-
	8/17/2017	-	3.25	-		816.26	-	-	-	-
	8/14/2017	-	3.24	-		816.27	-	-	-	-
	8/9/2017	-	3.22	-		816.29	-	-	-	-
	8/2/2017	-	3.25	-		816.26	-	8/7/2017	10:50	10:55
	7/31/2017	-	3.23	-		816.28	-	8/1/2017	14:08	14:11
	7/27/2017	-	3.13	-		816.38	-	-	-	-
	7/24/2017	-	3.05	-		816.46	-	-	-	-
	7/20/2017	-	3.00	-		816.51	-	7/20/2017	11:40	11:45
	7/17/2017	-	2.86	-		816.65	-	7/17/2017	11:45	11:50
	7/13/2017	-	3.02	-		816.49	-	7/14/2017	10:40	10:43
	7/10/2017	-	2.98	-		816.53	-	7/11/2017	15:18	15:20
	7/6/2017	-	2.47	-		817.04	-	7/6/2017	11:08	11:13
	7/3/2017	-	2.71	-		816.80	-	7/3/2017	11:16	11:24
	6/29/2017	-	1.78	-		817.73	-	6/29/2017	10:07	10:13
	6/22/2017	-	2.95	-		816.56	-	6/24/2017	9:18	9:22
	6/19/2017	-	2.67	-		816.84	-	6/21/2017	9:39	9:42
	6/15/2017	-	3.01	-		816.50	-	6/16/2017	10:45	10:48
	6/12/2017	-	2.72	-		816.79	-	6/13/2017	9:31	9:40
	6/9/2017	-	2.13	-		817.38	-	6/11/2017	9:16	9:20
	6/5/2017	-	2.97	-		816.54	-	6/5/2017	12:31	12:36
	6/2/2017	-	1.97	-		817.54	-	6/2/2017	12:13	12:18
	5/31/2017	-	2.45	-		817.06	-	5/31/2017	10:17	10:22
	5/24/2017	-	2.66	-		816.85	-	5/26/2017	12:06	12:12
	5/22/2017	-	2.66	-		816.85	-	5/22/2017	11:12	11:16
	5/18/2017	-	3.18	-		816.33	-	5/19/2017	11:51	11:55
	5/15/2017	-	3.24	-		816.27	-	5/16/2017	10:51	10:54
	5/11/2017	-	3.16	-		816.35	-	5/14/2017	9:51	9:57
	5/7/2017	-	2.91	-		816.60	-	5/9/2017	12:51	12:55
	5/4/2017	3.25	3.26	0.01		816.25	816.26	5/5/2017	12:49	12:52
	4/27/2017	3.22	3.23	0.01		816.28	816.29	4/28/2017	10:32	10:41
	4/25/2017	-	2.27	-		817.24	-	4/25/2017	10:11	10:17
	4/20/2017	-	3.30	-		816.21	-	4/21/2017	11:28	11:36
	4/16/2017	-	1.62	-		817.89	-	-	-	-
	4/13/2017	-	3.30	-		816.21	-	4/13/2017	12:15	12:20
	4/10/2017	-	3.30	-		816.21	-	4/11/2017	10:36	10:40
	4/6/2017	3.12	3.13	0.01		816.38	816.39	4/7/2017	15:21	15:25
	4/3/2017	-	3.43	-		816.08	-	-	-	-
RT-2J					817.63					

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2J (cont'd)	3/5/2018	-	0.49	-	-	817.14	-	-	-	-
	2/21/2018	-	-	-	-	817.63	-	-	-	-
	2/9/2018	-	NM	-	-	-	-	-	-	-
	2/2/2018	-	NM	-	-	-	-	-	-	-
	1/26/2018	-	0.04	-	-	817.59	-	-	-	-
	1/20/2018	-	1.08	-	-	816.55	-	-	-	-
	1/10/2018	-	1.62	-	-	816.01	-	1/15/2018	11:40	11:45
	1/5/2018	-	1.89	-	-	815.74	-	1/8/2018	11:18	11:23
	12/27/2017	-	1.41	-	-	816.22	-	1/2/2018	12:45	12:50
	12/21/2017	2.09	2.10	0.01	-	815.53	815.54	-	-	-
	12/13/2017	-	1.11	-	-	816.52	-	-	-	-
	12/7/2017	2.44	2.45	0.01	-	815.18	815.19	12/7/2017	11:55	12:00
	12/1/2017	-	0.65	-	-	816.98	-	-	-	-
	11/22/2017	-	0.99	-	-	816.64	-	11/22/2017	10:50	10:55
	11/17/2017	-	0.80	-	-	816.83	-	-	-	-
	11/10/2017	-	NM	-	-	-	-	-	-	-
	11/3/2017	-	-	-	-	817.63	-	-	-	-
	10/26/2017	-	2.04	-	-	815.59	-	10/25/2017	9:25	9:30
	10/20/2017	-	1.58	-	-	816.05	-	10/21/2017	11:00	11:05
	10/12/2017	-	2.20	-	-	815.43	-	10/10/2017	11:00	11:05
	10/6/2017	-	0.05	-	-	817.58	-	10/7/2017	10:40	10:45
	9/28/2017	-	1.98	-	-	815.65	-	9/28/2017	12:15	12:20
	9/21/2017	-	1.85	-	-	815.78	-	-	-	-
	9/15/2017	-	NM	-	-	-	-	-	-	-
	9/5/2017	-	NM	-	-	-	-	9/5/2017	10:20	10:25
	8/31/2017	-	2.05	-	-	815.58	-	-	-	-
	8/24/2017	-	1.90	-	-	815.73	-	8/24/2017	10:40	10:45
	8/21/2017	-	1.74	-	-	815.89	-	-	-	-
	8/17/2017	-	1.75	-	-	815.88	-	-	-	-
	8/14/2017	-	1.70	-	-	815.93	-	-	-	-
	8/9/2017	-	1.75	-	-	815.88	-	-	-	-
	8/2/2017	-	1.75	-	-	815.88	-	8/7/2017	10:55	11:00
	7/31/2017	-	1.78	-	-	815.85	-	8/1/2017	14:15	14:19
	7/27/2017	-	1.66	-	-	815.97	-	-	-	-
	7/24/2017	-	1.57	-	-	816.06	-	-	-	-
	7/20/2017	-	1.49	-	-	816.14	-	7/20/2017	11:45	11:50
	7/17/2017	-	1.41	-	-	816.22	-	7/17/2017	11:50	11:55
	7/13/2017	-	1.55	-	-	816.08	-	7/14/2017	10:48	10:52
	7/10/2017	-	1.47	-	-	816.16	-	7/11/2017	15:21	15:25
	7/6/2017	-	1.10	-	-	816.53	-	7/6/2017	11:15	11:20
	7/3/2017	-	1.33	-	-	816.30	-	7/3/2017	11:30	11:38
	6/29/2017	1.39	1.40	0.01	-	816.23	816.24	6/29/2017	10:15	10:20
	6/22/2017	-	1.52	-	-	816.11	-	6/24/2017	9:24	9:28
	6/19/2017	-	1.50	-	-	816.13	-	6/21/2017	9:47	9:51
	6/15/2017	2.51	2.52	0.01	-	815.11	815.12	6/16/2017	10:50	10:54
	6/12/2017	-	1.26	-	-	816.37	-	6/13/2017	9:43	9:51
	6/9/2017	-	0.50	-	-	817.13	-	6/11/2017	9:22	9:30
	6/5/2017	1.50	1.51	0.01	-	816.12	816.13	6/5/2017	12:40	12:45
	6/2/2017	1.16	1.17	0.01	-	816.46	816.47	6/2/2017	12:21	12:26
	5/31/2017	0.98	1.00	0.02	-	816.63	816.64	5/31/2017	10:24	10:28
	5/24/2017	-	1.27	-	-	816.36	-	5/26/2017	12:21	12:27
	5/22/2017	1.31	1.32	0.01	-	816.31	816.32	5/22/2017	11:18	11:21
	5/18/2017	1.80	1.81	0.01	-	815.82	815.83	5/19/2017	12:02	12:07
	5/15/2017	1.76	1.78	0.02	-	815.85	815.86	5/16/2017	10:56	11:01
	5/11/2017	1.72	1.78	0.06	-	815.85	815.89	5/14/2017	10:03	10:10

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2J (cont'd)	5/7/2017	-	1.35	-		816.28	-	5/9/2017	13:01	13:06
	5/4/2017	1.93	1.94	0.01		815.69	815.70	5/5/2017	13:01	13:07
	4/27/2017	1.86	1.90	0.04		815.73	815.76	4/28/2017	10:44	10:51
	4/25/2017	-	1.01	-		816.62	-	4/25/2017	10:21	10:26
	4/20/2017	2.08	2.09	0.01		815.54	815.55	4/21/2017	11:18	11:26
	4/16/2017	0.25	0.26	0.01		817.37	817.38	-	-	-
	4/13/2017	2.06	2.07	0.01		815.56	815.57	4/13/2017	12:25	12:29
	4/10/2017	1.48	1.58	0.10		816.05	816.12	4/11/2017	10:43	10:48
	4/6/2017	1.68	1.70	0.02		815.93	815.94	4/7/2017	15:29	15:30
	4/3/2017	2.26	2.27	0.01		815.36	815.37	-	-	-
RT-2K					817.40			-	-	-
	3/5/2018	-	0.73	-		816.67	-	-	-	-
	2/21/2018	-	0.65	-		816.75	-	-	-	-
	2/13/2018	-	0.08	-		817.32	-	-	-	-
	2/9/2018	-	NM	-		-	-	-	-	-
	2/2/2018	-	NM	-		-	-	2/2/2018	11:45	11:50
	1/20/2018	1.35	1.36	0.01		816.04	816.05	1/26/2018	11:00	11:05
	1/10/2018	-	NM	-		-	-	1/15/2018	11:45	11:50
	1/5/2018	-	NM	-		-	-	1/8/2018	11:23	11:28
	12/27/2017	1.24	1.25	0.01		816.15	816.16	1/2/2018	12:50	12:55
	12/21/2017	-	NM	-		-	-	-	-	-
	12/13/2017	-	NM	-		-	-	-	-	-
	12/7/2017	-	NM	-		-	-	12/7/2017	12:00	12:05
	12/1/2017	-	NM	-		-	-	-	-	-
	11/22/2017	-	NM	-		-	-	-	-	-
	11/17/2017	-	NM	-		-	-	-	-	-
	11/10/2017	-	NM	-		-	-	11/9/2017	9:10	9:15
	11/3/2017	-	NM	-		-	-	11/3/2017	10:40	10:45
	10/26/2017	-	NM	-		-	-	10/25/2017	9:35	9:40
	10/20/2017	1.79	1.92	0.13		815.48	815.57	10/21/2017	11:05	11:10
	10/12/2017	1.43	1.57	0.14		815.83	815.93	10/21/2017	11:05	11:01
	10/6/2017	1.79	1.93	0.14		815.47	815.57	10/7/2017	10:45	10:50
	9/28/2017	1.59	1.73	0.14		815.67	815.77	9/28/2017	12:20	12:25
	9/21/2017	-	NM	-		-	-	-	-	-
	9/15/2017	-	NM	-		-	-	-	-	-
	9/5/2017	1.41	1.53	0.12		815.87	815.96	9/5/2017	10:25	10:30
	8/31/2017	1.68	1.80	0.12		815.60	815.69	-	-	-
	8/24/2017	0.60	0.72	0.12		816.68	816.77	8/24/2017	10:45	10:50
	8/21/2017	1.47	1.65	0.18		815.75	815.88	-	-	-
	8/17/2017	1.44	1.55	0.11		815.85	815.93	-	-	-
	8/14/2017	1.41	1.61	0.20		815.79	815.94	-	-	-
	8/9/2017	1.39	1.50	0.11		815.90	815.98	-	-	-
8/2/2017	1.64	1.75	0.11		815.65	815.73	8/7/2017	11:05	11:10	
7/31/2017	-	NM	-		-	-	8/1/2017	14:21	14:25	
7/27/2017	-	NM	-		-	-	-	-	-	
7/24/2017	-	NM	-		-	-	-	-	-	
7/20/2017	-	NM	-		-	-	7/20/2017	11:50	11:55	
7/17/2017	1.26	1.36	0.10		816.04	816.11	7/17/2017	11:55	12:00	
7/13/2017	1.48	1.58	0.10		815.82	815.89	7/14/2017	10:54	10:59	
7/10/2017	-	NM	-		-	-	7/11/2017	15:27	15:29	
7/6/2017	-	2.96	-		814.44	-	7/6/2017	11:21	11:24	
7/3/2017	-	2.44	-		814.96	-	7/3/2017	11:44	11:56	
6/29/2017	-	2.65	-		814.75	-	6/29/2017	10:22	10:27	
6/22/2017	-	3.07	-		814.33	-	6/24/2017	9:30	9:34	
6/19/2017	-	2.34	-		815.06	-	6/21/2017	9:55	9:59	

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2K (cont'd)	6/15/2017	-	2.59	-		814.81	-	6/16/2017	10:56	10:59
	6/12/2017	1.21	1.25	0.04		816.15	816.18	6/13/2017	9:58	10:05
	6/9/2017	-	2.39	-		815.01	-	6/11/2017	9:33	9:40
	6/5/2017	0.85	0.87	0.02		816.53	816.54	6/5/2017	12:50	12:56
	6/2/2017	0.98	1.00	0.02		816.40	816.41	6/2/2017	12:30	12:36
	5/31/2017	0.95	0.97	0.02		816.43	816.44	5/31/2017	10:31	10:35
	5/24/2017	0.99	1.00	0.01		816.40	816.41	5/26/2017	12:33	12:40
	5/22/2017	1.45	1.47	0.02		815.93	815.94	5/22/2017	11:25	11:29
	5/18/2017	-	2.45	-		814.95	-	5/19/2017	12:15	12:20
	5/15/2017	2.80	2.81	0.01		814.59	814.60	5/16/2017	11:03	11:07
	5/11/2017	-	2.34	-		815.06	-	5/14/2017	10:15	10:21
	5/7/2017	-	2.53	-		814.87	-	5/9/2017	13:08	13:13
	5/4/2017	-	2.66	-		814.74	-	5/5/2017	13:10	13:14
	4/27/2017	-	2.85	-		814.55	-	4/28/2017	10:55	11:01
	4/25/2017	-	2.75	-		814.65	-	4/25/2017	10:31	10:35
	4/20/2017	-	2.36	-		815.04	-	4/21/2017	11:39	11:44
	4/16/2017	2.58	2.59	0.01		814.81	814.82	-	-	-
	4/13/2017	2.30	2.31	0.01		815.09	815.10	4/13/2017	12:31	12:34
	4/10/2017	2.73	2.75	0.02		814.65	814.66	4/11/2017	10:52	10:56
	4/6/2017	2.60	2.61	0.01		814.79	814.80	4/7/2017	15:32	15:36
4/3/2017	2.71	2.72	0.01		814.68	814.69	-	-	-	
RT-2L					819.54					
	3/5/2018	-	1.19	-		818.35	-	-	-	-
	2/21/2018	-	1.55	-		817.99	-	-	-	-
	2/9/2018	-	1.34	-		818.20	-	-	-	-
	2/2/2018	-	1.95	-		817.59	-	2/2/2018	11:50	11:55
	1/26/2018	2.48	2.49	0.01		817.05	817.06	1/26/2018	10:50	10:55
	1/20/2018	2.30	2.31	0.01		817.23	817.24	-	-	-
	1/10/2018	2.52	2.54	0.02		817.00	817.01	1/15/2018	11:50	11:55
	1/5/2018	-	2.67	-		816.87	-	1/8/2018	11:28	11:33
	12/27/2017	-	2.25	-		817.29	-	1/2/2018	12:55	13:00
	12/21/2017	-	2.34	-		817.20	-	-	-	-
	12/13/2017	-	2.36	-		817.18	-	-	-	-
	12/7/2017	2.66	2.67	0.01		816.87	816.88	12/7/2017	12:05	12:10
	12/1/2017	-	2.60	-		816.94	-	-	-	-
	11/22/2017	-	2.39	-		817.15	-	11/22/2017	10:55	11:00
	11/17/2017	-	2.33	-		817.21	-	-	-	-
	11/10/2017	-	2.31	-		817.23	-	11/9/2017	9:15	9:20
	11/3/2017	-	2.27	-		817.27	-	11/3/2017	10:45	10:50
	10/26/2017	-	2.58	-		816.96	-	10/25/2017	9:40	9:45
	10/20/2017	2.90	2.96	0.06		816.58	816.62	10/21/2017	11:10	11:15
	10/12/2017	2.88	2.92	0.04		816.62	816.65	10/10/2017	11:10	11:15
	10/6/2017	2.76	2.78	0.02		816.76	816.77	10/7/2017	10:50	10:55
	9/28/2017	2.76	2.79	0.03		816.75	816.77	9/28/2017	12:25	12:30
	9/21/2017	2.62	2.64	0.02		816.90	816.91	-	-	-
	9/15/2017	2.24	2.25	0.01		817.29	817.30	-	-	-
	9/5/2017	2.53	2.55	0.02		816.99	817.00	9/5/2017	10:30	10:35
	8/31/2017	2.86	2.92	0.06		816.62	816.66	-	-	-
	8/24/2017	2.80	2.83	0.03		816.71	816.73	8/24/2017	10:50	10:55
	8/21/2017	2.69	2.77	0.08		816.77	816.83	-	-	-
	8/17/2017	2.62	2.64	0.02		816.90	816.91	-	-	-
	8/14/2017	2.62	2.70	0.08		816.84	816.90	-	-	-
	8/9/2017	2.89	2.92	0.03		816.62	816.64	-	-	-
	8/2/2017	-	2.61	-		816.93	-	8/7/2017	11:12	11:17
	7/31/2017	2.55	2.56	0.01		816.98	816.99	8/1/2017	14:27	14:32

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2L (cont'd)	7/27/2017	2.43	2.44	0.01		817.10	817.11	-	-	-
	7/24/2017	2.42	2.43	0.01		817.11	817.12	-	-	-
	7/20/2017	2.27	2.33	0.06		817.21	817.25	7/20/2017	11:55	12:00
	7/17/2017	2.26	2.28	0.02		817.26	817.27	7/17/2017	12:00	12:05
	7/13/2017	2.34	2.37	0.03		817.17	817.19	7/14/2017	11:03	11:06
	7/10/2017	2.55	2.59	0.04		816.95	816.98	7/11/2017	15:31	15:34
	7/6/2017	2.20	2.21	0.01		817.33	817.34	7/6/2017	11:25	11:28
	7/3/2017	2.16	2.21	0.05		817.33	817.37	7/3/2017	12:02	12:11
	6/29/2017	2.17	2.23	0.06		817.31	817.35	6/29/2017	10:30	10:34
	6/22/2017	2.81	2.86	0.05		816.68	816.72	6/24/2017	9:39	9:41
	6/19/2017	2.32	2.33	0.01		817.21	817.22	6/21/2017	10:01	10:04
	6/15/2017	2.42	2.49	0.07		817.05	817.10	6/16/2017	11:06	11:10
	6/12/2017	2.28	2.31	0.03		817.23	817.25	6/13/2017	10:00	10:15
	6/9/2017	2.15	2.21	0.06		817.33	817.37	6/11/2017	9:44	9:48
	6/5/2017	-	2.10	-		817.44	-	6/5/2017	13:03	13:08
	6/2/2017	-	1.97	-		817.57	-	6/2/2017	12:40	12:46
	5/31/2017	-	2.20	-		817.34	-	5/31/2017	10:38	10:41
	5/24/2017	-	1.92	-		817.62	-	5/26/2017	13:07	13:14
	5/22/2017	-	2.08	-		817.46	-	5/22/2017	11:32	11:36
	5/18/2017	-	2.38	-		817.16	-	5/19/2017	12:35	12:40
	5/15/2017	-	3.24	-		816.30	-	5/16/2017	11:10	11:15
	5/11/2017	-	2.37	-		817.17	-	5/14/2017	10:27	10:31
	5/7/2017	-	1.90	-		817.64	-	5/9/2017	13:15	13:19
	5/4/2017	2.35	2.36	0.01		817.18	817.19	5/5/2017	13:19	13:25
	4/27/2017	2.15	2.17	0.02		817.37	817.38	4/28/2017	11:04	11:11
	4/25/2017	1.95	2.00	0.05		817.54	817.58	4/25/2017	10:37	10:42
	4/20/2017	2.60	2.65	0.05		816.89	816.93	4/21/2017	11:46	11:52
4/16/2017	2.25	2.32	0.07		817.22	817.27	-	-	-	
4/13/2017	3.60	3.67	0.07		815.87	815.92	4/13/2017	12:37	12:42	
4/10/2017	2.55	2.65	0.10		816.89	816.96	4/11/2017	10:59	11:03	
4/6/2017	2.42	2.52	0.10		817.02	817.09	4/7/2017	15:41	15:46	
4/3/2017	2.78	2.82	0.04		816.72	816.75	-	-	-	
RW-01					851.92		-	-	-	
	3/5/2018	-	12.80	-		839.12	-	-	-	-
	2/21/2018	-	12.77	-		839.15	-	-	-	-
	2/3/2018	-	13.20	-		838.72	-	-	-	-
	12/27/2017	-	12.54	-		839.38	-	-	-	-
	11/12/2017	-	13.41	-		838.51	-	-	-	-
	10/21/2017	-	16.30	-		835.62	-	-	-	-
	9/10/2017	-	14.20	-		837.72	-	-	-	-
	8/21/2017	-	14.90	-		837.02	-	-	-	-
	8/17/2017	-	14.62	-		837.30	-	-	-	-
	8/14/2017	-	14.60	-		837.32	-	-	-	-
	8/9/2017	-	14.45	-		837.47	-	-	-	-
	8/2/2017	-	14.10	-		837.82	-	-	-	-
	7/31/2017	-	14.05	-		837.87	-	-	-	-
	7/27/2017	-	13.73	-		838.19	-	-	-	-
	7/24/2017	-	13.47	-		838.45	-	-	-	-
	7/20/2017	-	12.91	-		839.01	-	-	-	-
	7/17/2017	-	12.97	-		838.95	-	-	-	-
	7/13/2017	-	13.33	-		838.59	-	-	-	-
	7/10/2017	-	13.00	-		838.92	-	-	-	-
	7/6/2017	-	12.80	-		839.12	-	-	-	-
	7/3/2017	-	12.55	-		839.37	-	-	-	-
	6/29/2017	-	12.27	-		839.65	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
RW-01 (cont'd)	6/22/2017	-	12.17	-		839.75	-	-	-	-
	6/19/2017	-	12.56	-		839.36	-	-	-	-
	6/15/2017	-	12.04	-		839.88	-	-	-	-
	6/12/2017	-	12.81	-		839.11	-	-	-	-
	6/9/2017	-	12.83	-		839.09	-	-	-	-
	6/5/2017	-	11.72	-		840.20	-	-	-	-
	6/2/2017	-	11.77	-		840.15	-	-	-	-
	5/31/2017	-	13.68	-		838.24	-	-	-	-
	5/24/2017	-	11.76	-		840.16	-	-	-	-
	5/22/2017	-	11.77	-		840.15	-	-	-	-
	5/18/2017	-	11.79	-		840.13	-	-	-	-
	5/15/2017	11.84	11.89	0.05		840.03	840.07	-	-	-
	5/11/2017	-	11.52	-		840.40	-	-	-	-
	5/7/2017	-	11.59	-		840.33	-	-	-	-
	5/4/2017	-	11.55	-		840.37	-	-	-	-
	4/27/2017	-	10.73	-		841.19	-	-	-	-
	4/25/2017	-	10.83	-		841.09	-	-	-	-
	4/20/2017	13.11	13.12	0.01		838.80	838.81	-	-	-
	4/16/2017	-	12.60	-		839.32	-	-	-	-
	4/13/2017	-	12.06	-		839.86	-	-	-	-
4/10/2017	-	11.72	-		840.20	-	-	-	-	
4/6/2017	-	11.51	-		840.41	-	-	-	-	
4/3/2017	-	14.28	-		837.64	-	-	-	-	
RW-02					852.69					
	3/5/2018	20.76	20.80	0.04		831.89	831.92	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	21.56	21.57	0.01		831.12	831.13	-	-	-
	2/9/2018	21.75	21.81	0.06		830.88	830.92	-	-	-
	2/2/2018	22.68	22.85	0.17		829.84	829.96	-	-	-
	12/27/2017	23.51	24.10	0.59		828.59	829.02	1/2/2018	10:58	11:03
	11/12/2017	22.80	23.15	0.35		829.54	829.79	-	-	-
	10/21/2017	24.32	24.66	0.34		828.03	828.28	-	-	-
	9/10/2017	22.85	23.10	0.25		829.59	829.77	-	-	-
	8/21/2017	22.46	22.80	0.34		829.89	830.14	-	-	-
	8/17/2017	22.38	22.68	0.30		830.01	830.23	-	-	-
	8/14/2017	22.35	22.64	0.29		830.05	830.26	-	-	-
	8/9/2017	22.22	22.50	0.28		830.19	830.39	-	-	-
	8/2/2017	21.95	22.32	0.37		830.37	830.64	-	-	-
	7/31/2017	21.91	22.31	0.40		830.38	830.67	-	-	-
	7/27/2017	21.69	22.05	0.36		830.64	830.90	-	-	-
	7/24/2017	21.63	22.00	0.37		830.69	830.96	-	-	-
	7/20/2017	21.48	21.83	0.35		830.86	831.11	-	-	-
	7/17/2017	21.41	21.74	0.33		830.95	831.19	-	-	-
	7/13/2017	21.40	21.72	0.32		830.97	831.20	-	-	-
	7/10/2017	21.29	21.58	0.29		831.11	831.32	-	-	-
	7/6/2017	21.22	21.49	0.27		831.20	831.40	-	-	-
	7/3/2017	21.10	21.37	0.27		831.32	831.52	-	-	-
	6/29/2017	21.03	21.26	0.23		831.43	831.60	-	-	-
	6/22/2017	21.34	21.62	0.28		831.07	831.27	-	-	-
	6/19/2017	21.47	21.81	0.34		830.88	831.13	-	-	-
	6/15/2017	21.37	21.67	0.30		831.02	831.24	-	-	-
	6/12/2017	21.28	21.50	0.22		831.19	831.35	-	-	-
	6/9/2017	21.26	21.48	0.22		831.21	831.37	-	-	-
	6/5/2017	21.38	21.60	0.22		831.09	831.25	-	-	-
	6/2/2017	21.50	21.73	0.23		830.96	831.13	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-02 (cont'd)	5/31/2017	21.60	22.00	0.40		830.69	830.98	5/31/2017	13:07	13:14
	5/24/2017	21.61	21.86	0.25		830.83	831.01	-	-	-
	5/22/2017	22.14	22.43	0.29		830.26	830.47	-	-	-
	5/18/2017	22.31	22.61	0.30		830.08	830.30	-	-	-
	5/15/2017	22.29	22.79	0.50		829.90	830.26	5/16/2017	12:02	12:07
	5/11/2017	22.41	23.16	0.75		829.53	830.08	5/14/2017	11:20	11:29
	5/7/2017	22.93	23.60	0.67		829.09	829.58	-	-	-
	5/4/2017	23.40	23.64	0.24		829.05	829.22	-	-	-
	4/27/2017	23.50	23.97	0.47		828.72	829.06	-	-	-
	4/25/2017	23.81	24.18	0.37		828.51	828.78	-	-	-
	4/20/2017	24.24	24.80	0.56		827.89	828.30	-	-	-
	4/16/2017	24.32	24.83	0.51		827.86	828.23	-	-	-
	4/13/2017	24.39	24.80	0.41		827.89	828.19	-	-	-
	4/10/2017	24.35	25.65	1.30		827.04	827.99	4/11/2017	11:18	11:21
	4/6/2017	24.85	NO WATER	0.87		-	-	-	-	-
	4/3/2017	25.58	NO WATER	0.14		-	-	-	-	-
	RW-03					852.34				
	3/5/2018	-	21.71	-		830.63	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	-	22.43	-		829.91	-	-	-	-
	2/3/2018	23.60	23.61	0.01		828.73	828.74	-	-	-
	12/27/2017	24.20	24.25	0.05		828.09	828.13	-	-	-
	11/12/2017	23.46	23.47	0.01		828.87	828.88	-	-	-
	10/21/2017	24.51	24.53	0.02		827.81	827.82	-	-	-
	9/10/2017	23.25	23.26	0.01		829.08	829.09	-	-	-
	8/21/2017	22.72	22.80	0.08		829.54	829.60	-	-	-
	8/17/2017	22.68	22.71	0.03		829.63	829.65	-	-	-
	8/14/2017	22.64	22.68	0.04		829.66	829.69	-	-	-
	8/9/2017	22.52	22.55	0.03		829.79	829.81	-	-	-
	8/2/2017	22.35	22.39	0.04		829.95	829.98	-	-	-
	7/31/2017	22.34	22.38	0.04		829.96	829.99	-	-	-
	7/27/2017	22.12	22.14	0.02		830.20	830.21	-	-	-
	7/24/2017	22.11	22.12	0.01		830.22	830.23	-	-	-
	7/20/2017	-	22.01	-		830.33	-	-	-	-
	7/17/2017	-	21.96	-		830.38	-	-	-	-
	7/13/2017	21.86	21.87	0.01		830.47	830.48	-	-	-
	7/10/2017	-	21.79	-		830.55	-	-	-	-
	7/6/2017	-	21.80	-		830.54	-	-	-	-
	7/3/2017	-	21.17	-		831.17	-	-	-	-
	6/29/2017	-	21.72	-		830.62	-	-	-	-
	6/22/2017	-	22.01	-		830.33	-	-	-	-
	6/19/2017	-	22.10	-		830.24	-	-	-	-
	6/15/2017	-	22.00	-		830.34	-	-	-	-
	6/12/2017	-	21.98	-		830.36	-	-	-	-
	6/9/2017	-	22.30	-		830.04	-	-	-	-
	6/5/2017	-	22.05	-		830.29	-	-	-	-
	6/2/2017	-	22.19	-		830.15	-	-	-	-
	5/31/2017	-	24.52	-		827.82	-	-	-	-
	5/24/2017	-	22.09	-		830.25	-	-	-	-
	5/22/2017	22.61	22.62	0.01		829.72	829.73	-	-	-
	5/18/2017	-	22.81	-		829.53	-	-	-	-
	5/15/2017	23.00	23.02	0.02		829.32	829.33	-	-	-
	5/11/2017	-	23.16	-		829.18	-	-	-	-
	5/7/2017	-	23.81	-		828.53	-	-	-	-
	5/4/2017	-	25.90	-		826.44	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-03 (cont'd)	4/27/2017	-	24.36	-		827.98	-	-	-	-
	4/25/2017	-	24.55	-		827.79	-	-	-	-
	4/20/2017	-	24.81	-		827.53	-	-	-	-
	4/16/2017	24.91	24.92	0.01		827.42	827.43	-	-	-
	4/13/2017	25.01	25.02	0.01		827.32	827.33	-	-	-
	4/10/2017	25.03	25.05	0.02		827.29	827.30	-	-	-
	4/6/2017	25.45	25.46	0.01		826.88	826.89	-	-	-
	4/3/2017	25.56	25.57	0.01		826.77	826.78	-	-	-
RW-04					853.93					
	3/5/2018	27.62	28.40	0.78		825.53	826.10	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	28.52	29.17	0.65		824.76	825.24	-	-	-
	2/9/2018	28.93	29.39	0.46		824.54	824.88	-	-	-
	2/2/2018	29.54	29.74	0.20		824.19	824.34	2/2/2018	12:30	12:35
	1/26/2018	29.99	30.04	0.05		823.89	823.93	1/26/2018	9:45	9:50
	1/20/2018	30.23	30.54	0.31		823.39	823.62	-	-	-
	1/10/2018	30.57	30.65	0.08		823.28	823.34	1/15/2018	10:10	10:15
	1/5/2018	30.11	30.26	0.15		823.67	823.78	1/8/2018	9:50	9:55
	12/27/2017	29.77	30.35	0.58		823.58	824.01	1/2/2018	11:09	11:14
	12/21/2017	24.34	24.93	0.59		829.00	829.43	12/22/2017	10:40	10:45
	12/13/2017	29.44	29.84	0.40		824.09	824.38	12/14/2017	10:35	10:40
	12/7/2017	29.46	29.77	0.31		824.16	824.39	12/7/2017	10:15	10:20
	12/1/2017	29.49	29.67	0.18		824.26	824.39	-	-	-
	11/22/2017	29.59	29.86	0.27		824.07	824.27	11/22/2017	11:53	11:58
	11/17/2017	29.67	29.90	0.23		824.03	824.20	-	-	-
	11/10/2017	29.90	30.17	0.27		823.76	823.96	11/9/2017	10:50	10:55
	11/3/2017	30.17	30.56	0.39		823.37	823.66	11/3/2017	9:50	9:55
	10/26/2017	30.58	30.67	0.09		823.26	823.33	10/25/2017	9:50	9:55
	10/20/2017	30.70	31.05	0.35		822.88	823.14	10/21/2017	9:35	9:40
	10/12/2017	30.71	30.80	0.09		823.13	823.20	10/10/2017	9:35	9:40
	10/6/2017	30.33	30.87	0.54		823.06	823.46	10/7/2017	11:05	11:10
	9/28/2017	29.62	30.01	0.39		823.92	824.21	9/28/2017	12:40	12:45
	9/21/2017	29.34	29.66	0.32		824.27	824.51	-	-	-
	9/15/2017	29.46	29.78	0.32		824.15	824.39	-	-	-
	9/5/2017	29.46	29.79	0.33		824.14	824.38	9/5/2017	9:15	9:20
	8/31/2017	29.40	29.70	0.30		824.23	824.45	-	-	-
	8/24/2017	29.20	29.35	0.15		824.58	824.69	8/24/2017	9:15	9:20
	8/21/2017	28.96	29.43	0.47		824.50	824.85	-	-	-
	8/17/2017	28.90	29.25	0.35		824.68	824.94	8/17/2017	9:50	9:55
	8/14/2017	28.76	29.50	0.74		824.43	824.97	-	-	-
	8/9/2017	28.65	29.33	0.68		824.60	825.10	-	-	-
	8/2/2017	28.31	28.98	0.67		824.95	825.44	8/7/2017	11:45	11:50
	7/31/2017	28.28	28.96	0.68		824.97	825.47	-	-	-
	7/27/2017	28.15	28.77	0.62		825.16	825.61	-	-	-
	7/24/2017	28.10	28.70	0.60		825.23	825.67	-	-	-
	7/20/2017	28.05	28.56	0.51		825.37	825.74	7/20/2017	12:25	12:30
	7/17/2017	28.02	28.51	0.49		825.42	825.78	7/17/2017	11:45	11:50
	7/13/2017	28.02	28.45	0.43		825.48	825.80	-	-	-
	7/10/2017	27.99	28.34	0.35		825.59	825.85	-	-	-
	7/6/2017	28.05	28.41	0.36		825.52	825.78	-	-	-
	7/3/2017	28.03	28.31	0.28		825.62	825.83	-	-	-
	6/29/2017	28.05	28.56	0.51		825.37	825.74	-	-	-
	6/22/2017	28.23	28.71	0.48		825.22	825.57	6/24/2017	11:31	11:39
	6/19/2017	28.21	28.64	0.43		825.29	825.61	6/21/2017	11:47	11:56
	6/15/2017	28.28	28.62	0.34		825.31	825.56	6/16/2017	12:36	12:43

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-04 (cont'd)	6/12/2017	28.28	28.70	0.42		825.23	825.54	6/13/2017	14:09	14:20
	6/9/2017	28.32	28.99	0.67		824.94	825.43	6/11/2017	11:15	11:26
	6/5/2017	28.34	29.27	0.93		824.66	825.34	6/5/2017	13:57	14:10
	6/2/2017	28.52	29.36	0.84		824.57	825.19	6/2/2017	14:35	14:39
	5/31/2017	28.57	29.35	0.78		824.58	825.15	5/31/2017	12:48	13:01
	5/24/2017	-	28.95	-		824.98	-	5/26/2017	10:32	10:39
	5/22/2017	29.12	29.70	0.58		824.23	824.66	5/22/2017	12:19	12:28
	5/18/2017	29.33	29.73	0.40		824.20	824.49	-	-	-
	5/15/2017	29.46	29.82	0.36		824.11	824.37	5/16/2017	11:48	11:55
	5/11/2017	29.66	30.13	0.47		823.80	824.15	5/14/2017	11:07	11:16
	5/7/2017	29.90	30.38	0.48		823.55	823.90	5/9/2017	13:30	13:35
	5/4/2017	30.05	30.45	0.40		823.48	823.77	-	-	-
	4/27/2017	30.44	31.34	0.90		822.59	823.25	4/28/2017	12:10	12:21
	4/25/2017	30.56	31.54	0.98		822.39	823.11	-	-	-
	4/20/2017	30.75	31.70	0.95		822.23	822.93	4/21/2017	12:30	12:39
	4/16/2017	30.88	31.97	1.09		821.96	822.76	-	-	-
	4/13/2017	31.07	31.95	0.88		821.98	822.62	4/13/2017	12:57	13:01
	4/10/2017	31.11	32.07	0.96		821.86	822.56	4/11/2017	11:10	11:14
	4/6/2017	31.32	32.20	0.88		821.73	822.37	-	-	-
	4/3/2017	31.24	32.20	0.96		821.73	822.43	-	-	-
RW-05					853.53					
	3/5/2018	30.93	31.46	0.53		822.07	822.46	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/9/2018	32.33	33.13	0.80		820.40	820.99	-	-	-
	2/2/2018	32.92	33.68	0.76		819.85	820.41	2/2/2018	12:20	12:25
	1/26/2018	33.39	33.73	0.34		819.80	820.05	1/26/2018	9:55	10:00
	1/20/2018	32.96	34.05	1.09		819.48	820.28	-	-	-
	1/10/2018	33.13	33.53	0.40		820.00	820.30	1/15/2018	10:15	10:20
	1/5/2018	33.35	33.99	0.64		819.54	820.01	1/8/2018	10:01	10:06
	12/27/2017	32.78	33.95	1.17		819.58	820.44	1/2/2018	11:23	11:28
	12/21/2017	32.85	34.19	1.34		819.34	820.32	12/22/2017	10:55	11:00
	12/13/2017	32.83	33.83	1.00		819.70	820.43	12/14/2017	10:45	10:50
	12/7/2017	33.01	33.71	0.70		819.82	820.33	12/7/2017	10:25	10:30
	12/1/2017	33.32	33.69	0.37		819.84	820.11	-	-	-
	11/22/2017	32.88	34.03	1.15		819.50	820.34	11/22/2017	11:43	11:48
	11/17/2017	33.00	33.99	0.99		819.54	820.27	-	-	-
	11/10/2017	33.31	34.13	0.82		819.40	820.00	11/9/2017	10:40	10:45
	11/3/2017	33.47	34.04	0.57		819.49	819.91	11/3/2017	9:55	10:00
	10/26/2017	33.67	33.88	0.21		819.65	819.81	10/25/2017	9:55	10:00
	10/20/2017	33.84	34.74	0.90		818.79	819.45	10/21/2017	9:40	9:45
	10/12/2017	33.84	34.43	0.59		819.10	819.53	10/10/2017	9:40	9:45
	10/6/2017	33.21	34.89	1.68		818.64	819.87	10/7/2017	11:10	11:15
	9/28/2017	32.98	34.76	1.78		818.77	820.07	9/28/2017	12:50	12:55
	9/21/2017	32.87	33.58	0.71		819.95	820.47	-	-	-
	9/15/2017	32.90	34.76	1.86		818.77	820.13	-	-	-
	9/5/2017	32.97	34.82	1.85		818.71	820.06	9/5/2017	9:20	9:25
	8/31/2017	33.10	34.21	1.11		819.32	820.13	-	-	-
	8/24/2017	32.98	33.67	0.69		819.86	820.37	8/24/2017	9:20	9:25
	8/21/2017	32.74	34.36	1.62		819.17	820.36	-	-	-
	8/17/2017	33.75	34.77	1.02		818.76	819.51	8/17/2017	9:55	10:00
	8/14/2017	32.41	34.30	1.89		819.23	820.61	-	-	-
	8/9/2017	28.65	29.33	0.68		824.20	824.70	-	-	-
	8/2/2017	32.09	33.85	1.76		819.68	820.97	8/7/2017	11:58	12:05
	7/31/2017	32.02	33.86	1.84		819.67	821.02	-	-	-
	7/27/2017	31.92	33.63	1.71		819.90	821.15	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-05 (cont'd)	7/24/2017	31.89	33.36	1.47		820.17	821.25	-	-	-
	7/20/2017	31.93	33.04	1.11		820.49	821.30	7/20/2017	12:15	12:20
	7/17/2017	31.88	32.86	0.98		820.67	821.39	7/17/2017	11:58	12:05
	7/13/2017	31.90	32.65	0.75		820.88	821.43	-	-	-
	7/10/2017	31.95	32.61	0.66		820.92	821.41	-	-	-
	7/6/2017	31.95	32.39	0.44		821.14	821.46	-	-	-
	7/3/2017	32.05	32.37	0.32		821.16	821.40	-	-	-
	6/29/2017	31.93	32.73	0.80		820.80	821.39	-	-	-
	6/22/2017	32.11	32.72	0.61		820.81	821.26	6/24/2017	11:17	11:22
	6/19/2017	32.17	32.75	0.58		820.78	821.21	6/21/2017	11:25	11:38
	6/15/2017	32.13	32.59	0.46		820.94	821.28	-	-	-
	6/12/2017	32.24	32.65	0.41		820.88	821.18	-	-	-
	6/9/2017	32.33	32.71	0.38		820.82	821.10	-	-	-
	6/5/2017	32.22	32.45	0.23		821.08	821.25	-	-	-
	6/2/2017	32.42	32.66	0.24		820.87	821.05	-	-	-
	5/31/2017	32.43	32.89	0.46		820.64	820.98	-	-	-
	5/24/2017	32.56	32.86	0.30		820.67	820.89	-	-	-
	5/22/2017	32.71	32.94	0.23		820.59	820.76	-	-	-
	5/18/2017	32.80	32.96	0.16		820.57	820.69	-	-	-
	5/15/2017	32.76	33.27	0.51		820.26	820.64	5/16/2017	11:41	11:45
5/11/2017	32.73	33.16	0.43		820.37	820.69	-	-	-	
5/7/2017	32.75	33.07	0.32		820.46	820.70	-	-	-	
5/4/2017	32.85	33.22	0.37		820.31	820.58	-	-	-	
4/27/2017	33.13	33.42	0.29		820.11	820.33	-	-	-	
4/25/2017	33.41	33.70	0.29		819.83	820.05	-	-	-	
4/20/2017	33.49	33.70	0.21		819.83	819.99	-	-	-	
4/16/2017	33.43	33.87	0.44		819.66	819.98	-	-	-	
4/13/2017	33.63	34.05	0.42		819.48	819.79	-	-	-	
4/10/2017	33.77	34.22	0.45		819.31	819.64	-	-	-	
4/6/2017	33.79	34.15	0.36		819.38	819.65	-	-	-	
4/3/2017	33.88	34.23	0.35		819.30	819.56	-	-	-	
RW-06					846.21					
	3/5/2018	-	24.98	-		821.23	-	-	-	-
	2/21/2018	-	25.61	-		820.60	-	-	-	-
	2/9/2018	-	26.15	-		820.06	-	-	-	-
	2/2/2018	26.82	26.83	0.01		819.38	819.39	2/2/2018	12:10	12:15
	1/26/2018	27.16	27.18	0.02		819.03	819.04	-	-	-
	1/20/2018	-	26.47	-		819.74	-	-	-	-
	1/10/2018	-	26.55	-		819.66	-	1/15/2018	10:30	10:35
	1/5/2018	-	27.41	-		818.80	-	-	-	-
	12/27/2017	-	26.27	-		819.94	-	-	-	-
	12/21/2017	27.22	27.23	0.01		818.98	818.99	-	-	-
	12/13/2017	-	26.10	-		820.11	-	-	-	-
	12/7/2017	27.27	27.28	0.01		818.93	818.94	-	-	-
	12/1/2017	-	27.18	-		819.03	-	-	-	-
	11/22/2017	-	26.43	-		819.78	-	-	-	-
	11/17/2017	-	26.51	-		819.70	-	-	-	-
	11/10/2017	-	27.21	-		819.00	-	11/9/2017	10:30	10:35
	11/3/2017	-	27.22	-		818.99	-	11/3/2017	10:10	10:15
	10/26/2017	-	27.76	-		818.45	-	10/25/2017	8:40	8:45
	10/20/2017	27.79	27.81	0.02		818.40	818.41	10/21/2017	9:50	9:55
	10/12/2017	28.03	28.05	0.02		818.16	818.17	10/10/2017	9:50	9:55
	10/6/2017	27.26	27.27	0.01		818.94	818.95	-	-	-
	9/28/2017	-	27.41	-		818.80	-	-	-	-
	9/21/2017	-	27.32	-		818.89	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-06 (cont'd)	9/15/2017	-	27.10	-		819.11	-	-	-	-
	9/5/2017	-	27.18	-		819.03	-	-	-	-
	8/31/2017	-	27.42	-		818.79	-	-	-	-
	8/24/2017	27.15	27.16	0.01		819.05	819.06	-	-	-
	8/21/2017	-	27.21	-		819.00	-	-	-	-
	8/17/2017	-	27.04	-		819.17	-	-	-	-
	8/14/2017	-	26.87	-		819.34	-	-	-	-
	8/9/2017	-	26.80	-		819.41	-	-	-	-
	8/2/2017	-	26.52	-		819.69	-	-	-	-
	7/31/2017	-	26.63	-		819.58	-	-	-	-
	7/27/2017	-	26.47	-		819.74	-	-	-	-
	7/24/2017	26.33	26.34	0.01		819.87	819.88	-	-	-
	7/20/2017	-	26.36	-		819.85	-	-	-	-
	7/17/2017	-	26.20	-		820.01	-	-	-	-
	7/13/2017	-	26.22	-		819.99	-	-	-	-
	7/10/2017	26.19	26.20	0.01		820.01	820.02	-	-	-
	7/6/2017	-	25.63	-		820.58	-	-	-	-
	7/3/2017	-	26.25	-		819.96	-	-	-	-
	6/29/2017	26.19	26.20	0.01		820.01	820.02	-	-	-
	6/22/2017	26.48	26.49	0.01		819.72	819.73	-	-	-
	6/19/2017	-	26.30	-		819.91	-	-	-	-
	6/15/2017	-	26.37	-		819.84	-	-	-	-
	6/12/2017	-	26.31	-		819.90	-	-	-	-
	6/9/2017	-	26.28	-		819.93	-	-	-	-
	6/5/2017	-	26.34	-		819.87	-	-	-	-
	6/2/2017	-	26.26	-		819.95	-	-	-	-
	5/31/2017	26.43	26.44	0.01		819.77	819.78	-	-	-
	5/24/2017	-	26.93	-		819.28	-	-	-	-
	5/22/2017	-	26.81	-		819.40	-	-	-	-
	5/18/2017	-	26.88	-		819.33	-	-	-	-
	5/15/2017	26.65	26.66	0.01		819.55	819.56	-	-	-
	5/11/2017	-	26.75	-		819.46	-	-	-	-
	5/7/2017	-	26.39	-		819.82	-	-	-	-
	5/4/2017	-	26.90	-		819.31	-	-	-	-
4/27/2017	27.12	27.13	0.01		819.08	819.09	-	-	-	
4/25/2017	27.09	27.10	0.01		819.11	819.12	-	-	-	
4/20/2017	-	26.97	-		819.24	-	-	-	-	
4/16/2017	26.73	26.74	0.01		819.47	819.48	-	-	-	
4/13/2017	27.71	27.72	0.01		818.49	818.50	-	-	-	
4/10/2017	27.53	27.55	0.02		818.66	818.67	-	-	-	
4/6/2017	27.50	27.51	0.01		818.70	818.71	-	-	-	
4/3/2017	27.83	27.84	0.01		818.37	818.38	-	-	-	
RW-07					843.19					
	3/5/2018	-	21.43	-		821.76	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	21.40	21.42	0.02		821.77	821.79	-	-	-
	2/9/2018	-	22.09	-		821.10	-	-	-	-
	2/2/2018	22.94	22.95	0.01		820.24	820.25	2/2/2018	12:05	12:10
	1/26/2018	23.38	23.40	0.02		819.79	819.81	1/26/2018	10:10	10:15
	1/20/2018	23.97	23.99	0.02		819.20	819.22	-	-	-
	1/10/2018	23.02	23.04	0.02		820.15	820.17	1/15/2018	10:40	10:45
	1/5/2018	-	24.03	-		819.16	-	1/8/2018	10:24	10:29
	12/27/2017	22.85	22.87	0.02		820.32	820.34	1/2/2018	11:40	11:45
	12/21/2017	24.25	24.27	0.02		818.92	818.94	12/22/2017	11:05	11:10
	12/13/2017	22.87	22.88	0.01		820.31	820.32	12/14/2017	10:50	10:55

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-07 (cont'd)	12/7/2017	24.35	24.38	0.03		818.81	818.83	12/7/2017	10:45	10:50
	12/1/2017	23.46	23.47	0.01		819.72	819.73	-	-	-
	11/22/2017	22.70	22.73	0.03		820.46	820.48	11/22/2017	11:19	11:24
	11/17/2017	22.87	22.90	0.03		820.29	820.31	-	-	-
	11/10/2017	23.32	23.35	0.03		819.84	819.86	11/9/2017	9:35	9:40
	11/3/2017	23.39	23.52	0.13		819.67	819.77	11/3/2017	10:15	10:20
	10/26/2017	24.47	24.98	0.51		818.21	818.58	10/25/2017	8:35	8:40
	10/20/2017	24.04	24.91	0.87		818.28	818.92	10/21/2017	9:55	10:00
	10/12/2017	24.43	25.71	1.28		817.48	818.42	10/10/2017	9:55	10:00
	10/6/2017	23.44	24.31	0.87		818.88	819.52	10/7/2017	9:50	9:55
	9/28/2017	23.97	25.05	1.08		818.14	818.93	9/28/2017	11:10	11:15
	9/21/2017	23.85	24.90	1.05		818.29	819.06	-	-	-
	9/15/2017	23.21	24.14	0.93		819.05	819.73	-	-	-
	9/5/2017	23.33	24.31	0.98		818.88	819.60	9/5/2017	9:30	9:35
	8/31/2017	23.98	25.13	1.15		818.06	818.90	-	-	-
	8/24/2017	23.71	24.73	1.02		818.46	819.21	8/24/2017	9:30	9:35
	8/21/2017	23.81	24.82	1.01		818.37	819.11	-	-	-
	8/17/2017	23.55	24.50	0.95		818.69	819.39	8/17/2017	10:10	10:15
	8/14/2017	23.37	24.30	0.93		818.89	819.57	-	-	-
	8/9/2017	23.37	24.22	0.85		818.97	819.59	-	-	-
	8/2/2017	23.30	23.85	0.55		819.34	819.74	-	-	-
	7/31/2017	23.40	23.79	0.39		819.40	819.69	-	-	-
	7/27/2017	23.28	23.56	0.28		819.63	819.84	-	-	-
	7/24/2017	23.10	23.32	0.22		819.87	820.03	-	-	-
	7/20/2017	23.14	23.46	0.32		819.73	819.97	-	-	-
	7/17/2017	22.97	23.16	0.19		820.03	820.17	-	-	-
	7/13/2017	23.03	23.20	0.17		819.99	820.12	-	-	-
	7/10/2017	22.84	23.02	0.18		820.17	820.30	-	-	-
	7/6/2017	22.22	22.41	0.19		820.78	820.92	-	-	-
	7/3/2017	22.89	23.13	0.24		820.06	820.24	-	-	-
	6/29/2017	22.85	23.09	0.24		820.10	820.28	-	-	-
	6/22/2017	22.92	23.44	0.52		819.75	820.13	6/24/2017	11:01	11:11
	6/19/2017	22.76	23.32	0.56		819.87	820.28	6/21/2017	11:06	11:17
	6/15/2017	22.92	23.60	0.68		819.59	820.09	6/16/2017	12:18	12:27
	6/12/2017	22.66	23.10	0.44		820.09	820.41	6/13/2017	12:35	13:18
	6/9/2017	22.42	22.92	0.50		820.27	820.64	6/11/2017	10:45	11:01
	6/5/2017	22.84	23.44	0.60		819.75	820.19	6/5/2017	13:35	13:46
	6/2/2017	22.38	23.13	0.75		820.06	820.61	6/2/2017	14:17	14:27
	5/31/2017	22.71	23.50	0.79		819.69	820.27	5/31/2017	12:31	12:42
	5/24/2017	22.39	22.95	0.56		820.24	820.65	5/26/2017	10:45	10:52
	5/22/2017	23.17	23.83	0.66		819.36	819.84	5/22/2017	11:59	12:11
	5/18/2017	23.33	24.42	1.09		818.77	819.57	5/19/2017	12:51	13:10
	5/15/2017	23.05	24.16	1.11		819.03	819.84	5/16/2017	11:30	11:37
	5/11/2017	23.14	24.30	1.16		818.89	819.74	5/14/2017	10:50	10:59
	5/7/2017	22.51	23.30	0.79		819.89	820.47	5/9/2017	11:11	11:32
	5/4/2017	23.26	24.40	1.14		818.79	819.62	5/5/2017	11:31	11:49
	4/27/2017	23.31	24.19	0.88		819.00	819.64	4/28/2017	11:30	11:55
	4/25/2017	22.69	23.50	0.81		819.69	820.28	-	-	-
	4/20/2017	23.49	24.92	1.43		818.27	819.32	-	-	-
	4/16/2017	22.74	24.05	1.31		819.14	820.10	-	-	-
	4/13/2017	23.69	25.40	1.71		817.79	819.04	4/13/2017	10:50	11:00
	4/10/2017	23.27	24.82	1.55		818.37	819.50	-	-	-
	4/6/2017	23.32	25.00	1.68		818.19	819.42	-	-	-
	4/3/2017	24.00	25.97	1.97		817.22	818.66	-	-	-
RW-08					835.48			-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-08 (cont'd)	3/5/2018	-	15.40	-		820.08	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	-	13.62	-		821.86	-	-	-	-
	2/3/2018	-	15.75	-		819.73	-	-	-	-
	1/26/2018	16.22	16.23	0.01		819.25	819.26	1/26/2018	10:20	10:25
	1/20/2018	16.03	16.04	0.01		819.44	819.45	-	-	-
	1/10/2018	16.11	16.12	0.01		819.36	819.37	-	-	-
	1/5/2018	-	17.29	-		818.19	-	1/8/2018	10:17	10:27
	12/27/2017	15.79	15.80	0.01		819.68	819.69	1/2/2018	11:48	11:53
	12/21/2017	17.81	17.83	0.02		817.65	817.66	12/22/2017	11:15	11:20
	12/13/2017	15.89	15.90	0.01		819.58	819.59	12/14/2017	11:00	11:05
	12/7/2017	-	17.94	-		817.54	-	-	-	-
	12/1/2017	-	16.29	-		819.19	-	-	-	-
	11/22/2017	-	15.45	-		820.03	-	-	-	-
	11/17/2017	-	15.70	-		819.78	-	-	-	-
	11/10/2017	-	16.07	-		819.41	-	-	-	-
	11/3/2017	-	16.13	-		819.35	-	-	-	-
	10/26/2017	-	18.38	-		817.10	-	-	-	-
	10/20/2017	-	17.16	-		818.32	-	-	-	-
	10/12/2017	18.32	18.33	0.01		817.15	817.16	-	-	-
	10/6/2017	-	16.04	-		819.44	-	10/7/2017	9:45	9:50
	9/28/2017	-	17.57	-		817.91	-	9/28/2017	11:05	11:10
	9/21/2017	17.48	17.50	0.02		817.98	817.99	-	-	-
	9/15/2017	16.35	16.36	0.01		819.12	819.13	-	-	-
	9/5/2017	16.50	16.53	0.03		818.95	818.97	-	-	-
	8/31/2017	17.75	17.78	0.03		817.70	817.72	-	-	-
	8/24/2017	17.32	17.33	0.01		818.15	818.16	-	-	-
	8/21/2017	23.86	23.87	0.01		811.61	811.62	-	-	-
	8/17/2017	-	17.10	-		818.38	-	8/17/2017	10:40	10:45
	8/14/2017	-	16.94	-		818.54	-	-	-	-
	8/9/2017	16.94	16.95	0.01		818.53	818.54	-	-	-
	8/2/2017	-	16.80	-		818.68	-	-	-	-
	7/31/2017	-	17.07	-		818.41	-	-	-	-
	7/27/2017	-	16.97	-		818.51	-	-	-	-
	7/24/2017	-	NM	-		-	-	-	-	-
	7/20/2017	-	16.92	-		818.56	-	-	-	-
	7/17/2017	-	16.55	-		818.93	-	-	-	-
	7/13/2017	16.71	16.72	0.01		818.76	818.77	-	-	-
	7/10/2017	-	16.29	-		819.19	-	-	-	-
	7/6/2017	-	15.11	-		820.37	-	-	-	-
	7/3/2017	-	16.65	-		818.83	-	-	-	-
	6/29/2017	16.42	16.43	0.01		819.05	819.06	-	-	-
	6/22/2017	16.89	16.90	0.01		818.58	818.59	-	-	-
	6/19/2017	16.24	16.25	0.01		819.23	819.24	-	-	-
	6/15/2017	-	16.77	-		818.71	-	-	-	-
	6/12/2017	-	15.96	-		819.52	-	-	-	-
	6/9/2017	-	15.48	-		820.00	-	-	-	-
	6/5/2017	-	16.51	-		818.97	-	-	-	-
	6/2/2017	-	15.48	-		820.00	-	-	-	-
	5/31/2017	16.11	16.12	0.01		819.36	819.37	-	-	-
	5/24/2017	-	15.93	-		819.55	-	-	-	-
	5/22/2017	-	17.05	-		818.43	-	-	-	-
	5/18/2017	-	17.22	-		818.26	-	-	-	-
	5/15/2017	16.56	16.57	0.01		818.91	818.92	-	-	-
	5/11/2017	16.80	16.81	0.01		818.67	818.68	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-08 (cont'd)	5/7/2017	-	15.97	-		819.51	-	-	-	-
	5/4/2017	17.08	17.09	0.01		818.39	818.40	-	-	-
	4/27/2017	17.19	17.20	0.01		818.28	818.29	-	-	-
	4/25/2017	-	15.48	-		820.00	-	-	-	-
	4/20/2017	16.65	16.66	0.01		818.82	818.83	-	-	-
	4/16/2017	16.10	16.12	0.02		819.36	819.37	-	-	-
	4/13/2017	17.95	18.00	0.05		817.48	817.51	-	-	-
	4/10/2017	16.41	16.56	0.15		818.92	819.03	-	-	-
	4/6/2017	16.70	17.26	0.56		818.22	818.63	-	-	-
	4/3/2017	17.89	18.07	0.18		817.41	817.54	-	-	-
RW-09					835.12					
	3/5/2018	-	12.90	-		822.22	-	-	-	-
	2/21/2018	-	12.08	-		823.04	-	-	-	-
	2/9/2018	-	12.12	-		823.00	-	-	-	-
	2/2/2018	-	12.98	-		822.14	-	-	-	-
	1/26/2018	-	13.44	-		821.68	-	-	-	-
	1/20/2018	-	13.84	-		821.28	-	-	-	-
	1/10/2018	-	13.78	-		821.34	-	-	-	-
	1/5/2018	-	14.57	-		820.55	-	-	-	-
	12/27/2017	-	13.81	-		821.31	-	-	-	-
	12/21/2017	-	14.71	-		820.41	-	-	-	-
	12/13/2017	-	13.85	-		821.27	-	-	-	-
	12/7/2017	-	14.85	-		820.27	-	-	-	-
	12/1/2017	-	13.57	-		821.55	-	-	-	-
	11/22/2017	-	13.64	-		821.48	-	-	-	-
	11/17/2017	-	13.78	-		821.34	-	-	-	-
	11/10/2017	-	13.40	-		821.72	-	11/9/2017	9:30	9:35
	11/3/2017	-	13.28	-		821.84	-	11/3/2017	10:25	10:30
	10/26/2017	14.82	14.92	0.10		820.20	820.28	10/25/2017	8:30	8:35
	10/20/2017	14.04	14.29	0.25		820.83	821.02	10/21/2017	10:05	10:10
	10/12/2017	14.78	16.39	1.61		818.73	819.91	10/10/2017	10:05	10:10
	10/6/2017	13.35	13.67	0.32		821.45	821.69	10/7/2017	9:40	9:45
	9/28/2017	14.59	15.35	0.76		819.77	820.33	9/28/2017	11:00	11:05
	9/21/2017	14.49	14.91	0.42		820.21	820.52	-	-	-
	9/15/2017	13.55	13.90	0.35		821.22	821.48	-	-	-
	9/5/2017	13.68	14.08	0.40		821.04	821.34	-	-	-
	8/31/2017	14.52	15.42	0.90		819.70	820.36	-	-	-
	8/24/2017	14.45	14.81	0.36		820.31	820.58	-	-	-
	8/21/2017	9.49	9.58	0.09		825.54	825.61	-	-	-
	8/17/2017	14.25	14.60	0.35		820.52	820.78	8/17/2017	10:45	10:50
	8/14/2017	14.08	14.53	0.45		820.59	820.92	-	-	-
	8/9/2017	14.16	14.24	0.08		820.88	820.94	-	-	-
	8/2/2017	14.18	14.22	0.04		820.90	820.93	-	-	-
	7/31/2017	14.10	14.12	0.02		821.00	821.02	-	-	-
	7/27/2017	13.98	14.00	0.02		821.12	821.14	-	-	-
	7/24/2017	-	13.82	-		821.30	-	-	-	-
	7/20/2017	-	13.85	-		821.27	-	-	-	-
	7/17/2017	-	13.69	-		821.43	-	-	-	-
	7/13/2017	13.72	13.73	0.01		821.39	821.40	-	-	-
	7/10/2017	13.44	13.45	0.01		821.67	821.68	-	-	-
	7/6/2017	-	12.72	-		822.40	-	-	-	-
	7/3/2017	-	13.53	-		821.59	-	-	-	-
	6/29/2017	13.53	13.54	0.01		821.58	821.59	-	-	-
	6/22/2017	13.52	13.54	0.02		821.58	821.60	-	-	-
	6/19/2017	13.51	13.52	0.01		821.60	821.61	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
RW-09 (cont'd)	6/15/2017	16.62	16.63	0.01		818.49	818.50	-	-	-
	6/12/2017	-	13.17	-		821.95	-	6/13/2017	13:30	13:40
	6/9/2017	12.70	12.71	0.01		822.41	822.42	-	-	-
	6/5/2017	-	13.51	-		821.61	-	-	-	-
	6/2/2017	12.70	12.71	0.01		822.41	822.42	-	-	-
	5/31/2017	13.40	13.43	0.03		821.69	821.72	-	-	-
	5/24/2017	13.15	13.17	0.02		821.95	821.97	-	-	-
	5/22/2017	13.65	13.69	0.04		821.43	821.46	-	-	-
	5/18/2017	14.01	14.12	0.11		821.00	821.08	-	-	-
	5/15/2017	13.10	13.22	0.12		821.90	821.99	-	-	-
	5/11/2017	13.84	14.03	0.19		821.09	821.23	-	-	-
	5/7/2017	13.47	13.48	0.01		821.64	821.65	-	-	-
	5/4/2017	13.85	14.15	0.30		820.97	821.19	-	-	-
	4/27/2017	13.80	13.92	0.12		821.20	821.29	-	-	-
	4/25/2017	12.60	12.68	0.08		822.44	822.50	-	-	-
	4/20/2017	13.81	14.22	0.41		820.90	821.20	-	-	-
	4/16/2017	13.80	14.31	0.51		820.81	821.19	-	-	-
4/13/2017	14.07	16.05	1.98		819.07	820.52	4/13/2017	10:42	10:48	
4/10/2017	13.70	13.75	0.05		821.37	821.41	-	-	-	
4/6/2017	13.56	14.17	0.61		820.95	821.40	-	-	-	
4/3/2017	14.36	15.00	0.64		820.12	820.59	-	-	-	
RW-10					848.53					
	3/5/2018	-	9.00	-		839.53	-	-	-	-
	2/21/2018	-	9.75	-		838.78	-	-	-	-
	2/3/2018	-	7.00	-		841.53	-	-	-	-
	12/27/2017	-	11.20	-		837.33	-	-	-	-
	11/12/2017	13.00	13.05	0.05		835.48	835.52	-	-	-
	10/21/2017	-	13.56	-		834.97	-	-	-	-
	9/10/2017	11.95	12.06	0.11		836.47	836.55	-	-	-
	8/21/2017	11.55	11.76	0.21		836.77	836.93	-	-	-
	8/17/2017	11.69	11.78	0.09		836.75	836.82	8/17/2017	10:50	10:55
	8/14/2017	9.97	10.04	0.07		838.49	838.54	-	-	-
	8/9/2017	-	10.08	-		838.45	-	-	-	-
	8/2/2017	12.00	12.26	0.26		836.27	836.46	-	-	-
	7/31/2017	12.06	12.35	0.29		836.18	836.39	-	-	-
	7/27/2017	11.74	11.98	0.24		836.55	836.73	-	-	-
	7/24/2017	11.99	12.22	0.23		836.31	836.48	-	-	-
	7/20/2017	11.88	12.05	0.17		836.48	836.61	-	-	-
	7/17/2017	11.60	11.70	0.10		836.83	836.91	-	-	-
	7/13/2017	11.44	11.49	0.05		837.04	837.08	-	-	-
	7/10/2017	11.42	11.43	0.01		837.10	837.11	-	-	-
	7/6/2017	-	11.35	-		837.18	-	-	-	-
	7/3/2017	12.06	12.20	0.14		836.33	836.43	-	-	-
	6/29/2017	11.65	11.73	0.08		836.80	836.86	-	-	-
	6/22/2017	11.99	12.75	0.76		835.78	836.34	-	-	-
	6/19/2017	12.39	12.72	0.33		835.81	836.05	-	-	-
	6/15/2017	12.78	12.99	0.21		835.54	835.70	-	-	-
	6/12/2017	12.71	12.85	0.14		835.68	835.78	-	-	-
	6/9/2017	12.47	12.53	0.06		836.00	836.05	-	-	-
	6/5/2017	12.07	12.08	0.01		836.45	836.46	-	-	-
	6/2/2017	10.63	10.64	0.01		837.89	837.90	-	-	-
	5/31/2017	18.43	19.15	0.72		829.38	829.91	5/31/2017	13:59	14:05
	5/24/2017	-	10.83	-		837.70	-	-	-	-
	5/22/2017	-	11.91	-		836.62	-	-	-	-
	5/18/2017	-	12.66	-		835.87	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-10 (cont'd)	5/15/2017	12.15	12.40	0.25		836.13	836.32	-	-	-
	5/11/2017	11.24	11.86	0.62		836.67	837.13	5/14/2017	11:59	12:07
	5/7/2017	15.98	16.89	0.91		831.64	832.31	5/9/2017	10:15	10:26
	5/4/2017	15.60	17.98	2.38		830.55	832.29	5/5/2017	10:51	11:01
	5/3/2017	15.70	18.04	2.34		830.49	832.20	-	-	-
	4/27/2017	16.08	18.35	2.27		830.18	831.84	-	-	-
	4/25/2017	16.29	18.84	2.55		829.69	831.55	-	-	-
	4/20/2017	17.21	18.92	1.71		829.61	830.86	-	-	-
	4/16/2017	17.01	20.00	2.99		828.53	830.72	-	-	-
	4/13/2017	17.16	20.05	2.89		828.48	830.59	4/13/2017	9:38	9:51
	4/10/2017	17.15	20.22	3.07		828.31	830.55	4/11/2017	11:50	11:55
	4/6/2017	17.30	20.75	3.45		827.78	830.30	4/7/2017	11:30	11:41
	4/3/2017	17.65	21.18	3.53		827.35	829.93	-	-	-
	RW-11					852.97				
	3/5/2018	-	13.15	-		839.82	-	-	-	-
	2/21/2018	-	13.01	-		839.96	-	-	-	-
	2/9/2018	-	NM	-		-	-	-	-	-
	2/2/2018	-	13.11	-		839.86	-	-	-	-
	1/26/2018	-	13.98	-		838.99	-	-	-	-
	1/20/2018	-	14.92	-		838.05	-	-	-	-
	1/10/2018	-	13.59	-		839.38	-	-	-	-
	1/5/2018	-	14.88	-		838.09	-	-	-	-
	12/27/2017	-	13.70	-		839.27	-	-	-	-
	12/21/2017	-	14.70	-		838.27	-	-	-	-
	12/13/2017	-	14.90	-		838.07	-	-	-	-
	12/7/2017	-	14.69	-		838.28	-	-	-	-
	12/1/2017	-	14.83	-		838.14	-	-	-	-
	11/22/2017	-	14.54	-		838.43	-	-	-	-
	11/17/2017	-	14.02	-		838.95	-	-	-	-
	11/10/2017	-	14.15	-		838.82	-	-	-	-
	11/3/2017	-	14.35	-		838.62	-	-	-	-
	10/26/2017	-	13.82	-		839.15	-	-	-	-
	10/20/2017	-	13.91	-		839.06	-	-	-	-
	10/12/2017	-	13.75	-		839.22	-	-	-	-
	10/6/2017	-	13.14	-		839.83	-	-	-	-
	9/28/2017	-	13.37	-		839.60	-	-	-	-
	9/21/2017	-	13.06	-		839.91	-	-	-	-
	9/15/2017	-	13.01	-		839.96	-	-	-	-
	9/5/2017	-	12.88	-		840.09	-	-	-	-
	8/31/2017	-	13.46	-		839.51	-	-	-	-
	8/24/2017	13.21	13.23	0.02		839.74	839.75	-	-	-
	8/21/2017	-	13.72	-		839.25	-	-	-	-
	8/17/2017	-	13.00	-		839.97	-	8/17/2017	10:55	11:00
	8/14/2017	-	12.86	-		840.11	-	-	-	-
	8/9/2017	-	12.65	-		840.32	-	-	-	-
	8/2/2017	-	12.67	-		840.30	-	-	-	-
	7/31/2017	-	12.60	-		840.37	-	-	-	-
	7/27/2017	12.39	12.40	0.01		840.57	840.57	-	-	-
	7/24/2017	-	12.25	-		840.72	-	-	-	-
	7/20/2017	-	12.12	-		840.85	-	-	-	-
	7/17/2017	12.07	12.09	0.02		840.88	840.89	-	-	-
	7/13/2017	11.99	12.08	0.09		840.89	840.95	-	-	-
	7/10/2017	11.78	11.87	0.09		841.10	841.16	-	-	-
	7/6/2017	11.05	11.14	0.09		841.83	841.89	-	-	-
	7/3/2017	11.58	11.71	0.13		841.26	841.35	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-11 (cont'd)	6/29/2017	11.52	11.63	0.11		841.34	841.42	-	-	-
	6/22/2017	11.62	11.79	0.17		841.18	841.30	-	-	-
	6/19/2017	11.16	11.47	0.31		841.50	841.72	-	-	-
	6/15/2017	11.40	11.77	0.37		841.20	841.47	-	-	-
	6/12/2017	11.20	11.49	0.29		841.48	841.69	-	-	-
	6/9/2017	11.16	11.45	0.29		841.52	841.73	-	-	-
	6/5/2017	11.43	11.67	0.24		841.30	841.47	-	-	-
	6/2/2017	11.49	11.61	0.12		841.36	841.45	-	-	-
	5/31/2017	11.53	11.67	0.14		841.30	841.40	-	-	-
	5/24/2017	11.11	11.15	0.04		841.82	841.85	-	-	-
	5/22/2017	-	11.78	-		841.19	-	-	-	-
	5/18/2017	12.20	12.21	0.01		840.76	840.76	-	-	-
	5/15/2017	-	12.19	-		840.78	-	-	-	-
	5/11/2017	12.11	12.12	0.01		840.85	840.85	-	-	-
	5/7/2017	12.18	12.19	0.01		840.78	840.78	-	-	-
	5/4/2017	12.28	12.29	0.01		840.68	840.68	-	-	-
	4/27/2017	12.35	12.36	0.01		840.61	840.61	-	-	-
	4/25/2017	12.28	12.38	0.10		840.59	840.66	-	-	-
	4/20/2017	12.95	13.65	0.70		839.32	839.83	-	-	-
	4/16/2017	13.05	13.69	0.64		839.28	839.74	-	-	-
4/13/2017	13.03	13.92	0.89		839.05	839.70	4/13/2017	10:32	10:39	
4/10/2017	13.05	13.92	0.87		839.05	839.68	4/11/2017	11:30	11:35	
4/6/2017	13.16	14.29	1.13		838.68	839.50	4/7/2017	10:44	10:55	
4/3/2017	13.70	14.78	1.08		838.19	838.98	-	-	-	
RW-12					852.75					
	3/5/2018	-	14.93	-		839.56	-	-	-	-
	2/21/2018	-	15.14	-		839.35	-	-	-	-
	2/9/2018	-	NM	-		-	-	-	-	-
	2/2/2018	-	15.93	-		838.56	-	-	-	-
	1/26/2018	-	15.95	-		838.54	-	-	-	-
	1/20/2018	-	15.79	-		838.70	-	-	-	-
	1/10/2018	-	15.29	-		839.20	-	-	-	-
	1/5/2018	-	15.94	-		838.55	-	-	-	-
	12/27/2017	-	16.00	-		838.49	-	-	-	-
	12/21/2017	-	16.00	-		838.49	-	-	-	-
	12/13/2017	-	16.03	-		838.46	-	-	-	-
	12/7/2017	-	15.98	-		838.51	-	-	-	-
	12/1/2017	-	15.99	-		838.50	-	-	-	-
	11/22/2017	-	15.91	-		838.58	-	-	-	-
	11/17/2017	-	15.87	-		838.62	-	-	-	-
	11/10/2017	-	15.74	-		838.75	-	-	-	-
	11/3/2017	-	14.17	-		840.32	-	-	-	-
	10/26/2017	-	15.46	-		839.03	-	-	-	-
	10/20/2017	-	15.47	-		839.02	-	-	-	-
	10/12/2017	-	15.23	-		837.52	-	-	-	-
	10/6/2017	-	15.15	-		837.60	-	-	-	-
	9/28/2017	14.45	14.46	0.01		838.29	838.30	-	-	-
	9/21/2017	-	14.78	-		837.97	-	-	-	-
	9/15/2017	-	14.84	-		837.91	-	-	-	-
	9/5/2017	-	14.80	-		837.95	-	-	-	-
	8/31/2017	-	14.75	-		838.00	-	-	-	-
	8/24/2017	14.57	14.58	0.01		838.17	838.18	-	-	-
	8/21/2017	-	14.46	-		838.29	-	-	-	-
	8/17/2017	-	14.35	-		838.40	-	8/17/2017	11:00	11:05
	8/14/2017	-	14.22	-		838.53	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-12 (cont'd)	8/9/2017	-	14.11	-		838.64	-	-	-	-
	8/2/2017	-	13.98	-		838.77	-	-	-	-
	7/31/2017	-	13.96	-		838.79	-	-	-	-
	7/27/2017	13.69	13.70	0.01		839.05	839.06	-	-	-
	7/24/2017	-	13.58	-		839.17	-	-	-	-
	7/20/2017	-	13.44	-		839.31	-	-	-	-
	7/17/2017	-	13.47	-		839.28	-	-	-	-
	7/13/2017	-	13.36	-		839.39	-	-	-	-
	7/10/2017	-	13.36	-		839.39	-	-	-	-
	7/6/2017	-	13.08	-		839.67	-	-	-	-
	7/3/2017	-	13.16	-		839.59	-	-	-	-
	6/29/2017	-	13.19	-		839.56	-	-	-	-
	6/22/2017	-	13.15	-		839.60	-	-	-	-
	6/19/2017	-	13.35	-		839.40	-	-	-	-
	6/15/2017	-	13.19	-		839.56	-	-	-	-
	6/12/2017	-	13.24	-		839.51	-	-	-	-
	6/9/2017	-	13.20	-		839.55	-	-	-	-
	6/5/2017	-	13.28	-		839.47	-	-	-	-
	6/2/2017	-	13.29	-		839.46	-	-	-	-
	5/31/2017	-	13.31	-		839.44	-	-	-	-
	5/24/2017	-	13.03	-		839.72	-	-	-	-
	5/22/2017	-	13.93	-		838.82	-	-	-	-
	5/18/2017	-	13.93	-		838.82	-	-	-	-
	5/15/2017	13.93	13.95	0.02		838.80	838.81	-	-	-
	5/11/2017	-	14.00	-		838.75	-	-	-	-
	5/7/2017	14.11	14.12	0.01		838.63	838.64	-	-	-
	5/4/2017	14.05	14.06	0.01		838.69	838.70	-	-	-
	4/27/2017	-	13.57	-		839.18	-	-	-	-
	4/25/2017	12.77	12.78	0.01		839.97	839.98	-	-	-
	4/20/2017	14.84	14.85	0.01		837.90	837.91	-	-	-
4/16/2017	14.81	14.84	0.03		837.91	837.93	-	-	-	
4/13/2017	14.71	14.72	0.01		838.03	838.04	-	-	-	
4/10/2017	14.56	14.57	0.01		838.18	838.19	-	-	-	
4/6/2017	13.36	13.37	0.01		839.38	839.39	4/7/2017	11:03	11:13	
4/3/2017	15.35	16.29	0.94		836.46	837.15	-	-	-	
RW-13					847.97					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	NM	-		-	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-
	10/21/2017	-	NM	-		-	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	8/21/2017	-	NM	-		-	-	-	-	-
	8/17/2017	-	NM	-		-	-	8/17/2017	11:05	11:10
	8/14/2017	-	NM	-		-	-	-	-	-
	8/9/2017	-	10.20	-		837.77	-	-	-	-
	8/2/2017	-	11.10	-		836.87	-	-	-	-
	7/31/2017	-	NM	-		-	-	-	-	-
	7/27/2017	-	NM	-		-	-	-	-	-
	7/24/2017	-	NM	-		-	-	-	-	-
	7/20/2017	-	NM	-		-	-	-	-	-
	7/17/2017	-	NM	-		-	-	-	-	-
	7/13/2017	-	NM	-		-	-	-	-	-
	7/10/2017	-	NM	-		-	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-13 (cont'd)	7/6/2017	-	NM	-	-	-	-	-	-	-
	7/3/2017	-	NM	-	-	-	-	-	-	-
	6/29/2017	-	NM	-	-	-	-	-	-	-
	6/22/2017	-	NM	-	-	-	-	-	-	-
	6/19/2017	-	NM	-	-	-	-	-	-	-
	6/15/2017	-	NM	-	-	-	-	-	-	-
	6/12/2017	-	NM	-	-	-	-	-	-	-
	6/9/2017	-	19.18	-	-	828.79	-	-	-	-
	6/5/2017	-	7.25	-	-	840.72	-	-	-	-
	6/2/2017	-	4.20	-	-	843.77	-	-	-	-
	5/31/2017	-	23.28	-	-	824.69	-	-	-	-
	5/24/2017	-	6.20	-	-	841.77	-	5/26/2017	10:15	10:22
	5/22/2017	-	NM	-	-	-	-	5/22/2017	12:49	12:58
	5/18/2017	-	10.30	-	-	837.67	-	-	-	-
	5/15/2017	-	26.80	-	-	821.17	-	-	-	-
	5/11/2017	-	9.30	-	-	838.67	-	-	-	-
	5/7/2017	16.12	16.62	0.50	-	831.35	831.71	5/9/2017	10:01	10:13
	5/4/2017	16.06	16.90	0.84	-	831.07	831.68	5/5/2017	11:09	11:21
	5/3/2017	16.13	17.02	0.89	-	830.95	831.60	-	-	-
	4/27/2017	16.50	17.45	0.95	-	830.52	831.21	-	-	-
	4/25/2017	16.73	17.83	1.10	-	830.14	830.94	-	-	-
	4/20/2017	17.10	18.90	1.80	-	829.07	830.38	-	-	-
	4/16/2017	17.19	19.05	1.86	-	828.92	830.28	-	-	-
	4/13/2017	17.38	18.94	1.56	-	829.03	830.17	4/13/2017	9:57	10:09
4/10/2017	17.32	19.19	1.87	-	828.78	830.14	4/11/2017	11:59	12:05	
4/6/2017	17.69	19.35	1.66	-	828.62	829.83	4/7/2017	12:15	12:27	
4/3/2017	17.85	19.68	1.83	-	828.29	829.62	-	-	-	
RW-14					827.54					
	3/5/2018	-	10.60	-	-	816.94	-	-	-	-
	2/21/2018	-	12.61	-	-	814.93	-	-	-	-
	2/9/2018	-	13.24	-	-	814.30	-	-	-	-
	2/3/2018	-	13.76	-	-	813.78	-	-	-	-
	1/26/2018	-	7.66	-	-	819.88	-	1/26/2018	10:30	10:35
	1/20/2018	14.83	14.84	0.01	-	812.70	812.71	-	-	-
	1/10/2018	-	14.04	-	-	813.50	-	-	-	-
	1/5/2018	-	NM	-	-	-	-	-	-	-
	12/27/2017	-	14.51	-	-	813.03	-	-	-	-
	12/21/2017	-	13.27	-	-	814.27	-	-	-	-
	12/13/2017	-	14.45	-	-	813.09	-	-	-	-
	12/7/2017	-	13.65	-	-	813.89	-	-	-	-
	12/1/2017	-	6.91	-	-	820.63	-	-	-	-
	11/22/2017	-	14.24	-	-	813.30	-	-	-	-
	11/17/2017	-	14.26	-	-	813.28	-	-	-	-
	11/10/2017	-	7.00	-	-	820.54	-	-	-	-
	11/3/2017	-	5.10	-	-	822.44	-	-	-	-
	10/26/2017	-	13.16	-	-	814.38	-	-	-	-
	10/20/2017	-	9.17	-	-	818.37	-	-	-	-
	10/12/2017	13.19	13.20	0.01	-	814.34	814.35	-	-	-
	10/6/2017	-	7.90	-	-	819.64	-	-	-	-
	9/28/2017	-	12.78	-	-	814.76	-	-	-	-
	9/21/2017	-	12.64	-	-	814.90	-	-	-	-
	9/15/2017	-	8.67	-	-	818.87	-	-	-	-
	9/5/2017	-	8.58	-	-	818.96	-	-	-	-
	8/31/2017	-	12.88	-	-	814.66	-	-	-	-
	8/24/2017	-	12.58	-	-	814.96	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
RW-14 (cont'd)	8/21/2017	-	12.71	-		814.83	-	-	-	-
	8/17/2017	-	12.40	-		815.14	-	8/17/2017	11:10	11:20
	8/14/2017	-	12.29	-		815.25	-	-	-	-
	8/9/2017	-	12.31	-		815.23	-	-	-	-
	8/2/2017	-	10.92	-		816.62	-	-	-	-
	7/31/2017	-	12.43	-		815.11	-	-	-	-
	7/27/2017	-	12.25	-		815.29	-	-	-	-
	7/24/2017	-	12.16	-		815.38	-	-	-	-
	7/20/2017	-	12.02	-		815.52	-	-	-	-
	7/17/2017	-	11.91	-		815.63	-	-	-	-
	7/13/2017	-	12.11	-		815.43	-	-	-	-
	7/10/2017	-	11.93	-		815.61	-	-	-	-
	7/6/2017	-	7.80	-		819.74	-	-	-	-
	7/3/2017	-	11.94	-		815.60	-	-	-	-
	6/29/2017	-	11.94	-		815.60	-	-	-	-
	6/22/2017	-	9.32	-		818.22	-	-	-	-
	6/19/2017	-	NM	-		-	-	-	-	-
	6/15/2017	-	11.95	-		815.59	-	-	-	-
	6/12/2017	-	12.68	-		814.86	-	-	-	-
	6/9/2017	-	9.12	-		818.42	-	-	-	-
	6/5/2017	-	12.03	-		815.51	-	-	-	-
	6/2/2017	-	7.80	-		819.74	-	-	-	-
	5/31/2017	-	11.99	-		815.55	-	-	-	-
	5/24/2017	-	12.15	-		815.39	-	-	-	-
	5/22/2017	-	12.05	-		815.49	-	-	-	-
	5/18/2017	-	12.44	-		815.10	-	-	-	-
	5/15/2017	-	12.10	-		815.44	-	-	-	-
	5/11/2017	-	12.30	-		815.24	-	-	-	-
	5/7/2017	-	13.89	-		813.65	-	-	-	-
	5/4/2017	-	12.54	-		815.00	-	-	-	-
4/27/2017	-	12.61	-		814.93	-	-	-	-	
4/25/2017	8.88	8.89	0.01		818.65	818.66	-	-	-	
4/20/2017	-	13.10	-		814.44	-	-	-	-	
4/16/2017	12.86	12.87	0.01		814.67	814.68	-	-	-	
4/13/2017	13.09	13.10	0.01		814.44	814.45	-	-	-	
4/10/2017	9.66	9.67	0.01		817.87	817.88	-	-	-	
4/6/2017	12.64	12.65	0.01		814.89	814.90	-	-	-	
4/3/2017	13.36	13.37	0.01		814.17	814.18	-	-	-	
RW-15					851.64					
	3/5/2018	11.94	12.04	0.10		839.60	839.67	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/13/2018	12.90	12.93	0.03		838.71	838.73	-	-	-
	2/2/2018	-	13.88	-		837.76	-	-	-	-
	12/27/2017	14.62	15.30	0.68		836.34	836.83	1/2/2018	10:36	10:41
	11/12/2017	14.90	15.30	0.40		836.34	836.63	-	-	-
	10/21/2017	15.88	16.60	0.72		835.04	835.56	-	-	-
	9/10/2017	14.03	14.51	0.48		837.13	837.48	-	-	-
	8/21/2017	13.81	13.98	0.17		837.66	837.78	-	-	-
	8/17/2017	13.77	13.82	0.05		837.82	837.85	8/17/2017	11:20	11:25
	8/14/2017	-	13.58	-		838.06	-	-	-	-
	8/9/2017	13.70	13.72	0.02		837.92	837.93	-	-	-
	8/2/2017	13.61	13.90	0.29		837.74	837.95	-	-	-
	7/31/2017	13.66	13.87	0.21		837.77	837.92	-	-	-
	7/27/2017	13.51	13.67	0.16		837.97	838.08	-	-	-
	7/24/2017	13.50	13.62	0.12		838.02	838.11	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RW-15 (cont'd)	7/20/2017	13.49	13.55	0.06		838.09	838.13	-	-	-
	7/17/2017	13.52	13.55	0.03		838.09	838.11	-	-	-
	7/13/2017	13.50	13.51	0.01		838.13	838.13	-	-	-
	7/10/2017	-	13.47	-		838.17	-	-	-	-
	7/6/2017	-	13.56	-		838.08	-	-	-	-
	7/3/2017	-	13.59	-		838.05	-	-	-	-
	6/29/2017	-	13.57	-		838.07	-	-	-	-
	6/22/2017	-	14.00	-		837.64	-	-	-	-
	6/19/2017	14.10	14.11	0.01		837.53	837.53	-	-	-
	6/15/2017	14.16	14.17	0.01		837.47	837.47	-	-	-
	6/12/2017	-	14.11	-		837.53	-	-	-	-
	6/9/2017	-	12.13	-		839.51	-	-	-	-
	6/5/2017	-	14.23	-		837.41	-	-	-	-
	6/2/2017	-	14.15	-		837.49	-	-	-	-
	5/31/2017	-	15.24	-		836.40	-	-	-	-
	5/24/2017	-	14.72	-		836.92	-	-	-	-
	5/22/2017	15.25	15.34	0.09		836.30	836.36	-	-	-
	5/18/2017	15.49	15.68	0.19		835.96	836.10	-	-	-
	5/15/2017	15.57	15.80	0.23		835.84	836.01	-	-	-
	5/11/2017	15.73	15.90	0.17		835.74	835.86	-	-	-
5/7/2017	16.96	17.31	0.35		834.33	834.58	-	-	-	
5/4/2017	16.91	17.55	0.64		834.09	834.55	5/5/2017	10:27	10:35	
4/27/2017	17.48	17.92	0.44		833.72	834.04	-	-	-	
4/25/2017	17.85	18.30	0.45		833.34	833.67	-	-	-	
4/20/2017	18.21	18.60	0.39		833.04	833.32	-	-	-	
4/16/2017	18.37	19.60	1.23		832.04	832.94	-	-	-	
4/13/2017	18.37	19.00	0.63		832.64	833.10	4/13/2017	10:13	10:26	
4/10/2017	18.43	18.97	0.54		832.67	833.06	4/11/2017	13:06	13:12	
4/6/2017	18.60	20.14	1.54		831.50	832.62	4/7/2017	12:59	13:07	
4/3/2017	18.75	20.10	1.35		831.54	832.52	-	-	-	
SW-01					812.82					
	3/5/2018	-	(1.00)	-		813.82	-	-	-	-
	2/21/2018	-	(0.90)	-		813.72	-	-	-	-
	2/3/2018	-	(0.88)	-		813.70	-	-	-	-
	1/8/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	(0.90)	-		813.72	-	-	-	-
	12/14/2017	-	(0.80)	-		813.62	-	-	-	-
	12/5/2017	-	(1.00)	-		813.82	-	-	-	-
	11/17/2017	-	(0.93)	-		813.75	-	-	-	-
	11/7/2017	-	(0.90)	-		813.72	-	-	-	-
	10/21/2017	-	(0.81)	-		813.63	-	-	-	-
	9/10/2017	-	(0.91)	-		813.73	-	-	-	-
	9/6/2017	-	(0.96)	-		813.78	-	-	-	-
	8/12/2017	-	(0.90)	-		813.72	-	-	-	-
	8/1/2017	-	-	-		812.82	-	-	-	-
	7/2/2017	-	(0.99)	-		813.81	-	-	-	-
	6/4/2017	-	(0.98)	-		813.80	-	-	-	-
	5/4/2017	-	(0.89)	-		813.71	-	-	-	-
	4/6/2017	-	(0.90)	-		813.72	-	-	-	-
SW-02					808.65					
	3/5/2018	-	(1.68)	-		810.33	-	-	-	-
	2/21/2018	-	(1.65)	-		810.30	-	-	-	-
	2/3/2018	-	(1.55)	-		810.20	-	-	-	-
	12/27/2017	-	(1.60)	-		810.25	-	-	-	-
	12/14/2017	-	(1.60)	-		810.25	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
SW-02 (cont'd)	12/5/2017	-	(1.60)	-		810.25	-	-	-	-
	11/17/2017	-	(1.61)	-		810.26	-	-	-	-
	10/21/2017	-	(1.47)	-		810.12	-	-	-	-
	9/10/2017	-	(1.60)	-		810.25	-	-	-	-
	9/6/2017	-	(1.58)	-		810.23	-	-	-	-
	8/12/2017	-	(1.61)	-		810.26	-	-	-	-
	7/2/2017	-	(1.67)	-		810.32	-	-	-	-
	6/4/2017	-	(1.57)	-		810.22	-	-	-	-
	5/4/2017	-	(1.54)	-		810.19	-	-	-	-
	4/6/2017	-	(1.55)	-		810.20	-	-	-	-
SW-03					815.09					
	3/5/2018	-	(1.76)	-		816.85	-	-	-	-
	2/21/2018	-	(1.25)	-		816.34	-	-	-	-
	2/3/2018	-	(1.72)	-		816.81	-	-	-	-
	1/8/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	(1.74)	-		816.83	-	-	-	-
	12/14/2017	-	(1.71)	-		816.80	-	-	-	-
	12/5/2017	-	(1.78)	-		816.87	-	-	-	-
	11/12/2017	-	(1.73)	-		816.82	-	-	-	-
	11/7/2017	-	(1.60)	-		816.69	-	-	-	-
	10/21/2017	-	(1.68)	-		816.77	-	-	-	-
	9/10/2017	-	(1.54)	-		816.63	-	-	-	-
	9/6/2017	-	(1.48)	-		816.57	-	-	-	-
	8/12/2017	-	(1.49)	-		816.58	-	-	-	-
	8/1/2017	-	-	-		815.09	-	-	-	-
	7/2/2017	-	(1.92)	-		817.01	-	-	-	-
	6/4/2017	-	(1.74)	-		816.83	-	-	-	-
	5/4/2017	-	(1.96)	-		817.05	-	-	-	-
	4/6/2017	-	(1.96)	-		817.05	-	-	-	-
SW-05					838.75					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	NM	-		-	-	-	-	-
	1/8/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	NM	-		-	-	-	-	-
	12/14/2017	-	NM	-		-	-	-	-	-
	12/5/2017	-	NM	-		-	-	-	-	-
	10/21/2017	-	NM	-		-	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	9/6/2017	-	NM	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
SW-08					802.04					
	3/5/2018	-	(1.08)	-		803.12	-	-	-	-
	2/21/2018	-	(1.10)	-		803.14	-	-	-	-
	2/3/2018	-	(1.06)	-		803.10	-	-	-	-
	12/27/2017	-	(1.08)	-		803.12	-	-	-	-
	12/14/2017	-	(1.15)	-		803.19	-	-	-	-
	12/5/2017	-	(1.15)	-		803.19	-	-	-	-
	11/17/2017	-	(1.15)	-		803.19	-	-	-	-
	10/21/2017	-	(1.01)	-		803.05	-	-	-	-
	9/10/2017	-	(1.09)	-		803.13	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
SW-08 (cont'd)	9/6/2017	-	(1.43)	-		803.47	-	-	-	-
	8/12/2017	-	(1.05)	-		803.09	-	-	-	-
	7/2/2017	-	(1.05)	-		803.09	-	-	-	-
	6/9/2017	-	(1.07)	-		803.11	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	(1.24)	-		803.28	-	-	-	-
	4/6/2017	-	(1.24)	-		803.28	-	-	-	-
SW-10					778.09					
	3/5/2018	-	(0.84)	-		778.93	-	-	-	-
	2/21/2018	-	(0.90)	-		778.99	-	-	-	-
	2/3/2018	-	(0.40)	-		778.49	-	-	-	-
	12/27/2017	-	(0.45)	-		778.54	-	-	-	-
	12/14/2017	-	(0.88)	-		778.97	-	-	-	-
	12/5/2017	-	(0.88)	-		778.97	-	-	-	-
	11/17/2017	-	(0.64)	-		778.73	-	-	-	-
	10/21/2017	-	(0.27)	-		778.36	-	-	-	-
	9/10/2017	-	(0.30)	-		778.39	-	-	-	-
	9/6/2017	-	(0.67)	-		778.76	-	-	-	-
	8/12/2017	-	(0.27)	-		778.36	-	-	-	-
	7/2/2017	-	(0.36)	-		778.45	-	-	-	-
	6/9/2017	-	(0.30)	-		778.39	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	(0.48)	-		778.57	-	-	-	-
	4/6/2017	-	(0.50)	-		778.59	-	-	-	-
SW-12					-					
	1/8/2018	-	NM	-		-	-	-	-	-
SW-13					-					
	1/8/2018	-	NM	-		-	-	-	-	-
	11/7/2017	-	(0.90)	-		0.90	-	-	-	-
TW-04R					852.64					
	3/5/2018	-	2.68	-		849.96	-	-	-	-
	2/21/2018	-	3.47	-		849.17	-	-	-	-
	2/3/2018	-	4.25	-		848.39	-	-	-	-
	12/27/2017	-	DRY	-		-	-	-	-	-
	11/12/2017	-	4.71	-		847.93	-	-	-	-
	10/21/2017	-	DRY	-		-	-	-	-	-
	9/10/2017	-	DRY	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	3.95	-		848.69	-	-	-	-
	6/4/2017	-	4.01	-		848.63	-	-	-	-
	5/4/2017	-	4.20	-		848.44	-	-	-	-
	4/6/2017	-	4.95	-		847.69	-	-	-	-
TW-05R					849.93					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	2.71	-		847.22	-	-	-	-
	2/3/2018	-	4.32	-		845.61	-	-	-	-
	12/27/2017	-	6.52	-		843.41	-	-	-	-
	11/12/2017	-	5.76	-		844.17	-	-	-	-
	10/21/2017	-	8.44	-		841.49	-	-	-	-
	9/10/2017	-	6.87	-		843.06	-	-	-	-
	8/12/2017	-	8.13	-		841.80	-	-	-	-
	7/2/2017	-	4.55	-		845.38	-	-	-	-
	6/4/2017	-	5.70	-		844.23	-	-	-	-
	5/4/2017	-	3.64	-		846.29	-	-	-	-
	4/6/2017	-	1.90	-		848.03	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-14R					853.37					
	3/5/2018	-	3.45	-		849.92	-	-	-	-
	2/21/2018	-	4.00	-		849.37	-	-	-	-
	2/3/2018	-	4.98	-		848.39	-	-	-	-
	12/27/2017	-	DRY	-		-	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-
	10/21/2017	-	DRY	-		-	-	-	-	-
	9/10/2017	-	DRY	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	3.76	-		849.61	-	-	-	-
	6/4/2017	-	4.53	-		848.84	-	-	-	-
	5/4/2017	-	3.43	-		849.94	-	-	-	-
	4/6/2017	-	2.63	-		850.74	-	-	-	-
TW-15R					850.62					
	3/5/2018	-	1.25	-		849.37	-	-	-	-
	2/21/2018	-	1.97	-		848.65	-	-	-	-
	2/3/2018	-	2.93	-		847.69	-	-	-	-
	12/27/2017	-	3.92	-		846.70	-	-	-	-
	11/12/2017	-	5.70	-		844.92	-	-	-	-
	10/21/2017	-	DRY	-		-	-	-	-	-
	9/10/2017	-	DRY	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	3.10	-		847.52	-	-	-	-
	6/4/2017	-	2.91	-		847.71	-	-	-	-
	5/4/2017	-	2.58	-		848.04	-	-	-	-
	4/6/2017	-	3.55	-		847.07	-	-	-	-
TW-21					849.70					
	3/5/2018	-	0.54	-		849.16	-	-	-	-
	2/21/2018	-	1.45	-		848.25	-	-	-	-
	2/3/2018	-	2.49	-		847.21	-	-	-	-
	12/27/2017	-	4.50	-		845.20	-	-	-	-
	11/12/2017	-	4.25	-		845.45	-	-	-	-
	10/21/2017	-	NM	-		-	-	-	-	-
	9/10/2017	-	5.00	-		844.70	-	-	-	-
	8/12/2017	-	6.10	-		843.60	-	-	-	-
	7/2/2017	-	2.67	-		847.03	-	-	-	-
	6/4/2017	-	2.65	-		847.05	-	-	-	-
	5/4/2017	-	1.89	-		847.81	-	-	-	-
	4/6/2017	-	0.95	-		848.75	-	-	-	-
TW-28					851.42					
	3/5/2018	21.45	21.87	0.42		829.55	829.86	-	-	-
	2/21/2018	21.81	22.38	0.57		829.04	829.46	-	-	-
	2/3/2018	22.68	22.80	0.12		828.62	828.71	-	-	-
	12/27/2017	23.10	23.70	0.60		827.72	828.16	-	-	-
	11/12/2017	22.97	23.10	0.13		828.32	828.42	-	-	-
	10/21/2017	23.60	24.50	0.90		826.92	827.58	-	-	-
	9/10/2017	22.80	22.90	0.10		828.52	828.60	-	-	-
	8/12/2017	22.35	22.50	0.15		828.92	829.03	-	-	-
	7/2/2017	21.31	21.58	0.27		829.84	830.04	-	-	-
	6/4/2017	21.59	22.35	0.76		829.07	829.63	-	-	-
	5/4/2017	23.16	23.45	0.29		827.97	828.19	-	-	-
	4/6/2017	24.26	25.70	1.44		825.72	826.78	-	-	-
TW-30					851.81					
	3/5/2018	-	20.16	-		831.65	-	-	-	-
	2/21/2018	-	20.60	-		831.21	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
TW-30 (cont'd)	2/3/2018	-	21.97	-		829.84	-	-	-	-
	12/27/2017	-	22.15	-		829.66	-	-	-	-
	11/12/2017	-	21.90	-		829.91	-	-	-	-
	10/21/2017	-	22.92	-		828.89	-	-	-	-
	9/10/2017	-	22.00	-		829.81	-	-	-	-
	8/12/2017	-	21.26	-		830.55	-	-	-	-
	7/2/2017	-	20.15	-		831.66	-	-	-	-
	6/4/2017	-	20.40	-		831.41	-	-	-	-
	5/4/2017	-	21.45	-		830.36	-	-	-	-
	4/6/2017	-	20.45	-		831.36	-	-	-	-
TW-34					854.79					
	3/5/2018	-	22.19	-		832.60	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	22.23	-		832.56	-	-	-	-
	12/27/2017	-	22.21	-		832.58	-	-	-	-
	11/12/2017	-	22.25	-		832.54	-	-	-	-
	10/21/2017	-	22.21	-		832.58	-	-	-	-
	9/10/2017	-	22.20	-		832.59	-	-	-	-
	8/12/2017	-	22.20	-		832.59	-	-	-	-
	7/2/2017	-	22.23	-		832.56	-	-	-	-
	6/4/2017	-	22.25	-		832.54	-	-	-	-
	5/4/2017	-	22.22	-		832.57	-	-	-	-
	4/6/2017	-	22.25	-		832.54	-	-	-	-
TW-35					854.10					
	3/5/2018	-	22.68	-		831.42	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	22.73	-		831.37	-	-	-	-
	12/27/2017	-	22.70	-		831.40	-	-	-	-
	11/12/2017	-	22.74	-		831.36	-	-	-	-
	10/21/2017	-	22.72	-		831.38	-	-	-	-
	9/10/2017	-	22.72	-		831.38	-	-	-	-
	8/12/2017	-	22.72	-		831.38	-	-	-	-
	7/2/2017	-	22.75	-		831.35	-	-	-	-
	6/4/2017	-	22.71	-		831.39	-	-	-	-
	5/4/2017	-	22.69	-		831.41	-	-	-	-
	4/6/2017	-	22.75	-		831.35	-	-	-	-
TW-40					853.35					
	3/5/2018	-	28.13	-		825.22	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	28.92	-		824.43	-	-	-	-
	12/27/2017	-	28.95	-		824.40	-	-	-	-
	11/12/2017	-	29.08	-		824.27	-	-	-	-
	10/21/2017	-	29.17	-		824.18	-	-	-	-
	9/10/2017	-	28.90	-		824.45	-	-	-	-
	8/12/2017	-	28.65	-		824.70	-	-	-	-
	7/2/2017	-	28.40	-		824.95	-	-	-	-
	6/4/2017	-	28.48	-		824.87	-	-	-	-
	5/4/2017	-	28.76	-		824.59	-	-	-	-
	4/6/2017	-	29.20	-		824.15	-	-	-	-
TW-41					849.38					
	3/5/2018	-	25.47	-		823.91	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	27.50	-		821.88	-	-	-	-
	12/27/2017	-	27.65	-		821.73	-	-	-	-
	11/12/2017	-	27.81	-		821.57	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-41 (cont'd)	10/21/2017	-	28.53	-		820.85	-	-	-	-
	9/10/2017	-	27.89	-		821.49	-	-	-	-
	8/12/2017	-	27.25	-		822.13	-	-	-	-
	7/2/2017	-	26.51	-		822.87	-	-	-	-
	6/4/2017	-	26.70	-		822.68	-	-	-	-
	5/4/2017	-	27.42	-		821.96	-	-	-	-
	4/6/2017	-	28.68	-		820.70	-	-	-	-
TW-42					846.84					
	3/5/2018	24.11	24.71	0.60		822.13	822.57	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	25.87	26.40	0.53		820.44	820.83	-	-	-
	12/27/2017	26.10	26.55	0.45		820.29	820.62	-	-	-
	11/12/2017	26.15	26.97	0.82		819.87	820.47	-	-	-
	10/21/2017	26.75	NO WATER	0.75		-	-	-	-	-
	9/10/2017	26.26	27.20	0.94		819.64	820.32	-	-	-
	8/12/2017	25.74	26.58	0.84		820.26	820.87	-	-	-
	7/2/2017	24.95	26.22	1.27		820.62	821.55	-	-	-
	6/4/2017	25.14	26.30	1.16		820.54	821.39	-	-	-
	5/4/2017	25.65	26.85	1.20		819.99	820.86	-	-	-
	4/6/2017	26.70	NO WATER	0.80		-	-	-	-	-
TW-45					848.31					
	3/5/2018	25.93	25.96	0.03		822.35	822.37	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	27.45	27.60	0.15		820.71	820.82	-	-	-
	12/27/2017	27.65	27.76	0.11		820.55	820.63	-	-	-
	11/12/2017	27.73	28.10	0.37		820.21	820.48	-	-	-
	10/21/2017	28.38	28.98	0.60		819.33	819.77	-	-	-
	9/10/2017	27.85	28.40	0.55		819.91	820.31	-	-	-
	8/12/2017	27.32	27.75	0.43		820.56	820.87	-	-	-
	7/2/2017	26.70	26.98	0.28		821.33	821.53	-	-	-
	6/4/2017	26.85	27.20	0.35		821.11	821.36	-	-	-
	5/4/2017	27.27	27.85	0.58		820.46	820.88	-	-	-
	4/6/2017	28.30	29.27	0.97		819.04	819.75	-	-	-
TW-46					846.88					
	3/5/2018	-	NM	-		-	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	NM	-		-	-	-	-	-
	5/4/2017	-	NM	-		-	-	-	-	-
	4/6/2017	-	NM	-		-	-	-	-	-
TW-55					845.93					
	3/5/2018	-	11.50	-		834.43	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	13.00	-		832.93	-	-	-	-
	2/3/2018	-	15.80	-		830.13	-	-	-	-
	1/8/2018	-	21.73	-		824.20	-	-	-	-
	12/27/2017	-	14.00	-		831.93	-	-	-	-
	12/4/2017	-	5.48	-		840.45	-	-	-	-
	11/12/2017	-	7.51	-		838.42	-	-	-	-
	11/7/2017	-	8.12	-		837.81	-	-	-	-
	10/21/2017	-	8.35	-		837.58	-	-	-	-
	10/3/2017	-	14.90	-		831.03	-	-	-	-
	9/10/2017	-	6.60	-		839.33	-	-	-	-
	9/6/2017	-	6.95	-		838.98	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-55 (cont'd)	8/12/2017	-	3.60	-		842.33	-	-	-	-
	8/1/2017	-	6.46	-		839.47	-	-	-	-
	7/2/2017	-	6.02	-		839.91	-	-	-	-
	6/26/2017	-	5.04	-		840.89	-	-	-	-
	6/4/2017	-	4.95	-		840.98	-	-	-	-
	5/4/2017	-	8.82	-		837.11	-	-	-	-
	4/6/2017	-	10.80	-		835.13	-	-	-	-
TW-59					834.78					
	3/5/2018	-	13.26	-		821.52	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	13.40	-		821.38	-	-	-	-
	2/3/2018	-	11.50	-		823.28	-	-	-	-
	1/8/2018	-	15.25	-		819.53	-	-	-	-
	12/27/2017	-	12.20	-		822.58	-	-	-	-
	12/4/2017	-	15.81	-		818.97	-	-	-	-
	11/12/2017	-	20.41	-		814.37	-	-	-	-
	11/7/2017	-	20.00	-		814.78	-	-	-	-
	10/21/2017	-	14.30	-		820.48	-	-	-	-
	10/3/2017	-	14.80	-		819.98	-	-	-	-
	9/10/2017	-	14.85	-		819.93	-	-	-	-
	9/6/2017	-	15.34	-		819.44	-	-	-	-
	8/12/2017	-	14.25	-		820.53	-	-	-	-
	8/1/2017	-	14.02	-		820.76	-	-	-	-
	7/2/2017	-	13.68	-		821.10	-	-	-	-
	6/26/2017	-	13.47	-		821.31	-	-	-	-
	6/4/2017	-	13.71	-		821.07	-	-	-	-
	5/4/2017	-	13.90	-		820.88	-	-	-	-
	4/26/2017	-	13.73	-		821.05	-	-	-	-
	4/6/2017	-	14.74	-		820.04	-	-	-	-
	4/3/2017	-	15.20	-		819.58	-	-	-	-
TW-60					828.03					
	3/5/2018	-	-	-		828.03	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	8.45	-		819.58	-	-	-	-
	2/3/2018	-	9.78	-		818.25	-	-	-	-
	1/8/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	10.90	-		817.13	-	-	-	-
	12/4/2017	-	10.27	-		817.76	-	-	-	-
	11/12/2017	-	11.65	-		816.38	-	-	-	-
	11/7/2017	-	10.20	-		817.83	-	-	-	-
	10/21/2017	-	10.37	-		817.66	-	-	-	-
	10/3/2017	-	7.72	-		820.31	-	-	-	-
	9/10/2017	-	10.45	-		817.58	-	-	-	-
	9/6/2017	-	10.11	-		817.92	-	-	-	-
	8/12/2017	-	16.04	-		811.99	-	-	-	-
	8/1/2017	-	7.05	-		820.98	-	-	-	-
	7/2/2017	-	9.38	-		818.65	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	9.40	-		818.63	-	-	-	-
	5/4/2017	-	9.45	-		818.58	-	-	-	-
	4/26/2017	-	9.37	-		818.66	-	-	-	-
	4/6/2017	-	8.93	-		819.10	-	-	-	-
	4/3/2017	-	10.01	-		818.02	-	-	-	-
TW-61					847.50					
	4/26/2017	-	1.53	-		845.97	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-64					845.88					
	3/5/2018	-	15.60	-		830.28	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	16.26	-		829.62	-	-	-	-
	2/3/2018	-	16.70	-		829.18	-	-	-	-
	1/8/2018	-	21.10	-		824.78	-	-	-	-
	12/27/2017	-	19.61	-		826.27	-	-	-	-
	12/4/2017	-	17.45	-		828.43	-	-	-	-
	11/12/2017	-	18.05	-		827.83	-	-	-	-
	11/7/2017	-	18.20	-		827.68	-	-	-	-
	10/21/2017	-	18.94	-		826.94	-	-	-	-
	10/3/2017	-	20.40	-		825.48	-	-	-	-
	9/10/2017	-	17.25	-		828.63	-	-	-	-
	9/6/2017	-	17.05	-		828.83	-	-	-	-
	8/12/2017	-	16.23	-		829.65	-	-	-	-
	8/1/2017	-	16.38	-		829.50	-	-	-	-
	7/2/2017	-	15.65	-		830.23	-	-	-	-
	6/4/2017	-	15.55	-		830.33	-	-	-	-
	5/4/2017	-	17.87	-		828.01	-	-	-	-
	4/6/2017	-	19.29	-		826.59	-	-	-	-
TW-65					845.62					
	3/5/2018	-	19.96	-		825.66	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	21.18	-		824.44	-	-	-	-
	12/27/2017	-	22.82	-		822.80	-	-	-	-
	11/12/2017	-	22.25	-		823.37	-	-	-	-
	10/21/2017	-	22.97	-		822.65	-	-	-	-
	9/10/2017	-	21.61	-		824.01	-	-	-	-
	8/12/2017	-	21.08	-		824.54	-	-	-	-
	7/2/2017	-	20.14	-		825.48	-	-	-	-
	6/4/2017	-	20.35	-		825.27	-	-	-	-
	5/4/2017	-	21.95	-		823.67	-	-	-	-
	4/6/2017	-	22.95	-		822.67	-	-	-	-
TW-66					820.31					
	3/5/2018	-	0.63	-		819.68	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	1.10	-		819.21	-	-	-	-
	2/3/2018	-	2.45	-		817.86	-	-	-	-
	1/8/2018	-	2.37	-		817.94	-	-	-	-
	12/27/2017	-	3.03	-		817.28	-	-	-	-
	12/4/2017	-	3.32	-		816.99	-	-	-	-
	11/12/2017	-	2.65	-		817.66	-	-	-	-
	11/7/2017	-	2.15	-		818.16	-	-	-	-
	10/21/2017	-	2.68	-		817.63	-	-	-	-
	10/3/2017	-	1.79	-		818.52	-	-	-	-
	9/10/2017	-	2.98	-		817.33	-	-	-	-
	9/6/2017	-	2.45	-		817.86	-	-	-	-
	8/12/2017	-	2.65	-		817.66	-	-	-	-
	8/1/2017	-	1.35	-		818.96	-	-	-	-
	7/2/2017	-	1.78	-		818.53	-	-	-	-
	6/26/2017	-	1.00	-		819.31	-	-	-	-
	6/4/2017	-	1.75	-		818.56	-	-	-	-
	5/4/2017	-	1.78	-		818.53	-	-	-	-
	4/6/2017	-	1.86	-		818.45	-	-	-	-
	4/3/2017	-	2.32	-		817.99	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Corrected ^c		Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)	Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
TW-67					852.71			-	-	-
	3/5/2018	-	4.60	-		848.11	-	-	-	-
	2/21/2018	-	10.97	-		841.74	-	-	-	-
	2/5/2018	-	11.75	-		840.96	-	-	-	-
	2/3/2018	-	12.61	-		840.10	-	-	-	-
	1/8/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	9.00	-		843.71	-	-	-	-
	12/4/2017	-	12.48	-		840.23	-	-	-	-
	11/12/2017	-	9.20	-		843.51	-	-	-	-
	11/7/2017	-	13.91	-		838.80	-	-	-	-
	10/21/2017	-	9.00	-		843.71	-	-	-	-
	10/3/2017	-	13.83	-		838.88	-	-	-	-
	9/10/2017	-	9.80	-		842.91	-	-	-	-
	9/6/2017	-	13.32	-		839.39	-	-	-	-
	8/12/2017	-	6.80	-		845.91	-	-	-	-
	8/1/2017	-	12.70	-		840.01	-	-	-	-
	7/2/2017	-	11.95	-		840.76	-	-	-	-
	6/26/2017	-	11.76	-		840.95	-	-	-	-
	6/4/2017	-	12.47	-		840.24	-	-	-	-
	5/4/2017	-	12.65	-		840.06	-	-	-	-
	4/26/2017	-	13.57	-		839.14	-	-	-	-
	4/6/2017	-	14.30	-		838.41	-	-	-	-
	4/3/2017	-	9.54	-		843.17	-	-	-	-
TW-68					846.45			-	-	-
	3/5/2018	-	22.18	-		824.27	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	23.13	-		823.32	-	-	-	-
	12/27/2017	-	23.90	-		822.55	-	-	-	-
	11/12/2017	-	23.85	-		822.60	-	-	-	-
	10/21/2017	-	24.47	-		821.98	-	-	-	-
	9/10/2017	-	23.11	-		823.34	-	-	-	-
	8/12/2017	-	22.68	-		823.77	-	-	-	-
	7/2/2017	-	22.09	-		824.36	-	-	-	-
	6/4/2017	-	22.41	-		824.04	-	-	-	-
	5/4/2017	-	23.54	-		822.91	-	-	-	-
	4/6/2017	-	24.32	-		822.13	-	-	-	-
TW-69					840.27			-	-	-
	3/5/2018	-	12.11	-		828.16	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	13.38	-		826.89	-	-	-	-
	12/27/2017	-	17.75	-		822.52	-	-	-	-
	11/12/2017	-	14.95	-		825.32	-	-	-	-
	10/21/2017	-	16.20	-		824.07	-	-	-	-
	9/10/2017	-	15.24	-		825.03	-	-	-	-
	8/12/2017	-	14.77	-		825.50	-	-	-	-
	7/2/2017	-	12.95	-		827.32	-	-	-	-
	6/4/2017	-	12.06	-		828.21	-	-	-	-
	5/4/2017	-	14.15	-		826.12	-	-	-	-
	4/6/2017	-	16.05	-		824.22	-	-	-	-
TW-70					841.95			-	-	-
	3/5/2018	-	16.41	-		825.54	-	-	-	-
	2/21/2018	-	17.44	-		824.51	-	-	-	-
	2/3/2018	-	18.75	-		823.20	-	-	-	-
	12/27/2017	-	19.36	-		822.59	-	-	-	-
	11/12/2017	-	19.58	-		822.37	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
TW-70 (cont'd)	10/21/2017	-	20.22	-		821.73	-	-	-	-
	9/10/2017	-	19.35	-		822.60	-	-	-	-
	8/12/2017	-	18.75	-		823.20	-	-	-	-
	7/2/2017	-	17.75	-		824.20	-	-	-	-
	6/4/2017	-	17.69	-		824.26	-	-	-	-
	5/4/2017	-	18.44	-		823.51	-	-	-	-
	4/6/2017	-	20.14	-		821.81	-	-	-	-
TW-73					850.53					
	3/5/2018	7.55	7.56	0.01		842.97	842.98	-	-	-
	2/21/2018	-	5.36	-		845.17	-	-	-	-
	2/5/2018	-	7.65	-		842.88	-	-	-	-
	2/3/2018	-	6.00	-		844.53	-	-	-	-
	1/8/2018	-	9.83	-		840.70	-	-	-	-
	12/27/2017	-	6.00	-		844.53	-	-	-	-
	12/4/2017	-	3.30	-		847.23	-	-	-	-
	11/12/2017	-	9.00	-		841.53	-	-	-	-
	11/7/2017	-	8.55	-		841.98	-	-	-	-
	10/21/2017	-	9.85	-		840.68	-	-	-	-
	10/3/2017	-	9.43	-		841.10	-	-	-	-
	9/10/2017	-	9.15	-		841.38	-	-	-	-
	9/6/2017	-	9.20	-		841.33	-	-	-	-
	8/12/2017	-	8.40	-		842.13	-	-	-	-
	8/1/2017	-	5.31	-		845.22	-	-	-	-
	7/2/2017	-	7.41	-		843.12	-	-	-	-
	6/26/2017	-	6.41	-		844.12	-	-	-	-
	6/4/2017	-	6.18	-		844.35	-	-	-	-
	5/4/2017	-	7.25	-		843.28	-	-	-	-
	4/26/2017	-	DRY	-		-	-	-	-	-
	4/6/2017	-	9.26	-		841.27	-	-	-	-
	4/3/2017	-	8.71	-		841.82	-	-	-	-
TW-76					852.44					
	3/5/2018	-	12.51	-		839.93	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	14.17	-		838.27	-	-	-	-
	12/27/2017	-	14.55	-		837.89	-	-	-	-
	11/12/2017	-	15.10	-		837.34	-	-	-	-
	10/21/2017	-	15.75	-		836.69	-	-	-	-
	9/10/2017	-	14.39	-		838.05	-	-	-	-
	8/12/2017	-	13.92	-		838.52	-	-	-	-
	7/2/2017	-	13.81	-		838.63	-	-	-	-
	6/4/2017	-	14.76	-		837.68	-	-	-	-
	5/4/2017	-	16.50	-		835.94	-	-	-	-
	4/6/2017	-	17.56	-		834.88	-	-	-	-
TW-81					849.43					
	3/5/2018	-	0.60	-		848.83	-	-	-	-
	2/21/2018	-	1.51	-		847.92	-	-	-	-
	2/3/2018	-	2.40	-		847.03	-	-	-	-
	12/27/2017	-	4.21	-		845.22	-	-	-	-
	11/12/2017	-	4.05	-		845.38	-	-	-	-
	10/21/2017	-	6.22	-		843.21	-	-	-	-
	9/10/2017	-	4.87	-		844.56	-	-	-	-
	8/12/2017	-	5.58	-		843.85	-	-	-	-
	7/2/2017	-	2.67	-		846.76	-	-	-	-
	6/4/2017	-	2.75	-		846.68	-	-	-	-
	5/4/2017	-	2.06	-		847.37	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
TW-81 (cont'd)	4/6/2017	-	NM	-		-	-	-	-	-
TW-82					849.64					
	3/5/2018	-	0.35	-		849.29	-	-	-	-
	2/21/2018	-	1.10	-		848.54	-	-	-	-
	2/3/2018	-	2.45	-		847.19	-	-	-	-
	12/27/2017	-	4.32	-		845.32	-	-	-	-
	11/12/2017	-	4.05	-		845.59	-	-	-	-
	10/21/2017	-	6.74	-		842.90	-	-	-	-
	9/10/2017	-	5.11	-		844.53	-	-	-	-
	8/12/2017	-	5.88	-		843.76	-	-	-	-
	7/2/2017	-	2.65	-		846.99	-	-	-	-
	6/4/2017	-	2.50	-		847.14	-	-	-	-
	5/4/2017	-	1.75	-		847.89	-	-	-	-
	4/6/2017	-	1.52	-		848.12	-	-	-	-
TW-83					850.44					
	3/5/2018	-	0.97	-		849.47	-	-	-	-
	2/21/2018	-	2.00	-		848.44	-	-	-	-
	2/3/2018	-	3.18	-		847.26	-	-	-	-
	12/27/2017	-	5.09	-		845.35	-	-	-	-
	11/12/2017	-	4.80	-		845.64	-	-	-	-
	10/21/2017	-	NM	-		-	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	8/12/2017	-	NM	-		-	-	-	-	-
	7/2/2017	-	3.45	-		846.99	-	-	-	-
	6/4/2017	-	3.25	-		847.19	-	-	-	-
	5/4/2017	-	2.61	-		847.83	-	-	-	-
	4/6/2017	-	2.32	-		848.12	-	-	-	-
TW-84					851.22					
	3/5/2018	-	2.05	-		849.17	-	-	-	-
	2/21/2018	-	3.16	-		848.06	-	-	-	-
	2/3/2018	-	4.15	-		847.07	-	-	-	-
	12/27/2017	-	5.75	-		845.47	-	-	-	-
	11/12/2017	-	5.25	-		845.97	-	-	-	-
	10/21/2017	-	7.90	-		843.32	-	-	-	-
	9/10/2017	-	6.67	-		844.55	-	-	-	-
	8/12/2017	-	7.12	-		844.10	-	-	-	-
	7/2/2017	-	4.06	-		847.16	-	-	-	-
	6/4/2017	3.74	3.75	0.01		847.47	847.47	-	-	-
	5/4/2017	-	3.36	-		847.86	-	-	-	-
	4/6/2017	-	4.25	-		846.97	-	-	-	-
TW-85					843.49					
	3/5/2018	-	NM	-		-	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	-	-		843.49	-	-	-	-
	12/27/2017	-	16.10	-		827.39	-	-	-	-
	11/12/2017	-	10.10	-		833.39	-	-	-	-
	10/21/2017	-	13.40	-		830.09	-	-	-	-
	9/10/2017	-	10.60	-		832.89	-	-	-	-
	8/12/2017	-	6.10	-		837.39	-	-	-	-
	7/2/2017	-	9.51	-		833.98	-	-	-	-
	6/4/2017	-	8.61	-		834.88	-	-	-	-
	5/4/2017	-	11.95	-		831.54	-	-	-	-
	4/6/2017	-	14.45	-		829.04	-	-	-	-
TW-86					853.10					
	3/5/2018	-	3.51	-		849.59	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
TW-86 (cont'd)	2/21/2018	-	4.35	-		848.75	-	-	-	-
	2/3/2018	-	5.48	-		847.62	-	-	-	-
	12/27/2017	-	5.52	-		847.58	-	-	-	-
	11/12/2017	-	5.61	-		847.49	-	-	-	-
	10/21/2017	-	5.57	-		847.53	-	-	-	-
	9/10/2017	-	5.56	-		847.54	-	-	-	-
	8/12/2017	-	5.55	-		847.55	-	-	-	-
	7/2/2017	-	5.35	-		847.75	-	-	-	-
	6/4/2017	-	4.94	-		848.16	-	-	-	-
	5/4/2017	-	4.40	-		848.70	-	-	-	-
4/6/2017	-	4.30	-		848.80	-	-	-	-	
TW-87					852.25					
	3/5/2018	-	2.58	-		849.67	-	-	-	-
	2/21/2018	-	3.81	-		848.44	-	-	-	-
	2/3/2018	-	5.13	-		847.12	-	-	-	-
	12/27/2017	-	6.60	-		845.65	-	-	-	-
	11/12/2017	-	6.21	-		846.04	-	-	-	-
	10/21/2017	-	6.82	-		845.43	-	-	-	-
	9/10/2017	-	6.80	-		845.45	-	-	-	-
	8/12/2017	-	6.80	-		845.45	-	-	-	-
	7/2/2017	-	5.26	-		846.99	-	-	-	-
	6/4/2017	-	4.95	-		847.30	-	-	-	-
	5/4/2017	-	4.82	-		847.43	-	-	-	-
	4/6/2017	-	6.15	-		846.10	-	-	-	-
TW-90					845.43					
	3/5/2018	-	-	-		845.43	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	12/27/2017	-	7.80	-		837.63	-	-	-	-
	11/12/2017	-	11.00	-		834.43	-	-	-	-
	10/21/2017	-	14.66	-		830.77	-	-	-	-
	9/10/2017	-	10.20	-		835.23	-	-	-	-
	8/12/2017	-	7.70	-		837.73	-	-	-	-
	7/2/2017	-	11.42	-		834.01	-	-	-	-
	6/4/2017	-	11.27	-		834.16	-	-	-	-
	5/4/2017	-	15.02	-		830.41	-	-	-	-
	4/6/2017	-	16.89	-		828.54	-	-	-	-
TW-94					840.58					
	3/5/2018	-	-	-		840.58	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/3/2018	-	-	-		840.58	-	-	-	-
	12/27/2017	-	-	-		840.58	-	-	-	-
	11/12/2017	-	NM	-		-	-	-	-	-
	10/21/2017	-	2.00	-		838.58	-	-	-	-
	9/10/2017	-	NM	-		-	-	-	-	-
	8/12/2017	-	-	-		840.58	-	-	-	-
	7/2/2017	-	1.80	-		838.78	-	-	-	-
	6/4/2017	-	1.70	-		838.88	-	-	-	-
	5/4/2017	7.17	7.18	0.01		833.40	833.41	-	-	-
	4/6/2017	6.55	6.63	0.08		833.95	834.01	-	-	-
TW-96					840.40					
	3/5/2018	-	-	-		840.40	-	-	-	-
	2/21/2018	-	NM	-		-	-	-	-	-
	2/5/2018	-	-	-		840.40	-	-	-	-
	2/3/2018	-	-	-		840.40	-	-	-	-
	1/8/2018	-	15.07	-		825.33	-	-	-	-

Table 3. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (ft)	Top of	Groundwater Elevation (ft amsl)	Corrected ^c	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation ^{a,b} (ft amsl)		Groundwater Elevation (ft amsl)			
TW-96 (cont'd)	12/27/2017	-	14.96	-		825.44	-	-	-	-
	12/4/2017	-	3.00	-		837.40	-	-	-	-
	11/12/2017	-	6.80	-		833.60	-	-	-	-
	11/7/2017	-	8.58	-		831.82	-	-	-	-
	10/21/2017	-	11.98	-		828.42	-	-	-	-
	10/3/2017	-	16.63	-		823.77	-	-	-	-
	9/10/2017	-	6.70	-		833.70	-	-	-	-
	9/6/2017	-	9.28	-		831.12	-	-	-	-
	8/12/2017	-	8.55	-		831.85	-	-	-	-
	8/1/2017	-	8.25	-		832.15	-	-	-	-
	7/2/2017	-	5.83	-		834.57	-	-	-	-
	6/26/2017	-	NM	-		-	-	-	-	-
	6/4/2017	-	5.35	-		835.05	-	-	-	-
	5/4/2017	-	9.02	-		831.38	-	-	-	-
	4/6/2017	-	10.82	-		829.58	-	-	-	-

Notes:

^a Elevation of zero mark (ft amsl) for surface water staff gauges.

^b "RS-" and "RT-" features were trimmed to less than 12 inches above ground surface on 3/14/2017. Only the resurveyed top of casing elevation

^c Calculated based on an oil:water density ratio of 0.73.

Bold indicates the gauged product thickness was greater than 0.5 foot.

- = not applicable

amsl = above mean sea level

BTOC = below top of casing

DRY = well contained no measurable water or product

ft = feet

ID = identification

NM = not measured

The following features are no longer reliable for calculating groundwater elevation:

- RS-19 was damaged on or about January 20, 2017.
- RT-2H was covered over on or about January 17, 2017, due to construction efforts in the vicinity.
- TW-46 was damaged on or about December 8, 2016.

Table 4. Dissolved Oxygen Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Site Area	Nearest Sparge Well (ft)	Distance to Nearest Sparge Well (ft)	DO (mg/L) 4/3/2017	DO (mg/L) 5/4/2017	DO (mg/L) 6/26/2017	DO (mg/L) 7/17/2017	DO (mg/L) 8/1/2017	DO (mg/L) 9/5-8/2017	DO (mg/L) 10/3/2017	DO (mg/L) 11/7/2017	DO (mg/L) 12/4/2017	DO (mg/L) 1/8/2018	DO (mg/L) 2/5/2018	DO (mg/L) 3/5/2018
MW-12	Brown's Creek	VAS-37	18	FP	1.62	0.50	0.45	0.54	7.95	0.35	6.39	0.70	0.58	4.05	2.90
MW-12B	Brown's Creek	VAS-37	9	1.17	0.51	0.70	0.55	0.67	0.70	0.70	1.86	2.58	2.18	0.70	4.40
MW-15	Brown's Creek	VAS-21	14	1.67	3.91	1.45	2.43	9.84	7.95	0.68	7.84	5.40	3.27	8.86	10.40
MW-15B	Brown's Creek	VAS-22	13	0.95	1.58	0.66	0.98	1.36	0.98	0.77	7.70	0.87	0.33	0.80	0.90
MW-25	Brown's Creek	VAS-29	54	0.75	0.53	0.48	0.44	0.78	0.68	1.83	1.70	0.76	0.78	1.54	2.65
MW-25B	Brown's Creek	VAS-29	56	0.55	0.51	1.13	0.61	0.81	2.10	1.06	0.78	0.60	0.58	0.65	1.10
MW-28	Brown's Creek	VAS-46	26	2.41	0.66	0.50	0.51	0.73	0.40	0.57	0.52	0.60	0.61	1.29	3.46
Average Brown's Creek Protection Zone Values				1.25	1.33	0.77	0.85	2.10	2.97	0.85	3.83	1.64	1.19	2.56	3.69
MW-19	Cupboard Creek	VAS-08	17	1.74	1.43	0.65	0.63	0.89	0.85	7.56	6.30	1.10	2.96	9.00	1.14
MW-20	Cupboard Creek	VAS-03	23	FP	FP	NM	NM	FP	FP	FP	FP	FP	FP	1.05	FP
MW-29	Cupboard Creek	VAS-19	111	6.76	6.68	5.80	4.55	7.21	6.50	7.79	6.72	3.85	7.03	8.06	4.98
Average Cupboard Creek Protection Zone Values				4.25	4.06	3.23	2.59	4.05	3.68	7.68	6.51	2.48	5.00	6.04	3.06
MW-02	Hayfield	HAS-02	33	NM	0.35	5.30	7.48	8.71	6.20	0.27	8.22	NM	0.57	11.60	11.62
MW-02B	Hayfield	HAS-02	24	NM	0.26	3.74	3.18	4.23	1.54	2.75	8.45	9.99	8.90	7.80	6.62
MW-03	Hayfield	HAS-02	12	NM	0.27	10.25	10.12	10.86	NM ^b	7.30	9.61	10.44	NC	10.00	11.30
MW-04	Hayfield	HAS-01	82	NM	8.02	6.51	7.53	8.19	7.61	5.81	7.55	6.54	7.34	8.08	NM
MW-08	Hayfield	HAS-03	12	NM	7.00	7.14	18.94	7.24	8.59	7.45	8.30	8.65	NC	10.64	10.08
MW-09	Hayfield	HAS-01	37	NM	0.20	8.72	8.96	9.74	FP	0.44	6.55	0.80	5.55	1.03	11.07
MW-10	Hayfield	HAS-03	27	NM	6.32	5.95	3.66	3.84	1.70	5.70	7.74	7.25	4.92	10.51	9.97
MW-16	Hayfield	HAS-01	24	NM	FP	8.46	9.10	FP	FP	FP	8.92	FP	FP	1.54	10.44
MW-18	Hayfield	HAS-03	2	NM	FP	1.39	FP	FP	FP	FP	FP	FP	FP	NC	FP
MW-30	Hayfield	HAS-01	15	NM	3.62	7.56	0.58	1.06	NC	NC	8.45	3.62	NC	5.32	3.64
TW-55	Hayfield	HAS-01	40	NM	1.68	8.10	9.03	9.28	9.06	2.36	8.84	NM	8.63	11.00	10.65
TW-59 ^a	Hayfield	VAS-38	6	NM	NM	NM	NM	NM	NM	NM	9.70	9.70	10.00	10.04	10.17
TW-60	Hayfield	VAS-25	10	0.76	1.80	NM	5.40	8.46	5.65	8.13	7.43	9.19	NM	7.46	10.20
TW-64	Hayfield	HAS-03	132	NM	7.85	NM	7.85	8.28	4.38	4.43	4.42	8.21	7.71	8.90	8.64
TW-66	Hayfield	VAS-28	49	2.90	5.35	4.57	6.02	6.54	8.93	6.02	5.67	6.30	7.28	7.98	8.30
TW-67	Hayfield	VAS-11	14	9.26	9.82	16.86	9.45	10.03	9.15	8.02	9.60	10.64	NM	10.50	8.63
TW-73	Hayfield	VAS-19	11	9.57	NC	8.34	10.27	10.47	8.90	8.41	9.00	9.60	9.43	10.78	FP
TW-96	Hayfield	HAS-03	78	NM	7.29	NM	9.51	10.04	9.05	8.68	9.17	9.72	9.57	10.10	10.50
Average Hayfield Zone Values				5.62	4.27	7.35	7.94	7.80	6.73	5.41	8.10	7.90	6.79	8.95	9.48
MW-01	Shallow Bedrock	VBS-01	147	NM	NM	NM	NM	NM	3.40	3.50	7.33	5.94	0.38	1.34	0.95
MW-01B	Shallow Bedrock	VBS-01	152	NM	NM	NM	NM	NM	0.85	0.96	0.86	0.43	0.85	0.65	0.63
MW-11	Shallow Bedrock	VBS-01	368	NM	NM	NM	NM	NM	7.89	NM	NM	NM	FP	FP	0.58
MW-22	Shallow Bedrock	VBS-03	115	NM	NM	NM	NM	NM	NC	0.67	4.74	1.35	1.04	4.80	0.69
Average Shallow Bedrock Zone Values				-	-	-	-	-	4.05	1.71	4.31	2.57	0.76	2.26	0.71
Average Residuum Values				3.98	3.92	5.71	6.33	6.64	6.04	4.57	7.11	5.73	4.69	7.37	7.10
Average Bedrock Values				0.89	0.72	1.56	1.33	1.77	1.23	1.25	3.93	2.89	2.57	2.12	2.73

Notes:

^a TW-59 could not be measured because the probe does not fit into the well because the polyvinyl chloride pipe has shifted in the vault.

^b MW-03 could not be measured in September for health and safety reasons (fire ants).

Brown's and Cupboard Creek Protection Zones startup was March 6, 2017.

Hayfield Zone startup was May 9, 2017.

Shallow Bedrock Zone has not been started as of March 31, 2018.

DO = dissolved oxygen

ft = feet

FP = measurement not collected due to the presence of free product in the well

NC = measurement not collected due to insufficient volume of water in the well

mg/L = milligrams per liter

NM = not measured

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
						RBSL ^a : µg/L	5.0	700	1,000	10,000	5.0	40	25
MW-01	MW-01-072715			7/27/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-01-012716			1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-01-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01-090717			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01-120517	12/4/2017	9.85	12/5/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01-030818	3/5/2018	3.80	3/8/2018	µg/L	1.85	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-01B	MW-01B-080415			8/4/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-01B-012716			1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-01B-120116			12/1/2016	µg/L	1 U	1 U	1.4	5.6	1 U	1 U	1.3	--
	MW-01B-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01B-062817-FD			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01B-090717			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-01B-120517	12/4/2017	10.24	12/5/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-01B-030818	3/5/2018	7.40	3/8/2018	µg/L	3.51	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-02	MW-02-072715			7/27/2015	µg/L	4,320	625 U	9,670	2,460	5 U ^b	171	74.7	0.02 U
	MW-02-012616			1/26/2016	µg/L	9,500	1,160	25,000	6,310	50 U ^b	285	139	0.019 U
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-02-062917			6/29/2017	µg/L	8,040	833	27,100	9,890	250 U ^b	250 U ^b	1,250 U ^b	--
	MW-02-090817			9/8/2017	µg/L	2,340	181	7,120	8,510	50 U ^b	50 U ^b	389	--
	MW-02-100417	10/3/2017	16.03	10/4/2017	µg/L	3,510	306	11,900	11,200	50 U ^b	53.9	250 U ^b	--
	MW-02-110817	11/7/2017	4.20	11/8/2017	µg/L	850	100 U	1,370	3,520	100 U ^b	100 U ^b	500 U ^b	--
	MW-02-120717	12/4/2017	2.54	12/7/2017	µg/L	153	15.1	313	441	1 U	70.9	12.8	--
	MW-02-010918	1/8/2018	14.26	1/9/2018	µg/L	307	10 U	878	1,300	10 U ^b	61.8	63.7	--
	MW-02-020618	2/5/2018	0.00	2/6/2018	µg/L	30.5	1.09	29.6	88	1 U	32.0	5 U	--
MW-02-030718	3/5/2018	3.00	3/7/2018	µg/L	131	34.1	594	442	1 U	27.6	34.5	--	
MW-02B	MW-02B-080415			8/4/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-02B-D-080415			8/4/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-02B-030116			3/1/2016	µg/L	1 U	1 U	4.8	4.6	1 U	1 U	1 U	0.019 U
	MW-02B-D-030116			3/1/2016	µg/L	1 U	1 U	4.8	5.3	1 U	1 U	1 U	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-02B-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-02B-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-02B	MW-02B-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-02B-120717	12/4/2017	24.56	12/7/2017	µg/L	1 U	1 U	1.11	3 U	1 U	1 U	5 U	--	
	MW-02B-030718	3/5/2018	1.50	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-03	MW-03-072715			7/27/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U	
	MW-03-012516			1/25/2016	µg/L	108	20.1	958	598	1 U	1 U	11.1	0.02 U	
	MW-03-120616			12/6/2016	µg/L	61.1	25.1	229	330	2 U	2 U	3.6	--	
	MW-03-062917			6/29/2017	µg/L	10.9	1 U	24.6	6.98	1 U	2.34	5 U	--	
	--			9/5/2017	--	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	NS-HS	
	--	10/3/2017	19.87	10/3/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-03-110817	11/7/2017	--*	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-03-120517	12/4/2017	18.00	12/5/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	--	1/8/2018	19.98	1/8/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-03-020618	2/5/2018	--*	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-03-030718	3/5/2018	4.12	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--		
MW-04	MW-04-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U	
	MW-04-012516			1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U	
	MW-04-120616			12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--	
	MW-04-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-04-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-04-090817-DUP			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-04-120717	12/4/2017	10.07	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-04-030718	3/5/2018	10.70	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-05	MW-05-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U	
	MW-05-012516			1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U	
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-05-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-100417	10/3/2017	17.03	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-110817	11/7/2017	17.18	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-120717	12/4/2017	16.55	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-010918	1/8/2018	16.57	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-05-020618	2/5/2018	15.87	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-05-030718	3/5/2018	13.06	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--		

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
						RBSL ^a : µg/L	5.0	700	1,000	10,000	5.0	40	25
MW-06	MW-06-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-06-012116			1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-06-120216			12/2/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-06-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-06-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-06-120717	12/4/2017	15.45	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-06-030718	3/5/2018	13.25	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-06B	MW-06B-120717	12/4/2017	16.14	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-06B-D-120717	12/4/2017	16.14	12/7/2017	µg/L	1 U	1 U	1.82	3 U	1 U	1 U	5 U	--
	MW-06B-030718	3/5/2018	4.12	3/7/2018	µg/L	1 U	1 U	3.63	3 U	1 U	1 U	5 U	--
MW-07	--			7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-07-012116			1/21/2016	µg/L	1,060	389	5,210	2,620	40 U ^b	40 U ^b	40 U ^b	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-07-062917			6/29/2017	µg/L	4,290	629	17,700	4,990	250 U ^b	250 U ^b	1,250 U ^b	--
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/3/2017	13.20	10/3/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/7/2017	13.20	11/7/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/4/2017	13.21	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/8/2018	13.21	1/8/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/5/2018	13.19	2/6/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-07-030818	3/5/2018	11.77	3/8/2018	µg/L	4,550	802	14,100	7,520	50 U ^b	50 U ^b	250 U ^b	--
MW-08	MW-08-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-08-012616			1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-08-120616			12/6/2016	µg/L	1 U	1 U	14.4	7.1	1 U	1 U	1 U	--
	MW-08-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-08-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-08-120717	12/4/2017	10.47	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-08-030718	3/5/2018	7.50	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-09	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-09-062917			6/29/2017	µg/L	3,860	517	13,000	8,680	200 U ^b	200 U ^b	1,000 U ^b	--
	--			9/5/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
MW-09	MW-09-120717	12/4/2017	3.05	12/7/2017	µg/L	54.3	3.44	19.6	64.8	1 U	27.5	5 U	--
	MW-09-030718	3/5/2018	0.50	3/7/2018	µg/L	3.3	1 U	11.0	3.92	1 U	8.74	5 U	--
	MW-09D-030718	3/5/2018	0.50	3/7/2018	µg/L	1 U	1 U	1.32	3 U	1 U	8.74	5 U	--

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
					RBSL ^a :	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-09B	MW-09B-120717	12/4/2017	9.15	12/7/2017	µg/L	21.8	24.7	82.1	179	1 U	4.72	11.9	--
	MW-09B-030718	3/5/2018	0.00	3/7/2018	µg/L	4.36	4.5	18.1	33.3	1 U	1.37	5 U	--
MW-10	MW-10-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U
	MW-10-012616			1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-10-120616			12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-10-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-050317-FD			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-100417	10/3/2017	17.33	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-110817	11/7/2017	12.64	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-120717	12/4/2017	10.85	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-010918	1/8/2018	15.08	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-020618	2/5/2018	6.81	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-D-020618	2/5/2018	6.81	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-10-030718	3/5/2018	5.11	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-11	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-11-012616			1/26/2016	µg/L	10,600	948	24,400	4,700	10 U ^b	432	123	0.019 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-11-062817			6/28/2017	µg/L	10,900	2,140	29,600	11,700	100 U ^b	147	500 U ^b	--
	--			9/5/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	12/4/2017	29.86	12/4/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--	3/5/2018	28.10	3/5/2018	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
MW-12	MW-12-072815			7/28/2015	µg/L	51.3	5 U	22.9	39.2	5 U ^b	5 U	5 U	0.02 U
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			3/13/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			3/20/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			3/31/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
MW-12	--			4/6/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-12-062817			6/28/2017	µg/L	1,190	467	7,910	5,100	50 U ^b	50 U ^b	250 U ^b	--
	MW-12-090817			9/8/2017	µg/L	648	436	3,470	4,440	100 U ^b	100 U ^b	500 U ^b	--
	MW-12-120617	12/4/2017	15.55	12/6/2017	µg/L	367	137	1,540	4,660	10 U ^b	10 U	54.4	--
	MW-12-030818	3/5/2018	12.83	3/8/2018	µg/L	486	25.2	1,880	1,980	10 U ^b	10 U	50 U ^b	--

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Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
					RBSL ^a :	5.0	700	1,000	10,000	5.0	40	25	0.05
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-12B	MW-12B-012616			1/26/2016	µg/L	228	31.4	193	532	1 U	5.4	14.6	0.019 U
	MW-12B-113016			11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-12B-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-031417-FD			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-062817			6/28/2017	µg/L	30.1	1 U	7.28	14.3	1 U	11.8	5 U	--
	MW-12B-090817			9/8/2017	µg/L	126	3.81	16.8	256	1 U	1 U	12	--
	MW-12B-120617	12/4/2017	16.12	12/6/2017	µg/L	1.01	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-12B-030818	3/5/2018	12.92	3/8/2018	µg/L	3.06	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-13	--			7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-13-012816			1/28/2016	µg/L	2	1 U	12.5	6.9	1 U	1 U	1 U	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-13-062917			6/29/2017	µg/L	1.18	1 U	3.39	3 U	1 U	1 U	5 U	--
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/4/2017	21.87	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-13-030618	3/5/2018	20.40	3/6/2018	µg/L	6.98	1.14	15.3	4.55	1 U	1 U	5 U	--
MW-13B	MW-13B-012816			1/28/2016	µg/L	367	1 U	5.6	59.5	1 U	119	1 U	0.02 U
	MW-13B-D-012816			1/28/2016	µg/L	405	1 U	6.1	59.1	1 U	108	1 U	0.02 U
	MW-13B-113016			11/30/2016	µg/L	550	5.1	21.2	140	5 U ^b	158	7.9	--
	MW-13B-062817			6/28/2017	µg/L	308	3.09	10.3	103	1 U	121	5.13	--
	MW-13B-090817			9/8/2017	--	NS-SL	NS-SL	NS-SL	NS-SL	NS-SL	NS-SL	NS-SL	NS-SL
	MW-13B-110817	11/7/2017	23.08	11/8/2017	µg/L	325	3.42	19	91.6	1 U	173	5.55	--
	MW-13B-D-110817	11/7/2017	23.08	11/8/2017	µg/L	356	3.85	20.8	100	1 U	168	6.61	--
	MW-13B-120617	12/4/2017	22.66	12/6/2017	µg/L	269	3.97	24.4	100	1 U	140	8.83	--
	MW-13B-030718	3/5/2018	21.00	3/7/2018	µg/L	252	3.13	12.1	60.2	1 U	175	6.44	--
MW-14	MW-14-072815			7/28/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-14-012816			1/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
MW-14	MW-14-113016			11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-14-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-14-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-14-120617	12/4/2017	17.62	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-14-030718	3/5/2018	15.11	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-14B	MW-14B-052516			5/25/2016	µg/L	5	1 U	1 U	4.4	1 U	17.2	1 U	0.02 U
	MW-14B-052516-FD			5/25/2016	µg/L	4.6	1 U	1 U	4.1	1 U	23.6	1 U	0.02 U
	MW-14B-113016			11/30/2016	µg/L	10.5	1 U	1.1	5.5	1 U	19.7	1 U	--
	MW-14B-062817			6/28/2017	µg/L	38.1	1.34	2.56	19.1	1 U	36.2	5 U	--

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Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
					RBSL ^a :	5.0	700	1,000	10,000	5.0	40	25	0.05
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MW-14B-090817			9/8/2017	µg/L	6.81	1 U	1 U	6.67	1 U	18.7	5 U	--
	MW-14B-120617	12/4/2017	19.22	12/6/2017	µg/L	8.82	1 U	1 U	6.91	1 U	24.4	5 U	--
	MW-14B-030718	3/5/2018	16.95	3/7/2018	µg/L	3.57	1 U	1 U	5.6	1 U	9.28	5 U	--
MW-15	MW-15-080415			8/4/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U
	MW-15-012816			1/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-15-120716			12/7/2016	µg/L	3,680	139	422	2,280	25 U ^b	188	43.8	--
	MW-15-031417			3/14/2017	µg/L	1,960	72	324	1,320	25 U ^b	161	125 U ^b	--
	MW-15-031417-FD			3/14/2017	µg/L	1,820	61	286	1,120	25 U ^b	153	125 U ^b	--
	MW-15-032017			3/20/2017	µg/L	3,390	103	505	2,460	50 U ^b	194	250 U ^b	--
	MW-15-033117			3/31/2017	µg/L	2,850	65.4	444	1,860	20 U ^b	221	100 U ^b	--
	MW-15-040617			4/6/2017	µg/L	1,790	60.6	465	886	25 U ^b	181	125 U ^b	--
	MW-15-062817			6/28/2017	µg/L	73	25 U	29	110	25 U ^b	91.8	125 U ^b	--
	MW-15-090817			9/8/2017	µg/L	454	24	567	338	5 U ^b	193	25 U ^b	--
	MW-15-120617	12/4/2017	13.66	12/6/2017	µg/L	1 U	1 U	2	5	1 U	140	5 U	--
	MW-15-030818	3/5/2018	10.04	3/8/2018	µg/L	53.1	2.75	89.9	53.1	1 U	85	5 U	--
MW-15B	MW-15B-080415			8/4/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.019 U
	MW-15B-012816			1/28/2016	µg/L	4.8	1 U	2	3.9	1 U	1 U	1 U	0.02 U
	MW-15B-113016			11/30/2016	µg/L	337	34	565	194	5 U ^b	26.7	5	--
	MW-15B-031417			3/14/2017	µg/L	2,160	248	4,580	1,500	100 U ^b	118	500 U ^b	--
	MW-15B-032017			3/20/2017	µg/L	615	88.6	1,270	555	25 U ^b	67.5	125 U ^b	--
	MW-15B-033117			3/31/2017	µg/L	1,630	205	3,240	1,180	50 U ^b	115	250 U ^b	--
	MW-15B-040617			4/6/2017	µg/L	1,020	132	2,020	789	25 U ^b	84.7	125 U ^b	--
	MW-15B-040617-FD			4/6/2017	µg/L	973	124	1,910	742	25 U ^b	82.9	125 U ^b	--
	MW-15B-062817			6/28/2017	µg/L	1,510	145	3,520	1,280	100 U ^b	100 U ^b	500 U ^b	--
MW-15B	MW-15B-090817			9/8/2017	µg/L	1,820	164	3,560	1,210	50 U ^b	133	250 U ^b	--
	MW-15B-120617	12/4/2017	16.25	12/6/2017	µg/L	1,760	239	3,630	1,380	1 U	135	37.6	--
	MW-15B-D-120617	12/4/2017	16.25	12/6/2017	µg/L	491	56	1,050	408	1 U	117	35.4	--
	MW-15B-030818	3/5/2018	14.66	3/8/2018	µg/L	1,290	151	3,140	1,070	25 U ^b	93.2	125 U ^b	--
MW-16	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP
	MW-16-062917			6/29/2017	µg/L	12,900	1,770	36,400	12,500	500 U ^b	1,740	2,500 U ^b	--
	--			9/5/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP

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Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
	--	12/4/2017	7.00	12/7/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	MW-16-030718	3/5/2018	3.00	3/7/2018	µg/L	130	295	1,370	2,470	10 U ^b	132	618	--	
MW-17	--			7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			6/26/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	12/4/2017	10.85	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	3/5/2018	10.85	3/5/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
MW-17B	MW-17B-030116			3/1/2016	µg/L	6,480	488	11,900	2,870	5	742	104	0.019 U	
	MW-17B-120116			12/1/2016	µg/L	9,370	761	16,900	4,500	100 U ^b	954	112	--	
	MW-17B-031317			3/13/2017	µg/L	7,350	770	14,100	4,510	200 U ^b	944	1,000 U ^b	--	
	MW-17B-032017			3/20/2017	µg/L	10,700	1,360	21,400	7,910	323	1,210	1,000 U ^b	--	
	MW-17B-033117			3/31/2017	µg/L	9,190	900	17,500	5,910	100 U ^b	1,200	500 U ^b	--	
	MW-17B-033117FD			3/31/2017	µg/L	9,190	956	18,200	6,330	100 U ^b	1,210	500 U ^b	--	
	MW-17B-040617			4/6/2017	µg/L	7,780	833	14,900	5,330	200 U ^b	991	1,000 U ^b	--	
	MW-17B-062817			6/28/2017	µg/L	11,200	704	21,600	5,650	200 U ^b	1,150	1,000 U ^b	--	
	MW-17-090817			9/8/2017	µg/L	11,400	1,240	23,900	8,460	20 U ^b	1,330	201	--	
	MW-17B-120717	12/4/2017	17.05	12/7/2017	µg/L	10,600	1,060	14,900	9,210	10 U ^b	1,140	178	--	
	MW-17B-030718	3/5/2018	14.80	3/7/2018	µg/L	8,830	1,110	20,200	8,220	50 U ^b	960	250 U ^b	--	
MW-17B	MW-17BD-030718	3/5/2018	14.80	3/7/2018	µg/L	8,700	1,080	19,400	7,770	50 U ^b	983	250 U ^b	--	
MW-18	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			6/26/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			9/5/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	12/4/2017	11.64	12/4/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	3/5/2018	18.25	3/5/2018	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
MW-19	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	MW-19-012116			1/21/2016	µg/L	22.8	18.5	256	437	1 U	1 U	10.7	0.02 U	
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
	--			3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
				3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-19-040617			4/6/2017	µg/L	9,810	1,030	25,000	10,300	250 U ^b	250 U ^b	1,250 U ^b	--	
	MW-19-062917			6/29/2017	µg/L	9,410	683	27,200	9,580	200 U ^b	320	1,000 U ^b	--	
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	12/4/2017	11.77	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	3/5/2018	11.75	3/5/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
MW-20	--			7/27/2015	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			1/19/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			11/28/2016	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			3/13/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			3/20/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			3/31/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			4/6/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			5/4/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			6/26/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			7/17/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			8/1/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--			9/5/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	10/3/2017	13.79	10/4/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	11/7/2017	13.61	11/8/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	12/4/2017	14.64	12/4/2017	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
	--	1/8/2018	14.04	1/8/2018	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
MW-20	--	2/5/2018	12.57	2/6/2018	--	NS-OL	NS-OL	NS-OL	NS-OL	NS-OL	NS-OL	NS-OL	NS-OL	
	--	3/5/2018	10.90	3/6/2018	--	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	NS-FP	
MW-21	MW-21-072715			7/27/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U	
	MW-21-012116			1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U	
	MW-21-D-012116			1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U	
	MW-21-112916			11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--	
	MW-21-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-032117			3/21/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-062817-FD			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-120717	12/4/2017	17.42	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-21-030718	3/5/2018	8.05	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
						5.0	700	1,000	10,000	5.0	40	25	0.05
MW-22	--			7/27/2015	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-22-012116			1/21/2016	µg/L	19.8	3.4	47.2	37.4	1 U	1 U	1 U	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--			5/3/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-22-062917			6/29/2017	µg/L	234	10 U	125	30 U	10 U ^b	10 U	50 U ^b	--
	--			7/17/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--			8/1/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/3/2017	9.94	10/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/7/2017	9.96	11/8/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/4/2017	9.99	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/8/2018	10.01	1/8/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	2/5/2018	9.81	2/6/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-22-030618	3/5/2018	8.05	3/6/2018	µg/L	1 U	1 U	1.03	3 U	1 U	1 U	5 U	--
MW-23	MW-23-072715			7/27/2015	µg/L	5 U ^b	5 U	7.5	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-23D-072715			7/27/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-23-012016			1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-23-120216			12/2/2016	µg/L	450	5 U	14.6	336	5 U ^b	46.4	5.9	--
	MW-23-031317			3/13/2017	µg/L	709	5 U	23.1	548	5 U ^b	127	25 U ^b	--
MW-23	MW-23-032017			3/20/2017	µg/L	642	10 U	12.7	579	10 U ^b	108	50 U ^b	--
	MW-23-032017-FD			3/20/2017	µg/L	620	10 U	12.0	548	10 U ^b	110	50 U ^b	--
	MW-23-033117			3/31/2017	µg/L	685	10 U	16.5	624	10 U ^b	130	50 U ^b	--
	MW-23-040617			4/6/2017	µg/L	432	1 U	6.6	254	1 U	76.5	5 U	--
	MW-23-062817			6/28/2017	µg/L	131	10 U	10 U	117	10 U ^b	19.1	5 U	--
	MW-23-071717			7/17/2017	µg/L	1.2	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-23-080117			8/1/2017	µg/L	132	1 U	6.2	252	1 U	48.1	5 U	--
	MW-23-090717			9/7/2017	µg/L	1,110	9.25	43.1	999	5 U ^b	141	25 U ^b	--
	MW-23-100417	10/3/2017	11.52	10/4/2017	µg/L	703	10 U	17.5	515	10 U ^b	90.1	50 U ^b	--
	MW-23-100417-DUP	10/3/2017	11.52	10/4/2017	µg/L	543	2.65	11.5	424	1 U	69.2	5 U	--
	MW-23-110817	11/7/2017	11.10	11/8/2017	µg/L	788	10 U	21.5	580	10 U ^b	118	50 U ^b	--
	MW-23-120617	12/4/2017	11.13	12/6/2017	µg/L	693	10 U	17.0	408	10 U ^b	99.5	50 U ^b	--
	MW-23-010918	1/8/2018	11.02	1/9/2018	µg/L	127	10 U	10 U	137	10 U ^b	69.6	50 U ^b	--
	MW-23-020618	2/5/2018	9.76	2/6/2018	µg/L	1.1	1 U	1 U	3 U	1 U	33.8	5 U	--
	MW-23-030618	3/5/2018	8.27	3/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	17.5	5 U	--

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
						µg/L	5.0	700	1,000	10,000	5.0	40	25
MW-23B	MW-23B-080515			8/5/2015	µg/L	5 U ^b	5 U	7.0	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-23B-012016			1/20/2016	µg/L	1 U	1 U	3.9	7.1	1 U	1 U	1 U	0.02 U
	MW-23B-120216			12/2/2016	µg/L	1 U	1.4	3.5	11.0	1 U	1 U	1.3	--
	MW-23B-031317			3/13/2017	µg/L	1 U	1.11	2.63	8.86	1 U	1 U	5 U	--
	MW-23B-032017			3/20/2017	µg/L	1 U	1.55	2.98	11.7	1 U	1 U	5 U	--
	MW-23B-033117			3/31/2017	µg/L	1 U	1.24	2.41	8.86	1 U	1 U	5 U	--
	MW-23B-040617			4/6/2017	µg/L	1 U	1.21	2.41	9.23	1 U	1 U	5 U	--
	MW-23B-062817			6/28/2017	µg/L	1 U	1 U	1.73	6.20	1 U	1 U	5 U	--
	MW-23B-090717			9/7/2017	µg/L	1 U	1 U	1.65	5.40	1 U	1 U	5 U	--
	MW-23B-120617	12/4/2017	11.45	12/6/2017	µg/L	1 U	1.2	2.48	7.93	1 U	1 U	5 U	--
MW-23B-030618	3/5/2018	10.88	3/6/2018	µg/L	1 U	1.2	4.57	9.14	1 U	1 U	5 U	--	
MW-24	MW-24-080515			8/5/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-24-012616			1/26/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U
	MW-24-120716			12/7/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-24-062817			6/28/2017	µg/L	28.8	3.96	1.7	22.2	1 U	1 U	5 U	--
	MW-24-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-24-120617	12/4/2017	4.51	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-24-030818	3/5/2018	4.15	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-24B	MW-24B-080515			8/5/2015	µg/L	5 U ^b	5 U	5 U	10 U	5 U ^b	5 U	5 U	0.02 U
	MW-24B-012616			1/26/2016	µg/L	1 U	1 U	3.3	6.8	1 U	1 U	1 U	0.019 U
	MW-24B-120716			12/7/2016	µg/L	1 U	1 U	2.9	1.6	1 U	1 U	1 U	--
	MW-24B-062817			6/28/2017	µg/L	28.9	3.89	1.77	20.7	1 U	1 U	5 U	--
	MW-24B-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-24B-120617	12/4/2017	5.69	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-24B-030818	3/5/2018	5.03	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-25	MW-25-012716			1/27/2016	µg/L	101	1 U	1 U	115	1 U	1 U	1.8	0.02 U
	MW-25-012716			12/1/2016	µg/L	675	30.2	15.3	619	5 U ^b	5.9	29.7	--
	MW-25-031417			3/14/2017	µg/L	627	28.6	10.1	668	10 U ^b	10 U	50 U ^b	--
	MW-25-032017			3/20/2017	µg/L	604	20.4	20 U	680	20 U ^b	20 U	100 U ^b	--
	MW-25-033117			3/31/2017	µg/L	673	30.1	12	736	10 U ^b	10 U	50 U ^b	--
	MW-25-033117FD			3/31/2017	µg/L	790	35.4	12.5	861	10 U ^b	10 U	50 U ^b	--
	MW-25-040617			4/6/2017	µg/L	558	24.3	10 U	682	10 U ^b	10 U	50 U ^b	--
	MW-25-050317			5/3/2017	µg/L	519	49.3	10.1	614	1 U	1 U	43.2	--
	MW-25-062817			6/28/2017	µg/L	431	34.8	10 U	520	10 U ^b	10 U	50 U ^b	--
	MW-25-071717			7/17/2017	µg/L	230	13.4	10 U	264	10 U ^b	10 U	50 U ^b	--
MW-25-080117			8/1/2017	µg/L	234	14.4	10 U	277	10 U ^b	10 U	50 U ^b	--	

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
	MW-25-090817			9/8/2017	µg/L	200	12.2	1.27	214	1 U	1 U	10.6	--	
	MW-25-100417	10/3/2017	8.52	10/4/2017	µg/L	173	16.2	1.73	276	1 U	1.1	6.77	--	
	MW-25-110817	11/7/2017	8.35	11/8/2017	µg/L	82.9	7.21	1 U	143	1 U	1 U	7.74	--	
	MW-25-120617	12/4/2017	7.10	12/6/2017	µg/L	23.8	1.84	1 U	60.5	1 U	1 U	5 U	--	
	MW-25-010918	1/8/2018	8.80	1/9/2018	µg/L	72	2.74	1 U	111	1 U	1 U	5 U	--	
	MW-25-020618	2/5/2018	8.15	2/6/2018	µg/L	10.8	1 U	1 U	19.3	1 U	1 U	5 U	--	
	MW-25-030818	3/5/2018	7.84	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-25B	MW-25B-012716			1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U	
	MW-25B-120116			12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--	
	MW-25B-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-090817-DUP			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-25B	MW-25B-120617	12/4/2017	5.30	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-25B-030818	3/5/2018	4.12	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-26	MW-26-012016			1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U	
	MW-26-120116			12/1/2016	µg/L	1 U	1 U	2.3	1 U	1 U	1 U	1 U	--	
	MW-26-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-040617-FD			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-090717			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-100417	10/3/2017	7.71	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-110817	11/7/2017	6.56	11/8/2017	µg/L	1 U	1 U	1.17	3 U	1 U	1 U	5 U	--	
	MW-26-120617	12/4/2017	6.83	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-010918	1/8/2018	6.68	1/9/2018	µg/L	1 U	1.79	6.2	13.8	1 U	1 U	5 U	--	
	MW-26-020618	2/5/2018	4.37	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26-030618	3/5/2018	2.94	3/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-26B	MW-26B-012016			1/20/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U	
	MW-26B-120116			12/1/2016	µg/L	1 U	1 U	1 U	1.3	1 U	1 U	1 U	--	
	MW-26B-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-090717			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-090717-DUP			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-120617	12/4/2017	9.17	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-26B-030618	3/5/2018	6.30	3/6/2018	µg/L	1 U	1 U	1.03	3 U	1 U	1 U	5 U	--	
MW-27	MW-27-012716			1/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.019 U	
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-27-062817			6/28/2017	µg/L	2.69	4.06	3.88	35.9	1 U	1 U	5 U	--	
	MW-27-090817			9/8/2017	µg/L	4.96	5.75	2.13	14.8	1 U	1 U	5 U	--	
MW-27	MW-27-120517	12/4/2017	27.46	12/5/2017	µg/L	6.48	8.23	12.5	20.5	1 U	1 U	5 U	--	
	MW-27-030818	3/5/2018	25.29	3/8/2018	µg/L	14.5	29.7	62.3	227	1 U	1 U	5 U	--	
MW-27B	MW-27B-051216			5/12/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U	
	MW-27B-120216			12/2/2016	µg/L	1 U	5.3	9.1	45.7	1 U	1 U	8.9	--	
	MW-27B-062817			6/28/2017	µg/L	1 U	4.04	4.04	32.7	1 U	1 U	6.09	--	
	MW-27B-090717			9/7/2017	µg/L	1 U	3.73	6.35	30.3	1 U	1 U	7.54	--	
	MW-27B-120517	12/4/2017	30.70	12/5/2017	µg/L	1 U	3.1	5.91	24.8	1 U	1 U	5.81	--	
	MW-27B-D-120517	12/4/2017	30.70	12/5/2017	µg/L	1 U	3.96	7.24	31.6	1 U	1 U	7.09	--	
	MW-27B-030818	3/5/2018	3.20	3/8/2018	µg/L	1 U	3.44	6.82	28.8	1 U	1 U	5 U	--	
MW-28	MW-28-012716			1/27/2016	µg/L	542	430	3,850	3,370	1 U	4.8	96.3	0.02 U	
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-28-031517			3/15/2017	µg/L	1,120	68.9	3,350	1,370	50 U ^b	50 U ^b	250 U	--	
	--			3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-28-050317			5/3/2017	µg/L	65.9	14.5	263	1,010	1 U	2.94	9.33	--	
	MW-28-062817			6/28/2017	µg/L	199	55	108	546	1 U	1 U	10.1	--	
	MW-28-071717			7/17/2017	µg/L	219	64.2	85.8	422	1 U	1 U	14.7	--	
	MW-28-080217			8/2/2017	µg/L	219	48.7	52.7	187	1 U	3.46	11.9	--	
	MW-28-090817			9/8/2017	µg/L	130	16.2	175	388	1 U	4.77	13.6	--	
	--	10/3/2017	23.80	10/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	11/7/2017	23.78	11/7/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	12/4/2017	23.94	12/7/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
					RBSL ^a :	5.0	700	1,000	10,000	5.0	40	25	0.05
	--	1/8/2018	24.15	1/9/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-28-020618	2/5/2018	22.60	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-28-030818	3/5/2018	21.65	3/8/2018	µg/L	10.1	9.92	5.27	21.2	1 U	1 U	5 U	--
MW-29	MW-29-012116			1/21/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	MW-29-112916			11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-29-031317			3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-29	MW-29-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-090717			9/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-100417	10/3/2017	10.85	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-110817	11/7/2017	10.06	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-120617	12/4/2017	10.39	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-010918	1/8/2018	10.36	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-020618	2/5/2018	7.80	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-29-030718	3/5/2018	4.20	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-30	MW-30-012516			1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U	0.02 U
	--			11/28/2016	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-30-050417			5/4/2017	µg/L	104	3.98	341	161	1 U	1 U	5 U	--
	MW-30-062917			6/29/2017	µg/L	646	25 U	1,630	736	25 U ^b	25 U	125 U ^b	--
	MW-30-071717			7/17/2017	µg/L	922	25 U	2,050	1,320	25 U ^b	25 U	125 U ^b	--
	MW-30-080217			8/2/2017	µg/L	1,240	25.9	1,020	2,230	25 U ^b	25 U	125 U ^b	--
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	10/3/2017	14.58	10/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	11/7/2017	14.60	11/8/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	12/4/2017	14.47	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	--	1/8/2018	14.59	1/8/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-30-020518	2/5/2018	13.11	2/5/2018	µg/L	2.2	1 U	1.86	4.1	1 U	1 U	5 U	--
	MW-30-030718	3/5/2018	11.43	3/7/2018	µg/L	22.1	1 U	8.94	19.1	1 U	2.25	5 U	--
MW-31	MW-31-051016			5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-31-112916			11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-31-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
				RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
	MW-31-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-D-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-100417	10/3/2017	22.70	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-110817	11/7/2017	20.81	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-120617	12/4/2017	20.05	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-010918	1/8/2018	22.55	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-020618	2/5/2018	18.90	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-31-030718	3/5/2018	18.01	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-31B	MW-31B-051116			5/11/2016	µg/L	1 U	1 U	2.7	1 U	1 U	1 U	1 U	0.02 U
MW-32	MW-32-051016			5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-32-120616			12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-32-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-32-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-32-120717	12/4/2017	10.02	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-32-030718	3/5/2018	6.82	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-33	MW-33-051016			5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
MW-33T	MW-33T-051016			5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-33T-120617	12/4/2017	27.12	12/6/2017	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-33T-030718	3/5/2018	25.23	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-34	MW-34-031517			3/15/2017	--	978	33.0	143	218	10 U ^b	157	50 U ^b	--
	MW-34-032017			3/20/2017	µg/L	801	10.0 U	113	305	10 U ^b	149	50 U ^b	--
	MW-34-033117			3/31/2017	µg/L	728	10.0 U	81.4	224	10 U ^b	152	50 U ^b	--
	MW-34-040617			4/6/2017	µg/L	860	1.7	58.6	181	1 U	123	5 U	--
	MW-34-050317			5/3/2017	µg/L	287	2.62	27.2	130	1 U	124	5 U	--
	MW-34-062817			6/28/2017	µg/L	167	4.59	9.3	39.2	1 U	68.3	5 U	--
	MW-34-071717			7/17/2017	µg/L	137	5.83	19.8	69.5	1 U	73.8	5 U	--
	MW-34-080117			8/1/2017	µg/L	517	10 U	31.7	110	10 U ^b	98.3	50 U ^b	--
	MW-34-090817			9/8/2017	µg/L	1,430	6.01	98.0	264	1 U	191	7.33	--
	MW-34-100417	10/3/2017	2.76	10/4/2017	µg/L	919	10 U	36.8	157	10 U ^b	151	50 U ^b	--
	MW-34-100417-DUP	10/3/2017	2.76	10/4/2017	µg/L	846	1.49	40.8	186	1 U	148	5 U	--
	MW-34-110817	11/7/2017	2.48	11/8/2017	µg/L	338	10 U	15.3	140	10 U ^b	266	50 U ^b	--
	MW-34-120617	12/4/2017	2.52	12/6/2017	µg/L	169	10 U	29.7	70	10 U ^b	218	50 U ^b	--
	MW-34-010918	1/8/2018	2.48	1/9/2018	µg/L	147	10 U	13.1	80	10 U ^b	246	50 U ^b	--
	MW-34-020618	2/5/2018	2.27	2/6/2018	µg/L	249	10 U	19.2	88.3	10 U ^b	191	50 U ^b	--
	MW-34-030818	3/5/2018	2.23	3/8/2018	µg/L	696	7.35	51.6	180	1 U	229	5.84	--

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
				RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-35	MW-35-051016			5/10/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-35-120116			12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-35-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-35	MW-35-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-100417	10/3/2017	10.34	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-110817	11/7/2017	8.94	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-120617	12/4/2017	10.41	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-010918	1/8/2018	10.57	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-D-010918	1/8/2018	10.57	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-020618	2/5/2018	9.00	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-030818	3/5/2018	8.33	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-36	MW-36-051116			5/11/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U
	MW-36-112916			11/29/2016	µg/L	1.3	1 U	6.5	1.1	1 U	1 U	1 U	--
	MW-36-D-112916			11/29/2016	µg/L	1 U	1 U	5.4	1 U	1 U	1 U	1 U	--
	MW-36-062917			6/29/2017	µg/L	2.11	1 U	2.28	3 U	1 U	1 U	5 U	--
	MW-36-090817			9/8/2017	µg/L	4.75	1 U	6.16	4.62	1 U	1 U	5 U	--
	MW-36-120717	12/4/2017	20.14	12/7/2017	µg/L	17.5	1 U	30.2	14.4	1 U	1 U	5 U	--
	MW-36-030718	3/5/2018	18.11	3/7/2018	µg/L	44.2	10 U	75.2	38.4	10 U ^b	10 U	50 U ^b	--
MW-36B	MW-36B-051116			5/11/2016	µg/L	1 U	1 U	7.2	1 U	1 U	1 U	1 U	0.02 U
	MW-36B-112916			11/29/2016	µg/L	1 U	1 U	1.6	1 U	1 U	1 U	1 U	--
	MW-36B-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-36B-062917-FD			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-36B-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-36B-120717	12/4/2017	20.90	12/7/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-36B-030718	3/5/2018	17.81	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-37	MW-37-113016			11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	--
	MW-37-062817			6/28/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1.44	5 U	--
	MW-37-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1.5	5 U	--
	MW-37-120617	12/4/2017	3.47	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	2.93	5 U	--
	MW-37-030818	3/5/2018	3.28	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	3.71	5 U	--

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
				RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-38	MW-38-113016			11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	5.5	1 U	--
	MW-38-031417			3/14/2017	µg/L	1 U	1 U	1 U	3 U	1 U	9.14	5 U	--
	MW-38-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	7.55	5 U	--
	MW-38-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	10.2	5 U	--
	MW-38-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	8.06	5 U	--
MW-38	MW-38-050317			5/3/2017	µg/L	1 U	1 U	1 U	3 U	1 U	9.08	5 U	--
	MW-38-062817			6/28/2017	µg/L	9.71	1.17	1 U	6.63	1 U	1 U	5 U	--
	MW-38-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	8.59	5 U	--
	MW-38-071717-FD			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	9.78	5 U	--
	MW-38-080117			8/1/2017	µg/L	1 U	1 U	1 U	3 U	1 U	7.25	5 U	--
	MW-38-090817			9/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	12.9	5 U	--
	MW-38-100417	10/3/2017	2.23	10/4/2017	µg/L	1.75	1 U	1 U	3 U	1 U	11.2	5 U	--
	MW-38-110817	11/7/2017	1.88	11/8/2017	µg/L	4.48	1 U	1 U	12.4	1 U	29.2	5 U	--
	MW-38-120617	12/4/2017	2.01	12/6/2017	µg/L	102	1 U	1 U	86.1	1 U	38	5 U	--
	MW-38-010918	1/8/2018	1.95	1/9/2018	µg/L	311	1 U	2.31	158	1 U	49.4	5 U	--
	MW-38-020618	2/5/2018	1.58	2/6/2018	µg/L	389	5 U	5 U	208	5 U	48.8	25 U	--
	MW-38-030818	3/5/2018	1.25	3/8/2018	µg/L	364	5 U	5 U	202	5 U	54.8	25 U	--
MW-39	MW-39-120716			12/7/2016	µg/L	6,320	682	1,290	3,650	50 U ^b	311	86	--
	MW-39-031417			3/14/2017	µg/L	6,370	431	2,200	3,700	10 U ^b	199	117	--
	MW-39-032017			3/20/2017	µg/L	7,340	704	2,990	4,050	100 U ^b	248	500 U ^b	--
	MW-39-033117			3/31/2017	µg/L	7,540	899	3,140	4,400	50 U ^b	272	250 U ^b	--
	MW-39-040617			4/6/2017	µg/L	6,180	754	3,280	3,860	50 U ^b	257	250 U ^b	--
	MW-39-062817			6/28/2017	µg/L	5,470	58	3,360	3,900	20 U ^b	239	100 U ^b	--
	MW-39-071717			7/17/2017	µg/L	4,690	100 U	3,760	4,580	100 U ^b	344	500 U ^b	--
	MW-39-080117			8/1/2017	µg/L	4,630	100 U	2,880	4,740	100 U ^b	348	500 U ^b	--
	MW-39-090817			9/8/2017	µg/L	3,380	10.7	1,040	2,740	1 U	376	15.6	--
	MW-39-100417	10/3/2017	3.75	10/4/2017	µg/L	1,560	50 U	365	1,350	50 U ^b	305	250 U ^b	--
	MW-39-110817	11/7/2017	4.89	11/8/2017	µg/L	878	50 U	123	368	50 U ^b	442	250 U ^b	--
	MW-39-120617	12/4/2017	5.72	12/6/2017	µg/L	345	50 U	69	150	50 U ^b	355	250 U ^b	--
	MW-39-D-120617	12/4/2017	5.72	12/6/2017	µg/L	286	1 U	31	131	1 U	353	5 U	--
	MW-39-010918	1/8/2018	4.86	1/9/2018	µg/L	23.8	5 U	5 U	15 U	5 U	370	25 U	--
	MW-39-020618	2/5/2018	4.85	2/6/2018	µg/L	46.9	5 U	5 U	15 U	5 U	263	25 U	--
	MW-39-030818	3/5/2018	4.66	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	304	5 U	--
MW-40	MW-40-120716			12/7/2016	µg/L	6,730	588	7,460	3,390	50 U ^b	373	64.8	--
	MW-40-031417			3/14/2017	µg/L	11,600	1,280	16,100	7,260	50 U ^b	691	250 U ^b	--
	MW-40-032017			3/20/2017	µg/L	12,300	1,330	19,600	7,500	200 U ^b	654	1,000 U ^b	--

Table 5. Analytical Results for Groundwater
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
						RBSL ^a : µg/L	5.0	700	1,000	10,000	5.0	40	25
MW-40	MW-40-033117			3/31/2017	µg/L	13,300	1,500	19,500	8,070	100 U ^b	727	500 U ^b	--
	MW-40-040617			4/6/2017	µg/L	10,400	1,180	16,200	6,570	200 U ^b	650	1,000 U ^b	--
	MW-40-062817			6/28/2017	µg/L	9,250	1,030	19,200	6,540	500 U ^b	590	2,500 U ^b	--
	MW-40-071717			7/17/2017	µg/L	11,400	1,210	25,300	7,430	500 U ^b	727	2,500 U ^b	--
	MW-40-080117			8/1/2017	µg/L	12,000	1,120	23,200	8,070	500 U ^b	631	2,500 U ^b	--
	MW-40-090817			9/8/2017	µg/L	14,300	1,250	28,700	9,250	20 U ^b	716	219	--
	MW-40-100417	10/3/2017	1.95	10/4/2017	µg/L	13,800	1,000 U ^b	28,800	9,530	1,000 U ^b	1,000 U ^b	5,000 U ^b	--
	MW-40-110817	11/7/2017	2.11	11/8/2017	µg/L	13,500	1,000 U ^b	23,000	9,290	1,000 U ^b	1,000 U ^b	5,000 U ^b	--
	MW-40-120617	12/4/2017	3.43	12/6/2017	µg/L	14,300	1,000 U ^b	22,300	10,100	1,000 U ^b	1,000 U ^b	5,000 U ^b	--
	MW-40-010918	1/8/2018	2.72	1/9/2018	µg/L	12,400	773	22,300	10,200	200 U ^b	497	1,000 U ^b	--
	MW-40-020618	2/5/2018	2.75	2/6/2018	µg/L	11,100	777	20,300	9,350	200 U ^b	373	1,000 U ^b	--
MW-40-030818	3/5/2018	2.44	3/8/2018	µg/L	8,450	498	14,500	7,580	50 U ^b	337	250 U ^b	--	
MW-41	MW-41-120716			12/7/2016	µg/L	212	2 U	2 U	155	2 U	6.7	5.6	--
	MW-41-031417			3/14/2017	µg/L	469	1.78	1 U	275	1 U	4.34	18.1	--
	MW-41-032017			3/20/2017	µg/L	424	2.62	1 U	342	1 U	1 U	16.9	--
	MW-41-033117			3/31/2017	µg/L	449	5 U	5 U	343	5 U ^b	5 U	25 U ^b	--
	MW-41-040617			4/6/2017	µg/L	470	2.06	1 U	258	1 U	3.84	10.6	--
	MW-41-062817			6/28/2017	µg/L	292	8.83	2.09	271	1 U	3.36	13.3	--
	MW-41-071717			7/17/2017	µg/L	487	15.8	3.09	366	1 U	3.62	27.9	--
	MW-41-080117			8/1/2017	µg/L	371	10 U	10 U	260	10 U ^b	10 U	50 U ^b	--
	MW-41-090817			9/8/2017	µg/L	189	1.51	1 U	90	1 U	3.74	5 U	--
	MW-41-100417	10/3/2017	4.37	10/4/2017	µg/L	93.5	1 U	1 U	59.9	1 U	1.84	5 U	--
	MW-41-110817	11/7/2017	4.39	11/8/2017	µg/L	99.6	1 U	1 U	56.6	1 U	2.46	5.68	--
	MW-41-120617	12/4/2017	5.55	12/6/2017	µg/L	27.6	1 U	1 U	11.1	1 U	1.62	5 U	--
	MW-41-010918	1/8/2018	4.40	1/9/2018	µg/L	2.06	1 U	1 U	3 U	1 U	1.43	5 U	--
	MW-41-020618	2/5/2018	3.82	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-41-030818	3/5/2018	3.94	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-42	MW-42-120716			12/7/2016	µg/L	3.8	1 U	1 U	2.7	1 U	1 U	1 U	--
	MW-42-031417			3/14/2017	µg/L	19.3	1 U	1 U	3 U	1 U	1.12	5 U	--
	MW-42-032017			3/20/2017	µg/L	59.6	1 U	1 U	16.9	1 U	1.24	5 U	--
	MW-42-033117			3/31/2017	µg/L	135	1 U	1 U	73.8	1 U	1 U	5.19	--
	MW-42-040617			4/6/2017	µg/L	93.5	1 U	1 U	53.3	1 U	1.18	5 U	--
	MW-42-062817			6/28/2017	µg/L	15.1	1 U	1 U	11.7	1 U	1.25	5 U	--
	MW-42-090817			9/8/2017	µg/L	143	1 U	1 U	100	1 U	1.51	5.52	--
	MW-42-120617	12/4/2017	5.26	12/6/2017	µg/L	9.82	1 U	1 U	45	1 U	1.24	5 U	--
MW-42	MW-42-030818	3/5/2018	4.86	3/8/2018	µg/L	1.02	1 U	1 U	3 U	1 U	1 U	5 U	--

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB	
					RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
MW-43	MW-43-110817	11/7/2017	4.45	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-43-120617	12/4/2017	4.50	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-43-010918	1/8/2018	4.35	1/9/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-43-020618	2/5/2018	3.70	2/6/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-43-030818	3/5/2018	3.90	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-43B	MW-43B-120617	12/4/2017	4.08	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-43B-030818	3/5/2018	1.21	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-44	--			3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-44-062917			6/29/2017	µg/L	1.06	1 U	7.12	3.11	1 U	1 U	5 U	--	
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	12/4/2017	9.40	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-44-030818	3/5/2018	4.00	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-44D-030818	3/5/2018	4.00	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-44B	MW-44B-031317			3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-44B-062817			6/28/2017	µg/L	1 U	1 U	2.39	3 U	1 U	1 U	5 U	--	
	MW-44B-090717			9/7/2017	µg/L	1 U	1 U	3.07	3 U	1 U	1 U	5 U	--	
	MW-44B-120517	12/4/2017	14.32	12/5/2017	µg/L	1 U	1 U	2.27	3 U	1 U	1 U	5 U	--	
	MW-44B-030818	3/5/2018	12.10	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-45	--			3/13/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/20/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			3/31/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			4/6/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--			5/3/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-45-062917			6/29/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-45-071717			7/17/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-45-080217			8/2/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	10/3/2017	14.25	10/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	11/7/2017	14.24	11/8/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	12/4/2017	14.22	12/4/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	1/8/2018	14.25	1/8/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	--	2/5/2018	13.95	2/6/2018	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	
	MW-45-030618	3/5/2018	12.31	3/6/2018	µg/L	24.3	6.11	28.9	41.2	1 U	1 U	5 U	--	
MW-45B	MW-45B-031317			3/13/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-45B	MW-45B-032017			3/20/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-45B-033117			3/31/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-45B-040617			4/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
	MW-45B-062817			6/28/2017	µg/L	1 U	1 U	1.73	3 U	1 U	1 U	5 U	--	

Table 5. Analytical Results for Groundwater

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Gauging Date	Depth to Water	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
				RBSL ^a :	µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05
	--			9/5/2017	--	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW	NS-IW
	MW-45B-120717	12/4/2017	15.93	12/7/2017	µg/L	1 U	1 U	3.26	3 U	1 U	1 U	5 U	--
	MW-45B-030618	3/5/2018	14.65	3/6/2018	µg/L	1 U	1 U	2.75	3 U	1 U	1 U	5 U	--
MW-46	MW-46-120617	12/4/2017	9.48	12/6/2017	µg/L	4.97	1 U	1 U	7.74	1 U	85.5	5 U	--
	MW-46-030618	3/5/2018	6.33	3/6/2018	µg/L	173	1.76	16.5	29.5	1 U	129	7.21	--
MW-47	MW-47-120617	12/4/2017	17.75	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-47-030718	3/5/2018	14.74	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-48B	MW-48B-120617	12/4/2017	18.22	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	2.92	5 U	--
	MW-48B-030718	3/5/2018	16.70	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	2.97	5 U	--
MW-49	MW-49-120617	12/4/2017	20.29	12/6/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-49-030818	3/5/2018	17.68	3/8/2018	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-50B	MW-50B-120617	12/4/2017	21.37	12/6/2017	µg/L	1.37	1 U	1 U	3 U	1 U	35.5	5 U	--
	MW-50B-030718	3/5/2018	19.10	3/7/2018	µg/L	1 U	1 U	1 U	3 U	1 U	26.7	5 U	--

Notes:

^a RBSL = Risk-based screening levels identified in South Carolina Underground Storage Tank Management Division *Programmatic Quality Assurance Program Plan*, Revision 3.1, Table D1 "RBSLs for Groundwater," February 2016.

^b The analyte was analyzed for, but was not detected above the laboratory reporting/quantitation limit. However, the laboratory reporting/quantitation limit is above the screening criteria. The actual absence or presence of this analyte between the screening criteria and the laboratory reporting/quantitation limit cannot be determined

*Unable to collect depth to water due to fluctuation from the sparging system operating.

Samples analyzed by EPA Methods SW 8260B and 8011.

Bold indicates the analyte was detected above the method detection limit.

Gray shading indicates the analyte exceeded RBSLs.

U = analyte was not detected above the reported sample quantitation limit

µg/L = microgram(s) per liter

1,2-DCA = 1,2-dichloroethane

EDB = 1,2-dibromoethane

ID = identification

MTBE = methyl tertiary butyl ether

NS-FP = sample not collected due to the presence of free product in the well

NS-HS = sample not collected due to health and safety concerns

NS-IW = sample not collected due to insufficient volume of water in well

NS-OL = sample not collected because it was overlooked in the field

NS-SL = sample not analyzed due to sample being lost in transit to laboratory

Table 6. Cumulative Product Shipped from the Site
Plantation Pipe Line Company
Lewis Drive Remediation Site, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Date	Destination	Total Product (gal)	Date	Destination	Total Product (gal)
12/9/2014	PPL Greensboro	4,289	6/3/2015	Allied Energies	4,214
12/9/2014	PPL Greensboro	3,100	8/10/2015	Allied Energies	6,000
12/12/2014	PPL Greensboro	1,189	11/2/2015	Allied Energies	5,800
12/30/2014	Crystal Clean (FCC)	5,057	11/13/2015	Crystal Clean (FCC)	2,900
12/31/2014	Crystal Clean (FCC)	5,333	12/1/2015	Allied Energies	6,690
1/4/2015	Crystal Clean (FCC)	5,000	12/1/2015	Allied Energies	6,700
1/4/2015	Crystal Clean (FCC)	2,872	12/7/2015	Crystal Clean (FCC)	500
1/5/2015	Crystal Clean (FCC)	5,013	9/28/2016	Shamrock	495
1/6/2015	Crystal Clean (FCC)	4,800	10/17/2016	Shamrock	110
1/7/2015	Allied Energies	6,532	10/24/2016	Shamrock	85
1/7/2015	Allied Energies	6,425	10/31/2016	Shamrock	70
1/7/2015	Allied Energies	8,200	11/10/2016	Shamrock	168
1/9/2015	Allied Energies	6,482	1/18/2017	A&D Archdale, NC	3,758
1/9/2015	Allied Energies	7,825	3/3/2017	A&D Archdale, NC	460
1/12/2015	Allied Energies	6,540	3/8/2017	A&D Archdale, NC	500
1/12/2015	Allied Energies	6,467	3/15/2017	A&D Archdale, NC	4,189
1/13/2015	Allied Energies	6,732	4/3/2017	A&D Archdale, NC	458
1/13/2015	Allied Energies	6,595	4/19/2017	A&D Archdale, NC	927
1/15/2015	Allied Energies	6,500	4/19/2017	A&D Archdale, NC	747
1/22/2015	Allied Energies	5,791	5/22/2017	A&D Archdale, NC	50
1/23/2015	Allied Energies	5,450	6/7/2017	A&D Archdale, NC	658
1/27/2015	Allied Energies	5,791	6/29/2017	A&D Archdale, NC	695
1/27/2015	Allied Energies	5,557	8/25/2017	A&D Archdale, NC	566
1/27/2015	Allied Energies	6,043	9/8/2017	A&D Archdale, NC	99
1/28/2015	Allied Energies	4,411	1/8/2018	A&D Archdale, NC	6
2/5/2015	Allied Energies	5,513	3/31/2018	Remaining in frac tanks	5.7
2/11/2015	Allied Energies	5,732		Total (gallons)	222,980
2/11/2015	Allied Energies	5,606		Total (barrels)	5,309
2/25/2015	Allied Energies	5,583			
3/4/2015	Allied Energies	4,000			
3/16/2015	Allied Energies	5,200			
6/3/2015	Allied Energies	6,500			

Notes:

Gasoline and water are field-segregated using two 1,550-gallon poly tanks prior to offsite disposal.

A&D = A&D Environmental

gal = gallons

NC = North Carolina

PPL = Plantation Pipe Line Company

Table 7. Product Skimmer Recovery Results

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Well Identifier	Week 1	Week 2	Week 3	Week 4	Total Recovered to Date (gal)	Note
	Volume Recovered (gal)	Volume Recovered (gal)	Volume Recovered (gal)	Volume Recovered (gal)		
Date	2/20/2018	2/26/2018	3/9/2018	3/15/2018		
Product Skimmers						
MW-08	-	-	-	-	-	No measurable product recovered
MW-15	-	-	0.023	0.004	0.027	
MW-20	0.004	0.017	0.016	-	0.037	
RS-01	NA	NA	0.031	0.008	0.039	Difficulty inserting product skimmer; replaced with smaller size
RS-02	-	-	0.001	-	0.001	
RS-05	0.844	0.813	1.094	1.125	3.875	
RS-10	0.002	-	-	-	0.002	
RS-14	0.016	-	-	-	0.016	
RS-17	-	-	0.001	-	0.001	
RW-02	-	0.090	0.047	-	0.137	
RW-03	-	-	0.008	0.008	0.016	
RW-04	-	0.008	0.016	-	0.023	
RW-05	-	0.016	0.016	0.656	0.688	
RW-07	0.002	-	0.008	-	0.010	
RW-08	-	-	-	-	-	No measurable product recovered
RW-15	0.078	-	-	0.117	0.195	
Petroleum-Absorbent Socks						
MW-11	0.200	0.224	-	0.256	0.680	
RS-08	-	-	-	-	-	Skimmer incompatible with well; cage to hang sock ordered
RT-2K	-	-	-	-	-	Skimmer incompatible with well; cage to hang sock ordered
RT-1A	-	-	-	-	-	Skimmer incompatible with well; cage to hang sock ordered
RT-1B	-	-	-	-	-	Skimmer incompatible with well; cage to hang sock ordered
RT-1C	-	-	-	-	-	Skimmer incompatible with well; cage to hang sock ordered
Total:	1.145	1.167	1.259	2.174	5.746	

Notes:

- = no product recovered

gal = gallons

ID = identification

NA = no applicable

Table 8. Stream Gauge Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Date Installed	Stream Bottom	Elevation of Zero
			Elevation (ft amsl)	Mark (ft amsl)
SW-01	By hand	3/29/2016	812.39	812.82
SW-02	By hand	3/29/2016	808.36	808.65
SW-03	By hand	3/29/2016	815.05	815.09
SW-05	By hand	3/29/2016	838.69	838.75
SW-08	By hand	3/29/2016	802.14	802.04
SW-10	By hand	3/29/2016	776.62	778.09
SW-14	By hand	7/18/2017	837.13	NS

Notes:

amsl = above mean sea level relative to North American Vertical Datum of 1988 (NAVD88). Benchmark is 34.8289659 degrees north, 82.3710354 degrees west (NAD83, 2011), elevation 929.1 ft NAVD88.

ft = feet

Table 9. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of	Bottom of	Top of	Bottom of	Top of	Bottom of	Length of Screen or Borehole (ft)
													Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft amsl)	Screen or Open Borehole Interval (ft amsl)	
Monitoring Wells																			
MW-01	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	850.25	853.07	15.61	8	2	13.00	837.2	5.82	15.82	3.0	13.0	847.2	837.2	10.00
MW-01B	Schramm Air Rig	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	850.45	852.99	45.26	10	6	38.50	812.0	21.03	41.03	18.5	38.5	832.0	812.0	20.00
MW-02	CME 750 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	841.24	841.04	19.78	8	2	20.00	821.2	4.80	19.80	5.0	20.0	836.2	821.2	15.00
MW-02B	Schramm Air Rig/rehabbed (10/5/2017) with a Mobile Drill B57	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	841.18	841.19	81.55	10	2	81.70	759.5	70.00	81.70	70.0	81.7	771.2	759.5	13.00
MW-03	CME 550 HSA	MW-10136	6/23/2015	Still in use	Monitoring Well/Gauging	838.38	838.36	22.19	8	2	20.00	818.4	4.98	19.98	5.0	20.0	833.4	818.4	15.00
MW-04	CME 550 HSA	MW-10136	6/23/2015	Still in use	Monitoring Well/Gauging	844.51	844.42	20.65	8	2	20.00	824.5	4.91	19.91	5.0	20.0	839.5	824.5	15.00
MW-05	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	851.15	851.11	19.89	8	2	20.00	831.1	4.96	19.96	5.0	20.0	846.1	831.1	15.00
MW-06	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	852.98	852.92	19.20	8	2	19.60	833.4	4.54	19.54	5.0	19.6	848.0	833.4	15.00
MW-06B	Mobile Drill B57	MW-11117	10/17/2017	Still in use	Monitoring Well/Gauging	852.42	852.57	85.65	13.75	4	85.20	767.2	65.50	85.50	65.5	85.5	786.9	766.9	20.00
MW-07	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	853.02	853.02	13.60	8	2	13.50	839.5	3.50	13.50	3.5	13.5	849.5	839.5	10.00
MW-08	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	844.75	844.72	19.80	8	2	19.70	825.1	4.67	19.67	4.7	19.7	840.1	825.1	15.00
MW-09	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	843.72	843.63	20.21	8	2	19.50	824.2	4.41	19.41	4.5	19.5	839.2	824.2	15.00
MW-09B	Mobile Drill B57	MW-11117	10/17/2017	Still in use	Monitoring Well/Gauging	843.71	843.92	151.00	13.75	4	151.00	692.7	132.20	151.00	132.2	151.0	711.5	692.7	20.00
MW-10	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	842.33	845.41	23.54	8	2	20.00	822.3	8.08	23.08	5.0	20.0	837.3	822.3	15.00
MW-11	CME 550 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	852.36	855.63	32.50	8	2	25.20	827.2	13.27	28.27	14.2	25.0	838.2	827.4	15.00
MW-12	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	832.20	834.53	21.69	8	2	19.30	812.9	6.63	21.63	4.3	19.3	827.9	812.9	15.00
MW-12B	Geoprobe 3230 DT HSA	MW-10460	12/22/2015	Still in use	Monitoring Well/Gauging	832.26	834.98	45.81	10	6	43.00	789.3	35.72	45.72	33.0	43.0	799.3	789.3	10.00
MW-13	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	845.93	848.84	22.18	8	2	19.00	826.9	6.92	21.92	4.0	19.0	841.9	826.9	15.00
MW-13B	Geoprobe 3230 DT HSA	MW-10461	12/21/2015	Still in use	Monitoring Well/Gauging	847.19	849.82	55.36	10	6	58.00	789.2	50.64	60.64	48.0	58.0	799.2	789.2	10.00
MW-14	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	836.47	838.70	22.20	8	2	19.30	817.2	6.53	21.53	4.3	19.3	832.2	817.2	15.00
MW-14B	Mobile ST Schramm	MW-10578	5/3/2016	Still in use	Monitoring Well/Gauging	837.12	840.20	76.97	10	6	76.90	760.2	66.07	76.07	66.0	76.0	771.1	761.1	10.00
MW-15	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	828.68	831.03	21.22	8	2	19.00	809.7	6.35	21.35	4.0	19.0	824.7	809.7	15.00
MW-15B	CME 550 HSA	MW-10136	7/28/2015	Still in use	Monitoring Well/Gauging	828.66	831.29	74.41	10	6	77.85	750.8	70.48	80.48	67.9	77.9	760.8	750.8	10.00
MW-16	CME 750 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	847.63	847.67	20.37	8	2	20.00	827.6	5.03	20.03	5.0	20.0	842.6	827.6	15.00
MW-17	CME 750 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	855.32	855.35	15.30	8	2	11.00	844.3	6.03	11.03	6.0	11.0	849.3	844.3	5.00
MW-17B	Geoprobe 3230 DT HSA	MW-10462	1/7/2016	Still in use	Monitoring Well/Gauging	855.37	855.37	27.50	10	6	27.00	828.4	17.00	27.00	17.0	27.0	838.4	828.4	10.00
MW-18	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	846.82	846.89	19.75	8	2	20.00	826.8	5.06	20.06	5.0	20.0	841.8	826.8	15.00
MW-19	CME 750 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	851.23	853.94	12.13	8	2	9.50	841.7	7.20	12.20	4.5	9.5	846.7	841.7	5.00
MW-20	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	853.07	852.89	19.45	8	2	19.00	834.1	3.81	18.81	4.0	19.0	849.1	834.1	15.00
MW-21	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	855.68	855.77	20.70	8	2	20.00	835.7	5.09	20.09	5.0	20.0	850.7	835.7	15.00
MW-22	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	854.62	854.60	10.30	8	2	11.00	843.6	5.98	10.98	6.0	11.0	848.6	843.6	5.00
MW-23	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	846.66	849.57	23.50	8	2	20.00	826.7	7.91	22.91	5.0	20.0	841.7	826.7	15.00
MW-23B	CME 550 HSA	MW-10136	7/22/2015	Still in use	Monitoring Well/Gauging	846.81	849.69	53.48	10	6	50.50	796.3	30.88	53.38	28.0	50.5	818.8	796.3	22.50
MW-24	CME 550 HSA	MW-10136	7/15/2015	Still in use	Monitoring Well/Gauging	815.72	817.92	15.30	8	2	13.00	802.7	10.20	15.20	8.0	13.0	807.7	802.7	5.00
MW-24B	CME 550 HSA	MW-10136	7/20/2015	Still in use	Monitoring Well/Gauging	815.83	818.72	45.10	10	6	39.50	776.3	22.39	42.39	19.5	39.5	796.3	776.3	20.00
MW-25	Geoprobe 3230 DT HSA	MW-10463	1/5/2016	Still in use	Monitoring Well/Gauging	823.46	826.18	18.07	8	2	15.00	808.5	8.04	18.04	5.0	15.0	818.5	808.5	10.00
MW-25B	Geoprobe 3230 DT HSA	MW-10464	1/5/2016	Still in use	Monitoring Well/Gauging	822.59	823.81	59.00	10	6	58.00	764.6	49.22	59.22	48.0	58.0	774.6	764.6	10.00
MW-26	Geoprobe 3230 DT HSA	MW-10465	1/4/2016	Still in use	Monitoring Well/Gauging	844.76	847.56	17.15	8	2	15.25	829.5	7.27	17.27	5.0	15.0	839.8	829.8	10.00
MW-26B	Geoprobe 3230 DT HSA	MW-10466	1/4/2016	Still in use	Monitoring Well/Gauging	844.81	847.81	43.84	10	6	38.00	806.8	29.00	41.00	26.0	38.0	818.8	806.8	12.00
MW-27	Geoprobe 3230 DT HSA	MW-10467	1/5/2016	Still in use	Monitoring Well/Gauging	854.22	854.11	29.51	8	2	30.25	824.0	15.11	30.11	15.0	30.0	839.2	824.2	15.00
MW-27B	CME 550 HSA / Schramm	MW-10578	4/26/2016	Still in use	Monitoring Well/Gauging	854.27	857.14	41.45	10	6	46.00	808.3	31.45	41.45	36.0	46.0	818.3	808.3	10.00
MW-28	Geoprobe 3230 DT HSA	MW-10468	1/5/2016	Still in use	Monitoring Well/Gauging	841.49	844.31	25.93	8	2	25.25	816.2	13.50	23.50	15.0	25.0	826.5	816.5	10.00
MW-29	Geoprobe 3230 DT HSA	MW-10469	1/4/2016	Still in use	Monitoring Well/Gauging	852.07	852.20	15.10	8	2	15.25	836.8	5.00	15.00	5.0	15.0	847.1	837.1	10.00
MW-30	Geoprobe 3230 DT HSA	MW-10470	1/6/2016	Still in use	Monitoring Well/Gauging	841.21	841.28	14.69	8	2	15.25	826.0	5.00	15.00	5.0	15.0	836.2	826.2	10.00
MW-31	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	842.26	845.04	28.20	8	2	25.00	817.3	13.20	28.20	10.0	25.0	832.3	817.3	15.00
MW-31B	CME 550 HSA / Schramm	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	842.01	844.94	79.25	10	6	76.00	766.0	68.25	79.25	65.0	76.0	777.0	766.0	11.00

Table 9. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Well Bottom of Well (ft amsl)	Top of	Bottom of	Top of	Bottom of	Top of	Bottom of	Length of Screen or Borehole (ft)
													Screen or Open Interval (ft BTOC)	Screen or Open Interval (ft BTOC)	Screen or Open Interval (ft bgs)	Screen or Open Interval (ft bgs)	Screen or Open Interval (ft amsl)	Screen or Open Interval (ft amsl)	
MW-32	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	839.81	842.93	29.09	8	2	26.00	813.8	13.09	28.09	10.0	25.0	829.8	814.8	15.00
MW-33	CME 550 HSA	MW-10578	4/15/2016	Still in use	Monitoring Well/Gauging	846.20	849.20	28.30	8	2	27.00	819.2	11.30	26.30	10.0	25.0	836.2	821.2	15.00
MW-33T	CME 550 HSA/Air Rotary	MW-10578	4/14/2016	Still in use	Monitoring Well/Gauging	846.15	849.11	100.35	8	2	96.50	749.7	87.85	97.85	84.0	94.0	762.2	752.2	10.00
MW-34	Hand Auger	MW-10994	3/16/2017	Still in use	Monitoring Well/Gauging	813.99	816.35	7.86	4	2	5.00	809.0	5.36	7.86	2.5	5.0	811.5	809.0	2.50
MW-35	CME 550 HSA	MW-10578	4/20/2016	Still in use	Monitoring Well/Gauging	826.22	829.40	28.42	8	2	26.00	800.2	12.42	27.42	10.0	25.0	816.2	801.2	15.00
MW-36	CME 550 HSA	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	858.66	858.47	23.65	8	2	24.50	834.2	8.65	23.65	9.5	24.5	849.2	834.2	15.00
MW-36B	CME 550 HSA / Schramm	MW-10578	4/28/2016	Still in use	Monitoring Well/Gauging	858.49	858.15	47.54	10	6	54.90	803.6	36.64	46.64	44.0	54.0	814.5	804.5	10.00
MW-37	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	810.93	813.92	18.11	6.25	2	16.00	794.9	7.11	17.11	5.0	15.0	805.9	795.9	10.00
MW-38	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	810.49	813.28	11.61	6.25	2	9.10	801.4	6.41	11.41	3.9	8.9	806.6	801.6	5.00
MW-39	Geoprobe 8040 HSA	MW-10759	11/29/2016	Still in use	Monitoring Well/Gauging	816.92	819.90	13.01	6.25	2	11.00	805.9	7.01	12.01	5.0	10.0	811.9	806.9	5.00
MW-40	Geoprobe 8040 HSA	MW-10759	11/30/2016	Still in use	Monitoring Well/Gauging	814.75	817.79	13.18	6.25	2	11.00	803.8	7.18	12.18	5.0	10.0	809.8	804.8	5.00
MW-41	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	816.67	819.68	13.20	6.25	2	11.00	805.7	7.20	12.20	5.0	10.0	811.7	806.7	5.00
MW-42	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	817.31	820.33	13.40	6.25	2	11.00	806.3	7.40	12.40	5.0	10.0	812.3	807.3	5.00
MW-43	Mobile Drill B57	MW-10964	10/20/2017	Still in use	Monitoring Well/Gauging	815.92	818.12	10.30	8.5	2	7.50	808.42	5.30	10.30	2.5	7.5	813.42	808.42	5.00
MW-43B	Mobile Drill B57	MW-10964	10/20/2017	Still in use	Monitoring Well/Gauging	816.08	818.80	54.40	13.75	4	51.00	765.08	34.40	54.40	31.0	51.0	785.08	765.08	20.00
MW-44	Hollow Stem Auger	MW-10964	1/23/2017	Still in use	Monitoring Well/Gauging	853.82	853.67	9.82	6.25	2	10.00	843.8	4.82	9.82	5.0	10.0	848.8	843.8	5.00
MW-44B	Hollow Stem Auger/Wire Line/Air Rotary	MW-10964	1/23/2017	Still in use	Monitoring Well/Gauging	853.66	853.38	34.50	10.25	4	37.10	816.6	13.50	34.50	16.1	37.1	837.6	816.6	21.00
MW-45	Hollow Stem Auger	MW-10964	1/26/2017	Still in use	Monitoring Well/Gauging	852.39	852.47	14.42	6.25	2	14.00	838.4	4.42	14.42	4.0	14.0	848.4	838.4	10.00
MW-45B	Hollow Stem Auger/Wire Line/Air Rotary	MW-10964	1/25/2017	Still in use	Monitoring Well/Gauging	852.69	852.85	40.30	10.25	4	40.30	812.4	19.00	40.30	19.0	40.3	833.7	812.4	21.30
MW-46	Geoprobe 8040 DT	MW-11117	9/13/2017	Still in use	Monitoring Well/Gauging	842.43	845.47	17.05	8.5	2	14.00	828.4	12.05	17.05	9.0	14.0	833.4	828.4	5.00
MW-47	Geoprobe 8040 DT	MW-11117	9/14/2017	Still in use	Monitoring Well/Gauging	839.89	842.98	22.79	8.5	2	20.00	819.9	12.79	22.79	10.0	20.0	829.9	819.9	10.00
MW-48B	Mobile Drill B57	MW-11117	10/18/2017	Still in use	Monitoring Well/Gauging	829.53	832.34	94.50	13.75	4	91.00	738.5	74.50	94.50	71.0	91.0	758.5	738.5	20.00
MW-49	Geoprobe 8040 DT	MW-11117	9/14/2017	Still in use	Monitoring Well/Gauging	843.65	846.78	23.30	8.5	2	21.00	822.7	8.30	23.30	6.0	21.0	837.7	822.7	15.00
MW-50B	Mobile Drill B57	MW-11247	10/17/2017	Still in use	Monitoring Well/Gauging	847.11	850.34	109.60	13.75	4	106.00	741.1	89.60	109.60	96.0	106.0	751.1	741.1	20.00
Recovery Wells																			
RW-01	HSA	MW-09978	1/28/2015	Still in use	Gauging/LNAPL Recovery	849.49	851.92	20.80	6.25	4	17	832.5	4.44	19.44	2.0	17.0	847.5	832.5	15.00
RW-02	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.22	852.69	25.72	6.25	4	23	827.2	15.47	25.47	13.0	23.0	837.2	827.2	10.00
RW-03	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.03	852.34	33.39	6.25	4	31.2	818.8	18.51	33.51	16.2	31.2	833.8	818.8	15.00
RW-04	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	852.15	853.93	35.04	6.25	4	33	819.2	14.78	34.78	13.0	33.0	839.2	819.2	20.00
RW-05	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	850.99	853.53	38.25	6.25	4	34.5	816.5	22.04	37.04	19.5	34.5	831.5	816.5	15.00
RW-06	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	844.21	846.21	38.50	6.25	4	38.5	805.7	20.49	40.49	18.5	38.5	825.7	805.7	20.00
RW-07	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	841.01	843.19	38.00	6.25	4	38	803.0	15.18	40.18	13.0	38.0	828.0	803.0	25.00
RW-08	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	833.46	835.48	33.50	6.25	4	33.5	800.0	10.52	35.52	8.5	33.5	825.0	800.0	25.00
RW-09	HSA	MW-09978	2/3/2015	Still in use	Gauging/LNAPL Recovery	831.13	835.12	42.13	6.25	4	41.5	789.6	15.49	45.49	11.5	41.5	819.6	789.6	30.00
RW-10	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	846.76	848.53	66.51	6.25	4	68.5	778.3	5.27	70.27	3.5	68.5	843.3	778.3	65.00
RW-11	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	851.03	852.97	21.40	6.25	4	19.5	831.5	6.44	21.44	4.5	19.5	846.5	831.5	15.00
RW-12	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	851.64	854.49	16.90	6.25	4	14	837.6	6.90	16.90	4.0	14.0	847.6	837.6	10.00
RW-13	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	847.57	847.97	45.53	6.25	4	50	797.6	0.53	45.53	5.0	50.0	842.6	797.6	45.00
RW-14	HSA	MW-10006	2/6/2015	Still in use	Gauging/LNAPL Recovery	826.25	827.54	55.00	6.25	4	55	771.2	5.00	55.00	5.0	55.0	821.2	771.2	50.00
RW-15	HSA	MW-10006	2/10/2015	Still in use	Gauging/LNAPL Recovery	849.48	851.64	36.50	6.25	4	36.5	813.0	1.50	36.50	1.5	36.5	848.0	813.0	35.00
Recovery Sumps																			
RS-01	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	847.95	849.13	23.60	NA	4	22.42	825.5	3.18	23.60	2.0	22.4	845.9	825.5	20.42
RS-02	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	848.54	849.52	20.00	NA	4	19.02	829.5	2.98	20.00	2.0	19.0	846.5	829.5	17.02
RS-04	Trackhoe	MW-09978	12/30/2014	Still in use	Gauging/LNAPL Recovery	850.36	851.47	10.75	NA	4	9.64	840.7	3.11	10.75	2.0	9.6	848.4	840.7	7.64
RS-05	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	847.14	848.31	25.20	NA	4	24.03	823.1	3.17	25.20	2.0	24.0	845.1	823.1	22.03
RS-06	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	848.25	849.47	25.18	NA	4	23.96	824.3	3.22	25.18	2.0	24.0	846.2	824.3	21.96
RS-07	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	854.06	855.08	16.65	NA	4	15.63	838.4	3.02	16.65	2.0	15.6	852.1	838.4	13.63

Table 9. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Well Bottom of Well (ft amsl)	Top of	Bottom of	Top of	Bottom of	Top of	Bottom of	Length of Screen or Borehole (ft)
													Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft amsl)	Screen or Open Borehole Interval (ft amsl)	
RS-08	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	852.59	854.00	20.22	NA	4	18.81	833.8	3.41	20.22	2.0	18.8	850.6	833.8	16.81
RS-09	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.75	847.60	18.85	NA	4	18.00	828.8	2.85	18.85	2.0	18.0	844.8	828.8	16.00
RS-10	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.28	847.42	20.06	NA	4	18.92	827.4	3.14	20.06	2.0	18.9	844.3	827.4	16.92
RS-11	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.35	847.44	22.06	NA	4	20.97	825.4	3.09	22.06	2.0	21.0	844.3	825.4	18.97
RS-12	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.58	847.74	21.29	NA	4	20.13	826.5	3.16	21.29	2.0	20.1	844.6	826.5	18.13
RS-13	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.39	845.98	19.92	NA	4	19.33	826.1	1.96	19.92	1.4	19.3	844.0	826.1	17.96
RS-14	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.66	845.97	19.93	NA	4	18.62	826.0	3.31	19.93	2.0	18.6	842.7	826.0	16.62
RS-15	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.36	846.41	19.93	NA	4	18.88	826.5	3.05	19.93	2.0	18.9	843.4	826.5	16.88
RS-16	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.56	845.44	19.98	NA	4	19.10	825.5	2.88	19.98	2.0	19.1	842.6	825.5	17.10
RS-17	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	843.29	844.22	19.91	NA	4	18.98	824.3	2.93	19.91	2.0	19.0	841.3	824.3	16.98
RS-18	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	846.82	847.89	19.98	NA	4	18.91	827.9	3.07	19.98	2.0	18.9	844.8	827.9	16.91
RS-20	Trackhoe	MW-09978	3/19/2015	Still in use	Gauging/LNAPL Recovery	841.73	842.69	11.84	NA	4	9.91	831.8	3.93	11.84	2.0	9.9	839.7	831.8	7.91
Recovery Trench Sumps																			
RT-1A	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	852.86	854.06	20.89	NA	4	20.00	832.9	3.20	21.20	2.0	20.0	850.9	832.9	18.00
RT-1B	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.29	854.15	21.10	NA	4	20.00	833.3	2.86	20.86	2.0	20.0	851.3	833.3	18.00
RT-1C	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.55	854.55	21.27	NA	4	20.00	833.5	3.00	21.00	2.0	20.0	851.5	833.5	18.00
RT-2A	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	815.66	817.48	10.81	NA	4	10.00	805.7	3.82	11.82	2.0	10.0	813.7	805.7	8.00
RT-2B	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.72	817.61	10.82	NA	4	10.00	806.7	2.89	10.89	2.0	10.0	814.7	806.7	8.00
RT-2C	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.86	818.06	10.23	NA	4	10.00	806.9	3.20	11.20	2.0	10.0	814.9	806.9	8.00
RT-2D	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.11	818.12	10.21	NA	4	10.00	807.1	3.01	11.01	2.0	10.0	815.1	807.1	8.00
RT-2E	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.32	818.25	10.24	NA	4	10.00	807.3	2.93	10.93	2.0	10.0	815.3	807.3	8.00
RT-2F	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.74	818.57	10.23	NA	4	10.00	807.7	2.83	10.83	2.0	10.0	815.7	807.7	8.00
RT-2G	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.27	820.07	10.24	NA	4	10.00	809.3	2.80	10.80	2.0	10.0	817.3	809.3	8.00
RT-2I	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.23	819.51	10.20	NA	4	10.00	809.2	2.28	10.28	2.0	10.0	817.2	809.2	8.00
RT-2J	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.47	817.63	10.22	NA	4	10.00	807.5	2.16	10.16	2.0	10.0	815.5	807.5	8.00
RT-2K	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	816.11	817.40	4.14	NA	4	2.50	813.6	2.64	4.14	1.0	2.5	815.1	813.6	1.50
RT-2L	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	817.95	819.54	6.60	NA	4	3.71	814.2	3.89	6.60	1.0	3.7	816.9	814.2	2.71
Piezometers																			
TW-04R	DPT	MW-10006	2/4/2015	Still in use	Gauging	852.68	852.64	5.46	2.2	1	5.5	847.2	2.46	5.46	2.5	5.5	850.2	847.2	3.00
TW-05R	DPT	MW-10006	2/4/2015	Still in use	Gauging	849.96	849.93	8.87	2.2	1	8.8	841.2	2.87	8.87	2.8	8.9	847.2	841.1	6.00
TW-14R	DPT	MW-10006	2/4/2015	Still in use	Gauging	853.47	853.37	6.20	2.2	1	6.5	847.0	2.20	6.20	2.5	6.3	851.0	847.2	4.00
TW-15R	DPT	MW-10006	2/4/2015	Still in use	Gauging	850.70	850.62	4.85	2.2	1	5	845.7	1.85	4.85	2.0	4.9	848.7	845.8	3.00
TW-21	DPT	MW-09978	1/22/2015	Still in use	Gauging	849.72	849.70	9.54	2.2	1	14	835.7	-0.46	9.54	4.0	9.6	845.7	840.2	10.00
TW-28	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.57	851.42	31.84	2.2	1	30	821.6	11.84	31.84	10.0	32.0	841.6	819.6	20.00
TW-30	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.86	851.81	23.15	2.2	1	24	827.9	8.15	23.15	9.0	23.2	842.9	828.7	15.00
TW-34	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.92	854.79	25.04	2.2	1	23	831.9	10.04	25.04	8.0	25.2	846.9	829.7	15.00
TW-35	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.22	854.10	25.12	2.2	1	23	831.2	10.12	25.12	8.0	25.2	846.2	829.0	15.00
TW-40	DPT	MW-09978	1/24/2015	Still in use	Gauging	853.45	853.35	34.05	2.2	1	33	820.5	14.05	34.05	13.0	34.2	840.5	819.3	20.00
TW-41	DPT	MW-09978	1/25/2015	Still in use	Gauging	849.38	849.38	32.15	2.2	1	34	815.4	7.15	32.15	9.0	32.1	840.4	817.2	25.00
TW-42	DPT	MW-09978	1/25/2015	Still in use	Gauging	847.02	846.84	27.50	2.2	1	29.5	817.5	7.50	27.50	9.5	27.7	837.5	819.3	20.00
TW-45	DPT	MW-09978	1/25/2015	Still in use	Gauging	848.26	848.31	36.86	2.2	1	37.5	810.8	11.86	36.86	12.5	36.8	835.8	811.4	25.00
TW-55	DPT	MW-10006	2/5/2015	Still in use	Gauging	846.00	845.93	41.50	2.7	1	43	803.0	11.50	41.50	13.0	41.6	833.0	804.4	30.00
TW-59	DPT	MW-09978	1/30/2015	Still in use	Gauging	834.84	834.78	21.15	2.7	1	22	812.8	6.15	21.15	7.0	21.2	827.8	813.6	15.00
TW-60	DPT	MW-09978	1/30/2015	Still in use	Gauging	828.00	828.03	37.20	2.7	1	41.5	786.5	2.20	37.20	6.5	37.2	821.5	790.8	35.00
TW-64	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.89	845.88	52.85	2.2	1	55	790.9	2.85	52.85	5.0	52.9	840.9	793.0	50.00
TW-65	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.66	845.62	44.81	2.2	1	44.5	801.2	9.81	44.81	9.5	44.8	836.2	800.8	35.00
TW-66	DPT	MW-09978	2/2/2015	Still in use	Gauging	820.18	820.31	23.81	2.7	1	24	796.2	3.81	23.81	4.0	23.7	816.2	796.5	20.00
TW-67	DPT	MW-09978	2/3/2015	Still in use	Gauging	852.88	852.71	26.47	2.7	1	27	825.9	6.47	26.47	7.0	26.6	845.9	826.2	20.00
TW-68	DPT	MW-09978	2/3/2015	Still in use	Gauging	846.59	846.45	29.96	2.2	1	27	819.6	9.96	29.96	7.0	30.1	839.6	816.5	20.00

Table 9. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of	Bottom of	Top of	Bottom of	Top of	Bottom of	Length of Screen or Borehole (ft)
													Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft amsl)	Screen or Open Borehole Interval (ft amsl)	
TW-69	DPT	MW-09978	2/3/2015	Still in use	Gauging	840.38	840.27	51.91	2.2	1	50	790.4	11.91	51.91	10.0	52.0	830.4	788.4	40.00
TW-70	DPT	MW-09978	2/3/2015	Still in use	Gauging	842.07	841.95	45.05	2.2	1	43	799.1	10.05	45.05	8.0	45.2	834.1	796.9	35.00
TW-73	DPT	MW-09978	2/3/2015	Still in use	Gauging	850.60	850.53	16.00	2.7	1	16	834.6	6.00	16.00	6.0	16.1	844.6	834.5	10.00
TW-76	DPT	MW-10006	2/4/2015	Still in use	Gauging	852.53	852.44	43.62	2.7	1	43	809.5	8.62	43.62	8.0	43.7	844.5	808.8	35.00
TW-81	DPT	MW-10006	2/5/2015	Still in use	Gauging	849.48	849.43	7.00	2.2	1	7	842.5	2.00	7.00	2.0	7.0	847.5	842.4	5.00
TW-82	DPT	MW-10006	2/5/2015	Still in use	Gauging	849.83	849.64	10.00	2.2	1	10	839.8	2.00	10.00	2.0	10.2	847.8	839.6	8.00
TW-83	DPT	MW-10006	2/5/2015	Still in use	Gauging	850.54	850.44	17.00	2.2	1	17	833.5	2.00	17.00	2.0	17.1	848.5	833.4	15.00
TW-84	DPT	MW-10006	2/5/2015	Still in use	Gauging	851.38	851.22	13.50	2.2	1	13.5	837.9	3.50	13.50	3.5	13.7	847.9	837.7	10.00
TW-85	DPT	MW-10006	2/5/2015	Still in use	Gauging	843.64	843.49	39.00	2.7	1	39	804.6	9.00	39.00	9.0	39.2	834.6	804.5	30.00
TW-86	DPT	MW-10006	2/5/2015	Still in use	Gauging	853.28	853.10	6.00	2.2	1	6	847.3	2.00	6.00	2.0	6.2	851.3	847.1	4.00
TW-87	DPT	MW-10006	2/5/2015	Still in use	Gauging	852.33	852.25	7.00	2.2	1	7	845.3	2.00	7.00	2.0	7.1	850.3	845.3	5.00
TW-90	DPT	MW-10006	2/6/2015	Still in use	Gauging	845.48	845.43	46.50	2.7	1	46.5	799.0	6.50	46.50	6.5	46.6	839.0	798.9	40.00
TW-94	DPT	MW-10006	2/10/2015	Still in use	Gauging	840.75	840.58	40.00	2.7	1	40	800.8	5.00	40.00	5.0	40.2	835.8	800.6	35.00
TW-96	DPT	MW-10006	2/11/2015	Still in use	Gauging	840.52	840.40	28.76	2.7	1	30	810.5	3.76	28.76	5.0	28.9	835.5	811.6	25.00
Vertical Air Sparging Wells																			
VAS-01	Mobile B57 HSA	SCHE03020469	7/28/2016	Still in use	Cupboard Creek Protection	853.269	NS	NA	8.50	2.00	32.20	NA	NA	NA	28.70	31.20	NA	NA	2.50
VAS-02	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	852.360	NS	NA	8.50	2.00	27.00	NA	NA	NA	23.50	26.00	NA	NA	2.50
VAS-03	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	852.132	NS	NA	8.50	2.00	18.30	NA	NA	NA	14.80	17.30	NA	NA	2.50
VAS-04	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	852.056	NS	NA	8.50	2.00	16.70	NA	NA	NA	13.20	15.70	NA	NA	2.50
VAS-05	Mobile B57 HSA	SCHE03020469	7/27/2016	Still in use	Cupboard Creek Protection	851.559	NS	NA	8.50	2.00	13.00	NA	NA	NA	9.50	12.00	NA	NA	2.50
VAS-06	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	851.612	NS	NA	8.50	2.00	14.40	NA	NA	NA	10.90	13.40	NA	NA	2.50
VAS-07	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	851.603	NS	NA	8.50	2.00	19.40	NA	NA	NA	15.90	18.40	NA	NA	2.50
VAS-08	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.583	NS	NA	8.50	2.00	22.00	NA	NA	NA	18.50	21.00	NA	NA	2.50
VAS-09	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.607	NS	NA	8.50	2.00	14.00	NA	NA	NA	10.50	13.00	NA	NA	2.50
VAS-10	Mobile B57 HSA	SCHE03020469	7/25/2016	Still in use	Cupboard Creek Protection	851.411	NS	NA	8.50	2.00	16.10	NA	NA	NA	12.60	15.10	NA	NA	2.50
VAS-11	Mobile B57 HSA	SCHE03020469	7/28/2016	Still in use	Cupboard Creek Protection	852.476	NS	NA	8.50	2.00	25.30	NA	NA	NA	21.80	24.30	NA	NA	2.50
VAS-12	Geoprobe 8040 HSA	SCHE03020469	8/5/2016	Still in use	Cupboard Creek Protection	851.535	NS	NA	8.50	2.00	24.20	NA	NA	NA	20.70	23.20	NA	NA	2.50
VAS-13	Geoprobe 8040 HSA	SCHE03020469	8/5/2016	Still in use	Cupboard Creek Protection	851.701	NS	NA	8.50	2.00	19.60	NA	NA	NA	16.10	18.60	NA	NA	2.50
VAS-14	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	851.239	NS	NA	8.50	2.00	16.20	NA	NA	NA	12.70	15.20	NA	NA	2.50
VAS-15	Geoprobe 8040 HSA	SCHE03020469	8/4/2016	Still in use	Cupboard Creek Protection	850.732	NS	NA	8.50	2.00	15.50	NA	NA	NA	12.00	14.50	NA	NA	2.50
VAS-16	Geoprobe 8040 HSA	SCHE03020469	8/3/2016	Still in use	Cupboard Creek Protection	850.305	NS	NA	8.50	2.00	17.90	NA	NA	NA	14.40	16.90	NA	NA	2.50
VAS-17	Geoprobe 8040 HSA	SCHE03020469	8/3/2016	Still in use	Cupboard Creek Protection	849.842	NS	NA	8.50	2.00	19.30	NA	NA	NA	15.80	18.30	NA	NA	2.50
VAS-18	Geoprobe 8040 HSA	SCHE03020469	8/8/2016	Still in use	Cupboard Creek Protection	849.513	NS	NA	8.50	2.00	16.50	NA	NA	NA	13.00	15.50	NA	NA	2.50
VAS-19	Mobile B57 HSA	SCHE03020469	7/26/2016	Still in use	Cupboard Creek Protection	850.465	NS	NA	8.50	2.00	17.20	NA	NA	NA	13.60	16.10	NA	NA	2.50
VAS-20	Mobile B57 HSA	SCHE03020469	7/19/2016	Still in use	Brown's Creek Protection	827.789	NS	NA	8.50	2.00	47.60	NA	NA	NA	44.60	47.10	NA	NA	2.50
VAS-21	Mobile B57 HSA	SCHE03020469	7/19/2016	Still in use	Brown's Creek Protection	826.304	NS	NA	8.50	2.00	53.50	NA	NA	NA	50.00	52.50	NA	NA	2.50
VAS-22	Mobile B57 HSA	SCHE03020469	7/21/2016	Still in use	Brown's Creek Protection	827.394	NS	NA	8.50	2.00	57.00	NA	NA	NA	53.50	56.00	NA	NA	2.50
VAS-23	Mobile B57 HSA	SCHE03020469	7/22/2016	Still in use	Brown's Creek Protection	827.211	NS	NA	8.50	2.00	49.50	NA	NA	NA	46.00	48.50	NA	NA	2.50
VAS-24	Mobile B57 HSA	SCHE03020469	7/5/2016	Still in use	Brown's Creek Protection	826.803	NS	NA	8.50	2.00	58.50	NA	NA	NA	55.00	57.50	NA	NA	2.50
VAS-25	Mobile B57 HSA	SCHE03020469	7/11/2016	Still in use	Brown's Creek Protection	826.411	NS	NA	8.50	2.00	54.00	NA	NA	NA	50.50	53.00	NA	NA	2.50
VAS-26	Mobile B57 HSA	SCHE03020469	7/11/2016	Still in use	Brown's Creek Protection	825.180	NS	NA	8.50	2.00	55.00	NA	NA	NA	51.50	54.00	NA	NA	2.50
VAS-27	Mobile B57 HSA	SCHE03020469	7/8/2016	Still in use	Brown's Creek Protection	826.369	NS	NA	8.50	2.00	54.00	NA	NA	NA	50.50	53.00	NA	NA	2.50
VAS-28	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	828.930	NS	NA	8.50	2.00	23.10	NA	NA	NA	19.80	22.30	NA	NA	2.50
VAS-29	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	832.025	NS	NA	8.50	2.00	27.50	NA	NA	NA	24.00	26.50	NA	NA	2.50
VAS-30	Mobile B57 HSA	SCHE03020469	6/21/2016	Still in use	Brown's Creek Protection	831.485	NS	NA	8.50	2.00	52.90	NA	NA	NA	49.40	51.90	NA	NA	2.50

Table 9. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Remediation Site, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location ID	Installation Method	Permit #	Date Installed	Date Abandoned	Purpose	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Measured Depth to Bottom (ft BTOC)	Bore Hole Diameter (in)	Well Dia (in)	Well Depth (ft bgs)	Bottom of Well (ft amsl)	Top of	Bottom of	Top of	Bottom of	Top of	Bottom of	Length of Screen or Borehole (ft)
													Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft BTOC)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft bgs)	Screen or Open Borehole Interval (ft amsl)	Screen or Open Borehole Interval (ft amsl)	
VAS-31	Mobile B57 HSA	SCHE03020469	6/21/2016	Still in use	Brown's Creek Protection	828.337	NS	NA	8.50	2.00	42.00	NA	NA	NA	38.50	41.00	NA	NA	2.50
VAS-32	Mobile B57 HSA	SCHE03020469	6/30/2016	Still in use	Brown's Creek Protection	836.257	NS	NA	8.50	2.00	43.00	NA	NA	NA	39.50	42.00	NA	NA	2.50
VAS-33	Mobile B57 HSA	SCHE03020469	6/29/2016	Still in use	Brown's Creek Protection	840.900	NS	NA	8.50	2.00	52.60	NA	NA	NA	49.10	51.60	NA	NA	2.50
VAS-34	Mobile B57 HSA	SCHE03020469	7/13/2016	Still in use	Brown's Creek Protection	836.585	NS	NA	8.50	2.00	53.50	NA	NA	NA	50.00	52.50	NA	NA	2.50
VAS-35	Mobile B57 HSA	SCHE03020469	7/13/2016	Still in use	Brown's Creek Protection	831.212	NS	NA	8.50	2.00	40.00	NA	NA	NA	36.50	39.00	NA	NA	2.50
VAS-36	Mobile B57 HSA	SCHE03020469	7/7/2016	Still in use	Brown's Creek Protection	831.361	NS	NA	8.50	2.00	33.20	NA	NA	NA	29.70	32.20	NA	NA	2.50
VAS-37	Mobile B57 HSA	SCHE03020469	7/7/2016	Still in use	Brown's Creek Protection	832.454	NS	NA	8.50	2.00	16.50	NA	NA	NA	13.00	15.50	NA	NA	2.50
VAS-38	Mobile B57 HSA	SCHE03020469	7/6/2016	Still in use	Brown's Creek Protection	834.566	NS	NA	8.50	2.00	21.10	NA	NA	NA	16.60	19.10	NA	NA	2.50
VAS-39	Mobile B57 HSA	SCHE03020469	6/22/2016	Still in use	Brown's Creek Protection	835.956	NS	NA	8.50	2.00	42.40	NA	NA	NA	38.90	41.40	NA	NA	2.50
VAS-40	Mobile B57 HSA	SCHE03020469	6/23/2016	Still in use	Brown's Creek Protection	833.753	NS	NA	8.50	2.00	40.00	NA	NA	NA	36.50	39.00	NA	NA	2.50
VAS-41	Mobile B57 HSA	SCHE03020469	6/28/2016	Still in use	Brown's Creek Protection	845.071	NS	NA	8.50	2.00	27.80	NA	NA	NA	24.30	26.80	NA	NA	2.50
VAS-42A	Mobile B57 HSA	SCHE03020469	7/14/2016	Still in use	Brown's Creek Protection	845.304	NS	NA	8.50	2.00	39.30	NA	NA	NA	35.80	38.30	NA	NA	2.50
VAS-43A	Mobile B57 HSA	SCHE03020469	7/15/2016	Still in use	Brown's Creek Protection	843.078	NS	NA	8.50	2.00	66.50	NA	NA	NA	63.00	65.50	NA	NA	2.50
VAS-44A	Mobile B57 HSA	SCHE03020469	7/18/2016	Still in use	Brown's Creek Protection	838.353	NS	NA	8.50	2.00	72.50	NA	NA	NA	69.00	71.50	NA	NA	2.50
VAS-46	Mobile B57 HSA	SCHE03020469	6/24/2016	Still in use	Brown's Creek Protection	839.503	NS	NA	8.50	2.00	20.80	NA	NA	NA	18.00	20.50	NA	NA	2.50
Vertical Bedrock Sparging Wells																			
VBS-01	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/28/2017	Still in use	Brown's Creek Protection	NS	NS	38.15	4.00	2.00	38.50	NA	NA	NA	34.50	38.50	NA	NA	2.00
VBS-02	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/28/2017	Still in use	Brown's Creek Protection	NS	NS	31.05	4.00	2.00	31.00	NA	NA	NA	27.00	31.00	NA	NA	2.00
VBS-03	Hollow Stem Auger/Wire Line/Air Rotary	SCHE03020469M	1/27/2017	Still in use	Brown's Creek Protection	NS	NS	36.20	4.00	2.00	36.20	NA	NA	NA	32.20	36.20	NA	NA	2.00

Notes:

amsl = above mean sea level relative to North American Vertical Datum of 1988 (NAVD88). Benchmark is 34.8289659 degrees north, 82.3710354 degrees west (NAD83, 2011), elevation 929.1 ft NAVD88.

bgs = below ground surface

BTOC = below top of casing

DPT = direct push

ft = feet

HSA = hollow-stem auger

in = inches

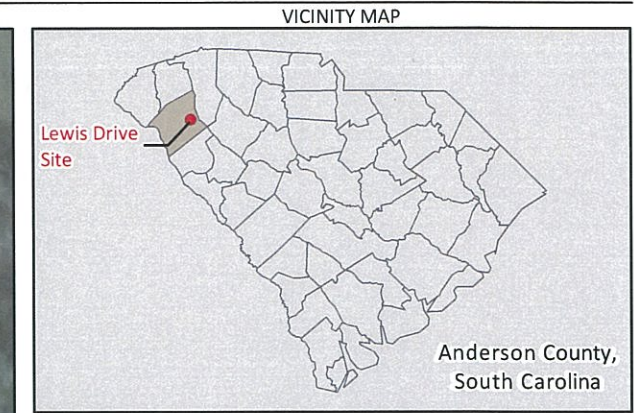
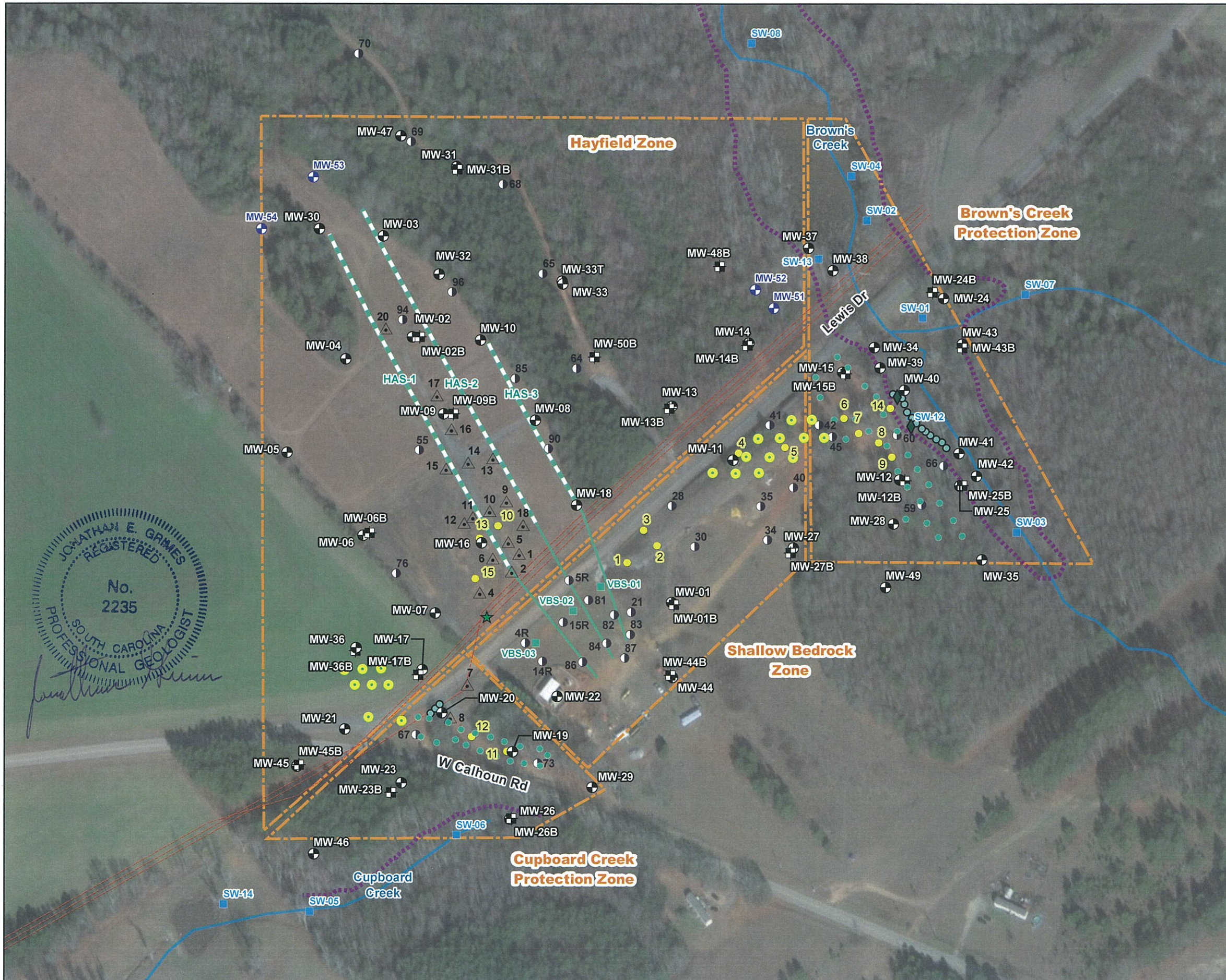
NA = not applicable

NS = location not surveyed

RNE = Refusal not encountered

TOC = top of casing

Figures



LEGEND

- ★ Release Point
- ⊕ Proposed Residuum Monitoring Well
- ⊙ Residuum Monitoring Well
- ⊕ Bedrock Monitoring Well
- ⊙ Piezometer to Abandon
- △ Recovery Sump
- ⊙ Recovery Trench Point
- Recovery Well (4" diameter)
- Surface Water Sampling Location
- ◆ Seep Location
- Proposed Vertical Sparging Well
- Vertical Bedrock Sparging Well
- Vertical Saprolite Sparging Well
- Pipeline
- Horizontal Sparging Well Riser
- Horizontal Sparging Well Screen
- ~ National Hydrography Dataset Stream
- ⋯ Inspection Route for Sheen or Distressed Vegetation
- ⊔ Remediation Zone

Base Map Sources:
 *Environmental Systems Research Institute (ESRI)
 ArcMap World Imagery, 2017. Basemap features are approximate.
 *United States Geological Survey (USGS) National Hydrography Dataset (NHD)

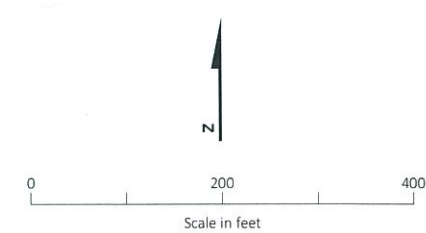
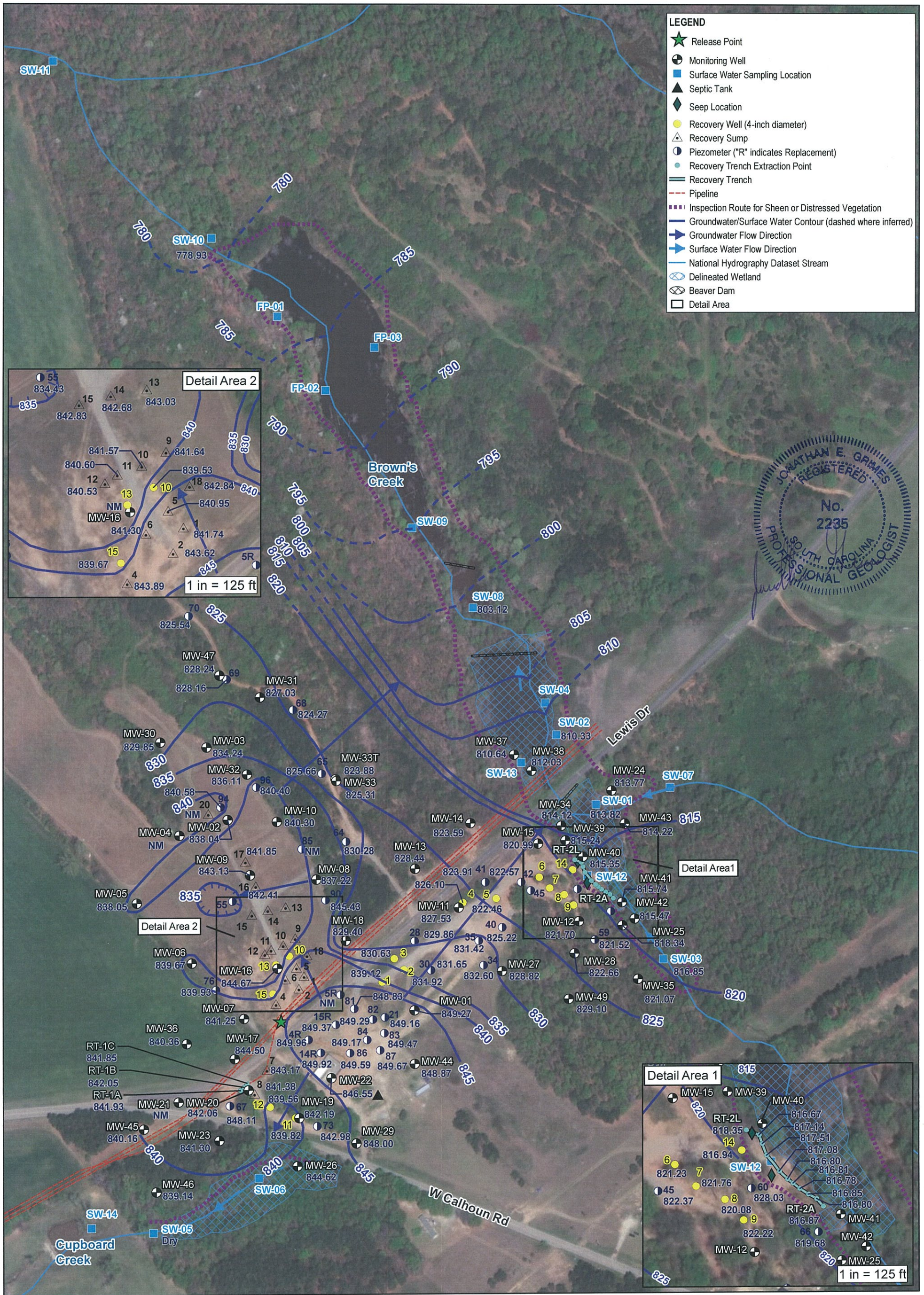


Figure 1. Site Overview
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

JONATHAN E. GAMES
 REGISTERED
 No. 2235
 SOUTH CAROLINA
 PROFESSIONAL GEOLOGIST





821.70 Corrected Groundwater Elevation as of 3/5/2018 in feet above mean sea level
 NM Not Measured

Base Map Sources:
 *Environmental Systems Research Institute (ESRI)
 ArcMap World Imagery, 2017. Basemap features are approximate.
 *United States Geological Survey (USGS)
 National Hydrography Dataset (NHD)

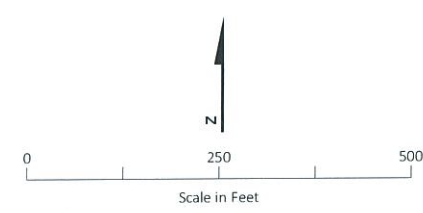
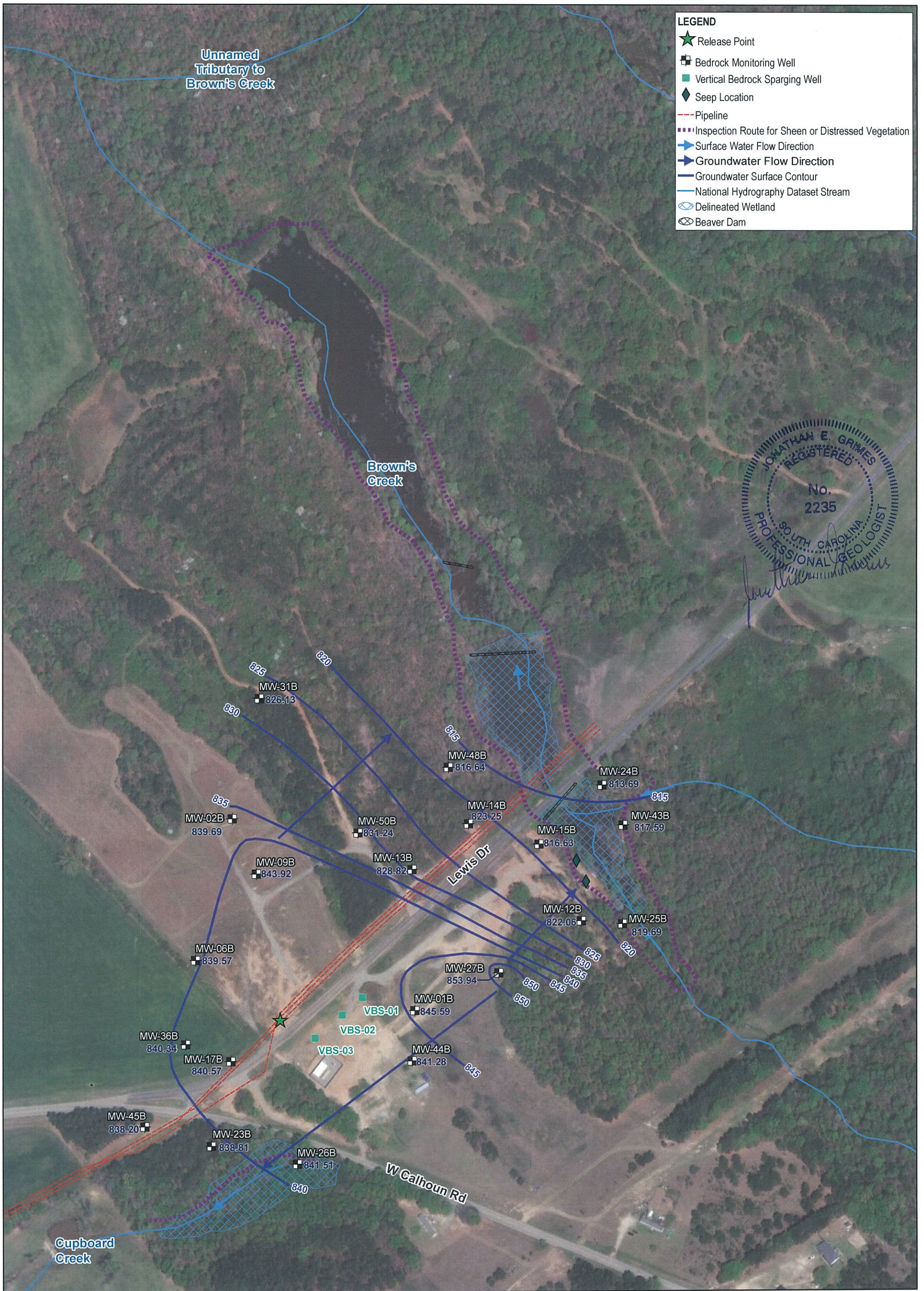


Figure 2A. Residuum Groundwater and Surface Water Elevation Map
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"





Corrected Groundwater Elevation as of
838.81 3/5/2018 in feet above mean sea level

Base Map Sources:
 *Environmental Systems Research Institute (ESRI)
 ArcMap World Imagery, 2017. Basemap features are
 approximate.
 *United States Geological Survey (USGS)
 National Hydrography Dataset (NHD)

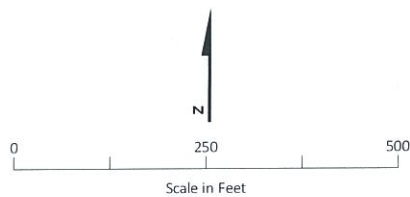
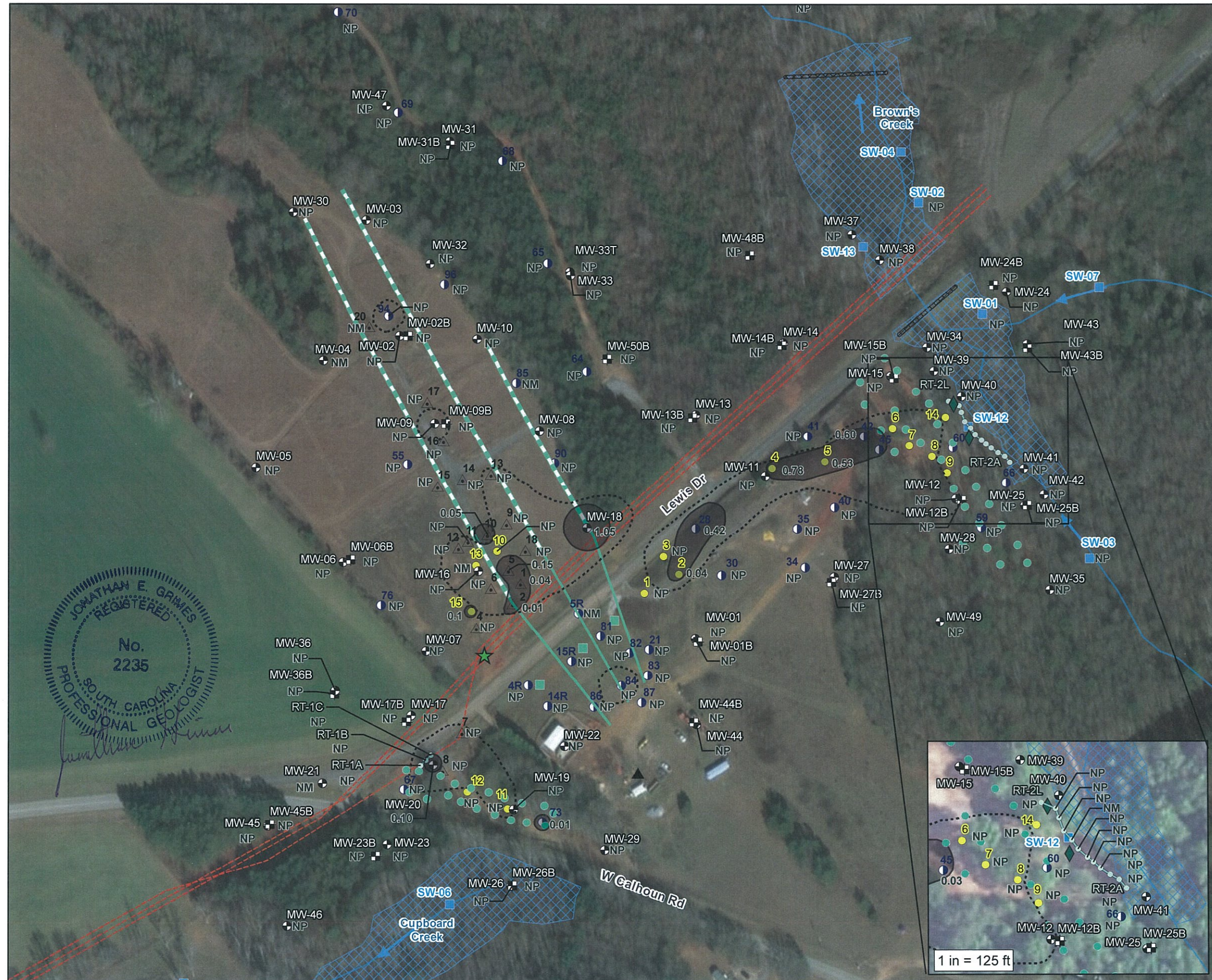


Figure 2B. Bedrock Groundwater Elevation Map
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"



LEGEND

- ★ Release Point
- ⊕ Monitoring Well
- ⊕ Bedrock Monitoring Well
- ◆ Seep Location
- △ Recovery Sump
- ⊙ Piezometer ("R" indicates Replacement)
- Recovery Well (4-inch diameter)
- Vertical Bedrock Sparging Well
- Vertical Sapolite Sparging Well
- Surface Water Sampling Location
- ▲ Septic Tank
- Recovery Trench Extraction Point
- Recovery Trench
- Surface Water Flow Direction
- Horizontal Sparging Well Riser
- Horizontal Sparging Well Screen
- Pipeline
- ~ National Hydrography Dataset Stream
- ▭ Delineated Wetland
- ▭ Beaver Dam
- ▭ Detail Area
- ⋯ Approximate Extent of Product > 0.01' Thickness based on 6/10/2016 data (data not shown)
- ▭ Approximate Extent of Product > 0.01' Thickness based on 3/5/2018 data
- 0.53 Product thickness in feet as of 3/5/2018
- NP No product detected
- NM Not measured

Base Map Sources:
 *Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2017. Basemap features are approximate.
 *United States Geological Survey (USGS) National Hydrography Dataset (NHD)

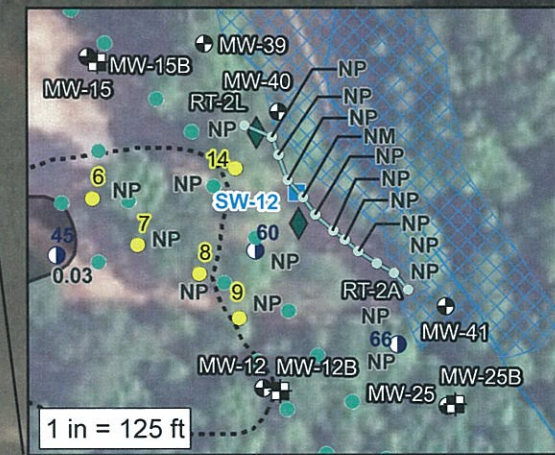
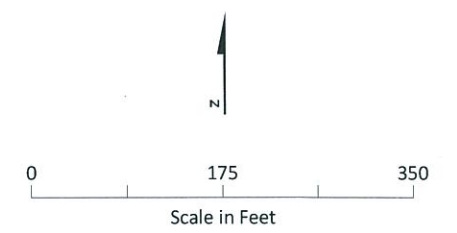
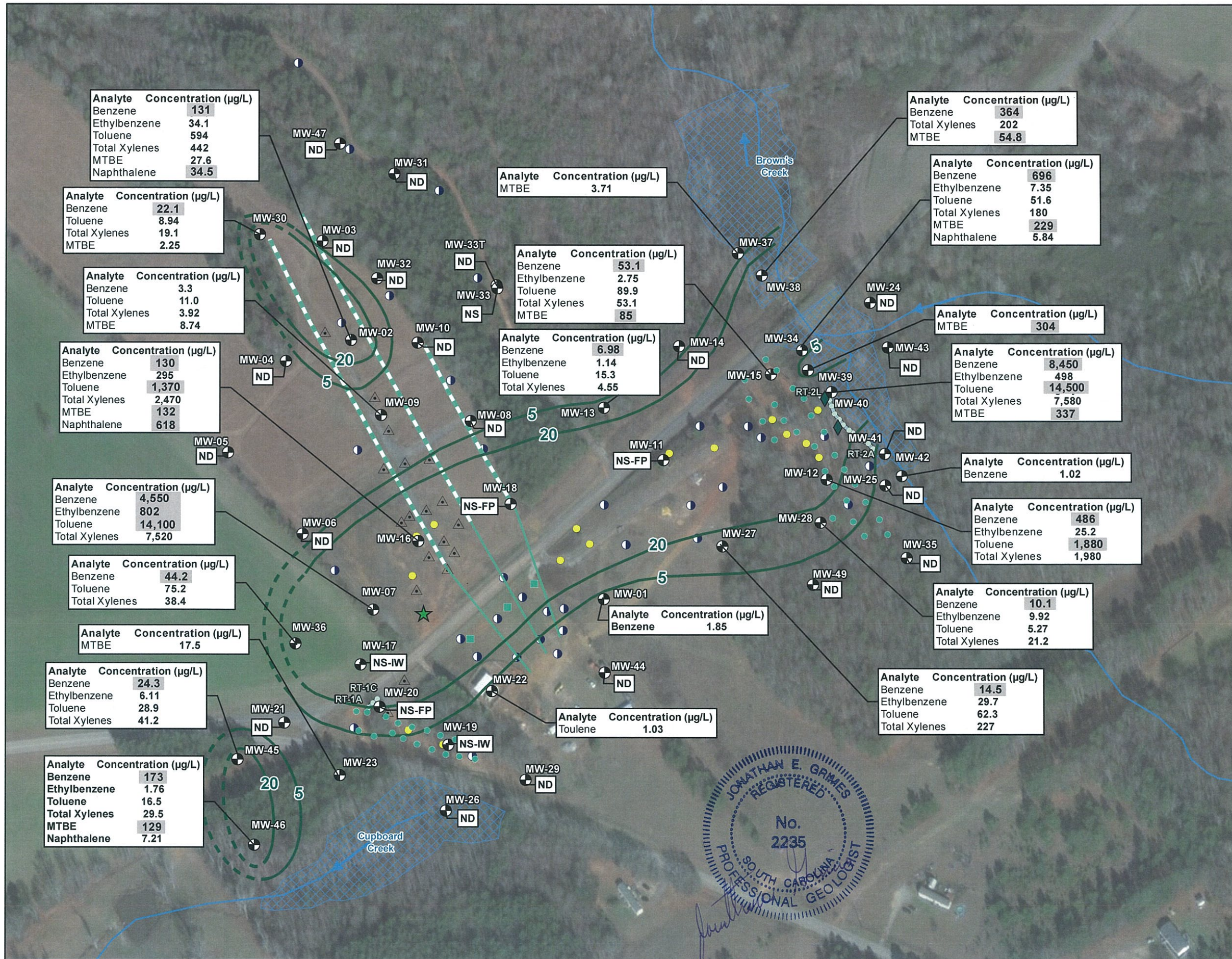


Figure 3. Product Thickness Map
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"



LEGEND

- ★ Release Point
- ⊕ Residuum Monitoring Well
- Piezometer
- Vertical Bedrock Sparging Well
- Vertical Saprolite Sparging Well
- ◆ Seep Location
- Recovery Well (4" diameter)
- △ Recovery Sump
- Recovery Trench Point
- Recovery Trench
- Surface Water Flow Direction
- Horizontal Sparging Well Riser
- Horizontal Sparging Well Screen
- Dissolved Benzene Plume Extent (µg/L) (Dashed where inferred)
- National Hydrography Dataset Stream
- ▨ Delineated Wetland

- ### NOTES:
1. Total Xylenes is the sum of m&p xylenes and o-xylene.
 2. MTBE = Methyl Tertiary Butyl Ether
 3. µg/L = microgram(s) per liter
 4. Only detected analytes are shown on map.
 5. ND = Groundwater was collected and analyzed, but no analytes were detected above the reported sample quantitation limit.
 6. NS = Not scheduled to be sampled for this event
 7. NS-FP = Sample not collected due to the presence of free product in the well
 8. NS-IW = Sample not collected due to insufficient volume of water in well

Gray shading indicates the analyte exceeded risk-based screening levels (RBSLs) identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan Revision 3.1, Table D1 "RBSLs for Groundwater", February 2016.

Base Map Sources:
 *Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2017. Basemap features are approximate.
 *United States Geological Survey (USGS) National Hydrography Dataset (NHD)

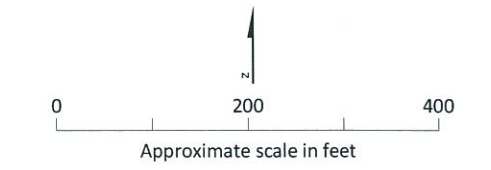
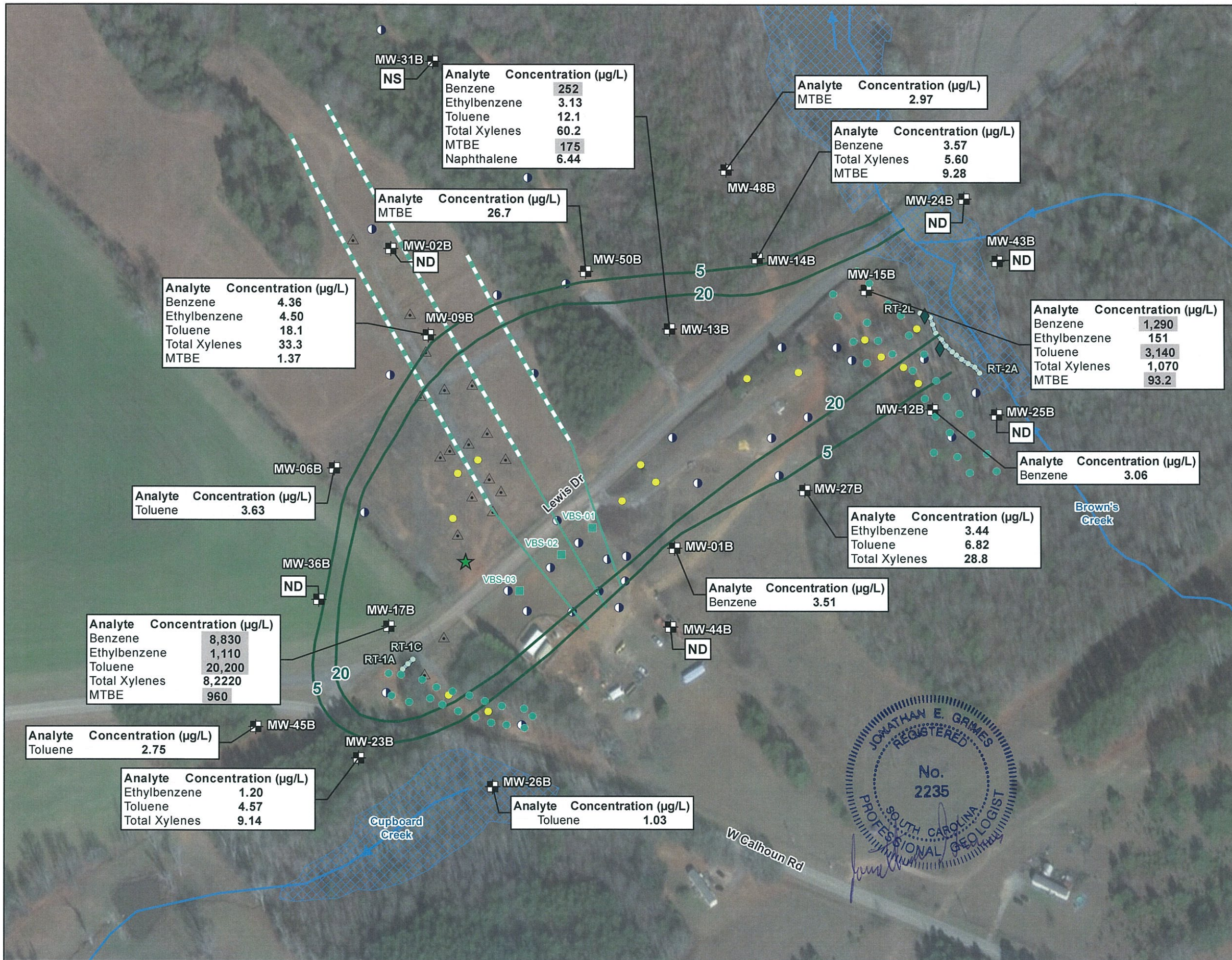


FIGURE 4A. Groundwater Analytical Results in Residuum Aquifer, March 2018
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"



LEGEND

- ★ Release Point
- ⊠ Bedrock Monitoring Well
- Piezometer
- Vertical Bedrock Spring Well
- Vertical Saprolite Spring Well
- ◆ Seep Location
- Recovery Well (4" diameter)
- △ Recovery Sump
- Recovery Trench Point
- Recovery Trench
- Surface Water Flow Direction
- Horizontal Sparging Well Riser
- Horizontal Sparging Well Screen
- ~ Dissolved Benzene Plume Extent (µg/L)
- ~ National Hydrography Dataset Stream
- ▨ Delineated Wetland

NOTES:

Total Xylenes is the sum of m&p xylenes and o-xylene.
 MTBE = Methyl Tertiary Butyl Ether
 µg/L = microgram(s) per liter
 Only detected analytes are shown on map.
 ND = Groundwater was collected and analyzed, but no analytes were detected above the reported sample quantitation limit.
 NS = Not sampled during this event.

Gray shading indicates the analyte exceeded risk-based screening levels (RBSLs) identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan Revision 3.1, Table D1 "RBSLs for Groundwater", February 2016.

Base Map Sources:

*Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2017. Basemap features are approximate.
 *United States Geological Survey (USGS) National Hydrography Dataset (NHD)

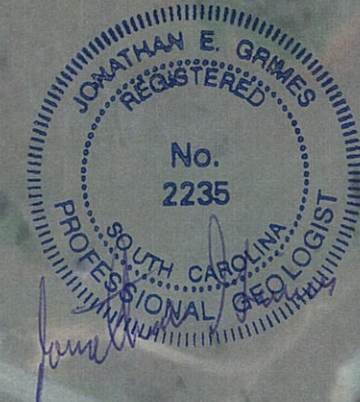
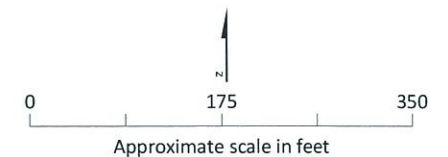


FIGURE 4B. Groundwater Analytical Results in Bedrock Aquifer, March 2018
 Lewis Drive Remediation Site
 Belton, South Carolina
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Appendix A
Field Notes, Gauging Sheets,
and Purge Logs

Location Belton, SC Date 4/5/17Project / Client Lewis Dr/APLStartup GW sampling

Objective: collect surface
water samples (3x 40ml
amber glass w/HCl for 826DB
BTEX + Napthelene)

Weather: severe afternoon storms,
cloudy, 58-68°F

Personnel: J. McCann/ATL, J. Hansen/MGM

0724 Team onsite

0725 H + S meeting, severe
weather, snacks

0810 SW-11-040517 biosheen,
no distressed vegetation

0820 SW-10-040517 no sheen or
distressed vegetation, water level = 0.4ft

0830 FP-01-040517 no sheen or
distressed vegetation, pollen film

0835 FP-02-040517 no sheen or
distressed vegetation, pollen film

0845 SW-09-040517 no sheen or
distressed vegetation

0855 SW-08-040517 no sheen or
distressed vegetation, water level = 1.18ft

0905 SW-13-040517 biosheen, no
distressed vegetation

Location Belton, SC Date 4/5/17 55

Project / Client Lewis Dr / PPL

Startup GW Sampling

0915 SW-04-040517 no sheen
or distressed vegetation

0920 SW-02-040517 no sheen or
distressed vegetation
Water level = 1.52 ft

0925 SW-01-040517 no sheen or
distressed vegetation,
Water level = 0.28 ft

0930 SW-07-040517 no sheen or
distressed vegetation

0935 SW-12-040517 no sheen or
distressed vegetation

0940 SW-03-040517 no sheen
or distressed vegetation,
Water level = 1.92 ft

0952 SW-06 is dry

0955 SW-05 is dry

1000 Lightning in area, stopped
work

1052 Team offsite to FedEx & lunch
(will not collect FP-03 due
to significant rain event)

1136 Dropped cooler at FedEx

1256 Returned from lunch

Location Belton, SC Date 4/5/17Project / Client Lewis Dr/ADLstartup GW sampling

1310 Stopped work for thunder

1323 Checked to see if transformer
issue was resolved, programmed
successfully1330 Attended safety standdown
skype call

1358 Finished skype call

1400 Team offsite due to
continuing storms

Justine McCann
4/5/17

Location Belton, SC Date 4/6/17 57

Project / Client Lewis Dr / PPL

Startup GW sampling

Objective: sample startup monitoring wells for BTEXMN 8260B (3x40 mL amber glass w/HCl), collect stream DO measurements, collect transducer data, and install new transducers retrieve items dropped down MW-12B + MW-45B

Weather: chance of rain, 43/56°F

Personnel: J. McCann / ATL, J. Hansen / MGM

0708 Team onsite

0710 Health + safety meeting: slick surfaces, rushing

0724 Calibrated \pm ID pin # 032402 fresh air = 0.0 ppm, span cal using 100 ppm Isobutylene lot # DAQ-248-100-19 exp: 3/20 reading = 100.0 ppm

0732 Retrieved bag from MW-12B

~~0740 MW-12B - 040617~~

~~0815 MW-45B - 040617~~ * removed HS

0823 Ganged clipboard creek

Rite in the Rain

Location Belton, SC Date 4/6/17Project / Client Lewis Dr/APLStartup GW Sampling

wells

0925 MW-17B-040617

0945 MW-23-040617

0950 MW-23B-040617

1005 MW-26B-040617

1015 MW-26-040617

1020 MW-26-040617-FD

1025 MW-29-040617

1040 MW-19-040617

1052 Gauged Brown's Creek wells

1145 Team to lunch

1242 Returned from lunch

1255 MW-38-040617

1305 MW-15-040617

1315 MW-15B-040617

1320 MW-15B-040617-FD

1325 MW-34-040617

1335 MW-39-040617

1345 MW-40-040617

1355 MW-41-040617

1405 MW-42-040617

1415 MW-25B-040617

1425 MW-25-040617

1435 MW-35-040617

Location Belton, SC Date 4/6/17 59

Project / Client Lewis Dr/APL

1451 Calibrated YSI 6920
 Pine # 8977 / 034664
 pressure: 754, itemp: 15.72°C

parameter	pre-cal	post-cal	lot#	exp
pH 7	6.96	7.00	2668D37	7/17
pH 4	4.07	4.00	2511B04	11/17
pH 10	10.20	10.03	2608E32	2/18
1.413 mS/cm	1.513	1.413	466D211	4/17
0.0 NTU	4.2	0.0	CL87639	12/17
126.0 NTU	125.9	126.0	16369067	9/17
240 mV	251.5	240.1	9539	11/20
DO%	103.9	99.2	—	—

1515 MW-21-01-040617

1520 Started pumping MW-21
 DTW = 18.17' btoC

1545 MW-21-040617

1548 Stopped pumping MW-21
 Purge volume = 1.5 gal

1555 Dumped purge water

1600 Started stream DO measurement

location	reading
SW-03	8.39
SW-12	8.30
SW-13	2.39
SW-01	7.54

Rite in the Rain

Location Belton, SC Date 4/6/17Project / Client Lewis Dr / APJStartup GW sampling11630 TB-01-040617

1708 Team offsite to FedEx

11637 Decon ed weights and filled out CoC)

1742 Dropped off cooler

1812 J. McLann returned to site to collect transducer data and install new transducer in MW-08 and MW-~~09~~

1935 Completed inventory of sampling supplies

- 1 small cooler
- 2 trip blanks
- CoC & air bills
- 5 VOA sets of 3 + 1 extra bottle
- 0.5 liters lab DI water
- HydraSleeve weights & twine

1945 J. McLann offsite

Justin McLann 4/6/17

Location Belton, SC Date 5/3/17 69

Project / Client Lewis Dr/PEL

monthly GW sampling

Objective: begin sampling and DO measurements in select wells, sampling for BTEXMN, 3x40ml amber glass w/HCl

Weather: sunny, 60°/83°F

Personnel: J. McCann/ATL, M. Warren/ATL

0837 J. McCann onsite

0903 Calibrated PID, pinet# 038158, fresh air = 0.0 ppm, span cal with 100 ppm Isobutylene, lot # 57480, exp. 9/19, reading 100.0 ppm

0925 TB-01-050317 2x40ml

(0850 M. Warren onsite)

0945 Health and safety meeting
ticks

0955 Began gauging wells

1010 MW-31-050317

1030 MW-10-050317

1035 MW-10-050317-ED

1100 MW-05-050317

1135 Team to lunch

Write in the Rain

Location Belton, SC Date 5/3/17Project / Client Lewis Dr / PPLmonthly GW sampling

1253 Returned from lunch

1300 MW-29-050317

1325 MW-26-050317

1400 MW-28-050317

1430 MW-25-050317

1450 MW-35-050317

1515 MW-34-050317

1530 MW-38-050317

1544 Finished gauging

1546 Setup at MW-30 to pump

DTW = 13.66' btoe

1600 Started pumping MW-30

1604 Well dry, will pump again tomorrow to collect sample

1615 FB-01-050317

1630 Put away Hydra Sleeves and dumped purge water

1640 Team offsite to FedEx

~~Justin McCann 5/3/17~~

Location Belton, SC Date 5/4/17 71

Project / Client Lewis Dr/APL

monthly GW sampling

Objective: collect surface water samples, measure downhole DO

Weather: cloudy, chance of afternoon rain, 71-82°F

Personnel: J. McCann/ATL,
M. Warren/ATL

0710 Team onsite

0726 H & S meeting: focus

0805 SW-11-050417 3x40 mL

amber glass w/HCl for BTEXN, no sheen or distressed vegetation

(All ^{SW} samples for BTEXN, 3x40 mL amber glass w/HCl unless otherwise noted)

0825 SW-10-050417 no sheen

or distressed vegetation, water level = 0.3 ft

0835 FP-01-050417 no sheen or distressed vegetation, pollen film

0845 FP-02-050417 no sheen or distressed vegetation

0900 SW-09-050417 no sheen or

rite in the rain

Location Belton, SC Date 5/4/17Project / Client Lewis Dr / PPLmonthly GW sampling

- distressed vegetation
- [0910] SW-08-050417 no sheen or distressed vegetation, water level = 1.17 ft
- [0920] SW-13-050417 biosheen, no distressed vegetation
- [0940] FP-03-050417 no sheen or distressed vegetation
- [0955] SW-04-050417 no sheen or distressed vegetation
- [1005] SW-02-050417 no sheen or distressed vegetation, water level = 1.52 ft
- [1010] SW-01-050417 ^{no bio} no sheen, no distressed vegetation, water level = 0.88 ft
- [1015] SW-07-050417 no sheen or distressed vegetation
- [1025] SW-12-050417 biosheen, odor, no distressed vegetation
- [1030] SW-03-050417 no sheen or distressed vegetation, pollen film, water level = 1.90 ft
- [1054] called T. Willy to get

Location Belton, SC Date 5/4/17 73

Project / Client Lewis Dr / APH

monthly GN sampling

List of DO measurements taken by S. Smith last week, will not duplicate his measurements

1105 SW-06 is dry

1100 SW-05 is dry

1126 Lent interface probe to T. Barnes for last 10 wells of his gauging

1127 calibrated PID, same ID numbers as 5/3, span cal = 100.0 ppm, fresh air = 0.1 ppm

1144 Team to lunch

11045 | TB-01-050417 | 1x40 ml

1223 Returned from lunch, began taking DO measurements

1425 | MW-30-050417

1440 | FB-01-050417

1446 Took stream DO measurements

1514 Measurements completed, M. Warren offsite

1521 J. McCann offsite

Justine McCann 5/4/17

Surface water sampling

~~0903~~ Objective: sample all surface water sampling locations for BTEXN (8260B, 3x 40 ml amber glass w/ HCL)

Weather: partly cloudy, chance of afternoon storms, T₆/88°F

Personnel: J. McLann / ATL

0903 J. McLann onsite, begin preparing to sample

0940 started walking downstream

~~1020 SW-11-06/13/17~~ 3x 40 ml, no sheen or distressed vegetation

~~1040 SW-10-06/13/17~~ no sheen or distressed vegetation, water level = 0.30ft

~~1050 FP-01-06/13/17~~ no sheen or distressed vegetation

~~1105 FP-02-06/13/17~~ pollen film, no distressed vegetation

~~1115 SW-09-06/13/17~~ no sheen or distressed vegetation

Location Belton SC Date (0/13/17)⁷⁵

Project / Client Lewis Drive / PPL

Surface Water Sampling

- 1130 SW-08-061317 no sheen or distressed vegetation
water level = 1.04 ft
- 1140 SW-13-061317 no sheen or distressed vegetation
- 1210 ~~EP~~-03-061317 no sheen or distressed vegetation
- 1235 SW-04-061317 no sheen or distressed vegetation
- 1240 SW-02-061317 no sheen or distressed vegetation
water level = 1.62 ft
- 1250 SW-01-061317 no sheen, no distressed vegetation
water level = 0.98 ft
- 1305 SW-07-061317 no sheen or distressed vegetation
- 1315 SW-12-061317 odor, no sheen or distressed vegetation
- 1325 SW-03-061317 no sheen or distressed vegetation
water level = 1.88 ft
- 1339 SW-05 is on
- 1344 SW-06 is dry

Rite in the Rain

Location Belton, SC Date 6/13/17

Project / Client Lewis Drive / APH

surface water sampling

1349 J. McCann offsite to
FedEx and lunch

11430 TB-01-061317 2x40ml

1413 Dropped cooler off at FedEx

~~Justine McCann 6/13/17~~

Location Belton, SC Date 6/26/17⁷⁷

Project / Client Lewis Dr / ATL

groundwater sampling

Objective: Complete gauging and DO readings on monitoring wells

Weather: Sunny, 74/84°F

Personnel: J. McCann / ATL, M. Warren / ATL, M. Sumner / CIT

1133 J. McCann onsite, rest of team present along with S. Powell / ATL, went over HASS

1206 Started gauging wells

1226 No signal from probe in well that has both product and water, begin trouble shoot

1327 Pine to send another interface probe, team to borrow ECS's probe for day, regauged wells gauged with bad probe

1925 Gauged all MWS except O'Dell well pair - field was being mowed

1937 O'Dell gate locked
Team offsite for day

~~Justin McCann / ATL 6/26/17~~

Rate in the Rain

Location Belton, SC Date 6/28/17Project / Client Lewis Dr/PPHgroundwater sampling

Objective: begin sampling
monitoring wells for BTEXM
(3x40 mL amber glass w/HCl)
via HydraSleeve

Weather: sunny, 63/84°F

Personnel: J. McCann/ATL,
M. Warren/ATL, M. Sumner/CLT0712 J. McCann onsite, begin
moving equipment into
compound0730 Downloaded game cam
photos0803 Downloaded transducer
data, M. Sumner onsite0855 M. Warren onsite, had
health & safety meeting:
repetitive motion0918 Calibrated PID, fine # 035570
fresh air = 0.1 ppm, span cal
with 100 ppm Isobutylene
lot # ~~100~~-248-100-19, exp 3/20
reading = 100.0 ppm

0945 MW-29-062817

0950 MW-26B-062817

Location Belton, SC Date 6/28/17⁷⁹

Project / Client Lewis Dr / PPL

groundwater sampling

0955	MW-20-062817
1012	MW-45B-062817
1020	MW-23B-062817
1028	MW-23-062817
1037	MW-21-062817
1040	MW-21-062817-FD
1050	MW-11-062817
1105	MW-27B-062817
1110	MW-27-062817
1120	MW-01-062817
1125	MW-01B-062817
1130	MW-01B-062817-FD
1145	MW-44B-062817
1148	Dumped purge water
1154	Team to lunch
1233	Returned from lunch
1242	MW-15B-062817
1250	MW-15-062817
1302	MW-34-062817
1308	MW-39-062817
1317	MW-40-062817
1325	MW-41-062817
1334	MW-42-062817
1341	MW-25-062817

Rite in the Rain

Location Belton, SC Date 6/28/17

Project / Client Lewis Dr/PPL
groundwater sampling

- 1348 MW-25B-062817
- 1355 MW-25-062817
- 1401 MW-28-062817
- 1410 MW-12-062817
- 1414 MW-12B-062817
- 1426 Deconned weights
- 1450 Dumped purge water
- 1502 MW-24B-062817
- 1509 MW-24-062817 TD=15.31'
- 1519 MW-38-062817
- 1531 MW-37-062817
- 1546 MW-3B-062817
- 1558 MW-14B-062817
- 1601 MW-14-062817
- 1615 MW-3j-062817
- 1626 MW-17B-062817
- 1630 Re-did TDs for ^{select} wells

MW-17	11.18	DTW
MW-8p	19.28	14.87
MW-15	21.22	-
- 1654 Dumped purge water
- 1658 FB-01-062817
- 1703 TB-01-062817 2x40 mL
- 1707 Team offsite to FedEx
Justine McLann 6/28/17

Location Belton, SC Date 6/29/17 81

Project / Client Lewis Dr / PAZ

groundwater sampling

Objective: begin sampling low-flow wells (340 ml w/HCl)
 Weather: 65/84°F, sunny BTExmin
 Personnel: J. McCann / ATZ, M. Sumner / CLJ, M. Warren / ATZ
 0708 J. McCann onsite, M. Sumner and M. Warren present
 0721 Calibrated PID, pinet #035570, fresh air: 0.0 ppm

100 ppm Isobutylene: 100.3 ppm
 0729 Calibrated KSI, pinet #5769/100H temp: 25.55°C pressure: 768.6 mmHg

parameter	pre-cal	post-cal	lot#	exp
1.413 ms/cm	1.428	1.413	76052	4/18
pH 7	6.99	7.00	2607D10	7/18
pH 4	3.79	4.00	2608B16	7/18
pH 10	9.88	9.98	2608E32	7/18
0 NTU	1.1	0.0	0693065	12/17
126 NTU	122.3	126.0	1611693H	12/17
240 mV	237.8	246.1	0647	10/21
DO %	103.6	101.3	-	-

0740 FB-01-062917

0750 TB-01-062917

0804 Setup at MW-22, DTW=9.52 TD=10.32

Rite in the Rain

Location Belton, SC Date 6/28/17Project / Client Lewis Drive / APPLgroundwater sampling

- 0810 Started pumping MW-22
- 0816 Well dry, purged ~0.2 gal,
will return for sample
after allowing recharge
- 0822 Setup at MW-19 DTW=10.42
- 0828 Started pumping MW-19 TD=12.12
- 0832 Well dry, purged ~0.3 gal
- 0840 Setup at MW-44
DTW=7.57 TD=9.76
- 0846 Started pumping MW-44
- 0857 Well dry, purged ~1 gal
- 0904 Setup on MW-45 DTW=8.40
TD=14.42
- 0909 Started pumping MW-45
- 0912 Well dry, purged ~0.3 gal
- 0925 Setup at MW-13 DTW=20.88
TD=22.15
- 0930 Started pumping MW-13
- 0934 Well dry, purged ~0.3 gal
- 0936 YSI not connecting to Sonde,
went back to compound to
troubleshoot
- 0956 Calibrated YSI, pin # 1080 / R19985
temp: 24.40°C pressure: 271.6 mmHg

Groundwater Sampling

for standard information,
see p. 81

parameter	pre-cal	post-cal
1.413 mS/cm	1.444	1.413
pH 7	7.03	7.00
pH 4	3.78	4.00
pH 10	9.76	9.99
240 mV	239.8	240.0
0.0 NTU	0.4	0.0
126 NTU	120.3	126.0
DO %	101.3	101.4

1020 Setup at MW-30

DTW = 12.21 TD = 14.56

1025 Started pumping MW-30

1030 Well dry, pumped ~0.3 gal

1034 Setup at MW-07

DTW = 12.76 TD = 13.58

1040 Started pumping MW-07

1042 Well dry, pumped 0.2 gal

1055 MW-16-062917

1059 Went to gauge MW-30/MW-30B

1110 MW-30-062917

1113 MW-30B-062917

1115 MW-30B-062917-FD

Rite in the Rain

Location Belton, SC Date 6/29/17Project / Client Lewis Drive / APL
groundwater sampling

1130	MW-08-062917	
1140	MW-09-062917	
1145	MW-10-062917	
1155	MW-32-062917	
1202	Dumped purge water	
1206	Team to lunch	
1306	Returned from lunch	
1315	MW-02-062917	TD = 19.85
1320	MW-02B-062917	TD = 71.65'
1335	MW-03-062917	
1340	MW-04-062917	
1350	MW-05-062917	
1353	Setup at MW-06	
	DTW = 14.91	TD = 19.10
1359	Started pumping MW-06	
1417	MW-06-062917	
1420	Stopped pumping MW-06	
	Purge volume = 2.3 gal	
1430	MW-07-062917	
1440	MW-30-062917	
1450	MW-13-062917	
1500	MW-44-062917	
1515	MW-45-062917	
1525	MW-9-062917	

Location Belton, SC Date 6/29/17⁰⁰

Project / Client Lewis Drive / PPL
groundwater sampling

1530 [MW-22-062917]

1532 Loaded car dumped purget
1540 Took DO readings at
Stream

Station	reading
SW-12	5.06 mg/L
SW-03	4.02 mg/L
SW-13	5.58 mg/L
SW-01	5.35 mg/L

1620 Team offsite

~~Justine McLean 6/29/17~~

Location Benton, SC Date 7/17/17Project / Client Lewis Dr / AFZMonthly monitoring

Objective: Complete gauging,
DO Measurements, and
groundwater sampling in
select wells for BTEXMW
(3x40 ml amber glass, 8200)

Weather: Partly cloudy, chance
of afternoon storms, 68/86°F

Personnel: J. McCann / ATZ,
M. Sumner / CH

0835 Team onsite

0840 Health and safety meeting:
slips, trips & falls

0855 started gauging

1235 Finished gauging, team to
lunch

1326 Returned from lunch

1340 MW-29-071717

1350 MW-26-071717

1400 MW-23-071717

1420 MW-34-071717

1425 MW-39-071717

1435 MW-40-071717

1440 MW-41-071717

1450 MW-25-071717

Location Belton, SC Date 7/17/17⁸⁷

Project / Client Lewis Dr/PPL

Monthly monitoring

1500 MW-35-071717

1510 MW-28-071717

1520 MW-38-071717

1525 MW-38-071717-FD

1535 MW-31-071717

1550 MW-10-071717

1555 MW-05-071717

1614 Set up at MW-30

DTW=12.69 TD=14.51

1618 Started pumping

1622 Well dry, will sample later

1631 Set up at MW-45

DTW=13.55 TD=14.41

1636 Started pumping

1639 Well dry, will return later

1650 MW-30-071717

1710 MW-45-071717

1715 FB-01-071717

1718 TB-01-071717

1720 Dumped purge water

1722 Team offsite for day

Justine McCann 7/17/17

Put in the rain

Location Belton, SC Date 7/18/17Project / Client Lewis Dr / PPLmonthly monitoring

Objective: Mark new well locations, sample surface water for BTEXN (3x40 mL amber glass, 8260), collect transducer data.

Weather: mostly sunny, 74-~~91~~°F

Personnel: J. McCann / ATL,
M. Sumner / CHT

0705 Team onsite

0717 Health & Safety meeting: biological hazards

0720 Begin marking new well locations

0830 Finished marking well locations, started walk to SW-11

0900 SW-11-071817 no signs of distressed vegetation

0915 SW-10-071817 no signs of distressed vegetation, water level = 0.30 ft

0925 FP-01-071817 no signs of distressed vegetation

0935 FP-02-071817 pollen film, no distressed vegetation

Location Belton, SC

Date 7/18/17 89

Project / Client Lewis Dr / APH

monthly monitoring

- | | | |
|------|--|--|
| 0945 | SW-09-071817 | no sheen or distressed vegetation |
| 1000 | SW-08-071817 | no sheen or distressed vegetation
water level = 1.06 ft |
| 1010 | SW-13-071817 | bio sheen, no distressed vegetation |
| 1020 | SW-04-071817 | no sheen or distressed vegetation |
| 1025 | SW-02-071817 | no sheen or distressed vegetation
water level = 1.67 ft |
| 1035 | SW-01-071817 | no sheen or distressed vegetation
water level = 0.96 ft |
| 1040 | SW-07-071817 | no sheen or distressed vegetation |
| 1042 | R. Phillips / AE onsite to look at new well locations. Informed him that most would only need bushwhack. Looked at path to MW-43 5 determined best course of action was to lay mats | |

Rite in the Rain

Location Belton, SC Date 7/18/17Project / Client Lewis Drive / PPL
monthly monitoring

- across creek
- 1102 R. Phillips offsite
- 1105 SW-12-071817 no sheen or distressed vegetation
- 1115 SW-03-071817 no sheen or distressed vegetation, water level = 1.78 ft
- 1155 FP-03-071817 no sheen or distressed vegetation
- 1215 Team to lunch
- 1245 Returned from lunch
- 1255 SW-05 is dry
- 1300 SW-06 is dry
- 1320 SW-14-071817 no sheen or distressed vegetation
*SW-14 is on north side of upper O'Dell pond next to tree, go through 3 gates, left behind barn, and through another gate
- 1330 IR-01-071817
- 1331 Decomed weights
- 1344 Started downloading transducer data

Location Belton SC Date 7/18/17 91

Project / Client Lewis Drive/APL
monthly monitoring

1448 finished downloading data
H51 Team offsite to FedEx

~~Quinn McGinnis~~
7/18/17

8/01/17

Objective - Groundwater Gauging and Sampling at PPL Lewis-Dr.

Weather - ^{Site} 88°/65°; Sunny

Personnel - M. Teckle / CRT, M. Sumner / CRT

Equipment - water level meter / interface probe, DO meter / optical, YSI peristaltic pump, and hand tools.

Daily Log

0920 - M. Teckle arrived at Lewis Dr. Site and met M. Sumner

0925 - Sign PTSP

0930 - Begin groundwater gauging
(see gauging sheet)

1250 - Finished gauging all wells

1255 - Lunch

1340 - Back to the site

1345 - Got materials to collect groundwater samples using hydrosleeve

1356 - went to collect groundwater samples.

1400 - Collected MW-26-080117

1410 - Collected MW-23-080117

1420 - Collected MW-29-080117

1435 - Collected MW-34-080117

1440 - Collected MW-39-080117

1450 - Collected MW-40-080117

1455 - Collected MW-41-080117

1500 - Collected MW-25-080117

1510 - collected MW-35-080117

1520 - Collected MW-38-080117

1530 - Collected MW-31-080117

1535 - Collected MW-31-D-080117

1540 - Collected MW-05-080117

1555 - Collected MW-10-080115

1600 - Finished groundwater sampling using hydrosleeve.

1605 - Collected field blank [FBφ1-080117]

1610 - Trip blank [TBφ1-080117]

1620 - packed cooler and filled CDCs.

1635 - Dump in 1 gal. IDW water into the fuel tank.

1637 - went to FedEx to ship samples.

PPL. Lewis Dr Site
Belton, SC

8/2/17

Objective - Finish groundwater and surface water sampling and download transducer data from five wells.

Weather - 87°/65°, P. cloudy

Personnel - M. Tekle/CLT, M. Sumner/CET

Equipment - Peristaltic pump, YSI, Interface probe, hand tools, and PID.

Daily log

- 0715 - M. Tekle & M. Sumner met at the site
- 0720 - Sign PTSP
- 0723 - Begin low flow sampling.
- 0725 - Setup on MW-22
- 0733 - Begin purging well (MW-22)
- 0735 - well went dry after filling the flow through cell on the YSI.
- 0740 - Set up on MW-45
- 0745 - Begin purging well and well went dry
- 0746 - left tubing in the well to let it recharge.
- 0750 - Went to MW-28
- 0810 - Set up on MW-28
- 0815 - Begin purging well
- 0821 - well went dry and left tubing in the well to let it recharge.
- 0825 - went to MW-30
- 0830 - Set up on MW-30
- 0835 - Begin purging
- 0836 - well went dry and left tubing in the well to let it recharge

8/2/17

(M1) 0838 - Went to Collect Surface water samples.

0905 - Collected SW11 - 080217 ✓

0915 - Collected SW10 - 080217 ✓

0920 - Collected FP01 - 080217 ✓

0925 - Collected FP02 - 080217 ✓

0930 - Collected SW09 - 080217 ✓

0935 - Collected SW08 - 080217 ✓

0945 - Collected SW13 - 080217 ✓, DO = 2.84 mg/L

0950 - Collected SW04 - 080217 ✓

0955 - Collected SW02 - 080217 ✓

1000 - SW-07 was dry

1005 - Collected SW01 - 080217 ✓, DO = 2.33 mg/L

1015 - Collected SW12 - 080217 ✓, DO = 5.02 mg/L

1020 - Collected SW03 - 080217 ✓, DO = 2.64 mg/L

1035 - Collected MW-08 - 080217 ✓

1105 - Collected MW-30 - 080217 ✓ → 1050 - FP03-080217 collected

1115 - Collected MW-45 - 080217 ✓

1125 - Collected ~~MW-14~~ SW14 - 080217 ✓

1130 - SW-05 and ~~SW-06~~ SW-06 were dry

~~1135~~ Collected ~~MW-22 - 080217~~ (M1)

1135 - Checked MW-22 and well is still dry.

1145 - Lunch

1230 - Back from Lunch

1240 - Checked MW-22 and well is still dry.

1255 - Went to download transducer data from

8/2/17

Daily Log Cont'd

- 1305 - Downloaded data from barotroll at MW-01
- 1315 - Downloaded data (transducer) from MW-15
(memory used = 15%, battery used = 3%)
- 1330 - Downloaded transducer data from MW-25
(memory used = 25%, battery used = 22%)
- 1339 - Downloaded transducer data from MW-10
(memory used = 25%, battery ^{used} = 22%)
- 1358 - Downloaded transducer data from MW-20
(memory used = 15% Battery used = 3%)
- 1400 - Packed coolers & filled CoCs.
- 1405 - Decon hydrasleeve sampling weights.
- 1407 - Return hydrasleeve weight and bags to the System building.

NOTE - Only six hydrasleeve bags are remaining and additional order is needed.

- 1410 - Dump ~ 1 gal. purge water into the free tank
- 1415 - off site and went to Fedex to ship samples.

Location BELTON, SC

Date 09/05/2017

3

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: GROUNDWATER AND SURFACE WATER SAMPLING

TEAM: M. WARREN (BIO/FTL), K. SEXTON (GEO), M. TRAMONTE

EQUIPMENT: MINIRAE 3000 ID: 36353

LOT # 592-917419 / ISOBUTYLENE

LOT # FBH - 248 - 100 - 1.

SOLINST INTERFACE METER

MODEL 122 / 037341.

0830: M. WARREN ARRIVES ON SITE.

M. TRAMONTE AND K. SEXTON PRESENT ON SITE.

0840: TEAM HOLDS PTSP AND SAFETY SHARES

0850: BEGIN CALIBRATION OF MINIRAE 3000 S/N 36353 - zero calib. and span calib. - isobutylene 99.9%

0935: TEAM BEGINS DEPTH OF WATER AND TOTAL DEPTH IN BR CLIPBOARD CREEK WELLS.

	<u>TOTAL DEPTH</u>	<u>DTW</u>	<u>PID</u>
MW-29	14.95	10.44	0.4
TW-73	12.75	9.21	0.3
MW-19	11.73 ^{12.15} _{mw}	12.15 ^{11.73} _{mw}	12.178

0945: M. WARREN AND K. SEXTON SPLIT

MW *Write in the Rain.*

Location BELTON, SCDate 09/05/2017Project / Client LEWIS DR.AUTHOR: M. WARREN

OFF FROM M. TRAMONTE TO
COLLECT SURFACE WATER SAMPLES.
M. TRAMONTE CONTINUES TO
GAUGE WELL WATER DEPTHS.

1120: TEAM ARRIVES TO SW-11:
SW11²⁰ SW01-090517

1145: TEAM ARRIVES TO SW-10:
SW10-090517 (WL=0.67ft)

NO VISIBLE SHEEN ON WATER,

1210, TEAM ARRIVES TO FP-01:
FP-01²⁰ FP01-090517

BIOLOGICAL SHEEN ON WATER

1220: TEAM COLLECTS FP-02 SAMPLE:

1225: TEAM FP02-090517

1225: TEAM COLLECTS SW-09:
SW09-090517

1245: TEAM COLLECTS SW-08:
SW08-090517 (WL=1.43ft)

1300: TEAM COLLECTS SW-13:
SW13-090517

1400: COLLECTS FP03: FP03-090517

1515: COLLECTS SW04: SW04-090517

1520: COLLECTS SW02: SW02-090517

1530: COLLECTS SW01: SW01-090517
MW

Location BELTON, SC

Date 09/05/2017⁵

Project / Client LEWIS DR.

AUTHOR M. WARREN

1545: COLLECTS: SW03-090517

1550: COLLECTS: SW12-090517

1620: COLLECTS: SW14-090517

1640: COLLECTS: TB-090517

1645: COLLECTS: SW12-090517-DUP

1655: COLLECTS: FB-090517

1700: TEAM DEPARTS FIELD TO PREPARE
SURFACE WATER SAMPLES FOR
SHIPMENT.

*WATER DEPTHS AT SW05, SW06,
AND SW07 WERE DRY.

WATER LEVEL OF:

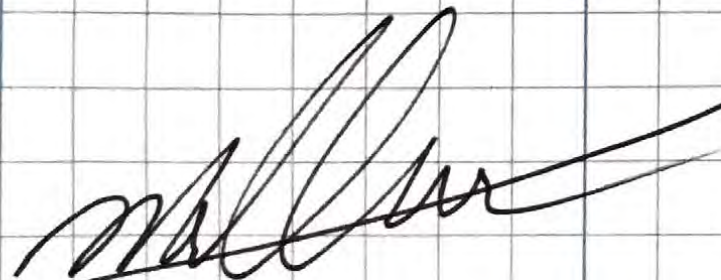
SW08 = 1.43 ft

SW10 = ~~0.96~~ 0.67 ft

SW02 = 1.58 ft

SW03 = 1.48 ft

*NO VISIBLE SHEEN OR DISTRESSED
VEGETATION ALONG SW MONITORING
ZONES.



09/05/2017

Location BELTON, SC Date 09/06/17Project / Client LEWIS DRIVEAUTHOR: M. WARRENTASK: GROUNDWATER LEVEL GAUGING
AND DO MEASUREMENTS.TEAM: M. WARREN (BIO/FTL), K. SEXTON (GEO)
M. TRAMONTE (ENV. SCI)WEATHER: MID 70'S, OVERCAST, 100% HUMID

POSSIBLE POP UP THUNDERSTORMS

EQUIPMENT: SEE PAGE 3. ADDITIONAL

EQUIPMENT: SOLINST 037326

INTERFACE METER MODEL 122.

YSI PROODO ID# 35562

0530: TEAM OBSERVES H&S PLAN
AND STAYS OUT OF FIELD DUE
TO THUNDER. ~~_____~~0900: TEAM DEPARTS HOTEL TO FIELD0915: TEAM ARRIVES ON SITE TO
GEAR UP AND HOLD PTSP.0930: BEGIN MIN. RAE CALIBRATION:BEFORE CALAFTER CAL

AIR

0ppm

0ppm

VOC

0ppm

100ppm

0945: TEAM BEGINS GAUGING
MONITORING WELLS MW-34:1009: 36.0ppm DTW 2.53 DTB 7.861011: MW-39 58.3ppm DTW 5.50 DTB 13.01

Location BELTON, SCDate 09/06/17

7

Project / Client LEWIS DR.AUTHOR: M. WARREN

<u>1015</u>	MW-40	1113 ppm	DTW 2.88	DTB 13.18	
<u>1021</u>	MW-41	2.3 ppm	DTW 4.49	DTB 13.20	
<u>1025</u>	MW-42	1.0 ppm	DTW 5.16	DTB 13.40	
<u>1028</u>	MW-25B	0.4 ppm	DTW 5.62	DTB 62.2	DO:
<u>1030</u>	MW-25	0.1 ppm	DTW: 8.83	DTB: 14.4	DO: 0.68
<u>1038</u>	MW-28	1205 ppm	DTW: 23.48	DTB 25.93	DO: 0.4
<u>1047</u>	MW-35	3.3 ppm	DTW: 9.74	DTB 28.42	
<u>1055</u>	SW-03	DO: 2.36	DEPTH: 1.59		
<u>1100</u>	MW-12	2712 ppm	DTW: 14.84	DTB: 19.09	DO: 7.95
<u>1105</u>	MW-12B	^{10.7} 2712 ppm	DTW: 15.2	DTB: 45.81	DO: 0.7
<u>1110</u>	SW-12	DO: 2.60	* SPARGE SYSTEM OFF		
<u>1118</u>	MW-15	12.8 ppm	DTW: 13.87	DTB: 21.23	DO: 7.95
<u>1123</u>	MW-15B	26.1 ppm	DTW: 16.40	DTB: 74.41	DO: 0.98
<u>1135</u>	MW-37	0.1 ppm	DTW: 3.46	DTB: 18.11	
HEAVY RAINS BEGIN. TEAM BREAKS FOR LUNCH					
<u>1230</u>	TEAM RETURNS FROM BREAK. RAIN STOPS				
<u>1240</u>	MW-38	0.3 ppm	DTW: 1.88	DTB: 11.61	
<u>1246</u>	SW-01	DO = 6.65			
<u>1250</u>	MW-24	2.7 ppm	DTW: 4.47	DTB 15.32	
<u>1252</u>	MW-24B	0.5 ppm	DTW: 5.83	DTB 45.10	
<u>1255</u>	SW-02	DO = 4.9	DEPTH = 1.2 in		
<u>1303</u>	MW-13	184.4 ppm	DTW: 21.85	DTB: 22.15	
<u>1307</u>	MW-13B	3.0 ppm	DTW: 22.70	DTB: 47.9	
<u>1310</u>	MW-14	0.0 ppm	DTW: 18.08	DTB: 22.20	

Location BELTON, SCDate 09/06/17Project / Client LEWIS DRIVEAUTHOR: M. WARREN

- 1314 MW-14B 4.2ppm DTW 18.84 DTB 76.97
1326 MW-31 0.1ppm DTW 20.35 DTB 28.20
1329 MW-31B 1.3ppm DTW 20.34 DTB 51.30
1345 MW-33T 0.7ppm DTW 26.71 DTB 100.35
1348 MW-33 0.1ppm DTW 25.30 DTB 28.30
1405 MW-10 1.8ppm DTW 13.50 DTB 23.54 DO 1.
1413 TW-96 1.6ppm DTW 9.28 DTB 28.76 DO 9.
1416 MW-32 0.0ppm DTW 12.32 DTB 29.09
1420 MW-03 PRESSURE TOO HIGH TO TAKE
 ACCURATE AND SAFE READINGS
1429 MW-30 104.27ppm DTW 14.56 DTB 14.69
 *TOO SHALLOW TO TAKE ACCURATE DO.
1432 TEAM NOTICES AIR COMING FROM WELLS
1439 TW-90 _____
1447 MW-02B 3.6ppm 1.94 DTW ^{DTB} 72.50 DO 1.54
1454 MW-02 5002ppm 4.21 DTW DTB 19.84 DO 6.2
1514 MW-04 0.3ppm DTW 11.07 DTB 19.59 DO 7.61
1510 MW-05 0.1ppm DTW 16.50 DTB 19.89
1529 MW-09:53 2.1ppm ^{DTP} ~~DTW~~ 2.81 DTW 3.00 DTB 20.2
 *PRODUCT PRESENT. DO = ND
1539 MW-08 0.1ppm DTW 11.92 DTB 16.69
 DO = 8.59
1547 MW-18 5500ppm DTP 12.68 DTW 12.71
 *PRODUCT PRESENT. DO ~~ND~~ DTB 19.
 DO = 9.31

Location BELTON, SC Date 09/06/17

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

1557	MW-07	79.5 ppm	DTW 13.20	DTB 13.62
1606	MW-06	0.5 ppm	DTW 15.34	DTB 19.20
1613	MW-16	1216 ppm	DTP 8.95 DTW 9.10	DTB 20.23
1632	MW-36	59.1 ppm	DTW 19.82	DTB 23.65
		DO = 0.5		
1638	MW-36B	0.9 ppm	DTW 20.53 ^{19.53}	DTB 47.54
		DO = 0.9		
1652	MW-17	88 ppm	DTW 16.71	DTB 27.50
1656	MW-17B	234.7 ppm	^{DTW} 10.85	DTB 11.20
1700	MW-21	71 ppm	DTW 17.34	DTB 28.93
1707	MW-45B	2.7 ppm	DTW 14.19	DTB 14.45
1709	MW-45	0.5 ppm	DTW 15.70	DTB 21.51
1715	MW-23	2.7 ppm	DTW 11.22	DTB 23.50
1717	MW-23B	0.2 ppm	DTW 11.21	DTB 33.00
1721	MW-26	4.8 ppm	DTW 7.18	DTB 17.15
1722	MW-26B	0.4 ppm	DTW 8.95	DTB 43.84
1727	MW-29	0.3 ppm	DTW 10.41	DTB 15.10
		* DO METER BATTERY DIED		
1740	MW-19	4110 ppm	DTW 11.76	DTB 12.13
1742	MW-23 ^{TW-23}	0.2 ppm	DTW 9.20	DTB 26.46
1741	MW-20	2612 ppm	DTP 12.99 DTW 13.71	DTB 19.45
1748	TW-67	138.3 ppm	DTW 13.32	DTB 26.47
1800	TEAM DEPARTS FIELD. 09/06/17			

M. Warren

Return to Room

Location BELTON, SC Date 09/26/17Project / Client LEWIS DRIVEAUTHOR: M. WARRENTASK: GROUNDWATER AND DO SAMPLING,
COMPLETE WATER LEVEL GAUGINGTEAM: M. WARREN (BIO/FTL) M. TRAMONTE
(ENV. SCI.), K. SEXTON (GEO)WEATHER: HUMID, HIGH MID 80'S, SUNNY
GROUND STILL WET FROM STORMSEQUIPMENT: SOLINST 037326 INTERFACE
METER MODEL 122. YSI PRODO
ID# 35562. MINIRAE 3000
ID# 36353 SERIAL # 592-97414 LOT# FBH-246-
100-10700: TEAM DEPARTS HOTEL.0720: TEAM ARRIVES ON SITE TO
GEAR UP AND HOLD PTSP.0730 BEGIN CALIBRATION MINIRAE:BEFORE CAL AFTER CAL

AIR 0.0 0

VOL 0.0 100.0

0745: TEAM MOVES TO HAYFIELD
ZONE TO COLLECT DATA FROM
REMAINING TW - WELLS.0755 TEAM ARRIVES TO TW - 640758 TW-64
0.0ppm DTW 17.05 DTB 52.85

DO = 4.38

Location BELTON, SC

Date 09/07/17¹¹

Project / Client LEWIS DR.

AUTHOR: M. WARREN

0826 TW-~~66~~⁹⁶ 1.1 ppm 2.45 DTW
DTB 23.62 DO = 8.93

0835 TW-59 0.5 ppm DTW 15.34 DTB 21.15
DO NOT MEASURED DUE TO
MOVEMENT OF CONCRETE SLAB
OVER PIPE. PHOTO TAKEN.

0842 TW-60 > 15,000 ppm TEAM STEPS
BACK. DTW 10.11 DTB 30.25
DO = 5.65

0845 MW-11 1836 ppm DTP 29.69 DTW 30.04
DTB 32.50 DO = 7.89

0847 MW-27B 29 ppm DP 30.26 DTW ~~30.06~~^{30.07} DTB 41.45 DO 7.96

0849 MW-27B²⁷ 0.2 ppm DTW 27.28
DTB 29.51 DO = 7.79

0850 MW-01 0.0 ppm 8.30 DTW 15.61 DTB DO = 3.4

0852 MW-01B 0.0 ppm 15. DTW 10.78 DTB 45.26
DO = 0.85

0854 MW-44 0.0 ppm DTW 19.38 DTB 9.82

0857 MW-44B 0.0 ppm DTW 13.95 DTB 30.62

0859 MW-22 > 15000 ppm DTW 10.35 DTB 10.35

0900 TEAM RETURNS TO TRUCK
TO BEGIN CALIBRATION OF
YSI AND COMPUTE DATA FOR
HYDRASLEEVE VS. LOW FLOW

Location BELTON, SC Date 09/07/17Project / Client LEWIS DAAUTHOR: M. WARREN

0900 TEAM BEGINS VSI CALIBRATION
 SONDE 33204, HANDHELD 18903. PINE
 CONDUCTIVITY SOLUTION RECEIVED
 IN AN UNSEALED CONTAINER.
 LOT 66K200 EXP 11-2017.

PARAMETER	LOT#/EXP#	BEFORE	AFTER
PH 4	2612090 7/2017	3.59	4.0
PH 7	760655 EXP 10/2018	7.19	7.01
PH 10	666207 12/31/2018	10.05	10.01
0.0 NTU	0687639 12/5/17	1.1	0.0
126.0 NTU	1611693064 12/17	100.7	126.1
1.413 COND	66K200 11/2017	1.276	1.413
DO	—	100.6%	100.6%
ORP	0647 10/2021	260.8	240.4

0945 TEAM COMPLETES CALIBRATION
 AND MOVES TO MW-28
 TO COLLECT PURGE DATA.

Location BELTON, SC Date 09/07/17¹³

Project / Client LEWIS DR.

AUTHOR: M. WARREN

10:30 TEAM PURGES AND COLLECTS WATER DATA FROM MW-2728⁽²⁾

11:20 TEAM COLLECTS GAUGEDATA FROM SW01 = 0.96 FT

1200 TEAM BREAKS FOR LUNCH

1300 RETURN FROM LUNCH, SET UP ALL EQUIPMENT FOR HYDRALEVELS

1335

MW-29-090717

1352

MW-26B-090717

1355

MW-26B-090717-DUD

1408

MW-26-090717

1314

MW-19 = 0.85 = DO

1351

MW-20 = 0.45 = DO

1334

MW-29 = 6.50 = DO

1356

TW-67 = 9.15 = DO

1421

MW-23-090717

1418

TW-73 8.9 = DO

1432

MW-23B-090717

1500

BEGIN LOW FLOW ON MW-27

1529

MW-27B-090717

1554

MW-01-090717

1607

MW-01B-090717

1620

MW-44B-090717

Location BELTON, SC

mw 09/07/17

Date 07H

Project / Client LEWIS DR.

AUTHOR: M. WARREN

1636 **FB-090717**

1634 **FB-090717**

1649 NORTH TANK 0.32 ft

SOUTH TANK 1.19 ft

1700 TEAM DEPARTS FIELD.

mw 09/07/17

M. Warren

Location BELTON, SC

Date 09/08/17¹⁵

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: HYDRASIEVE / DO MEASUREMENTS

TEAM: M. WARREN (BIO/FTL), M. TRAMONTE (ENV. SCI), K. SEXTON (GEO)

WEATHER: HUMID, HIGH MID 80'S, SUNNY. GROUND WET FROM RAIN.

EQUIPMENT: MINIRAE 036950;
LOT# FBH2481001; VSI PRODDO
ID# 35562.

0700 TEAM DEPARTS HOTEL TO FIELD.

0720 TEAM ARRIVES ON FIELD

0730 K. SEXTON BEGINS CALIBRATION OF MINIRAE;

	<u>BEFORE CAL</u>	<u>AFTER CAL</u>
AIR	0.0	0.0
VOC	0.0	100.0

0745 TEAM PREPARES EQUIPMENT FOR SAMPLING.

0830 MW-27-090817

0852 MW-28-090817

0908 MW-15-09⁰⁸17

0918 MW-15B-09⁰⁸17

0932 MW-34-09⁰⁸17

0941 MW-39-090817

0951 MW-37-090817

Location BELTON, SCDate 09/08/17Project / Client LEWIS DR.AUTHOR: M. WARREN

<u>0958</u>	MW-38-090817	✓
<u>1006</u>	MW-24-090817	
<u>1015</u>	MW-24B-090817	
<u>1037</u>	MW-40-090817	
<u>1045</u>	MW-41-090817	
<u>1056</u>	MW-42-090817	9
<u>1106</u>	MW-25B-090817	
<u>1108</u>	MW-25B-090817-DUP	
<u>1110</u>	MW-25-090817	DO=0.68
<u>1120</u>	MW-35-090817	
<u>1130</u>	MW-12-090817	✓
<u>1135</u>	MW-12B-090817	✓
<u>1227</u>	MW-14-090817	✓
<u>1232</u>	MW-14B-090817	✓
<u>1242</u>	MW-13B-090817	✓
<u>1246</u>	MW-31-090817	
<u>1305</u>	MW-10-090817	
<u>1315</u>	MW-32-090817	
<u>1321</u>	MW-02B-090817	✓
<u>1325</u>	MW-02-090817	✓
<u>1330</u>	MW-04-090817	
<u>1340</u>	MW-04-090817-DUP	
<u>1350</u>	MW-05-090817	
<u>1360</u>	MW-06-090817	✓

MW

Location BELTON, SC Date 09/08/17¹⁷

Project / Client LEWIS DA.

AUTHOR: M. WARREN

<u>1422</u>	<u>MW-17-090817</u>
<u>1430</u>	<u>MW-08-090817</u>
<u>1505</u>	<u>FB-090817</u>
<u>1510</u>	<u>TB-090817</u>
<u>1511</u>	MW-45 DRY BETWEEN 09/07/17 AND 09/08/17
<u>1525</u>	<u>MW-36-090817</u>
<u>1530</u>	<u>MW-36B-090817</u>
<u>1600</u>	CENTER OF TANK IS 5.5 FT TALL. DOME SHAPED. EDGES ARE 4.3 FT TALL.
<u>0921</u>	SW13: ODD = 1.79
<u>0940</u>	SW 01: ODD = 3.03
<u>0955</u>	SW 12: ODD = 5.61
<u>1010</u>	SW 03: ODD = 3.72
	MW-44 = 2.72
	MW-44B = 0.68

TROLL DATA

- troll data taken by Kyle S.
 - troll taken from MW08 and moved to MW40
- 09/08/17



Location BELTON, SC Date 10/3/2017Project / Client LEWIS DR.AUTHOR: M. WARRENTASK: WELL GAUGING AND GROUNDWATER MONTHLY SAMPLING EVENT.TEAM: M. WARREN (ETL/BIO), K. SEXTON (GEO)WEATHER: SUNNY, MID 70'SEQUIPMENT: RAE SYSTEMS MINI RAE 3000

ID# 37359 / PART# 31721 /

SDS# 50054 / EXP JUL 2020

SOLINST INTERFACE METER

MODEL 122 # 287064

YSI PRO ODO SONDE # R12315 /

LOT# 11E100436 / PUMP# 629486

EXO 1 SONDE SONDE ID# 30194

DISPLAY ID# 35729

0755 M. WARREN ON SITE,0800 K. SEXTON ON SITE,0805 TEAM HOLDS PTSP AND DISCUSSES PLAN FOR DAY.0810 BEGIN MINIRAE CALIBRATION

	<u>BEFORE</u>	<u>AFTER</u>
AIR	0.0	0.0
VOC	99.6	100.0

0820 BEGIN YSI CALIBRATIONSOLUTIONLOT# EXP

Ph4

2612090 12/2018

Location BELTON, SC

Date 10/3/2017¹⁹

Project / Client LEWIS DR.

AUTHOR: M. WARREN

0820CONT YSI CALIBRATION

<u>SOLUTION</u>	<u>LOT#</u>	<u>EXP</u>
PH 10	2703951	8/18
PH 7	26010E85	10/18
Ø NTU	C795645	04/18
126.Ø NTU	16M693064	12/17
1.413 mS/cm	76D052	04/18

0840 BEGIN CALIBRATION

<u>PARAMETER</u>	<u>BEFORE</u>	<u>AFTER</u>
PH 4	4.13	3.83 3.95
PH 7	7.14	7.13
PH 10	10.14	10.02
Ø NTU	Ø	0.01
126.Ø NTU	120.13	126.01
1.413 mS/cm	1.226	1.412

0900 RECALIBRATION FOR PH

<u>PH</u>	<u>BEFORE</u>	<u>AFTER</u>
PH 7		
PH 7	7.11	7.11
PH 10	10.18	10.07
PH 4	4.15	4.10

NOTE: PH CALIBRATION FINAL SCREEN ON YSI IS USED FOR FINAL CALIBRATION

MW
Rite in the Rain

Location BELTON, SCDate 10/03/2012Project / Client LEWIS DRAUTHOR: M. WARREN

<u>0910</u>	<u>PH</u>	<u>BEFORE</u>	<u>AFTER</u>
	PH 7	7.11	7.00
	PH 10	10.18	10.00
	PH 4	4.15	4.02

0920 ORP BOTTLE FOR CALIBRATION
NOT PRESENT IN VSI CASE.
K. SEXTON SPOKE W/ TIM
FROM PINE. PH SOLUTIONS
ARE ACCURATE; THEREFORE,
ORP SHOULD BE ACCURATE.

<u>0930</u>	<u>ODD mg/L</u>	<u>Before</u>	<u>After</u>
	9.09	9.18	9.07

0940 MW-290950 ~~MW~~ TW-730958 MW-191005 MW-201013 TW-671022 MW-23 1.0ppm DTW 11.52 DTB 23.231027 MW-26 0.0ppm DTW 7.71 DTB 17.331037 MW-221046 MW-011050 MW-01B1100 MW-111111 MW-15BM

Location BELTON, SC

Date 10/03/2017 ²¹

Project / Client LEWIS DR.

AUTHOR: M WARREN

1114	MW-15
1133	MW-38 DTW 2.23 DTB 11.49
1143	MW-34 DTW 2.76 DTB 17.83
1147	MW-39 DTW 3.75 DTB 13.06
1150	MW-40 DTW 1.95 DTB 13.19
1156	MW-41 DTW 4.37 DTB 13.20
1159	TW-66
1207	MW-25
1210	MW-25B
1218	MW-35 DTW 10.34 DTB 29.65
1230	TW-59
1238	MW-12
1240	MW-12B
1247	TW-60
1300	TEAM BEGINS LUNCH BREAK
1335	TEAM COMPLETES LUNCH BREAK
1345	TEAM DEPARTS TO PRIVATE WELL
1400	TEAM ARRIVES TO PRIVATE WELL TO ASSESS SPIGOTS FOR WATER SAMPLING.
1410	TEAM RETURNS TO LEWIS DR. TO CONTINUE GAUGING
1426	MW-31 DTW 22.70 DTB 28.06
1433	TW-64
1223	MW-28



Location BELTON, SC Date 10/03/17

Project / Client LEWIS DR.

AUTHOR: M. WARREN

1459	MW-02
1450	MW-02B
1510	MW-10
1515	TW-96
1521	MW-03
1530	MW-30
1535	MW-04
1555	MW-05 DTW 17.03 DTB 19.8
1600	TW-55
1614	MW-08
1620	MW-18
1626	MW-16
1635	MW-07 DTW 13.20 DTB 13.60
1644	MW-45 DTW 14.25 DTB 14.44
1652	MW-09
1737	TEAM BEGINS LOW FLOW ON MW-28

DEPTH TO WATER: 23.78

PIDINT ~~22.83~~ 2283.0

2" DIA = 0.163 GAL/FT

DEPTH TO BOTTOM: 26.04

LOW FLOW

PERISTALTIC 040187

EM 200 ml/min

Location BELTON, SC

Date 10/03/17²³

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TIME	DTW	FLOW	VOL(%)	Ph	TEMP	COND	ORP
1412	24.65	200	200 ^{0.1}	6.77	23.9	9.7	∅
1712	DO TURB						
	1.89	686.84					
1417	DTW	FLOW	VOL	Ph	TEMP		
1717	24.29	200	0.2	7.17	20.21		
	COND	ORP	DO	TURB			
	2.6	∅	5.64	4.51			
PID = 1.83							
1418	SEDIMENT CLOG IN TUBING,						
1718	VERY DARK SEDIMENT. UNCLOG						
	TUBING AND RESTART MEASUREMENTS						
	WATER IS NOT PUMPING FROM						
	WELL. TEAM TROUBLE SHOT W/						
	SECOND PUMP. TEAM CHECKED						
	TUBE CONNECTIONS FOR LEAKS.						
	NO CLOGS.						
1900	TEAM DEPARTS FIELD.						

M. Warren
10/03/17

Location BELTON, SCDate 10/04/17 25Project / Client LEWIS DR.AUTHOR: M. WARREN

✓ 1015	<u>MW-40-100417</u>
✓ 1031	<u>MW-41-100417</u>
✓ 1041	<u>MW-25-100417</u>
✓ 1051	<u>MW-35-100417</u>
✓ 1112	<u>MW-29-100417</u>
✓ 1122	<u>MW-26-100417</u>
✓ 1132	<u>MW-23-100417</u>
✓ 1135	<u>MW-23-100417-DUP</u>

1155 TEAM BEGINS LUNCH BREAK

1230 BEGIN YSI CALIBRATION

<u>PARAMETER</u>	<u>BEFORE</u>	<u>AFTER</u>
PH 4	3.92	4.0 3.99
PH 7	6.96	7.00
PH 10	9.97	10.00
Ø NTU	0.29	0.0
126.Ø NTU	116.98	125.99
1.413 MS/COND	1.4034	1.4128
ORP DO ^{mw}	8.56	<u>9.13</u>

✓ 1311 FBO1-100417✓ 1317 TBO1-100417

1318 K. SEXTON COLLECTS TROLL DATA FROM MW-20 AND MW01.

1342 TEAM DEPARTS TO PRIVATE WELLS.

Rite

Location BELTON, SCDate 10/04/17Project / Client LEWIS DR.AUTHOR: M. WARREN

1346 TEAM ARRIVES TO SHERRARD RD
HOUSEHOLD WELL.

1355 ENVIRON CHANDLER-HH-W-100417

1400 PACE CHANDLER-HH-W-100417

<u>PARAMETER</u>	<u>TIME 1</u>	<u>TIME 2</u>	<u>TIME 3</u>
PH	3.97	5.31	5.50
DO	8.88	4.45	4.58
COND			
ORP	6.0	72.5	63.7
TURB	1.92	2.30	Ø
TEMP	23.734	23.80	22.830
PID	0.0	0.0	0.0
FLOW @ LEVEL	0.5 gal/min	0.3 gal/min	0.3 gal/min
ORP*	314.0	278.9	275.8

1419 TEAM ARRIVES TO SHERRARD RD.
AGRICULTURAL WELL.

1425 ENVIRON CHANDLER-AG-W-100417

1430 PACE CHANDLER-AG-W-100417

<u>PARAMETER</u>	<u>TIME 1</u>	<u>TIME 2</u>	<u>TIME 3</u>
PH	5.93	5.72	6.09
DO	8.35	7.33	7.76
COND	1.4	166.9	3.1
TURB	6.47	657.62	522.84
TEMP	32.498	26.018	23.392
PID	0.0	0.0	0.0
FLOW	0.2 gal/min	0.2 gal/min	0.2 gal/min
ORP*	314.1	298.4	290.6

Location BELTON, SC

Date 10/04/17 ²⁷

Project / Client LEWIS DR.

AUTHOR: M. WARREN

1442 TEAM ^{COMPLETES} ~~COLLECTS~~ SAMPLING
PARAMETERS FOR HOUSEHOLD AND
AGRICULTURAL WELL. ~~MA~~

NOTE HHW: CONTINUOUS FLOW
OCCURS ON PROPERTY. WE
ONLY PURGED FOR 1/2 GAL
BEFORE COLLECTING PARAMETERS
OVER A PERIOD OF 5 MINS.

NOTE AGW: CONTINUOUS FLOW
DOES NOT OCCUR ON PROPERTY,
ONE 5 GALLON BUCKET WAS
PURGED FROM WELL BEFORE
COLLECTION OF PARAMETERS
BEGAN. COLLECTION OF PARAMETERS
OCCURED OVER A PERIOD OF 5 MINS.

1500 K. SEXTON SPLITS OFF TO
COLLECT TROLL DATA FROM:
MW-12, MW-15, 2MW-02,
MW-10, MW-40 ~~MA~~

K. SEXTON ALSO COLLECTS CO₂
CHAMBERS. ~~MA~~

M. WARREN COMPLETES COC'S
AND ORGANIZATION/INVENTORY
OF SUPPLIES IN COMPOUND.

Reto ~~MA~~

Location BELTON, SC Date 10/04/2017Project / Client LEWIS DLAUTHOR: M. WARREN

11600 M. WARREN MEETS WITH
K. SEXTON TO COMPLETE COLLECTION
OF CO₂ CHAMBERS

11645 M. WARREN & K. SEXTON
BEAR DOWN FROM EVENT.

11700 TEAM DEPARTS TO FEDEX

11800 TEAM COMPLETES SHIPMENT
& NOTICED FLAT TIRE ON
SUV. K. SEXTON AND M. WARREN
CHANGE TIRE.

11900 TEAM DEPARTS FEDEX.

~~M. Warren 10/04/2017~~

Location BELTON, SC

Date

11/7/17

29

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: GROUNDWATER SAMPLING

TEAM: M. WARREN (FTL/BO), K. SEXTON (EE)

WEATHER: FOGGY, MID 60'S, CHANCE
OF T-STORMS, AND HUMID

EQUIPMENT: MINIRAE 3000 13914

SN: 592-902206. PRODO

R12315 / ID 102221. SOLINST

INTERFACE METER MODEL 112

037341 / 288484, ISOBUTYLENE

100 PPM LOT#: MBG-248-100-15

EXP: 01/07/2021. EXD 1

SONDEID#: 30192 / DISPLAY ID #

36636.

0745 M. WARREN AND K. SEXTON ON
SITE

0800 TEAM HOLDS PTSP AND DISCUSSES
PLAN FOR DAY

0810 BEGIN MINIRAE CALIBRATION

	<u>BEFORE</u>	<u>AFTER</u>
AIR	0.0	0.0
VOC	0.0	100.0

0815 CALIBRATION OF DO METER

BEFORE: 103.3 AFTER: 100.3

0850 TEAM BEGINS WATER
LEVEL/DO GAUGING & PID

Location BELTON, SCDate 11/17/17Project / Client LEWIS DR.AUTHOR: M. WARREN0856 MW-29TW-67 ↪ 0901 (M)0905 TW-730907 MW-190917 MW-20 (PRODUCT)0930 MW-260935 MW-230938 MW-450947 MW-220958 MW-01MW-01B ↪ 10001009 MW-11 (PRODUCT)1018 MW-13B1026 MW-311032 TW-641041 MW-091048 MW-101054 MW-021056 MW-02B1105 TW-961111 MW-031121 MW-301130 MW-04(M) 1134 MW-051140 TW-55

Location BELTON, SC Date 11/7/17 31

Project / Client LEWIS DR.

AUTHOR: M. WARREN

<u>1152</u>	MW-07
<u>1201</u>	MW-16
<u>1208</u>	MW-18 (PRODUCT)
<u>1214</u>	MW-08
<u>1220</u>	TEAM RETURNS TO TRUCK AND BEGINS LUNCH BREAK.
<u>1310</u>	TEAM RETURNS FROM LUNCH
<u>1324</u>	MW-43
<u>1330</u>	SW-01
<u>1336</u>	MW-38
<u>1340</u>	SW-13
<u>1349</u>	MW-15
<u>1354</u>	MW-15B
<u>1400</u>	MW-34
<u>1404</u>	MW-39
<u>1408</u>	MW-40
<u>1415</u>	SW-12
<u>1418</u>	MW-41
<u>1421</u>	TW-66
<u>1426</u>	MW-42
<u>1430</u>	MW-25
<u>1432</u>	MW-25B
<u>1440</u>	MW-35
<u>1442</u>	SW-03
<u>1450</u>	MW-28




Location BELTON, SC

Date 11/7/17

Project / Client LEWISDA.


AUTHOR. M. WARREN

- 1504 TW-59
1510 MW-12B
1515 MW-12
1520 TW-60
1522 T-STORMS BEGIN. TEAM
 SHELTERS IN TRUCK. 
1557 TEAM BAHS TW-67 FOR
 PRESENCE OF PRODUCT. NO
 PRODUCT DETECTED. COLLECTS
 DO MEASUREMENT
1635 TEAM RETURNS TO TRUCK
 TO BEGIN CALIBRATION OF YSI

<u>PARAMETER</u>	<u>LOT #</u>	<u>EXP</u>
240.0 mV ORP	0207	05/31/2021
PH 4	764056	08/2019
PH 10	766543	07/2019
PH 7	764158	8/2018
1.413 nS/cm	766708	JUL/18
ONTO	0800982	10/2018
126.0 ONTO	17E796816	5/2018




Location: BELTON, SC Date: 11/7/17 33
 Project / Client: LEWIS DR.
 AUTHOR: M. WARREN

CALIBRATION		BEFORE → AFTER
240.0 ORP	195.8	→ 240.0
PH4	4.2	→ 4.0
PH10	10.16	→ 10.0
PH7	7.1	→ 7.0
1.413 ms/cm	1.229	→ 1.413
0 NTU	0.07	→ 0.00
126.0 NTU	126.09	→ 126.00
DO	96.8	→ 97.1
1715 TEAM ARRIVES TO MW-28 TO BEGIN LOW FLOW/BAIL. PUMP SN: 24461/024461		
1735 TEAM BEGINS PUMPING MW-28.		
1755 TEAM BEGINS BAILING MW-28. DTW: 24.3 ^{25.40} DTB: 25.90		
TEAM BAILED WELL UNTIL BAILER NO LONGER COLLECTED WATER.		
1815 TEAM DEPARTS FIELD.		
		11/17

Location BELTON, SCDate 11/8/17Project / Client LEWIS DR.AUTHOR: M. WARRENTASK: GROUNDWATER SAMPLING/TROUSTEAM: M. WARREN (FTL/BID), K. SECTON (GEO)WEATHER: RAIN, MID 50'SEQUIPMENT: SEE PS 290715: TEAM ARRIVES ON SITE0725: BEGIN MINI RAE CALIBRATION

	<u>BEFORE</u>	<u>AFTER</u>
AIR	0.0	0.0
VOC	0.0	100.0

0735: TEAM GEARS UP TO BEGIN

HYDRASIEVE SAMPLING

0755: MW-29-110817 ✓0805: MW-26-110817 ✓0815: MW-23-110817 ✓0838: MW-43-110817 ✓0848: MW-38-110817 ✓0858: MW-34-110817 ✓0905: MW-39-110817 ✓0915: MW-40-110817 ✓0930: MW-28 DTW 25.14.

WILL RETURN LATER IN DAY

TO REGAUGE

0938: MW-35-110817 ✓0945: MW-25-110817 ✓

MW

Location 12/4/17 BELTON, SC Date 12/4/17

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: GROUNDWATER GAUGING / DOTEAM: M. WARREN (FTL/BIO), K. SEXTON (GEI)
ZACHARY WARD (ENG)WEATHER: HUMID, LOW 40'S HIGH MID
60'S, SUNNYEQUIPMENT: RAE SYSTEMS MINIRAE

3000 / INST ID: 36602 / ISOBUTYRANE

LOT# MGB-248-100-15

ZERO cal = 0.0

Isobutylene cal = 100ppm

YSI PIZODSS SONDE AND DISPLAY

SONDE ID # 26599

DISPLAY ID # 39545

CALIBRATION SOLUTIONS

SOLUTION	LOT #	EXPIRATION
0 NTU	08E0982	10/2018
126.0 NTU	17E796816	MAY 2018
PH 4	2612090	7/2018
PH 7	2708A14	7/23/2019
PH 10	766543	7/2019
1.413	766708	07/2018
240.0 mV	0647	10/2021

0700 M. WARREN ARRIVES ON SITE

AND PREPARES P.T.S.P.

Location BELTON, SC Date 12/14/17 ³⁷

Project / Client LEWIS DN,

AUTHOR: M. WARREN

<u>SOLUTION</u>	<u>BEFORE</u>	<u>AFTER</u>	
CONDUCTIVITY	0.847	1.413	26.18
ONTU	2.1	0	23.94
			2.24
126.0 NTU	121.4	126.0	
PH 4	4.45	4.0	
PH 7	6.61	7.0	
PH 10	9.27	10.0	
1.413 DO	8.41	11.3	
240.0	232.5	240.0	

0720 K. SEKTON ARRIVES ONSITE

0730 Z. WARD ARRIVES ONSITE

0735 TEAM HOLDS PTSD

0740 BEGIN MINIRAE CALIBRATION

0745 BEGIN YSI CALIBRATION

SOLINST INTERFACE METER

MODEL # 122 / 037062

0827 TEAM ARRIVES AT MW-28

DTW 23.94 DTB 26.18

BAILIED DTW 25.91

TEAM CONTINUES TO GUALE

WELLS IN BROWN'S CREEK AND

SHALLOW BEDROCK.

1215 TEAM BREAKS FOR LUNCH

1315 TEAM RETURNS FROM LUNCH

Keep in the Rain

Location BELTON, SC Date 12/4/17Project / Client LEWIS DR.AUTHOR: M. WARREN


1400 TEAM BEGINS GROUNDWATER
GAUGING IN CUPBOARD CREEK
AND SHALLOW BEDROCK ZONE

1656 TEAM RECALIBRATES MINIRAE
3000 INSTRUMENT ID 29808
ISOBUTYLENE LOT# JBH-248-10019

	<u>BEFORE</u>	<u>AFTER</u>
AIR	0	0.7
C ₄ H ₈	0	100.1

1745 TEAM DEPARTS FIELD.

12/4/17



Location BELTON, SC

Date 12/15/17 39

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: SURFACE / GROUNDWATER
SAMPLING / TROLL / LOW FLOW
TEAM M. WARREN (FTL/BIO), K. SEXTON
(GEO), Z. WARD (ENV/ENG).

WEATHER MID 60'S, PARTLY CLOUDY

EQUIPMENT SEE PAGE 36.

0700 TEAM ARRIVES ON SITE

0720 TEAM HOLDS PTSP AND
BEGINS CALIBRIZATION OF YSI AND
MINI RAE, ~~Post~~

	<u>Pre</u>	<u>Post</u>
DO		
NTU 0	2.2	0
NTU 120	125.3	126
Sp. Cond	1.354	1.413
pH 4	3.99	4.0
pH 7	6.85	7.0
pH 10	10.03	10.0
ORP	240.3	240.0

Multirae 29808 cell cal: 0 Isubstanc = 100.1ppm

0745 M. WARREN AND Z. WARD

BEGIN SW SAMPLING HIKE

K. SEXTON BEGINS TROLL DATA COLLECTION

✓ 0815 ~~SW-11~~ [SW11-120517]

✓ 0830 [SW10-120517]

M
Rite in the Rain

Location BELTON, SCDate 12/5/17Project / Client LEWIS DR.AUTHOR: M. WARREN

✓ <u>0850</u>	<u>FP01 - 120517</u>	
✓ <u>0855</u>	<u>FP02 - 120517</u>	
✓ <u>0910</u>	<u>SW09 - 120517</u>	*MISSING MARKER
✓ <u>0920</u>	<u>SW08 - 120517</u>	
✓ <u>0925</u>	<u>SW13 - 120517</u>	
✓ <u>0945</u>	<u>FP03 - 120517</u>	
✓ <u>1000</u>	<u>SW04 - 120517</u>	
✓ <u>1005</u>	<u>SW02 - 120517</u>	
✓ <u>1010</u>	<u>SW02 - D - 120517</u>	
✓ <u>1015</u>	<u>SW01 - 120517</u>	
✓ <u>1025</u>	<u>SW07 - 120517</u>	
✓ <u>1035</u>	<u>SW12 - 120517</u>	
✓ <u>1040</u>	<u>SW03 - 120517</u>	
✓ <u>1115</u>	<u>SW14 - 120517</u>	
<u>1130</u>	TEAM BREAKS FOR LUNCH	
<u>1230</u>	TEAM RETURNS FROM LUNCH	
<u>1245</u>	TEAM BEGINS LOW FLOW SETUP FOR MW-03.	
✓ <u>1330</u>	<u>MW-03 - 120517</u>	
	MW-03 $Fe^{2+} = 0.0 \text{ mg/L}$	
✓ <u>1500</u>	<u>MW - 27B - 120517</u>	
✓ <u>1505</u>	<u>MW - 27B - D - 120517</u>	
✓ <u>1510</u>	<u>MW - 27 - 120517</u>	
	$Fe^{2+} = 3.0 \text{ mg/L}$	

(MW)

Location BELTON, SC

Date 12/5/17

Project / Client LEWIS DR.

AUTHOR: M. WARREN

- ✓1555 MW-01-120517
- ✓1610 MW-01B-120517
- ✓1620 MW-44B-120517
- ✓1625 TBO1-120517
- ✓1630 TBO1-120517

NOTE: MW-01 WELL DID NOT HAVE ENOUGH WATER IN HYDRASIEVE FOR AN [Fe²⁺].

1700 TEAM DEPARTS FIELD TO FEDEX

1745 TEAM DROPS OFF SAMPLES.

12/5/17

M. Warren

Location BELTON, SCDate 12/6/17Project / Client LEWIS DR.AUTHOR: M. WARRENTASK: GROUNDWATER SAMPLINGTEAM: M. WARREN (FTL/BIO), K. SEXTON (GEO),
Z. WARD (ENV. ENG)EQUIPMENT: SEE PAGE 36WEATHER: MID 50'S / AFTERNOON RAIN0200 TEAM ARRIVES ON SITE0725 TEAM HOLDS PTSP0730 Z. WARD CALIBRATES MINIRAE

Minirae 3000 - 29808

zero cal: Open Iso cal = 100.0 ppm

- ✓ 0740 MW-26-120617
- ✓ 0750 MW-26B-120617
- ✓ 0800 MW-23-120617
- ✓ 0805 MW-23B-120617
- ✓ 0820 MW-46-120617
- ✓ 0835 MW-29-120617
- ✓ 0905 MW-4³B-120617 (MW-43B)
- ✓ 0910 MW-43-120617
- ✓ 0915 MW-24-120617
- ✓ 0925 MW-24B-120617
- ✓ 0935 MW-37-120617
- ✓ 0940 MW-38-120617
- ✓ 0950 MW-15B-120617
- ✓ 0955 MW-15B-D-120617

AUTHOR: M. WARREN

✓1005 MW-15-120617 (HYDRASIEVE NOT FULL)
* ONLY ABLE TO COLLECT 20 mL FOR N + S. NO Fe^3 COLLECTED

✓1020 MW-34-120617

✓1025 MW-39-120617

✓1030 MW-39-D-120617

✓1040 MW-40-120617

$Fe^{2+} = 2.25 \text{ mg/L}$

1100 TEAM BREAKS FOR LUNCH

1200 TEAM BEGINS IN BROWN'S CREEK

✓1215 MW-41-120617 $Fe^{2+} = 0.0 \text{ mg/L}$

✓1240 MW-25B-120617

MW-25
 $Fe^{2+} = 0.0 \text{ mg/L}$

✓1245 MW-25-120617

✓1305 MW-35-120617

$Fe^{2+} = 0.0 \text{ mg/L}$
MW-35
 $Fe^{2+} = 0.0 \text{ mg/L}$

✓1320 MW-49-120617

✓1335 MW-12B-120617

✓1345 MW-12-120617 $Fe^{2+} = 3.25 \text{ mg/L}$

1350 MW-28 DTW: 25.44 BTB 26.25

✓1425 MW-14-120617

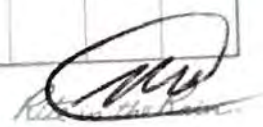
✓1430 MW-14B-120617

✓1440 MW-13B-120617

✓1430 MW-42-120617

✓1500 MW-50B-120617

✓1510 MW-48B-120617



Location BELTON, SC. Date 12/06/17Project / Client LEWIS DR.AUTHOR: M. WARREN

✓ <u>1505</u>	TBO1 - 120617
✓ <u>1545</u>	MW - 47 - 120617
✓ <u>1550</u>	MW - 31 - 120617
✓ <u>1600</u>	MW - 33T - 120617
✓ <u>1605</u>	FBO1 - 120617
<u>1630</u>	TEAM DEPARTS FIELD
<u>1715</u>	TEAM ARRIVES AT FEDEX TO DROP OFF SAMPLES.

12/06/17M. Warren

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK: GROUNDWATER SAMPLING

TEAM: M. WARREN (FTL/BIO)
K. SEXTON (GEO), Z. WARD (ENV)

EQUIPMENT: SEE PAGE 36

WEATHER: MID 40'S, CLOUDY,
30% CHANCE OF RAIN.

0700 TEAM ARRIVES ON SITE

0710 TEAM HOLDS PTSD AND
BEGINS MINIMIZE CALIBRATION

✓ 0815	MW-10-120717	Fe ²⁺ = 0.0 mg/L
✓ 0830	MW-02B-120717	
✓ 0835	MW-02-120717	Fe ²⁺ = 0.0 mg/L
✓ 0850	MW-32-120717	Fe ²⁺ = 0.0 mg/L
✓ 0905	MW-04-120717	
✓ 0915	MW-05-120717	
✓ 0925	MW-06-120717	
✓ 0930	MW-06B-D-120717	
✓ 0940	MW-06B-120717	
0945	MW-16-120717	NO SAMPLE TAKEN DUE TO PRESENCE OF PRODUCT.
✓ 1005	MW-09B-120717	
✓ 1015	MW-09-120717	
✓ 1025	MW-08-120717	Fe ²⁺ = 0.0 mg/L

Location BELTON, SC Date 12/17/17Project / Client LEWIS DR.AUTHOR: M. WARREN

- ✓ 1100 MW-45B-120717
 ✓ 1105 MW-21-120717
 ✓ 1115 MW-17B-120717
 ✓ 1135 MW-36-120717
 ✓ 1145 MW-36B-120717
1200 MW-28 → Fe²⁺ = 1.75 mg/L

⊕ NO SAMPLE COULD BE TAKEN.
 NOT ENOUGH WATER.

- ✓ 1210 FBO1-120717
 ✓ 1215 TBO1-120717

1220 MW-01 Fe²⁺ = 0.0 mg/L
 MW-15 Fe²⁺ = 0.0 mg/L

1300 TEAM DEPARTS FIELD

1330 TEAM DROPS OFF SAMPLES
 AT FEDEX

 12/17/17

Location BELTON, SC

Date 12/14/17⁴⁷

Project / Client LEWIS DR.

AUTHOR: M. WARREN

TASK SURFACE WATER SAMPLING
OF BROWNS CREEK

TEAM MELISSA WARREN

EQUIPMENT N/A

WEATHER: SUNNY MID 50'S

1115 M. WARREN ARRIVES ON SITE

TO GEAR UP FOR SW SAMPLING.

- ✓ 1240 SW11 - 121417
- ✓ 1250 SW10 - 121417
- ✓ 1300 FP01 - 121417 *BIO SHEEN
- ✓ 1305 FP02 - 121417 *BIO SHEEN
- ✓ 1340 SW09 - 121417
- ✓ 1350 SW08 - 121417
- ✓ 1400 SW13 - 121417
- ✓ 1410 SW | FP03 - 121417
- ✓ 1425 SW04 - 121417
- ✓ 1430 SW02 - 121417 *NO ODOR
- ✓ 1445 SW01 - 121417
- ✓ 1500 SW07 - 121417
- ✓ 1505 SW12 - 121417
- ODOR PRESENT, WATER VERY CLEAR, NO SHEEN
- ✓ 1515 SW03 - 121417
- ✓ 1525 TB01 - 121417

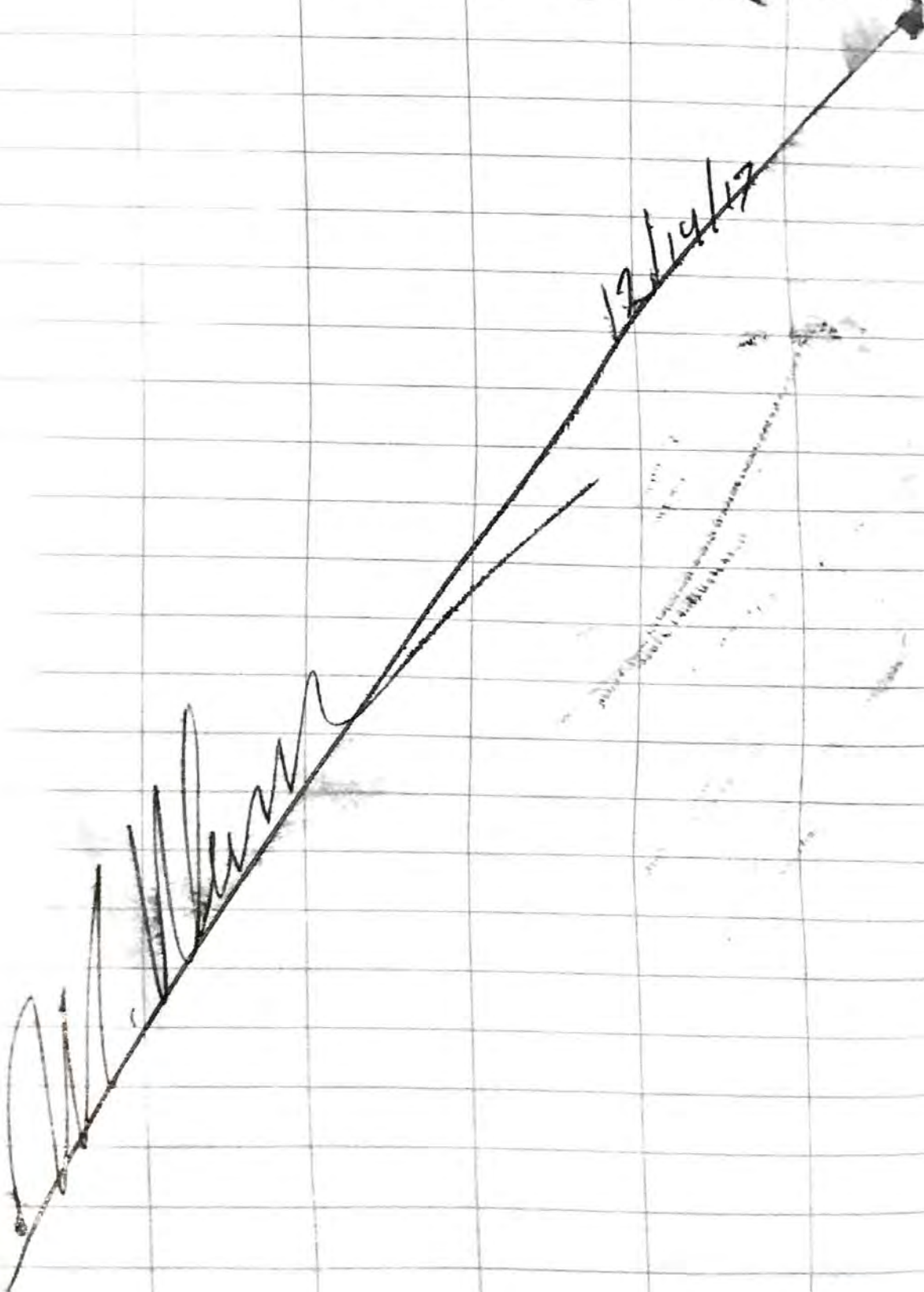
Location BELTON, SC

Date 12/14/17

Project / Client LEWIS DR.

AUTHOR: M. WARREN

1545: M. WARREN DEPARTS FIELD.



Location BELTON, SC Date 01/05/18 49

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

TASK: GROUNDWATER / SURFACE
WATER GAUGING / SAMPLING

TEAM: M. WARREN (BIO/FTL)
K. SEATON (GEO)

EQUIPMENT: MINIRAE 3000

INS ID# 27621

ISOBUTYLENE 107 # JBM-248-KCM

CALIBRATION BEFORE AFTER

AIR C.O C.O

CH GAS C.O 100.0

0740 M. WARREN AND K.

SEATON ARRIVE ON SITE

0800 TEAM HOLDS PTSP.

EQUIPMENT: SOLINST INTERFACE

METER MODEL 122

SN: 037063. PERISALTIC # 029486.

YSI PRO QD # R12315

0830 TEAM BEGINS GAUGING

WELLS.

1150 TEAM BEGINS LUNCH BREAK.

1250 TEAM ENDS LUNCH BREAK.

1650 BEGIN YSI CALIBRATION

Location BELTON, SCDate 01/08/18Project / Client LEWIS DRIVEAUTHOR M. WARREN1655 SONDE ID# 30194DISPLAY ID# 35729

<u>SOLUTION</u>	<u>LOT#</u>	<u>EXP</u>
0 NTU	C800982	10/2018
240.0mVORP	D647	10/2021
PH 4	2703F77	3/2019
PH 7	2708A14	7/23/2019
PH 10	268 2608E32	2/2017
1.413 mS/cm	766708	07/2018
126.0 NTU	17E796816	05/2018

<u>SOLUTION</u>	<u>PRE</u>	<u>POST</u>
1.413 mS/cm	0.9859	1.4133
0 NTU	0.0	0.01
126 NTU	117.95	126.01

PH 4		
PH 7	7.01	7.0
PH 10	10.10	10.00
ORP	264.2	240.2

07 1730 TEAM BEGINS LOW-Flow
FOR MW-28

1800 TEAM DEPARTS FIELD.

[Signature]

Location BELTON, SC Date 02/05/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

TASK GROUNDWATER/SURFACE WATER
GAUGING AND [DO].

TEAM M. WARREN (BIO/FTL), K. SEXTON (GEO)

EQUIPMENT MINIRAE 3000 ID # 039537

ISOBUTYLENE LOT # MBC-248-100-15

CALIBRATION BEFORE AFTER

AIR 0 0

CAL GAS 0 100.0

0830 TEAM ARRIVES ON SITE AND
HOLDS PTSP. _____

EQUIPMENT SOLINST INTERFACE METER

MODEL 122 SN: ~~037063~~ 024036

PERISTALTIC # 031576

YSI PROODO # R12315

YSI EXO # 30194 CALIBRATION

STANDARD	PRE-CAL	POST-CAL	LOT#	EXP
ORP2400	251.8	240.0	0647	10/21
0 NTU	1.12	0.0	C806982	10/2018
126.0 NTU	127.21	126.0	17E796816 2608E32	2/5/2018 2/2018
1.413 mS/cm	1.104	1.413	766708	07/2018
PH7	6.98	7.00	2708A14	07/23/2019
PH4	3.98	4.0	2703F77	03/2019
PH10	10.01	10.0	2608E32	2/2018
DO	105.2	101.1	—	—

Location BELTON, SC

Date 02/05/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

- 0900 TEAM BEGIN GAUGING.
- 1100 TEAM BREAKS FOR LUNCH
- 1200 TEAM RETURNS FROM LUNCH AND CONTINUES GAUGING
- 1530 TEAM COMPLETES GAUGING AND BEGINS PAPERWORK QC
- 1600 TEAM BEGINS VSI EXO CALIBRATION FOR LOW FLOW
- 1630 TEAM COMPLETES CALIBRATION ~~1640~~ AND BEARS UP TO LOW FLOW MW-30.
- 1645 BEGIN MW-30 LOW FLOW
- 1655 COMPLETE MW-30 LOW FLOW
- 1705 TEAM DEPARTS FIELD.

02/05/18

M. Warren

Location BELTON, SC Date 02/06/18Project / Client LEWIS DRIVEAUTHOR: M. WARRENTASK: GROUNDWATER AND SURFACE-
WATER SAMPLINGTEAM: M. WARREN (BIO/FTL) H. SEATON (GEO)EQUIPMENT: SEE PAGE 54.0730 TEAM ARRIVES ON SITE AND
HOLDS PTSP.

<u>0740</u>	CALIBRATE MINI RAE	STANDARD BEFORE	AFTER
	AIR	0.0	0.0
	ISOBUTYLENE	0.0	100.0

0800 TEAM BEGINS GW SAMPLING

<u>✓0805</u>	MW-29-020618
<u>✓0815</u>	MW-26-020618
<u>✓0825</u>	MW-23-020618
<u>✓0900</u>	MW-43-020618
<u>✓0910</u>	MW-38-020618
<u>✓0920</u>	MW-34-020618
<u>✓0930</u>	MW-39-020618
<u>✓0935</u>	MW-40-020618
<u>✓0945</u>	MW-41-020618
<u>0955</u>	MW-25-020618
<u>✓1005</u>	MW-35-020618
<u>✓1015</u>	MW-28-020618
<u>✓1045</u>	MW-31-020618

Location BELTON, SC

Date 02/06/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

1540

SW12 - 020618

1545

SW03 - 020618

1550

TB01 - 020618

1620

SW05 - 020618

* SW06 WAS DRY.

1630

TEAM BEGINS SITE INVENTORIES AND DOCUMENTATION.

1700

TEAM DEPARTS FIELD

1730

TEAM SHIPS SAMPLES.

02/06/18

[Handwritten signature]

- 1315 S. Smida off site. TWT continues surveying
- 1445 TWT finished surveying all features, heading off site. T. Wiley tried recovering Heron oil water interface probe tip that was broken off + lost in MW-09D during development. Unsuccessful. Tried magnets + duct tape.
- 1520 T. Wiley has secured site, system component building + heading back to ATR.

This Spica intentionally left blank.

[Signature]
November 2, 2017

- 0825 B. Conway arrived on-site weather overcast, high of 52°F. Objective: gauge and install skimmers for 22 wells. Collect 10000 L of time series.
- 0830 Jake Coatic will arrive at site once additional equipment is delivered by FedEx to his house. I will gauge wells until he arrives.
- 1135: watch traffic and additional workers who are installing culvert just down the road.
- 0835 Calibrate PTD - Nova RAE 3000 (#037537)
= cobaltine (Coopm) Lot # FBH-248-001-1
exp 5/16/21
Zero cal = 0.1 ppm
Span cal = 100.0 ppm (100 L.)
- 1030 Jake Coatic arrived on-site.
- 1045 we started assembling the well caps with the hangers. Assembled remaining 4 skimmers.

2/13/18

Location Belton, SC Date 2-13-18
 Project / Client Lewis Dr / PPL

Time	Well ID	DTW	DTP	Oil Analysis	Product Thickness
0910	RT-1A	13.26	13.25	5000+	0.01 <small>cont only</small>
0916	RT-1B	13.28	-	15000+	-
1630	RT-1C	13.88	-	NR	-
1650	MW-20	11.81	-	NR	<small>removal from surround tubing</small>
1437	MW-08	3.88	3.87	NR	0.01
0948	RS-17	1.73	1.70	15000+	0.03
0955	RS-14	2.58	2.53	1500+	0.05
1002	RS-10	5.92	5.82	15000+	0.10
1528	RS-05	7.95	7.78	NR	0.17
1008	RS-21	8.11	8.05	15000+	0.06
1037	RS-02	6.80	6.78	<small>not recovered</small>	0.02
1040	RW-15	12.93	12.90	<small>not recovered</small>	0.03
1228	RW-02	21.57	21.56	NR	0.01
1230	RW-03	22.93	-	NR	-
1248	MW-11	28.31	28.50	NR	0.01
1248	RW-04	29.17	28.52	NR	0.65
1250	RW-05	32.51	31.81	NR	0.70
1304	RW-07	21.42	21.40	NR	0.02
1315	RW-08	13.62	-	NR	0.01
1318	MW-15	9.92	9.91	NR	0.01
1355	RT-2K	0.08	-	NR	0.01
1343	RS-08	13.80	13.79	15000+	0.01
0936					

Location Belton, SC Date 2-13-18 71
 Project / Client Lewis Dr / PPL

1235 Started deploying skimmers. Had to re-adjust the length of the cable for the majority of the wells.
 NOTE: RT-2K had a 6" cap and no interior 4" casing cap, therefore, we could not deploy the skimmer.
 RS-01, RS-08, RT-1A, RT-1B, & RT-1C are all 4" stick-ups and the stick-ups are on a slant (took photos). I think because of this slant, the skimmers got stuck in the casing anywhere from 2ft down (RT-1C) to 10ft down (RT-1A). Jake and I left the 6 skimmers listed above in the systems building after discussing the issues with Tom Willey.

NOTE: mw-15 & mw-20 both had trolls in them (mw-20 also had tubing). Discussed both wells with Tom Willey. Trolls were removed & placed in Ziploc bags and left in the systems building. Tubing from mw-20 was removed & discarded.

Location Belton, SC Date 2.13.18
 Project / Client Lewis Dr. / PPL

NOTE: The bottom weight of ~~the~~ RW-08 was not threaded correctly and could not be corrected with the tools on-site. Since the skimmer for RS-08 could not be deployed because that casing was on a slant, Tom Willey suggested that we ~~we~~ adjust the length for the RS-08 skimmer and deploy it in the RW-08 well. We did exactly that and ~~re-labeled~~ ^{re-labeled} the skimmer RW-08. The skimmer in the system building has now been re-labeled as RS08.

NOTE: Additional socks, caps, and cable is in the system building along with the 6 skimmers and two metal purge buckets, metal measuring cups for when fuel recovery takes place at the site.
 1730 Jake locked gate and Bethany & Jake off site.

Bet 2.13.18

Location

Project / Client

Location Bolton SC

Date 2/20/17 73

Project / Client Lewis Dr PPL

Present: M. Kerate/ATL, J. Crostic

Weather: Fog Lo 57° Hi 73° Cloudy

Objective: LNAPL Recovery

0840 Onsite w/ Fred & Fowler

0900 J. Crostic onsite

1125 2 Signs Revised to ASP

0915 Start LNAPL Recovery!

Well	LNAPL Recovered (Fl Oz)
MW-20	0.5 g
RW-15	10 g
RS RW-02	0
RS RW-01	N/A
RS RW-05	108 g
RS-10	0.25 g
RS-14	2 g
RS-17	0
MW-09	0
RW-02	0
RW-03	0
RW-04	0
RW-05	0
RW-07	0.25
RW-08	0
MW-15	A

1150 see up to remove sock from mw11

- Weigh unused sock: 0.25 lbs

1205 Remove old sock from mw12 wt, 1.5 lbs

- Replace with sock

1215 Gauge select wells

Time	Well	DIP	PIW (As of)
1218	RW11	-	13.01
1220	RW12	-	15.14
1225	^{ES RW} RW-01	8.45	8.52
1228	RW-06	-	25.61
1230	RW-09	-	12.08
1233	RT-2A	- Flooded	can't access
1235	RT-2B	-	0.75
1237	RT-2C	-	1.21
1238	RT-2D	-	1.32
1239	RT-2E	-	1.41
1240	RT-2F	-	1.75
1242	RT-2G	-	0.96
1243	RT-2I	-	0.35
1244	RT-2J	-	TOC
1246	RT-2K	-	0.65
1247	RT-2L	-	1.55 1.55
1250	RT-1C	-	13.82
1251	RT-1B	-	13.23
1253	RT-1A	-	13.25

Location Belton SC

Date 2/20/18 75

Project / Client Levy RV

1300 Complex galaxy - sock placed in
55 gal drum in secondary containment
1705 off site

Location Belton, SC Date 2/21/18Project / Client Lewis Dr / Monthly
Gauging Event

Present: R. Brown / ATL & J. Crostic / GVL

Weather: 68°F, overcast, precip 20%, wind 1 mph
SW; 73°F, overcast, precip 20%, wind 8 mph
N

Objective: Gauging site for DTW & DTP

H&S: Wet leaves & watch step

0630 R. Brown left ATL office

0830 Arrive onsite. Start paperwork,
gathering equipment & supplies, calibrate
PID.0945 Talked to B. Garvey / ATL & got task
of dropping small skimmer down
wells with bends in them & possibly
bringing back unused skimmers

0954 Start gauging

1005 Walked ^{up} Cat Cupboard Creek. Dry, no
odor, no sheens (biological or product),
SW-05 dry.1209 J. Crostic offsite for lunch. R. Brown,
calls T. Wiley to confirm we can
skip TW (remaining) except TW-7B.

1240 Continue gauging

1024 Finishing gauging all but TWs
& locations with product skimmers

Location Belton, SC Date 2/21/18 77

Project / Client Lewis Dr / Monthly Gauging Event

1705 J. Crostic offsite. Shorter product recovery canister fit in RS-01 & RT-1B. It did not fit in RS-08, RT-1A, or RT-1C. Put product recovery canisters (unused) on a pallet & under a tarp.

Secured building & fenced area.

*0910 Minikae passed all calibration standards

1715 R. Brown offsite. Heading back to ATL.

*1300 Finished walking Brown's Creek.

No odor, no product sneens.

Water turbid (muddy) downstream of where culvert being replaced.

Photos & videos uploaded to server.

~~Ryan Brown~~
2/21/18

2/26/18

41

Leuro Rd, Belton, TX

0900 Arrive onsite

J. Crocker / GUC

M. Warren / ATC

0905 Go over HSP, PTSP, and
look over equipment.0910 No water level meter
onsite. Will have to gauge
and adjust skimmers following
week. Inform T. Wiley.

0930 Begin to collect skimmers

Well ID	Volume of product (oz)
MW-20	2.2
RB-15	0
RS-2	0, lower to H ₂ O
RS-5	104
RS-10	0, lower skimmer
RS-14	0, lower
RS-17	0, lower
MW-08	0
RW-3	0, lower
RW-2	11.5
RW-4	1
RW-5	2
RW-7	0, lower
RW-8	0

Scale: 1 square = _____

Rite in the Rain

2/28/18 - Lewis Rd

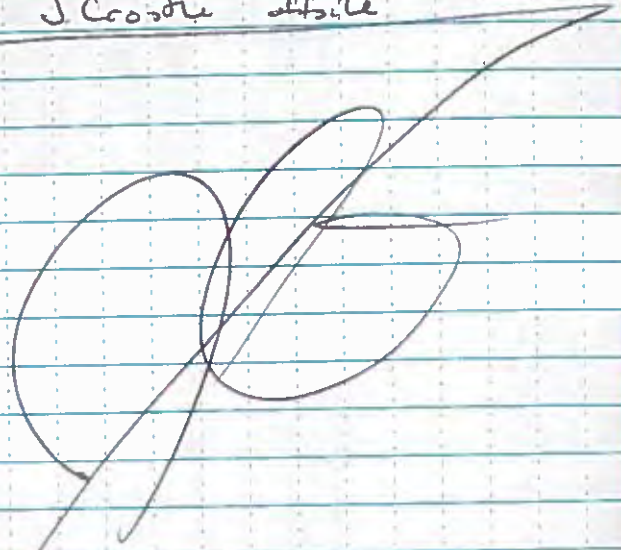
Well ID	Volume of prodn (oz)
MW-15	ϕ , higher
Sack'd well	Weight before Weight after
MW-11	0.1 1.5 lbs

1100 want back to each well to hang skimmer onto carabiner on well cap. Roll excess wire inside/outside of well casing.

1230 Finish raising skimmers

1300 M. Warren offsite.

1315 J. Crook offsite



Scale: 1 square = _____

Location BELTON, SC Date 02/06/18 ⁵⁹

Project / Client ITWIS DRIVE

AUTHOR: M. WARREN

TASK: GROUNDWATER AND SURFACE WATER GAUGING

TEAM M. WARREN (BIO/FTL) K. SEXTON (GEO.), JAKE (ENV. ENGINEER), Z. WARD (ENV. ENG.)

EQUIPMENT ① MINIRAE # A790 ① ISOLOT # BBI-248-100

② MINIRAE # ³⁷⁶⁸⁸ A790 ② ISOLOT # MBH 248/100

① SOLINST SN: 037342

② SOLINST SN: 027682

0700 TEAM ARRIVES ON SITE AND HOLDS PTSP.

0715 TEAM BEGINS MINIRAE CALIBRATION

MINIRAE #1 W/ ISOBUTYENE #1

<u>GAS</u>	<u>BEFORE</u>	<u>AFTER</u>
AIR	0	0
ISO	0.0	100.0

MINIRAE #2 W/ ISOBUTYENE #2

<u>GAS</u>	<u>BEFORE</u>	<u>AFTER</u>
AIR	0	0.0
ISO	0	100.0

0730 TEAM GEARS UP

EQUIPMENT VSI PRODC #35562

0740 TEAM BEGINS GAUGING

1200 TEAM BREAKS FOR LUNCH

1245 TEAM COMPLETES BREAK

MW

Rate in the Rain

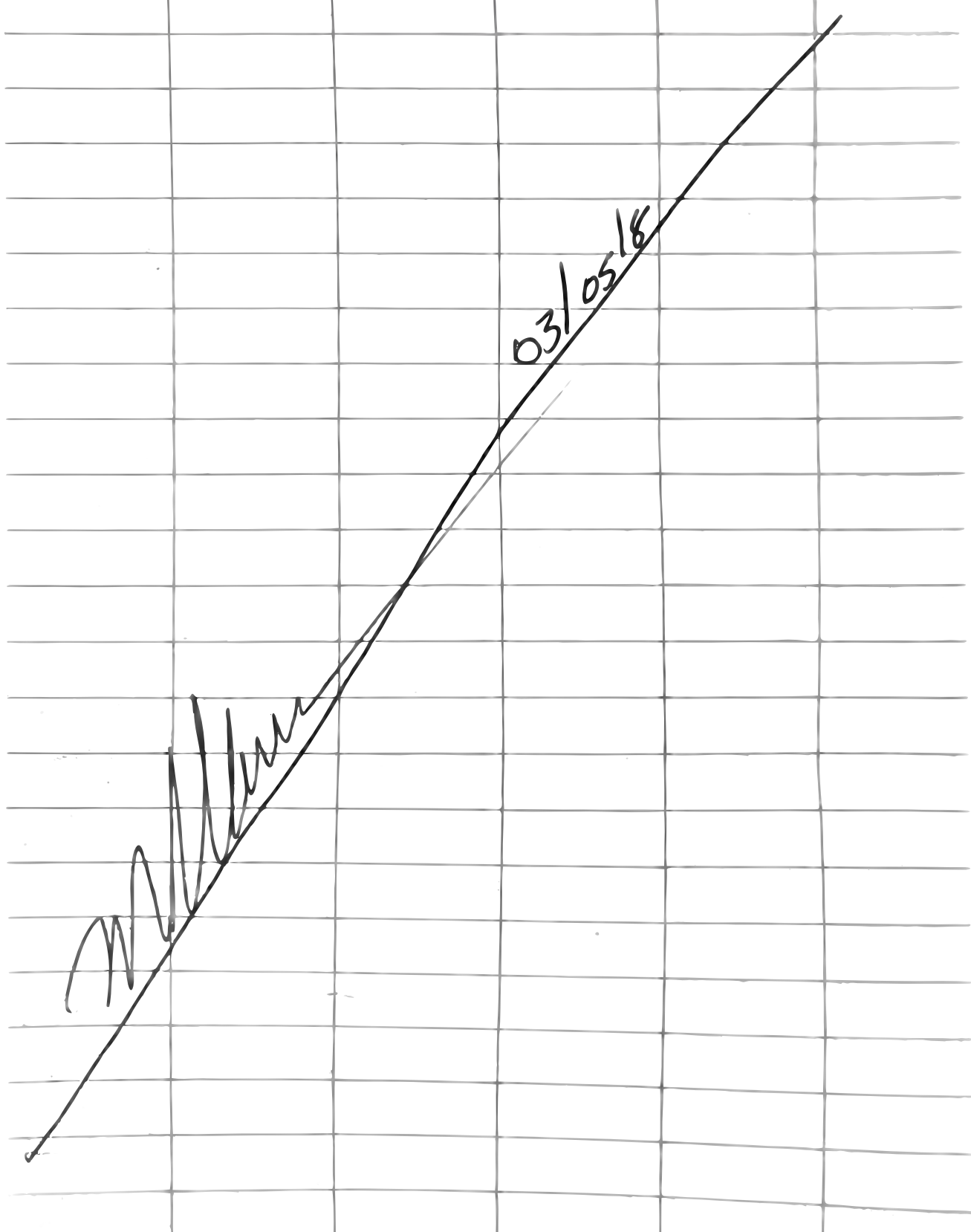
Location BELTON, SC

Date 03/05/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

1745	TEAM	COMPLETES	GARBLING
1800	TEAM	DEPARTS	FIELD.



Location BEITON, SC Date 03/05/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

TASK: GROUNDWATER SAMPLING

TEAM: M. WARREN (BIO/FTL), K. SEXTON (GEO),
Z. WARD (ENV. ENG.)

EQUIPMENT: MINIRAE # 19790

ISO LOT # BBI-248-100-10 ^{↓ BUMP TEST COMPLETE}
SOLINST SN# 027682

0730 TEAM ARRIVES ON SITE AND
HOLDS PTSP,

0740 TEAM GAUGES MW-21

PID: 3.2 DTP: - DTW: 14.80 DB: 20.71

0750 TEAM BEGINS CALIBRATION OF
VSI EXO. HH# 036636 SENS# 30194
CALIBRATION

	PTE	POST	EXP	LOT#
ODO	101.2	100.3	-	-
NTU0	2.41	0.0	10/2018	0800982
NTU126	985	126	5/2018	17E796816
COND	1.402	1.415	7/2018	766708
PH4	4.09	4.0	3/2019	2703F77
PH7	7.0	7.0	7/23/2019	2708A14
PH10	9.93	10.0	2/2018	2608E32
ORP	256.4	240	10/2021	0647

0833 TEAM BEARS UP TO BEGIN
LOW FLOW FOR MW-22

0900 BEGIN MW-22 LOW FLOW

Location BELTON, SC Date 03/06/18Project / Client LEWIS DRIVEAUTHOR: M. WARREN

0925 COMPLETE MW-22 LOW FLOW
 ✓ 0925 MW-22-030618 } $Fe^{2+} = 3.0$

0945 TEAM ARRIVES TO MW-13
 TO BEGIN LOW FLOW

1010 TEAM COMPLETES LOW FLOW
 OF MW-13

✓ 1015 MW-13-030618

1030 TEAM BEGINS LOW FLOW MW-0.

1050 TEAM COMPLETES LOW FLOW MW-0.

1130 TEAM BREAKS FOR LUNCH

1230 TEAM RETURNS FROM LUNCH

1235 TEAM GEARS UP TO BEGIN

LOW FLOW ON MW-45

~~1240~~ 1300 BEGINS MW-45 LOW FLOW

✓ 1300 FB01-030618

✓ 1305 TB01-030618

1315 TEAM COMPLETES LOW FLOW
 AT MW-45

✓ 1315 MW-45-030618

✓ 1330 MW-45B-030618

✓ 1345 MW-20-030618 } $Fe^{2+} = 0.75 \frac{mg}{L}$

✓ 1410 MW-46-030618

✓ 1420 MW-23B-030618

✓ 1425 MW-23-030618

Location **BELTON, SC**

Date **03/06/18**

Project / Client **LEWIS DRIVE**

AUTHOR: M. WARREN

✓ 1440 MW-26B-030618

✓ 1445 MW-26-030618

1530 TEAM DEPARTS FIELD.

M. Warren
03/06/18

Location BELTON, SC

Date 03/07/18

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

TASK: GROUNDWATER SAMPLINGTEAM: M. WARREN (ATL/BIO), K. SEXTON (Geo)
Z. WARD (ENV. ENG)EQUIPMENT: SEE Pgs. 59 & 610705 TEAM ARRIVES ON SITE0820 TEAM BEGINS LOW FLOW MW-290855 TEAM COMPLETES LOW FLOW MW-29✓0855 MW-29-030718 $Fe^{2+} = 0.0 \frac{mg}{L}$ ✓0935 MW-13B-030718✓0940 MW-14B-030718✓0945 MW-14B-030718✓0950 T301-030718✓1000 MW-48B-030718✓1010 MW-50B-030718✓1020 MW-47-030718✓1025 MW-31-030718✓1035 MW-33T-030718✓1100 MW-10-030718 $Fe^{2+} = 0.0 \frac{mg}{L}$ 1120 ~~AW-O~~ TEAM BREAKS
FOR LUNCH,1220 TEAM RETURNS FROM LUNCH✓1230 MW-02-030718 $Fe^{2+} = 0.0 \frac{mg}{L}$ ✓1240³⁵ MW-02B-030718 $Fe^{2+} = 0.0 \frac{mg}{L}$ ✓1250 MW-32-030718 $Fe^{2+} = 0.0 \frac{mg}{L}$ MW

Location: BELTON, SC Date: 03/07/18

Project / Client: LEWIS DRIVE

AUTHOR: M. WARREN

✓ 300	MW-03-030718	* FULL PAAAM TOILET
✓ 305	MW-30-030718	
1310	MW-64; BANNED FOR PRODUCT, NO PRODUCT OBSERVED. NO PRODUCT ODOR. WILL DOUBLE CHECK W/ OIL/WATER METER. NO PRODUCT DETECTED W/ OIL/WATER METER.	
✓ 340	MW-04-030718	Fe ²⁺ = 0.0 $\frac{mg}{L}$
✓ 350	MW-05-030718	
✓ 400	MW-06-030718	
✓ 405	MW-06B-030718	
✓ 430	MW-16-030718	Fe ²⁺ = 0.0 $\frac{mg}{L}$, NO Fe ²⁺ Fe ³⁺ but strong odor
✓ 450	MW-08-030718	
	Fe ²⁺ = 0.0 $\frac{mg}{L}$	
✓ 500	MW-09-030718	Fe ²⁺ = 0.0 $\frac{mg}{L}$
✓ 505	MW-09D-030718	
✓ 515	MW-09B-030718	
✓ 520	MW-36-030718	
✓ 535	MW-36B-030718	
✓ 555	MW-21-030718	
✓ 600	MW-17B-030718	
✓ 605	FB01-030618	
✓ 607	MW-17B0-030718	

MW

Location BELTON, SC

Date 03/08/17

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

~~11625~~
~~0425~~

MW-07:11.52 DTW

Will ~~GA~~ SAMPLE TOMORROW.

1710 TEAM DEPARTS FIELD,

03/08/17



Location BELTON, SCDate 03/08/18Project / Client LEWIS DRIVEAUTHOR: M. WARRENTASK: GROUNDWATER SAMPLINGTEAM: M. WARREN (FTL/BIO), K. SEATON (GEO)
Z. WARD (ENV. ENG.)EQUIPMENT: SOUNST# 0373420700 TEAM ARRIVES ON SITE
AND HOLDS PTSP.0730 MW#07 11.50 DTW✓ 0730 MW-07-030818✓ 0745 MW-03-030818 $Fe^{2+} = 0.0 \frac{mg}{L}$ ✓ 0830 MW-15B-030818✓ 0835 MW-15-030818 $Fe^{2+} = 0.0 \frac{mg}{L}$ ✓ 0850 MW-38-030818✓ 0855 MW-37-030818✓ 0910 MW-43B-030818✓ 0915 MW-43-030818✓ 0935 MW-24-030818✓ 0930 MW-24B-0308180920 VISUALLY INSPECTED AREAS
AROUND NEW CULVERT FOR
SHEEN. NO OBSERVATIONS.✓ 0935 FBO1-030818✓ 0937 TBO1-030818✓ 0955 MW-34-030818✓ 1000 MW-39-030818

Location BELTON, SC

Date 03/08/18 ⁶⁹

Project / Client LEWIS DRIVE

AUTHOR: M. WARREN

✓ 1015 MW-40-030818 ✓ $Fe^{2+} = 2.25 \frac{mg}{L}$

✓ 1020 MW-41-030818

✓ 1032 MW-42-030818 $Fe^{2+} = < 0.5 \frac{mg}{L}$

✓ 1040 MW-25-030818 ✓ $Fe^{2+} = 0.0 \frac{mg}{L}$

✓ 1045 MW-25B-030818

✓ 1055 MW-35-030818 $Fe^{2+} = 0.0 \frac{mg}{L}$

1100 TEAM BREAKS FOR LUNCH

1200 TEAM RETURNS FROM LUNCH

✓ 1205 MW-49-030818

✓ 1210 MW-28-030818 $Fe^{2+} = 15 \frac{mg}{L}$

* ONLY PUMPED ENOUGH WATER FOR VOCs AND Fe^{2+}

✓ 1225 MW-12B-030818

✓ 1230 MW-12-030818 $Fe^{2+} = 1.0 \frac{mg}{L}$

1250 MW-11-030818 Fe^{2+}

NO SAMPLE COLLECTED FROM MW-11. PRODUCT FORMED WITH HYDRASILENT.

✓ 1300 MW-27-030818

✓ 1305 MW-27B-030818

✓ 1320 MW-01-030818 $Fe^{2+} = 0.0 \frac{mg}{L}$

✓ 1330 MW-01B-030818

✓ 1307 MW-027BID-030818

✓ 1335 MW-44-030818

Location **BELTON, SC**

Date **03/08/18**

Project / Client **LEWIS DRIVE**

AUTHOR: M. WARREN

✓1340

MW-44AD-030818

✓1345

MW-44B-030818

1430

TEAM DEPARTS FOUR

[Large handwritten signature]
03/08/18

Location BELTON, SC

Date 03/09/18

71

Project Client LEWIS DRIVE

AUTHOR: M. WARREN

TASK: SURFACE WATER SAMPLING /
PRODUCT RECOVERY

TEAM: M. WARREN (FTL/BO), K. SEXTON (DEC)
Z. WARD (ENV. ENG)


0800 TEAM ARRIVES ON SITE
AND HOLDS PTSP.

0830 M. WARREN AND Z. WARD
BEGIN HIKE TO COLLECT
SURFACE WATER SAMPLES.
K. SEXTON COLLECTS TROLL
DATA.

✓ 0850	SW11-030918	NO SHEEN
✓ 0900	SW10-030918	(0.86) NOSHEEN
✓ 0910	FP01-030918	NO SHEEN
✓ 0915	FP02-030918	BIOSHEEN NO SHEEN
✓ 0925	SW09-030918	BIOSHEEN
✓ 0930	SW08-030918	(1.08) BIOSHEEN
✓ 0940	SW13-030918	BIOSHEEN
✓ 1000	FP03-030918	NOSHEEN
✓ 1005	SW04-030918	NO SHEEN
✓ 1010	SW02-030918	(1.66) NOSHEEN
✓ 1015	SW01-030918	(1.0) NOSHEEN
✓ 1020	SW07-030918	NOSHEEN
✓ 1030	SW12-030918	NOSHEEN

Location BELTON, SC Date 03/09/18Project / Client LEWIS DRIVEAUTHOR: M. WARREN

- ✓ 1040 SW03 - 030918 (1.8') NOSHEEN
- 1055 SW06 : DRY
- ✓ 1100 SW05 - 030918 (0.36') NOSHEEN
- ✓ 1110 SW14 - 030918 NO SHEEN
- 1115 TB01 - 030918
- 1150 H. SEXTON AND Z. WARD
BEGIN PRODUCT RECOVERY,
M. WARREN ORGANIZES
EQUIPMENT, INVENTORY AND
SAMPLE COCS,
- 1345 H. SEXTON AND Z. WARD
RETURN FOR PRODUCT RECOVERY
- 1400 TEAM DEPARTS FIELD.

 03/09/18

Lewis Drive Daily Monitoring Sheet 1

(submit by 5^{PM})

Name(s): THOMAS BARNES
 Date: 4/3/17
 Weather: CLOUDY, RAIN, 1060
 Safety Topic: PPC TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	17.90	18.30	
RS-02	17.15	17.60	
RS-04	9.69	9.70	
RS-05	10.99	17.75	
RS-06	17.47	17.89	
RS-07	14.95	14.97	
RS-08	15.46	16.27	
RS-09	16.90	17.15	
RS-10	15.88	16.20	
RS-11	15.35	15.74	
RS-12	15.62	16.00	
RS-13	16.44	16.46	
RS-14	12.70	12.93	
RS-15	12.79	12.85	
RS-16	13.07	13.10	
RS-17	9.94	9.95	
RS-18	17.07	17.48	
RS-19	-	damaged	
RS-20	-	10.53	
RT-1A	15.98	16.20	
RT-1B	CANT GET LOCK OFF		
RT-1C	16.37	16.50	
RT-2A	-	1.25	
RT-2B	1.37	1.38	
RT-2C	-	1.80	
RT-2D	-	1.86	
RT-2E	-	2.00	
RT-2F	-	2.34	
RT-2G	2.65	3.65	
RT-2H	-	damaged	
RT-2I	-	5.43	
RT-2J	2.26	2.27	
RT-2K	2.71	2.72	
RT-2L	2.78	2.82	
RW-01	-	14.28	
RW-02	25.58	-	
RW-03	25.56	25.57	
RW-04	31.34	32.20	
RW-05	33.88	34.23	
RW-06	27.83	27.84	
RW-07	24.00	25.97	
RW-08	17.89	18.07	
RW-09	14.36	15.00	
RW-10	17.65	21.18	
RW-11	13.70	14.78	
RW-12	15.35	16.29	
RW-13	17.85	19.68	
RW-14	13.36	13.37	
RW-15	18.75	20.10	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK PRIOR TO TANKER LOAD REMOVED

DEPTH TO PRODUCT - 1.90
 DEPTH TO WATER - 2.83

AFTER TANKER LOAD
 D TO PROD - 3.90
 D TO W - 4.64

Location Lewis DriveDate 4/3/2017Project / Client PPLSMIDASampling 4 SCFWand 4/4/2017

Well ID:	DTP ('bbl)	DTW ('bbl)	DO (mg/L)
<u>Cupboard creek (4/4/2017)</u>			
MW19	—	11.78	1.74
MW20	14.28	15.81	NM
MW29	—	10.95	6.76
TW67	—	9.54	9.26
TW73	—	8.71	9.51
<u>Brown's creek</u>			
MW12	15.05	15.23	NM
MW12B	—	15.43	1.17
MW15	—	13.43	1.67
MW15B	—	16.54	0.95
MW25	—	8.58	0.75
MW25B	—	5.72	0.55
MW28	—	25.69	2.41
MW35	—	9.44	3.46
MW39	—	5.34	0.44
MW41	—	4.07	0.51
TW59	—	15.20	NM
TW60	—	10.61	0.76
TW66	—	2.32	2.90

Water can be heard in casing
 → water mixing sediments in water column.

odor

casing on side of cover

NM = not measured, LNAPL present or probe did not fit into casing

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 4/10/17
 Weather: SUNNY, WINDY
 Safety Topic: POE TRAFFIC, FIRE ANTS

Contractor # Personnel
 CH2M HILL
 A&D/ECS
 Kinder Morgan
 AE Drilling
 TWT

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	17.65	18.36	
RS-02	16.70	17.10	
RS-04	-	8.48	
RS-05	16.72	17.73	
RS-06	17.27	17.74	
RS-07	14.42	14.44	
RS-08	15.33	16.20	
RS-09	15.61	16.22	
RS-10	14.94	15.36	
RS-11	15.19	15.61	
RS-12	15.46	15.88	
RS-13	-	14.24	
RS-14	6.25	6.49	
RS-15	7.90	7.96	
RS-16	-	5.34	
RS-17	-	3.23	
RS-18	12.80	13.30	
RS-19	-	damaged	
RS-20	-	10.15	
RT-1A	15.84	16.09	
RT-1B	CAPT GET LOCK OFF		
RT-1C	16.25	16.48	
RT-2A	0.70		
RT-2B	0.82	0.84	
RT-2C	-	1.30	
RT-2D	-	1.35	
RT-2E	-	1.48	
RT-2F	-	1.84	
RT-2G	-	3.12	
RT-2H	-	damaged	
RT-2I	3.12	3.13	
RT-2J	1.68	1.70	
RT-2K	2.40	2.61	
RT-2L	2.42	2.54	
RW-01	-	11.51	
RW-02	24.45	25.75	
RW-03	25.45	25.46	
RW-04	31.32	32.20	
RW-05	29.52	33.19	34.15
RW-06	27.50	27.51	
RW-07	23.32	25.00	
RW-08	16.70	17.26	
RW-09	13.56	14.17	
RW-10	19.30	20.75	
RW-11	13.16	14.29	
RW-12	13.36	13.37	
RW-13	17.69	19.35	
RW-14	12.64	12.65	
RW-15	18.60	20.14	

SHEEN AROUND RISER

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01	-	4.60	
MW-01B	-	10.85	
MW-02	-	7.07	
MW-02B	-	8.38	
MW-03	-	10.61	
MW-04	-	13.99	
MW-05	-	18.18	
MW-06	-	17.55	
MW-07	-	13.20	
MW-08	-	9.68	
MW-09	5.61	5.62	
MW-10	-	15.47	
MW-11	DRY		
MW-12	14.42	14.50	
MW-12B	-	14.46	
MW-13	-	22.05	
MW-13B	-	24.37	
MW-14	-	18.26	
MW-14B	-	20.07	
MW-15	-	11.65	
MW-15B	-	16.32	
MW-16	14.86	17.74	
MW-17	-	10.83	
MW-17B	-	18.77	
MW-18	16.10	19.48	
MW-19	-	9.16	
MW-20	14.10	15.72	
MW-21	18.23	20.23	18.23
MW-22	-	9.85	
MW-23	-	11.50	
MW-23B	-	12.81	
MW-24	-	4.13	
MW-24B	-	5.18	
MW-25	-	8.02	
MW-25B	-	5.52	
MW-26	-	5.93	
MW-26B	-	9.45	
MW-27	-	27.98	
MW-27B	-	31.46	
MW-28	-	25.49	
MW-29	-	10.11	
MW-30	DRY		
MW-31	-	21.45	
MW-31B	-	21.73	
MW-32	-	13.60	
MW-33	-	26.67	
MW-33T	-	27.93	
MW-34	-	2.50	proposed
MW-35	-	8.43	
MW-36	-	21.55	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B	-	21.26	
MW-37	-	3.28	
MW-38	-	1.52	
MW-39	-	4.83	
MW-40	-	2.86	
MW-41	-	3.85	
MW-42	-	4.55	
MW-43	-	proposed	
MW-43B	-	proposed	
MW-44	-	8.09	
MW-44B	-	15.15	
MW-45	-	14.23	
MW-45B	-	18.15	
TW-04R	-	4.95	
TW-05R	-	1.90	
TW-14R	-	2.63	
TW-15R	-	3.55	
TW-21	-	0.95	
TW-28	24.26	25.70	
TW-30	-	20.45	
TW-34	-	22.25	cup BOTTOM OF WELL
TW-35	-	22.75	
TW-40	-	29.20	
TW-41	-	28.68	
TW-42	24.70	27.55	
TW-45	28.30	29.27	
TW-46	-	Covered	
TW-55	-	10.80	
TW-59	-	14.74	damaged
TW-60	-	8.93	
TW-64	-	19.29	
TW-65	-	22.95	
TW-66	-	1.86	
TW-67	-	14.30	
TW-68	-	24.32	
TW-69	-	16.05	
TW-70	-	20.14	
TW-73	-	9.26	
TW-76	-	17.56	
TW-81	UNDER WATER		
TW-82	-	1.52	
TW-83	-	2.32	
TW-84	-	4.25	
TW-85	-	14.45	
TW-86	-	4.30	
TW-87	-	6.15	
TW-90	-	16.89	
TW-94	6.55	6.63	
TW-96	-	10.82	
SW-01	0.90		
SW-02	1.55		
SW-03	1.96		
SW-05	DRY		
SW-08	1.24		
SW-10	0.56		

Table 2 - Gauging List

SM: Tom Wiley

PN: 684910.LD.RA.ST

Project: System Startup Event

Technicians: J. McCann

J. Hansen

Client: Plantation Pipe Line

Weather: windy 48-53°F

Measuring Method: oil/water interface probe

Date: 4/6/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-12	0750	805	14.42	14.50	21.75	0.08	
MW-12B	0732	0.7	=	14.86	57.30	-	removed bag
MW-15	1059	170	-	12.92	21.22	-	
MW-15B	1057	42.5	-	16.29	72.90	-	
MW-17	0839	651	-	10.93	11.23	-	
MW-17B	0837	324	-	18.77	25.30	-	
MW-19	0905	678	-	9.16	12.13	-	
MW-20	0913	1173	14.10	5.72	19.37	1.62	
MW-21	0849	0.3	-	18.23	20.73	-	
MW-23	0843	6.3	-	11.50	13.21	-	
MW-23B	0845	0.2	-	12.81	58.00	-	
MW-25	1116	24.232	-	8.02	18.10	-	
MW-25B	1117	0.2	-	5.52	61.20	-	
MW-26	0853	0.7	-	5.93	17.36	-	
MW-26B	0855	0.1	-	9.45	41.10	-	
MW-28	1127	1496	-	25.49	26.05	-	
MW-29	0858	0.0	-	10.11	14.93	-	
MW-34	1101	5.5	-	2.50	7.82	-	
MW-35	1113	4.2	-	8.43	28.79	-	
MW-38	1136	0.6	-	1.52	11.53	-	

SM: Tom Wiley

Weather: _____

PN: 684910.LD.RA.ST

Project: System Startup Event

Measuring Method: oil/water interface probe

Technicians: _____

Date: _____

Client: Plantation Pipe Line

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-39	1103	38.8	—	4.83	13.08	—	
MW-40	1105	182	—	2.86	13.21	—	
MW-41	1108	2.2	—	3.85	13.19	—	
MW-42	1110	1.9	—	4.55	13.41	—	
MW-45	0818	4.4	—	14.23	14.45	—	
MW-45B	0810	0.1	—	18.15	41.40	—	
TW-59	1124	1.8	—	14.74	19.64	—	
TW-60	1130	543	—	8.93	38.48	—	
TW-66	1120	0.2	—	1.86	23.82	—	
TW-67	0909	1025	—	14.30	25.20	—	
TW-73	0903	0.7	—	9.26	14.07	—	

BTOC - below top of casing

ft - feet

PN - Project Number

ppm - parts per million

SM - Site Manager

_____ - wells historically found to have product

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS W BARWICK
 Date: 4/10/17
 Weather: SUNNY, 75
 Safety Topic: HAZARDOUS WASTE, FORD MITS

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	16.87	17.78	
RS-02	15.15	15.50	
RS-04	9.67	9.68	
RS-05	16.42	17.00	
RS-06	16.86	17.37	
RS-07	14.06	14.68	
RS-08	15.10	15.51	
RS-09	16.08	16.82	
RS-10	15.15	15.60	
RS-11	14.78	15.24	
RS-12	15.06	15.62	
RS-13	14.59	14.60	
RS-14	9.69	9.92	
RS-15	9.77	9.88	
RS-16	10.41	10.42	
RS-17	7.97	7.94	
RS-18	16.15	16.70	
RS-19		damaged	
RS-20	-	10.47	
RT-1A	15.57	15.77	
RT-1B	Lock Struck		
RT-1C	15.97	16.17	
RT-2A	-	1.08	
RT-2B	1.14	1.15	
RT-2C	1.41	1.62	
RT-2D	-	1.72	
RT-2E	1.82	1.83	
RT-2F	2.18	2.19	
RT-2G	2.06	2.07	
RT-2H		damaged	
RT-2I	-	3.30	
RT-2J	1.44	1.58	
RT-2K	2.73	2.75	
RT-2L	2.55	2.65	
RW-01	-	11.72	
RW-02	24.35	25.65	
RW-03	25.03	25.05	
RW-04	31.11	32.07	
RW-05	33.77	34.22	
RW-06	27.53	27.55	
RW-07	23.27	24.42	
RW-08	16.41	16.56	
RW-09	13.70	13.75	
RW-10	17.15	20.22	
RW-11	13.05	13.92	
RW-12	14.56	14.57	
RW-13	17.32	19.19	
RW-14	9.66	9.67	
RW-15	18.43	18.97	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS PRIOR TO OFF LOAD 4/11/17

Depth to Product - 3.21
 Depth to Water - 3.99

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARKES
 Date: 4/13/17
 Weather: SUNNY 70°
 Safety Topic: WELL LOGS, FILL UPS

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	17.19	17.58	
RS-02	15.15	15.43	
RS-04	-	9.71	
RS-05	16.57	16.95	
RS-06	17.12	17.32	
RS-07	14.64	14.66	
RS-08	15.03	15.45	
RS-09	16.19	16.69	
RS-10	15.14	15.56	
RS-11	14.73	15.18	
RS-12	15.02	15.45	
RS-13	14.82	14.83	
RS-14	10.43	10.62	
RS-15	10.18	10.28	
RS-16	-	11.25	
RS-17	-	8.55	
RS-18	16.73	16.94	
RS-19	-	damaged	
RS-20	-	10.50	
RT-1A	15.50	15.61	
RT-1B	LOCK FROZEN		
RT-1C	15.92	16.02	
RT-2A	-	1.19	
RT-2B	1.24	1.30	
RT-2C	-	1.73	
RT-2D	-	1.82	
RT-2E	-	1.95	
RT-2F	-	2.28	
RT-2G	-	3.52	
RT-2H	-	damaged	
RT-2I	-	3.30	
RT-2J	2.06	2.07	
RT-2K	2.30	2.31	
RT-2L	3.60	3.67	
RW-01	-	12.06	
RW-02	24.37	24.80	
RW-03	25.01	25.02	
RW-04	31.07	31.95	
RW-05	33.43	34.05	
RW-06	27.71	27.72	
RW-07	25.69	25.40	
RW-08	17.95	18.00	
RW-09	14.07	16.05	
RW-10	17.16	20.05	
RW-11	13.03	13.92	
RW-12	14.71	14.72	
RW-13	17.38	18.94	
RW-14	13.09	13.10	
RW-15	18.37	19.00	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS PRIOR TO OFFLOAD 4/13/17
 DEPTH TO PRODUCT - 2.44
 DEPTH TO WATER - 3.30

Lewis Drive Daily Monitoring Sheet 1
(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 4/14/17
 Weather: Cloudy, 65°
 Safety Topic: RPE, TRAFFIC, FIRE ARMS

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	16.69	17.20	
RS-02	15.23	15.52	
RS-04	9.71	9.72	
RS-05	16.17	16.80	
RS-06	16.72	16.95	
RS-07	14.62	14.64	
RS-08	14.90	15.33	
RS-09	16.14	16.48	
RS-10	15.03	15.54	
RS-11	14.63	15.10	
RS-12	14.92	15.39	
RS-13	15.04	15.06	
RS-14	11.15	11.35	
RS-15	10.65	10.75	
RS-16	10.71	11.22	
RS-17	9.16	9.11	
RS-18	16.23	16.50	
RS-19	-	damaged	
RS-20	-	18.48	
RT-1A	15.40	15.50	
RT-1B	-	-	lock stuck
RT-1C	15.80	15.90	
RT-2A	-	1.16	
RT-2B	1.18	1.19	
RT-2C	-	1.61	
RT-2D	-	1.77	
RT-2E	-	1.82	
RT-2F	2.15	2.16	
RT-2G	3.26	3.21	
RT-2H	-	damaged	
RT-2I	-	1.62	
RT-2J	0.25	0.26	
RT-2K	2.54	2.59	
RT-2L	2.25	2.32	
RW-01	-	12.60	
RW-02	24.32	24.93	
RW-03	24.91	24.92	
RW-04	30.98	31.97	
RW-05	33.43	33.87	
RW-06	26.73	26.74	
RW-07	22.74	24.05	
RW-08	16.10	16.12	
RW-09	13.90	14.31	
RW-10	17.01	20.00	
RW-11	13.05	13.69	
RW-12	14.81	14.84	
RW-13	17.19	19.05	
RW-14	12.76	12.87	
RW-15	18.37	19.60	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS
 Depth to product - 2.24
 Depth to water - 3.10

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 4/20/17
 Weather: Sunny, 75°
 Safety Topic: PPE, TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)	Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)	Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	16.62	16.92		MW-01				MW-36B			
RS-02	15.32	15.64		MW-01B				MW-37			
RS-04	9.70	9.71		MW-02				MW-38			
RS-05	15.90	16.85		MW-02B				MW-39			
RS-06	16.55	16.82		MW-03				MW-40			
RS-07	14.45	14.50		MW-04				MW-41			
RS-08	14.85	15.33		MW-05				MW-42			
RS-09	15.99	16.36		MW-06				MW-43		proposed	
RS-10	15.02	15.25		MW-07				MW-43B		proposed	
RS-11	14.53	15.01		MW-08				MW-44			
RS-12	14.81	15.30		MW-09				MW-44B			
RS-13	15.20	15.23		MW-10				MW-45			
RS-14	11.71	11.89		MW-11				MW-45B			
RS-15	11.02	11.19		MW-12				TW-04R			
RS-16	11.98	11.99		MW-12B				TW-05R			
RS-17	11.43	11.44		MW-13				TW-14R			
RS-18	16.02	16.38		MW-13B				TW-15R			
RS-19	-	damaged		MW-14				TW-21			
RS-20	-	10.48		MW-14B				TW-28			
RT-1A	15.37	15.47		MW-15				TW-30			
RT-1B	-	-		MW-15B				TW-34			
RT-1C	15.80	15.90		MW-16				TW-35			
RT-2A	1.07	1.09		MW-17				TW-40			
RT-2B	1.14	1.15		MW-17B				TW-41			
RT-2C	-	1.59		MW-18				TW-42			
RT-2D	-	1.71		MW-19				TW-45			
RT-2E	-	1.80		MW-20				TW-46			
RT-2F	-	2.27		MW-21				TW-55			
RT-2G	-	3.41		MW-22				TW-59		damaged	
RT-2H	-	damaged		MW-23				TW-60			
RT-2I	-	3.90		MW-23B				TW-64			
RT-2J	2.08	2.09		MW-24				TW-65			
RT-2K	-	2.30		MW-24B				TW-66			
RT-2L	2.60	2.65		MW-25				TW-67			
RW-01	13.11	13.12		MW-25B				TW-68			
RW-02	24.24	24.80		MW-26				TW-69			
RW-03	-	24.81		MW-26B				TW-70			
-RW-04	30.25	31.70		MW-27				TW-73			
-RW-05	33.49	33.70		MW-27B				TW-76			
RW-06	-	26.97		MW-28				TW-81			
RW-07	23.49	24.92		MW-29				TW-82			
RW-08	16.92	16.65	16.66	MW-30				TW-83			
RW-09	13.81	14.22		MW-31				TW-84			
-RW-10	17.21	18.92		MW-31B				TW-85			
RW-11	12.95	13.65		MW-32				TW-86			
RW-12	14.84	14.85		MW-33				TW-87			
RW-13	17.10	18.90		MW-33T				TW-90			
RW-14	-	13.20		MW-34			proposed	TW-94			
RW-15	18.21	18.60		MW-35				TW-96			
				MW-36				SW-01			
								SW-02			
								SW-03			
								SW-05			
								SW-08			
								SW-10			

← AFTER BDT

FRAC TANK LEVELS
 DEPTH TO PRODUCT - 5.42
 DEPTH TO WATER - 5.68

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 4/25/17
 Weather: SUNNY 65°
 Safety Topic: PPG / TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	16.16	16.58	
RS-02	14.64	14.81	
RS-04	-	8.38	
✓ RS-05	15.38	16.43	
RS-06	16.20	16.53	
RS-07	14.01	14.02	
RS-08	14.61	14.62	
RS-09	13.80	14.15	
RS-10	13.97	14.31	
✓ RS-11	14.16	14.67	
✓ RS-12	14.44	14.94	
RS-13	-	7.78	
RS-14	4.45	4.64	
RS-15	5.30	5.38	
RS-16	-	3.68	
RS-17	-	2.63	
RS-18	11.44	11.90	
RS-19	-	damaged	
RS-20	-	6.59	
RT-1A	15.08	15.12	
RT-1B	15.03	15.09	
RT-1C	15.46	15.52	
RT-2A	-	0.63	
RT-2B	-	0.79	
RT-2C	-	1.21	
RT-2D	-	1.31	
RT-2E	-	1.44	
RT-2F	-	1.77	
RT-2G	-	1.20	
RT-2H	-	damaged	
RT-2I	-	2.27	
RT-2J	-	1.01	
RT-2K	-	2.75	
RT-2L	1.95	2.00	
RW-01	-	10.83	
RW-02	23.81	24.19	
RW-03	-	24.55	
✓ RW-04	30.56	31.54	
- RW-05	33.41	33.70	
RW-06	27.09	27.10	
✓ RW-07	22.69	23.50	
RW-08	-	15.48	
RW-09	12.60	12.68	
✓ RW-10	16.29	18.84	
- RW-11	12.28	12.38	
RW-12	12.77	12.78	
✓ RW-13	-	16.73	17.83
RW-14	8.88	8.89	
RW-15	17.85	18.30	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS

DEPTH TO PRODUCT - 5.27
 DEPTH TO WATER - 5.53

Location Lewis Drive Date 4/26/2017 145

Project / Client PPL SM10A

Gauging 4 SCFM

<u>Well ID:</u>	<u>DTP ('btoc)</u>	<u>DTW ('btw)</u>	<u>DO (mg/L)</u>
<u>Cupboard Creek</u>			
MW 19	—	10.21	1.43
MW 20	13.40	14.49	NM
MW 29	—	7.77	6.68
TW 67	—	13.57	9.82
TW 73	—	DRY	NM
<u>Brown's Creek</u>			
MW 12	— ODOA	13.69	1.62
MW 12B	—	14.03	0.57
MW 15	—	12.80	3.91
MW 15B	—	15.83	1.58
MW 25	—	8.09	0.53
MW 25B	—	5.18	0.51
MW 28	— ODOA	23.61	0.66
MW 35	—	8.28	3.49
MW 39	—	5.09	0.59
MW 41	—	3.85	1.39
TW 59*	—	13.73	NM
TW 60	—	9.37	1.80
TW 66	—	1.53	5.35

* → see photo, probe does not fit down casing.

Rite in the Rain

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 4/27/19
 Weather: CLOUDY, 69°
 Safety Topic: RPA, TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

*Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	15.46	15.96	
RS-02	13.32	13.49	
RS-04	-	9.70	
RS-05	15.01	16.34	
RS-06	15.85	16.20	
RS-07	-	14.01	
RS-08	14.37	14.87	
RS-09	14.49	14.90	
RS-10	14.00	14.28	
RS-11	13.89	14.20	
RS-12	14.18	14.49	
RS-13	-	10.73	
RS-14	6.05	6.19	
RS-15	6.71	6.80	
RS-16	-	5.05	
RS-17	-	4.30	
RS-18	14.06	14.43	
RS-19	-	damaged	
RS-20	-	6.65	
RT-1A	14.89	14.94	
RT-1B	14.85	14.89	
RT-1C	15.29	15.33	
RT-2A	-	0.84	
RT-2B	0.96	0.97	
RT-2C	-	1.41	
RT-2D	-	1.52	
RT-2E	-	1.60	
RT-2F	-	1.98	
RT-2G	-	3.13	
RT-2H	-	damaged	
RT-2I	3.22	3.23	
RT-2J	1.86	1.90	
RT-2K	-	2.85	
RT-2L	2.15	2.17	
RW-01	-	10.73	
RW-02	23.50	23.99	
RW-03	-	24.30	
RW-04	30.44	31.34	
RW-05	33.13	33.42	
RW-06	27.12	27.13	
RW-07	23.31	24.19	
RW-08	17.19	17.20	
RW-09	13.80	13.92	
RW-10	10.08	18.35	
RW-11	12.35	12.36	
RW-12	-	13.57	
RW-13	16.50	17.45	
RW-14	-	12.61	
RW-15	17.48	17.92	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS

DEPTH TO PRODUCT - 5.00
 DEPTH TO WATER - 5.30

Table 2 - Gauging List

SM: Tom Wiley
 PN: 684910.LD.MR.GW

Weather: sunny, low 60s

Project: System Startup Event Monthly sampling

Measuring Method: oil/water interface probe

Technicians: J. McCann
M. Warren

Date: 5/3/17

Client: Plantation Pipe Line

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
H MW-05	1056	0.0	—	16.68	19.95	—	
H MW-10	1022	0.0	—	12.83	23.21	—	
SB MW-22	1129	8.5	—	9.93	10.35	—	dry
BC MW-25	1426	2.1	—	8.21	18.10	—	
CC MW-26	1319	5.1	—	5.20	17.31	—	
BC MW-28	1356	519.5	—	22.86	26.05	—	
CC MW-29	1259	0.0	—	8.39	15.06	—	
H MW-30	1046	29.6	—	13.66	14.52	—	perisite/tr
H MW-31	1000	0.1	—	19.99	28.41	0.0	
BC MW-34	1512	0.5	—	2.55	7.81	—	
BC MW-35	1443	3.9	—	9.08	28.52	—	
BC MW-38	1527	0.0	—	1.29	11.48	—	
CC MW-45	1240	3.8	15.70	14.00	14.42	—	dry
AW-10	1120	570.5	15.70	18.04	NM	2.34	
AW-13	1115	427.2	16.3	17.02	NM	0.89	

BTOC - below top of casing
 ft - feet
 PN - Project Number

ppm - parts per million
 SM - Site Manager
 - wells historically found to have product

SM: Tom Wiley

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Technicians: J. McCann

M. Warren

Client: Plantation Pipe Line

Weather: Cloudy, mid 70s

Measuring Method: YSI proODO

Date: 5/3/17

included date on form - RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-03	1415	73.6	—	8.20	0.27	
MW-04	1408	0.1	—	10.76	8.02	
MW-08	1315	0.0	—	12.18	7.00	
MW-09	1337	124.1	—	8.00	0.43/2.20	
MW-10	1344	0.1	—	12.67	6.32	
MW-16	1325	354.0	13.07	14.95	—	free product
MW-18	1320	604	14.17	16.93	—	free product
MW-30	1604/5/3/17	393	—	14.66	3.62	
TW-55	1331	2.4	—	8.65	1.68	
TW-64	1308	0.1	—	18.10	7.85	
TW-96	1350	0.2	—	8.85	7.29	
Shallow Bedrock Zone						
MW-01	1237	0.0	—	5.54	7.57	
MW-01B	1241	0.0	—	8.73	0.53	
MW-11	1245	256.6	30.28	30.68	—	free product
MW-22	1231	72.5	—	9.96	—	dry
SW-03	1503	—	—	—	4.23	
SW-12	1506	—	—	—	4.76	

BTOC - below top of casing

ft - feet

PN - Project Number

ppm - parts per million

SM - Site Manager

- wells historically found to have product

SW-13 1456 — — — 4.91

SW-01 1451 — — — 7.75

DO measurements
Table 2 - Gauging List

SM
 SM: Tom Wiley

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Technicians:

Weather:

Measuring Method: YSI proODO

Date: 5/3/17 ← included date on form - RWB

Client: Plantation Pipe Line

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Brown's Creek Protection Zone</i>						
✓ MW-12						
✓ MW-12B						
✓ MW-15						
✓ MW-15B						
✓ MW-25						
✓ MW-25B						
✓ MW-28						
✓ TW-59						
✓ TW-60						
✓ TW-66						
<i>Cupboard Creek Protection Zone</i>						
✓ MW-19						
✓ MW-20						
✓ MW-29						
✓ TW-67						
✓ TW-73						
<i>Hayfield Zone</i>						
✓ MW-02	1358	298	—	6.86	0.35	
MW-02B	1401	1.7	—	8.19	0.26	

completed by S. Smido
 35
 39
 41

5/4 - weekly GAUGING
5/6 MONTHLY GAUGING

Name(s): THOMAS BARNES
Date: 5/4/17 5/6/17
Weather: 5/4 - Sunny, 70° 5/6 OVERCAST, 60°
Safety Topic: PPE, TRAFFIC, FIREARMS, POISON IVY

Contractor	# Personnel
CH2M HILL	
A&D/ECS	6
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	14.90	14.95	
RS-02	13.02	13.25	
RS-04	-	9.70	
RS-05	15.80	14.22	
RS-06	14.97	14.97	14.97
RS-07	13.76	13.78	
RS-08	13.97	14.24	
RS-09	14.48	14.86	
RS-10	13.57	13.90	
RS-11	13.30	13.67	
RS-12	13.57	13.92	
RS-13	-	13.35	
RS-14	7.41	9.28	
RS-15	8.70	9.75	
RS-16	-	9.67	
RS-17	-	7.36	
RS-18	14.25	14.65	
RS-19	-	damaged	
RS-20	-	8.63	
RT-1A	14.69	14.80	
RT-1B	14.63	14.76	
RT-1C	15.10	15.16	
RT-2A	10.2	11.03	
RT-2B	11.5	11.16	
RT-2C	10.5	11.60	
RT-2D	-	1.69	
RT-2E	-	1.30	
RT-2F	-	2.19	
RT-2G	-	3.26	
RT-2H	-	damaged	
RT-2I	3.25	3.26	
RT-2J	2.93	2.94	
RT-2K	-	2.66	
RT-2L	2.35	2.36	
RW-01	11.55	11.55	
RW-02	23.40	23.64	
RW-03	25.90	30.45	
RW-04	30.05	30.45	
RW-05	32.85	33.22	
RW-06	26.90	26.90	
RW-07	23.26	24.40	
RW-08	17.08	17.09	
RW-09	13.85	14.15	
RW-10	15.60	17.92	
RW-11	12.28	12.29	
RW-12	14.05	14.06	
RW-13	16.06	16.90	
RW-14	-	12.54 SHEEN	
RW-15	16.91	17.55	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01	5.40		
MW-01B	8.65		
MW-02	6.80		
MW-02B	8.20		
MW-03	8.43		
MW-04	10.92		
MW-05	16.38		
MW-06	16.78		
MW-07	13.19		
MW-08	12.31		
MW-09	6.99		
MW-10	12.75		
MW-11	30.15	30.57	
MW-12	13.90	13.91	
MW-12B	14.22		
MW-13	22.04		
MW-13B	23.02		
MW-14	16.90		
MW-14B	19.08		
MW-15	13.00		
MW-15B	15.80		
MW-16	13.02	14.82	
MW-17	10.82		
MW-17B	17.78		
MW-18	13.84	16.70	
MW-19	11.61		
MW-20	12.93	14.06	
MW-21	17.08		
MW-22	9.95		
MW-23	10.42		
MW-23B	12.44		
MW-24	4.49		
MW-24B	5.41		
MW-25	8.15		
MW-25B	5.22		
MW-26	5.08		
MW-26B	7.88		
MW-27	26.70		
MW-27B	31.09		
MW-28	22.88		
MW-29	8.32		
MW-30	13.65		
MW-31	19.85		
MW-31B	20.45		
MW-32	11.77		
MW-33	25.69		
MW-33T	27.00		
MW-34	-	proposed	
MW-35	8.82		
MW-36	20.69		

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B	-	20.38	
MW-37	-	3.48	
MW-38	-	1.88	
MW-39	-	5.21	
MW-40	-	2.35	
MW-41	-	3.95	
MW-42	-	4.50	
MW-43	-	proposed	
MW-43B	-	proposed	
MW-44	-	7.78	
MW-44B	-	13.45	
MW-45	-	13.92	
MW-45B	-	16.53	
TW-04R	-	4.20	
TW-05R	-	3.64	
TW-14R	-	3.43	
TW-15R	-	2.58	
TW-21	-	1.89	
TW-28	23.16	23.45	
TW-30	-	21.45	
TW-34	-	22.22	
TW-35	-	22.69	
TW-40	-	28.76	
TW-41	-	27.42	
TW-42	25.65	26.95	
TW-45	27.27	27.85	
TW-46	-	GONE	
TW-55	-	8.82	
TW-59	-	13.90	damaged
TW-60	-	9.45	
TW-64	-	17.87	
TW-65	-	21.95	
TW-66	-	1.78	
TW-67	-	12.65	
TW-68	-	23.54	
TW-69	-	14.15	
TW-70	-	18.44	
TW-73	-	7.25	
TW-76	-	16.50	
TW-81	-	2.06	
TW-82	-	1.95	
TW-83	-	2.61	
TW-84	-	3.36	
TW-85	-	11.95	
TW-86	-	4.46	
TW-87	-	4.82	
TW-90	-	15.62	
TW-94	7.17	7.18	
TW-96	-	9.02	
SW-01	0.99		
SW-02	1.54		
SW-03	1.96		
SW-05	DRY		
SW-08	1.24		
SW-10	0.48		

TANK 4.60 4.92

59? 13.90

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARPES
 Date: 5/17/17
 Weather: SPRINKY, 65°
 Safety Topic: RPE, FIRE ALARMS, TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	14.34	15.09	
RS-02	13.11	13.33	
RS-04	-	9.72	
RS-05	14.13	15.83	
RS-06	14.88	15.38	
RS-07	13.61	13.62	
RS-08	14.01	14.20	
RS-09	14.36	14.82	
RS-10	13.46	13.91	
RS-11	13.20	13.63	
RS-12	13.49	13.93	
RS-13	-	13.53	
RS-14	9.60	9.74	
RS-15	9.07	9.10	
RS-16	9	9.74	
RS-17	-	6.43	
RS-18	14.19	14.67	
RS-19	-	damaged	
RS-20	-	8.93	
RT-1A	14.60	14.67	
RT-1B	14.56	14.62	
RT-1C	14.99	15.05	
RT-2A	-	0.73	
RT-2B	-	0.92	
RT-2C	-	1.38	
RT-2D	-	1.44	
RT-2E	-	1.56	
RT-2F	-	1.92	
RT-2G	-	4.08	
RT-2H	-	damaged	
RT-2I	-	2.91	
RT-2J	-	1.35	
RT-2K	-	2.53	
RT-2L	-	1.90	
RW-01	-	11.59	
RW-02	22.93	23.60	
RW-03	-	23.81	
RW-04	29.90	30.38	
RW-05	32.75	33.07	
RW-06	-	26.39	
RW-07	22.51	23.30	
RW-08	-	15.97	
RW-09	13.47	13.48	
RW-10	15.98	16.89	
RW-11	12.18	12.19	
RW-12	14.11	14.12	
RW-13	16.12	16.62	
RW-14	-	13.89	
RW-15	16.96	17.31	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC TANK LEVELS

Depth to PRODUCT - 4.28
 Depth to WATER - 4.55

Lewis Drive Daily Monitoring Sheet 1
(submit by 5PM)

Name(s): Barnes / Beavers
 Date: May 11, 2017
 Weather: _____
 Safety Topic: _____

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	13.07	13.24	
RS-02	12.10	12.27	
RS-04	9.68	→ 10.0?	
RS-05	11.37	11.67	
RS-06	12.34	12.49	
RS-07	—	13.49	sheen
RS-08	13.96	14.20	
RS-09	10.86	11.10	
RS-10	9.19	9.82	
RS-11	8.93	9.47	
RS-12	9.16	9.93	
RS-13	—	7.01	
RS-14	8.13	8.21	
RS-15	8.0	8.01	
RS-16	—	5.71	
RS-17	—	5.85	
RS-18	11.23	11.65	
RS-19	—	damaged	
RS-20	—	12.40	
RT-1A	14.5	14.59	
RT-1B	14.40	14.49	
RT-1C	14.89	14.94	
RT-2A	—	1.13	sheen
RT-2B	—	1.23	sheen
RT-2C	—	1.46	sheen
RT-2D	—	1.76	sheen
RT-2E	—	1.87	sheen
RT-2F	—	2.23	sheen
RT-2G	—	3.04	sheen
RT-2H	—	damaged	
RT-2I	—	3.16	
RT-2J	1.72	1.78	
RT-2K	—	2.34	sheen
RT-2L	—	2.37	sheen
RW-01	—	11.52	
RW-02	22.41	23.16	
RW-03	—	23.16	
RW-04	29.66	30.13	
RW-05	32.73	33.16	
RW-06	—	26.75	
RW-07	23.14	24.80	
RW-08	16.80	16.81	
RW-09	13.84	14.03	
RW-10	11.24	11.86	
RW-11	12.11	12.12	
RW-12	—	14.00	
RW-13	—	9.3	
RW-14	12.21	12.30	
RW-15	15.73	15.70	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34			proposed
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43			proposed
MW-43B			proposed
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59			damaged
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

Free tank level

3.63 ~~4.95~~ PCB
3.95

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): B. Barnes
 Date: May 15/16 Daily
 Weather: Sunny
 Safety Topic: Sunscreen/hydration

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	12.39	12.75	
RS-02	11.86	12.12	
RS-04	—	9.69	
RS-05	11.66	12.12	
RS-06	12.70	15.10	
RS-07	13.50	13.50	
RS-08	13.90	14.19	
RS-09	10.12	10.34	
RS-10	9.97	10.41	
RS-11	10.27	10.33	
RS-12	10.62	10.69	
RS-13	—	5.67	
RS-14	6.26	6.35	
RS-15	7.20	7.21	
RS-16	—	4.98	
RS-17	—	5.02	
RS-18	10.95	11.15	
RS-19	—	damaged	
RS-20	—	4.12	
RT-1A	14.50	14.61	
RT-1B	14.49	14.65	
RT-1C	14.95	15.01	
RT-2A	—	1.20	Screen
RT-2B	—	1.31	
RT-2C	—	1.78	
RT-2D	—	1.84	
RT-2E	—	1.96	
RT-2F	—	2.29	↓
RT-2G	—	2.99	Screen
RT-2H	—	damaged	
RT-2I	—	3.24	Screen
RT-2J	1.76	1.78	
RT-2K	2.80	2.81	
RT-2L	—	3.24	
RW-01	11.84	11.89	
RW-02	22.29	22.79	
RW-03	23.0	23.02	
RW-04	29.46	29.82	
RW-05	32.76	33.27	
RW-06	26.65	26.66	
RW-07	23.05	24.16	
RW-08	16.57	16.56	
RW-09	13.10	13.22	
RW-10	12.15	12.40	
RW-11	—	12.19	
RW-12	13.93	13.95	
RW-13	—	26.8	sparging intake
RW-14	—	2.10	
RW-15	10.55	15.80	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34			
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

Frac Tank
2.69 3.12

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): JAMES BEVERS (ECS)

Date: 5/18

Weather: OVERCAST 70° F

Safety Topic: _____

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	12.24	12.40	
RS-02	11.77	12.05	
RS-04	—	9.68	
RS-05	11.33	11.61	
RS-06	12.58	12.77	
RS-07	13.52	13.56	
RS-08	13.99	14.19	
RS-09	9.98	10.18	
RS-10	9.46	9.92	
RS-11	9.76	9.79	
RS-12	10.02	10.31	5.45
RS-13	—	—	5.45
RS-14	6.08	6.14	
RS-15	—	7.01	SHEEN
RS-16	—	7.84	
RS-17	—	4.35	
RS-18	10.56	11.01	
RS-19	—	damaged	
RS-20	—	3.93	
RT-1A	14.55	14.61	
RT-1B	14.51	14.56	
RT-1C	14.95	14.99	
RT-2A	—	1.12	
RT-2B	—	1.22	
RT-2C	—	1.66	SHEEN
RT-2D	—	1.73	BUBBLING
RT-2E	—	1.85	
RT-2F	—	2.19	
RT-2G	—	3.17	
RT-2H	—	damaged	
RT-2I	—	3.18	
RT-2J	1.80	1.81	BUBBLING
RT-2K	—	2.45	
RT-2L	—	2.38	
RW-01	—	11.79	ODR
RW-02	22.31	22.61	
RW-03	—	22.81	SHEEN
RW-04	29.33	29.73	
RW-05	32.80	32.96	
RW-06	—	26.88	SHEEN
RW-07	23.73	24.42	
RW-08	—	17.22	
RW-09	14.01	14.12	
RW-10	—	12.66	
RW-11	12.20	12.21	
RW-12	—	13.93	
RW-13	—	10.3	BUBBLING
RW-14	—	12.44	
RW-15	15.49	15.68	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

TANK 2.27 2.67

Name(s): THOMAS FARVES
 Date: 5/22/17
 Weather: CLOUDY 75°
 Safety Topic: PPE, TRAFFIC, PRESSURE

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	12.62	12.92	
RS-02	11.87	12.13	
RS-04	-	8.80	
RS-05	11.80	12.18	
RS-06	12.50	12.71	
RS-07	13.31	13.32	
RS-08	13.89	14.10	
RS-09	9.90	10.15	
RS-10	9.41	9.41	9.42
RS-11	9.60	9.63	
RS-12	9.91	9.95	
RS-13	-	3.95	
RS-14	3.97	4.04	
RS-15	4.90	4.94	
RS-16	-	3.03	
RS-17	-	2.05	
RS-18	9.27	9.65	
RS-19	-	damaged	
RS-20	-	3.25	
RT-1A	14.40	14.45	
RT-1B	14.35	14.40	
RT-1C	14.80	14.85	
RT-2A	-	0.68	
RT-2B	-	0.85	
RT-2C	-	1.30	
RT-2D	-	1.38	
RT-2E	-	1.53	
RT-2F	-	1.84	
RT-2G	-	2.70	
RT-2H	-	2.70	damaged
RT-2I	-	2.66	
RT-2J	1.31	1.32	
RT-2K	1.45	1.47	
RT-2L	-	2.08	
RW-01	-	11.77	
RW-02	22.14	22.43	
RW-03	22.61	22.62	
RW-04	29.12	29.70	
RW-05	32.71	32.94	
RW-06	-	26.81	
RW-07	23.17	23.83	
RW-08	-	17.05	
RW-09	13.65	13.69	
RW-10	-	11.91	
RW-11	-	11.78	
RW-12	-	13.98	
RW-13	-		
RW-14	-	12.05	
RW-15	15.25	15.34	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

*RW-13 SERIOUS PRESSURE
 BUBBLING ALOT, UNABLE
 TO GET READINGS OR
 PUT CAP BACK ON
 A&D PUMPED*

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES
 Date: 5/24/17
 Weather: CLOUDY, SHOWERS 73°
 Safety Topic: PPG, PRESSURE, TRAFFIC

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	11.25	11.53	
RS-02	10.31	10.57	
RS-04	-	9.30	
RS-05	10.41	10.75	
RS-06	11.76	11.94	
RS-07	-	13.16	
RS-08	13.57	13.78	
RS-09	13.15	9.15	9.30
RS-10	8.02	8.03	
RS-11	8.31	8.33	
RS-12	8.62	8.73	
RS-13	-	2.75	
RS-14	3.17	3.26	
RS-15	3.89	3.91	
RS-16	-	2.27	
RS-17	-	1.30	
RS-18	9.48	9.87	
RS-19	-	damaged	
RS-20	-	2.08	
RT-1A	14.17	14.27	
RT-1B	14.12	14.22	
RT-1C	14.57	14.65	
RT-2A	-	0.70	
RT-2B	-	0.78	
RT-2C	-	1.30	
RT-2D	-	1.38	
RT-2E	-	1.48	
RT-2F	-	1.85	
RT-2G	-	2.90	
RT-2H	-	damaged	
RT-2I	-	2.66	
RT-2J	-	1.27	
RT-2K	0.99	1.00	
RT-2L	-	1.92	
RW-01	-	11.76	
RW-02	21.41	21.86	
RW-03	-	22.09	
RW-04	23.95		
RW-05	32.56	32.86	NEEDS NEW LOCK
RW-06	-	26.93	
RW-07	22.39	22.95	
RW-08	-	15.93	
RW-09	13.15	13.17	
RW-10	-	10.83	
RW-11	11.11	11.15	
RW-12	-	13.03	
RW-13	-	~ 6.20 ±	
RW-14	-	12.15	
RW-15	-	14.72	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34			proposed
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43			proposed
MW-43B			proposed
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59			damaged
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

FRAC Tank Levels

DEPTH TO PRODUCT - 3.69
 DEPTH TO WATER - 4.07

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): Britney Barnes
 Date: May 31, 2017
 Weather: Cloudy / 75°F
 Safety Topic: _____

Contractor	# Personnel
CH2M HILL	
STAT	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)	Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)	Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	9.87	10.25		MW-04				TW-04R			
RS-02	10.69	11.05		MW-05				TW-05R			
RS-04	9.67			MW-06				TW-14R			
RS-05	11.65	12.14		MW-07				TW-15R			
RS-06	12.05	12.31		MW-08				TW-21			
RS-07	—	13.0		MW-09				TW-28			
RS-08	13.29	13.57		MW-10				TW-30			
RS-09	9.38	9.67		MW-11				TW-34			
RS-10	11.25	11.73		MW-12				TW-35			
RS-11	12.72	12.73		MW-12B				TW-40			
RS-12	13.03	13.10		MW-13				TW-41			
RS-13	—	5.75		MW-13B				TW-42			
RS-14	4.55	4.65		MW-14				TW-45			
RS-15	5.08	5.10		MW-14B				TW-46			
RS-16	—	3.80		MW-15				TW-55			
RS-17	—	3.25		MW-15B				TW-59			
RS-18	9.95	10.40		MW-16				TW-60			
RS-19	Damaged			MW-17				TW-64			
RS-20	—	4.40		MW-17B				TW-65			
RT-1A	14.03	14.15		MW-18				TW-66			
RT-1B	13.98	14.12		MW-19				TW-67			
RT-1C	14.42	14.55		MW-20				TW-68			
RT-2A	—	0.7 Sheen		MW-21				TW-69			
RT-2B	—	0.9 Sheen/odor		MW-22				TW-70			
RT-2C	—	1.49 Sheen		MW-23				TW-73			
RT-2D	—	1.60 Sheen/odor		MW-23B				TW-76			
RT-2E	—	1.96 Sheen		MW-24				TW-81			
RT-2F	—	2.06 Sheen		MW-24B				TW-82			
RT-2G	—	2.41		MW-25				TW-83			
RT-2H	—	2.45 Damaged		MW-25B				TW-84			
RT-2I	0.48	1.00	2.45	MW-26				TW-85			
RT-2J	0.98	1.00		MW-26B				TW-86			
RT-2K	0.95	0.97		MW-27				TW-87			
RT-2L	2.20	2.20	odor	MW-27B				TW-90			
RW-01	—	13.68	ODOR	MW-28				TW-94			
RW-02	21.6	22.0		MW-29				TW-96			
RW-03	—	24.52		MW-30				SW-01			
RW-04	28.57	28.55		MW-31				SW-02			
RW-05	32.43	32.39		MW-32				SW-03			
RW-06	26.43	26.44		MW-32				SW-08			
RW-07	22.71	23.5		MW-33				SW-10			
RW-08	16.11	16.12		MW-33T							
RW-09	13.40	13.43		MW-35							
RW-10	18.43	19.15		MW-36							
RW-11	11.53	11.67		MW-36B							
RW-12	—	13.31		MW-37							
RW-13	—	23.28		MW-38							
RW-14	—	11.99		MW-39							
RW-15	—	15.24		MW-40							
MW-01				MW-41							
MW-01B				MW-42							
MW-02											
MW-02B											
MW-03											

Corrected to 29.35
- SFP

seep between RT 2C + 2B

FRAC 2.8 3.28

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): JIM BEVERS
 Date: 6/2/2017
 Weather: SUNNY / 80°F
 Safety Topic: _____

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to			Well ID	Depth to			Well ID	Depth to		
	LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)		LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)		LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	11.01	11.24		MW-01				MW-36B			
RS-02	9.99	10.17		MW-01B				MW-37			
RS-04		9.66	Rep Lock	MW-02				MW-38			
RS-05	10.73	11.06		MW-02B				MW-39			
RS-06	10.95	11.03	Rep Lock	MW-03				MW-40			
RS-07		12.91	ODOR	MW-04				MW-41			
RS-08	13.16	13.37	Rep Lock	MW-05				MW-42			
RS-09	11.12	11.33		MW-06				MW-43		proposed	
RS-10	8.91	9.22		MW-07				MW-43B		proposed	
RS-11		8.49		MW-08				MW-44			
RS-12	8.78	8.81		MW-09				MW-44B			
RS-13		7.90		MW-10				MW-45			
RS-14	5.46	5.52		MW-11				MW-45B			
RS-15	5.78	5.80		MW-12				TW-04R			
RS-16		4.23		MW-12B				TW-05R			
RS-17		4.99		MW-13				TW-14R			
RS-18	11.82	12.01		MW-13B				TW-15R			
RS-19		damaged		MW-14				TW-21			
RS-20		5.11		MW-14B				TW-28			
RT-1A	13.88	13.93	Rep Lock	MW-15				TW-30			
RT-1B	13.83	13.88		MW-15B				TW-34			
RT-1C	14.27	14.32		MW-16				TW-35			
RT-2A		0.88	EXCAP DEPOSIT	MW-17				TW-40			
RT-2B		0.90	ODOR	MW-17B				TW-41			
RT-2C		1.43	5.55 IN ODOR	MW-18				TW-42			
RT-2D		1.52	SHADY DEPOSIT	MW-19				TW-45			
RT-2E		1.63	GREEN MILK LOCK-REP	MW-20				TW-46			
RT-2F		1.79	*	MW-21				TW-55			
RT-2G		0.96	Rep Lock	MW-22				TW-59		damaged	
RT-2H		damaged		MW-23				TW-60			
RT-2I		1.97		MW-23B				TW-64			
RT-2J	1.16	1.17		MW-24				TW-65			
RT-2K	0.98	1.00		MW-24B				TW-66			
RT-2L		1.97	ODOR	MW-25				TW-67			
RW-01		11.77		MW-25B				TW-68			
RW-02	21.50	21.73		MW-26				TW-69			
RW-03		22.19	ODOR	MW-26B				TW-70			
+ RW-04	28.52	29.36		MW-27				TW-73			
RW-05	32.92	32.66	Rep Lock	MW-27B				TW-76			
RW-06		26.26		MW-28				TW-81			
+ RW-07	22.38	23.13		MW-29				TW-82			
RW-08		15.48		MW-30				TW-83			
RW-09	12.70	12.71		MW-31				TW-84			
RW-10	10.63	10.64		MW-31B				TW-85			
RW-11	11.49	11.61		MW-32				TW-86			
RW-12		23.29	ODOR	MW-33				TW-87			
RW-13		4.20	AIR BUBBLING	MW-33T				TW-90			
RW-14		7.85	AIR BUBBLING	MW-34			proposed	TW-94			
RW-15		14.15	ODOR	MW-35				TW-96			
				MW-36				SW-01			
								SW-02			
								SW-03			
								SW-05			
								SW-08			
								SW-10			

TANK 2078, 3.24

* LOCK SHOULD BE CUT OFF & REPLACED
 Prepared by Powell, Scott/ATL 6/2/2017

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): THOMAS BARNES

Date: 6/14/17

Weather: PERIODS OF RAIN, 80°

Safety Topic: TRAFFIC, PPE, FIREARMS/POISON IVY

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

*Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01			
RS-02			
RS-04			
RS-05			
RS-06			
RS-07			
RS-08			
RS-09			
RS-10			
RS-11			
RS-12			
RS-13			
RS-14			
RS-15			
RS-16			
RS-17			
RS-18			
RS-19		damaged	
RS-20			
RT-1A			
RT-1B			
RT-1C			
RT-2A			
RT-2B			
RT-2C			
RT-2D			
RT-2E			
RT-2F			
RT-2G			
RT-2H		damaged	
RT-2I			
RT-2J			
RT-2K			
RT-2L			
RW-01			
RW-02			
RW-03			
RW-04			
RW-05			
RW-06			
RW-07			
RW-08			
RW-09			
RW-10			
RW-11			
RW-12			
RW-13			
RW-14			
RW-15			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01	- 6.22		
MW-01B	- 7.90		
MW-02	- 2.44		
MW-02B	- 2.31		
MW-03	BUBBLING OUT OF TOP		
MW-04	- 7.90		
MW-05	- 14.90		
MW-06	- 15.55		
MW-07	- 12.68		
MW-08	- 8.90		
MW-09	- 2.66		
MW-10	- 9.33		
MW-11	28.72	28.73	
MW-12	- 13.70		
MW-12B	- 14.03		
MW-13	- 21.20		
MW-13B	- 21.58		
MW-14	- 16.52		
MW-14B	- 18.13		
MW-15	- 13.68		
MW-15B	- 15.56		
MW-16	9.26	9.30	
MW-17	- 10.82		
MW-17B	- 16.55		
MW-18	10.57	11.99	
MW-19	- 10.85		
MW-20	12.08	13.29	
MW-21	- 16.61		
MW-22	- 9.66		
MW-23	- 10.01		
MW-23B	- 11.93		
MW-24	- 4.49		
MW-24B	- 5.44		
MW-25	- 8.05		
MW-25B	- 5.01		
MW-26	- 5.14		
MW-26B	- 7.25		
MW-27	- 25.86		
MW-27B	- 30.39		
MW-28	- 22.52		
MW-29	- 7.71		
MW-30	- 11.79		
MW-31	- 17.75		
MW-31B	- 18.45		
MW-32	- 7.30		
MW-33	- 24.21		
MW-33T	- 25.75		
MW-34		proposed	
MW-35	- 7.93		
MW-36	- 19.80		

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B	- 19.48		
MW-37			
MW-38			
MW-39	- 4.85		
MW-40	- 3.13		
MW-41	- 4.00		
MW-42	- 4.57		
MW-43		proposed	
MW-43B		proposed	
MW-44	- 7.28		
MW-44B	- 12.54		
MW-45	- 13.48		
MW-45B	- 15.75		
TW-04R	- 4.01		
TW-05R	- 5.70		
TW-14R	- 4.53		
TW-15R	- 2.91		
TW-21	- 2.65		
TW-28	21.59	22.35	
TW-30	- 20.40		
TW-34	- 22.25		
TW-35	- 22.71		
TW-40	- 28.46		
TW-41	- 26.70		
TW-42	25.14	26.30	
TW-45	26.85	27.20	
TW-46			GONE
TW-55			4.95
TW-59	- 13.71	damaged	
TW-60	- 9.46		
TW-64	- 15.55		
TW-65	- 20.35		
TW-66	- 1.75		
TW-67	- 12.47		
TW-68	- 22.41		
TW-69	- 12.66		
TW-70	- 17.69		
TW-73	- 6.18		BUBBLING DIRT
TW-76	- 14.76		
TW-81	- 2.75		
TW-82	- 2.50		
TW-83	- 3.25		
TW-84	3.74	3.75	
TW-85	- 8.61		
TW-86	- 4.94		
TW-87	- 4.95		
TW-90	- 11.27		
TW-94	- 1.70		BUBBLING
TW-96	- 5.35		
SW-01	0.98		
SW-02	1.57		
SW-03	1.74		
SW-05	DRY		
SW-08			
SW-10			

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): JIM BEVERS
 Date: 6/5/2017
 Weather: Cloudy 70°F
 Safety Topic: _____

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	10.57	10.81	
RS-02	10.06	10.30	
RS-04	—	9.67	
RS-05	10.30	10.62	
RS-06	11.17	11.35	
RS-07	—	12.81	
RS-08	13.78	13.34	
RS-09	9.30	9.48	
RS-10	9.73	10.06	
RS-11	—	8.86	
RS-12	9.18	9.21	
RS-13	—	6.78	
RS-14	5.13	5.20	
RS-15	5.60	5.62	
RS-16	—	4.24	
RS-17	—	3.75	
RS-18	9.77	9.94	
RS-19	—	damaged	
RS-20	—	7.34	
RT-1A	13.80	13.82	
RT-1B	13.76	13.79	
RT-1C	14.19	14.21	
RT-2A	—	1.00	
RT-2B	—	1.11	odor
RT-2C	—	1.56	odor
RT-2D	—	1.65	** odor
RT-2E	—	1.76	
RT-2F	—	2.08	odor
RT-2G	—	2.81	
RT-2H	—	damaged	
RT-2I	—	2.97	
RT-2J	1.50	1.51	SHEEN
RT-2K	0.85	0.87	*
RT-2L	—	2.10	
RW-01	—	11.72	odor
RW-02	21.38	21.60	
RW-03	—	22.05	
RW-04	28.34	29.27	
RW-05	32.22	32.45	
RW-06	—	26.34	odor
RW-07	22.80	23.44	
RW-08	—	16.51	odor
RW-09	—	13.51	odor
RW-10	12.07	12.08	
RW-11	11.43	11.67	
RW-12	—	13.28	odor
RW-13	—	7.25	BUBBLING
RW-14	—	12.03	
RW-15	—	14.23	odor

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34			proposed
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37	—	3.46	
MW-38	—	1.86	
MW-39			
MW-40			
MW-41			
MW-42			
MW-43			proposed
MW-43B			proposed
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59			damaged
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

TANK 1.92 2.32

* OVERLAND PETROLEUM
 SHEEN - DOWN GRADIENT
 ** OVERLAND PETROLEUM
 SHEEN - UP GRADIENT

FAST FIELD BOBANNES
 1235
 ECS greenville 14

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): Barney Burdes
 Date: 6/9/17
 Weather: SUNNY 80°
 Safety Topic: PPG / TWT

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	10.52	10.81	
RS-02	9.74	10.0	
RS-04	—	9.68	
RS-05	10.51	10.95	
RS-06	11.16	11.38	
RS-07	12.75	12.76	
RS-08	13.03	13.25	
RS-09	4.58	9.90	
RS-10	9.05	9.40	
RS-11	—	9.19	
RS-12	4.51	9.53	
RS-13	4.32	5.13	
RS-14	—	4.40	
RS-15	5.09	5.12	
RS-16	—	3.50	
RS-17	—	1.26	
RS-18	9.98	10.04	
RS-19	—	damaged	
RS-20	—	4.12	
RT-1A	13.74	13.86	
RT-1B	13.69	13.81	
RT-1C	14.14	14.25	
RT-2A	—	0.48	
RT-2B	—	0.5	odor
RT-2C	—	1.46	5 odor
RT-2D	—	1.40	1.57
RT-2E	—	1.43	odor / sheen
RT-2F	—	1.92	odor / sheen
RT-2G	—	0.98	odor / sheen
RT-2H	—	damaged	
RT-2I	—	2.13	odor
RT-2J	—	0.50	
RT-2K	—	2.39	
RT-2L	2.15	2.21	
RW-01	—	12.83	odor
RW-02	21.26	21.48	
RW-03	—	22.3	strong odor
RW-04	28.32	28.99	
RW-05	32.33	32.71	
RW-06	—	26.28	
RW-07	22.42	22.92	
RW-08	—	15.48	
RW-09	12.7	12.71	
RW-10	12.47	12.53	
RW-11	11.16	11.45	
RW-12	—	12.20	strong odor
RW-13	—	14.18	sparging
RW-14	—	9.12	
RW-15	—	12.13	

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34			proposed
MW-35			
MW-36			

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43			proposed
MW-43B			proposed
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59			damaged
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			1.07
SW-10			0.30

Frac 3.65 3.81

Lewis Drive Daily Monitoring Sheet 1

(submit by 5PM)

Name(s): Britney Barnes
 Date: June 12, 2017
 Weather: 80°F Sunny
 Safety Topic: PPG, TRAFFIC, HYDRATION

Contractor	# Personnel
CH2M HILL	
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	10.68	11.05	
RS-02	9.96	10.30	
RS-04	—	9.67	ODOR
RS-05	10.94	11.22	ODOR DATA!
RS-06	11.20	11.39	
RS-07	12.71	12.75	
RS-08	13.10	13.28	
RS-09	9.81	10.51	
RS-10	9.41	9.73	
RS-11	—	9.36	
RS-12	9.68	9.72	
RS-13	—	6.75	
RS-14	7.10	5.20	
RS-15	5.67	5.70	
RS-16	—	4.25	
RS-17	—	3.69	
RS-18	10.30	10.51	
RS-19	—	damaged	
RS-20	—	4.78	
RT-1A	13.86	13.95	
RT-1B	13.82	13.92	
RT-1C	14.27	14.36	
RT-2A	—	0.7	
RT-2B	—	1.11	
RT-2C	—	1.57	ODOR
RT-2D	—	1.502	ODOR
RT-2E	—	1.72	ODOR
RT-2F	—	2.04	sheen
RT-2G	—	2.28	sheen
RT-2H	—	damaged	
RT-2I	—	2.72	
RT-2J	—	1.26	
RT-2K	1.21	1.25	
RT-2L	2.28	2.31	
RW-01	—	12.81	
RW-02	21.28	21.50	
RW-03	—	21.98	ODOR
RW-04	28.28	28.70	
RW-05	32.24	32.65	
RW-06	—	26.31	
RW-07	22.66	23.10	
RW-08	—	15.96	ODOR
RW-09	—	15.17	
RW-10	12.71	12.85	
RW-11	11.20	11.49	
RW-12	—	13.24	
RW-13	—	—	Well Not gauged
RW-14	—	12.68	ODOR
RW-15	—	14.11	ODOR

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-01B			
MW-02			
MW-02B			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-12B			
MW-13			
MW-13B			
MW-14			
MW-14B			
MW-15			
MW-15B			
MW-16			
MW-17			
MW-17B			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-23B			
MW-24			
MW-24B			
MW-25			
MW-25B			
MW-26			
MW-26B			
MW-27			
MW-27B			
MW-28			
MW-29			
MW-30			
MW-31			
MW-31B			
MW-32			
MW-33			
MW-33T			
MW-34		proposed	
MW-35			
MW-36			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-36B			
MW-37			
MW-38			
MW-39			
MW-40			
MW-41			
MW-42			
MW-43		proposed	
MW-43B		proposed	
MW-44			
MW-44B			
MW-45			
MW-45B			
TW-04R			
TW-05R			
TW-14R			
TW-15R			
TW-21			
TW-28			
TW-30			
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46			
TW-55			
TW-59		damaged	
TW-60			
TW-64			
TW-65			
TW-66			
TW-67			
TW-68			
TW-69			
TW-70			
TW-73			
TW-76			
TW-81			
TW-82			
TW-83			
TW-84			
TW-85			
TW-86			
TW-87			
TW-90			
TW-94			
TW-96			
SW-01			
SW-02			
SW-03			
SW-05			
SW-08			
SW-10			

Frac tank 3.09 3.21

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	06/15/2017	10:58	10.86	11.29		
RS-02	06/15/2017	12:26	10.25	10.64		
RS-04	06/15/2017	12:28		9.67		
RS-05	06/15/2017	12:28	10.82	11.2		
RS-06	06/15/2017	12:29	11.27	11.51		
RS-07	06/15/2017	12:29	12.7	12.71		
RS-08	06/15/2017	12:30	13.07	13.25		
RS-09	06/15/2017	12:31	10.08	10.32		
RS-10	06/15/2017	12:31	9.6	9.97		
RS-11	06/15/2017	12:31		9.47		
RS-12	06/15/2017	12:32	9.77	9.81		
RS-13	06/15/2017	12:32		7.84		
RS-14	06/15/2017	12:32	5.72	5.81		
RS-15	06/15/2017	12:33	6.06	6.08		
RS-16	06/15/2017	12:33		4.87		
RS-17	06/15/2017	12:33		4.27		
RS-18	06/15/2017	12:34	10.52	10.75		
RS-20	06/15/2017	12:34		5.21		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-2A	06/15/2017	10:59		1.09		
RT-2L	06/15/2017	10:59	2.42	2.49		
RT-1A	06/15/2017	12:42	13.65	13.69		
RT-1B	06/15/2017	12:42	13.61	13.65		
RT-1C	06/15/2017	12:43	14.03	14.08		
RT-2B	06/15/2017	12:43		1.17		
RT-2C	06/15/2017	12:43		1.66		
RT-2D	06/15/2017	12:44		1.71		
RT-2E	06/15/2017	12:44		1.81		
RT-2F	06/15/2017	12:44		2.17		
RT-2G	06/15/2017	12:44		2.91		
RT-2I	06/15/2017	12:45		3.01		
RT-2J	06/15/2017	12:45	2.51	2.52		
RT-2K	06/15/2017	12:45		2.59		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	06/15/2017	12:35		12.04		
RW-02	06/15/2017	12:35	21.37	21.67		
RW-03	06/15/2017	12:36		22		
RW-04	06/15/2017	12:36	28.28	28.62		
RW-05	06/15/2017	12:37	32.13	32.59		
RW-06	06/15/2017	12:37		26.37		
RW-07	06/15/2017	12:38	22.92	23.6		
RW-08	06/15/2017	12:38		16.77		
RW-09	06/15/2017	12:38	16.62	16.63		
RW-10	06/15/2017	12:39	12.78	12.99		
RW-11	06/15/2017	12:39	11.4	11.77		
RW-12	06/15/2017	12:39		13.19		
RW-13	06/15/2017	12:39				Sparging
RW-14	06/15/2017	12:40		11.95		
RW-15	06/15/2017	12:40	14.16	14.17		Storage Tank - Product 2.41 / DTW 2.60

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	06/19/2017	15:18	11	11.49		
RS-02	06/19/2017	15:19	10.5	10.95		
RS-04	06/19/2017	15:19		9.7		
RS-05	06/19/2017	15:20	10.58	10.99		
RS-06	06/19/2017	15:20	11.18	11.41		
RS-07	06/19/2017	15:20	12.73	12.76		
RS-08	06/19/2017	15:21	13.1	13.35		
RS-09	06/19/2017	15:21	10.04	10.22		
RS-10	06/19/2017	15:22	9.3	9.57		
RS-11	06/19/2017	15:22		9.07		
RS-12	06/19/2017	15:22	9.38	9.4		
RT-2J	06/19/2017	15:23		8.1		
RS-14	06/19/2017	15:23	6.2	6.28		
RS-15	06/19/2017	15:23	6.38	6.4		
RS-16	06/19/2017	15:24		5.38		
RS-17	06/19/2017	15:24		4.85		
RS-18	06/19/2017	15:24	10.55	10.75		
RS-20	06/19/2017	15:25		5.39		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	06/19/2017	15:32	13.76	13.88		
RT-1B	06/19/2017	15:33	13.71	13.83		
RT-1C	06/19/2017	15:33	14.18	14.28		
RT-2A	06/19/2017	15:33		1.04		
RT-2B	06/19/2017	15:33		1.12		Odor
RT-2C	06/19/2017	15:34		1.59		Odor
RT-2D	06/19/2017	15:34		1.7		Odor
RT-2E	06/19/2017	15:34		1.79		
RT-2F	06/19/2017	15:34		2.11		
RT-2G	06/19/2017	15:35		2.26		
RT-2I	06/19/2017	15:35		2.67		
RT-2J	06/19/2017	15:35		1.5		Odor
RT-2K	06/19/2017	15:35		2.34		
RT-2L	06/19/2017	15:36	2.32	2.33		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	06/19/2017	15:26		12.56		
RW-02	06/19/2017	15:26	21.47	21.81		
RW-03	06/19/2017	15:26		22.1		Odor
RW-04	06/19/2017	15:27	28.21	28.64		
RW-05	06/19/2017	15:27	32.17	32.75		
RW-06	06/19/2017	15:27		26.3		Odor
RW-07	06/19/2017	15:28	22.76	23.32		
RW-08	06/19/2017	15:28	16.24	16.25		
RW-10	06/19/2017	15:28	12.39	12.72		
RW-11	06/19/2017	15:29	11.16	11.47		
RW-12	06/19/2017	15:29		13.35		Odor
RT-2J	06/19/2017	15:29				
RW-09	06/19/2017	15:30	13.51	13.52		
RW-13	06/19/2017	15:30				No level measured Lock would not open need bolt cutters and to put on new lock
RW-14	06/19/2017	15:30				
RW-15	06/19/2017	15:31	14.1	14.11		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	06/22/2017	11:50	11.75	11.85		
RS-02	06/22/2017	11:51	10.22	10.46		
RS-04,RS-19	06/22/2017	11:51		9.68		Odor
RS-05	06/22/2017	11:52	10.67	11.07		
RS-06	06/22/2017	11:52	11.26	11.45		
RS-07	06/22/2017	11:53		12.62		Odor
RS-08	06/22/2017	11:53	12.95	13.15		
RS-09	06/22/2017	11:53	9.67	9.89		
RS-10	06/22/2017	11:54	9.22	9.48		
RS-11	06/22/2017	11:54		9.01		Odor
RS-12	06/22/2017	11:55	9.33	9.34		
RS-13	06/22/2017	11:55		5.55		
RS-14	06/22/2017	11:55	4.47	4.53		
RS-15	06/22/2017	11:56	6.31	6.33		
RS-16	06/22/2017	11:56		3.61		
RS-17	06/22/2017	11:56		2.83		
RS-18	06/22/2017	11:56	9.52	9.72		
RS-20	06/22/2017	11:57		4.59		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-2A	06/22/2017	11:34		0.8		
RT-2B	06/22/2017	11:40		0.88		
RT-2C	06/22/2017	11:40	1.39	1.4		
RT-2D	06/22/2017	11:41		1.46		Odor
RT-2E	06/22/2017	11:42		1.58		
RT-2F	06/22/2017	11:43		1.9		
RT-2G	06/22/2017	11:44		2.79		
RT-2I	06/22/2017	11:46		2.95		
RT-2J	06/22/2017	11:46		1.52		
RT-2K	06/22/2017	11:46		3.07		
RT-2L	06/22/2017	11:46	2.81	2.86		
RT-1A	06/22/2017	11:47	13.49	13.52		
RT-1B	06/22/2017	11:48	13.46	13.48		
RT-1C	06/22/2017	11:48	13.88	13.91		

RWWells	Date	Time	Depth to Product		Total Depth		RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	(ft btoc)	
RW-01	06/22/2017	11:58		12.17			Odor, pressure on cap
RW-02	06/22/2017	11:58	21.34	21.62			
RW-03	06/22/2017	11:59		22.01			Odor
RW-04	06/22/2017	11:59	28.23	28.71			
RW-05	06/22/2017	11:59	32.11	32.72			
RW-06	06/22/2017	11:59	26.48	26.49			
RW-07	06/22/2017	12:00	22.92	23.44			
RW-08	06/22/2017	12:00	16.89	16.9			
RW-09	06/22/2017	12:01	13.52	13.54			
RW-10	06/22/2017	12:01	11.99	12.75			Cracked well cap
RW-11	06/22/2017	12:01	11.62	11.79			
RW-12	06/22/2017	12:02		13.15			Odor No measurement, air sparging
RW-13	06/22/2017	12:02					
RW-14	06/22/2017	12:02		9.32			
RW-15	06/22/2017	12:03		14	14.01		

Table 2 - Gauging List

SM: Tom Wiley
 PN: 684910.LD.MR.GW
 Project: June 2017 Quarterly Event
 Technicians: S. McCann, M. Warren, M. Sumner
 Client: Plantation Pipe Line
 Weather: sunny 80/84°F
 Measuring Method: oil/water interface probe, YSI 6000
 Date: 6/26/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	DO (mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creel Protection Zone								
MW-12	1650	709.4	—	13.29	21.67	—	0.50	has TROLL
MW-12B	1648	4.2	—	13.63	45.24	—	0.70	
MW-15	1546	19.7	—	11.09	21.22	—	1.45	has TROLL covered in mud
MW-15B	1537	47.3	—	5.78	80.40	—	0.66	
MW-24	1913	0.0	—	4.51	15.29	—	—	
MW-24B	1912	0.2	—	5.41	42.43	—	—	
MW-25	1629	0.8	—	7.81	18.06	—	0.38	
MW-25B	1626	0.0	—	4.85	58.49	—	1.13	
MW-28	1640	138.3	—	22.63	26.62	—	0.50	
MW-34	1556	0.0	—	2.43	7.79	—	—	
MW-35	1636	3.5	—	4.68	28.51	—	—	
MW-37	1921	3.2	—	3.42	18.06	—	—	
MW-38	1919	0.0	—	1.80	11.46	—	—	
MW-39	1600	13.8	—	4.13	12.03	—	—	
MW-40	1606	58.6	—	2.03	13.17	—	—	
MW-41	1622	1.1	—	3.79	13.15	—	—	
MW-42	1624	0.0	—	4.46	13.36	—	—	
TW-59	1644	0.0	—	13.47	15.82	—	—	had bentonite seal
TW-60	1612	—	—	—	—	—	—	bolt jammed, could not open
TW-66	1618	0.0	—	>1.0	23.80	—	4.57	
Cupboard Creek Protection Zone								
MW-19	1220	795.5	—	10.5	12.11	—	0.15	low flow
MW-20	1224	1340	11.42	12.95	18.35	1.33	—	has TROLL
MW-23	1355	0.0	—	9.72	23.19	—	—	
MW-23B	1350	0.0	—	7.23	41.04	—	—	
MW-26	1348	50.3	—	4.93	15.26	—	—	
MW-26B	1357	0.4	—	11.50	53.51	—	—	
MW-29	1209	0.0	—	15.84	15.04	—	5.80	

SM: Tom Wiley
 PN: 684910.LD MR GW

Weather: Sunny 30/84°F

Project: June 2017 Quarterly Event Measuring Method: oil/water interface probe YSE 0-100

Technicians: J. McCann, M. Sumner
M. Waldron
 Client: Plantation Pipe Line

Date: 6/16/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	DO (mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
TW-67	1420	6.5	-	11.76	21.46	-	18.86	
TW-73	1215	0.0	-	11.32	11.32	-	2.37	dry (0.4) = DTH
Hayfield Zone								
MW-02	1811	398.5	-	1.82	14.77	-	5.30	has TROLL
MW-02B	1806	2.1	-	2.71	68.35	-	3.74	
MW-03	1819	6.5	-	8.15	20.23	-	10.25	under pressure
MW-04	1833	0.0	-	8.21	19.56	-	10.51	
MW-05	1840	0.0	-	14.52	19.72	-	-	water in vault
MW-06	1848	0.0	-	14.85	15.12	-	-	dry
MW-07	1853	242.0	-	12.73	13.57	-	-	low flow
MW-08	1739	0.0	-	8.25	19.78	-	7.12	has TROLL
MW-09	1745	153.1	-	2.30	20.21	-	3.72	
MW-10	1758	0.0	-	9.60	23.21	-	5.95	has BaroTROLL
MW-13	1712	131.4	-	20.78	22.15	-	-	low flow
MW-13B	1710	16.7	-	21.30	85.44	-	-	
MW-14	1718	0.0	-	16.51	22.16	-	-	
MW-14B	1716	0.6	-	17.85	79.35	-	-	
MW-16	1856	234.0	-	8.71	20.58	-	8.46	
MW-17	1432	100.5	-	10.82	11.18	-	-	dry
MW-17B	1430	163.1	-	16.96	27.32	-	-	
MW-18	1903	1134	9.65	11.04	20.11	1.39	-	
MW-21	1413	2.0	-	16.14	20.71	-	-	
MW-30	1826	276.3	-	12.06	14.51	-	7.56	low flow
MW-31	1727	0.0	-	17.75	28.03	-	-	
MW-31B	1725	0.6	-	18.32	79.21	-	-	
MW-32	1852	0.0	-	7.56	28.93	-	-	
MW-33	1733	0.0	-	23.26	23.23	-	-	
MW-33T	1731	0.5	-	25.49	48.79	-	-	
MW-36	1103	2.7	-	19.19	23.66	-	-	gauged 6/20/17
MW-36B	1109	0.2	-	18.90	46.46	-	-	gauged 6/29/17

SM: Tom Wiley
 PN: 684910.LD.MR.GW

Weather: Sunny, 80/84°F

Project: June 2017 Quarterly Event

Measuring Method: oil/water interface probe YSI 6000

Technicians:

J. McCann, M. Sumner,
M. Warren

Date: 6/26/17

Client: Plantation Pipe Line

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Product Thickness (ft)	DO (mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-45	1406	0.2	—	13.38	14.41	—	—	low flow
MW-45B	1403	0.0	—	15.35	40.30	—	—	
TW-55	1751	21.5	—	5.04	30.78	—	8.10	
TW-96								ant hill on top, could not gauge
Shallow Bedrock Zone								
MW-01	1506	0.0	—	5.104	15.62	—	12.02	has BaroTROLL
MW-01B	1504	1.7	—	7.92	42.21	—	0.102	
MW-11	SM			7.26	9.75	—		
MW-22	1440	910.8	—	7.44	10.32	—	0.61	low flow
MW-27	1450	0.2	—	7.26	9.75	—	—	low flow, MW-44
MW-27B	1454	0.0	—	12.45	35.51	—	—	MW-44B
MW-44	1522	10.2	—	25.61	29.58	—	—	MW-27
MW-44B	1517	0.3	—	29.95	50.29	—	—	MW-27B
MW-11	1528	210.8	—	28.26	32.02	—	0.32	

BTOC - below top of casing

ft - feet

PN - Project Number

ppm - parts per million

SM - Site Manager

- wells historically found to have product

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	06/29/2017	12:58	10.19	10.3		
RS-02	06/29/2017	12:58	9.47	9.74		
RS-04	06/29/2017	12:59		9.68		Odor
RS-05	06/29/2017	12:59	10.02	10.42		
RS-06	06/29/2017	13:00	10.59	10.65		
RS-07	06/29/2017	13:00		12.55		Odor
RS-08	06/29/2017	13:00	12.81	12.99		
RS-09	06/29/2017	13:01	9.07	9.39		
RS-10	06/29/2017	13:01	8.6	8.87		
RS-11	06/29/2017	13:01		8.45		
RS-12	06/29/2017	13:02	8.77	8.8		
RS-13	06/29/2017	13:02		6.08		
RS-14	06/29/2017	13:02	4.79	4.87		
RS-15	06/29/2017	13:02	5.32	5.35		
RS-16	06/29/2017	13:03		4		
RS-17	06/29/2017	13:03		3.45		
RS-18	06/29/2017	13:03	9.6	9.77		
RS-20	06/29/2017	13:03		4.43		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	06/29/2017	13:04	13.69	13.75		
RT-1B	06/29/2017	13:04	13.65	13.7		
RT-1C	06/29/2017	13:05	14.08	14.14		
						Sheen on surface water and ground in vicinity
RT-2A	06/29/2017	13:05		0.95		
RT-2B	06/29/2017	13:06		1.02		
RT-2C	06/29/2017	13:06		1.48		Sheen
RT-2D	06/29/2017	13:07		1.57		Odor
RT-2E	06/29/2017	13:07		1.68		Sheen
RT-2F	06/29/2017	13:07		2.01		
RT-2G	06/29/2017	13:08		1.7		
RT-2I	06/29/2017	13:12		1.78		
RT-2J	06/29/2017	13:12	1.39	1.4		
RT-2K	06/29/2017	13:13		2.65		Odor
RT-2L	06/29/2017	13:13	2.17	2.23		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	06/29/2017	13:13		12.27		Odor
RW-02	06/29/2017	13:14	21.03	21.26		
RW-03	06/29/2017	13:14		21.72		Odor
RW-04	06/29/2017	13:14	28.05	28.56		
RW-05	06/29/2017	13:15	31.93	32.73		
RW-06	06/29/2017	13:15	26.19	26.2		
RW-07	06/29/2017	13:15	22.85	23.09		
RW-08	06/29/2017	13:15	16.42	16.43		
RW-09	06/29/2017	13:16	13.53	13.54		
						Could not put expansion cap on, expansion cap cracked
RW-10	06/29/2017	13:16	11.65	11.73		
RW-11	06/29/2017	13:16	11.52	11.63		
RW-12	06/29/2017	13:16		13.19		Odor
						Air sparging, could not obtain measurement
RW-13	06/29/2017	13:17				
RW-14	06/29/2017	13:17		11.94		Odor
						Odor
						Tank - Product: 1.21, Water: 1.38
RW-15	06/29/2017	13:17		13.57		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	07/06/2017	11:26		6.42		
MW-01B	07/02/2017	11:26		8.05		
MW-02	07/02/2017	11:26		3.21		
MW-02B	07/02/2017	11:27		4.04		
MW-03	07/02/2017	11:27		9.2		Estimate - air sparging
MW-04	07/02/2017	11:28		8.57		
MW-05	07/02/2017	11:28		14.5		
MW-06	07/02/2017	11:29		14.7		
MW-07	07/02/2017	11:29		12.75		
MW-08	07/02/2017	11:29		9.68		
MW-09	07/02/2017	11:29		3.35		
MW-10	07/02/2017	11:30		10.48		
MW-11	07/02/2017	11:30		28.2		
MW-12	07/02/2017	11:30		13.65		
MW-12B	07/02/2017	11:31		14.02		
MW-13	07/02/2017	11:31		20.73		
MW-13B	07/02/2017	11:31		21.25		
MW-14	07/02/2017	11:31		16.57		
MW-14B	07/02/2017	11:32		17.87		
MW-15	07/02/2017	11:32		13.01		
MW-15B	07/02/2017	11:32		15.64		
MW-16	07/02/2017	11:33		9.05		
MW-17	07/02/2017	11:33		10.82		
MW-17B	07/02/2017	11:33		16.85		
MW-18	07/02/2017	11:34	10.5	11.7		
MW-19	07/02/2017	11:34		10.68		
MW-20	07/02/2017	11:35	11.63	12.9		
MW-21	07/02/2017	11:35		16.16		
MW-22	07/02/2017	11:35		9.65		
MW-23	07/02/2017	11:36		9.85		
MW-23B	07/02/2017	11:36		11.8		
MW-24	07/02/2017	11:36		4.47		
MW-24B	07/02/2017	11:36		5.43		
MW-25	07/02/2017	11:37		8.05		
MW-25B	07/02/2017	11:37		4.88		
MW-26	07/02/2017	11:37		5.15		
MW-26B	07/06/2017	11:38		7.28		
MW-27	07/02/2017	11:38		25.6		
MW-27B	07/02/2017	11:38		29.95		
MW-28	07/02/2017	11:38		22.45		
MW-29	07/02/2017	11:39		8.02		
MW-30	07/02/2017	11:39		12.52		
MW-31	07/02/2017	11:39		18.11		
MW-31B	07/02/2017	11:40		18.36		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-32	07/02/2017	11:40		8.98		
MW-33	07/02/2017	11:40		23.9		
MW-33T	07/02/2017	11:41		25.55		
MW-35	07/02/2017	11:41		7.9		
MW-36	07/02/2017	11:41		19.09		
MW-36B	07/02/2017	11:41		18.77		
MW-37	07/02/2017	11:42		3.49		
MW-38	07/02/2017	11:42		1.83		
MW-39	07/02/2017	11:42		5.57		
MW-40	07/02/2017	11:42		2.95		
MW-41	07/02/2017	11:43		3.98		
MW-42	07/02/2017	11:43		4.53		
MW-44	07/02/2018			7.8		
MW-44B	07/02/2018			12.62		
MW-45	07/02/2018			13.4		
MW-45B	07/02/2018			15.41		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	07/02/2017	12:24	0.99	
SW-02	07/02/2017	12:25	1.67	
SW-03	07/02/2017	12:25	1.92	
SW-08	07/02/2017	12:25	1.05	
SW-10	07/02/2017	12:25	0.36	

TW Wells	Date	Time	DTW (ft btoc)	Depth to Product (ft btoc)	Total Depth (ft btoc)	TW Well Comment
TW-04R	07/02/2017	12:09	3.95			
TW-05R	07/02/2017	12:09	4.55			
TW-14R	07/02/2017	12:09	3.76			
TW-15R	07/02/2017	12:10	3.1			
TW-21	07/02/2017	12:10	2.67			
TW-28	07/02/2017	12:10	21.31	21.58		
TW-30	07/02/2017	12:10	20.15			
TW-34	07/02/2017	12:13	22.23			
TW-35	07/02/2017	12:13	22.75			
TW-40	07/02/2017	12:14	28.4			
TW-41	07/02/2017	12:14	26.51			
TW-42	07/02/2017	12:15	26.22	24.95		
TW-45	07/02/2017	12:16	26.98	26.7		
TW-55	07/02/2017	12:16	6.02			
TW-59	07/02/2017	12:17	13.68			
TW-60	07/02/2017	12:17	9.38			
TW-64	07/02/2017	12:17	15.65			
TW-65	07/02/2017	12:18	20.14			
TW-66	07/02/2017	12:18	1.78			
TW-67	07/02/2017	12:18	11.95			Estimate - air sparging
TW-68	07/02/2017	12:19	22.09			
TW-69	07/02/2017	12:19	12.95			Poisonous ivy
TW-70	07/02/2017	12:20	17.75			
TW-73	07/02/2017	12:20	7.41			
TW-76	07/02/2017	12:20	13.81			
TW-81	07/02/2017	12:21	2.67			
TW-82	07/02/2017	12:21	2.65			
TW-83	07/06/2017	12:21	3.45			
TW-84	07/06/2017	12:22	4.06			
TW-85	07/06/2017	12:22	9.51			
TW-86	07/02/2017	12:22	5.35			
TW-87	07/02/2017	12:22	5.26			
TW-90	07/02/2017	12:23	11.42			
TW-94	07/02/2017	12:23	1.8			Estimate - Air sparging
TW-96	07/02/2017	12:24	5.83			

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/03/2017	11:50		12.44		Odor
RS-02	07/03/2017	11:51	10.6	10.8		
RS-04	07/03/2017	11:51		10.68		
RS-05	07/03/2017	11:51	10.23	10.6		
RS-06	07/03/2017	11:52	10.61	10.78		
RS-07	07/03/2017	11:52	12.54	12.55		
RS-08	07/03/2017	11:53	12.78	12.94		
RS-09	07/03/2017	11:53	9.26	9.49		
RS-10	07/03/2017	11:53	8.83	9.08		
RS-11	07/03/2017	11:54		8.71		
RS-12	07/03/2017	11:54	9.03	9.05		
RS-13	07/03/2017	11:54		6.96		
RS-14	07/03/2017	11:54	5.02	5.09		
RS-15	07/03/2017	11:55	5.49	5.51		
RS-16	07/03/2017	11:55		4.17		
RS-17	07/03/2017	11:55		3.46		
RS-18	07/03/2017	11:56	9.78	9.99		
RS-20	07/03/2017	11:56		4.61		

RT Wells	Date	Time	Depth to Product		Total Depth		RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)		
RT-1A	07/03/2017	11:57	13.34	13.36			
RT-1B	07/03/2017	11:57	13.29	13.33			
RT-1C	07/03/2017	11:57	13.73	13.77			
RT-2A	07/03/2017	11:57		0.8			
RT-2B	07/03/2017	11:58		0.96			
RT-2C	07/03/2017	11:58		1.41			Sheen, odor
RT-2D	07/03/2017	11:58		1.5			Sheen, odor
RT-2E	07/03/2017	11:59		1.61			
RT-2F	07/03/2017	11:59		1.94			
RT-2G	07/03/2017	11:59		2.65			
RT-2I	07/03/2017	12:00		2.71			Odor
RT-2J	07/03/2017	12:00		1.33			Odor
RT-2K	07/03/2017	12:00		2.44			
RT-2L	07/03/2017	12:00	2.16	2.21			

RWWells	Date	Time	Depth to Product		Total Depth (ft btoc)	RW Well Comment
			(ft btoc)	DTW (ft btoc)		
RW-01	07/03/2017	12:01		12.55		Odor
RW-02	07/03/2017	12:01	21.1	21.37		
RW-03	07/03/2017	12:02		21.17		Odor
RW-04	07/03/2017	12:02	28.03	28.31		
RW-05	07/03/2017	12:02	32.05	32.37		
RW-06	07/03/2017	12:03		26.25		
RW-07	07/03/2017	12:03	22.89	23.13		
RW-08	07/03/2017	12:03		16.65		
RW-09	07/03/2017	12:03		13.53		
RW-10	07/03/2017	12:04	12.06	12.2		
RW-11	07/03/2017	12:04	11.58	11.71		
RW-12	07/03/2017	12:04		13.16		Odor
RW-13	07/03/2017	12:04				Air sparging
RW-14	07/03/2017	12:05		11.94		Odor
RW-15	07/03/2017	12:05		13.59		Tank product: 2.51, water: 2.66

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/06/2017	12:27	10.88	11.02		
RS-02	07/06/2017	12:28	10.07	10.3		
RS-04	07/06/2017	12:28		9.71		Odor
RS-05	07/06/2017	12:29	10.49	10.89		
RS-06	07/06/2017	12:29	10.63	10.76		
RS-07	07/06/2017	12:29	12.63	12.65		
RS-08	07/06/2017	12:30	12.79	12.92		
RS-09	07/06/2017	12:30	10.22	10.45		
RS-10	07/06/2017	12:30	8.99	9.35		
RS-11	07/06/2017	12:31		8.47		
RS-12	07/06/2017	12:31		8.78		
RS-13	07/06/2017	12:31		8.17		
RS-14	07/06/2017	12:31	5.62	5.68		
RS-15	07/06/2017	12:32	5.9	5.91		
RS-16	07/06/2017	12:32		4.68		Odor
RS-17	07/06/2017	12:32		4.19		Odor
RS-18	07/06/2017	12:32	10.82	11.02		
RS-20	07/06/2017	12:33		5.08		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	07/06/2017	12:34		13.37		Odor
RT-1B	07/06/2017	12:34	13.34	13.38		
RT-1C	07/06/2017	12:35	13.76	13.79		
RT-2A	07/06/2017	12:35		0.75		
RT-2B	07/06/2017	12:35		0.95		
RT-2C	07/06/2017	12:36		1.4		Odor
RT-2D	07/06/2017	12:36		1.47		Odor
RT-2E	07/06/2017	12:36		1.59		
RT-2F	07/06/2017	12:36		1.94		
RT-2G	07/06/2017	12:37		1.15		
RT-2I	07/06/2017	12:37		2.47		
RT-2J	07/06/2017	12:37		1.1		
RT-2K	07/06/2017	12:37		2.96		Damaged
RT-2L	07/06/2017	12:38	2.2	2.21		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	07/06/2017	12:38		12.8		Odor
RW-02	07/06/2017	12:39	21.22	21.49		
RW-03	07/06/2017	12:39		21.8		Odor
RW-04	07/06/2017	12:39	28.05	28.41		
RW-05	07/06/2017	12:40	31.95	32.39		
RW-06	07/06/2017	12:40		25.63		Odor
RW-07	07/06/2017	12:40	22.22	22.41		
RW-08	07/06/2017	12:40		15.11		Odor
RW-09	07/06/2017	12:41		12.72		Odor
RW-10	07/06/2017	12:41		11.35		Odor
RW-11	07/06/2017	12:42	11.05	11.14		
RW-12	07/06/2017	12:42		13.08		Odor
RW-13	07/06/2017	12:42				Air sparging
RW-14	07/06/2017	12:43		7.8		Estimate - air sparging
						Odor
						Tank product - 2.15, water
RW-15	07/06/2017	12:43		13.56		2.30

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/10/2017	14:13	10.33	10.55		
RS-02	07/10/2017	14:14	9.98	10.38		
RS-04	07/10/2017	14:14		10.38		Odor
RS-05	07/10/2017	14:14	9.65	10.08		
RS-06	07/10/2017	14:15	10.41	10.6		
RS-07	07/10/2017	14:15	12.55	12.57		
RS-08	07/10/2017	14:15	12.9	13.1		
RS-09	07/10/2017	14:16	8.86	9.01		
RS-10	07/10/2017	14:16	8.13	8.5		
RS-11	07/10/2017	14:16		8.11		
RS-12	07/10/2017	14:16		7.87		
RS-13	07/10/2017	14:17		6.77		
RS-14	07/10/2017	14:17	5.13	5.21		
RS-15	07/10/2017	14:17	5.55	5.57		
RS-16	07/10/2017	14:17		4.36		
RS-17	07/10/2017	14:18		3.87		
RS-18	07/10/2017	14:18	9.44	9.59		
RS-20	07/10/2017	14:18		4.55		

RT Wells	Date	Time	Depth to Product		Total Depth (ft btoc)	RT Well Comment
			(ft btoc)	DTW (ft btoc)		
RT-1A	07/10/2017	14:19	13.35		13.39	
RT-1B	07/10/2017	14:19	13.31		13.37	
RT-1C	07/10/2017	14:19	13.75		13.8	
RT-2A	07/10/2017	14:19			0.98	
RT-2B	07/10/2017	14:20			1.08	Odor
RT-2C	07/10/2017	14:20			1.56	Odor
RT-2D	07/10/2017	14:20			1.64	Sheen, odor
RT-2E	07/10/2017	14:21			1.75	
RT-2F	07/10/2017	14:21			2.08	
RT-2G	07/10/2017	14:21			2.58	
RT-2I	07/10/2017	14:22			2.98	
RT-2J	07/10/2017	14:22			1.47	
RT-2K	07/10/2017	14:22				Cannot remove expansion cap
RT-2L	07/10/2017	14:22	2.55		2.59	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	07/10/2017	14:23		13		Odor
RW-02	07/10/2017	14:24	21.29	21.58		
RW-03	07/10/2017	14:24		21.79		Odor
RW-04	07/10/2017	14:24	27.99	28.34		
RW-05	07/10/2017	14:24	31.95	32.61		
RW-06	07/10/2017	14:25	26.19	26.2		
RW-07	07/10/2017	14:25	22.84	23.02		
RW-08	07/10/2017	14:25		16.29		Odor
RW-09	07/10/2017	14:25	13.44	13.45		
RW-10	07/10/2017	14:26	11.42	11.43		
RW-11	07/10/2017	14:26	11.78	11.87		
RW-12	07/10/2017	14:26		13.36		Odor
RW-13	07/10/2017	14:26				Air sparging
RW-14	07/10/2017	14:27		11.93		Odor
RW-15	07/10/2017	14:27		13.47		Tank - Product: 2.04, Water: 2.20

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/13/2017	11:32	10.58	10.79		
RS-02	07/13/2017	11:33	10.21	10.48		
RS-04	07/13/2017	11:33		9.69		Odor
RS-05	07/13/2017	11:34	9.86	10.26		
RS-06	07/13/2017	11:34	10.6	10.76		
RS-07	07/13/2017	11:34	12.71	12.76		Cannot tighten expansion cap
RS-08	07/13/2017	11:35	12.92	13.1		
RS-09	07/13/2017	11:35	8.97	9.13		
RS-10	07/13/2017	11:35	8.44	8.81		
RS-11	07/13/2017	11:36		8.36		
RS-12	07/13/2017	11:36	8.69	8.7		
RS-13	07/13/2017	11:36		6.88		
RS-14	07/13/2017	11:37	5.39	5.46		
RS-15	07/13/2017	11:37	5.78	5.8		
RS-16	07/13/2017	11:37		4.6		
RS-17	07/13/2017	11:37		4.14		Odor
RS-18	07/13/2017	11:38	9.64	9.78		
RS-20	07/13/2017	11:38		4.8		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	07/13/2017	11:39	13.43	13.48		
RT-1B	07/13/2017	11:39	13.4	13.44		
RT-1C	07/13/2017	11:39	13.82	13.87		Cannot tighten expansion cap
RT-2A	07/13/2017	11:40		1.06		
RT-2B	07/13/2017	11:40		1.18		Odor
RT-2C	07/13/2017	11:41		1.61		Odor
RT-2D	07/13/2017	11:41		1.69		Odor
RT-2E	07/13/2017	11:41		1.8		
RT-2F	07/13/2017	11:42		2.15		
RT-2G	07/13/2017	11:42		2.93		
RT-2I	07/13/2017	11:42		3.02		
RT-2J	07/13/2017	11:42		1.55		Odor
						Large expansion cap difficult to remove
RT-2K	07/13/2017	11:43	1.48	1.58		No inner casing
RT-2L	07/13/2017	11:44	2.34	2.37		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	07/13/2017	11:44		13.33		Odor
RW-02	07/13/2017	11:45	21.4	21.72		
RW-03	07/13/2017	11:45	21.86	21.87		
RW-04	07/13/2017	11:45	28.02	28.45		
RW-05	07/13/2017	11:46	31.9	32.65		
RW-06	07/13/2017	11:46		26.22		Odor
RW-07	07/13/2017	11:46	23.03	23.2		
RW-08	07/13/2017	11:46	16.71	16.72		
RW-09	07/13/2017	11:47	13.72	13.73		
RW-10	07/13/2017	11:47	11.44	11.49		
RW-11	07/13/2017	11:47	11.99	12.08		
RW-12	07/13/2017	11:47		13.36		Odor
RW-13	07/13/2017	11:48				Air sparging
RW-14	07/13/2017	11:48		12.11		
RW-15	07/13/2017	11:48	13.5	13.51		Tank - Product: 1.83, Water: 1.98

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/17/2017	12:30	10.71	10.95		
RS-02	07/17/2017	12:31	10.36	10.61		
RS-04	07/17/2017	12:31		10.69		Odor
RS-05	07/17/2017	12:32	9.92	10.36		
RS-06	07/17/2017	12:32	10.67	10.81		
RS-07	07/17/2017	12:33	12.73	12.78		
RS-08	07/17/2017	12:33	12.98	13.18		
RS-09	07/17/2017	12:33	8.74	8.89		
RS-10	07/17/2017	12:34	8.44	8.81		
RS-11	07/17/2017	12:34		8.37		
RS-12	07/17/2017	12:35	8.7	8.71		
RS-13	07/17/2017	12:35		6.77		Requires new lock
RS-14	07/17/2017	12:36	4.71	4.79		
RS-15	07/17/2017	12:37	5.3	5.32		
RS-16	07/17/2017	12:37		3.95		Odor
RS-17	07/17/2017	12:37		3.26		
RS-18	07/17/2017	12:38		8.61		Odor
RS-20	07/17/2017	12:38		4.66		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	07/17/2017	12:39	13.42	13.47		
RT-1B	07/17/2017	12:40	13.38	13.43		
RT-2C	07/17/2017	12:40	13.83	13.88		
RT-2A	07/17/2017	12:41		1.33		
RT-2B	07/17/2017	12:41		1.39		Odor
RT-2C	07/17/2017	12:41		1.83		Odor
RT-2D	07/17/2017	12:41		1.92		Odor
RT-2E	07/17/2017	12:42		2.04		
RT-2F	07/17/2017	12:42		2.37		
RT-2G	07/17/2017	12:42		3.21		
RT-2I	07/17/2017	12:43		2.86		
RT-2J	07/17/2017	12:43		1.41		Odor
						Surface sheen down gradient of
RT-2K	07/17/2017	12:43	1.26	1.36		well
RT-2L	07/17/2017	12:44	2.26	2.28		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	07/17/2017	12:45		12.97		Odor
RW-02	07/17/2017	12:45	21.41	21.74		
RW-03	07/17/2017	12:45		21.96		Odor
RW-04	07/17/2017	12:46	28.02	28.51		
RW-05	07/17/2017	12:46	31.88	32.86		
RW-06	07/17/2017	12:47		26.2		Odor
RW-07	07/17/2017	12:47	22.97	23.16		
RW-08	07/17/2017	12:47		16.55		Odor
RW-09	07/17/2017	12:47		13.69		Odor
RW-10	07/17/2017	12:48	11.6	11.7		
RW-11	07/17/2017	12:48	12.07	12.09		
RW-12	07/17/2017	12:48		13.47		Odor
RW-13	07/17/2017	12:49				Air sparging
RW-14	07/17/2017	12:49		11.91		
RW-15	07/17/2017	12:49	13.52	13.55		

Table 2 - DO Measurement List							
SM:	Tom Wiley					Weather: cloudy, 72-86°F	
PN:	684910.LD.MR.GW						
Project:	Monthly Monitoring					Measuring Method: YSI proODO, Oil/Water Interface Probe	
Technicians:	J. McCann M. Summer					Date: 7/17/17	
Client:	Plantation Pipe Line						
Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO (mg/L)	Comments <small>(i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)</small>
Brown's Creek Protection Zone							
MW-12	1102	945.3	—	14.27	21.67	0.45	
MW-12B	1100	1.6	—	14.69	45.24	0.55	
MW-15	1004	5.8	—	12.60	21.22	2.43	
MW-15B	1006	8.3	—	15.95	80.40	0.98	
MW-25	1036	0.0	—	2.24	18.06	0.44	
MW-25B	1038	0.0	—	3.19	58.99	0.161	
MW-28	1050	223.2	—	22.77	26.02	0.51	
MW-38	1110	0.5	—	1.87	11.46	—	
MW-39	1015	11.4	—	5.10	13.03	—	
MW-40	1018	2.0	—	2.74	13.16	—	
MW-41	1034	0.5	—	4.05	13.15	—	
SW-01	1117	—	—	—	—	4.22	DO=3.23
SW-03	1047	—	—	—	—	4.70	
SW-12	1020	—	—	—	—	4.21	
SW-13	1112	—	—	—	—	4.22	
TW-59	1056	0.9	—	14.41	15.82	—	
TW-60	1024	43.0	—	9.27	—	5.42	
TW-66	1031	0.3	—	1.90	23.80	6.02	
Cupboard Creek Protection Zone							
MW-19	0911	7.4	—	10.81	12.11	0.63	
MW-20	0912	8.2	11.77	12.97	18.35	—	1.20' product
MW-23	0933	0.0	—	10.11	13.19	—	
MW-26	0937	0.6	—	5.67	15.26	—	
MW-29	0958	0.0	—	8.60	15.04	4.55	
TW-67	0921	63.3	—	12.24	26.46	9.95	
MW-34	1013	0.2	—	2.53	7	—	
MW-35	1046	0.5	—	9.57	25	—	

Table 2 - DO Measurement List							Weather:
SM: Tom Wiley						Cloudy, 72-81°F	
PN: 684910.LD.MR.GW							
Project: Monthly Monitoring				Measuring Method: YSI proODO, Oil/Water Interface Probe			
Technicians: D. McClelland K. S. ...						Date: 7/17/17	
Client: Plantation Pipe Line							
Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO (mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
TW-73	0906	0.0	—	7.044	11.32	10.27	
Hayfield Zone							
MW-02	1207	1222	—	2.29	19.77	7.48	
MW-02B	1349 7/9	0.0	—	2.70	68.35	3.18	
MW-03	1212	10.9	—	8.12	20.28	10.12	well under pressure
MW-04	1216	16.1	—	2.77	19.56	7.53	
MW-05	1230	11.2	—	14.10	19.78	—	
MW-08	1138	1.5	—	9.98	19.70	16.94	
MW-09	1157	130.7	—	2.64	20.21	8.96	
MW-10	1232	2.1	—	11.00	23.21	3.66	
MW-16	1141	190.6	—	8.59	20.58	9.10	
MW-18	1142	110.8	10.77	11.85	20.11	—	low product
MW-30	1228	19.7	—	2.69	14.51	0.58	low flow
MW-31	1134	0.0	—	12.25	28.03	—	
MW-45	0929	0.0	—	13.55	14.41	—	low flow
TW-55	1150	0.0	—	5.71	30.78	9.03	
TW-64	1126	0.0	—	15.12	—	7.85	
TW-96	1350 7/9	4.8	—	6.90	—	9.51	
Shallow Bedrock Zone							
MW-01	0947	0.0	—	7.39	15.62	5.25	
MW-01B	0950	0.2	—	8.67	42.21	0.08	
MW-11	0950	129.0	—	28.20	32.02	0.52	
MW-22	0942	24.0	9.98	9.98	10.32	—	dry
BTOC - below top of casing			Total depths collected 6/22/17			ppm - parts per million	
ft - feet						SM - Site Manager	
PN - Project Number						- wells historically found to have product	

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/20/2017	11:12	10.65	10.85		
RS-02	07/20/2017	11:12	10.08	10.32		
RS-04	07/20/2017	11:13		9.71		Odor
RS-05	07/20/2017	11:13	10.07	10.55		
RS-06	07/20/2017	11:13	10.71	10.87		
RS-07	07/20/2017	11:14	12.8	12.88		Expansion cap needs to be replaced. Cannot tighten.
RS-08	07/20/2017	11:15	12.97	13.15		
RS-09	07/20/2017	11:15	8.99	9.2		
RS-10	07/20/2017	11:15	8.64	9.01		
RS-11	07/20/2017	11:16		8.53		
RS-12	07/20/2017	11:16	8.85	8.86		
RS-13	07/20/2017	11:16		6.9		Missing lock
RS-14	07/20/2017	11:16	5.08	5.16		
RS-15	07/20/2017	11:17	5.59	5.6		
RS-16	07/20/2017	11:17		4.32		
RS-17	07/20/2017	11:17		3.92		
RS-18	07/20/2017	11:18	9.65	9.81		
RS-20	07/20/2017	11:18		4.94		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	07/20/2017	11:19	13.48		13.53	
RT-1B	07/20/2017	11:19	13.45		13.5	
RT-1C	07/20/2017	11:19	13.87		13.94	
RT-2A	07/20/2017	11:19			1.07	
RT-2B	07/20/2017	11:19			1.18	Odor
RT-2C	07/20/2017	11:20			1.61	
RT-2D	07/20/2017	11:20			1.69	Odor
RT-2E	07/20/2017	11:20			1.8	
RT-2F	07/20/2017	11:20			2.14	
RT-2G	07/20/2017	11:21			2.91	
RT-2I	07/20/2017	11:21			3	
RT-2J	07/20/2017	11:21			1.49	
RT-2K	07/20/2017	11:21				Cannot access
RT-2L	07/20/2017	11:22	2.27		2.33	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	07/20/2017	11:22		12.91		Odor
RW-02	07/20/2017	11:23	21.48	21.83		
RW-03	07/20/2017	11:23		22.01		Odor
RW-04	07/20/2017	11:23	28.05	28.56		
RW-05	07/20/2017	11:23	31.93	33.04		
RW-06	07/20/2017	11:24		26.36		Odor
RW-07	07/20/2017	11:28	23.14	23.46		
RW-08	07/20/2017	11:28		16.92		
RW-09	07/20/2017	11:28		13.85		
RW-10	07/20/2017	11:28	11.88	12.05		Expansion cap needs replacement
RW-11	07/20/2017	11:29		12.12		Odor
RW-12	07/20/2017	11:29		13.44		Odor
RW-13	07/20/2017	11:30				Air sparging
RW-14	07/20/2017	11:30		12.02		
RW-15	07/20/2017	11:30	13.49	13.55		Tank: Product - 1.75, Water - 1.88

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/24/2017	12:45	10.73	11.02		
RS-02	07/24/2017	12:46	10.2	10.47		
RS-04	07/24/2017	12:46		9.67		Odor
RS-05	07/24/2017	12:46	10.19	10.7		
RS-06	07/24/2017	12:47	10.68	10.85		
RS-07	07/24/2017	12:47	12.83	12.91		
RS-08	07/24/2017	12:47	13.1	13.31		
RS-09	07/24/2017	12:48	9.33	9.52		
RS-10	07/24/2017	12:48	8.84	9.21		
RS-11	07/24/2017	12:49		8.58		
RS-12	07/24/2017	12:49	8.91	8.93		
RS-13	07/24/2017	12:49		7.55		Odor, missing lock
RS-14	07/24/2017	12:50	5.64	5.71		
RS-15	07/24/2017	12:50	6.01	6.03		
RS-16	07/24/2017	12:51		4.87		
RS-17	07/24/2017	12:51		4.46		
RS-18	07/24/2017	12:51	10.05	10.22		
RS-20	07/24/2017	12:51		5.27		

RT Wells	Date	Time	Depth to Product		Total Depth (ft btoc)	RT Well Comment
			(ft btoc)	DTW (ft btoc)		
RT-1A	07/24/2017	12:52	13.5	13.55		
RT-1B	07/24/2017	12:52	13.45	13.53		Odor
RT-1C	07/24/2017	12:53	13.91	13.98		
RT-2A	07/24/2017	12:54		1.12		
RT-2B	07/24/2017	12:54		1.23		Odor
RT-2C	07/24/2017	12:54		1.67		Odor, will not lock
RT-2D	07/24/2017	12:55		1.75		Odor, sheen
RT-2E	07/24/2017	12:55		1.85		
RT-2F	07/24/2017	12:55		2.2		Will not lock
RT-2G	07/24/2017	12:56		2.93		
RT-2I	07/24/2017	12:56		3.05		
RT-2J	07/24/2017	12:56		1.57		Odor
						Could not access - expansion cap stuck
RT-2K	07/24/2017	12:57				
RT-2L	07/24/2017	12:58	2.42	2.43		

RWWells	Date	Time	Depth to Product		Total Depth (ft btoc)	RW Well Comment
			(ft btoc)	DTW (ft btoc)		
RW-01	07/24/2017	12:59		13.47		Odor
RW-02	07/24/2017	12:59	21.63	22		
RW-03	07/24/2017	12:59	22.11	22.12		
RW-04	07/24/2017	13:00	28.1	28.7		
RW-05	07/24/2017	13:00	31.89	33.36		
RW-06	07/24/2017	13:00	26.33	26.34		
RW-07	07/24/2017	13:00	23.1	23.32		
						Could not access
						- expansion cap
RW-08	07/24/2017	13:01				stuck
RW-09	07/24/2017	13:01		13.82		Odor
						Expansion cap
						needs
RW-10	07/24/2017	13:01	11.99	12.22		replacement
RW-11	07/24/2017	13:02		12.25		Odor
RW-12	07/24/2017	13:02		13.58		Odor
RW-13	07/24/2017	13:02				Air sparging
RW-14	07/24/2017	13:03		12.16		
						Tank - Product:
						1.42, Water:
RW-15	07/24/2017	13:03	13.5	13.62		1.55

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/27/2017	11:42	10.01	11.08		
RS-02	07/27/2017	11:43	10.42	10.76		
RS-04	07/27/2017	11:43		9.68		Odor
RS-05	07/27/2017	11:43	10.08	10.59		
RS-06	07/27/2017	11:45	10.67	10.86		
RS-07	07/27/2017	11:45	12.87	12.94		
RS-08	07/27/2017	11:46	13.18	13.42		
RS-09	07/27/2017	11:46	9.42	9.62		
RS-10	07/27/2017	11:47	8.68	9.06		
RS-11	07/27/2017	11:47		8.47		Odor
RS-12	07/27/2017	11:48	8.79	8.81		
RS-13	07/27/2017	11:48		7.6		Odor
RS-14	07/27/2017	11:49	5.85	5.94		Missing lock
RS-15	07/27/2017	11:49	6.17	6.19		
RS-16	07/27/2017	11:49		5.11		
RS-17	07/27/2017	11:50		4.72		
RS-18	07/27/2017	11:50	10.11	10.25		
RS-20	07/27/2017	11:51		5.35		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	07/27/2017	11:52	13.61	13.67		
RT-1B	07/27/2017	11:52	13.57	13.6		
RT-1C	07/27/2017	11:53	14	14.07		
RT-2A	07/27/2017	11:53		1.16		
RT-2B	07/27/2017	11:54		1.28		
RT-2C	07/27/2017	11:54		1.72		Odor, lock not functioning
RT-2D	07/27/2017	11:55		1.8		Odor
RT-2E	07/27/2017	11:55		1.91		Sheen
RT-2F	07/27/2017	11:56		2.25		Sheen, lock not functioning
RT-2G	07/27/2017	11:56		3.05		
RT-2I	07/27/2017	11:56		3.13		
RT-2J	07/27/2017	11:57		1.66		Odor
RT-2L	07/27/2017	11:57	2.43	2.44		
RT-2K	07/27/2017	12:07				Could not access

RWWells	Date	Time	Depth to Product		Total Depth (ft btoc)	RW Well Comment
			(ft btoc)	DTW (ft btoc)		
RW-01	07/27/2017	11:58		13.73		Odor
RW-02	07/27/2017	11:59	21.69	22.05		
RW-03	07/27/2017	12:00	22.12	22.14		
RW-04	07/27/2017	12:00	28.15	28.77		
RW-05	07/27/2017	12:00	31.92	33.63		
RW-06	07/27/2017	12:01		26.47		Odor
RW-07	07/27/2017	12:01	23.28	23.56		
RW-08	07/27/2017	12:02		16.97		Odor
RW-09	07/27/2017	12:02	13.98	14		
RW-10	07/27/2017	12:03	11.74	11.98		
RW-11	07/27/2017	12:03	12.39	12.4		
RW-12	07/27/2017	12:03	13.69	13.7		
RW-13	07/27/2017	12:04				Air sparging
RW-14	07/27/2017	12:04		12.25		
RW-15	07/27/2017	12:05	13.51	13.67		Tank DTP: 1.42, DTW: 1.59

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	07/31/2017	11:52	11.09	11.44		
RS-02	07/31/2017	11:52	10.72	11.06		
RS-04	07/31/2017	11:52		9.68		Odor
RS-05	07/31/2017	11:52	10.31	10.89		Lock difficult to open
RS-06	07/31/2017	11:53	10.86	11.07		
RS-07	07/31/2017	11:53	12.99	13.07		Expansion cap needs replacement
RS-08	07/31/2017	11:54	13.3	13.57		
RS-09	07/31/2017	11:54	9.58	9.78		
RS-10	07/31/2017	11:54	8.85	9.22		
RS-11	07/31/2017	11:55		8.87		
RS-12	07/31/2017	11:55	8.89	8.9		
RS-13	07/31/2017	11:55		7.87		Odor, needs new lock
RS-14	07/31/2017	11:56	6.06	6.13		
RS-15	07/31/2017	11:56	6.4	6.41		
RS-16	07/31/2017	11:57		5.37		Odor
RS-17	07/31/2017	11:57		4.97		
RS-18	07/31/2017	11:58	10.38	10.54		
RS-20	07/31/2017	11:58		5.6		

RT Wells	Date	Time	Depth to Product (ft btoc)	DTW (ft btoc)	Total Depth (ft btoc)	RT Well Comment
RT-1A	07/31/2017	11:58	13.71	13.79		
RT-1B	07/31/2017	11:59	13.67	13.74		
RT-1C	07/31/2017	11:59	14.01	14.07		Expansion cap needs replacement
RT-2A	07/31/2017	11:59		1.25		
RT-2B	07/31/2017	11:59		1.36		
RT-2C	07/31/2017	12:00		1.78		
RT-2D	07/31/2017	12:00		1.87		Odor, sheen
RT-2E	07/31/2017	12:00		1.98		
RT-2F	07/31/2017	12:00		2.32		Sheen, lock needs replacement
RT-2G	07/31/2017	12:01		3.19		
RT-2I	07/31/2017	12:01		3.23		
RT-2J	07/31/2017	12:01		1.78		Odor
RT-2K	07/31/2017	12:02				Cannot access
RT-2L	07/31/2017	12:02	2.55	2.56		

RW Wells	Date	Time	Depth to Product (ft btoc)	DTW (ft btoc)	Total Depth (ft btoc)	RW Well Comment
RW-01	07/31/2017	12:02		14.05		Odor
RW-02	07/31/2017	12:03	21.91	22.31		
RW-03	07/31/2017	12:03	22.34	22.38		
RW-04	07/31/2017	12:03	28.28	28.96		
RW-05	07/31/2017	12:03	32.02	33.86		
RW-06	07/31/2017	12:04		26.63		Odor
RW-07	07/31/2017	12:04	23.4	23.79		
RW-08	07/31/2017	12:04		17.07		Odor
RW-09	07/31/2017	12:04	14.1	14.12		
RW-10	07/31/2017	12:05	12.06	12.35		Expansion cap needs replacement
RW-11	07/31/2017	12:05		12.6		Odor
RW-12	07/31/2017	12:05		13.96		Odor
RW-13	07/31/2017	12:06				Air sparging
RW-14	07/31/2017	12:06		12.43		
RW-15	07/31/2017	12:06	13.66	13.87		Tank: DTP 1.43, DTW 1.53

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: Sunny, Clear sky, ~85°

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: MAS + MT

Date: 8/11/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creek Protection Zone							
- MW-12	11:17	845.7	-	13.83	21.67	0.54	
- MW-12B	11:20	8.7	-	14.17	45.24	0.67	
11 - MW-15	10:45	71.6	-	11.20	21.22	9.84	
12 - MW-15B	10:47	16.80	-	16.28	80.40	1.36	
17 - MW-25	11:02	0.3	-	8.21	18.06	0.78	
18 - MW-25B	11:04	0.9	-	5.55	58.99	0.81	
- MW-28	11:11	100.3	-	23.04	26.02	0.73	
13 - MW-34	10:54	2.10	-	2.62	7.79	-	
19 - MW-35	11:07	2.10	-	10.23	28.51	-	
20 - MW-38	11:37	0.3	-	2.10	11.46	-	
14 - MW-39	10:55	57.6	-	3.81	13.03	-	
15 - MW-40	10:57	398.1	-	1.97	13.16	-	
16 - MW-41	11:00	1.6	-	4.33	13.15	-	
- SW-01		-	-	-	-	2.33	
- SW-03		-	-	-	-	2.64	
- SW-12		-	-	-	-	5.02	
- SW-13		-	-	-	-	2.84	
- TW-59	11:15	0.2	-	14.08	15.82	-	
- TW-60	11:27	32.6	-	7.05	-	8.46	
- TW-66	11:30	4.20	-	1.35	23.80	6.54	
24 Dup → + MW-34						-	added to list during last event (July)
24 Dup → + MW-35						-	added to list during last event (July)
Cupboard Creek Protection Zone							
6 - MW-19	10:14	1510.0	-	11.35	12.11	0.89	
5 - MW-20	10:02	1424.0	12.08	13.10	18.35	-	well have product
3 - MW-23	09:54	2.1	-	10.55	13.19	-	

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: 88°/66°, Sunny

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. Tekleket, M. Swanner/CLT

Date: 08/01/2017

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
2 - MW-26	0950	1.4	-	6.58	15.26	-	
1 - MW-29	0937	0.4	-	9.32	15.04	7.21	
36 - TW-67	1008	12.70	-	12.70	26.46	10.03	
35 - TW-73	1019	0.0	-	5.31	11.32	10.47	
Hayfield Zone							
27 - MW-02	1207	804.6	-	3.80	19.77	8.71	
28 - MW-02B	1210	0.6	-	4.35	68.35	4.23	
25 - MW-03	1222	0.2	-	9.50	20.28	10.86	well under pressure, bubbling sound.
31 - MW-04	1232	0.0	-	9.51	19.56	8.19	
32 - MW-05	1237	0.0	-	15.01	19.78	-	
22 - MW-08	1158	0.1	-	11.32	19.70	7.24	
29 - MW-09	1240	4.21	-	4.15	20.21	9.74	
23 - MW-10	1213	0.1	-	12.40	23.21	3.84	
- MW-16	1248	553.6	8.70	8.75	20.58	-	strong odor, well have product.
21 - MW-18	1202	1286.0	12.30	13.39	20.11	-	well have product
26 - MW-30	1226	4.1	-	13.25	14.51	1.06 (1.06)	
34 - MW-31	1154	0.0	-	18.98	28.03	-	
4 - MW-45	0956	0.1	-	13.84	14.41	-	
30 - TW-55	1244	4.20	-	6.46	30.78	9.28	
33 - TW-64	1150	0.0	-	16.38	-	8.28	
24 - TW-96	1216	0.1	-	8.25	-	10.04	
Shallow Bedrock Zone							
8 - MW-01	1031	0.0	-	9.05	15.62	3.92	
9 - MW-01B	1035	0.0	-	9.17	42.21	0.69	
10 - MW-11	1042	27.2	28.54	28.63	32.02	-	well have product
7 - MW-22	1025	18.92	-	9.98	10.32	0.67	

BTOC - below top of casing

¹Total depths collected 6/22/17

ppm - parts per million

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	08/02/2017	20:40	11.12	11.41		
RS-02	08/02/2017	20:48	10.8	11.12		
RS-04	08/02/2017	20:51		9.7		
RS-05	08/02/2017	20:52	10.25	10.8		
RS-06	08/02/2017	20:53	10.9	11.1		
RS-07	08/02/2017	20:54	13.01	13.1		
RS-08	08/02/2017	20:55	13.35	13.55		
RS-09	08/02/2017	20:55	9.61	9.75		
RS-10	08/02/2017	20:56	8.85	9.2		
RS-11	08/02/2017	20:56		8.6		
RS-12	08/02/2017	20:56	8.91	8.92		
RS-13	08/02/2017	20:57		7.83		
RS-14	08/02/2017	20:58	6.14	6.2		
RS-15	08/02/2017	20:58	6.48	6.5		
RS-16	08/02/2017	20:58		5.45		
RS-17	08/02/2017	20:59		5.06		
RS-18	08/02/2017	20:59	10.35	10.45		
RS-20	08/02/2017	21:00		5.65		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/02/2017	21:02	13.79		13.85	
RT-1B	08/02/2017	21:03	13.75		13.81	
RT-1C	08/02/2017	21:04	14.19		14.24	
RT-2A	08/02/2017	21:04			1.3	
RT-2B	08/02/2017	21:05			1.37	
RT-2C	08/02/2017	21:05			1.85	
RT-2D	08/02/2017	21:05			1.91	
RT-2E	08/02/2017	21:06			2.04	
RT-2F	08/02/2017	21:06			2.4	
RT-2G	08/02/2017	21:06			3.09	
RT-2I	08/02/2017	21:07			3.25	
RT-2J	08/02/2017	21:07			1.75	
RT-2K	08/02/2017	21:07	1.64		1.75	
RT-2L	08/02/2017	21:08			2.61	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	08/02/2017	21:09		14.1		
RW-02	08/02/2017	21:09	21.95	22.32		
RW-03	08/02/2017	21:09	22.35	22.39		
RW-04	08/02/2017	21:10	28.31	28.98		
RW-05	08/02/2017	21:10	32.09	33.85		
RW-06	08/02/2017	21:11		26.52		
RW-07	08/02/2017	21:11	23.3	23.85		
RW-08	08/02/2017	21:12		16.8		
RW-09	08/02/2017	21:12	14.18	14.22		
RW-10	08/02/2017	21:12	12	12.26		
RW-11	08/02/2017	21:13		12.67		
RW-12	08/02/2017	21:13		13.98		
RW-13	08/02/2017	21:13		11.1		Bubbling, depth to water may not be accurate
RW-14	08/02/2017	21:14		10.92		
RW-15	08/02/2017	21:15	13.61	13.9		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	08/09/2017	20:28	11.33	11.63		
RS-02	08/09/2017	20:29	11.2	11.43		
RS-05	08/09/2017	20:30	9.83	10.3		
RS-06	08/09/2017	20:31	10.58	10.7		
RS-07	08/09/2017	20:32	14.3	14.37		
RS-08	08/09/2017	20:32	13.6	13.77		
RS-09	08/09/2017	20:32	10.91	10.98		
RS-10	08/09/2017	20:33	8.5	8.51		
RS-11	08/09/2017	20:33		8.18		
RS-12	08/09/2017	20:33		8.5		
RS-13	08/09/2017	20:34		9.5		
RS-14	08/09/2017	20:34	7.27	7.35		
RS-15	08/09/2017	20:34		7.11		
RS-16	08/09/2017	20:35		5.95		
RS-17	08/09/2017	20:35		6.13		
RS-18	08/09/2017	20:35	10.91	10.96		
RS-20	08/09/2017	20:36		6.56		
RS-04	08/09/2017	20:36		9.71		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/09/2017	20:37	14	14.09		
RT-1B	08/09/2017	20:38	13.96	14.05		
RT-1C	08/09/2017	20:38	14.44	14.51		
RT-2A	08/09/2017	20:39		1.26		
RT-2B	08/09/2017	20:39		1.37		
RT-2C	08/09/2017	20:40		1.81		
RT-2D	08/09/2017	20:40		1.9		
RT-2E	08/09/2017	20:40		3.01		
RT-2F	08/09/2017	20:40		2.36		
RT-2G	08/09/2017	20:41		3.1		
RT-2I	08/09/2017	20:41		3.22		
RT-2J	08/09/2017	20:41		1.75		
RT-2K	08/09/2017	20:42	1.39	1.5		
RT-2L	08/09/2017	20:42	2.89	2.92		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	08/09/2017	20:43		14.45		
RW-02	08/09/2017	20:43	22.22	22.5		
RW-03	08/09/2017	20:45	22.52	22.55		
RW-04	08/09/2017	20:45	28.65	29.33		
RW-05	08/09/2017	20:45	28.65	29.33		
RW-06	08/09/2017	20:46		26.8		
RW-07	08/09/2017	20:46	23.37	24.22		
RW-08	08/09/2017	20:46	16.94	16.95		
RW-09	08/09/2017	20:47	14.16	14.24		
RW-10	08/09/2017	20:48		10.08		
RW-11	08/09/2017	20:48		12.65		
RW-12	08/09/2017	20:48		14.11		
RW-13	08/09/2017	20:48		10.2		May be inaccurate as well was Bubbling
RW-14	08/09/2017	20:49		12.31		
RW-15	08/09/2017	20:50	13.7	13.72		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	08/12/2017	16:35		9.78		
MW-01B	08/12/2017	16:37		9.24		
MW-02	08/12/2017	16:37		3.98		
MW-02B	08/12/2017	16:38		0.37		
MW-03	08/12/2017	16:38		5		Maybe? Bubbling
MW-04	08/12/2017	16:39		9.49		
MW-05	08/12/2017	16:40		15.41		
MW-06	08/12/2017	16:40		14.84		
MW-07	08/12/2017	16:41	13.08	13.09		
MW-08	08/12/2017	16:41		11.7		
MW-09	08/12/2017	16:41		4.9		
MW-10	08/12/2017	16:42		14.05		
MW-11	08/12/2017	16:42	29.05	29.15		
MW-12	08/12/2017	16:43		14.41		
MW-12B	08/12/2017	16:43		14.82		
MW-13	08/12/2017	16:43		21.7		
MW-13B	08/12/2017	16:44		22.22		
MW-14	08/12/2017	16:44		17.52		
MW-14B	08/12/2017	16:45		18.37		
MW-15	08/12/2017	16:45		13.25		
MW-15B	08/12/2017	16:45		16.42		
MW-16	08/12/2017	16:46		7		Maybe,bubbling
MW-17	08/12/2017	16:47		16.82		
MW-17B	08/12/2017	16:47		16.07		
MW-18	08/12/2017	16:48	11.98	12.05		Maybe,bubbling
MW-19	08/12/2017	16:48		11.74		
MW-20	08/12/2017	16:49	12.33	13.1		
MW-21	08/12/2017	16:49		16.8		
MW-22	08/12/2017	16:50				Dry
MW-23	08/12/2017	16:50		10.7		
MW-23B	08/12/2017	16:50		11.22		
MW-24	08/12/2017	16:51		4.62		
MW-24B	08/12/2017	16:51		5.92		
MW-25	08/12/2017	16:52		8.61		
MW-25B	08/12/2017	16:52		5.65		
MW-26	08/12/2017	16:52		6.7		
MW-26B	08/12/2017	16:53		8.65		
MW-27	08/12/2017	16:53		26.47		
MW-27B	08/12/2017	16:53		29.8		
MW-28	08/12/2017	16:54		23.5		
MW-29	08/12/2017	16:54		9.65		
MW-30	08/12/2017	16:55		13.48		
MW-31	08/12/2017	16:55		20.1		
MW-31B	08/12/2017	16:55		19.71		
MW-32	08/12/2017	16:56		12.08		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-33	08/12/2017	16:56		24.8		
MW-33T	08/12/2017	16:56		26.2		
MW-35	08/12/2017	16:57		9.45		
MW-36	08/12/2017	16:57		19.22		
MW-36B	08/12/2017	16:57		18.95		
MW-37	08/12/2017	16:58		3.55		
MW-38	08/12/2017	16:58		2.05		
MW-39	08/12/2017	16:59		5.15		
MW-40	08/12/2017	16:59		2.53		
MW-41	08/12/2017	16:59		4.53		
MW-42	08/12/2017	17:00		5.19		
MW-44	08/12/2017	17:00		9.3		
MW-44B	08/12/2017	17:00		13.28		
MW-45	08/12/2017	17:01		14.05		
MW-45B	08/12/2017	17:01		15.33		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	08/12/2017	17:19	0.9	
SW-02	08/12/2017	17:19	1.61	
SW-03	08/12/2017	17:20	1.49	
SW-10	08/12/2017	17:20	0.27	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-05R	08/12/2017	17:03		8.13		
TW-14R	08/12/2017	17:04				Dry
TW-15R	08/12/2017	17:04				Dry
TW-28	08/12/2017	17:04	22.35	22.5		
TW-30	08/12/2017	17:05		21.26		
TW-34	08/12/2017	17:05		22.2		
TW-35	08/12/2017	17:06		22.72		
TW-40	08/12/2017	17:06		28.65		
TW-41	08/12/2017	17:06		27.25		
TW-42	08/12/2017	17:07	25.74	26.58		
TW-45	08/12/2017	17:07	27.32	27.75		
TW-46	08/12/2017	17:08				Gone
TW-55	08/12/2017	17:08		3.6		Maybe,bubbling
TW-59	08/12/2017	17:09		14.25		
TW-60	08/12/2017	17:09		16.04		
TW-64	08/12/2017	17:09		16.23		
TW-65	08/12/2017	17:10		21.08		
TW-66	08/12/2017	17:10		2.65		
TW-67	08/12/2017	17:10		6.8		Maybe,bubbling
TW-68	08/12/2017	17:11		22.68		
TW-69	08/12/2017	17:11		14.77		
TW-70	08/12/2017	17:12		18.75		
TW-73	08/12/2017	17:12		8.4		
TW-76	08/12/2017	17:12		13.92		
TW-81	08/12/2017	17:12		5.58		
TW-82	08/12/2017	17:13		5.88		
TW-83	08/12/2017	17:13				Gone? Grassed over
TW-84	08/12/2017	17:14		7.12		
TW-85	08/12/2017	17:03				
TW-85	08/12/2017	17:15		6.1		Maybe,bubbling
TW-86	08/12/2017	17:15		5.55		
TW-87	08/12/2017	17:16		6.8		
TW-90	08/12/2017	17:16		7.7		Maybe,bubbling
TW-94	08/12/2017	17:16		0		Bubbling out of top
TW-96	08/12/2017	17:17		8.55		Maybe,bubbling

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	08/14/2017	13:58	11.02	11.32		Lock broken
RS-02	08/14/2017	13:59	11.16	11.42		
RS-04	08/14/2017	13:59		9.69		Odor
RS-05	08/14/2017	13:59	9.49	9.94		
RS-06	08/14/2017	13:59	10.45	10.59		
RS-07	08/14/2017	14:00	13.39	13.48		
RS-08	08/14/2017	14:00	13.71	13.97		
RS-09	08/14/2017	14:00	9.71	9.84		
RS-10	08/14/2017	14:00	7.88	7.89		Expansion cap broken
RS-11	08/14/2017	14:01		7.92		Odor
RS-12	08/14/2017	14:01	7.94	7.95		
RS-13	08/14/2017	14:02		8.71		No lock
RS-14	08/14/2017	14:02	6.41	6.5		
RS-15	08/14/2017	14:03		6.64		
RS-16	08/14/2017	14:03		5.47		
RS-17	08/14/2017	14:03		5.72		
RS-18	08/14/2017	14:04	9.97	10.02		
RS-19	08/14/2017	14:04				Damaged
RS-20	08/14/2017	14:04		6.32		No lock

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/14/2017	14:05	14.01	14.11		
RT-1B	08/14/2017	14:05	13.97	14.07		
RT-1C	08/14/2017	14:06	14.43	14.53		
RT-2A	08/14/2017	14:06		1.02		
RT-2B	08/14/2017	14:06		1.12		
RT-2C	08/14/2017	14:07		1.37		
RT-2D	08/14/2017	14:07	1.81	1.82		
RT-2E	08/14/2017	14:07		1.88		
RT-2F	08/14/2017	14:07	2	2.01		
RT-2G	08/14/2017	14:08		2.32		Lock broken
RT-2H	08/14/2017	14:08				Damaged
RT-2I	08/14/2017	14:09		3.24		
RT-2J	08/14/2017	14:09		1.7		
RT-2K	08/14/2017	14:09	1.41	1.61		
RT-2L	08/14/2017	14:10	2.62	2.7		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	08/14/2017	14:10		14.6		Odor
RW-02	08/14/2017	14:10	22.35	22.64		
RW-03	08/14/2017	14:11	22.64	22.68		
RW-04	08/14/2017	14:11	28.76	29.5		
RW-05	08/14/2017	14:11	32.41	34.3		
RW-06	08/14/2017	14:11		26.87		Odor
RW-07	08/14/2017	14:12	23.37	24.3		
RW-08	08/14/2017	14:12		16.94		Odor
						Large nest of bees in ground to right of well
RW-09	08/14/2017	14:12	14.08	14.53		
RW-10	08/14/2017	14:13	9.97	10.04		
RW-11	08/14/2017	14:14		12.86		Odor
RW-12	08/14/2017	14:14		14.22		Odor
RW-13	08/14/2017	14:14				Pumping
RW-14	08/14/2017	14:14		12.29		Odor
RW-15	08/14/2017	14:15		13.58		Odor

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	08/17/2017	13:09	11.1	11.46		
RS-02	08/17/2017	13:10	11.14	11.43		
RS-04	08/17/2017	13:10		9.68		
RS-05	08/17/2017	13:10	10.14	10.61		
RS-06	08/17/2017	13:10	10.87	11.03		
						Expansion cap stripped, needs replacement
RS-07	08/17/2017	13:11	13.46	13.54		
RS-08	08/17/2017	13:11	13.83	14.1		
RS-09	08/17/2017	13:12	9.12	9.16		
RS-10	08/17/2017	13:12	8.09	8.1		
RS-11	08/17/2017	13:12		7.96		
RS-12	08/17/2017	13:12		8.29		
						Lock was missing, lock was replaced
RS-13	08/17/2017	13:13		7.81		
RS-14	08/17/2017	13:13	5.69	5.77		
RS-15	08/17/2017	13:13		6.2		
RS-16	08/17/2017	13:14	5.26	5.27		
RS-17	08/17/2017	13:14		5.15		
RS-18	08/17/2017	13:14	9.72	9.77		
RS-20	08/17/2017	13:14		5.93		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/17/2017	13:15	14.22	14.32		
RT-1B	08/17/2017	13:16	14.19	14.29		
RT-1C	08/17/2017	13:16	14.62	14.71		Expansion cap stripped, needs replacement
RT-2A	08/17/2017	13:16		1.31		
RT-2B	08/17/2017	13:17		1.42		
RT-2C	08/17/2017	13:17		1.86		
RT-2D	08/17/2017	13:17		1.93		
RT-2E	08/17/2017	13:17		2.04		
RT-2F	08/17/2017	13:17		2.38		
RT-2G	08/17/2017	13:18		4.63		
RT-2I	08/17/2017	13:18		3.25		
RT-2J	08/17/2017	13:18		1.75		
RT-2K	08/17/2017	13:18	1.44	1.55		No inner casing, measurement from top of outer casing
RT-2L	08/17/2017	13:19	2.62	2.64		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	08/17/2017	13:19		14.62		
RW-02	08/17/2017	13:20	22.38	22.68		
RW-03	08/17/2017	13:20	22.68	22.71		
RW-04	08/17/2017	13:20	28.9	29.25		
RW-05	08/17/2017	13:20	33.75	34.77		
RW-06	08/17/2017	13:21		27.04		
RW-07	08/17/2017	13:21	23.55	24.5		
RW-08	08/17/2017	13:21		17.1		Lock replaced
RW-09	08/17/2017	13:22	14.25	14.6		
RW-10	08/17/2017	13:22	11.69	11.78		Expansion cap was replaced
RW-11	08/17/2017	13:23		13		Odor
RW-12	08/17/2017	13:23		14.35		Odor
RW-13	08/17/2017	13:23				Air sparging
RW-14	08/17/2017	13:23		12.4		
RW-15	08/17/2017	13:23	13.77	13.82		Tank: DTP 8.14, DTW 8.18

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	08/21/2017	10:40	11.12	11.52		
RS-02	08/21/2017	10:40	11.14	11.48		
RS-04	08/21/2017	10:40		9.68		Odor
RS-05	08/21/2017	10:40	9.88	10.44		
RS-06	08/21/2017	10:41	10.95	11.12		
RS-07	08/21/2017	10:41	13.58	13.69		Expansion cap broken
RS-08	08/21/2017	10:42	13.87	14.12		
RS-09	08/21/2017	10:42	8.85	8.93		
RS-10	08/21/2017	10:42	8.17	8.2		
RS-11	08/21/2017	10:43		8.12		
RS-12	08/21/2017	10:43	8.44	8.45		
RS-13	08/21/2017	10:43		7.15		
	08/21/2017	10:44	5.8	5.89		
RS-15	08/21/2017	10:44		6.41		
RS-16	08/21/2017	10:44		5.35		Odor
RS-17	08/21/2017	10:44		5.11		
RS-18	08/21/2017	10:44	9.71	9.79		
RS-20	08/21/2017	10:45		5.7		No lock

RT Wells	Date	Time	Depth to Product (ft		Total Depth	RT Well Comment
			btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/21/2017	10:46	14.22	14.33		
RT-1B	08/21/2017	10:46	14.17	14.28		
RT-1C	08/21/2017	10:46	14.62	14.73		Expansion cap broken
RT-2A	08/21/2017	10:47		1.07		Odor
RT-2B	08/21/2017	10:47		1.15		Odor
RT-2C	08/21/2017	10:47	1.89	1.91		
RT-2D	08/21/2017	10:47		1.94		
RT-2E	08/21/2017	10:48		2.06		
RT-2F	08/21/2017	10:48		2.35		
RT-2G	08/21/2017	10:48	3.4	3.41		
RT-2I	08/21/2017	10:48		3.3		
RT-2J	08/21/2017	10:49		1.74		
RT-2K	08/21/2017	10:49	1.47	1.65		
RT-2L	08/21/2017	10:49	2.69	2.77		

RWWells	Date	Time	Depth to Product (ft)		Total Depth (ft btoc)	RW Well Comment
			btoc)	DTW (ft btoc)		
RW-01	08/21/2017	10:50		14.9		Odor
RW-02	08/21/2017	10:50	22.46	22.8		
RW-03	08/21/2017	10:50	22.72	22.8		
RW-04	08/21/2017	10:50	28.96	29.43		
RW-05	08/21/2017	10:50	32.74	34.36		
RW-06	08/21/2017	10:51		27.21		Odor
RW-07	08/21/2017	10:51	23.81	24.82		
RW-08	08/21/2017	10:52	23.86	23.87		
RW-09	08/21/2017	10:52	9.49	9.58		Nest of bees to the right of the well
RW-10	08/21/2017	10:53	11.55	11.76		
RW-11	08/21/2017	10:53		13.72		Odor
RW-12	08/21/2017	10:54		14.46		Odor
RW-13	08/21/2017	10:54				Pumping
RW-14	08/21/2017	10:54			12.71	Odor
RW-15	08/21/2017	10:54	13.81	13.98		Tank: DTP - 8.13 DTW- 8.24

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	08/24/2017	13:12	13.6	13.7		Expansion cap needs replacement
RS-08	08/24/2017	13:13	14.03	14.32		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	08/24/2017	13:17	13.6	14.4		
RT-1B	08/24/2017	13:17	14.28	14.38		
RT-1C	08/24/2017	13:17	14.72	14.81		Expansion cap needs replacement
RT-2A	08/24/2017	13:18		1.38		
RT-2B	08/24/2017	13:18		1.48		
RT-2C	08/24/2017	13:18		1.92		
RT-2D	08/24/2017	13:18		1.99		
RT-2E	08/24/2017	13:19		2.1		
RT-2F	08/24/2017	13:19		2.44		
RT-2G	08/24/2017	13:19		2.98		
RT-2I	08/24/2017	13:21		3.38		
RT-2J	08/24/2017	13:21		1.9		
RT-2K	08/24/2017	13:22	0.6	0.72		Inner casing missing, measurement from top of outer casing
RT-2L	08/24/2017	13:22	2.8	2.83		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	08/24/2017	13:23	13.6	29.35		
RW-05	08/24/2017	13:23	32.98	33.67		
RW-06	08/24/2017	13:24	27.15	27.16		
RW-07	08/24/2017	13:24	23.71	24.73		
RW-08	08/24/2017	13:24	17.32	17.33		
RW-09	08/24/2017	13:25	14.45	14.81		
RW-11	08/24/2017	13:25	13.21	13.23		
RW-12	08/24/2017	13:25	14.57	14.58		
RW-14	08/24/2017	13:25		12.58		Tank: DTP - 7.99, DTW - 8.01

Brown, Ryan/ATL

From: Thomas Wesley Barnes III <TWBarnes@ecslimited.com>
Sent: Friday, September 1, 2017 5:10 PM
To: Britney Camper Barnes; Brown, Ryan/ATL
Subject: RE: Please see attached Well Gauging Form for your records [EXTERNAL]

RT-1A 14.51 dtp 14.61 dtw

Frac tank was getting cleaned out, no fluid in it, poly tank had about 370 gallons, cant see if product or water

THOMAS WESLEY BARNES III

ECS SOUTHEAST, LLP T 864.987.1610 | D 864.326.4786 | C 864.380.6899

<http://secure->

web.cisco.com/1_42QbpTTfj5OMqAfM3XpnlUCuEqSgavDzrjmQcx6fAiXOhoY3ueaYLP9MvGsllul9cYAOkgJq6s3yXMT7ljogCklCDxi-01E2Ap03LpfbeLxtuill05eG_hrR2mFu9PjMI-Mf6eektCDZWeWc3QM80iL10wNyFE7ca6UThN9ZbaLCfK-07Jfw9QV0ZLwccggLo4WQ-p5VjLy0d8czRBE4OLDTWBQ9HxbtbGfadxO9qplDooiCELIWEjcyRbF1yqDNEE9pr16ozkiuoYTqMGmtCrWNU5TxDT1aoU_YGNfbv2iis3CfwAJwSIT0UQxUtda-wm_DiMr08VtD7f8ZkhwggsQc8I8w1TaQ_LxZE4gl6gGuEpRWEv9Zg21y3Kr6b2VYEZBX_AX2flktrDCieq3DtBXanD8gzScms7jlQ6snc0sH-gTyIP04KezC2LGJgRoUKE20oscAoY8s-gSWY5fYTgzgTPgjrG7gokL9DdrzLORWUIC4q4O9K8NSxxLxxe/http%3A%2F%2Fwww.ecslimited.com

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From: Britney Camper Barnes
Sent: Friday, September 01, 2017 3:51 PM
To: Brown, Ryan/ATL
Cc: Thomas Wesley Barnes III
Subject: RE: Please see attached Well Gauging Form for your records

Hey
Tom is traveling right now and I will see if I can run down his notes.
Thanks!

BRITNEY CAMPER BARNES

ECS SOUTHEAST, LLP T 864.987.1610 | D 864.987.1811 | C 864.420.8213

<http://secure->

web.cisco.com/1_42QbpTTfj5OMqAfM3XpnlUCuEqSgavDzrjmQcx6fAiXOhoY3ueaYLP9MvGsllul9cYAOkgJq6s3yXMT7ljogCklCDxi-01E2Ap03LpfbeLxtuill05eG_hrR2mFu9PjMI-Mf6eektCDZWeWc3QM80iL10wNyFE7ca6UThN9ZbaLCfK-07Jfw9QV0ZLwccggLo4WQ-p5VjLy0d8czRBE4OLDTWBQ9HxbtbGfadxO9qplDooiCELIWEjcyRbF1yqDNEE9pr16ozkiuoYTqMGmtCrWNU5TxDT1aoU_YGNfbv2iis3CfwAJwSIT0UQxUtda-wm_DiMr08VtD7f8ZkhwggsQc8I8w1TaQ_LxZE4gl6gGuEpRWEv9Zg21y3Kr6b2VYEZBX_AX2flktrDCieq3DtBXanD8gzScms7jlQ6snc0sH-gTyIP04KezC2LGJgRoUKE20oscAoY8s-gSWY5fYTgzgTPgjrG7gokL9DdrzLORWUIC4q4O9K8NSxxLxxe/http%3A%2F%2Fwww.ecslimited.com

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From: Brown, Ryan/ATL [<mailto:Ryan.Brown2@CH2M.com>]
Sent: Friday, September 01, 2017 2:53 PM

To: Thomas Wesley Barnes III; Britney Camper Barnes
Subject: FW: Please see attached Well Gauging Form for your records

Can you look at your notes? RT-1A does not look right. Did you gauge the frac tank or other tanks? Thanks!

Ryan W. Brown

Environmental Engineer

D 1 678 530 4055

M 1 404 434 0880

F 1 770 604 9183

CH2M

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www.ch2m.com | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

Email - rbrown9@ch2m.com

Core work hours: M - F from 8:00AM - 4:00PM EST

Upcoming Fieldwork (out of office): None

Upcoming PTO: September 21 -24

Upcoming Holiday: September 4

Upcoming Training: None

Upcoming WFH: September 1 and November 7

From: ch2mobile@ch2mhill.com [<mailto:ch2mobile@ch2mhill.com>]

Sent: Thursday, August 31, 2017 11:26 AM

To: Brown, Ryan/ATL <Ryan.Brown2@CH2M.com>

Cc: Jay, Ian/ATL <Ian.Jay@ch2m.com>; Powell, Scott/ATL <Scott.Powell@ch2m.com>; Ward, Zachary/RAL <Zachary.Ward@ch2m.com>

Subject: Please see attached Well Gauging Form for your records

Form Result: cf92a09e-e6c9-4fd6-9a58-1984cd65c6cb

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	08/31/2017	11:16	13.81	13.90		
RS-08	08/31/2017	11:17	14.25	14.50		

RT Wells	Date	Time	Depth to Product (ft btoc)	DTW (ft btoc)	Total Depth (ft btoc)	RT Well Comment
						readings corrected on 9/5/17 per email from Thomas Barnes
RT-1A	08/31/2017	11:17	14.51	14.61		
RT-1B	08/31/2017	11:18	14.46	14.56		
RT-1C	08/31/2017	11:18	14.91	15.01		
RT-2A	08/31/2017	11:19		1.37		
RT-2B	08/31/2017	11:19		1.50		
RT-2C	08/31/2017	11:19		1.92		
RT-2D	08/31/2017	11:19		2.01		
RT-2E	08/31/2017	11:20		2.11		
RT-2F	08/31/2017	11:20		2.47		
RT-2G	08/31/2017	11:20		3.47		
RT-2H	08/31/2017	11:20				Damaged
RT-2I	08/31/2017	11:21		3.38		
RT-2J	08/31/2017	11:21		2.05		
RT-2K	08/31/2017	11:21	1.68	1.80		
RT-2L	08/31/2017	11:22	2.86	2.92		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	08/31/2017	11:22	29.40	29.70		
RW-05	08/31/2017	11:23	33.10	34.21		
RW-06	08/31/2017	11:23		27.42		
RW-07	08/31/2017	11:23	23.98	25.13		
RW-08	08/31/2017	11:24	17.75	17.78		
RW-09	08/31/2017	11:24	14.52	15.42		
RW-11	08/31/2017	11:24		13.46		
RW-12	08/31/2017	11:25		14.75		
RW-14	08/31/2017	11:25		12.88		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	09/05/2017	14:32	13.89	13.99		
RS-08	09/05/2017	14:33	14.31	14.58		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	09/05/2017	14:34	14.54	14.68		
RT-1B	09/05/2017	14:34	14.5	14.63		
RT-2A	09/05/2017	14:35		1.21		
RT-2B	09/05/2017	14:35		1.29		Lock replaced
RT-2C	09/05/2017	14:35		1.75		
RT-2D	09/05/2017	14:35		1.83		Sheen
RT-2E	09/05/2017	14:36		1.93		
RT-2F	09/05/2017	14:36		2.27		
RT-2G	09/05/2017	14:36		1.37		Sheen
RT-2I	09/05/2017	14:37		1.27		
RT-2J	09/05/2017	14:37				Filled with water No inner casing, measurement from top of outer casing
RT-2K	09/05/2017	14:37	1.41	1.53		
RT-2L	09/05/2017	14:38	2.53	2.55		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	09/05/2017	14:38	29.46	29.79		
RW-05	09/05/2017	14:39	32.97	34.82		
RW-07	09/05/2017	14:39	23.33	24.31		
RW-08	09/05/2017	14:40	16.5	16.53		
RW-09	09/05/2017	14:40	13.68	14.08		Yellow Jackets nest right of well
RW-11	09/05/2017	14:41		12.88		Odor
RW-12	09/05/2017	14:41		14.8		Tank 1 (close to building): DTP - none, DTW - 1.03 sludge at surface
						Tank 2 (away from building): DTP - 0.14, DTW - 0.46
						Appears that Tank 2 over filled. Brown sludge on top of tank and oily water in secondary
RW-14	09/05/2017	14:41		8.58		containment.

Table 2 - DO Measurement List

SM: Tom Wiley **Client:** Plantation Pipe Line **Weather:** Morning lightning/thunderstorms, afternoon showers, overcast
PN: 684910.LD.MR.GW
Project: Quarterly Monitoring **Measuring Method:** YSI proODO, Oil/Water Interface Probe
Technicians: _____ **Date:** 9/8/2017 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Brown's Creek Protection Zone</i>							
MW-12	1100	2712		14.84	19.09	7.95	has TROLL
MW-12B	1105	10.7		15.20	45.81	0.70	
MW-15	1118	12.8		13.87	21.23	7.95	has TROLL
MW-15B	1123	26.1		16.40	74.41	0.98	
MW-24	1250	2.7		4.47	15.32	--	
MW-24B	1252	0.5		5.83	45.10	--	
MW-25	1030	0.1		8.83	14.40	0.68	Updated 9/8/17.
MW-25B	1028	0.4		5.62	62.20	2.10	Double checked DTB is correct at 62.20
MW-28	1205	1205		23.48	25.93	0.40	
MW-34	1009	36		2.53	7.86	--	
MW-35	1047	3.3		9.74	28.42	--	
MW-37	1135	0.1		3.46	18.11	--	
MW-38	1240	0.3		1.88	11.61	--	
MW-39	1011	58.3		5.50	13.01	--	
MW-40	1015	1113		2.88	13.18	--	Deployed new troll on 09/08/17
MW-41	1021	2.3		4.49	13.20	--	
MW-42	1025	1		5.16	13.40	--	
SW-01	1246	--	--	--	--	6.65	stream gauge = 0.96 ft as of 9/7/17. Sparge system off during DO measurement.
SW-03	1055	--	--	--	--	2.36	sparge system off during DO measurement
SW-12	1110	--	--	--	--	2.60	sparge system off during DO measurement
SW-13	1255	--	--	--	--	4.90	depth 1.2 in. sparge system off during DO measurement
TW-59	835	0.5		15.34	21.15	ND	Updated 9/7/ 17. Not able to collect DO due to shifting concrete cover. Photo available.

Table 2 - DO Measurement List

SM: Tom Wiley **Client:** Plantation Pipe Line **Weather:** Morning lightning/thunderstorms, afternoon showers, overcast
PN: 684910.LD.MR.GW
Project: Quarterly Monitoring **Measuring Method:** YSI proODO, Oil/Water Interface Probe
Technicians: _____ **Date:** 9/8/2017 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments <small>(i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)</small>
TW-60	842	>15,000		10.11	30.25	5.65	Updated 9/7/17.
TW-66	826	1.1		2.45	23.62	8.93	Updated 9/7/17.
<i>Cupboard Creek Protection Zone</i>							
MW-19	1740	4110		11.76	12.13	0.85	
MW-20	1751	2612	12.99	13.71	19.45	0.45	has TROLL
MW-23	1715	2.7		11.22	23.50	--	Total depth measurement double checked
MW-23B	1717	0.2		11.21	33.00	--	Total depth has fluxuated by ~23" since yesterday
MW-26	1721	4.8		7.18	17.15	--	
MW-26B	1722	0.4		8.95	43.84	--	
MW-29	1727	0.3		10.41	15.10	6.50	
TW-67	1748	138.3		13.32	26.47	9.15	
TW-73	1742	0.2		9.20	26.46	8.90	
<i>Hayfield Zone</i>							
MW-02	1454	5002		4.21	19.84	6.20	has TROLL
MW-02B	1447	3.6		1.94	72.50	1.54	
MW-03					20.28		Pressure too high/unsafe to open. Flying ants due to pressure (literally).
MW-04	1514	0.3		11.07	19.59	7.61	
MW-05	1510	0.1		16.50	19.89	--	
MW-06	1606	0.5		15.34	19.20	--	
MW-07	1557	79.5		13.20	13.62	--	
MW-08	1539	0.1		11.92	16.69	8.59	Removed troll, added troll to MW-40
MW-09	1529	532.1	2.81	3.00	20.25		
MW-10	1405	1.8		13.50	23.54	1.70	has BaroTROLL
MW-13	1303	184.4		21.85	22.18	--	
MW-13B	1307	3		22.70	47.90	--	

Table 2 - DO Measurement List

SM: Tom Wiley **Client:** Plantation Pipe Line **Weather:** Morning lightning/thunderstorms, afternoon showers, overcast
PN: 684910.LD.MR.GW
Project: Quarterly Monitoring **Measuring Method:** YSI proODO, Oil/Water Interface Probe
Technicians: _____ **Date:** 9/8/2017 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-14	1310	0		18.08	22.20	--	
MW-14B	1314	4.2		18.84	76.97	--	
MW-16	1613	1216	8.95	9.10	20.37		
MW-17	1652	881		16.71	27.50	--	
MW-17B	1656	234.7		10.85	11.20	--	
MW-18	1547	5500	12.68	12.71	19.75	9.31	
MW-21	1700	71		17.34	28.93	--	
MW-30	1429	104.27		14.56	14.69	ND	Too shallow to take accurate DO readings
MW-31	1326	0.1		20.35	28.20	--	
MW-31B	1329	1.3		20.34	51.30	--	
MW-32	1416	0		12.32	29.09	--	
MW-33	1348	0.1		25.30	28.30	--	
MW-33T	1345	0.7		26.71	100.35	--	
MW-45	1709	0.5		15.70	21.51	--	
MW-45B	1707	2.7		14.19	14.45	--	
TW-55	810	0		6.95	41.50	9.06	Updated 9/7/17.
TW-64	758	0		17.05	52.85	4.38	Updated 9/7/17.
TW-96	1413	1.6		9.28	28.76	9.05	
<i>Shallow Bedrock Zone</i>							
MW-01	850	0		8.30	15.61	3.40	has BaroTROLL. Data Updated 09/7/17
MW-01B	852	0		10.78	45.26	0.85	Updated 9/7/17.
MW-11	845	1836	29.69	30.04	32.50	7.89	Updated 9/7/17.
MW-22	859	>15000		10.35	10.35	ND	Updated data 09/07/17. Dry well. No DO measurements
MW-27	849	0.2		27.28	29.51	7.79	Updated 9/7/17.
MW-27B	847	2.9	30.06	30.07	41.45	7.96	Updated 9/7/17.


Table 2 - DO Measurement List

SM: Tom Wiley **Client:** Plantation Pipe Line **Weather:** Morning lightning/thunderstorms, afternoon showers, overcast
PN: 684910.LD.MR.GW
Project: Quarterly Monitoring **Measuring Method:** YSI proODO, Oil/Water Interface Probe
Technicians: _____ **Date:** 9/8/2017 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-44	856	0		9.38	9.82	2.72	Updated 9/8/17.
MW-44B	857	0		13.95	30.62	0.68	Updated 9/8/17.

BTOC - below top of casing
 ft - feet
 PN - Project Number

¹Total depths collected 9/06/17

ppm - parts per million
 SM - Site Manager
 - wells historically found to have product

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	09/10/2017	16:27		9.05		
MW-01B	09/10/2017	16:28		10.77		
MW-02	09/10/2017	16:28		3.42		
MW-02B	09/10/2017	16:29		2.42		
MW-03	09/10/2017	16:29		6		Maybe, bubbling
MW-04	09/10/2017	16:30		10.82		
MW-05	09/10/2017	16:30		16.65		
MW-06	09/10/2017	16:30		15.4		
MW-07	09/10/2017	16:31		13.17		
MW-08	09/10/2017	16:31		11.2		
MW-09	09/10/2017	16:31		3.5		Maybe,bubbling
MW-10	09/10/2017	16:32		13.02		
MW-11	09/10/2017	16:32	29.68	30.04		
MW-12	09/10/2017	16:32		14.9		
MW-12B	09/10/2017	16:33		15.35		
MW-13	09/10/2017	16:33		21.85		
MW-13B	09/10/2017	16:33		22.75		
MW-14	09/10/2017	16:34		18.07		
MW-14B	09/10/2017	16:34		18.97		
MW-15	09/10/2017	16:34		14.12		
MW-15B	09/10/2017	16:35		16.37		
MW-16	09/10/2017	16:35		8.5		Maybe,bubbling
MW-17	09/10/2017	16:36		10.83		
MW-17B	09/10/2017	16:36		16.75		
MW-18	09/10/2017	16:36		11.1		Maybe,bubbling
MW-19	09/10/2017	16:37		11.77		
MW-20	09/10/2017	16:37	12.94	13.45		
MW-21	09/10/2017	16:38		17.39		
MW-22	09/10/2017	16:38				Dry
MW-23	09/10/2017	16:38		11.28		
MW-23B	09/10/2017	16:39		11.33		
MW-24	09/10/2017	16:39		4.65		
MW-24B	09/10/2017	16:39		5.79		
MW-25	09/10/2017	16:40		8.88		
MW-25B	09/10/2017	16:40		5.37		
MW-26	09/10/2017	16:40		7.35		
MW-26B	09/10/2017	16:41		9.08		
MW-27	09/10/2017	16:41		27.33		
MW-27B	09/10/2017	16:41		30.15		
MW-28	09/10/2017	16:42		25.04		
MW-29	09/10/2017	16:42		10.5		
MW-30	09/10/2017	16:42		14.45		
MW-31	09/10/2017	16:43		20.26		
MW-31B	09/10/2017	16:43		20.32		
MW-32	09/10/2017	16:43		11.51		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-33	09/10/2017	16:44		25.35		
MW-33T	09/10/2017	16:44		26.75		
MW-34	09/10/2017	16:44		2.61		
MW-35	09/10/2017	16:45		8.98		
MW-36	09/10/2017	16:45		19.89		
MW-36B	09/10/2017	16:45		19.6		
MW-37	09/10/2017	16:46		3.5		
MW-38	09/10/2017	16:46		1.99		
MW-39	09/10/2017	16:46		6.04		
MW-40	09/10/2017	16:47		3.22		
MW-41	09/10/2017	16:47		4.64		
MW-42	09/10/2017	16:47		5.24		
MW-44	09/10/2017	16:48		9.35		
MW-44B	09/10/2017	16:48		14.15		
MW-45	09/10/2017	16:48		14.21		
MW-45B	09/10/2017	16:49		15.72		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	09/10/2017	16:16	11.45	11.77		
RS-02	09/10/2017	16:17	11.17	11.37		
RS-04	09/10/2017	16:17		9.7		
RS-05	09/10/2017	16:18	10.35	10.95		
RS-06	09/10/2017	16:18	11.36	11.46		
RS-07	09/10/2017	16:18	13.91	13.98		
RS-08	09/10/2017	16:19	14.39	14.68		
RS-09	09/10/2017	16:19	9.15	9.2		
RS-10	09/10/2017	16:20		8.47		
RS-11	09/10/2017	16:20		8.35		
RS-12	09/10/2017	16:20		8.7		
RS-13	09/10/2017	16:21		6.43		
RS-14	09/10/2017	16:21		5.4		
RS-15	09/10/2017	16:21	6.17	6.18		
RS-16	09/10/2017	16:22		4.94		
RS-17	09/10/2017	16:22		4.61		
RS-18	09/10/2017	16:22		10		
RS-20	09/10/2017	16:22		5.68		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	09/10/2017	16:23		14.2		
RW-02	09/10/2017	16:24	22.85	23.1		
RW-03	09/10/2017	16:24	23.25	23.26		
RW-10	09/10/2017	16:25	11.95	12.06		
						Too much pressure causing rubber gasket to expand, can't budge
RW-13	09/10/2017	16:25				
RW-15	09/10/2017	16:26	14.03	14.51		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	09/10/2017	17:04	0.91	
SW-02	09/10/2017	17:04	1.6	
SW-03	09/10/2017	17:05	1.54	
SW-08	09/10/2017	17:05	1.09	
SW-10	09/10/2017	17:05	0.3	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-04R	09/10/2017	16:51				Dry
TW-05R	09/10/2017	16:51		6.87		
TW-14R	09/10/2017	16:51				Dry
TW-15R	09/10/2017	16:52				Dry
TW-21	09/10/2017	16:52		5		
TW-28	09/10/2017	16:52	22.8	22.9		
TW-30	09/10/2017	16:52		22		
TW-34	09/10/2017	16:53		22.2		
TW-35	09/10/2017	16:53		22.72		
TW-40	09/10/2017	16:53		28.9		
TW-41	09/10/2017	16:54		27.89		
TW-42	09/10/2017	16:54	26.26	27.2		
TW-45	09/10/2017	16:54	27.85	28.4		
TW-55	09/10/2017	16:55		6.6		Maybe, bubbling
TW-59	09/10/2017	16:55		14.85		
TW-60	09/10/2017	16:56		10.45		
TW-64	09/10/2017	16:56		17.25		
TW-65	09/10/2017	16:56		21.61		
TW-66	09/10/2017	16:57		2.98		
TW-67	09/10/2017	16:57		9.8		Maybe, bubbling
TW-68	09/10/2017	16:57		23.11		
TW-69	09/10/2017	16:58		15.24		
TW-70	09/10/2017	16:58		19.35		
TW-73	09/10/2017	16:58		9.15		
TW-76	09/10/2017	16:59		14.39		
TW-81	09/10/2017	16:59		4.87		
TW-82	09/10/2017	16:59		5.11		
TW-83	09/10/2017	16:59				Can't find, grassed over
TW-84	09/10/2017	17:00		6.67		
TW-85	09/10/2017	17:00		10.6		Maybe, bubbling
TW-86	09/10/2017	17:01		5.56		
TW-87	09/10/2017	17:01		6.8		
TW-90	09/10/2017	17:02		10.2		Maybe, bubbling Bubbling out top when cap removed
TW-94	09/10/2017	17:02				
TW-96	09/10/2017	17:03		6.7		Maybe, bubbling

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	09/15/2017	14:13	13.7	13.71		
RS-08	09/15/2017	14:13	14.21	14.41		

RT Wells	Date	Time	Depth to Product		Total Depth (ft btoc)	RT Well Comment
			(ft btoc)	DTW (ft btoc)		
RT-1A	09/15/2017	14:15	14.38	14.42		
RT-1B	09/15/2017	14:15	14.34	14.38		
RT-2A	09/15/2017	14:16		0.95		
RT-2B	09/15/2017	14:16		1.07		Odor
RT-2C	09/15/2017	14:16		1.51		
RT-2D	09/15/2017	14:16		1.59		
RT-2E	09/15/2017	14:17		1.7		
RT-2F	09/15/2017	14:17		2.03		
RT-2G	09/15/2017	14:17		1.32		
RT-2I	09/15/2017	14:17				Tree fell on well. Could not
RT-2J	09/15/2017	14:18				Water above top of casing. Expansion cap could not be removed.
RT-2K	09/15/2017	14:18				
RT-2L	09/15/2017	14:19	2.24	2.25		

RWWells	Date	Time	Depth to Product		Total Depth (ft btoc)	RW Well Comment
			(ft btoc)	DTW (ft btoc)		
RW-04	09/15/2017	14:19	29.46	29.78		
RW-05	09/15/2017	14:20	32.9	34.76		
RW-07	09/15/2017	14:20	23.21	24.14		
RW-08	09/15/2017	14:20	16.35	16.36		
RW-09	09/15/2017	14:21	13.55	13.9		
RW-11	09/15/2017	14:21		13.01		Odor
RW-12	09/15/2017	14:21		14.84		Odor
						Tank 1: DTP - no measurement, DTW - 3.53
						Tank 2: DTP - 4.92, DTW - 4.94
RW-14	09/15/2017	14:22		8.67		

Brown, Ryan/ATL

From: James C. Bevers, P.E. <jbevers@ecslimited.com>
Sent: Saturday, September 16, 2017 5:42 PM
To: Brown, Ryan/ATL
Cc: Britney Camper Barnes; Thomas Wesley Barnes III
Subject: Kinder Morgan Total Depth Well Request [EXTERNAL]

Ryan,

Following are the water and total depths of the requested wells.

	Well	Water Depth	Total Depth
•	MW-02	1.73	19.78
•	MW-02B	14.00	71.20 (depth inaccurate, difficult to determine, silt?)
•	MW-04	10.17	20.65
•	MW-07	13.17	13.58
•	MW-08	5.70	19.80
•	MW-09	2.43	20.21
•	MW-12	14.28	21.69 (silt)
•	MW-13B	22.59	55.36 (difficult to measure, silt?)
•	MW-15	11.45	21.22
•	MW-17	16.65	27.44
•	MW-21	17.14	20.70
•	MW-22	9.92	10.30
•	MW-23B	11.34	53.48
•	MW-24	4.50	15.30
•	MW-25	8.28	18.07
•	MW-25B	5.17	59.00
•	MW-27B	30.17	50.30
•	MW-31B	20.25	79.25
•	MW-44B	14.10	34.50
•	MW-45	14.21	14.42
•	MW-45B	15.76	40.31
•	TW-60	7.34	34.75
•	TW-66	1.63	23.81
•	TW-73	Fire ant nest, could not access well	

Please let me know if you have any questions regarding these measurements.

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ECS SOUTHEAST, LLP

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Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	09/21/2017	11:15	13.76	13.77		
RS-08	09/21/2017	11:16	14.23	14.42		

RT Wells	Date	Time	Depth to Product (ft btoc)	DTW (ft btoc)	Total Depth (ft btoc)	RT Well Comment
RT-1A	09/21/2017	11:19	14.43	14.5		
RT-1B	09/21/2017	11:20	14.39	14.46		
RT-1C	09/21/2017	11:20	14.82	14.9		
RT-2A	09/21/2017	11:21		1.28		
RT-2B	09/21/2017	11:21		1.46		
RT-2C	09/21/2017	11:21		1.84		
RT-2D	09/21/2017	11:21		1.91		Sheen
RT-2E	09/21/2017	11:22		2.03		
RT-2F	09/21/2017	11:22		2.37		Lock replaced
RT-2G	09/21/2017	11:22		3.3		
RT-2I	09/21/2017	11:22		3.3		
RT-2J	09/21/2017	11:22		1.85		Odor
RT-2K	09/21/2017	11:23				Could not access
RT-2L	09/21/2017	11:23	2.62	2.64		

RW Wells	Date	Time	Depth to Product (ft btoc)	DTW (ft btoc)	Total Depth (ft btoc)	RW Well Comment
RW-04	09/21/2017	11:16	29.34	29.66		
RW-05	09/21/2017	11:17	32.87	33.58		
RW-06	09/21/2017	11:17		27.32		Odor
RW-07	09/21/2017	11:17	23.85	24.9		
RW-08	09/21/2017	11:18	17.48	17.5		
RW-09	09/21/2017	11:18	14.49	14.91		
RW-11	09/21/2017	11:18		13.06		Odor
RW-12	09/21/2017	11:18		14.78		Odor
RW-14	09/21/2017	11:19		12.64		Tank 1: DTP 3.40, DTW 3.42 Tank 2: DTP 4.78, DTW 4.82

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	09/28/2017	12:23	13.92	13.95		
RS-08	09/28/2017	12:24	14.41	14.69		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	09/28/2017	12:26	14.62	14.72		
RT-1B	09/28/2017	12:26	14.58	14.68		
RT-1C	09/28/2017	12:26	15.02	15.11		
RT-2A	09/28/2017	12:26		1.39		
RT-2B	09/28/2017	12:27		1.51		
RT-2C	09/28/2017	12:27		1.95		
RT-2D	09/28/2017	12:27		2.03		Sheen
RT-2E	09/28/2017	12:27		2.14		
RT-2F	09/28/2017	12:28		2.49		
RT-2G	09/28/2017	12:28		3.42		
RT-2I	09/28/2017	12:28		3.4		Lock replaced
RT-2J	09/28/2017	12:28		1.98		
RT-2K	09/28/2017	12:28	1.59	1.73		
RT-2L	09/28/2017	12:29	2.76	2.79		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	09/28/2017	12:35	29.62	30.01		Lock needs replacement
RW-05	09/28/2017	12:35	32.98	34.76		
RW-06	09/28/2017	12:36		27.41		
RW-07	09/28/2017	12:36	23.97	25.05		
RW-08	09/28/2017	12:36		17.57		Odor
RW-09	09/28/2017	12:37	14.59	15.35		
RW-11	09/28/2017	12:37		13.37		Odor
RW-12	09/28/2017	12:37	14.45	14.46		
						Tank 1: DTP no measurement, DTW 3.45
RW-14	09/28/2017	12:37		12.78		Tank 2: DTP 4.82, DTW 4.84

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: SUNNY MID 70'S

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. WARREN, K. SEXTON

Date: 10/03/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creek Protection Zone							
✓ MW-12	1238	1006.0	—	14.61	22.05	0.35	has TROLL 21.70 TOTAL DEPTH
✓ MW-12B	1240	1.0	—	14.93	45.31	0.70	45.55 TOTAL DEPTH
✓ MW-15	1114	32.4	—	11.65	21.40	0.68	has TROLL
✓ MW-15B	1111	13.9	—	16.65	75.63	0.77	86.00 TOTAL DEPTH
✓ MW-25	1207	0.0	—	8.52	18.04	1.83	
✓ MW-25B	1210	0.0	—	5.83	56.43	1.06	61.90 TOTAL DEPTH
✓ MW-28	1223	813	—	23.80	25.91	0.57	26.05 TOTAL DEPTH * LOW FLOW *
✓ TW-59	1230	0.0	—	14.80	22.00	INACCESSIBLE	21.11 TOTAL DEPTH. CEMENT PAD NEEDS REPLACEMENT
✓ TW-60	1247	13.5	—	7.72	29.77	8.13	
✓ TW-66	1159	0.0	—	1.79	29.70	6.02	23.87 TOTAL DEPTH
Cupboard Creek Protection Zone							
✓ MW-19	0958	3449	—	11.78	12.15	7.56	DRY
✓ MW-20	1005	5006	13.25	13.79	19.40	—	has TROLL
✓ MW-29	0940	0.0	—	10.85	14.95	7.79	15.02 TOTAL DEPTH
✓ TW-67	1013	5.0	—	13.83	26.46	8.02	26.37 TOTAL DEPTH
✓ TW-73	0950	0.0	—	9.43	12.75	8.41	12.58 TOTAL DEPTH
Hayfield Zone							
✓ MW-02	1459	0.0	—	16.03	23.14	19.02	has TROLL 19.79 TOTAL DEPTH
✓ MW-02B	1450	0.0	—	21.87	68.35	2.75	73.90 TOTAL DEPTH
✓ MW-03	1521	0.0	—	19.87	20.28	7.30	DRY
✓ MW-04	1535	0.0	—	14.78	19.56	5.81	19.61 TOTAL DEPTH
✓ MW-08	1614	0.0	—	16.86	19.70	7.45	19.80 TOTAL DEPTH
✓ MW-09	1644 1652	948.0	—	19.78	20.21	0.44	DRY
✓ MW-10	1510	0.0	—	17.33	23.21	5.70	has BaroTROLL
✓ MW-16	1626	0.0	15.00	15.21	20.58	—	20.45 TOTAL DEPTH
✓ MW-18	1620	0.0	18.02	18.47	20.11	—	PRODUCT
✓ MW-30	1530	0.0	—	14.64 14.58	14.51	TOO DRY	14.64 TOTAL DEPTH. DRY,

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: SUNNY, MID 70's

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. WARREN, B. SEXTON

Date: 10/03/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
✓ TW-55	1600	0.0	—	14.90	30.78	2.36	41.10 TOTAL DEPTH (DOUBLE CHECKED)
✓ TW-64	1433	0.0	—	20.40	52.88	4.43	
✓ TW-96	1515	0.0	—	16.63	27.60	8.68	
<i>Shallow Bedrock Zone</i>							
✓ MW-01	1046	0.0	—	9.79	15.62	3.50	has BaroTROLL [*] 15.68 TOTAL DEPTH
✓ MW-01B	1050	0.0	—	10.45	42.21	0.96	42.42 TOTAL DEPTH
✓ MW-11	1100	0.8	30.37	30.93	32.40	—	32.00 TOTAL DEPTH / PRODUCT
✓ MW-22	1037	10.7	—	9.94	10.32 ✓	0.67	DRY, NO SAMPLE

BTOC - below top of casing
ft - feet
PN - Project Number

¹Total depths collected 9/5/17

ppm - parts per million
SM - Site Manager
* - wells historically found to have product

* TROLL NOT SUBMERGED?

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	10/06/2017	14:10	14.11	14.12		
RS-08	10/06/2017	14:10	14.64	14.81		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	10/06/2017	14:16	14.85	15.02		
RT-1B	10/06/2017	14:16	14.82	14.95		
RT-1C	10/06/2017	14:16	15.26	15.39		
RT-2A	10/06/2017	14:17		1.34		
RT-2B	10/06/2017	14:17		1.45		
RT-2C	10/06/2017	14:17		1.92		Sheen
RT-2D	10/06/2017	14:17		1.98		Sheen
RT-2E	10/06/2017	14:17		2.08		
RT-2F	10/06/2017	14:18		2.43		
RT-2G	10/06/2017	14:18		1.45		Sheen
RT-2I	10/06/2017	14:18		1.34		
RT-2J	10/06/2017	14:18		0.05		Sheen - filled with water No inner casing - 6" casing difficult to remove
RT-2K	10/06/2017	14:19	1.79	1.93		
RT-2L	10/06/2017	14:20	2.76	2.78		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	10/06/2017	14:11	30.33	30.87		
RW-05	10/06/2017	14:11	33.21	34.89		
RW-06	10/06/2017	14:11	27.26	27.27		
RW-07	10/06/2017	14:12	23.44	24.31		
RW-08	10/06/2017	14:12		16.04		Odor 4" expansion cap replaced
RW-09	10/06/2017	14:12	13.35	13.67		Odor
RW-11	10/06/2017	14:13		13.14		
RW-12	10/06/2017	14:13		15.15		Air sparging, measurement inaccurate Tank 1 - DTP: no measurement, DTW: 2.13 Tank 2 - DTP: 4.40, DTW: 4.42
RW-14	10/06/2017	14:14		7.9		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	10/12/2017	10:17	14.19	14.25		
RS-08	10/12/2017	10:17	14.74	15		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	10/12/2017	10:18	14.95	15.03		
RT-1B	10/12/2017	10:18	14.91	15		
RT-1C	10/12/2017	10:18	15.34	15.43		
RT-2A	10/12/2017	10:18		1.25		
RT-2B	10/12/2017	10:19	1.36	1.37		
RT-2C	10/12/2017	10:19	1.81	1.83		
RT-2D	10/12/2017	10:19	1.98	1.99		
RT-2E	10/12/2017	10:19		2		Sheen
RT-2F	10/12/2017	10:20	2.34	2.35		
RT-2G	10/12/2017	10:20		3.65		
RT-2I	10/12/2017	10:20		3.42		
RT-2J	10/12/2017	10:20		2.2		
						No inner 4" casing, 6" expansion cap needs replacement
RT-2K	10/12/2017	10:21	1.43	1.57		
RT-2L	10/12/2017	10:21	2.88	2.92		

RWWells	Date	Time	Depth to Product		Total Depth		RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)		
RW-04	10/12/2017	10:22	30.71	30.8			
RW-05	10/12/2017	10:22	33.84	34.43			
RW-06	10/12/2017	10:22	28.03	28.05			
RW-07	10/12/2017	10:23	24.43	25.71			
RW-08	10/12/2017	10:23	18.32	18.33			
RW-09	10/12/2017	10:24	14.78	16.39			
RW-11	10/12/2017	10:24		13.75			Odor
RW-12	10/12/2017	10:24		15.23			Odor
							Tank 1: DTP no measurement, DTW 2.09
RW-14	10/12/2017	10:24	13.19	13.2			Tank 2: DTP 3.18, DTW 3.25

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	10/20/2017	10:21	14.26	14.32		
RS-08	10/20/2017	10:21	14.93	15.2		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	10/20/2017	10:21	15.08		15.18	
RT-1B	10/20/2017	10:22	15.04		15.14	
RT-1C	10/20/2017	10:22	15.47		15.58	
RT-2A	10/20/2017	10:22			1.43	
RT-2B	10/20/2017	10:22			1.55	
RT-2C	10/20/2017	10:22			2	
RT-2D	10/20/2017	10:23			2.06	
RT-2E	10/20/2017	10:23			2.16	
RT-2F	10/20/2017	10:23			2.51	
RT-2G	10/20/2017	10:23			1.74	
RT-2I	10/20/2017	10:23			3.46	
RT-2J	10/20/2017	10:24			1.58	Odor No inner casing, 6" expansion cap needs replacement
RT-2K	10/20/2017	10:24	1.79		1.92	
RT-2L	10/20/2017	10:24	2.9		2.96	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	10/20/2017	10:25	30.7	31.05		
RW-05	10/20/2017	10:25	33.84	34.74		
RW-06	10/20/2017	10:26	27.79	27.81		
RW-07	10/20/2017	10:26	24.04	24.91		
RW-08	10/20/2017	10:26		17.16		Odor
RW-09	10/20/2017	10:26	14.04	14.29		
RW-11	10/20/2017	10:27		13.91		Odor
RW-12	10/20/2017	10:27		15.47		Odor
						Odor
						Tank 1: DTP no measurement, DTW full
						Tank 2: DTP 2.13, DTW 2.23
RW-14	10/20/2017	10:27			9.17	

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	10/21/2017	17:08		10.6		
MW-01B	10/21/2017	17:08		11.07		
MW-02	10/21/2017	17:09		6.48		
MW-02B	10/21/2017	17:09		27.5		
MW-03	10/21/2017	17:09		9		Bubbling
MW-04	10/21/2017	17:10		12.45		
MW-05	10/21/2017	17:10		17.55		
MW-06	10/21/2017	17:11		16.4		
MW-07	10/21/2017	17:11		13.2		
MW-08	10/21/2017	17:12		14.35		
MW-09	10/21/2017	17:12		6.82		
MW-10	10/21/2017	17:12		15.6		
MW-11	10/21/2017	17:13	30.87	31.2		
MW-12	10/21/2017	17:13		15.06		
MW-12B	10/21/2017	17:14		15.44		
MW-13	10/21/2017	17:14		21.84		
MW-13B	10/21/2017	17:14		23.63		
MW-14	10/21/2017	17:15		18.62		
MW-14B	10/21/2017	17:15		19.35		
MW-15	10/21/2017	17:15	14.16	14.17		
MW-15B	10/21/2017	17:16		16.63		
MW-16	10/21/2017	17:16		11.1		Bubbling
MW-17	10/21/2017	17:17		10.83		
MW-17B	10/21/2017	17:17		17.6		
MW-18	10/21/2017	17:18	15.04	15.1		
MW-19	10/21/2017	17:18		11.76		
MW-20	10/21/2017	17:18	13.6	14.07		
MW-21	10/21/2017	17:19		17.95		
MW-22	10/21/2017	17:19				Dry
MW-23	10/21/2017	17:19		11.83		
MW-23B	10/21/2017	17:20		11.45		
MW-24	10/21/2017	17:20		4.75		
MW-24B	10/21/2017	17:20		5.85		
MW-25	10/21/2017	17:21		8.8		
MW-25B	10/21/2017	17:21		5.75		
MW-26	10/21/2017	17:21		8.01		
MW-26B	10/21/2017	17:22		9.71		
MW-27	10/21/2017	17:22		27.95		
MW-27B	10/21/2017	17:23		30.63		
MW-28	10/21/2017	17:23		23.99		
MW-29	10/21/2017	17:23		11.23		
MW-30	10/21/2017	17:24		14.55		
MW-31	10/21/2017	17:24		21.73		
MW-31B	10/21/2017	17:25		22.21		
MW-32	10/21/2017	17:25		14.27		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-33	10/21/2017	17:25		26.8		
MW-33T	10/21/2017	17:26		27.89		
MW-34	10/21/2017	17:26		2.62		
MW-35	10/21/2017	17:26		9.98		
MW-36	10/21/2017	17:27		20.55		
MW-36B	10/21/2017	17:27		20.25		
MW-37	10/21/2017	17:27		3.64		
MW-38	10/21/2017	17:28		2.19		
MW-39	10/21/2017	17:28		5.46		
MW-40	10/21/2017	17:28		2.87		
MW-41	10/21/2017	17:29		4.55		
MW-42	10/21/2017	17:29	5.22			
MW-44	10/21/2017	17:30		9.32		
MW-44B	10/21/2017	17:30		14.7		
MW-45	10/21/2017	17:31		14.21		
MW-45B	10/21/2017	17:31		16.09		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	10/21/2017	16:56	14.4	14.72		
RS-02	10/21/2017	16:57	14.25	14.32		
RS-04	10/21/2017	16:57		9.7		
RS-05	10/21/2017	16:58	12.75	13.35		
RS-06	10/21/2017	16:58	13.51	13.54		
RS-07	10/21/2017	16:59	14.31	14.37		
RS-08	10/21/2017	17:00	14.97	15.24		
RS-09	10/21/2017	17:00		12.51		
RS-10	10/21/2017	17:00	11.2	11.22		
RS-11	10/21/2017	17:01		10.73		
RS-12	10/21/2017	17:01		11.2		
RS-13	10/21/2017	17:01		11.55		
RS-14	10/21/2017	17:02	11.35	11.38		
RS-15	10/21/2017	17:02		10.65		
RS-16	10/21/2017	17:02		10		
RS-17	10/21/2017	17:03		9.59		
RS-18	10/21/2017	17:03		13.05		
RS-20	10/21/2017	17:03		9.39		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	10/21/2017	17:05		16.3		
RW-02	10/21/2017	17:05	24.32	24.66		
RW-03	10/21/2017	17:06	24.51	24.53		
RW-10	10/21/2017	17:06		13.56		
RW-13	10/21/2017	17:06				Too much pressure, can't remove cap
RW-15	10/21/2017	17:07	15.88	16.6		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	10/21/2017	17:48	0.81	
SW-02	10/21/2017	17:48	1.47	
SW-03	10/21/2017	17:48	1.68	
SW-08	10/21/2017	17:48	1.01	
SW-10	10/21/2017	17:49	0.27	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-04R	10/21/2017	17:33				Dry
TW-05R	10/21/2017	17:34		8.44		
TW-14R	10/21/2017	17:34				Dry
TW-15R	10/21/2017	17:34				Dry
TW-28	10/21/2017	17:35	23.6	24.5		
TW-30	10/21/2017	17:37		22.92		
TW-34	10/21/2017	17:37		22.21		
TW-35	10/21/2017	17:38		22.72		
TW-40	10/21/2017	17:38		29.17		
TW-41	10/21/2017	17:38		28.53		
TW-42	10/21/2017	17:39	26.75	27.5		
TW-45	10/21/2017	17:39	28.38	28.98		
TW-55	10/21/2017	17:40		8.35		
TW-59	10/21/2017	17:40		14.3		Bubbling
TW-60	10/21/2017	17:41		10.37		
TW-64	10/21/2017	17:41		18.94		
TW-65	10/21/2017	17:41				
TW-65	10/21/2017	17:41		22.97		
TW-66	10/21/2017	17:42		2.68		
TW-67	10/21/2017	17:42		9		Bubbling
TW-68	10/21/2017	17:43		24.47		
TW-69	10/21/2017	17:43		16.2		
TW-70	10/21/2017	17:43		20.22		
TW-73	10/21/2017	17:44		9.85		
TW-76	10/21/2017	17:44		15.75		
TW-81	10/21/2017	17:44		6.22		
TW-82	10/21/2017	17:45		6.74		
TW-83	10/21/2017	17:45				Grassed over
TW-84	10/21/2017	17:45		7.9		
TW-85	10/21/2017	17:46		13.4		
TW-86	10/21/2017	17:46		5.57		
TW-87	10/21/2017	17:46		6.82		
TW-90	10/21/2017	17:46		14.66		
TW-94	10/21/2017	17:47		2		Bubbling
TW-96	10/21/2017	17:47		11.98		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	10/26/2017	10:28	14.03	14.04		
RS-08	10/26/2017	10:29	14.8	15		Pressure

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	10/26/2017	10:29	14.95	15.02		
RT-1B	10/26/2017	10:30	14.91	14.98		
RT-1C	10/26/2017	10:30	15.58	15.65		
RT-2A	10/26/2017	10:30		1.01		
RT-2B	10/26/2017	10:30		1.14		
RT-2C	10/26/2017	10:31		1.62		Sheen
RT-2D	10/26/2017	10:31		1.68		Sheen
RT-2E	10/26/2017	10:31		1.8		
RT-2F	10/26/2017	10:31		2.15		
RT-2G	10/26/2017	10:31		3.43		
RT-2I	10/26/2017	10:32		3.33		
RT-2J	10/26/2017	10:32		2.04		
						Could not measure. Silt fence material in well. 6" expansion cap needs replacement. No inner 4" casing.
RT-2K	10/26/2017	10:32				
RT-2L	10/26/2017	10:33		2.58		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	10/26/2017	10:34	30.58	30.67		
RW-05	10/26/2017	10:34	33.67	33.88		
RW-06	10/26/2017	10:34		27.76		Odor. Lock needs replacement.
RW-07	10/26/2017	10:35	24.47	24.98		
RW-08	10/26/2017	10:35		18.38		Odor
RW-09	10/26/2017	10:35	14.82	14.92		
RW-11	10/26/2017	10:35		13.82		Odor. Pressure.
RW-12	10/26/2017	10:36		15.46		
						Strong odor upon arrival at facility. Tank 1: DTP no measurement, DTW full Tank 2: DTP 1.20, DTW 1.21 almost full
RW-14	10/26/2017	10:36		13.16		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	11/03/2017	12:17		13.82		Odor Expansion cap needs replacement and casing damaged - struck by vehicle
RS-08	11/03/2017	12:17	14.57	14.71		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	11/03/2017	12:19	14.67		14.77	
RT-1B	11/03/2017	12:19	14.62		14.71	
RT-1C	11/03/2017	12:20	15.22		15.31	
RT-2A	11/03/2017	12:20			0.97	
RT-2B	11/03/2017	12:20			1.11	
RT-2C	11/03/2017	12:20			1.59	
RT-2D	11/03/2017	12:21			1.66	Sheen
RT-2E	11/03/2017	12:21			1.76	
RT-2F	11/03/2017	12:21			2.1	
						Water above ground level within well, lock needs replacement
RT-2G	11/03/2017	12:21			0.25	
RT-2I	11/03/2017	12:22			1.56	
						Water above top of casing
RT-2J	11/03/2017	12:22				Silt fence material within well, could not measure
RT-2K	11/03/2017	12:22				
RT-2L	11/03/2017	12:23			2.27	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	11/03/2017	12:24	30.17	30.56		Lock needs replacement
RW-05	11/03/2017	12:24	33.47	34.04		
RW-06	11/03/2017	12:24		27.22		Odor, lock needs replacement
RW-07	11/03/2017	12:25	23.39	23.52		
RW-08	11/03/2017	12:26		16.13		
RW-09	11/03/2017	12:26		13.28		Expansion cap not tightened
RW-11	11/03/2017	12:26		14.35		Odor, needs pressure relief
RW-12	11/03/2017	12:27		14.17		Odor
						Air sparging
						Tank 1 - DTP no measurement, DTW 4.89
						Tank 2 - DTP no measurement, DTW 4.98
RW-14	11/03/2017	12:27		5.1		

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: FOG, MID 60'S

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Measuring Method: YSI proDOO, Oil/Water Interface Probe

Technicians: M. WARREN, K. SEXTON

Date: 11/7/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc)
Brown's Creek Protection Zone							
MW-12	1515	715.000	—	14.00	21.70	6.39 ² 0.86	has TROLL DTB = 21.72 = DTB
MW-12B	1510	0.3	—	14.25	45.55	1.86	DTB = 46.4
MW-15	1427	118.7	—	13.32	21.40	7.84	has TROLL DTB = 21.20
MW-15B	1354	42.2	—	16.08	86.00	7.70	DTB = 72.90 DTB = 82.00
MW-25	1430	0.3	—	8.35	18.04	1.70	has TROLL DTB = 17.95 = DTB
MW-25B	1432	0.0	—	5.47	61.90	0.78	DTB = 59.2
MW-28	1450	715.000	—	23.78	26.05	0.52	DTB = 29.0 25.90 (LOW FLOW/BANK)
MW-34	1400	11.5	—	2.48	7.82	—	—
MW-35	1440	0.7	—	8.94	28.50	—	DTB = 28.40
MW-38	1336	0.0	—	1.88	11.46	—	DTB = 11.55
MW-39	1404	17.7	—	4.89	13.03	—	DTB = 13.07
MW-40	1408	715.000	—	2.11	13.15	—	has TROLL DTB = 13.20
MW-41	1418	1.6	—	4.39	13.19	—	—
MW-42	1426	0.7	—	5.10	13.37	—	DTB = 13.40
MW-43	1324	0.0	4.45	4.45	10.33	—	not installed yet - INSTALLED
SW-01	1330	—	—	—	—	8.70	0.90 = surface depth, outer string
SW-03	1442	—	—	—	—	3.60	1.80 = DO SURFACE = 7.6
SW-12	1415	—	—	—	—	4.05	su
SW-13	1340	—	—	—	—	3.60	SURFACE = 0.90
TW-59	1504	4.5	—	20.00*	21.11	9.70	DTB = 21.20
TW-60	1452	46.5	—	10.20	39.24	7.43	—
TW-66	1421	5.1	—	2.15	23.87	5.67	DTB = 23.93
Cupboard Creek Protection Zone							
MW-19	0907	715.000	—	11.80	12.15	6.30	PRESSURE (DRY)
MW-20	0917	715.000	13.12	13.61	19.40	—	has TROLL (MICROBIAL FILM AROUND INLET)
MW-23	0935	1.4	—	11.10	23.21	—	—
MW-26	0930	1.5	—	6.56	17.12	—	—

1349

9.6

2.12

5.34

19.46

9.67

8.18

11.09

8.8

5.38

Product

12.11

10.56

7.72
32.15

*TW-59: DTW IS AN AVERAGE DTW DUE TO FLUCTUATING WATER LEVEL FROM SPARGE SYSTEM

NOTE: TW-67 WAS BAILED AT 1624 FOR THE PRESENCE OF PRODUCT, NO PRODUCT OBSERVED. MEASURED DO.

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: _____

PN: 684910.LD.MR.GW

Project: Monthly Monitoring

Measuring Method: YSI proDOO, Oil/Water Interface Probe

Technicians: _____

Date: 11/17/17

Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
1.84 3.91 MW-25	0856	0.0	10.06	10.06	15.02	6.72	14.90 DTB
TW-67	0901	0.0	13.91	13.91	26.37	9.60	PRESSURE PID = 47.0 DTB = 26.55
TW-73	0905	0.0	—	8.55	12.58	9.00	12.45 DTB
Hayfield Zone							
5.59 MW-02	1054	715,000	—	4.20	19.79	8.22	has TROLL
MW-02B	1056	0.0	—	13.41	80.00	8.45	DTB = 82.5 (DOUBLE CHECKED DEPTH)
8.78 MW-03	1111	0.0	—	1.5	20.28	9.61	BUBBLING OUT TOP, MISSING SCREW/WASHER
MW-04	1130	0.0	—	11.03	19.61	7.55	DTB = 19.47 / ANT MOUND BY WELL
2.62 MW-05	1134	0.0	—	17.18	19.78	—	DTB = 19.8
5.68 MW-07	1149	715,000	—	15.29	13.57	—	DTB = —
MW-08	1214	1.5	—	10.38	19.80	8.30	DTB = 19.50
MW-09	1041	63.4	—	5.56	20.21	6.55	19.95 DTB
0.61 32.12 MW-10	1048	0.0	—	12.64	23.21	7.74	has BaroTROLL DTB 23.25
0.8.92 MW-13B	1018	5.5	—	23.08	55.44	—	DTB = 55.20
MW-16	1201	715,000	—	11.00	20.45	20.30+	CAP NOT ON/TUBE IN PIPE? DTB = 20.30
3.91 MW-18	1208	715,000	12.35	12.37	20.11	—	PRODUCT / FILM IN VAULT
0.1 7.22 MW-30	1121	33.7	—	14.60	14.64	8.45	14.70 DTB (DRY)
0.22 MW-31	1026	0.0	—	20.81	28.03	—	—
MW-45	0938	32.2	—	14.24	14.41	—	14.46 DTB (DRY)
TW-55	1140	71.7	—	8.12	41.60	8.84	—
TW-64	1032	0.0	—	18.20	52.80	4.42	—
TW-96	1105	0.0	—	8.58	27.65	9.17	—
Shallow Bedrock Zone							
MW-01	0958	0.0	—	6.63	15.68	7.33	has BaroTROLL 15.60 DTB
MW-01B	1000	0.0	—	9.55	42.42	0.86	DTB = 42.35
MW-11	1009	90.4	30.26	30.52	32.00	—	PRODUCT DTB 32.05
DRY MW-22	0947	165.1	—	9.96	10.32	4.74	DTB = 10.36 (DRY)

MW-03 * DEPTH TO WATER IS AN ESTIMATE VISUALLY AND METERED DUE TO FLUCTUATIONS FROM AIR BUBBLING (SEE VIDEO) DTB = 20.00.

0.4
MW-07
MW-07 | 1152 | 224.0 | — | 13.20 | 13.60 | — | ANT HILL BY WELL

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	11/10/2017	12:07		13.76		Odor Pressure, expansion cap and casing damaged
RS-08	11/10/2017	12:08	14.63	14.79		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	11/10/2017	12:08	14.73	14.82		
RT-1B	11/10/2017	12:09	14.69	14.78		
RT-1C	11/10/2017	12:09	15.29	15.38		
RT-2A	11/10/2017	12:09		0.75		
RT-2B	11/10/2017	12:09		0.95		
RT-2C	11/10/2017	12:10		1.46		
RT-2D	11/10/2017	12:10		1.52		Sheen
RT-2E	11/10/2017	12:10		1.63		
RT-2F	11/10/2017	12:10		1.97		Water in casing, water level above ground surface within well, lock needs replacement
RT-2G	11/10/2017	12:11		0.25		
RT-2I	11/10/2017	12:12		0.25		
RT-2J	11/10/2017	12:12				Casing filled with water Silt fence material in well, no measurement
RT-2K	11/10/2017	12:13				
RT-2L	11/10/2017	12:14		2.31		Odor

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	11/10/2017	12:15	29.9	30.17		Lock needs replacement
RW-05	11/10/2017	12:16	33.31	34.13		
RW-06	11/10/2017	12:16		27.21		Lock needs replacement
RW-07	11/10/2017	12:16	23.32	23.35		
RW-08	11/10/2017	12:17		16.07		
RW-09	11/10/2017	12:17		13.4		
RW-11	11/10/2017	12:17		14.15		Odor, pressure
RW-12	11/10/2017	12:17		15.74		Odor, pressure
						Depth inaccurate, air sparging
						Tank 1: DTP no measurement, DTW 4.28
						Tank 2: no measurement,
						sludge in bottom,
RW-14	11/10/2017	12:18		7		empty

Brown, Ryan/ATL

From: Thomas Wesley Barnes III <TWBarnes@ecslimited.com>
Sent: Monday, November 13, 2017 8:20 AM
To: James C. Bevers, P.E.; Brown, Ryan/ATL
Subject: RE: Gauging Lewis Dr. [EXTERNAL]

MW-47 dtw-17.85, td-22.79

THOMAS WESLEY BARNES III

ECS SOUTHEAST, LLP T 864.987.1610 | D 864.326.4786 | C 864.380.6899

<http://secure->

web.cisco.com/1hk9YTP8vlQy8JxxWLZGpT25utM2ZKUVspyxB8vRYTc4xjPKXawrqBBqK3icj3pEqEDDjfpFkfJaGwKYJD8xt_S0QKaAJr9ynGd9aL1iyjPCY5jOzh49meLdBp-NgBoy5v9Y8Ykg3EE-P0pEXRIWgPFnH_UcFLSFo58vVtUlauUiNPJAIBH1NKRcqtFu_knifjhRrZRDrKrdtdwyTvyJ6ez7f0UNUUFBEaQsBR9rl72nyomFWtKGPY1wiOEFXUHTtv_JwXRXWam5XaiYsMVv-m1fLL9SfTj0Qv3zq-ms2n0Y_fUoz-NgLLrH8rGGsyV2IFb9LwxLDaXR9dgP28nOts7X4jt0HbXvrTDJGU0jtK1sqksfGtHZTX7Sm0UgQDA3ptgk3xkLU-YNd15R9nRPQAaqJFrvo-WL7kgRs7vrXlYKK1I_9HqUF3-0FgqNoX87fncaLdOTyObn-0gkCqDliJeK3JWkUGZUXe4ZvcHIE/http%3A%2F%2Fwww.ecslimited.com

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From: James C. Bevers, P.E.
Sent: Monday, November 13, 2017 7:38 AM
To: Brown, Ryan/ATL
Cc: Thomas Wesley Barnes III
Subject: RE: Gauging Lewis Dr.

Ryan,

While I was out at the site on Friday, I obtained the requested measurements. They are as follows:

MW-02B DTW-7.03, TD 81.55 (Well card says 81, no lock present, vault lid bolted down properly)
MW-06B DTW 15.59, TD 85.65
MW-09B DTW 40.58, TD 155 (Total depth is approximate, actual depth difficult to obtain)
MW-43 DTW 4.31, TD 10.30
MW-43B DTW 18.33, TD 54.40
MW-46 DTW 9.57, TD 17.05
MW-47 Could not locate
MW-48B DTW 18.74, TD 94.50 (Silt at bottom of well)
MW-49 DTW 20.47, TD 23.30
MW-50B DTW 21.42, TD 109.60

I could not locate MW-47. There was a cleared area and it looked like there had been activity in the area where the well should have been. If present, the well is potentially buried. Please let me know if you have any questions.

Sincerely,

JAMES C. BEVERS, P.E.

ECS SOUTHEAST, LLP T 828.665.2307 | D 828.785.4179 | C 828.575.7183

http://secure-
web.cisco.com/1hk9YTP8vIQy8JxxWLZGpT25utM2ZKUVspxB8vRYTc4xjPKXawrqBBqK3icj3pEqEDDjfPFkfJaGwKYJD8xt_S
0QKaAJr9ynGd9aL1iyjPCY5jOzh49meLdBp-NgBoy5v9Y8Ykg3EE-
P0pEXRIWgPFnH_UcFLSFo58vVtUlauUiNPJAIBH1NKRcqtFu_knifjhRrZDRDrKrdtdwyTvyJ6ez7f0UNUUFBVEaQsBR9rl72nyom
FWtKGPY1wiOEFXUHTtv_JwXRXWam5XaiYsMVv-m1fLL9SfTj0Qv3zq-ms2n0Y_fUoz-
NgLLrH8rGGsyV2IFb9LwxLDaXR9dgP28nOts7X4jT0HbXvrTDJGU0jtK1sqksfGtHZTX7Sm0UgQDA3ptgk3xkLU-
YNd15R9nRPQAaqJFrXvo-WL7kgRs7vrXlYKK1I_9HqUF3-0FgqNoX87fncaLdOTyObn-
0gkCqDliJeK3JWkUGZUZXe4ZvcHIE/http%3A%2F%2Fwww.ecslimited.com

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From: Brown, Ryan/ATL [<mailto:Ryan.Brown2@CH2M.com>]
Sent: Tuesday, November 07, 2017 11:25 AM
To: Britney Camper Barnes; Thomas Wesley Barnes III; James C. Bevers, P.E.
Subject: Gauging Lewis Dr.

The next time you are out at Lewis Dr. could you possibly do me a favor? Could you get total depths on MW-02B, MW-06B, MW-09B, MW-43, MW-43B, MW-46, MW-47, MW-48B, MW-49, and MW-50B? These should be all the new wells that were installed over the past two months and for some reason whomever installed them did not get the TD. You do not need to supply this information in the tablet. You can scratch on a piece of paper and send me a pic of sheet of paper or you could respond to this email. Thanks!

Ryan W. Brown

Environmental Engineer

D 1 678 530 4055

M 1 404 434 0880

F 1 770 604 9183

CH2M

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Email - rbrown9@ch2m.com

Core work hours: M - F from 8:00AM - 4:00PM EST

Upcoming Fieldwork (out of office): None

Upcoming PTO: November 22

Upcoming Holiday: November 23 and 24, December 25, and January 1

Upcoming Training: None

Upcoming WFH: November 7 and 27

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	11/12/2017	16:53		7.75		
MW-01B	11/12/2017	16:54		9.47		
MW-02	11/12/2017	16:54		3.47		
MW-02B	11/12/2017	16:55		23.45	81.5	
MW-03	11/12/2017	16:55				Bubbling out top
MW-04	11/12/2017	16:56		10.68		
MW-05	11/12/2017	16:56		16.95		
MW-06	11/12/2017	16:57		15.9		
MW-06B	11/12/2017	16:57		15.57	85.6	
MW-07	11/12/2017	16:57		13.2		
MW-08	11/12/2017	16:58		10.25		
MW-09	11/12/2017	16:58		4.57		
MW-09B	11/12/2017	16:58		32.08	151.4	
MW-10	11/12/2017	16:59		11.95		
MW-11	11/12/2017	16:59	30	30.35		
MW-12	11/12/2017	17:00		14.45		
MW-12B	11/12/2017	17:00		14.91		
MW-13	11/12/2017	17:00		21.85		
MW-13B	11/12/2017	17:01		22.83		
MW-14	11/12/2017	17:01		17.8		
MW-14B	11/12/2017	17:01		19.36		
MW-15	11/12/2017	17:01		14.75		
MW-15B	11/12/2017	17:02		15.91		
MW-16	11/12/2017	17:02		10		Bubbling
MW-17	11/12/2017	17:03		10.85		
MW-17B	11/12/2017	17:03		17.2		
MW-18	11/12/2017	17:03		12		Bubbling
MW-19	11/12/2017	17:05		11.74		
MW-20	11/12/2017	17:06	13.15	13.4		
MW-21	11/12/2017	17:06		17.43		
MW-22	11/12/2017	17:06				Dry, no measurement
MW-23	11/12/2017	17:07		11.02		
MW-23B	11/12/2017	17:07		11.42		
MW-24	11/17/2017	17:08		4.52		
MW-24B	11/17/2017	17:08		5.56		
MW-25	11/12/2017	17:08		8.47		
MW-25B	11/12/2017	17:09		5.26		
MW-26	11/12/2017	17:09		6.65		
MW-26B	11/12/2017	17:10		8.95		
MW-27	11/12/2017	17:10		27.66		
MW-27B	11/12/2017	17:10		30.72		
MW-28	11/12/2017	17:11		24.74		
MW-29	11/12/2017	17:11			10.09	
MW-30	11/12/2017	17:11		14.52		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-31	11/12/2017	17:12		20.41		
MW-31B	11/12/2017	17:12		21.05		
MW-32	11/12/2017	17:12		10.45		
MW-33	11/12/2017	17:12		26.15		
MW-33T	11/12/2017	17:13		27.47		
MW-35	11/12/2017	17:13		7.61		
MW-36	11/17/2017	17:14		20.21		
MW-36B	11/17/2017	17:14		19.92		
MW-37	11/17/2017	17:14		3.42		
MW-38	11/17/2017	17:15		1.87		
MW-39	11/12/2017	17:15		6.25		
MW-40	11/12/2017	17:16		3.53		
MW-41	11/12/2017	17:16		4.5		
MW-42	11/12/2017	17:16		5.1		
MW-43	11/10/2017	17:16		4.31		
MW-43B	11/10/2017	17:17		18.33		
MW-46	11/12/2017	17:17		9.53	17	
MW-47	11/17/2017	17:18		17.85	22.79	
MW-48B	11/12/2017	17:18		8.51	94.5	
MW-49	11/12/2017	17:19		20.47	23.29	
MW-50B	11/12/2017	17:19		21.66	109.5	

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	11/12/2017	16:43	11.77	12.2		
RS-02	11/12/2017	16:44	11.27	11.37		
RS-04	11/12/2017	16:44		9.7		
RS-05	11/12/2017	16:44	11.2	11.8		
RS-06	11/12/2017	16:45		12.2		
RS-07	11/12/2017	16:45		13.87		
RS-08	11/12/2017	16:46	14.42	14.55		
RS-09	11/12/2017	16:46		10.29		
RS-10	11/12/2017	16:46		9.65		
RS-11	11/12/2017	16:46		9.76		
RS-12	11/12/2017	16:47		10		Bubbling
RS-13	11/12/2017	16:47		6.45		
RS-14	11/12/2017	16:47	7.31	7.33		
RS-15	11/12/2017	16:48		8.05		
RS-16	11/12/2017	16:48		6.35		
RS-17	11/12/2017	16:50	5.99	6		
RS-18	11/12/2017	16:50		10.69		
RS-20	11/12/2017	16:50		5.82		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	11/12/2017	16:51		13.41		
RW-02	11/12/2017	16:51	22.8	23.15		
RW-03	11/12/2017	16:51	23.46	23.47		
RW-10	11/12/2017	16:52	13	13.05		
RW-13	11/12/2017	16:52				Too much pressure
RW-15	11/12/2017	16:52	14.9	15.3		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	11/17/2017	17:31	0.93	
SW-02	11/17/2017	17:31	1.61	
SW-03	11/12/2017	17:32	1.73	
SW-08	11/17/2017	17:32	1.15	
SW-10	11/17/2017	17:32	0.64	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-04R	11/12/2017	17:20		4.71		
TW-05R	11/12/2017	17:20		5.76		
						Dry, no measurement
TW-14R	11/12/2017	17:21				
TW-15R	11/12/2017	17:21		5.7		
TW-21	11/12/2017	17:21		4.25		
TW-28	11/12/2017	17:22	22.97	23.1		
TW-30	11/12/2017	17:22		21.9		
TW-34	11/12/2017	17:22		22.25		
TW-35	11/12/2017	17:22		22.74		
TW-40	11/12/2017	17:23		29.08		
TW-41	11/12/2017	17:23		27.81		
TW-42	11/12/2017	17:23	26.15	26.97		
TW-45	11/12/2017	17:24	27.73	28.1		
TW-55	11/12/2017	17:24		7.51		
TW-59	11/12/2017	17:24		20.41		
TW-60	11/12/2017	17:25		11.65		
TW-64	11/12/2017	17:25		18.05		
TW-65	11/12/2017	17:25		22.25		
TW-66	11/12/2017	17:26		2.65		
TW-67	11/12/2017	17:26		9.2		Bubbling
TW-68	11/12/2017	17:26		23.85		
TW-69	11/12/2017	17:27		14.95		
TW-70	11/12/2017	17:27		19.58		
TW-73	11/12/2017	17:27		9		Bubbling
TW-76	11/12/2017	17:28		15.1		
TW-81	11/12/2017	17:28		4.05		
TW-82	11/12/2017	17:28		4.05		
TW-83	11/12/2017	17:28		4.8		
TW-84	11/12/2017	17:29		5.25		
TW-85	11/12/2017	17:29		10.1		Bubbling
TW-86	11/12/2017	17:29		5.61		
TW-87	11/12/2017	17:30		6.21		
TW-90	11/12/2017	17:30		11		Bubbling
TW-94	11/12/2017	17:30				Bubbling out top
TW-96	11/12/2017	17:31		6.8		Bubbling

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	11/17/2017	17:34		14.81		Odor Pressure, expansion cap & casing damaged
RS-08	11/17/2017	17:35	14.61	14.89		

RT Wells	Date	Time	Depth to Product		Total Depth (ft btoc)	RT Well Comment
			(ft btoc)	DTW (ft btoc)		
RT-1A	11/17/2017	17:36	14.63	14.68		
RT-1B	11/17/2017	17:36	14.6	14.65		
RT-1C	11/17/2017	17:36	15.19	15.24		
RT-2A	11/17/2017	17:36		1.04		
RT-2B	11/17/2017	17:37		1.21		
RT-2C	11/17/2017	17:37		1.65		
RT-2D	11/17/2017	17:37		1.72		Sheen
RT-2E	11/17/2017	17:37		1.83		
RT-2F	11/17/2017	17:37		2.18		
RT-2G	11/17/2017	17:38		4.11		Lock needs replacement
RT-2I	11/17/2017	17:38		2.3		
RT-2J	11/17/2017	17:38		0.8		
RT-2K	11/17/2017	17:38				Silt fence material in well
RT-2L	11/17/2017	17:39		2.33		

RWWells	Date	Time	Depth to Product		Total Depth (ft btoc)	RW Well Comment
			(ft btoc)	DTW (ft btoc)		
RW-04	11/17/2017	17:39	29.67	29.9		Lock needs replacement
RW-05	11/17/2017	17:40	33	33.99		
RW-06	11/17/2017	17:40		26.51		Lock needs replacement, odor
RW-07	11/17/2017	17:40	22.87	22.9		
RW-08	11/17/2017	17:41		15.7		Odor
RW-09	11/17/2017	17:41		13.78		Odor
RW-11	11/17/2017	17:41		14.02		Odor, pressure
RW-12	11/17/2017	17:42		15.87		Odor, pressure, expansion cap needs replacement
						Tank 1 - DTP no measurement, DTW 3.47
RW-14	11/17/2017	17:42		14.26		Tank 2 - no measurement

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	11/22/2017	10:17		13.83		Pressure, damaged expansion cap and casing
RS-08	11/22/2017	10:18	14.75	14.9		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	11/22/2017	10:18	14.65	14.71		
RT-1B	11/22/2017	10:18	14.61	14.67		
RT-1C	11/22/2017	10:19	15.2	15.26		
RT-2A	11/22/2017	10:20		1.12		
RT-2B	11/22/2017	10:20		1.22		
RT-2C	11/22/2017	10:20		1.71		Sheen
RT-2D	11/22/2017	10:20		1.78		Sheen
RT-2E	11/22/2017	10:21		1.89		Sheen
RT-2F	11/22/2017	10:21		2.25		
						Lock needs
RT-2G	11/22/2017	10:21		4.27		replacement
RT-2I	11/22/2017	10:21		2.58		
RT-2J	11/22/2017	10:21		0.99		Odor
						Silt fence material
RT-2K	11/22/2017	10:22				in well
RT-2L	11/22/2017	10:22		2.39		Odor

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	11/22/2017	10:24	29.59	29.86		Lock needs replacement
RW-05	11/22/2017	10:24	32.88	34.03		
RW-06	11/22/2017	10:25		26.43		Lock needs replacement
RW-07	11/22/2017	10:25	22.7	22.73		
RW-08	11/22/2017	10:25		15.45		Odor
RW-09	11/22/2017	10:25		13.64		Odor
RW-11	11/22/2017	10:26		14.54		Odor, pressure
RW-12	11/22/2017	10:27		15.91		Odor
						Tank 1 - DTP No measurement, DTW 3.47
RW-14	11/22/2017	10:27		14.24		Tank 2 - No measurement

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	12/01/2017	10:10		14.05		
RS-08	12/01/2017	10:11	14.83	14.95		Expansion cap and casing damaged, pressure

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	12/01/2017	10:12	14.74	14.84		
RT-1B	12/01/2017	10:12	14.71	14.79		
RT-1C	12/01/2017	10:12	15.3	15.37		
RT-2A	12/01/2017	10:12		1.18		
RT-2B	12/01/2017	10:12		1.77		
RT-2C	12/01/2017	10:13		1.83		Sheen
RT-2D	12/01/2017	10:13		1.93		
RT-2E	12/01/2017	10:13		2.28		
RT-2F	12/01/2017	10:13		2.43		
RT-2G	12/01/2017	10:14		0.39		Water level above ground surface, lock needs replacement
RT-2I	12/01/2017	10:15		3.12		Lock impacted with dirt, expansion cap not tightened
RT-2J	12/01/2017	10:16		0.65		
RT-2K	12/01/2017	10:16				Silt fence material in well, no measurement
RT-2L	12/01/2017	10:16		2.6		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	12/01/2017	10:17	29.49	29.67		
RW-05	12/01/2017	10:17	33.32	33.69		
RW-06	12/01/2017	10:17		27.18		Odor, lock needs replacement
RW-07	12/01/2017	10:18	23.46	23.47		
RW-08	12/01/2017	10:18		16.29		Odor
RW-09	12/01/2017	10:18		13.57		
RW-11	12/01/2017	10:18		14.83		Odor, pressure
RW-12	12/01/2017	10:19		15.99		Odor, expansion cap needs replacement
						Bubbling
RW-14	12/01/2017	10:19		6.91		Tank 1: DTW 1.20 Tank 2: DTW 3.77

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: MID 50's, SUNNY

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proDO, Oil/Water Interface Probe

Technicians: M. WARREN, K. SEXTON, Z. WARD

Date: 12/4/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creek Protection Zone							
MW-12	1121	11.0	—	15.55	22.05	0.7	has TROLL DTB = 21.81
MW-12B	1122	1.6	—	16.12	45.31	2.58	DTB = 45.35
MW-15	0948	1.0	—	13.66	21.40	5.40	has TROLL DTB 21.17
MW-15B	0939	0.0	—	16.25	75.63	0.87	DTB = 80.50
MW-24	1003	0.0	—	4.51	15.29	--	15.36 = DTB
MW-24B	0959	0.1	—	5.69	42.23	--	42.71
MW-25	1053	0.1	—	7.10	18.04	0.76	has TROLL DTB = 17.95
MW-25B	1051	0.1	—	5.30	56.43	0.60	62.61
MW-28	0827	311.2	—	23.94	25.91	0.60	DTB = 26.18
MW-34	1024	0.7	—	2.52	7.82	--	DTB = 7.85
MW-35	1110	0.1	—	10.41	28.50	--	DTB = 28.45
MW-37	0952	0.0	—	3.47	18.11	--	
MW-38	0955	0.0	—	2.01	11.46	--	DTB = 11.52
MW-39	1027	0.6	—	5.72	13.03	--	DTB = 13.09
MW-40	1030	131.9	—	3.43	13.15	--	has TROLL DTB = 13.21
MW-41	1046	0.1	—	5.55	13.19	--	
MW-42	1049	0.1	—	5.26	13.37	--	DTB = 13.40
MW-43	1009	0.1	—	4.50	10.30	--	DTB = 10.35 / CHANGED LOCK
MW-43B	1012	0.4	—	4.08	54.40	--	DTB = 54.45 / CHANGED LOCK
MW-49	1049 ¹¹¹⁵	0.1	—	20.29	23.30	--	DTB = 23.35 / CHANGED LOCK
SW-01	0830	--	--	--	--	4.35	WL = 0.8
SW-03	0835	--	--	--	--	3.98	WL = 1.78
SW-12	0840	--	--	--	--	8.24	
SW-13	0845	--	--	--	--	5.02	
TW-59	1119	0.1	—	15.81	22.00	2.09 9.7	may be affected by sparging DTB = 21.0
TW-60	1043	11.5	—	10.27	40.50	9.19	DTB = 40.79
TW-66	1054	0.1	—	3.32	29.70	6.30	DTB = 23.85 (DOUBLE CHECKED DEPTH) [PLACARD READS TW-56]

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: _____

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: _____

Date: 12/4/17

Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Cupboard Creek Protection Zone</i>							
MW-19	1330	1970	—	11.77	12.15 ✓	1.10	
MW-20	1337	468	13.30	14.64	19.40 ✓	—	has TROLL
MW-23	1404	0.8	—	11.13	23.21 ✓	--	
MW-23B	1405	0.4	—	11.45	56.45	--	TD = 53.70
MW-26	1357	0.5	—	6.83	17.12 ✓	--	
MW-26B	1356	0.4	—	9.17	43.24	--	41.2 = TD
MW-29	1317	0.1	—	10.39	14.95	3.85	verify TD
MW-46	1416	0.8	—	9.48	17.05	--	TD = 17.10
MW-47					22.79		
TW-67	1343	5.8	-	12.48	26.46	10.64	may be affected by sparging / TD = 26.60
TW-73	1325	0.8	—	3.3	12.75 ✓	9.60	may be affected by sparging / DTW ESTIMATE DUE TO SPARGING
<i>Hayfield Zone</i>							
MW-02	1708	10.5	—	2.54	23.14		has TROLL TD = 19.83
MW-02B	1705	14.0	—	24.56	81.55	9.99	add lock if missing / UNDER HIGH PRESSURE
MW-03	1612	0.2	—	18.00	20.28 ✓	10.44	ESTIMATES DUE TO BUBBLING / MISSING ONE BOLT
MW-04	1623	0.2	—	10.07	19.56 ✓	6.54	ANT HILL
MW-05	1628	0.2	—	16.55	19.78	--	TD = 19.85
MW-06	1631	231	—	15.45	15.12	--	TD = 19.15 / MISSING ONE BOLT
MW-06B	1633	0.5	—	16.14	85.65	--	TD = 16.15
MW-07	1640	608.7	—	13.21	13.57	--	TD = 13.32
MW-08	1550	2.0	—	10.47	19.70	8.65	TD = 19.55
MW-09	1538	1.0	—	3.05	20.21	0.80	TD = 20.02
MW-09B	1540	2.1	—	9.15	151.0	--	TD = 138.0 (DOUBLE CHECKED)
MW-10	1557	0.4	—	10.85	23.21 ✓	7.25	has BaroTROLL
MW-13	1435	328	21.87	21.87	22.15	--	TD = 22.19
MW-13B	1438	19.4	—	22.66	55.44	--	57.99 = TD
MW-14	1445	0.2	—	17.62	22.16	--	22.22

HAYFIELD

HAYFIELD

ADDED LOCK

DRY

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: MID 50'S / SUNNY

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. WALKER, K. SEXTON, Z. WARD

Date: 12/4/17

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-14B	1443	0.4	—	19.22	79.35	--	TD = 72.00 (TRIPLE CHECKED)
MW-16	1644	0.2715	—	7.00	20.58	✓	may be affected by sparging / NEEDS NEW CAP
MW-17	1425	200.7	—	10.85	16.18	--	TD = 11.21 (TRIPLE CHECKED)
MW-17B	1423	140	—	17.05	28.95	--	TD = 27.65
MW-18	1546	1680	11.61	11.64	20.11	✓	may be affected by sparging / NEEDS NEW CAP
MW-21	1419	0.5	—	17.42	20.71	--	20.73
MW-30	1619	1.4	—	14.47	14.51	3.62	TD = 14.65
MW-31	1456	0.2	—	20.05	28.03	✓	--
MW-32	1605	0.2	—	10.02	28.93	--	TD = 29.02
MW-33T	1505	0.2	—	27.12	98.48	--	100.00 = TD
MW-36	1705	29.4	—	20.14	23.62	--	TD = 23.78
MW-36B	1710	7.4	—	20.90	47.89	--	TD 44.90
MW-45	1412	5.6	—	14.22	14.41	--	TD = 14.49
MW-45B	1410	21.57	—	15.93	40.30	--	TD = 21.53 (TRIPLE CHECKED DEPTH) NEW LOCK
MW-47	1458	0.3	—	17.75	23.09	--	TD = 22.85
MW-48B	1523	0.8	—	18.22	94.50	97.7	check for silt at bottom of well NEW LOCK / SILTY
MW-50B	1511	0.8	—	21.37	109.60	--	TD = 100.1 NEW LOCK
TW-55	1700	2.7	—	5.48	30.78	--	TD = 61.54
TW-64	1516	0.2	—	17.45	52.85	8.21	TD = 52.75
TW-96	1604	0.4	—	3.0	28.76	9.72	may be affected by sparging TD = 27.2 ESTIMATE
Shallow Bedrock Zone							
MW-01	1157	1.1	—	9.85	15.82	5.44	has BaroTROLL 15.65 = DTB
MW-01B	1159	3.8	—	10.24	42.21	0.43	DTB = 42.25
MW-11	1138	337.9	29.72	29.86	32.40	—	DTB = 32.00
MW-22	1211	1.5	—	9.99	10.32	1.35	1
MW-27	1143	0.1	27.46	27.46	29.60	--	DTB = 29.47
MW-27B	1146	0.4	—	30.70	35.51	--	DTB = 50.59
MW-44	1205	0.0	—	9.40	9.75	✓	--

DRY
*LF
DRY

*LF
DRY

* BUBBLING ESTIMATES

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: _____

PN: 684910.LD.MR.GW

Project: Quarterly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: _____

Date: 12/4/17 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-44B	1204	12.70.0	—	14.32	35.61	--	34.82 DTWB

BTOC - below top of casing
ft - feet
PN - Project Number

¹Total depths collected 11/3/17

ppm - parts per million
SM - Site Manager
— - wells historically found to have product

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	12/07/2017	11:57	14.11	14.12		
RS-08	12/07/2017	11:57	15.05	15.2		Pressure, expansion cap and casing damaged

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	12/07/2017	12:03	15.03		15.12	
RT-1B	12/07/2017	12:03	14.99		15.08	
RT-1C	12/07/2017	12:04	15.57		15.66	
RT-2A	12/07/2017	12:04			1.23	
RT-2B	12/07/2017	12:04	1.35		1.36	
RT-2C	12/07/2017	12:04			1.81	
RT-2D	12/07/2017	12:04			1.88	Sheen
RT-2E	12/07/2017	12:05			1.99	
RT-2F	12/07/2017	12:05			2.33	
RT-2G	12/07/2017	12:05			3.82	Lock replaced Lock impacted by dirt, needs to be cut off and replaced, expansion cap not tightened
RT-2I	12/07/2017	12:05			3.6	
RT-2J	12/07/2017	12:06	2.44		2.45	
RT-2K	12/07/2017	12:07				Silt fence material in well, no measurement
RT-2L	12/07/2017	12:07	2.66		2.67	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	12/07/2017	11:58	29.46	29.77		Lock replaced
RW-05	12/07/2017	11:59	33.01	33.71		
RW-06	12/07/2017	12:00	27.27	27.28		Lock replaced
RW-07	12/07/2017	12:00	24.35	24.38		
RW-08	12/07/2017	12:00		17.94		Odor
RW-09	12/07/2017	12:01		14.85		
RW-11	12/07/2017	12:01		14.69		Odor, pressure
RW-12	12/07/2017	12:01		15.98		Odor, expansion cap needs replacement
RW-14	12/07/2017	12:02		13.65		Tank 1: DTP 1.15, DTW 1.16 Tank 2: DTP 3.41, DTW 3.43

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	12/13/2017	10:39	14.07	14.08		
RS-08	12/13/2017	10:39	14.94	15.02		Expansion cap and casing damaged

RT Wells	Date	Time	Depth to Product		Total Depth		RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)		
RT-1A	12/13/2017	10:40	14.77	14.82			
RT-1B	12/13/2017	10:41	14.72	14.77			
RT-1C	12/13/2017	10:41	15.31	15.36			
RT-2A	12/13/2017	10:41		1			
	12/13/2017	10:41					
RT-2B	12/13/2017	10:41	1.15	1.16			
RT-2C	12/13/2017	10:42		1.6			
RT-2D	12/13/2017	10:42	1.67	1.68			
RT-2E	12/13/2017	10:42					No measurement, expansion cap frozen
RT-2F	12/13/2017	10:42	2.12	2.13			
RT-2G	12/13/2017	10:43		4.43			
RT-2I	12/13/2017	10:43		2.82			Lock needs to be removed and replaced
RT-2J	12/13/2017	10:44		1.11			Odor
RT-2K	12/13/2017	10:44					Silt fence material in well
RT-2L	12/13/2017	10:44		2.36			

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	12/13/2017	10:45	29.44	29.84		
RW-05	12/13/2017	10:47	32.83	33.83		
RW-06	12/13/2017	10:47		26.1		Air sparring, odor
RW-07	12/13/2017	10:48	22.87	22.88		
RW-08	12/13/2017	10:48	15.89	15.9		
RW-09	12/13/2017	10:48		13.85		Odor
RW-11	12/13/2017	10:48		14.9		Pressure, odor
RW-12	12/13/2017	10:49		16.03		Odor, expansion cap needs replacement
RW-14	12/13/2017	10:49		14.45		Tank 1: DTW 1.20 Tank 2: DTW 3.50

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	12/21/2017	11:38		14.17		
RS-08	12/21/2017	11:39	15.03	15.16		Expansion cap and casing damaged

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	12/21/2017	11:39	14.82	14.87		
RT-1B	12/21/2017	11:39	14.77	14.82		
RT-1C	12/21/2017	11:40	15.36	15.41		
RT-2A	12/21/2017	11:40		0.84		
RT-2B	12/21/2017	11:40		1		
RT-2C	12/21/2017	11:40		1.46		
RT-2D	12/21/2017	11:41		1.53		Sheen
RT-2E	12/21/2017	11:41		1.63		
RT-2F	12/21/2017	11:41		1.97		
RT-2G	12/21/2017	11:41		3.62		
RT-2I	12/21/2017	11:41		3.39		Lock impacted with dirt
RT-2J	12/21/2017	11:42	2.09	2.1		
RT-2K	12/21/2017	11:42				Silt fence material in well
RT-2L	12/21/2017	11:42		2.34		

RW Wells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	12/21/2017	11:43	24.34	24.93		
RW-05	12/21/2017	11:43	32.85	34.19		
RW-06	12/21/2017	11:43	27.22	27.23		
RW-07	12/21/2017	11:43	24.25	24.27		
RW-08	12/21/2017	11:44	17.81	17.83		
RW-09	12/21/2017	11:44		14.71		
RW-11	12/21/2017	11:44		14.7		Bubbling, odor, pressure
RW-12	12/21/2017	11:45		16		Odor, expansion cap replaced
RW-14	12/21/2017	11:45		13.27		Tank 1: DTW 1.18 Tank 2: DTP 2.89, DTW 2.90

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	12/27/2017	17:36		8.01		
MW-01B	12/27/2017	17:37		10.45		
MW-02	12/27/2017	17:38		9.5		Bubbling
MW-02B	12/27/2017	17:39		16.41		
MW-03	12/27/2017	17:39		14.8		Bubbling
MW-04	12/27/2017	17:39		10.2		
MW-05	12/27/2017	17:40		16.4		
MW-06	12/27/2017	17:40		15.3		
MW-06B	12/27/2017	17:40		15.13		
MW-07	12/27/2017	17:41		13.17		
MW-08	12/27/2017	17:41	11.6	11.61		
MW-09B	12/27/2017	17:41		17.4		Bubbling
MW-09	12/27/2017	17:43		6.2		Bubbling
MW-10	12/27/2017	17:43		13.71		
MW-11	12/27/2017	17:44	30.02	30.45		
MW-12	12/27/2017	17:44		14.53		
MW-12B	12/27/2017	17:44		15.04		
MW-13	12/27/2017	17:45		21.85		
MW-13B	12/27/2017	17:45		23.41		
MW-14	12/27/2017	17:45		17.5		
MW-14B	12/27/2017	17:46		19.06		
MW-15	12/27/2017	17:46	14.01	14.02		
MW-15B	12/27/2017	17:47		15.9		
MW-16	12/27/2017	17:47		10.6		Bubbling
MW-17	12/27/2017	17:48		16.85		
MW-17B	12/27/2017	17:48		16.9		
MW-18	12/27/2017	17:48		12.6		Bubbling
MW-19	12/27/2017	17:49		11.75		
MW-20	12/27/2017	17:49	13.15	13.5		
MW-21	12/27/2017	17:50		17.17		
MW-22	12/27/2017	17:50				Dry
MW-23	12/27/2017	17:50		10.81		
MW-23B	12/27/2017	17:50		11.45		
MW-24	12/27/2017	17:51		4.5		
MW-24B	12/27/2017	17:51		5.58		
MW-25	12/27/2017	17:51		8.69		
MW-25B	12/27/2017	17:52		5.25		
MW-26	12/27/2017	17:52		6.35		
MW-26B	12/27/2017	17:52		9.34		
MW-27	12/27/2017	17:53		27.4		
MW-27B	12/27/2017	17:53		30.71		
MW-28	12/27/2017	17:54		24.55		
MW-29	12/27/2017	17:54		10.06		
MW-30	12/27/2017	17:54		14.55		
MW-31	12/27/2017	17:55		22.35		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-31B	12/27/2017	17:55		21.1		
MW-32	12/27/2017	17:55		18.85		
MW-33	12/27/2017	17:56		26.35		
MW-33T	12/27/2017	17:56		27.6		
MW-35	12/27/2017	17:56		8.62		
MW-36	12/27/2017	17:59		19.98		
MW-36B	12/27/2017	17:59		19.68		
MW-37	12/27/2017	17:59		3.41		
MW-38	12/27/2017	18:00		1.91		
MW-39	12/27/2017	18:00		5.39		
MW-40	12/27/2017	18:00		2.72		
MW-41	12/27/2017	18:01		4.47		
MW-42	12/27/2017	18:01		5.14		
MW-43	12/27/2017	18:01		4.3		
MW-43B	12/27/2017	18:02		2.12		
MW-46	12/27/2017	18:02		9.11		
MW-47	12/27/2017	18:03		19.92		
MW-48B	12/27/2017	18:03		18.17		
MW-49	12/27/2017	18:03		20.18		
MW-50B	12/27/2017	18:04		23.82		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
	12/27/2017	17:03	13.58	14		
RS-02	12/27/2017	17:03	12.11	12.15		
RS-04	12/27/2017	17:04		9.75		
RS-05	12/27/2017	17:04	12.5	13.15		
RS-06	12/27/2017	17:04		12.21		
RS-07	12/27/2017	17:05		14.06		
RS-08	12/27/2017	17:05	14.9	15		
RS-09	12/27/2017	17:05		14.13		
RS-10	12/27/2017	17:06	10.05	10.15		
RS-11	12/27/2017	17:06		9		
RS-12	12/27/2017	17:06		9.2		Bubbling
RS-13	12/27/2017	17:07		14.34		
RS-14	12/27/2017	17:07	7.47	7.49		
RS-15	12/27/2017	17:08		6.99		
RS-16	12/27/2017	17:08		6.8		
RS-17	12/27/2017	17:08	6.38	6.39		
RS-18	12/27/2017	17:08		15.92		
RS-20	12/27/2017	17:09		6.55		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	12/27/2017	17:17	14.62		14.65	
RT-1B	12/27/2017	17:17	14.59		14.62	
RT-1C	12/27/2017	17:17	15.17		15.2	
RT-2A	12/27/2017	17:18			1.05	
RT-2B	12/27/2017	17:18			1.2	
RT-2C	12/27/2017	17:18			1.63	
RT-2D	12/27/2017	17:18			1.71	
RT-2E	12/27/2017	17:19			1.82	
RT-2F	12/27/2017	17:19			2.15	
RT-2G	12/27/2017	17:19			4.25	
RT-2I	12/27/2017	17:19			3.12	
RT-2J	12/27/2017	17:20			1.41	
RT-2K	12/27/2017	17:20	1.24		1.25	
RT-2L	12/27/2017	17:20			2.25	

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	12/27/2017	17:09		12.54		
RW-02	12/27/2017	17:10	23.51	24.1		
RW-03	12/27/2017	17:10	24.2	24.25		
RW-04	12/27/2017	17:10	29.77	30.35		
RW-05	12/27/2017	17:11	32.78	33.95		
RW-06	12/27/2017	17:12		26.27		
RW-07	12/27/2017	17:12	22.85	22.87		
RW-08	12/27/2017	17:13	15.79	15.8		
RW-09	12/27/2017	17:13		13.81		
RW-11	12/27/2017	17:13		13.7		Bubbling
RW-10	12/27/2017	17:14	10.05	10.15		Bubbling
RW-12	12/27/2017	17:14		16		Odor
						Can't remove cap, too much pressure
RW-13	12/27/2017	17:15				
RW-14	12/27/2017	17:15		14.51		
RW-15	12/27/2017	17:16	14.62	15.3		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	12/27/2017	17:21	0.9	
SW-02	12/27/2017	17:21	1.6	
SW-03	12/27/2017	17:22	1.74	
SW-08	12/27/2017	17:22	1.08	
SW-10	12/27/2017	17:22	0.45	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-04R	12/27/2017	17:23				Dry
TW-05R	12/27/2017	17:24		6.52		
TW-14R	12/27/2017	17:24				Dry
TW-15R	12/27/2017	17:25		3.92		
TW-21	12/27/2017	17:25		4.5		
TW-28	12/27/2017	17:25	23.1	23.7		
TW-30	12/27/2017	17:26		22.15		
TW-34	12/27/2017	17:26		22.21		
TW-35	12/27/2017	17:26		22.7		
TW-40	12/27/2017	17:26		28.95		
TW-41	12/27/2017	17:27		27.65		
TW-42	12/27/2017	17:27	26.1	26.55		
TW-45	12/27/2017	17:28	27.65	27.76		
TW-55	12/27/2017	17:28		14		Bubbling
TW-59	12/27/2017	17:28		12.2		Bubbling
TW-60	12/27/2017	17:29		10.9		
TW-64	12/27/2017	17:29		19.61		
TW-65	12/27/2017	17:29		22.82		
TW-66	12/27/2017	17:30		3.03		
TW-67	12/27/2017	17:30		9		Bubbling
TW-68	12/27/2017	17:30		23.9		
TW-69	12/27/2017	17:31		17.75		
TW-70	12/27/2017	17:31		19.36		
TW-73	12/27/2017	17:31		6		Bubbling
TW-76	12/27/2017	17:31		14.55		
TW-81	12/27/2017	17:32		4.21		
TW-82	12/27/2017	17:32		4.32		
TW-83	12/27/2017	17:32		5.09		
TW-84	12/27/2017	17:33		5.75		
TW-85	12/27/2017	17:33		16.1		Bubbling
TW-86	12/27/2017	17:33		5.52		
TW-87	12/27/2017	17:34		6.6		
TW-90	12/27/2017	17:34		7.8		Bubbling
TW-94	12/27/2017	17:34				Bubbling out top
TW-96	12/27/2017	17:35		14.96		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	01/05/2018	12:08	14.15	14.16		
RS-08	01/05/2018	12:09	14.87	14.94		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	01/05/2018	12:10	14.66		14.73	
RT-1B	01/05/2018	12:11	14.62		14.69	
RT-1C	01/05/2018	12:11	15.23		15.29	
RT-2A	01/05/2018	12:11			1.25	
RT-2B	01/05/2018	12:12			1.42	
RT-2C	01/05/2018	12:12			1.87	
RT-2D	01/05/2018	12:12			1.92	Sheen
RT-2E	01/05/2018	12:12				Expansion cap frozen
RT-2F	01/05/2018	12:13				Expansion cap frozen
RT-2G	01/05/2018	12:14				Lock frozen
RT-2I	01/05/2018	12:15				Expansion cap frozen
RT-2J	01/05/2018	12:15		1.89		Odor
RT-2K	01/05/2018	12:16				Silt fence material in well, no measurement
RT-2L	01/05/2018	12:17		2.67		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	01/05/2018	12:18	30.11		30.26	
RW-05	01/05/2018	12:19	33.35		33.99	
RW-06	01/05/2018	12:19			27.41	
RW-07	01/05/2018	12:21			24.03	
RW-08	01/05/2018	12:21			17.29	
RW-09	01/05/2018	12:22			14.57	
RW-11	01/05/2018	12:22			14.88	Odor, Pressure
RW-12	01/05/2018	12:23		15.94		Odor, expansion cap replaced
						No measurement, ice surrounding expansion cap
						Tank 1 - DTW 1.12, ice on surface
RW-14	01/05/2018	12:23				Tank 2 - DTW 1.57

Table 2 - DO Measurement List

SM: Tom Wiley

Client: Plantation Pipe Line

Weather: 29°F, CHANCE OF RAIN

PN: 699858.LD.MR.GW

Project: Monthly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. WARREN / KYLE SEXTON

Date: 01/08/18

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creek Protection Zone							
MW-12	1608	422	—	15.11	21.84	0.58	has TROLL TD = 21.56
MW-12B	1610	18	—	15.5	45.35	2.18	TD = 48.00
MW-15	1415	3.84	—	12.84	21.17	3.27	has TROLL
MW-15B	1410	32.0	—	16.23	80.50	0.33	TD = 81.60
MW-25	1530	0.0	—	8.80	17.95	0.78	has TROLL
MW-25B	1535	0.0	—	5.53	62.61	0.58	TD = 60.5
MW-28	1545	411.0	—	24.15	26.18	0.61	TD = 26.10
MW-34	1450	2.9	—	2.48	7.85	—	
MW-35	1540	0.0	—	10.57	28.45	—	TD = 28.3
MW-38	1430	0.0	—	1.95	11.52	—	
MW-39	1455	3.3	—	4.86	13.09	—	
MW-40	1500	540	—	2.72	13.21	—	has TROLL
MW-41	1525	0.0	—	4.40	13.19	—	
MW-43	1445	0.0	—	4.35	10.35	—	
SW-01	FZN	--	--	--	--	FZN	SURFACE WATER FROZEN ↓ ↓ ↓
SW-03	FZN	--	--	--	--	FZN	
SW-12	FZN	--	--	--	--	FZN	
SW-13	FZN	--	--	--	--	FZN	
TW-59	1600	0.0	—	15.25	21.00	10.00	TD = 20.50
TW-60	1506	FZNWELL	FZNWELL	FZNWELL	FZNWELL	FZNWELL	WATER WITHIN WELL CASING WAS FROZEN AND PREVENTED ACCESS TO WELL.
TW-66	1520	0.0	—	2.37	23.85	7.28	
Cupboard Creek Protection Zone							
MW-19	0900	68.0	—	11.78	12.15	2.96	
MW-20	0902	846.0	13.71	14.64	19.40	PRODUCT	has TROLL
MW-23	0915	0.8	—	11.02	23.21	—	
MW-26	0907	12.4	—	6.68	17.12	—	
MW-29	0830	0.0	—	10.36	14.95	7.03	
TW-67	0905	FZNWELL	FZNWELL	FZNWELL	26.60	FZNWELL	WATER WITHIN WELL CASING WAS FROZEN AND PREVENTED ACCESS TO WELL.
TW-73	0845	0.0	—	9.83	12.75	9.43	NEEDS BOLT REPLACEMENT

Table 2 - DO Measurement List

SM: Tom Wiley
 PN: 699858.LD.MR.GW

Client: Plantation Pipe Line

Weather: 29°F, CHANCE OF RAIN

Project: Monthly Monitoring

Measuring Method: YSI proODO, Oil/Water Interface Probe

Technicians: M. WARREN K. SEXTON

Date: 01/08/18

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Hayfield Zone</i>							
MW-02	1058	62.4	—	14.26	19.83	0.57	has TROLL
MW-02B	1100	0.2	—	23.70	81.55	8.90	TD = 81.50
MW-03	1340	0.0	—	19.98	20.28	SHALLOW	TD = 20.00
MW-04	1112	0.0	—	14.97	19.56	7.34	
MW-05	1120	0.0	—	16.57	19.85	—	
MW-07	1256	90.6	—	13.21	13.57	—	TD = 13.31
MW-08	1351	0.9	—	19.43	19.55	SHALLOW	TD = 19.50
MW-09	1140	180.4	—	18.30	20.02	5.55	TD = 19.95
MW-10	1030	0.0	—	15.08	23.21	4.92	has BaroTROLL
MW-16	1305	970	—	18.19	20.58	1.54	TD = 20.25
MW-18	1330	782	—	19.6	20.11	SHALLOW	TD = 19.73
MW-30	1052	0.0	—	14.59	14.65	SHALLOW	TD = 14.70
MW-31	1010	0.3	—	22.55	28.03	—	
MW-45	0922	1.0	—	14.25	14.49	—	
TW-55	1150	0.0	—	21.73	61.54	8.63	TD = 41.33
TW-64	1015	0.0	—	21.10	52.75	7.71	TD = 52.65
TW-96	1035	0.0	—	15.07	27.20	9.57	TD = 26.63
<i>Shallow Bedrock Zone</i>							
MW-01	0945	1.1	—	9.50	16.65	0.38	has BaroTROLL TD = 17.70 (DOUBLE CHECKED)
MW-01B	0947	1.0	—	10.55	42.25	0.85	
MW-11	1000	0.0	30.68	30.90	32.00	PRODUCT	
MW-22	0930	1.1	—	10.01	10.32	1.04	TD = 10.40

BTOC - below top of casing
 ft - feet
 PN - Project Number

¹Total depths collected 12/4/17

ppm - parts per million
 SM - Site Manager
 - wells historically found to have product

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	01/10/2018	12:38	14.32	14.33		
RS-08	01/10/2018	12:40	14.68	14.75		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	01/10/2018	12:41	14.7	14.74		
RT-1B	01/10/2018	12:42	14.66	14.71		
RT-1C	01/10/2018	12:42	15.24	15.29		
RT-2A	01/10/2018	12:44		1.07		
RT-2B	01/10/2018	12:44		1.27		
RT-2C	01/10/2018	12:44		1.72		
RT-2D	01/10/2018	12:46		1.8		
RT-2E	01/10/2018	12:47		1.89		
RT-2F	01/10/2018	12:47		2.22		
RT-2G	01/10/2018	12:47		4.44		
RT-2I	01/10/2018	12:47		3.17		
RT-2J	01/10/2018	12:48		1.62		Odor
RT-2K	01/10/2018	12:48				No inner casing
RT-2L	01/10/2018	12:49	2.52	2.54		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	01/10/2018	12:50	30.57	30.65		
RW-05	01/10/2018	12:50	33.13	33.53		
RW-06	01/10/2018	12:51		26.55		
RW-07	01/10/2018	12:51	23.02	23.04		
RW-08	01/10/2018	12:52	16.11	16.12		
RW-09	01/10/2018	12:52		13.78		
RW-11	01/10/2018	12:53		13.59		Odor, pressure
RW-12	01/10/2018	12:53		15.29		
RW-14	01/10/2018	12:54		14.04		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	01/20/2018	10:31		14.07		
RS-08	01/20/2018	10:31	14.72	14.78		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	01/20/2018	10:32	14.52	14.57		
RT-1B	01/20/2018	10:32	14.48	14.53		
RT-1C	01/20/2018	10:32	15.06	15.11		
RT-2A	01/20/2018	10:32		0.95		
RT-2B	01/20/2018	10:33		1.07		
RT-2C	01/20/2018	10:33				Expansion cap frozen
RT-2D	01/20/2018	10:33		1.62		Sheen
RT-2E	01/20/2018	10:33				Expansion cap frozen
RT-2F	01/20/2018	10:34				Expansion cap frozen
RT-2G	01/20/2018	10:34				Expansion cap frozen
RT-2I	01/20/2018	10:34		2.79		
RT-2J	01/20/2018	10:34		1.08		Sheen, odor
RT-2K	01/20/2018	10:35	1.35	1.36		No inner casing
RT-2L	01/20/2018	10:35	2.3	2.31		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	01/20/2018	10:35	30.23	30.54		
RW-05	01/20/2018	10:36	32.96	34.05		
RW-06	01/20/2018	10:36		26.47		Odor
RW-07	01/20/2018	10:36	23.97	23.99		
RW-08	01/20/2018	10:37	16.03	16.04		Expansion cap needs replacement
RW-09	01/20/2018	10:37		13.84		
RW-11	01/20/2018	10:37		14.92		Odor, pressure
RW-12	01/20/2018	10:37		15.79		
						Tank 1: DTP No measurement, DTW 4.57
RW-14	01/20/2018	10:38	14.83	14.84		Tank 2: DTP 4.83, DTW 4.84

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-07	01/26/2018	12:05		14.07		
RS-08	01/26/2018	12:05	14.89	14.97		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	01/26/2018	12:06	14.64	14.68		
RT-1B	01/26/2018	12:07	14.6	14.64		
RT-1C	01/26/2018	12:07	15.19	15.23		
RT-2A	01/26/2018	12:09		0.96		
RT-2B	01/26/2018	12:09		1.12		
RT-2C	01/26/2018	12:10		1.58		
RT-2D	01/26/2018	12:10		1.67		
RT-2E	01/26/2018	12:11		1.78		
RT-2F	01/26/2018	12:11			2.11	
RT-2G	01/26/2018	12:11			0.92	
RT-2I	01/26/2018	12:12			1.03	
RT-2J	01/26/2018	12:12		0.04		
RT-2L	01/26/2018	12:15	2.48	2.49		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-04	01/26/2018	12:16	29.99	30.04		
RW-05	01/26/2018	12:17	33.39	33.73		
RW-06	01/26/2018	12:17	27.16	27.18		
RW-07	01/26/2018	12:18	23.38	23.4		
RW-08	01/26/2018	12:18	16.22	16.23		
RW-09	01/26/2018	12:19	13.44			
RW-11	01/26/2018	12:19		13.98		Odor/pressure
RW-12	01/26/2018	12:20		15.95		Odor/Pressure
RW-14	01/26/2018	12:20		7.66		T1-4.32 T2-4.45

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	02/02/2018	12:32				Unable to unlock
RS-05	02/02/2018	12:33				Unable to unlock

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	02/02/2018	12:39	14.23	14.25		
RT-1B	02/02/2018	12:40	14.19	14.21		
RT-1C	02/02/2018	12:40	15.81	15.83		
RT-2A	02/02/2018	12:41		0.85		
RT-2B	02/02/2018	12:41		0.95		
RT-2C	02/02/2018	12:42		1.38		
RT-2D	02/02/2018	12:42			1.46	
RT-2E	02/02/2018	12:42	1.57	1.58		
RT-2F	02/02/2018	12:43	1.87	1.88		
RT-2G	02/02/2018	12:43		0.95		
RT-2I	02/02/2018	12:44		0.64		
RT-2J	02/02/2018	12:44				Underwater No inner casing/putter casing moveable/no accurate reading
RT-2K	02/02/2018	12:45				
RT-2L	02/02/2018	12:46		1.95		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-02	02/02/2018	12:33	22.68	22.85		Odor/Pressure
RW-04	02/02/2018	12:34	29.54	29.74		
RW-05	02/02/2018	12:34	32.92	33.68		
RW-06	02/02/2018	12:35	26.82	26.83		
RW-07	02/02/2018	12:36	22.94	22.95		
RW-09	02/02/2018	12:37		12.98		
RW-11	02/02/2018	12:37		13.11		Odor/Pressure
RW-12	02/02/2018	12:37		15.93		Odor/Pressure
RW-15	02/02/2018	12:38		13.88		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-01	02/03/2018	17:00		5.93		
MW-01B	02/03/2018	17:01		9.98		
MW-02	02/03/2018	17:01				Out top
MW-02B	02/03/2018	17:02		0.10		
MW-03	02/03/2018	17:02				Out top
MW-04	02/03/2018	17:02		8.70		
MW-05	02/03/2018	17:02		16.03		
MW-06	02/03/2018	17:03		14.95		
MW-06B	02/03/2018	17:03		14.57		
MW-07	02/03/2018	17:03		13.20		
MW-08	02/03/2018	17:03		5.50		
MW-09	02/03/2018	17:04				Out top of well
MW-09B	02/03/2018	17:04		2.15		
MW-10	02/03/2018	17:04		8.20		
MW-11	02/03/2018	17:05	29.68	29.79		
MW-12	02/03/2018	17:05		14.07		
MW-12B	02/03/2018	17:05		14.60		
MW-13	02/03/2018	17:06		21.88		
MW-13B	02/03/2018	17:06		22.37		
MW-14	02/03/2018	17:06		17.29		
MW-14B	02/03/2018	17:06		19.01		
MW-15	02/03/2018	17:07		13.42		
MW-15B	02/03/2018	17:07		15.65		
MW-16	02/03/2018	17:07		3.00		Maybe, bubbling
MW-17	02/03/2018	17:08		10.85		
MW-17B	02/03/2018	17:08		16.55		
MW-18	02/03/2018	17:08		14.50		Maybe, bubbling
MW-19	02/03/2018	17:09		11.20		
MW-20	02/03/2018	17:09	12.90	12.97		
MW-21	02/03/2018	17:10		16.73		
MW-22	02/03/2018	17:10		10.01		
MW-23	02/03/2018	17:10		10.25		
MW-23B	02/03/2018	17:10		11.35		
MW-24	02/03/2018	17:11		4.41		
MW-24B	02/03/2018	17:11		5.45		
MW-25	02/03/2018	17:11		8.39		
MW-25B	02/03/2018	17:12		4.80		
MW-26	02/03/2018	17:12		5.58		
MW-26B	02/03/2018	17:12		8.48		
MW-27	02/03/2018	17:12		27.18		
MW-27B	02/03/2018	17:13		30.70		
MW-28	02/03/2018	17:13		24.21		
MW-29	02/03/2018	17:13		9.18		
MW-30	02/03/2018	17:13		13.49		
MW-31	02/03/2018	17:14		19.23		

MW Wells	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	MW Well Comment
MW-31B	02/03/2018	17:14		20.25		
MW-32	02/03/2018	17:14		6.73		
MW-33	02/03/2018	17:15		25.17		
MW-33T	02/03/2018	17:15		26.44		
MW-34	02/03/2018	17:15		2.37		
MW-35	02/03/2018	17:16		8.18		
MW-36	02/03/2018	17:16		19.69		
MW-36B	02/03/2018	17:16		19.43		
MW-37	02/03/2018	17:16		3.39		
MW-38	02/03/2018	17:17		1.84		
MW-39	02/03/2018	17:17		5.22		
MW-40	02/03/2018	17:17		2.63		
MW-41	02/03/2018	17:18		4.38		
MW-42	02/03/2018	17:19		5.12		
MW-43	02/03/2018	17:19		4.15		
MW-43B	02/03/2018	17:20		2.10		
MW-44	02/03/2018	17:20		8.63		
MW-44B	02/03/2018	17:20		14.25		
MW-45	02/03/2018	17:20		14.23		
MW-45B	02/03/2018	17:21		15.63		
MW-46	02/03/2018	17:21		8.35		
MW-47	02/03/2018	17:21		16.38		
MW-48B	02/03/2018	17:21		17.90		
MW-49	02/03/2018	17:21		19.87		
MW-50B	02/03/2018	17:22		20.45		

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-02	02/03/2018	16:46	9.94	9.96		
RS-04	02/03/2018	16:48		9.75		
RS-06	02/03/2018	16:49		10.87		
RS-07	02/03/2018	16:49	13.74	13.75		
RS-08	02/03/2018	16:50	14.62	14.63		
RS-09	02/03/2018	16:51		8.10		
RS-10	02/03/2018	16:51	6.91	6.92		
RS-11	02/03/2018	16:51		7.57		
RS-12	02/03/2018	16:52		7.92		
RS-13	02/03/2018	16:52		3.75		
RS-14	02/03/2018	16:52		4.82		
RS-15	02/03/2018	16:53		5.10		
RS-16	02/03/2018	16:53		3.83		
RS-17	02/03/2018	16:53		3.05		
RS-18	02/03/2018	16:53		8.27		
RS-20	02/03/2018	16:54		3.40		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-01	02/03/2018	16:55		13.20		
RW-03	02/03/2018	16:55	23.60	23.61		
RW-08	02/03/2018	16:58		15.75		
RW-10	02/03/2018	16:56		7.00		Maybe, water out top when opened, bubbling
RW-13	02/03/2018	16:57				Too much pressure, unable to open
RW-14	02/03/2018	16:58		13.76		

SW Wells	Date	Time	DTW	SW Well Comment
SW-01	02/03/2018	16:59	0.88	
SW-02	02/03/2018	16:59	1.55	
SW-03	02/03/2018	16:59	1.72	
SW-08	02/03/2018	17:00	1.06	
SW-10	02/03/2018	17:00	0.40	

TW Wells	Date	Time	Depth to Product		Total Depth	TW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
TW-04R	02/03/2018	17:24			4.25	
TW-05R	02/03/2018	17:24			4.32	
TW-14R	02/03/2018	17:24			4.98	
TW-15R	02/03/2018	17:25			2.93	
TW-21	02/03/2018	17:25			2.49	
TW-28	02/03/2018	17:25	22.68		22.80	
TW-30	02/03/2018	17:25			21.97	
TW-34	02/03/2018	17:26			22.23	
TW-35	02/03/2018	17:26			22.73	
TW-40	02/03/2018	17:26			28.92	
TW-41	02/03/2018	17:26			27.50	
TW-42	02/03/2018	17:27	25.87		26.40	
TW-45	02/03/2018	17:27	27.45		27.60	
TW-55	02/03/2018	17:28			15.80	Maybe, bubbling
TW-59	02/03/2018	17:28			11.50	Maybe, bubbling
TW-60	02/03/2018	17:29			9.78	
TW-64	02/03/2018	17:29			16.70	
TW-65	02/03/2018	17:29			21.18	
TW-66	02/03/2018	17:29			2.45	
TW-67	02/03/2018	17:29			12.61	
TW-68	02/03/2018	17:30			23.13	
TW-69	02/03/2018	17:30			13.38	
TW-70	02/03/2018	17:30			18.75	
TW-73	02/03/2018	17:31			6.00	Maybe, bubbling
TW-76	02/03/2018	17:31			14.17	
TW-81	02/03/2018	17:31			2.40	
TW-82	02/03/2018	17:32			2.45	
TW-83	02/03/2018	17:32			3.18	
TW-84	02/03/2018	17:32			4.15	
TW-85	02/03/2018	17:32				Out top
TW-86	02/03/2018	17:32			5.48	
TW-87	02/03/2018	17:33			5.13	
TW-94	02/03/2018	17:33				Out top
TW-96	02/03/2018	17:33				Out top

Table 2 - DO Measurement List

SM: Tom Wiley Client: Plantation Pipe Line Weather: 50's, SUNNY
 PN: 699858.LD.MR.GW
 Project: Monthly Monitoring Measuring Method: YSI proODO, Oil/Water Interface Probe
 Technicians: M. WARREN / K. SEYTON Date: 02/05/2018

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Hayfield Zone</i>							
MW-02	1520	14.5	—	0.0	19.83	11.60	has TROLL
MW-02B	1525	0.0	—	0.1	81.55	7.8	
MW-03	1400	0.0	—	BUBBLING OVER	20.28	10.00	SEE PHOTO FOR BUBBLING OVER
MW-04	1411	0.0	—	7.80	19.56	8.08	
MW-05	1415	0.0	—	15.87	19.85	--	
MW-07	1420	94	—	13.19	13.57	--	TD = 13.55
MW-08	1443	0.6	—	4.35	19.55	10.64	TD = 19.80
MW-09	1500	0.4	—	0.1	20.02	1.03	
MW-10	1338	0.0	—	6.81	23.21	10.51	has BaroTROLL
MW-16	1425	254.0	—	~18	20.58	10.44	INCONSISTENT WATER LEVELS DUE TO SPARGE
MW-18	1435	289.6	16.96	16.97	20.11	PRODUCT	
MW-30	1405	0.0	—	13.11	14.65	5.32	TD = 14.60
MW-31	1325	0.0	—	18.90	28.03	--	
MW-45	0930	53.0	—	13.95	14.49	--	TD = 14.4
TW-55	1350	0.5	—	~13	61.54	11.00	INCONSISTENT WATER LEVELS DUE TO SPARGE
TW-64	1330	0.3	—	16.26	52.75	8.90	
TW-96	1349	0.0	—	BUBBLING OVER	27.20	10.10	SEE PHOTO FOR BUBBLING OVER
<i>Shallow Bedrock Zone</i>							
MW-01	1000	464	—	3.51	16.65	1.34	has BaroTROLL
MW-01B	1005	0.0	—	9.70	42.25	0.65	
MW-11	1007	390	29.56	29.60	32.00	PRODUCT	
MW-22	0945	58.0	—	9.81	10.32	4.80	TD = 10.30

BTOC - below top of casing
 ft - feet
 PN - Project Number

¹Total depths collected 12/4/17

ppm - parts per million
 SM - Site Manager
 - wells historically found to have product

Table 2 - DO Measurement List

SM: Tom Wiley Client: Plantation Pipe Line Weather: 50's SUNNY
 PN: 699858.LD.MR.GW
 Project: Monthly Monitoring Measuring Method: YSI proODO, Oil/Water Interface Probe
 Technicians: M. WARREN / K. SEXTON Date: 02/05/2018

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
<i>Brown's Creek Protection Zone</i>							
MW-12	1250	665	—	13.35	21.81 ✓	4.05	has TROLL
MW-12B	1255	4.8	—	13.61	45.35 ✓	0.70	
MW-15	1020	1.0	—	12.28	24.17	8.86	has TROLL TD = 19.55
MW-15B	1015	22.1	—	15.6	80.50 ✓	0.80	
MW-25	1222	0.1	—	8.15	17.95 ✓	1.54	has TROLL
MW-25B	1225	0.0	—	4.48	62.64	0.65	TD = 59.30
MW-28	1237	91.0	—	22.6	26.18	1.29	TD = 26.05
MW-34	1045	0.7	—	2.27	7.85 ✓	--	
MW-35	1230	0.0	—	9.00	28.45 ✓	--	
MW-38	1025	1.7	—	1.58	11.52 ✓	--	
MW-39	1050	0.2	—	4.85	13.09 ✓	--	
MW-40	1052	3.27	—	2.75	13.21 ✓	--	has TROLL
MW-41	1220	0.0	—	3.82	13.19 ✓	--	
MW-43	1035	0.0	—	3.70	10.35 ✓	--	
SW-01	1313	--	--	--	--	1.45	NEEDS SILT FENCE REPAIR
SW-03	1232	--	--	--	--	10.75	
SW-12	1055	--	--	--	--	10.45	
SW-13	1026	--	--	--	--	5.70	
TW-59	1245	1.7	—	13.40	21.00	10.04	TD = 20.65
TW-60	1210	96.5	—	8.45	—	7.46	TD = 41.0
TW-66	1258	0.0	—	1.1	23.85 ✓	7.98	
<i>Cupboard Creek Protection Zone</i>							
MW-19	0915	2568	—	10.8	12.15 ✓	9.00	
MW-20	0920	1971	—	12.57	19.40 ✓	1.05	has TROLL
MW-23	0935	0.3	—	9.76	23.24	--	TD = 23.15
MW-26	0940	0.0	—	4.37	17.12	--	TD = 17.20
MW-29	0900	1.8	—	7.80	14.95 ✓	8.06	
TW-67	0925	85.0	—	11.75	26.60 ✓	10.50	
TW-73	0910	0.0	—	7.65	12.75	10.78	DTB = 12.96

Lookup_RS	Date	Time	Depth to Product (ft btoc)	Depth to Water (ft btoc)	Total Depth (ft btoc)	RS Well Comment
RS-01	02/09/2018	12:05	8.93	9.01		
RS-05	02/09/2018	12:06	8.09	8.29		

RT Wells	Date	Time	Depth to Product		Total Depth	RT Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RT-1A	02/09/2018	12:07		13.71		
RT-1B	02/09/2018	12:07		13.68		
RT-1C	02/09/2018	12:07		14.29		
RT-2A	02/09/2018	12:08		0.54		
RT-2B	02/09/2018	12:08		0.68		
RT-2C	02/09/2018	12:08		1.14		
RT-2D	02/09/2018	12:09		1.25		
RT-2E	02/09/2018	12:09		1.33		
RT-2F	02/09/2018	12:09		1.67		
RT-2G	02/09/2018	12:10		0.98		
RT-2I	02/09/2018	12:10		0.23		
RT-2J	02/09/2018	12:10				Underwater
RT-2K	02/09/2018	12:10				No inner casing
RT-2L	02/09/2018	12:11		1.34		

RWWells	Date	Time	Depth to Product		Total Depth	RW Well Comment
			(ft btoc)	DTW (ft btoc)	(ft btoc)	
RW-02	02/09/2018	12:11	21.75	21.81		Visible fumes
RW-04	02/09/2018	12:12	28.93	29.39		
RW-05	02/09/2018	12:13	32.33	33.13		
RW-06	02/09/2018	12:13		26.15		
RW-07	02/09/2018	12:13		22.09		
RW-09	02/09/2018	12:13		12.23		
RW-11	02/09/2018	12:14				Extreme pressure
RW-12	02/09/2018	12:14				Extreme pressure
RW-15	02/09/2018	12:14		13.24		

Location Belton, SC Date 2-13-18
 Project / Client Lewis Dr / PPL

Time	Well ID	DTW	DTP	Flow rate	Product Thickness
0910	RT-1A	13.26	13.25	5000+	0.01
0916	RT-1B	13.28	-	15000+	-
1630	RT-1C	13.88	-	NR	-
1650	MW-20	11.81	-	NR	removal from surround tubing
1437	MW-08	3.88	3.87	NR	0.01
0948	RS-17	1.73	1.70	15000+	0.03
0955	RS-14	2.58	2.53	15000+	0.05
1002	RS-10	5.92	5.82	15000+	0.10
1528	RS-05	7.95	7.78	NR	0.17
1008	RS-21	8.11	8.05	15000+	0.06
1037	RS-02	6.80	6.78	NR	0.02
1040	RW-15	12.93	12.90	NR	0.03
1228	RW-02	21.57	21.56	NR	0.01
1230	RW-03	22.93	-	NR	-
1248	MW-11	28.31	28.50	NR	0.01
1248	RW-04	29.17	28.52	NR	0.65
1250	RW-05	32.51	31.81	NR	0.70
1304	RW-07	21.42	21.40	NR	0.02
1315	RW-08	13.62	-	NR	0.01
1318	MW-15	9.92	9.91	NR	0.01
1355	RT-2K	0.08	-	NR	0.01
1343	RS-08	13.80	13.79	NR	0.01
0936					

Location Belton, SC Date 2-13-18
 Project / Client Lewis Dr / PPL

1235 Started deploying skimmers. Had to re-adjust the length of the cable for the majority of the wells.
 NOTE: RT-2K had a 6" cap and no interior 4" casing cap, therefore, we could not deploy the skimmer.
 RS-01, RS-08, RT-1A, RT-1B, & RT-1C are all 4" stick-ups and the stick-ups are on a slant (took photos). I think because of this slant, the skimmers got stuck in the casing anywhere from 2ft down (RT-1C) to 10ft down (RT-1A). Jake and I left the 6 skimmers listed above in the systems building after discussing the issues with Tom Willey.

NOTE: MW-15 & MW-20 both had trolls in them (MW-20 also had tubing). Discussed both wells with Tom Willey. Trolls were removed & placed in Ziploc bags and left in the systems building. Tubing from MW-20 was removed & discarded.

Lewis Drive Daily Monitoring Sheet 1

Name(s): R. Brown / J. Crostic
 Date: 2/21/18
 Weather: humid 68°F
 Safety Topic: _____

Contractor	# Personnel
CH2M HILL	2
A&D/ECS	
Kinder Morgan	
AE Drilling	
TWT	

AD94978

Hayfield system on while gauging

Weekly Gauging

* Confirm all instances of LNAPL with a bailer.

This column only gauged once per month

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	8.45	8.52	
RS-05			
RT-1A		13.25	
RT-1B		13.23	
RT-1C		13.82	
RT-2A	flooding could not access		
RT-2B		0.75	
RT-2C		1.21	
RT-2D		1.32	
RT-2E		1.41	
RT-2F		1.75	
RT-2G		0.96	
RT-2H		damaged - gone	
RT-2I		0.35	
RT-2J		TOC	
RT-2K		0.65	
RT-2L		1.55	
RW-02			
RW-04			
RW-05			
RW-06		25.61	
RW-07			
RW-09		12.08	
RW-11		13.01	
RW-12		15.14	
RW-15			

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
*MW-02		bubbling to TOC	
MW-02B		0.96	
*MW-03		bubbling to TOC	
MW-04		7.30	
MW-05		14.14	
MW-06		13.91	
MW-06B		13.63	
MW-07		12.15	
MW-08			
MW-09		bubbling to TOC	
MW-09B		3.37	
MW-10	1436 troll	5.40	
MW-11			
MW-12	1310 troll	14.05	
MW-12B		14.51	
MW-13		20.95	
MW-13B		21.45	
MW-14		15.79	
MW-14B		18.70	
MW-15			
MW-15B		15.11	
*MW-16		bubbling to TOC	
MW-17		10.83	11.17-10
MW-17B		15.40	
*MW-18		bubbling to TOC	
MW-19		9.76	
MW-20			
MW-21		15.62	
MW-22		9.03	
MW-23		9.03	
MW-23B		11.04	
MW-24		4.35	
MW-24B		5.29	
MW-25 - troll	1304	8.09	
MW-25B		1.41	
MW-26		3.8	
MW-26B		7.01	
MW-27		26.05	
MW-27B		30.41	
MW-28		22.33	
MW-29		6.30	
MW-30		12.17	
MW-31		18.54	
MW-31B		19.15	
MW-32		6.32	
MW-33		24.31	
MW-33T		25.60	
MW-34		2.28	MW-34 no well tag
MW-35		8.12	
MW-36		18.76	
MW-36B		18.46	
MW-37		3.34	
MW-38		1.69	
MW-39		5.29	
MW-40	1317 troll	2.95	

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-41		4.25	
MW-42		5.60	
MW-43		4.11	
MW-43B		1.51	
MW-44		12.65	
MW-44B		5.97	
MW-45		12.91	
MW-45B		14.99	
MW-46		7.08	
MW-47		15.50	
MW-48B		17.12	
MW-49		18.57	
MW-50B		19.51	
TW-04R		3.47	
TW-05R		2.71	
TW-14R		4.00	
TW-15R		1.97	
TW-21		1.45	
TW-28		21.81	22.38
TW-30		20.60	
TW-34			
TW-35			
TW-40			
TW-41			
TW-42			
TW-45			
TW-46		damaged	
TW-55			
TW-59			
TW-60			
TW-64			
TW-65			
TW-66			
TW-67		raw 10.895	10.97
TW-68			
TW-69			
TW-70		17.44	
TW-73		5.36	
TW-76			
TW-81		1.51	
TW-82		1.10	
TW-83		2.00	
TW-84		3.16	
TW-85			
TW-86		4.35	
TW-87		3.81	
TW-90			
TW-94			
TW-96			
SW-01		0.90	
SW-02		1.65	
SW-03		1.75	
SW-05		dry	
SW-08		1.10	
SW-10		0.90	

MW-46 no well tag

Stopped gauging TWs due to time constraints

FB 2/20/18

under pressure sprayed his p

needs new lock

MW-34 no well tag

troll 1145

Not gauged

Blue box = locations with skimmers
 Yellow box = locations with socks

* special key required, orange & plastic

Table 2 - DO Measurement List

SM: Tom Wiley Client: Plantation Pipe Line Weather: _____
 PN: 699858.LD.MR.GW
 Project: Quarterly Monitoring Measuring Method: YSI proODO, Oil/Water Interface Probe
 Technicians: _____ Date: 3/5/18 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Brown's Creek Protection Zone							
MW-12	1350	52.8	—	12.83	22.05	2.90	has TROLL TD= 21.49
MW-12B	1245	0.4	—	12.92	45.31	4.40	
MW-15	1420	5.8	—	10.04	21.40	10.40	has TROLL TD= 19.18
MW-15B	1418	2.2	—	14.60	75.63	0.90	TD= 72.5
MW-24	1437	2.4	—	4.15	15.29	—	TD= 15.37
MW-24B	1433	1.8	—	5.03	42.23	—	TD= 42.68
MW-25	1330	0.1	—	7.84	48.04	2.65	has TROLL TD= 17.94
MW-25B	1335	0.2	—	4.12	50.43	1.10	TD= 56.50
MW-28	1303	2.5	—	2.165	25.91	3.46	TD= 26.08
MW-34	1416	2.8	—	2.23	7.82	—	BIOSHEEN IN ADJACENT WATER
MW-35	1315	0.0	—	8.33	28.50	—	TD= 26.28
MW-37	1503	0.0	—	3.28	18.11	—	
MW-38	1458	0.3	—	1.25	11.46	—	TD= 11.51
MW-39	1413	1.9	—	4.66	13.03	—	
MW-40	1410	0.2	—	2.44	13.15	—	has TROLL
MW-41	1357	0.0	—	3.94	13.19	—	
MW-42	1358	0.0	—	4.86	13.37	—	TD= 13.40
MW-43	1443	3.6	—	3.90	10.30	—	BACKGROUND = 3.5
MW-43B	1445	3.7	—	1.21	54.40	—	" " TD=55.00
MW-49	1308	0.0	—	17.68	23.30	—	TD= 23.32
SW-01	1438	—	—	—	—	11.25	1.00'
SW-03	1322	—	—	—	—	10.22	1.26'
SW-12	1400	—	—	—	—	11.56	
SW-13	1500	—	—	—	—	10.85	
TW-59	1310	0.1	—	13.26	22.00	10.17	may be affected by sparging
TW-60	1405	0.0	—	0.0	40.50	10.20	WELL BUBBLING OVER CASING
TW-66	1340	0.1	—	0.63	29.70	8.30	TD= 23.73

Table 2 - DO Measurement List

SM: Tom Wiley Client: Plantation Pipe Line Weather: _____
 PN: 699858.LD.MR.GW
 Project: Quarterly Monitoring Measuring Method: YSI proODO, Oil/Water Interface Probe
 Technicians: _____ Date: 3/5/18 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth' (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
Cupboard Creek Protection Zone							
MW-19	0910	1530	-	11.75	12.15	13.80%	
MW-20	0830	1442	10.80	10.90	19.40	-	has TROLL TD = 19.45
MW-23	0751	0	-	8.27	23.21	-	TD = 22.20
MW-23B	0752	0	-	10.88	56.45	-	TD = 54.50
MW-26	0745	0	-	2.94	17.12	-	TD = 17.15
MW-26B	0744	0.2	-	6.30	43.24	-	TD = 42.0
MW-29	0740	0	-	4.20	14.95	60.2%	verify TD TD = 14.90
MW-46	0810	0.5	-	6.33	17.05	-	TD = 17.10
TW-67	0900	9.4	-	4.60	26.46	104.4%	may be affected by sparging TD = 26.50
TW-73	0922	1.2	7.55	7.56	12.75	-	may be affected by sparging TD = 14.0
Hayfield Zone							
MW-02	1627	46	-	3.0	23.14	11.62	has TROLL TD = 19.09
MW-02B	1400	0.8	-	1.5	81.55	6.62	add lock if missing TD = 82.50
MW-03	1345	0	-	4.12	20.28	11.30	
MW-04	1352	0	6.21	10.70	19.56	-	confirmed on 3/7/18 to be a false reading, bailer confirmed no product in well
MW-05	1423	0	-	13.06	19.78	-	TD = 19.85
MW-06	1427	315.8	-	13.25	15.12	-	TD = 19.20
MW-06B	1429	132.7	-	13.0	85.65	-	TD = 89.50
MW-07	0743	1.3	-	11.77	13.57	-	
MW-08	1515	0	-	7.50	19.70	10.08	TD = 20.0
MW-09	1405	3.7	-	0.5	20.21	11.07	TD = 19.80
MW-09B	1410	0	-	0	151.0	-	TD = 150.4
MW-10	1334	0	-	5.4	23.21	9.97	has BaroTROLL
MW-13	1100	191	-	20.40	22.15	-	TD = 22.20
MW-13B	1055	144	-	21.00	55.44	-	TD = 56.0
MW-14	1105	6	-	15.11	22.16	-	TD = 22.25
MW-14B	1110	0.2	-	16.95	79.35	-	TD = 65.70 ² *checked twice

Gauging sheet amended on 4/10/18 by R. Brown to show that MW-04 reading was false. Updated gauging table to show well was not measured because a confirmation DTW reading was not recorded.

Table 2 - DO Measurement List

SM: Tom Wiley Client: Plantation Pipe Line Weather: _____
 PN: 899855.LD.MR.GW
 Project: Quarterly Monitoring Measuring Method: YSI proDO₂, Oil/Water Interface Probe
 Technicians: _____ Date: 3/5/18 ← Date added by RWB

Sample Location	Time	PID Reading (ppm)	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Total Depth ¹ (ft BTOC)	DO(mg/L)	Comments (i.e. lid bolted down, missing bolts, condition of cap, replace cap, vault bolted down, water in vault, smell, etc.)
MW-16	1416	612.0	—	3.0	20.58	10.31	may be affected by sparging TD = 20.80
MW-17	0823	287.0	—	10.85	16.18	—	TD = 11.22*
MW-17B	0819	210.0	—	14.80	28.95	—	TD = 24.15
MW-18	1556	513.0	17.2	18.25	20.11	—	may be affected by sparging TD = 19.25
MW-21			—		20.71	—	
MW-30	1347	0	—	11.43	14.51	3.64	TD = 14.70
MW-31	1300	0	—	18.01	28.03	—	TD = 28.05
MW-32	1337	0	—	6.82	28.93	—	TD = 29.0
MW-33T	1316	0	—	25.23	98.48	—	TD = 99.70
MW-36	1625	384.5	—	18.11	22.62	—	TD = 25.56
MW-36B	1628	5.9	—	17.81	47.89	—	TD = 44.56 TRIPLE CHECKED
MW-45	0803	5.7	—	12.31	14.41	—	TD = 14.50
MW-45B	0802	154.0	—	14.65	40.30	—	TD = 21.65*
MW-47	1247	0	—	14.74	23.09	—	TD = 22.85
MW-48B	1120	0	—	16.70	94.50	—	check for silt at bottom of well TD = 96.60
MW-50B	1130	0.4	—	19.90	109.60	—	TD = 108.35
TW-55	1418	0	—	18.50	30.78	10.65	TD = 41.89
TW-64	1320	0	—	15.60	52.85	8.64	TD = 52.57
TW-96	1340	0	—	0	28.76	10.50	may be affected by sparging TD = 27.95
Shallow Bedrock Zone							
MW-01	1013	6.6	—	3.80	15.62	0.95	has BaroTROLL TD = 15.65
MW-01B	1015	0	—	7.40	42.21	0.63	TD = 44.95
MW-11	1040	44.2	—	28.1	32.40	0.58	TD = 32.0
MW-22	0942	2.2	—	8.05	10.32	8.37	TD = 10.33
MW-27	1030	631.0	—	25.29	29.60	—	
MW-27B	1035	0.1	—	3.20	35.51	—	TD = 39.0
MW-44	1007	0	—	4.80	9.75	—	TD = 9.80
MW-44B	1010	0	—	12.10	35.61	—	

* noticed difference, checked twice

Brown, Ryan/ATL

From: Warren, Melissa/ATL
Sent: Tuesday, March 6, 2018 8:18 AM
To: Brown, Ryan/ATL
Cc: Smida, Scott/CLT; Sexton, Kyle/ATL; Wiley, Tom/ATL; Ward, Zachary/RAL; Waldron, William/RAL; Powell, Scott/ATL; Garvey, Bethany/ATL
Subject: Re: Lewis Drive Update 3-5-18

Hi all,

We were able to get the well cap open early this morning.

Time: 0740
PID: 3.2
DTP: -
DTW: 14.80
DTB: 20.71

Thank you,

Melissa

On Mar 6, 2018, at 7:41 AM, Brown, Ryan/ATL <Ryan.Brown2@CH2M.com> wrote:

Yeah, when Jake and I gauged the site on February 21, we did not have any issues with MW-21.

Ryan W. Brown

Environmental Engineer

D 1 678 530 4055

M 1 404 434 0880

F 1 770 604 9183

CH2M is now Jacobs

6600 Peachtree Dunwoody Rd.

400 Embassy Row, Suite 600

Atlanta, GA 30328

www.ch2m.com | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

Email - rbrown9@ch2m.com

Core work hours: M - F from 8:00AM - 4:00PM EST

Upcoming Fieldwork (out of office): March 20

Upcoming Holiday: None

Upcoming PTO: April 13 and 27 PM and June 7 and 8

Upcoming Training: March 27-29

Upcoming WFH: April 27 AM

From: Smida, Scott/CLT
Sent: Tuesday, March 6, 2018 6:18 AM
To: Sexton, Kyle/ATL <Kyle.Sexton@ch2m.com>; Wiley, Tom/ATL <Tom.Wiley@CH2M.com>; Warren, Melissa/ATL <Melissa.Warren@ch2m.com>; Ward, Zachary/RAL <Zachary.Ward@ch2m.com>
Cc: Waldron, William/RAL <wwaldron@CH2M.com>; Powell, Scott/ATL <Scott.Powell@ch2m.com>; Garvey, Bethany/ATL <Bethany.Garvey@CH2M.com>; Brown, Ryan/ATL <Ryan.Brown2@CH2M.com>
Subject: Re: Lewis Drive Update 3-5-18

I have no knowledge of well. If it does not have the KM brass lock or small dolphin lock, it probably can be cut off well and replace with a KM lock. There is an extra in the rolling cabinet.

To prevent access, RW13 was locked with a uniquely keyed lock yesterday.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Sexton, Kyle/ATL" <Kyle.Sexton@ch2m.com>

Date: 3/5/18 11:10 PM (GMT-05:00)

To: "Wiley, Tom/ATL" <Tom.Wiley@CH2M.com>, "Warren, Melissa/ATL"

<Melissa.Warren@ch2m.com>, "Ward, Zachary/RAL" <Zachary.Ward@ch2m.com>

Cc: "Waldron, William/RAL" <wwaldron@CH2M.com>, "Powell, Scott/ATL" <Scott.Powell@ch2m.com>,

"Smida, Scott/CLT" <Scott.Smida@ch2m.com>, "Garvey, Bethany/ATL" <Bethany.Garvey@CH2M.com>,

"Brown, Ryan/ATL" <Ryan.Brown2@CH2M.com>

Subject: Lewis Drive Update 3-5-18

Hi everyone,

Today's field documents are attached. Please let me know if you have any questions.

Today we accomplished the following:

- Gauged MW-12, 12B, 15, 15B, 24, 24B, 25, 25B, 28, 34, 35, 37, 38, 39, 40, 41, 42, 43, 43B, 49, 19, 20, 23, 23B, 26, 26B, 29, 46, 02, 02B, 03, 04, 05, 06, 06B, 07, 08, 09, 09B, 10, 13, 13B, 14, 14B, 16, 17, 17B, 18, 30, 31, 32, 33T, 36, 36B, 45, 45B, 47, 48B, 50B, 01, 01B, 11, 22, 27, 27B, 44 44B, 31B, and 33; TW-59, 60, 66, 67, 73, 04R, 14R, 15R, 21, 28, 30, 34, 35, 40, 41, 42, 45, 46, 65, 68, 69, 70, 76, 81, 82, 83, 84, 85, 86, 87, 90, and 94; SW-02, 05, 08, and 10; RS-01, 05, 02, 04, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20; RT-1A, 1B, 1C, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2 I, 2J, 2K, and 2L; RW-02, 04, 05, 06, 07, 09, 11, 12, and 15.
- DO measurements at SW-03, 12, 01, 02

Upon opening MW-21, it was found that the well lock was unable to be unlocked with keys used for other well locks. The cap is too tight to be removed with the lock intact. If anyone has any information about this well, we would appreciate the assistance.

Tomorrow we will:

- Attempt to gauge MW-21
- Purge water from designated Low-Flow Groundwater Sampling wells
- Begin groundwater sampling

The field notes, gauging data, PTSP and calibration documents are attached. Please let me know if you have any questions.

Thank you,

Kyle Sexton
Geologist
D 1 678 530 4118
M 1 850 240 6650

CH2M
6600 Peachtree Dunwoody Road
400 Embassy Row, Suite 600

Lewis Drive Monitoring Sheet 1

Name(s) M. WARREN, K. SEYTON, Z. WARD, J. CRASHIK
 Date 03/05/18
 Weather MID 50s / SUNNY / HUMID

Contractor	# Personnel
Jacobs	4
A&D/ECS	
Kinder Morgan	

Weekly Gauging

* Confirm all instances of LNAPL with a bailer.

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
RS-01	7.38	7.42	22.51
RS-05	7.32	7.47	25.06
RT-1A	—	12.13	18.85
RT-1B	—	12.10	18.15
RT-1C	—	12.70	21.10
RT-2A	—	0.61	7.60
RT-2B	—	0.81	7.38
RT-2C	—	1.21	9.3
RT-2D	—	1.34	7.2
RT-2E	—	1.44	8.35
RT-2F	—	1.77	9.33
RT-2G	—	2.99	10.06
RT-2H	—	damaged	—
RT-2I	—	2.0	10.00
RT-2J	—	0.49	10.05
RT-2K	—	0.73	2.2
RT-2L	—	1.19	5.79
RW-02	20.76	20.80	26.05
RW-04	27.62	28.40	37.06
RW-05	30.93	31.46	38.22
RW-06	—	24.98	39.75
RW-07	—	21.43	41.66
RW-09	—	12.90	41.04
RW-11	—	13.15	21.60
RW-12	—	14.93	16.74
RW-15	11.94	12.04	39.07

These features only gauged once a month

RS-02	5.9	5.91	19.42
RS-04	—	7.58	9.98
RS-06	—	8.17	23.79
RS-07	—	11.91	15.68
RS-08	—	12.62	19.03
RS-09	—	5.96	17.27
RS-10	5.84	5.89	20.04
RS-11	—	6.84	17.25
RS-12	—	7.21	20.19
RS-13	—	2.95	17.60
RS-14	3.29	3.29	19.14
RS-15	—	3.58	17.33
RS-16	—	3.03	18.60
RS-17	—	2.37	18.97
RS-18	—	5.05	19.30
RS-19	—	damaged	—
RS-20	—	—	—
RW-01	—	12.80	20.77
RW-03	—	21.71	34.46
RW-08	—	15.40	34.33
RW-10	—	~9	~62
RW-13	—	—	~41.3
RW-14	10.60	10.60	~52.3

= locations with skimmers
 = locations with socks
 Red ID needs DO measurement

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-01			
MW-02			
MW-03			
MW-04			
MW-05			
MW-06			
MW-07			
MW-08			
MW-09			
MW-10			
MW-11			
MW-12			
MW-13			
MW-14			
MW-15			
MW-16			
MW-17			
MW-18			
MW-19			
MW-20			
MW-21			
MW-22			
MW-23			
MW-24			
MW-25			
MW-26			
MW-27			
MW-28			
MW-29			
MW-30			
MW-31B	—	18.61	71.4
MW-33	—	23.89	28.31
MW-34			
MW-35			
MW-36			
MW-37			
MW-38			
MW-39			
MW-40			

*gauging not needed, only DO

This column only gauged once per month

Well ID	Depth to LNAPL* (ft BTOC)	Depth to Water (ft BTOC)	Total Depth (if requested)
MW-41			
MW-42			
MW-43			
MW-44			
MW-45			
MW-46			
MW-47			
MW-48			
MW-49			
MW-50			
TW-04R	—	2.68	5.25
TW-05R	COULD NOT OPEN		
TW-14R	—	3.45	5.0
TW-15R	—	1.25	1.95
TW-21	—	0.54	9.60
TW-28	21.45	21.87	28.41
TW-30	—	20.16	23.22
TW-34	—	22.19	22.25
TW-35	—	22.68	22.77
TW-40	—	28.13	31.52
TW-41	—	25.47	31.90
TW-42	24.11	24.71	27.53
TW-45	25.93	25.96	34.07
TW-46	—	damaged	—
TW-47			
TW-48			
TW-49			
TW-50			
TW-55	—	19.16	42.50
TW-56			
TW-57			
TW-58	—	22.18	26.80
TW-59	—	12.11	49.50
TW-70	—	16.41	42.42
TW-71			
TW-76	—	12.51	40.31
TW-81	—	0.60	6.23
TW-82	—	0.35	9.31
TW-83	—	0.97	15.00
TW-84	—	2.05	12.71
TW-85	COULD NOT ACCESS (AFT MILL)		
TW-86	—	3.51	5.63
TW-87	—	2.58	6.82
TW-90	—	0.0	45.0
TW-94	—	0.0	39.50
TW-95			
SW-02	SW=1.68	W=9.58	
SW-03			
SW-05	DRY	DRY	DRY
SW-08	—	1.08	DO=9.16
SW-10	—	0.84	DO=9.53
SW-11			
SW-12			
SW-13			
SW-14			
SW-15			
SW-16			
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SW-219			



PROJECT NUMBER

684910

WELL NUMBER

SHEET 1 OF 1

LOW FLOW SAMPLING LOG

Well Number: MW-06
 Field Crew: J. McCANN, M. WARREN, M. SUMNER
 Well Depth (ft): 19.10
 DTW (ft): 14.91
 Water Column (ft): 4.18
 Well Diameter (in): 2
 Gal. Per ft: 0.163
 Well volume (gal): 0.683
 Depth of Screen (ft):

Purge Methodology: low flow

Site: Lewis Drive Site, Belton, SC
 Date: 06/29/17

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	0.163	5"	1.02
3"	0.367	6"	1.469
4"	0.653	8"	2.611

Water level indicator, serial number: Peristaltic Bladder
 Pump type (please circle): Peristaltic
 Pump serial number: 03127

PID reading: opening well 0.8 after venting, if initially high middle of sampling 0.4 closing well

Time	DTW (toc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (°C)	Cond (mS/cm)	ORP (mV)	D.O.		Color/Odor
								[Surface] (mg/L)	Turbidity (NTU)	
Stabilization	<0.33' or 4" & <5% of wc	100-500	NA	±0.15U	±1°C	±10%	±10 mV	±10%	±10% or < 10	NA
01401	16.14		0.2	5.44	20.31	0.022	33.9	7.25	1284.1	SILT RED
1406	15.78		0.4	4.32	18.52	0.023	110.3	7.22	20.4	SILT CLOUDY
1411	15.96		0.6	4.06	18.62	0.020	144.9	7.70	20.9	CLOUDY
1416	15.89		1.0	3.96	18.04	0.020	162.6	7.68	110.0	CLOUDY

Remarks:

SAMPLING INFORMATION:

Depth to Water Before Sampling: _____ Depth sample was acquired: _____

Sample Methodology: _____

Sample Date/Time: _____

Signed Sampler: _____

Filtered Metals Collected: Y / N Filter Size: _____

Sample Observations: _____

Parameters (please circle): VOCs SVOCs Dissolved Metals Other: _____



PROJECT NUMBER 084910.LD MR GW	WELL NUMBER SHEET 1 OF 1
LOW FLOW SAMPLING LOG	

Well Number: MW-03	Site: Lewis Drive Site, Belton, SC
Field Crew: M. WARRON, K. KEYTON, Z. WARD	Date: 12/5/17
Well Depth (ft): 19.97	Purge
DTW (ft): 4.00	Methodology: low flow
Water Column (ft): 15.97	
Well Diameter (in): 2"	
Gal Per ft: 1.63 0.163	Water level indicator, serial number: 03734
Well volume (gal): 2.60	Pump type (please circle): Peristaltic Bladder
Depth of Screen (ft):	Pump serial number: 13217
PID reading: 0.1 opening well 0.1 after venting, if initially high middle of sampling 0.1 closing well 0.1	

Field Parameters										
Time	DTW (to)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (°C)	Cond (mS/cm)	ORP (mV)	DO (Surface) (mg/L)	Turbidity (NTU)	Color/Odor
Stabilization	<0.33' or 4" & 5% of w _c	100-500	NA	±0.15U	±1°C	±10%	±10 mV	±10%	±10% or < 10	NA
1308	4.00	80	0	6.67	16.8	0.047	211.2	10.2	43272	STRAW COLOR/NO ODCX
1312	6.00	125	1/8	6.41	16.5	0.048	209.6	11.0	24863	↓
1316	11.00	125	1/2	6.24	16.4	0.046	207.1	11.0	23742	
1320	11.00	125	1	6.20	16.4	0.045	207.8	11.1	25732	
1324	11.00	125	1.5	6.06	16.4	0.044	211.1	11.0	23427	
1328	12.00	125	1.9	5.97	16.5	0.043	213.3	10.9	23687	
1332	12.50	125	2.5	5.86	16.5	0.042	216.0	11.0	22468	
1336	12.50	125	2.95	5.84	16.6	0.042	212.7	10.9	23427	
1339	12.80	125	3.2	5.82	16.6	0.041	213.6	10.9	23542	

Remarks: MW-03 IS BUBBLING OVER TOP OF WELL. ALL DTW LEVELS ARE AN ESTIMATE. TURBIDITY IS FLUCTUATING HEAVILY, POSSIBLY DUE TO INTERMITTENT AIR BUBBLES IN THE LINE DUE TO SPARKING

SAMPLING INFORMATION:

Depth to Water Before Sampling: **19.97 ~ 4.00 ft (SEE REMARKS)** Depth sample was acquired: **19.00 ft**

Sample Methodology: **STRAW METHOD**

Sample Date/Time: **12/5/17 @ 1330**

Signed Sampler: *[Signature]*

Filtered Metals Collected: **Y / (N)** Filter Size

Sample Observations

Parameters (please circle): **VOCs** SVOCs **Dissolved Metals** Other: **ALKALINITY N, S, FE**



PROJECT NUMBER 684910.LD.MR.GW	WELL NUMBER SHEET 1 OF 1
LOW FLOW SAMPLING LOG	

Well Number: MW-28	Site: Lewis Drive Site, Belton, SC
Field Crew: M. WARREN, V. SEXTON	Date: 01/08/18
Well Depth (ft): 26.10	Purge
DTW (ft): 24.14	Methodology: low flow
Water Column (ft): 1.96	
Well Diameter (in): 2"	
Gal Per ft: 0.163	
Well volume (gal): 0.319	
Depth of Screen (ft)	
PID reading: 400	

Diameter	Gal Per Foot	Diameter	Gal Per Foot
2"	0.163	5"	1.02
3"	0.367	6"	1.469
4"	0.653	8"	2.611

Water level indicator, serial number: _____
 Pump type (please circle): Peristaltic Bladder
 Pump serial number: 029486

after venting, if initially high 18 middle of sampling 10 closing well 7

Time	DTW (toc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (°C)	Cond (mS/cm)	ORP (mV)	D.O [Surface] (mg/L)	Turbidity (NTU)	Color/Odor
Stabilization	<0.33' or 4" & <5% of wc	100-500	NA	±0.1 SU	±1°C	±10%	±10 mV	±10%	±10% or < 10	NA
1739	25.30	100	0.25	6.83	13.81	∅	61.4	1.30	36.0	SUBT PRODUCT ODOR
1742	25.90	100	0.35	6.85	14.07	∅	66.3	1.32	21.9	" "
1745										

Remarks:
1744: WELL DRY

SAMPLING INFORMATION:

Depth to Water Before Sampling	Depth sample was acquired
Sample Methodology	
Sample Date/Time	
Signed Sampler	
Filtered Metals Collected: Y / N	Filter Size
Sample Observations:	
Parameters (please circle)	VOCs SVOCs Dissolved Metals Other:



PROJECT NUMBER LA9858.LD.MR.GW	WELL NUMBER SHEET 1 OF 1
LOW FLOW SAMPLING LOG	

Well Number: MW-13
 Field Crew: M. WARREN, K. SEXTON
 Well Depth (ft): 22.20
 DTW (ft): 20.40
 Water Column (ft): 1.8
 Well Diameter (in): 2"
 Gal Per Ft: 0.163
 Well volume (gal): 0.293
 Depth of Screen (ft):

Site: LEWIS DRIVE
 Date: 03/06/18

Diameter	Gal Per Foot	Diameter	Gal Per Foot
2"	0.163	5"	1.02
3"	0.367	6"	1.469
4"	0.653	8"	2.611

 Water level indicator, serial number: 037342
 Pump type (please circle): Peristaltic Bladder
 Pump serial number: 19076

PID reading: opening well 77.0 after venting, if initially high 16.3 middle of sampling 8.4 closing well 0.1

Field Parameters										
Time	DTW (toc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std Units)	Temp (°C)	Cond (mS/cm)	ORP (mV)	D.O. [Surface] (mg/L)	Turbidity (NTU)	Color/Odor
Stabilization	<0.33' or 4" & <5% of wc	100-500	NA	±0.1 SU	±1°C	±10%	±10 mV	±10%	±10% or < 10	NA
0954	20.51	200	0.25	5.93	14.75	0.146	40.4	2.48	8.38	CLEAR
0957	20.83	200	0.4	5.74	16.04	0.128	49.5	0.76	505	" "
1000	20.98	200	0.5	5.74	16.05	0.129	48.2	0.66	70.1	" "
1003	21.4	150	0.7	5.73	16.03	0.124	51.4	0.52	20.16	" "
1006	21.66	150	0.9	5.63	15.98	0.094	70.6	0.49	54.9	" "
1009	22.0	150	1.1	5.41	16.02	0.072	101.0	0.47	27.11	" "

Remarks: TEAM PURGED 3 WELL VOLUMES BEFORE SAMPLING

SAMPLING INFORMATION:

Depth to Water Before Sampling: 22.0 Depth sample was acquired: 22.1

Sample Methodology: STRAW METHOD

Sample Date/Time: 03/06/18 @ 1015

Signed Sampler: *M. Warren*

Filtered Metals Collected: Y/N (N) Filter Size: _____

Sample Observations: CLEAR / NO ODOR

Parameters (please circle): VOCs SVOCs Dissolved Metals Other



PROJECT NUMBER 699855, LD. MR. GW	WELL NUMBER
SHEET OF	
LOW FLOW SAMPLING LOG	

Well Number: MW-45
 Field Crew: M. WARREN, K. SEXTON
 Well Depth (ft): 14.50
 DTW (ft): 12.31
 Water Column (ft): 2.19
 Well Diameter (in):
 Gal Per ft: 1.63
 Well volume (gal): 3519.3 = 1.07
 Depth of Screen (ft):

Site: LEWIS DRIVE
 Date: 03/06/18

Diameter	Gal Per Foot	Diameter	Gal Per Foot
2"	0.163	5"	1.02
3"	0.367	6"	1.469
4"	0.653	8"	2.611

Water level indicator, serial number: 037342
 Pump type (please circle): Peristaltic Bladder
 Pump serial number: 19076

PID reading: 8 opening well after venting, if initially high middle of sampling closing well

Field Parameters										
Time	DTW (toc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (°C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/L)	Turbidity (NTU)	Color/Odor
Stabilization	<0.33' or 4" & <5% of wc	100-500	NA	±0.1 SU	±1°C	±10%	±10 mV	±10%	±10% or < 10	NA
<i>Flow of 4.5 gpm 3/6/18</i>										
1256	12.35	2.07 gpm	.25	5.39	15.111	.083	166.1	2.39	8.54	
1302	12.72		.50	5.70	15.765	.076	136.8	1.67	6.36	
1305	12.78		.75	5.29	15.862	.078	133.9	1.64	8.02	
1308	12.81		.90	5.28	15.872	.074	131.9	1.63	5.21	
1311	12.88		1.10	5.26	15.763	.071	134.0	1.62	4.87	

Remarks: 3 W.V.

SAMPLING INFORMATION:

Depth to Water Before Sampling: 12.98 Depth sample was acquired: 12.90

Sample Methodology: low-flow

Sample Date/Time: 3/6/18 1315

Signed Sampler: *[Signature]*

Filtered Metals Collected: Y / (N) Filter Size:

Sample Observations:

Parameters (please circle): VOCs SVOCs Dissolved Metals Other.

Appendix B
Surface Water Analytical
Laboratory Reports

January 15, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L962268
Samples Received: 01/10/2018
Project Number: 699858,LD. MR. SW
Description: Lewis Drive Surface Water
Site: LEWIS DR.
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328










Entire Report Reviewed By:



Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	5	
Sr: Sample Results	6	
SW11-010918 L962268-01	6	
SW10-010918 L962268-02	7	
FP01-010918 L962268-03	8	
FP02-010918 L962268-04	9	
SW09-010918 L962268-05	10	
SW08-010918 L962268-06	11	
SW13-010918 L962268-07	12	
FP03-010918 L962268-08	13	
SW04-010918 L962268-09	14	
SW02-010918 L962268-10	15	
SW01-010918 L962268-11	16	
SW07-010918 L962268-12	17	
SW12-010918 L962268-13	18	
SW14-010918 L962268-14	19	
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Sc: Sample Chain of Custody	24	

SAMPLE SUMMARY



SW11-010918 L962268-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 03:57	01/11/18 03:57	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:10
 Received date/time 01/10/18 08:45

1 Cp

2 Tc

3 Ss

SW10-010918 L962268-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 04:13	01/11/18 04:13	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:20
 Received date/time 01/10/18 08:45

4 Cn

5 Sr

FP01-010918 L962268-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 04:30	01/11/18 04:30	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:25
 Received date/time 01/10/18 08:45

6 Qc

7 Gl

FP02-010918 L962268-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 04:47	01/11/18 04:47	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:30
 Received date/time 01/10/18 08:45

8 Al

9 Sc

SW09-010918 L962268-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 05:04	01/11/18 05:04	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:35
 Received date/time 01/10/18 08:45

SW08-010918 L962268-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 05:20	01/11/18 05:20	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:50
 Received date/time 01/10/18 08:45

SW13-010918 L962268-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 05:37	01/11/18 05:37	JHH

Collected by M. Warren
 Collected date/time 01/09/18 14:55
 Received date/time 01/10/18 08:45

FP03-010918 L962268-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 05:53	01/11/18 05:53	JHH

Collected by M. Warren
 Collected date/time 01/09/18 15:10
 Received date/time 01/10/18 08:45

SAMPLE SUMMARY



SW04-010918 L962268-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 06:10	01/11/18 06:10	JHH

Collected by M. Warren	Collected date/time 01/09/18 15:30	Received date/time 01/10/18 08:45
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1
Cp

2
Tc

3
Ss

SW02-010918 L962268-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 06:27	01/11/18 06:27	JHH

Collected by M. Warren	Collected date/time 01/09/18 15:35	Received date/time 01/10/18 08:45
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4
Cn

5
Sr

SW01-010918 L962268-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 06:44	01/11/18 06:44	JHH

Collected by M. Warren	Collected date/time 01/09/18 15:40	Received date/time 01/10/18 08:45
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6
Qc

7
Gl

SW07-010918 L962268-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 07:00	01/11/18 07:00	JHH

Collected by M. Warren	Collected date/time 01/09/18 15:45	Received date/time 01/10/18 08:45
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8
Al

9
Sc

SW12-010918 L962268-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 07:17	01/11/18 07:17	JHH

Collected by M. Warren	Collected date/time 01/09/18 15:50	Received date/time 01/10/18 08:45
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SW14-010918 L962268-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 07:34	01/11/18 07:34	JHH

Collected by M. Warren	Collected date/time 01/09/18 16:15	Received date/time 01/10/18 08:45
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TB01-010918 L962268-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 03:40	01/11/18 03:40	JHH

Collected by M. Warren	Collected date/time 01/09/18 16:10	Received date/time 01/10/18 08:45
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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 03:57	WG1061597
Toluene	ND		1.00	1	01/11/2018 03:57	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 03:57	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 03:57	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 03:57	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 03:57	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 03:57	WG1061597
(S) Toluene-d8	109		80.0-120		01/11/2018 03:57	WG1061597
(S) Dibromofluoromethane	87.6		76.0-123		01/11/2018 03:57	WG1061597
(S) a,a,a-Trifluorotoluene	98.5		80.0-120		01/11/2018 03:57	WG1061597
(S) 4-Bromofluorobenzene	103		80.0-120		01/11/2018 03:57	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 04:13	WG1061597
Toluene	ND		1.00	1	01/11/2018 04:13	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 04:13	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 04:13	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 04:13	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 04:13	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 04:13	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 04:13	WG1061597
(S) Dibromofluoromethane	89.4		76.0-123		01/11/2018 04:13	WG1061597
(S) a,a,a-Trifluorotoluene	98.5		80.0-120		01/11/2018 04:13	WG1061597
(S) 4-Bromofluorobenzene	103		80.0-120		01/11/2018 04:13	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 04:30	WG1061597
Toluene	ND		1.00	1	01/11/2018 04:30	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 04:30	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 04:30	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 04:30	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 04:30	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 04:30	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 04:30	WG1061597
(S) Dibromofluoromethane	89.5		76.0-123		01/11/2018 04:30	WG1061597
(S) a,a,a-Trifluorotoluene	98.6		80.0-120		01/11/2018 04:30	WG1061597
(S) 4-Bromofluorobenzene	105		80.0-120		01/11/2018 04:30	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 04:47	WG1061597
Toluene	ND		1.00	1	01/11/2018 04:47	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 04:47	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 04:47	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 04:47	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 04:47	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 04:47	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 04:47	WG1061597
(S) Dibromofluoromethane	88.5		76.0-123		01/11/2018 04:47	WG1061597
(S) a,a,a-Trifluorotoluene	97.7		80.0-120		01/11/2018 04:47	WG1061597
(S) 4-Bromofluorobenzene	105		80.0-120		01/11/2018 04:47	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 05:04	WG1061597
Toluene	ND		1.00	1	01/11/2018 05:04	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 05:04	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 05:04	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 05:04	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 05:04	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 05:04	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 05:04	WG1061597
(S) Dibromofluoromethane	90.6		76.0-123		01/11/2018 05:04	WG1061597
(S) a,a,a-Trifluorotoluene	98.3		80.0-120		01/11/2018 05:04	WG1061597
(S) 4-Bromofluorobenzene	105		80.0-120		01/11/2018 05:04	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1.16		1.00	1	01/11/2018 05:20	WG1061597
Toluene	ND		1.00	1	01/11/2018 05:20	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 05:20	WG1061597
o-Xylene	1.87		1.00	1	01/11/2018 05:20	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 05:20	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 05:20	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 05:20	WG1061597
(S) Toluene-d8	109		80.0-120		01/11/2018 05:20	WG1061597
(S) Dibromofluoromethane	89.4		76.0-123		01/11/2018 05:20	WG1061597
(S) a,a,a-Trifluorotoluene	96.6		80.0-120		01/11/2018 05:20	WG1061597
(S) 4-Bromofluorobenzene	105		80.0-120		01/11/2018 05:20	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 05:37	WG1061597
Toluene	ND		1.00	1	01/11/2018 05:37	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 05:37	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 05:37	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 05:37	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 05:37	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 05:37	WG1061597
(S) Toluene-d8	110		80.0-120		01/11/2018 05:37	WG1061597
(S) Dibromofluoromethane	90.5		76.0-123		01/11/2018 05:37	WG1061597
(S) a,a,a-Trifluorotoluene	97.8		80.0-120		01/11/2018 05:37	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 05:37	WG1061597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 05:53	WG1061597
Toluene	ND		1.00	1	01/11/2018 05:53	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 05:53	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 05:53	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 05:53	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 05:53	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 05:53	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 05:53	WG1061597
(S) Dibromofluoromethane	89.9		76.0-123		01/11/2018 05:53	WG1061597
(S) a,a,a-Trifluorotoluene	99.1		80.0-120		01/11/2018 05:53	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 05:53	WG1061597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	01/11/2018 06:10	WG1061597
Toluene	4.09		1.00	1	01/11/2018 06:10	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 06:10	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 06:10	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 06:10	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 06:10	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 06:10	WG1061597
(S) Toluene-d8	109		80.0-120		01/11/2018 06:10	WG1061597
(S) Dibromofluoromethane	89.5		76.0-123		01/11/2018 06:10	WG1061597
(S) a,a,a-Trifluorotoluene	97.4		80.0-120		01/11/2018 06:10	WG1061597
(S) 4-Bromofluorobenzene	105		80.0-120		01/11/2018 06:10	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	25.0		1.00	1	01/11/2018 06:27	WG1061597
Toluene	12.4		1.00	1	01/11/2018 06:27	WG1061597
Ethylbenzene	1.56		1.00	1	01/11/2018 06:27	WG1061597
o-Xylene	8.24		1.00	1	01/11/2018 06:27	WG1061597
m&p-Xylene	11.0		2.00	1	01/11/2018 06:27	WG1061597
Xylenes, Total	19.2		3.00	1	01/11/2018 06:27	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 06:27	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 06:27	WG1061597
(S) Dibromofluoromethane	89.3		76.0-123		01/11/2018 06:27	WG1061597
(S) a,a,a-Trifluorotoluene	97.6		80.0-120		01/11/2018 06:27	WG1061597
(S) 4-Bromofluorobenzene	107		80.0-120		01/11/2018 06:27	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 06:44	WG1061597
Toluene	ND		1.00	1	01/11/2018 06:44	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 06:44	WG1061597
o-Xylene	1.15		1.00	1	01/11/2018 06:44	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 06:44	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 06:44	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 06:44	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 06:44	WG1061597
(S) Dibromofluoromethane	90.7		76.0-123		01/11/2018 06:44	WG1061597
(S) a,a,a-Trifluorotoluene	98.5		80.0-120		01/11/2018 06:44	WG1061597
(S) 4-Bromofluorobenzene	106		80.0-120		01/11/2018 06:44	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 07:00	WG1061597
Toluene	ND		1.00	1	01/11/2018 07:00	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 07:00	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 07:00	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 07:00	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 07:00	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 07:00	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 07:00	WG1061597
(S) Dibromofluoromethane	90.4		76.0-123		01/11/2018 07:00	WG1061597
(S) a,a,a-Trifluorotoluene	97.5		80.0-120		01/11/2018 07:00	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 07:00	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	12.3		1.00	1	01/11/2018 07:17	WG1061597
Toluene	5.65		1.00	1	01/11/2018 07:17	WG1061597
Ethylbenzene	2.16		1.00	1	01/11/2018 07:17	WG1061597
o-Xylene	11.1		1.00	1	01/11/2018 07:17	WG1061597
m&p-Xylene	14.6		2.00	1	01/11/2018 07:17	WG1061597
Xylenes, Total	25.7		3.00	1	01/11/2018 07:17	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 07:17	WG1061597
(S) Toluene-d8	108		80.0-120		01/11/2018 07:17	WG1061597
(S) Dibromofluoromethane	89.1		76.0-123		01/11/2018 07:17	WG1061597
(S) a,a,a-Trifluorotoluene	99.4		80.0-120		01/11/2018 07:17	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 07:17	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 07:34	WG1061597
Toluene	ND		1.00	1	01/11/2018 07:34	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 07:34	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 07:34	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 07:34	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 07:34	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 07:34	WG1061597
(S) Toluene-d8	106		80.0-120		01/11/2018 07:34	WG1061597
(S) Dibromofluoromethane	97.7		76.0-123		01/11/2018 07:34	WG1061597
(S) a,a,a-Trifluorotoluene	96.4		80.0-120		01/11/2018 07:34	WG1061597
(S) 4-Bromofluorobenzene	106		80.0-120		01/11/2018 07:34	WG1061597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 03:40	WG1061597
Toluene	ND		1.00	1	01/11/2018 03:40	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 03:40	WG1061597
o-Xylene	ND		1.00	1	01/11/2018 03:40	WG1061597
m&p-Xylene	ND		2.00	1	01/11/2018 03:40	WG1061597
Xylenes, Total	ND		3.00	1	01/11/2018 03:40	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 03:40	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 03:40	WG1061597
(S) Dibromofluoromethane	88.6		76.0-123		01/11/2018 03:40	WG1061597
(S) a,a,a-Trifluorotoluene	98.6		80.0-120		01/11/2018 03:40	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 03:40	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3278730-2 01/10/18 23:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	91.5			76.0-123
(S) a,a,a-Trifluorotoluene	97.2			80.0-120
(S) 4-Bromofluorobenzene	103			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3278730-1 01/10/18 22:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	21.5	86.0	70.0-130	
Ethylbenzene	25.0	25.8	103	70.0-130	
Naphthalene	25.0	21.3	85.3	70.0-130	
Toluene	25.0	24.2	96.8	70.0-130	
Xylenes, Total	75.0	77.5	103	70.0-130	
o-Xylene	25.0	27.2	109	70.0-130	
m&p-Xylenes	50.0	50.3	101	70.0-130	
(S) Toluene-d8			106	80.0-120	
(S) Dibromofluoromethane			89.2	76.0-123	
(S) a,a,a-Trifluorotoluene			101	80.0-120	
(S) 4-Bromofluorobenzene			103	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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7 Gl

8 Al

9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

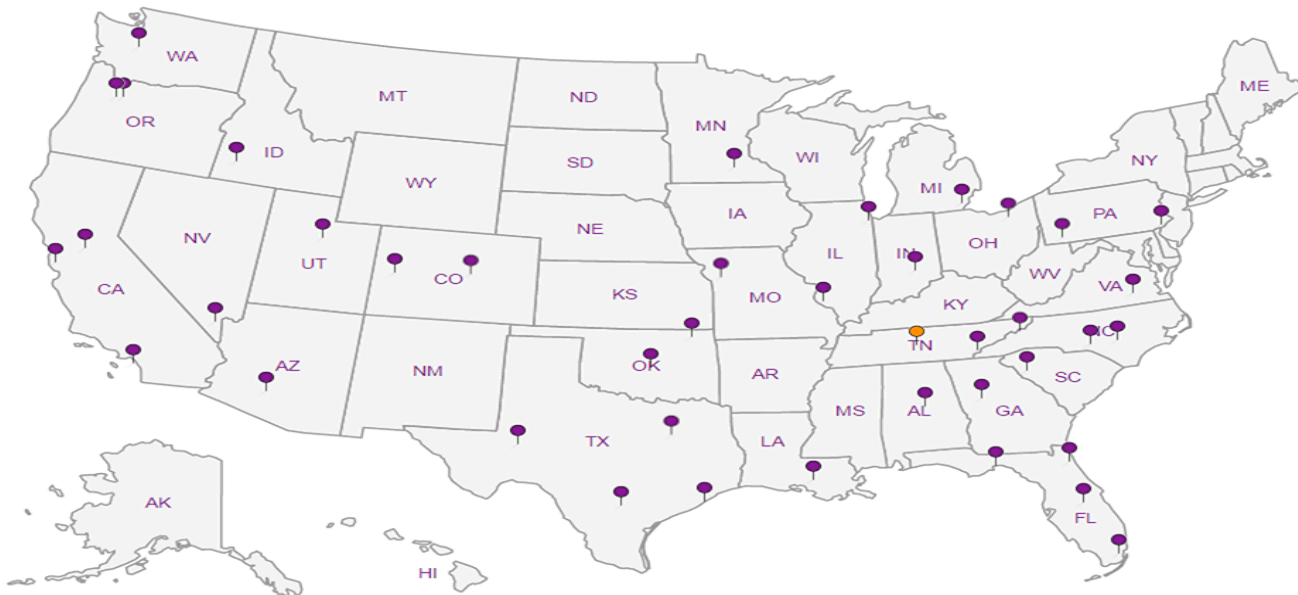
Third Party & Federal Accreditations


A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



CH2M Hill- Kinder Morgan- Atlanta, GA		Billing Information:		Accounts Payable 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Pres Chk		Analysis / Container / Preservative		Chain of Custody Page 1 of 2	
6600 Peachtree Dunwoody Road		Report to: Bethany Garvey		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;		City/State Collected: BEITON, SC		V8260BTEXNSC 40mlAmb-HCl		 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Project Description: Lewis Drive Surface Water		Client Project # 699888.LD.MR.SW		Lab Project # KINCH2MGA-LEWIS		V8260BTEXNSC-TB 40mlAmb-HCl-BIK		BTEX		L# 962268 H013	
Phone: 770-604-9182		Site/Facility ID # LEWIS DR.		P.O. #		V8260BTEXNSC-TB 40mlAmb-HCl-BIK		NAPTHAENE		Acctnum: KINCH2MGA Template: T131321 Prelogin: P634221 TSR: 526 - Chris McCord PB: 1-3-186 Shipped Via: FedEX Ground	
Collected by (print): M. W. ARLEN		Rush? (Lab MUST Be Notified)		Quote #		V8260BTEXNSC-TB 40mlAmb-HCl-BIK		BTEX		Remarks: _____ Sample # (lab only)	
Collected by (signature): <i>M. W. Arlen</i>		<input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Date Results Needed		V8260BTEXNSC-TB 40mlAmb-HCl-BIK		NAPTHAENE		No. of Cntrs	
Immediately Packed on Ice N X Y		Sample ID		Comp/Grab		Matrix *		Depth		Date	
		Time									
		SW11-010918		GRAB		GW		NA		01/09/18 1410	
		SW10-010918		↓		GW		↓		1420	
		EP01-010918		↓		GW		↓		1425	
		EP02-010918		↓		GW		↓		1430	
		SW09-010918		↓		GW		↓		1435	
		SW08-010918		↓		GW		↓		1450	
		SW13-010918		↓		GW		↓		1455	
		EP03-010918		↓		GW		↓		1510	
		SW04-010918		↓		GW		↓		1530	
		SW02-010918		↓		GW		↓		1535	
* Matrix:		Remarks:		pH _____ Temp _____		Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> NP <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> <input type="checkbox"/> N			
SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking # 4142 5230 2310		Received by: (Signature) Trip Blank Received: <input checked="" type="checkbox"/> No <input type="checkbox"/> MeoH TBR		Received by: (Signature) Temp: 41°C Bottles Received: 56		If preservation required by Login: Date/Time	
Relinquished by: (Signature) <i>M. W. Arlen</i>		Date: 01/09/18		Time: 1745		Received for lab by: (Signature) Jerry Hargal 836		Date: 1-10-18 Time: 845		Hold: _____ Condition: NCF / OK	

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description:
Lewis Drive Surface Water

Phone: **770-604-9182**
 Fax:

Client Project #
69988, LD.MR. SW

City/State Collected:
BELTON, SC
 Lab Project #
KINCH2MGA-LEWIS

Collected by (print):
M. WARREN

Site/Facility ID #
LEWIS DR.

P.O. #

Collected by (signature):
M. Warren
 Immediately Packed on Ice

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day
 Quote #
 Date Results Needed

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
SW01-010918	GRAB	GW	NA	01/09/18	1540	3
SW07-010918	↓	GW	↓	↓	1545	3
SW12-010918	↓	GW	↓	↓	1550	3
SW14-010918	↓	GW	↓	↓	1615	3
—	—	GW	—	—	—	3
—	—	GW	—	—	—	3
—	—	GW	—	—	—	3
TB01-010918	GRAB	GW	NA	01/09/18	1610	1

Analysis / Container / Preservative	
V8260BTEXNSC 40ml/Amb-HCl	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
V8260BTEXNSC-TB 40ml/Amb-HCl-BIK	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
BTEX	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
NAPHTHALENE	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Chain of Custody Page 2 of 2



12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **962268**
 Table #
 Acctnum: **KINCH2MGA**
 Template: **T131321**
 Prelogin: **P634221**
 TSR: **526 - Chris McCord**
 PB: **1-3-186**
 Shipped Via: **FedEX Ground**

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____
 Samples returned via:
 UPS FedEx Courier _____
 Tracking # **4142 5230 2310**

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP	<input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
If Applicable		
VOA Zero Headpace:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

Relinquished by: (Signature)
M. Warren
 Date: **01/09/18** Time: **1745**

Received by: (Signature)
 Date: _____ Time: _____

Received by: (Signature)
 Date: _____ Time: _____

Trip Blank Received: Yes / No
 HQ / MeOH
 TAR
 Temp: **4.1 Me 10** Bottles Received: **58**

If preservation required by Login: Date/Time
 Hold: _____
 Condition: **NCF / OK**

February 09, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L968401
Samples Received: 02/07/2018
Project Number: 699858.LD.MR.SW
Description: Lewis Drive Surface Water
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328










Entire Report Reviewed By:



Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



SW14-020618 L968401-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 12:06	02/08/18 12:06	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 13:35

Received date/time
02/07/18 08:45

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SW11-020618 L968401-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 12:25	02/08/18 12:25	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 14:40

Received date/time
02/07/18 08:45

SW10-020618 L968401-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 12:45	02/08/18 12:45	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 14:45

Received date/time
02/07/18 08:45

FP01-020618 L968401-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 13:04	02/08/18 13:04	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 14:55

Received date/time
02/07/18 08:45

FP02-020618 L968401-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 13:23	02/08/18 13:23	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 15:00

Received date/time
02/07/18 08:45

SW09-020618 L968401-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 13:43	02/08/18 13:43	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 15:05

Received date/time
02/07/18 08:45

SW08-020618 L968401-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 14:01	02/08/18 14:01	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 15:10

Received date/time
02/07/18 08:45

SW13-020618 L968401-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 14:20	02/08/18 14:20	BMB

Collected by
Melissa Warren

Collected date/time
02/06/18 15:15

Received date/time
02/07/18 08:45

SAMPLE SUMMARY



FP03-020618 L968401-09 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:20

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 14:39	02/08/18 14:39	BMB

1 Cp

2 Tc

3 Ss

SW04-020618 L968401-10 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:25

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 14:59	02/08/18 14:59	BMB

4 Cn

5 Sr

SW02-020618 L968401-11 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:27

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 15:18	02/08/18 15:18	BMB

6 Qc

7 Gl

SW01-020618 L968401-12 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:30

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 15:37	02/08/18 15:37	BMB

8 Al

9 Sc

SW07-020618 L968401-13 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:35

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 15:56	02/08/18 15:56	BMB

TB01-020618 L968401-14 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:50

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 11:46	02/08/18 11:46	BMB

SW12-020618 L968401-15 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:40

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 16:15	02/08/18 16:15	BMB

SW03-020618 L968401-16 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 15:45

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 16:35	02/08/18 16:35	BMB

SAMPLE SUMMARY



SW05-020618 L968401-17 GW

Collected by	Collected date/time	Received date/time
Melissa Warren	02/06/18 16:20	02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 16:54	02/08/18 16:54	BMB

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 12:06	WG1071291
Toluene	ND		1.00	1	02/08/2018 12:06	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 12:06	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 12:06	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 12:06	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 12:06	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 12:06	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 12:06	WG1071291
<i>(S) Toluene-d8</i>	105		80.0-120		02/08/2018 12:06	WG1071291
<i>(S) Dibromofluoromethane</i>	98.1		76.0-123		02/08/2018 12:06	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	99.8		80.0-120		02/08/2018 12:06	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 12:25	WG1071291
Toluene	ND		1.00	1	02/08/2018 12:25	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 12:25	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 12:25	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 12:25	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 12:25	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 12:25	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 12:25	WG1071291
<i>(S) Toluene-d8</i>	105		80.0-120		02/08/2018 12:25	WG1071291
<i>(S) Dibromofluoromethane</i>	99.5		76.0-123		02/08/2018 12:25	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	99.1		80.0-120		02/08/2018 12:25	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 12:45	WG1071291
Toluene	ND		1.00	1	02/08/2018 12:45	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 12:45	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 12:45	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 12:45	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 12:45	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 12:45	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 12:45	WG1071291
<i>(S) Toluene-d8</i>	107		80.0-120		02/08/2018 12:45	WG1071291
<i>(S) Dibromofluoromethane</i>	99.0		76.0-123		02/08/2018 12:45	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	101		80.0-120		02/08/2018 12:45	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 13:04	WG1071291
Toluene	ND		1.00	1	02/08/2018 13:04	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 13:04	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 13:04	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 13:04	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 13:04	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 13:04	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 13:04	WG1071291
<i>(S) Toluene-d8</i>	107		80.0-120		02/08/2018 13:04	WG1071291
<i>(S) Dibromofluoromethane</i>	99.1		76.0-123		02/08/2018 13:04	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	101		80.0-120		02/08/2018 13:04	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 13:23	WG1071291
Toluene	ND		1.00	1	02/08/2018 13:23	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 13:23	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 13:23	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 13:23	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 13:23	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 13:23	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 13:23	WG1071291
<i>(S) Toluene-d8</i>	104		80.0-120		02/08/2018 13:23	WG1071291
<i>(S) Dibromofluoromethane</i>	99.7		76.0-123		02/08/2018 13:23	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	99.2		80.0-120		02/08/2018 13:23	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	02/08/2018 13:43	WG1071291
Toluene	ND		1.00	1	02/08/2018 13:43	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 13:43	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 13:43	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 13:43	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 13:43	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 13:43	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 13:43	WG1071291
(S) Toluene-d8	106		80.0-120		02/08/2018 13:43	WG1071291
(S) Dibromofluoromethane	97.3		76.0-123		02/08/2018 13:43	WG1071291
(S) 4-Bromofluorobenzene	99.6		80.0-120		02/08/2018 13:43	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 14:01	WG1071291
Toluene	ND		1.00	1	02/08/2018 14:01	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 14:01	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 14:01	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 14:01	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 14:01	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 14:01	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 14:01	WG1071291
<i>(S) Toluene-d8</i>	106		80.0-120		02/08/2018 14:01	WG1071291
<i>(S) Dibromofluoromethane</i>	101		76.0-123		02/08/2018 14:01	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	100		80.0-120		02/08/2018 14:01	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.78		1.00	1	02/08/2018 14:20	WG1071291
Toluene	ND		1.00	1	02/08/2018 14:20	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 14:20	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 14:20	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 14:20	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 14:20	WG1071291
Methyl tert-butyl ether	4.26		1.00	1	02/08/2018 14:20	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 14:20	WG1071291
<i>(S) Toluene-d8</i>	105		80.0-120		02/08/2018 14:20	WG1071291
<i>(S) Dibromofluoromethane</i>	100		76.0-123		02/08/2018 14:20	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	99.7		80.0-120		02/08/2018 14:20	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 14:39	WG1071291
Toluene	ND		1.00	1	02/08/2018 14:39	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 14:39	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 14:39	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 14:39	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 14:39	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 14:39	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 14:39	WG1071291
<i>(S) Toluene-d8</i>	107		80.0-120		02/08/2018 14:39	WG1071291
<i>(S) Dibromofluoromethane</i>	99.3		76.0-123		02/08/2018 14:39	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	100		80.0-120		02/08/2018 14:39	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	3.04		1.00	1	02/08/2018 14:59	WG1071291
Toluene	1.73		1.00	1	02/08/2018 14:59	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 14:59	WG1071291
o-Xylene	1.12		1.00	1	02/08/2018 14:59	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 14:59	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 14:59	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 14:59	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 14:59	WG1071291
<i>(S) Toluene-d8</i>	109		80.0-120		02/08/2018 14:59	WG1071291
<i>(S) Dibromofluoromethane</i>	98.8		76.0-123		02/08/2018 14:59	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	101		80.0-120		02/08/2018 14:59	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	6.69		1.00	1	02/08/2018 15:18	WG1071291
Toluene	2.65		1.00	1	02/08/2018 15:18	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 15:18	WG1071291
o-Xylene	1.87		1.00	1	02/08/2018 15:18	WG1071291
m&p-Xylene	2.75		2.00	1	02/08/2018 15:18	WG1071291
Total Xylenes	4.62		3.00	1	02/08/2018 15:18	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 15:18	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 15:18	WG1071291
<i>(S) Toluene-d8</i>	106		80.0-120		02/08/2018 15:18	WG1071291
<i>(S) Dibromofluoromethane</i>	100		76.0-123		02/08/2018 15:18	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	102		80.0-120		02/08/2018 15:18	WG1071291

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	02/08/2018 15:37	WG1071291
Toluene	ND		1.00	1	02/08/2018 15:37	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 15:37	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 15:37	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 15:37	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 15:37	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 15:37	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 15:37	WG1071291
<i>(S) Toluene-d8</i>	107		80.0-120		02/08/2018 15:37	WG1071291
<i>(S) Dibromofluoromethane</i>	101		76.0-123		02/08/2018 15:37	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	100		80.0-120		02/08/2018 15:37	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 15:56	WG1071291
Toluene	ND		1.00	1	02/08/2018 15:56	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 15:56	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 15:56	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 15:56	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 15:56	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 15:56	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 15:56	WG1071291
(S) Toluene-d8	107		80.0-120		02/08/2018 15:56	WG1071291
(S) Dibromofluoromethane	97.5		76.0-123		02/08/2018 15:56	WG1071291
(S) 4-Bromofluorobenzene	98.6		80.0-120		02/08/2018 15:56	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	02/08/2018 11:46	WG1071291
Benzene	ND		1.00	1	02/08/2018 11:46	WG1071291
Bromodichloromethane	ND		1.00	1	02/08/2018 11:46	WG1071291
Bromoform	ND		1.00	1	02/08/2018 11:46	WG1071291
Bromomethane	ND		5.00	1	02/08/2018 11:46	WG1071291
Carbon disulfide	ND		1.00	1	02/08/2018 11:46	WG1071291
Carbon tetrachloride	ND		1.00	1	02/08/2018 11:46	WG1071291
Chlorobenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
Chlorodibromomethane	ND		1.00	1	02/08/2018 11:46	WG1071291
Chloroethane	ND		5.00	1	02/08/2018 11:46	WG1071291
Chloroform	ND		5.00	1	02/08/2018 11:46	WG1071291
Chloromethane	ND		2.50	1	02/08/2018 11:46	WG1071291
1,2-Dibromo-3-Chloropropane	ND		5.00	1	02/08/2018 11:46	WG1071291
1,2-Dibromoethane	ND		1.00	1	02/08/2018 11:46	WG1071291
1,2-Dichlorobenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,3-Dichlorobenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,4-Dichlorobenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,1-Dichloroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
1,2-Dichloroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
1,1-Dichloroethene	ND		1.00	1	02/08/2018 11:46	WG1071291
cis-1,2-Dichloroethene	ND		1.00	1	02/08/2018 11:46	WG1071291
trans-1,2-Dichloroethene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,2-Dichloropropane	ND		1.00	1	02/08/2018 11:46	WG1071291
cis-1,3-Dichloropropene	ND		1.00	1	02/08/2018 11:46	WG1071291
trans-1,3-Dichloropropene	ND		1.00	1	02/08/2018 11:46	WG1071291
Di-isopropyl ether	ND		1.00	1	02/08/2018 11:46	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
2-Butanone (MEK)	ND		10.0	1	02/08/2018 11:46	WG1071291
2-Hexanone	ND		10.0	1	02/08/2018 11:46	WG1071291
Methylene Chloride	ND		5.00	1	02/08/2018 11:46	WG1071291
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	02/08/2018 11:46	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 11:46	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 11:46	WG1071291
Styrene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,1,2,2-Tetrachloroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
Tetrachloroethene	ND		1.00	1	02/08/2018 11:46	WG1071291
Toluene	ND		1.00	1	02/08/2018 11:46	WG1071291
1,1,1-Trichloroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
1,1,2-Trichloroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
Trichloroethene	ND		1.00	1	02/08/2018 11:46	WG1071291
Vinyl chloride	ND		1.00	1	02/08/2018 11:46	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 11:46	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 11:46	WG1071291
Xylenes, Total	ND		3.00	1	02/08/2018 11:46	WG1071291
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	02/08/2018 11:46	WG1071291
1,2,3-Trimethylbenzene	ND		1.00	1	02/08/2018 11:46	WG1071291
(S) Toluene-d8	105		80.0-120		02/08/2018 11:46	WG1071291
(S) Dibromofluoromethane	98.2		76.0-123		02/08/2018 11:46	WG1071291
(S) a,a,a-Trifluorotoluene	98.0		80.0-120		02/08/2018 11:46	WG1071291
(S) 4-Bromofluorobenzene	98.4		80.0-120		02/08/2018 11:46	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	2.53		1.00	1	02/08/2018 16:15	WG1071291
Toluene	1.20		1.00	1	02/08/2018 16:15	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 16:15	WG1071291
o-Xylene	2.44		1.00	1	02/08/2018 16:15	WG1071291
m&p-Xylene	4.04		2.00	1	02/08/2018 16:15	WG1071291
Total Xylenes	6.48		3.00	1	02/08/2018 16:15	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 16:15	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 16:15	WG1071291
<i>(S) Toluene-d8</i>	106		80.0-120		02/08/2018 16:15	WG1071291
<i>(S) Dibromofluoromethane</i>	96.5		76.0-123		02/08/2018 16:15	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	102		80.0-120		02/08/2018 16:15	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/08/2018 16:35	WG1071291
Toluene	ND		1.00	1	02/08/2018 16:35	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 16:35	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 16:35	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 16:35	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 16:35	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 16:35	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 16:35	WG1071291
<i>(S) Toluene-d8</i>	106		80.0-120		02/08/2018 16:35	WG1071291
<i>(S) Dibromofluoromethane</i>	100		76.0-123		02/08/2018 16:35	WG1071291
<i>(S) 4-Bromofluorobenzene</i>	100		80.0-120		02/08/2018 16:35	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	02/08/2018 16:54	WG1071291
Toluene	ND		1.00	1	02/08/2018 16:54	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 16:54	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 16:54	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 16:54	WG1071291
Total Xylenes	ND		3.00	1	02/08/2018 16:54	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 16:54	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 16:54	WG1071291
(S) Toluene-d8	108		80.0-120		02/08/2018 16:54	WG1071291
(S) Dibromofluoromethane	98.5		76.0-123		02/08/2018 16:54	WG1071291
(S) 4-Bromofluorobenzene	97.4		80.0-120		02/08/2018 16:54	WG1071291

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3285084-2 02/08/18 09:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3285084-2 02/08/18 09:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Trichloroethene	U		0.398	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.341	2.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	99.2			76.0-123
(S) a,a,a-Trifluorotoluene	98.7			80.0-120
(S) 4-Bromofluorobenzene	97.6			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3285084-1 02/08/18 08:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	133	106	70.0-130	
Benzene	25.0	23.8	95.3	70.0-130	
Bromodichloromethane	25.0	26.4	105	70.0-130	
Bromoform	25.0	25.6	102	70.0-130	
Bromomethane	25.0	22.5	90.0	70.0-130	
Carbon disulfide	25.0	21.5	85.9	70.0-130	
Carbon tetrachloride	25.0	26.5	106	70.0-130	
Chlorobenzene	25.0	24.8	99.4	70.0-130	
Chlorodibromomethane	25.0	26.2	105	70.0-130	
Chloroethane	25.0	19.2	76.8	70.0-130	
Chloroform	25.0	25.6	103	70.0-130	
Chloromethane	25.0	20.7	82.7	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	24.0	95.8	70.0-130	
1,2-Dibromoethane	25.0	25.0	99.9	70.0-130	
1,2-Dichlorobenzene	25.0	23.5	93.9	70.0-130	
1,3-Dichlorobenzene	25.0	23.1	92.3	70.0-130	
1,4-Dichlorobenzene	25.0	22.9	91.5	70.0-130	
1,1-Dichloroethane	25.0	27.6	110	70.0-130	
1,2-Dichloroethane	25.0	27.2	109	70.0-130	
1,1-Dichloroethene	25.0	24.5	97.9	70.0-130	
cis-1,2-Dichloroethene	25.0	25.0	99.9	70.0-130	
trans-1,2-Dichloroethene	25.0	24.9	99.8	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3285084-1 02/08/18 08:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2-Dichloropropane	25.0	28.9	115	70.0-130	
cis-1,3-Dichloropropene	25.0	25.7	103	70.0-130	
trans-1,3-Dichloropropene	25.0	26.4	106	70.0-130	
Di-isopropyl ether	25.0	22.4	89.7	70.0-130	
Ethylbenzene	25.0	24.8	99.1	70.0-130	
2-Hexanone	125	145	116	70.0-130	
2-Butanone (MEK)	125	116	92.8	70.0-130	
Methylene Chloride	25.0	23.2	92.7	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	116	92.7	70.0-130	
Methyl tert-butyl ether	25.0	20.1	80.4	70.0-130	
Naphthalene	25.0	23.9	95.4	70.0-130	
Styrene	25.0	23.6	94.4	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	22.8	91.2	70.0-130	
Tetrachloroethene	25.0	24.9	99.5	70.0-130	
Toluene	25.0	24.7	98.7	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	27.3	109	70.0-130	
1,1,1-Trichloroethane	25.0	26.8	107	70.0-130	
1,1,2-Trichloroethane	25.0	25.0	100	70.0-130	
Trichloroethene	25.0	26.7	107	70.0-130	
1,2,3-Trimethylbenzene	25.0	24.1	96.5	70.0-130	
Vinyl chloride	25.0	24.2	96.7	70.0-130	
Xylenes, Total	75.0	73.5	98.0	70.0-130	
o-Xylene	25.0	24.7	98.7	70.0-130	
m&p-Xylenes	50.0	48.8	97.6	70.0-130	
<i>(S) Toluene-d8</i>			105	80.0-120	
<i>(S) Dibromofluoromethane</i>			99.2	76.0-123	
<i>(S) a,a,a-Trifluorotoluene</i>			101	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			99.5	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ^{1,4}	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

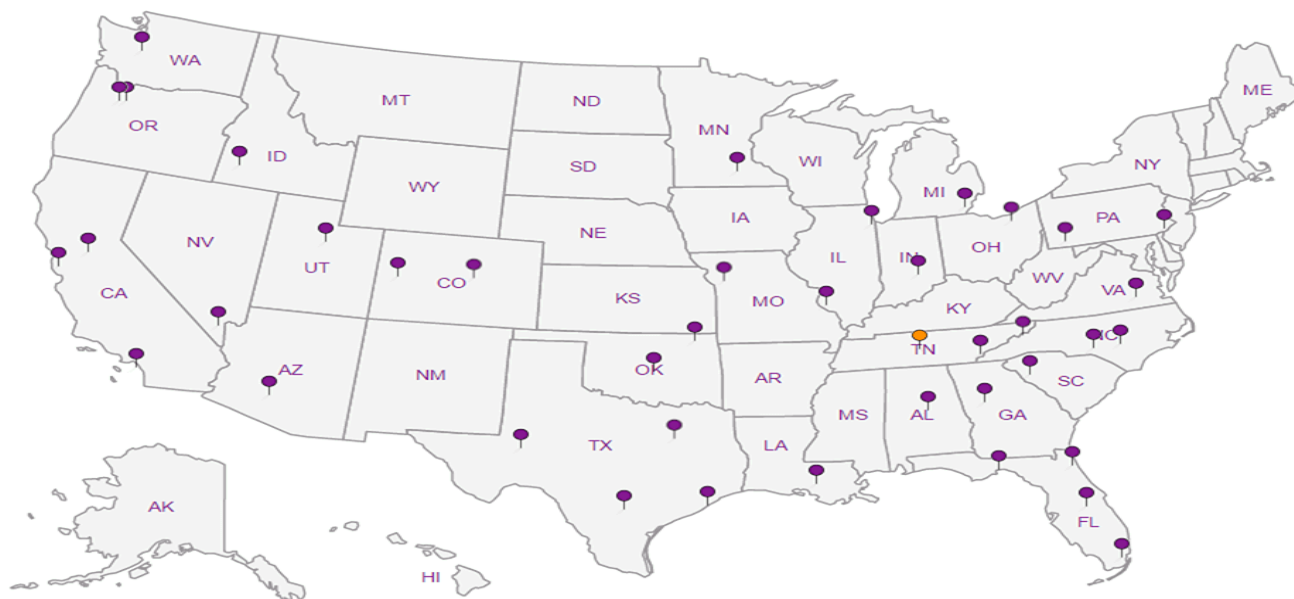
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Surface Water**

City/State Collected: **BELTON, SC**

Lab Project #: **KINCH2MGA-LEWIS**

Client Project #: **699858.LD.MR.SW**

Site/Facility ID #: **LEWIS DRIVE**

Phone: **770-604-9182**

Collected by (print): **MEUSSA WARREN**

Collected by (signature): *Meussa Warren*

Immediately Packed on Ice Y N

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

Pres Chk:

Analysis / Container / Preservative
 V82608TEXMNSC 40mlAmb-HCl
 V82608TEXMNSC-TB 40mlAmb-HCl-Bik
 BTEX
 MTBE
 NAPHTHAENE

Chain of Custody Page 1 of 2

ESC
 LABORATORIES
 a subsidiary of Fluor

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

QR Code

L# **968401**
 Tab **C063**

Acctnum: **KINCH2MGA**
 Template: **T132193**
 Prelogin: **P637823**
 TSR: **526 - Chris McCord**
 PB: **1-30-186**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis	Container	Preservative	Remarks	Sample # (lab only)
SW14-020618	62AB	GW	N/A	02/06/18	1335	3	X				-01
SW11-020618		GW			1440	3	X				-02
SW10-020618		GW			1445	3	X				-03
FP01-020618		GW			1455	3	X				-04
FP02-020618		GW			1500	3	X				-05
SW09-020618		GW			1505	3	X				-06
SW08-020618		GW			1510	3	X				-07
SW13-020618		GW			1515	3	X				-08
FP03-020618		GW			1520	3	X				-09
SW04-020618		GW			1525	3	X				-10

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Sample returned via:
 UPS FedEx Courier

Tracking # **4269 9202 9234**

pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) *Meussa Warren* Date: **02/06/18** Time: **1730**

Received by: (Signature) _____ Trip Blank Received: Yes / No
 NCL / MeOH TBR

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____ Temp: **1.8** °C Bottles Received: **48 XV-P**

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received for lab by: (Signature) *Kelly Mesner* Date: **2/7/18** Time: **0845** Hold: _____ Condition: **NCF 16**

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP	N
COC Signed/Accurate:		N
Bottles arrive intact:		N
Correct bottles used:		N
Sufficient volume sent:		N
If Applicable		
VOA Zero Headspace:		N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y	N

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Surface Water**

City/State Collected: **BELTON, SC**

Phone: 770-604-9182
 Fax:

Client Project #
699858.LD.MR.SW

Lab Project #
KINCH2MGA-LEWIS

Chain of Custody Page 2 of 2



L.A.B. S.C.I.E.N.C.E.S.
 a subsidiary of *Accumax*

12065 Lebinon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



Collected by (print): **MEUSSA WARREN**

Site/Facility ID #
LEWIS DRIVES

Collected by (signature): *Meussa Warren*

Rush? (Lab MUST Be Notified)

Same Day _____ Five Day _____
 Next Day _____ 5 Day (Rad Only) _____
 Two Day _____ 10 Day (Rad Only) _____
 Three Day _____

Quote # _____

Date Results Needed _____

Immediately Packed on Ice N Y _____

No. of Cntrs

Analysis / Container / Preservative

Pres Chk	X	X	X	X	X	X	X		
V8260BTEXMNSC 40m/Amb-HCl									
V8260BTEXMNSC-TB 40m/Amb-HCl-Bik									
BTEX									
MTBE									
NAPHTHALENE									
TCL VOCs									

L# **968401**

Table # _____

Acctnum: **KINCH2MGA**

Template: **T132193**

Prelogin: **P637823**

TSR: **526 - Chris McCord**

PB: **1-18-306**

Shipped Via: **FedEX Ground**

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260BTEXMNSC 40m/Amb-HCl	V8260BTEXMNSC-TB 40m/Amb-HCl-Bik	BTEX	MTBE	NAPHTHALENE	TCL VOCs	Remarks	Sample # (lab only)
SW02-020618	GRAB	GW	N/A	02/06/18	1527	3	X		X	X	X			-11
SW01-020618		GW			1530	3	X		X	X	X			-12
SW07-020618		GW			1535	3	X		X	X	X			-13
TB01-020618		GW			1550	1		X				X		-14
SW12-020618		GW			1540	3	X		X	X	X			-15
SW03-020618		GW			1545	3	X		X	X	X			-16
SW05-020618		GW			1620	3	X		X	X	X			-17

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks:

PH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx _____ Courier _____

Tracking # **4219 9202 9234**

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y	N
COC Signed/Accurate:		Y	N
Bottles arrive intact:		Y	N
Correct bottles used:		Y	N
Sufficient volume sent:		Y	N
If Applicable			
VOA Zero Headspace:		Y	N
Preservation Correct/Checked:		Y	N

Relinquished by: (Signature) <i>Meussa Warren</i>	Date: 02/06/18	Time: 1730	Received by: (Signature)	Trip Blank Received: Yes/No HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: ^{°C} 1.8 ^{°C} 33
Relinquished by: (Signature)	Date:	Time:	Received by lab by: (Signature) <i>Kelly New 841</i>	Bottles Received: 48XV-P Date: 2/7/18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition:
NCF OK

March 20, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L976731
Samples Received: 03/10/2018
Project Number:
Description: Lewis Drive Surface Water

Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328










Entire Report Reviewed By:



Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



SW14-030918 L976731-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/13/18 23:46	03/13/18 23:46	JBE

Collected by
Collected date/time
Received date/time

1 Cp

2 Tc

3 Ss

SW11-030918 L976731-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 00:06	03/14/18 00:06	JBE

Collected by
Collected date/time
Received date/time

4 Cn

5 Sr

SW10-030918 L976731-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 00:25	03/14/18 00:25	JBE

Collected by
Collected date/time
Received date/time

6 Qc

7 Gl

FP01-030918 L976731-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 00:45	03/14/18 00:45	JBE

Collected by
Collected date/time
Received date/time

8 Al

9 Sc

FP02-030918 L976731-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 01:05	03/14/18 01:05	JBE

Collected by
Collected date/time
Received date/time

SW09-030918 L976731-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 01:25	03/14/18 01:25	JBE

Collected by
Collected date/time
Received date/time

SW08-030918 L976731-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 01:44	03/14/18 01:44	JBE

Collected by
Collected date/time
Received date/time

SW13-030918 L976731-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 02:04	03/14/18 02:04	JBE

Collected by
Collected date/time
Received date/time

SAMPLE SUMMARY



FP03-030918 L976731-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 02:24	03/14/18 02:24	JBE

Collected by
Collected date/time
Received date/time

1 Cp

2 Tc

3 Ss

SW04-030918 L976731-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 02:44	03/14/18 02:44	JBE

Collected by
Collected date/time
Received date/time

4 Cn

5 Sr

SW02-030918 L976731-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 03:03	03/14/18 03:03	JBE

Collected by
Collected date/time
Received date/time

6 Qc

7 Gl

SW01-030918 L976731-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 03:23	03/14/18 03:23	JBE

Collected by
Collected date/time
Received date/time

8 Al

9 Sc

SW07-030918 L976731-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 03:43	03/14/18 03:43	JBE

Collected by
Collected date/time
Received date/time

SW12-030918 L976731-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 04:03	03/14/18 04:03	JBE

Collected by
Collected date/time
Received date/time

SW03-030918 L976731-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 04:23	03/14/18 04:23	JBE

Collected by
Collected date/time
Received date/time

SW05-030918 L976731-16 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/14/18 04:43	03/14/18 04:43	JBE

Collected by
Collected date/time
Received date/time

SAMPLE SUMMARY



TB01-030918 L976731-17 GW

Collected by: [Blank] Collected date/time: 03/09/18 11:15 Received date/time: 03/10/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084210	1	03/13/18 23:26	03/13/18 23:26	JBE

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/13/2018 23:46	WG1084210
Ethylbenzene	ND		1.00	1	03/13/2018 23:46	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/13/2018 23:46	WG1084210
Naphthalene	ND		5.00	1	03/13/2018 23:46	WG1084210
Toluene	ND		1.00	1	03/13/2018 23:46	WG1084210
o-Xylene	ND		1.00	1	03/13/2018 23:46	WG1084210
m&p-Xylene	ND		2.00	1	03/13/2018 23:46	WG1084210
Xylenes, Total	ND		3.00	1	03/13/2018 23:46	WG1084210
(S) Toluene-d8	111		80.0-120		03/13/2018 23:46	WG1084210
(S) Dibromofluoromethane	89.1		76.0-123		03/13/2018 23:46	WG1084210
(S) a,a,a-Trifluorotoluene	99.6		80.0-120		03/13/2018 23:46	WG1084210
(S) 4-Bromofluorobenzene	94.6		80.0-120		03/13/2018 23:46	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 00:06	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 00:06	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 00:06	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 00:06	WG1084210
Toluene	ND		1.00	1	03/14/2018 00:06	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 00:06	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 00:06	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 00:06	WG1084210
(S) Toluene-d8	105		80.0-120		03/14/2018 00:06	WG1084210
(S) Dibromofluoromethane	91.5		76.0-123		03/14/2018 00:06	WG1084210
(S) a,a,a-Trifluorotoluene	99.2		80.0-120		03/14/2018 00:06	WG1084210
(S) 4-Bromofluorobenzene	92.5		80.0-120		03/14/2018 00:06	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 00:25	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 00:25	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 00:25	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 00:25	WG1084210
Toluene	ND		1.00	1	03/14/2018 00:25	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 00:25	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 00:25	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 00:25	WG1084210
<i>(S) Toluene-d8</i>	108		80.0-120		03/14/2018 00:25	WG1084210
<i>(S) Dibromofluoromethane</i>	94.4		76.0-123		03/14/2018 00:25	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	97.0		80.0-120		03/14/2018 00:25	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	94.8		80.0-120		03/14/2018 00:25	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 00:45	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 00:45	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 00:45	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 00:45	WG1084210
Toluene	ND		1.00	1	03/14/2018 00:45	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 00:45	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 00:45	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 00:45	WG1084210
<i>(S) Toluene-d8</i>	103		80.0-120		03/14/2018 00:45	WG1084210
<i>(S) Dibromofluoromethane</i>	89.3		76.0-123		03/14/2018 00:45	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	98.0		80.0-120		03/14/2018 00:45	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	91.5		80.0-120		03/14/2018 00:45	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 01:05	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 01:05	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 01:05	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 01:05	WG1084210
Toluene	ND		1.00	1	03/14/2018 01:05	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 01:05	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 01:05	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 01:05	WG1084210
(S) Toluene-d8	107		80.0-120		03/14/2018 01:05	WG1084210
(S) Dibromofluoromethane	89.1		76.0-123		03/14/2018 01:05	WG1084210
(S) a,a,a-Trifluorotoluene	98.1		80.0-120		03/14/2018 01:05	WG1084210
(S) 4-Bromofluorobenzene	94.2		80.0-120		03/14/2018 01:05	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 01:25	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 01:25	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 01:25	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 01:25	WG1084210
Toluene	ND		1.00	1	03/14/2018 01:25	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 01:25	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 01:25	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 01:25	WG1084210
<i>(S) Toluene-d8</i>	113		80.0-120		03/14/2018 01:25	WG1084210
<i>(S) Dibromofluoromethane</i>	93.1		76.0-123		03/14/2018 01:25	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	96.7		80.0-120		03/14/2018 01:25	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	94.1		80.0-120		03/14/2018 01:25	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 01:44	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 01:44	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 01:44	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 01:44	WG1084210
Toluene	ND		1.00	1	03/14/2018 01:44	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 01:44	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 01:44	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 01:44	WG1084210
<i>(S) Toluene-d8</i>	112		80.0-120		03/14/2018 01:44	WG1084210
<i>(S) Dibromofluoromethane</i>	91.9		76.0-123		03/14/2018 01:44	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	101		80.0-120		03/14/2018 01:44	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	92.4		80.0-120		03/14/2018 01:44	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 02:04	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 02:04	WG1084210
Methyl tert-butyl ether	2.07		1.00	1	03/14/2018 02:04	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 02:04	WG1084210
Toluene	ND		1.00	1	03/14/2018 02:04	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 02:04	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 02:04	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 02:04	WG1084210
<i>(S) Toluene-d8</i>	106		80.0-120		03/14/2018 02:04	WG1084210
<i>(S) Dibromofluoromethane</i>	90.9		76.0-123		03/14/2018 02:04	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	98.6		80.0-120		03/14/2018 02:04	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	92.7		80.0-120		03/14/2018 02:04	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 02:24	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 02:24	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 02:24	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 02:24	WG1084210
Toluene	ND		1.00	1	03/14/2018 02:24	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 02:24	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 02:24	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 02:24	WG1084210
<i>(S) Toluene-d8</i>	107		80.0-120		03/14/2018 02:24	WG1084210
<i>(S) Dibromofluoromethane</i>	86.1		76.0-123		03/14/2018 02:24	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	99.6		80.0-120		03/14/2018 02:24	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	97.0		80.0-120		03/14/2018 02:24	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 02:44	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 02:44	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 02:44	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 02:44	WG1084210
Toluene	1.37		1.00	1	03/14/2018 02:44	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 02:44	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 02:44	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 02:44	WG1084210
<i>(S) Toluene-d8</i>	108		80.0-120		03/14/2018 02:44	WG1084210
<i>(S) Dibromofluoromethane</i>	87.1		76.0-123		03/14/2018 02:44	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	96.1		80.0-120		03/14/2018 02:44	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	95.7		80.0-120		03/14/2018 02:44	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	3.19		1.00	1	03/14/2018 03:03	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 03:03	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 03:03	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 03:03	WG1084210
Toluene	1.39		1.00	1	03/14/2018 03:03	WG1084210
o-Xylene	1.11		1.00	1	03/14/2018 03:03	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 03:03	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 03:03	WG1084210
<i>(S) Toluene-d8</i>	109		80.0-120		03/14/2018 03:03	WG1084210
<i>(S) Dibromofluoromethane</i>	86.6		76.0-123		03/14/2018 03:03	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	96.6		80.0-120		03/14/2018 03:03	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	91.7		80.0-120		03/14/2018 03:03	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.15		1.00	1	03/14/2018 03:23	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 03:23	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 03:23	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 03:23	WG1084210
Toluene	ND		1.00	1	03/14/2018 03:23	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 03:23	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 03:23	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 03:23	WG1084210
(S) Toluene-d8	106		80.0-120		03/14/2018 03:23	WG1084210
(S) Dibromofluoromethane	88.1		76.0-123		03/14/2018 03:23	WG1084210
(S) a,a,a-Trifluorotoluene	99.1		80.0-120		03/14/2018 03:23	WG1084210
(S) 4-Bromofluorobenzene	94.0		80.0-120		03/14/2018 03:23	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 03:43	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 03:43	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 03:43	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 03:43	WG1084210
Toluene	ND		1.00	1	03/14/2018 03:43	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 03:43	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 03:43	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 03:43	WG1084210
(S) Toluene-d8	112		80.0-120		03/14/2018 03:43	WG1084210
(S) Dibromofluoromethane	87.9		76.0-123		03/14/2018 03:43	WG1084210
(S) a,a,a-Trifluorotoluene	98.8		80.0-120		03/14/2018 03:43	WG1084210
(S) 4-Bromofluorobenzene	92.2		80.0-120		03/14/2018 03:43	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	3.24		1.00	1	03/14/2018 04:03	WG1084210
Ethylbenzene	1.79		1.00	1	03/14/2018 04:03	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 04:03	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 04:03	WG1084210
Toluene	12.2		1.00	1	03/14/2018 04:03	WG1084210
o-Xylene	4.28		1.00	1	03/14/2018 04:03	WG1084210
m&p-Xylene	9.75		2.00	1	03/14/2018 04:03	WG1084210
Xylenes, Total	14.0		3.00	1	03/14/2018 04:03	WG1084210
<i>(S) Toluene-d8</i>	111		80.0-120		03/14/2018 04:03	WG1084210
<i>(S) Dibromofluoromethane</i>	87.9		76.0-123		03/14/2018 04:03	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	97.8		80.0-120		03/14/2018 04:03	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	91.8		80.0-120		03/14/2018 04:03	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 04:23	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 04:23	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 04:23	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 04:23	WG1084210
Toluene	ND		1.00	1	03/14/2018 04:23	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 04:23	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 04:23	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 04:23	WG1084210
<i>(S) Toluene-d8</i>	113		80.0-120		03/14/2018 04:23	WG1084210
<i>(S) Dibromofluoromethane</i>	87.1		76.0-123		03/14/2018 04:23	WG1084210
<i>(S) a,a,a-Trifluorotoluene</i>	98.1		80.0-120		03/14/2018 04:23	WG1084210
<i>(S) 4-Bromofluorobenzene</i>	95.8		80.0-120		03/14/2018 04:23	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/14/2018 04:43	WG1084210
Ethylbenzene	ND		1.00	1	03/14/2018 04:43	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 04:43	WG1084210
Naphthalene	ND		5.00	1	03/14/2018 04:43	WG1084210
Toluene	ND		1.00	1	03/14/2018 04:43	WG1084210
o-Xylene	ND		1.00	1	03/14/2018 04:43	WG1084210
m&p-Xylene	ND		2.00	1	03/14/2018 04:43	WG1084210
Xylenes, Total	ND		3.00	1	03/14/2018 04:43	WG1084210
(S) Toluene-d8	109		80.0-120		03/14/2018 04:43	WG1084210
(S) Dibromofluoromethane	88.6		76.0-123		03/14/2018 04:43	WG1084210
(S) a,a,a-Trifluorotoluene	96.6		80.0-120		03/14/2018 04:43	WG1084210
(S) 4-Bromofluorobenzene	94.9		80.0-120		03/14/2018 04:43	WG1084210

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/13/2018 23:26	WG1084210
Ethylbenzene	ND		1.00	1	03/13/2018 23:26	WG1084210
Methyl tert-butyl ether	ND		1.00	1	03/13/2018 23:26	WG1084210
Naphthalene	ND		5.00	1	03/13/2018 23:26	WG1084210
Toluene	ND		1.00	1	03/13/2018 23:26	WG1084210
o-Xylene	ND		1.00	1	03/13/2018 23:26	WG1084210
m&p-Xylene	ND		2.00	1	03/13/2018 23:26	WG1084210
Xylenes, Total	ND		3.00	1	03/13/2018 23:26	WG1084210
(S) Toluene-d8	109		80.0-120		03/13/2018 23:26	WG1084210
(S) Dibromofluoromethane	92.1		76.0-123		03/13/2018 23:26	WG1084210
(S) a,a,a-Trifluorotoluene	99.3		80.0-120		03/13/2018 23:26	WG1084210
(S) 4-Bromofluorobenzene	98.2		80.0-120		03/13/2018 23:26	WG1084210

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3294434-2 03/13/18 22:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	107			80.0-120
(S) Dibromofluoromethane	89.1			76.0-123
(S) a,a,a-Trifluorotoluene	96.9			80.0-120
(S) 4-Bromofluorobenzene	92.3			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3294434-1 03/13/18 21:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	23.6	94.4	70.0-130	
Ethylbenzene	25.0	27.1	109	70.0-130	
Methyl tert-butyl ether	25.0	21.5	86.0	70.0-130	
Naphthalene	25.0	23.8	95.1	70.0-130	
Toluene	25.0	25.8	103	70.0-130	
Xylenes, Total	75.0	77.9	104	70.0-130	
o-Xylene	25.0	25.3	101	70.0-130	
m&p-Xylenes	50.0	52.6	105	70.0-130	
(S) Toluene-d8			107	80.0-120	
(S) Dibromofluoromethane			89.4	76.0-123	
(S) a,a,a-Trifluorotoluene			96.7	80.0-120	
(S) 4-Bromofluorobenzene			101	80.0-120	



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

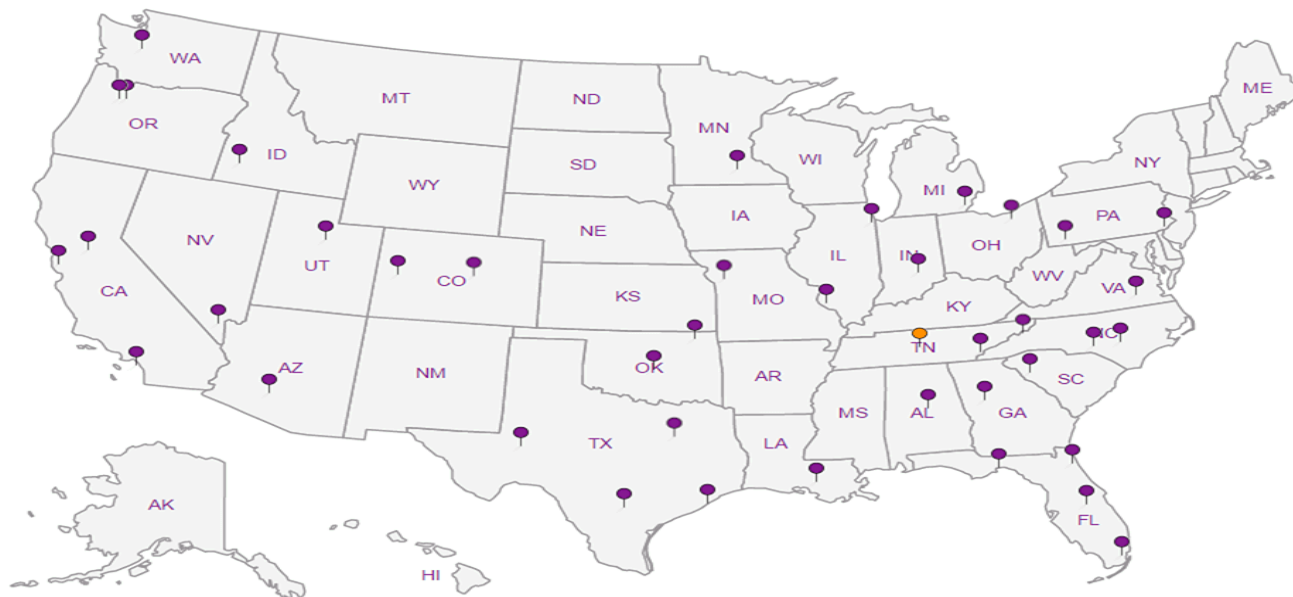
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

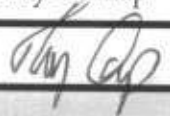
¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



ESC LAB SCIENCES Cooler Receipt Form

Client:	KINCHAMGA	SDG#	2976731		
Cooler Received/Opened On: 3/ 10 /18		Temperature:	22°		
Received By: Troy Dunlap					
Signature: 					
Receipt Check List			NP	Yes	No
COC Seal Present / Intact?				/	
COC Signed / Accurate?				/	
Bottles arrive intact?				/	
Correct bottles used?				/	
Sufficient volume sent?				/	
If Applicable					
VOA Zero headspace?				/	
Preservation Correct / Checked?					

Appendix C
Groundwater Analytical
Laboratory Reports

January 16, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L962304
Samples Received: 01/10/2018
Project Number: 699858.LD.MR.GW
Description: Lewis Drive Groundwater
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328

Entire Report Reviewed By:

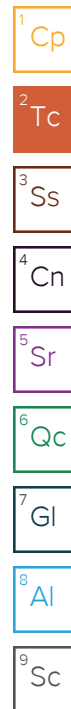


Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Cn: Case Narrative	6
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MW-23-010918 L962304-03	9
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MW-10-010918 L962304-05	11
MW-02-010918 L962304-06	12
MW-05-010918 L962304-07	13
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SAMPLE SUMMARY



MW-29-010918 L962304-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 09:00	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 07:50	01/11/18 07:50	JHH	

1 Cp

2 Tc

3 Ss

MW-26-010918 L962304-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 09:15	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 08:07	01/11/18 08:07	JHH	

4 Cn

5 Sr

MW-23-010918 L962304-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 09:25	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	10	01/11/18 08:24	01/11/18 08:24	JHH	

6 Qc

7 Gl

MW-31-010918 L962304-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 09:45	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 08:40	01/11/18 08:40	JHH	

8 Al

9 Sc

MW-10-010918 L962304-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 10:00	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061597	1	01/11/18 08:57	01/11/18 08:57	JHH	

MW-02-010918 L962304-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 10:10	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	10	01/11/18 12:34	01/11/18 12:34	LRL	

MW-05-010918 L962304-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 10:20	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 12:56	01/11/18 12:56	LRL	

MW-43-010918 L962304-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 11:05	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 13:17	01/11/18 13:17	LRL	

SAMPLE SUMMARY



MW-38-010918 L962304-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 11:25	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 13:38	01/11/18 13:38	LRL	
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	5	01/12/18 01:42	01/12/18 01:42	JAH	

1 Cp

2 Tc

3 Ss

MW-40-010918 L962304-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 12:00	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	200	01/12/18 02:03	01/12/18 02:03	JAH	

4 Cn

5 Sr

6 Qc

MW-39-010918 L962304-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 11:50	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	5	01/12/18 02:23	01/12/18 02:23	JAH	

7 Gl

8 Al

MW-34-010918 L962304-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 11:40	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	10	01/11/18 14:42	01/11/18 14:42	LRL	

9 Sc

MW-41-010918 L962304-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 13:20	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 15:04	01/11/18 15:04	LRL	

MW-25-010918 L962304-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 13:25	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 15:25	01/11/18 15:25	LRL	

MW-35-010918 L962304-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 13:35	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 15:46	01/11/18 15:46	LRL	

MW-35-D-010918 L962304-16 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Collected by				Collected date/time	Received date/time	
				M. Warren	01/09/18 13:40	01/10/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 16:08	01/11/18 16:08	LRL	

SAMPLE SUMMARY



TB01-010918 L962304-17 GW

Collected by M. Warren	Collected date/time 01/09/18 16:12	Received date/time 01/10/18 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 11:52	01/11/18 11:52	LRL

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

FB01-010918 L962304-18 GW

Collected by M. Warren	Collected date/time 01/09/18 16:15	Received date/time 01/10/18 08:45
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Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1061683	1	01/11/18 12:13	01/11/18 12:13	LRL



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 07:50	WG1061597
Toluene	ND		1.00	1	01/11/2018 07:50	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 07:50	WG1061597
Total Xylenes	ND		3.00	1	01/11/2018 07:50	WG1061597
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 07:50	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 07:50	WG1061597
1,2-Dichloroethane	ND		1.00	1	01/11/2018 07:50	WG1061597
(S) Toluene-d8	108		80.0-120		01/11/2018 07:50	WG1061597
(S) Dibromofluoromethane	96.1		76.0-123		01/11/2018 07:50	WG1061597
(S) 4-Bromofluorobenzene	104		80.0-120		01/11/2018 07:50	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 08:07	WG1061597
Toluene	6.20		1.00	1	01/11/2018 08:07	WG1061597
Ethylbenzene	1.79		1.00	1	01/11/2018 08:07	WG1061597
Total Xylenes	13.8		3.00	1	01/11/2018 08:07	WG1061597
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 08:07	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 08:07	WG1061597
1,2-Dichloroethane	ND		1.00	1	01/11/2018 08:07	WG1061597
(S) Toluene-d8	107		80.0-120		01/11/2018 08:07	WG1061597
(S) Dibromofluoromethane	88.1		76.0-123		01/11/2018 08:07	WG1061597
(S) 4-Bromofluorobenzene	107		80.0-120		01/11/2018 08:07	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	127		10.0	10	01/11/2018 08:24	WG1061597
Toluene	ND		10.0	10	01/11/2018 08:24	WG1061597
Ethylbenzene	ND		10.0	10	01/11/2018 08:24	WG1061597
Total Xylenes	137		30.0	10	01/11/2018 08:24	WG1061597
Methyl tert-butyl ether	69.6		10.0	10	01/11/2018 08:24	WG1061597
Naphthalene	ND		50.0	10	01/11/2018 08:24	WG1061597
1,2-Dichloroethane	ND		10.0	10	01/11/2018 08:24	WG1061597
<i>(S) Toluene-d8</i>	108		80.0-120		01/11/2018 08:24	WG1061597
<i>(S) Dibromofluoromethane</i>	89.1		76.0-123		01/11/2018 08:24	WG1061597
<i>(S) 4-Bromofluorobenzene</i>	107		80.0-120		01/11/2018 08:24	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L962304-03 WG1061597: Non-target compounds too high to run at a lower dilution.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 08:40	WG1061597
Toluene	ND		1.00	1	01/11/2018 08:40	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 08:40	WG1061597
Total Xylenes	ND		3.00	1	01/11/2018 08:40	WG1061597
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 08:40	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 08:40	WG1061597
1,2-Dichloroethane	ND		1.00	1	01/11/2018 08:40	WG1061597
(S) Toluene-d8	105		80.0-120		01/11/2018 08:40	WG1061597
(S) Dibromofluoromethane	90.7		76.0-123		01/11/2018 08:40	WG1061597
(S) 4-Bromofluorobenzene	107		80.0-120		01/11/2018 08:40	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 08:57	WG1061597
Toluene	ND		1.00	1	01/11/2018 08:57	WG1061597
Ethylbenzene	ND		1.00	1	01/11/2018 08:57	WG1061597
Total Xylenes	ND		3.00	1	01/11/2018 08:57	WG1061597
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 08:57	WG1061597
Naphthalene	ND		5.00	1	01/11/2018 08:57	WG1061597
1,2-Dichloroethane	ND		1.00	1	01/11/2018 08:57	WG1061597
(S) Toluene-d8	108		80.0-120		01/11/2018 08:57	WG1061597
(S) Dibromofluoromethane	89.4		76.0-123		01/11/2018 08:57	WG1061597
(S) 4-Bromofluorobenzene	106		80.0-120		01/11/2018 08:57	WG1061597

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	307		10.0	10	01/11/2018 12:34	WG1061683
Toluene	878		10.0	10	01/11/2018 12:34	WG1061683
Ethylbenzene	ND		10.0	10	01/11/2018 12:34	WG1061683
Total Xylenes	1300		30.0	10	01/11/2018 12:34	WG1061683
Methyl tert-butyl ether	61.8		10.0	10	01/11/2018 12:34	WG1061683
Naphthalene	63.7		50.0	10	01/11/2018 12:34	WG1061683
1,2-Dichloroethane	ND		10.0	10	01/11/2018 12:34	WG1061683
(S) Toluene-d8	102		80.0-120		01/11/2018 12:34	WG1061683
(S) Dibromofluoromethane	88.0		76.0-123		01/11/2018 12:34	WG1061683
(S) 4-Bromofluorobenzene	108		80.0-120		01/11/2018 12:34	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 12:56	WG1061683
Toluene	ND		1.00	1	01/11/2018 12:56	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 12:56	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 12:56	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 12:56	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 12:56	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 12:56	WG1061683
(S) Toluene-d8	105		80.0-120		01/11/2018 12:56	WG1061683
(S) Dibromofluoromethane	87.8		76.0-123		01/11/2018 12:56	WG1061683
(S) 4-Bromofluorobenzene	109		80.0-120		01/11/2018 12:56	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 13:17	WG1061683
Toluene	ND		1.00	1	01/11/2018 13:17	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 13:17	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 13:17	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 13:17	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 13:17	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 13:17	WG1061683
(S) Toluene-d8	102		80.0-120		01/11/2018 13:17	WG1061683
(S) Dibromofluoromethane	88.5		76.0-123		01/11/2018 13:17	WG1061683
(S) 4-Bromofluorobenzene	109		80.0-120		01/11/2018 13:17	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	311		5.00	5	01/12/2018 01:42	WG1061683
Toluene	2.31		1.00	1	01/11/2018 13:38	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 13:38	WG1061683
Total Xylenes	158		3.00	1	01/11/2018 13:38	WG1061683
Methyl tert-butyl ether	49.4		1.00	1	01/11/2018 13:38	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 13:38	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 13:38	WG1061683
(S) Toluene-d8	104		80.0-120		01/11/2018 13:38	WG1061683
(S) Toluene-d8	104		80.0-120		01/12/2018 01:42	WG1061683
(S) Dibromofluoromethane	101		76.0-123		01/12/2018 01:42	WG1061683
(S) Dibromofluoromethane	81.6		76.0-123		01/11/2018 13:38	WG1061683
(S) 4-Bromofluorobenzene	92.7		80.0-120		01/12/2018 01:42	WG1061683
(S) 4-Bromofluorobenzene	107		80.0-120		01/11/2018 13:38	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	12400		200	200	01/12/2018 02:03	WG1061683
Toluene	22300		200	200	01/12/2018 02:03	WG1061683
Ethylbenzene	773		200	200	01/12/2018 02:03	WG1061683
Total Xylenes	10200		600	200	01/12/2018 02:03	WG1061683
Methyl tert-butyl ether	497		200	200	01/12/2018 02:03	WG1061683
Naphthalene	ND		1000	200	01/12/2018 02:03	WG1061683
1,2-Dichloroethane	ND		200	200	01/12/2018 02:03	WG1061683
(S) Toluene-d8	106		80.0-120		01/12/2018 02:03	WG1061683
(S) Dibromofluoromethane	97.8		76.0-123		01/12/2018 02:03	WG1061683
(S) 4-Bromofluorobenzene	95.1		80.0-120		01/12/2018 02:03	WG1061683

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	23.8		5.00	5	01/12/2018 02:23	WG1061683
Toluene	ND		5.00	5	01/12/2018 02:23	WG1061683
Ethylbenzene	ND		5.00	5	01/12/2018 02:23	WG1061683
Total Xylenes	ND		15.0	5	01/12/2018 02:23	WG1061683
Methyl tert-butyl ether	370		5.00	5	01/12/2018 02:23	WG1061683
Naphthalene	ND		25.0	5	01/12/2018 02:23	WG1061683
1,2-Dichloroethane	ND		5.00	5	01/12/2018 02:23	WG1061683
(S) Toluene-d8	103		80.0-120		01/12/2018 02:23	WG1061683
(S) Dibromofluoromethane	101		76.0-123		01/12/2018 02:23	WG1061683
(S) 4-Bromofluorobenzene	95.1		80.0-120		01/12/2018 02:23	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	147		10.0	10	01/11/2018 14:42	WG1061683
Toluene	13.1		10.0	10	01/11/2018 14:42	WG1061683
Ethylbenzene	ND		10.0	10	01/11/2018 14:42	WG1061683
Total Xylenes	79.8		30.0	10	01/11/2018 14:42	WG1061683
Methyl tert-butyl ether	246		10.0	10	01/11/2018 14:42	WG1061683
Naphthalene	ND		50.0	10	01/11/2018 14:42	WG1061683
1,2-Dichloroethane	ND		10.0	10	01/11/2018 14:42	WG1061683
(S) Toluene-d8	102		80.0-120		01/11/2018 14:42	WG1061683
(S) Dibromofluoromethane	90.7		76.0-123		01/11/2018 14:42	WG1061683
(S) 4-Bromofluorobenzene	110		80.0-120		01/11/2018 14:42	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	2.06		1.00	1	01/11/2018 15:04	WG1061683
Toluene	ND		1.00	1	01/11/2018 15:04	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 15:04	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 15:04	WG1061683
Methyl tert-butyl ether	1.43		1.00	1	01/11/2018 15:04	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 15:04	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 15:04	WG1061683
(S) Toluene-d8	104		80.0-120		01/11/2018 15:04	WG1061683
(S) Dibromofluoromethane	90.0		76.0-123		01/11/2018 15:04	WG1061683
(S) 4-Bromofluorobenzene	110		80.0-120		01/11/2018 15:04	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	72.0		1.00	1	01/11/2018 15:25	WG1061683
Toluene	ND		1.00	1	01/11/2018 15:25	WG1061683
Ethylbenzene	2.74		1.00	1	01/11/2018 15:25	WG1061683
Total Xylenes	111		3.00	1	01/11/2018 15:25	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 15:25	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 15:25	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 15:25	WG1061683
(S) Toluene-d8	104		80.0-120		01/11/2018 15:25	WG1061683
(S) Dibromofluoromethane	87.9		76.0-123		01/11/2018 15:25	WG1061683
(S) 4-Bromofluorobenzene	108		80.0-120		01/11/2018 15:25	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 15:46	WG1061683
Toluene	ND		1.00	1	01/11/2018 15:46	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 15:46	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 15:46	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 15:46	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 15:46	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 15:46	WG1061683
(S) Toluene-d8	103		80.0-120		01/11/2018 15:46	WG1061683
(S) Dibromofluoromethane	90.9		76.0-123		01/11/2018 15:46	WG1061683
(S) 4-Bromofluorobenzene	110		80.0-120		01/11/2018 15:46	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 16:08	WG1061683
Toluene	ND		1.00	1	01/11/2018 16:08	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 16:08	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 16:08	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 16:08	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 16:08	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 16:08	WG1061683
(S) Toluene-d8	103		80.0-120		01/11/2018 16:08	WG1061683
(S) Dibromofluoromethane	88.8		76.0-123		01/11/2018 16:08	WG1061683
(S) 4-Bromofluorobenzene	110		80.0-120		01/11/2018 16:08	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 11:52	WG1061683
Toluene	ND		1.00	1	01/11/2018 11:52	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 11:52	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 11:52	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 11:52	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 11:52	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 11:52	WG1061683
(S) Toluene-d8	105		80.0-120		01/11/2018 11:52	WG1061683
(S) Dibromofluoromethane	89.0		76.0-123		01/11/2018 11:52	WG1061683
(S) 4-Bromofluorobenzene	110		80.0-120		01/11/2018 11:52	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	01/11/2018 12:13	WG1061683
Toluene	ND		1.00	1	01/11/2018 12:13	WG1061683
Ethylbenzene	ND		1.00	1	01/11/2018 12:13	WG1061683
Total Xylenes	ND		3.00	1	01/11/2018 12:13	WG1061683
Methyl tert-butyl ether	ND		1.00	1	01/11/2018 12:13	WG1061683
Naphthalene	ND		5.00	1	01/11/2018 12:13	WG1061683
1,2-Dichloroethane	ND		1.00	1	01/11/2018 12:13	WG1061683
(S) Toluene-d8	105		80.0-120		01/11/2018 12:13	WG1061683
(S) Dibromofluoromethane	89.0		76.0-123		01/11/2018 12:13	WG1061683
(S) 4-Bromofluorobenzene	108		80.0-120		01/11/2018 12:13	WG1061683

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3278730-2 01/10/18 23:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	91.5			76.0-123
(S) 4-Bromofluorobenzene	103			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3278730-1 01/10/18 22:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	21.5	86.0	70.0-130	
1,2-Dichloroethane	25.0	23.3	93.1	70.0-130	
Ethylbenzene	25.0	25.8	103	70.0-130	
Methyl tert-butyl ether	25.0	23.0	91.9	70.0-130	
Naphthalene	25.0	21.3	85.3	70.0-130	
Toluene	25.0	24.2	96.8	70.0-130	
Xylenes, Total	75.0	77.5	103	70.0-130	
(S) Toluene-d8			106	80.0-120	
(S) Dibromofluoromethane			89.2	76.0-123	
(S) 4-Bromofluorobenzene			103	80.0-120	



Method Blank (MB)

(MB) R3278852-2 01/11/18 11:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	87.4			76.0-123
(S) 4-Bromofluorobenzene	109			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3278852-1 01/11/18 10:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	23.3	93.4	70.0-130	
1,2-Dichloroethane	25.0	26.4	105	70.0-130	
Ethylbenzene	25.0	26.3	105	70.0-130	
Methyl tert-butyl ether	25.0	25.0	100	70.0-130	
Naphthalene	25.0	25.1	101	70.0-130	
Toluene	25.0	26.2	105	70.0-130	
Xylenes, Total	75.0	78.6	105	70.0-130	
(S) Toluene-d8			99.1	80.0-120	
(S) Dibromofluoromethane			85.7	76.0-123	
(S) 4-Bromofluorobenzene			103	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

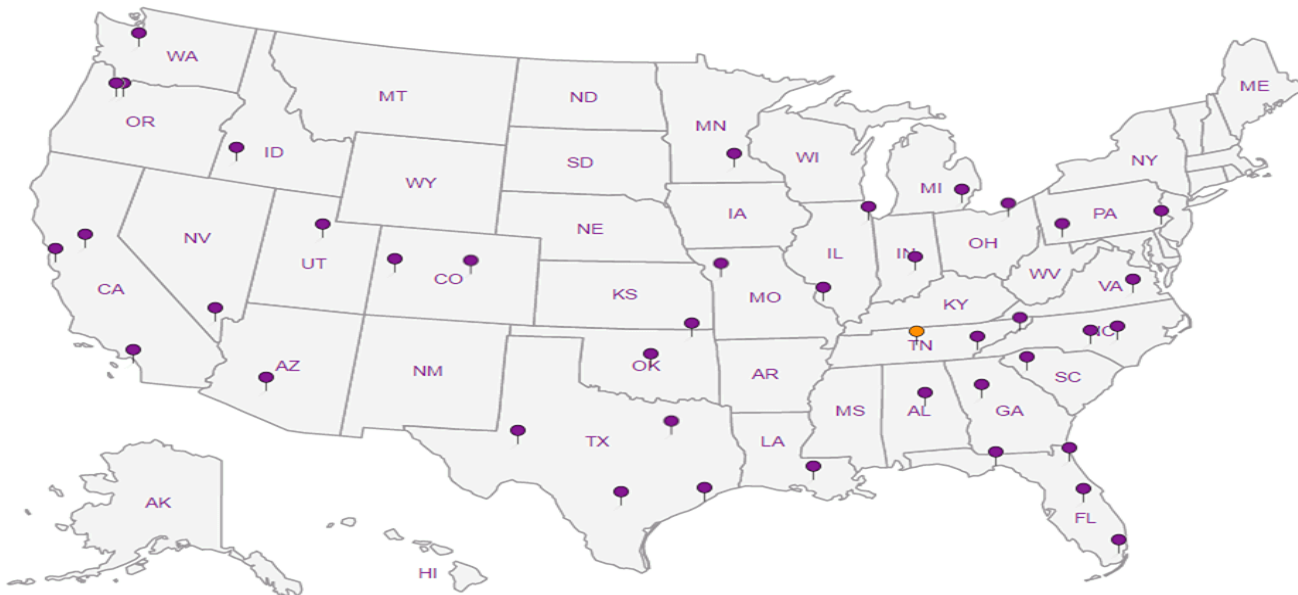
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project
 Description: **Lewis Drive Groundwater**

City/State
 Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

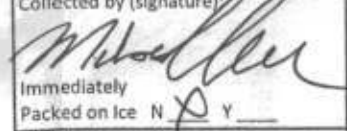
Client Project #
699858.LD.MR.GW

Lab Project #
KINCH2MGA-LEWIS12

Collected by (print):
M. WARKEN

Site/Facility ID #
LEWIS DRIVE


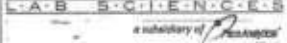
P.O. #

Collected by (signature):


Rush? (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Quote #
 Date Results Needed

Immediately Packed on Ice Y ___

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Chain of Custody
MW-29-010918	BRAB	GW	NA	01/09/18	0900	3	V8260BTEXMNSC 40mlAmb-HCl	Chain of Custody Page <u>L</u> of <u>2</u>  a subsidiary of  12085 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 QR Code L# L962304 E033 Acctnum: KINCH2MGA Template: T131319 Prelogin: P634219 TSR: 526 - Chris McCord PB: 1-3-18 gm Shipped Via: FedEx Ground
MW-26-010918		GW			0915	3	V8260BTEXMNSC-TB 40mlAmb-HCl-Bik	
MW-23-010918		GW			0925	3	BTEX	
MW-31-010918		GW			0945	3	MTBE	
MW-10-010918		GW			1000	3	NAPHTHAENE	
MW-02-010918		GW			1010	3	1,2-DCA ONLY	
MW-05-010918		GW			1020	3		
MW-43-010918		GW			1105	3		
MW-38-010918		GW			1125	3		
MW-40-010918		GW			1200	3		

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

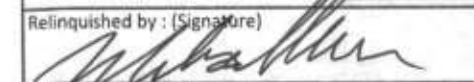
Remarks:
 Samples returned via:
 UPS FedEx Courier

Tracking # **4142 5230 2284**

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Check **YES**

COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)


Date: **01/09/18** Time: **1745**

Received by: (Signature)

Trip Blank Received: Yes No
 HCL/MeOH
 TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **27.80** °C Bottles Received: **52**

If preservation required by Login: Date/Time


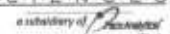


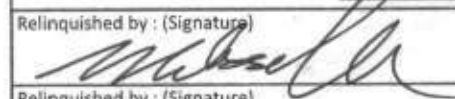
Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)


Date: **1/10/18** Time: **8:45**

Hold: Condition: **NCF (OK)**

CH2M Hill- Kinder Morgan- Atlanta, GA 6600 Peachtree Dunwoody Road		Billing Information: Accounts Payable 1000 Windward Concourse Ste 450 Alpharetta, GA 30005		Pres Chk <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Analysis / Container / Preservative										Chain of Custody Page 2 of 2  L.A.B. S.C.I.E.N.C.E.S. a subsidiary of  12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 			
Report to: Bethany Garvey		Email To: bgarvey@ch2m.com; tom.wiley@ch2m.com; scott.powell@ch2m.com;		City/State Collected: BELTON, SC		V8260BTEXMNSC 40mlAmb-HCl V8260BTEXMNSC-TB 40mlAmb-HCl-Bik BTEX MTBE NAPHTHALENE 1,2-DCA ONLY										L# L962304			
Project Description: Lewis Drive Groundwater		Client Project # 699858.LD.MR.GW														Lab Project # KINCH2MGA-LEWIS12		Table #	
Phone: 770-604-9182 Fax:		Site/Facility ID # LEWIS DRIVE		P.O. #		Acctnum: KINCH2MGA Template: T131319 Prelogin: P634219 TSR: 526 - Chris McCord PB: 1-3-18cm													
Collected by (print): M. WARRLEY		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #		Date Results Needed		No. of Cntrs		Shipped Via: FedEX Ground									
Collected by (signature): 		Immediately Packed on Ice <input checked="" type="checkbox"/> <input type="checkbox"/>		Sample ID		Comp/Grab		Matrix *		Depth		Date		Time		Remarks		Sample # (lab only)	
MW-39-010918		GRAB		GW		NA		01/09/18		1150		3		X		-11			
MW-34-010918		↓		GW		↓		↓		1140		3		X		12			
MW-41-010918		↓		GW		↓		↓		1320		3		X		13			
MW-25-010918		↓		GW		↓		↓		1325		3		X		14			
MW-35-010918		↓		GW		↓		↓		1335		3		X		15			
MW-35-D-010918		↓		GW		↓		↓		1340		3		X		16			
TBO1-010918		↓		GW		↓		↓		1612		3		X		17			
FBO1-010918		↓		GW		↓		↓		1615		3		X		18			
GW												3		X					
GW																			
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Tracking #		pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> COC Signed/Accurate: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Bottles arrive intact: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Correct bottles used: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sufficient volume sent: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Preservation Correct/Checked: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
Relinquished by: (Signature) 		Date: 01/09/18		Time: 1745		Received by: (Signature)		Trip Blank Received: Yes / No HCL / MeOH TBR		Temp: 2.9 °C Bottles Received: 30		If preservation required by Login: Date/Time							
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Date: 1/10/18 Time: 8:45		Hold:		Condition: NCF / <input checked="" type="checkbox"/> OK							

February 14, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L968338
Samples Received: 02/07/2018
Project Number: 699858.LD.MR.GW
Description: Lewis Drive Groundwater
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328

Entire Report Reviewed By:

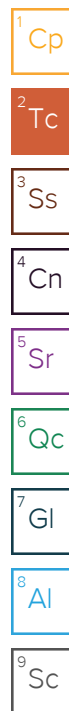


Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



MW-29-020618 L968338-01 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 08:05

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/10/18 21:21	02/10/18 21:21	BMB

1 Cp

2 Tc

3 Ss

MW-26-020618 L968338-02 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 08:15

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/10/18 21:41	02/10/18 21:41	BMB

4 Cn

5 Sr

MW-23-020618 L968338-03 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 08:25

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/13/18 11:43	02/13/18 11:43	JAH

6 Qc

7 Gl

MW-43-020618 L968338-04 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:00

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/10/18 22:20	02/10/18 22:20	BMB

8 Al

9 Sc

MW-38-020618 L968338-05 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:10

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	5	02/10/18 22:39	02/10/18 22:39	BMB

MW-34-020618 L968338-06 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:20

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	10	02/10/18 22:59	02/10/18 22:59	BMB

MW-39-020618 L968338-07 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:30

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	5	02/10/18 23:19	02/10/18 23:19	BMB

MW-40-020618 L968338-08 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:35

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	200	02/10/18 23:38	02/10/18 23:38	BMB

SAMPLE SUMMARY



MW-41-020618 L968338-09 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:45

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/10/18 23:58	02/10/18 23:58	BMB

1 Cp

2 Tc

3 Ss

MW-25-020618 L968338-10 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 09:55

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 00:17	02/11/18 00:17	BMB

4 Cn

5 Sr

MW-35-020618 L968338-11 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 10:05

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 00:37	02/11/18 00:37	BMB

6 Qc

7 Gl

MW-28-020618 L968338-12 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 10:15

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/13/18 12:02	02/13/18 12:02	JAH

8 Al

9 Sc

MW-31-020618 L968338-13 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 10:45

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 01:16	02/11/18 01:16	BMB

MW-10-020618 L968338-14 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 11:05

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 01:36	02/11/18 01:36	BMB

MW-10-D-020618 L968338-15 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 11:10

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 01:55	02/11/18 01:55	BMB

MW-03-020618 L968338-16 GW

Collected by
Melissa Warren

Collected date/time
02/06/18 11:20

Received date/time
02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 02:15	02/11/18 02:15	BMB

SAMPLE SUMMARY



MW-02-020618 L968338-17 GW

Collected by: Melissa Warren
 Collected date/time: 02/06/18 11:30
 Received date/time: 02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/13/18 12:21	02/13/18 12:21	JAH

1 Cp

2 Tc

3 Ss

MW-05-020618 L968338-18 GW

Collected by: Melissa Warren
 Collected date/time: 02/06/18 11:40
 Received date/time: 02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 02:54	02/11/18 02:54	BMB

4 Cn

5 Sr

FB01-020618 L968338-19 GW

Collected by: Melissa Warren
 Collected date/time: 02/06/18 11:50
 Received date/time: 02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 03:13	02/11/18 03:13	BMB

6 Qc

7 Gl

MW-30-020618 L968338-20 GW

Collected by: Melissa Warren
 Collected date/time: 02/06/18 12:00
 Received date/time: 02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071136	1	02/11/18 03:33	02/11/18 03:33	BMB

8 Al

9 Sc

TB01-020618 L968338-21 GW

Collected by: Melissa Warren
 Collected date/time: 02/06/18 11:52
 Received date/time: 02/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1071291	1	02/08/18 11:01	02/08/18 11:01	BMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/10/2018 21:21	WG1071136
Toluene	ND		1.00	1	02/10/2018 21:21	WG1071136
Ethylbenzene	ND		1.00	1	02/10/2018 21:21	WG1071136
Total Xylenes	ND		3.00	1	02/10/2018 21:21	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/10/2018 21:21	WG1071136
Naphthalene	ND		5.00	1	02/10/2018 21:21	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/10/2018 21:21	WG1071136
(S) Toluene-d8	105		80.0-120		02/10/2018 21:21	WG1071136
(S) Dibromofluoromethane	97.8		76.0-123		02/10/2018 21:21	WG1071136
(S) 4-Bromofluorobenzene	97.5		80.0-120		02/10/2018 21:21	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/10/2018 21:41	WG1071136
Toluene	ND		1.00	1	02/10/2018 21:41	WG1071136
Ethylbenzene	ND		1.00	1	02/10/2018 21:41	WG1071136
Total Xylenes	ND		3.00	1	02/10/2018 21:41	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/10/2018 21:41	WG1071136
Naphthalene	ND		5.00	1	02/10/2018 21:41	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/10/2018 21:41	WG1071136
(S) Toluene-d8	107		80.0-120		02/10/2018 21:41	WG1071136
(S) Dibromofluoromethane	97.5		76.0-123		02/10/2018 21:41	WG1071136
(S) 4-Bromofluorobenzene	98.6		80.0-120		02/10/2018 21:41	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	1.10		1.00	1	02/13/2018 11:43	WG1071136
Toluene	ND		1.00	1	02/13/2018 11:43	WG1071136
Ethylbenzene	ND		1.00	1	02/13/2018 11:43	WG1071136
Total Xylenes	ND		3.00	1	02/13/2018 11:43	WG1071136
Methyl tert-butyl ether	33.8		1.00	1	02/13/2018 11:43	WG1071136
Naphthalene	ND		5.00	1	02/13/2018 11:43	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/13/2018 11:43	WG1071136
(S) Toluene-d8	98.0		80.0-120		02/13/2018 11:43	WG1071136
(S) Dibromofluoromethane	98.5		76.0-123		02/13/2018 11:43	WG1071136
(S) 4-Bromofluorobenzene	99.7		80.0-120		02/13/2018 11:43	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/10/2018 22:20	WG1071136
Toluene	ND		1.00	1	02/10/2018 22:20	WG1071136
Ethylbenzene	ND		1.00	1	02/10/2018 22:20	WG1071136
Total Xylenes	ND		3.00	1	02/10/2018 22:20	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/10/2018 22:20	WG1071136
Naphthalene	ND		5.00	1	02/10/2018 22:20	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/10/2018 22:20	WG1071136
(S) Toluene-d8	106		80.0-120		02/10/2018 22:20	WG1071136
(S) Dibromofluoromethane	99.0		76.0-123		02/10/2018 22:20	WG1071136
(S) 4-Bromofluorobenzene	97.6		80.0-120		02/10/2018 22:20	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	389		5.00	5	02/10/2018 22:39	WG1071136
Toluene	ND		5.00	5	02/10/2018 22:39	WG1071136
Ethylbenzene	ND		5.00	5	02/10/2018 22:39	WG1071136
Total Xylenes	208		15.0	5	02/10/2018 22:39	WG1071136
Methyl tert-butyl ether	48.8		5.00	5	02/10/2018 22:39	WG1071136
Naphthalene	ND		25.0	5	02/10/2018 22:39	WG1071136
1,2-Dichloroethane	ND		5.00	5	02/10/2018 22:39	WG1071136
(S) Toluene-d8	107		80.0-120		02/10/2018 22:39	WG1071136
(S) Dibromofluoromethane	97.9		76.0-123		02/10/2018 22:39	WG1071136
(S) 4-Bromofluorobenzene	98.8		80.0-120		02/10/2018 22:39	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	249		10.0	10	02/10/2018 22:59	WG1071136
Toluene	19.2		10.0	10	02/10/2018 22:59	WG1071136
Ethylbenzene	ND		10.0	10	02/10/2018 22:59	WG1071136
Total Xylenes	88.3		30.0	10	02/10/2018 22:59	WG1071136
Methyl tert-butyl ether	191		10.0	10	02/10/2018 22:59	WG1071136
Naphthalene	ND		50.0	10	02/10/2018 22:59	WG1071136
1,2-Dichloroethane	ND		10.0	10	02/10/2018 22:59	WG1071136
(S) Toluene-d8	107		80.0-120		02/10/2018 22:59	WG1071136
(S) Dibromofluoromethane	97.2		76.0-123		02/10/2018 22:59	WG1071136
(S) 4-Bromofluorobenzene	99.0		80.0-120		02/10/2018 22:59	WG1071136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	46.9		5.00	5	02/10/2018 23:19	WG1071136
Toluene	ND		5.00	5	02/10/2018 23:19	WG1071136
Ethylbenzene	ND		5.00	5	02/10/2018 23:19	WG1071136
Total Xylenes	ND		15.0	5	02/10/2018 23:19	WG1071136
Methyl tert-butyl ether	263		5.00	5	02/10/2018 23:19	WG1071136
Naphthalene	ND		25.0	5	02/10/2018 23:19	WG1071136
1,2-Dichloroethane	ND		5.00	5	02/10/2018 23:19	WG1071136
(S) Toluene-d8	106		80.0-120		02/10/2018 23:19	WG1071136
(S) Dibromofluoromethane	96.7		76.0-123		02/10/2018 23:19	WG1071136
(S) 4-Bromofluorobenzene	99.8		80.0-120		02/10/2018 23:19	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	11100		200	200	02/10/2018 23:38	WG1071136
Toluene	20300		200	200	02/10/2018 23:38	WG1071136
Ethylbenzene	777		200	200	02/10/2018 23:38	WG1071136
Total Xylenes	9350		600	200	02/10/2018 23:38	WG1071136
Methyl tert-butyl ether	373		200	200	02/10/2018 23:38	WG1071136
Naphthalene	ND		1000	200	02/10/2018 23:38	WG1071136
1,2-Dichloroethane	ND		200	200	02/10/2018 23:38	WG1071136
(S) Toluene-d8	107		80.0-120		02/10/2018 23:38	WG1071136
(S) Dibromofluoromethane	98.8		76.0-123		02/10/2018 23:38	WG1071136
(S) 4-Bromofluorobenzene	98.6		80.0-120		02/10/2018 23:38	WG1071136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/10/2018 23:58	WG1071136
Toluene	ND		1.00	1	02/10/2018 23:58	WG1071136
Ethylbenzene	ND		1.00	1	02/10/2018 23:58	WG1071136
Total Xylenes	ND		3.00	1	02/10/2018 23:58	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/10/2018 23:58	WG1071136
Naphthalene	ND		5.00	1	02/10/2018 23:58	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/10/2018 23:58	WG1071136
(S) Toluene-d8	108		80.0-120		02/10/2018 23:58	WG1071136
(S) Dibromofluoromethane	98.5		76.0-123		02/10/2018 23:58	WG1071136
(S) 4-Bromofluorobenzene	100		80.0-120		02/10/2018 23:58	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	10.8		1.00	1	02/11/2018 00:17	WG1071136
Toluene	ND		1.00	1	02/11/2018 00:17	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 00:17	WG1071136
Total Xylenes	19.3		3.00	1	02/11/2018 00:17	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 00:17	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 00:17	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 00:17	WG1071136
(S) Toluene-d8	106		80.0-120		02/11/2018 00:17	WG1071136
(S) Dibromofluoromethane	97.8		76.0-123		02/11/2018 00:17	WG1071136
(S) 4-Bromofluorobenzene	98.8		80.0-120		02/11/2018 00:17	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 00:37	WG1071136
Toluene	ND		1.00	1	02/11/2018 00:37	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 00:37	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 00:37	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 00:37	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 00:37	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 00:37	WG1071136
(S) Toluene-d8	105		80.0-120		02/11/2018 00:37	WG1071136
(S) Dibromofluoromethane	98.6		76.0-123		02/11/2018 00:37	WG1071136
(S) 4-Bromofluorobenzene	99.9		80.0-120		02/11/2018 00:37	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/13/2018 12:02	WG1071136
Toluene	ND		1.00	1	02/13/2018 12:02	WG1071136
Ethylbenzene	ND		1.00	1	02/13/2018 12:02	WG1071136
Total Xylenes	ND		3.00	1	02/13/2018 12:02	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/13/2018 12:02	WG1071136
Naphthalene	ND		5.00	1	02/13/2018 12:02	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/13/2018 12:02	WG1071136
(S) Toluene-d8	100		80.0-120		02/13/2018 12:02	WG1071136
(S) Dibromofluoromethane	98.2		76.0-123		02/13/2018 12:02	WG1071136
(S) 4-Bromofluorobenzene	97.8		80.0-120		02/13/2018 12:02	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 01:16	WG1071136
Toluene	ND		1.00	1	02/11/2018 01:16	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 01:16	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 01:16	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 01:16	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 01:16	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 01:16	WG1071136
(S) Toluene-d8	106		80.0-120		02/11/2018 01:16	WG1071136
(S) Dibromofluoromethane	97.5		76.0-123		02/11/2018 01:16	WG1071136
(S) 4-Bromofluorobenzene	98.3		80.0-120		02/11/2018 01:16	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 01:36	WG1071136
Toluene	ND		1.00	1	02/11/2018 01:36	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 01:36	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 01:36	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 01:36	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 01:36	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 01:36	WG1071136
(S) Toluene-d8	107		80.0-120		02/11/2018 01:36	WG1071136
(S) Dibromofluoromethane	98.1		76.0-123		02/11/2018 01:36	WG1071136
(S) 4-Bromofluorobenzene	102		80.0-120		02/11/2018 01:36	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 01:55	WG1071136
Toluene	ND		1.00	1	02/11/2018 01:55	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 01:55	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 01:55	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 01:55	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 01:55	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 01:55	WG1071136
(S) Toluene-d8	105		80.0-120		02/11/2018 01:55	WG1071136
(S) Dibromofluoromethane	97.7		76.0-123		02/11/2018 01:55	WG1071136
(S) 4-Bromofluorobenzene	99.9		80.0-120		02/11/2018 01:55	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 02:15	WG1071136
Toluene	ND		1.00	1	02/11/2018 02:15	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 02:15	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 02:15	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 02:15	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 02:15	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 02:15	WG1071136
(S) Toluene-d8	108		80.0-120		02/11/2018 02:15	WG1071136
(S) Dibromofluoromethane	98.8		76.0-123		02/11/2018 02:15	WG1071136
(S) 4-Bromofluorobenzene	101		80.0-120		02/11/2018 02:15	WG1071136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	30.5		1.00	1	02/13/2018 12:21	WG1071136
Toluene	29.6		1.00	1	02/13/2018 12:21	WG1071136
Ethylbenzene	1.09		1.00	1	02/13/2018 12:21	WG1071136
Total Xylenes	88.3		3.00	1	02/13/2018 12:21	WG1071136
Methyl tert-butyl ether	32.0		1.00	1	02/13/2018 12:21	WG1071136
Naphthalene	ND		5.00	1	02/13/2018 12:21	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/13/2018 12:21	WG1071136
(S) Toluene-d8	98.9		80.0-120		02/13/2018 12:21	WG1071136
(S) Dibromofluoromethane	97.1		76.0-123		02/13/2018 12:21	WG1071136
(S) 4-Bromofluorobenzene	100		80.0-120		02/13/2018 12:21	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 02:54	WG1071136
Toluene	ND		1.00	1	02/11/2018 02:54	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 02:54	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 02:54	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 02:54	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 02:54	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 02:54	WG1071136
(S) Toluene-d8	109		80.0-120		02/11/2018 02:54	WG1071136
(S) Dibromofluoromethane	96.6		76.0-123		02/11/2018 02:54	WG1071136
(S) 4-Bromofluorobenzene	102		80.0-120		02/11/2018 02:54	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	02/11/2018 03:13	WG1071136
Toluene	ND		1.00	1	02/11/2018 03:13	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 03:13	WG1071136
Total Xylenes	ND		3.00	1	02/11/2018 03:13	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 03:13	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 03:13	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 03:13	WG1071136
(S) Toluene-d8	110		80.0-120		02/11/2018 03:13	WG1071136
(S) Dibromofluoromethane	100		76.0-123		02/11/2018 03:13	WG1071136
(S) 4-Bromofluorobenzene	99.2		80.0-120		02/11/2018 03:13	WG1071136

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	2.20		1.00	1	02/11/2018 03:33	WG1071136
Toluene	1.86		1.00	1	02/11/2018 03:33	WG1071136
Ethylbenzene	ND		1.00	1	02/11/2018 03:33	WG1071136
Total Xylenes	4.10		3.00	1	02/11/2018 03:33	WG1071136
Methyl tert-butyl ether	ND		1.00	1	02/11/2018 03:33	WG1071136
Naphthalene	ND		5.00	1	02/11/2018 03:33	WG1071136
1,2-Dichloroethane	ND		1.00	1	02/11/2018 03:33	WG1071136
(S) Toluene-d8	108		80.0-120		02/11/2018 03:33	WG1071136
(S) Dibromofluoromethane	98.5		76.0-123		02/11/2018 03:33	WG1071136
(S) 4-Bromofluorobenzene	101		80.0-120		02/11/2018 03:33	WG1071136

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	02/08/2018 11:01	WG1071291
Benzene	ND		1.00	1	02/08/2018 11:01	WG1071291
Bromodichloromethane	ND		1.00	1	02/08/2018 11:01	WG1071291
Bromoform	ND		1.00	1	02/08/2018 11:01	WG1071291
Bromomethane	ND		5.00	1	02/08/2018 11:01	WG1071291
Carbon disulfide	ND		1.00	1	02/08/2018 11:01	WG1071291
Carbon tetrachloride	ND		1.00	1	02/08/2018 11:01	WG1071291
Chlorobenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
Chlorodibromomethane	ND		1.00	1	02/08/2018 11:01	WG1071291
Chloroethane	ND		5.00	1	02/08/2018 11:01	WG1071291
Chloroform	ND		5.00	1	02/08/2018 11:01	WG1071291
Chloromethane	ND		2.50	1	02/08/2018 11:01	WG1071291
1,2-Dibromo-3-Chloropropane	ND		5.00	1	02/08/2018 11:01	WG1071291
1,2-Dibromoethane	ND		1.00	1	02/08/2018 11:01	WG1071291
1,2-Dichlorobenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,3-Dichlorobenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,4-Dichlorobenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,1-Dichloroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
1,2-Dichloroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
1,1-Dichloroethene	ND		1.00	1	02/08/2018 11:01	WG1071291
cis-1,2-Dichloroethene	ND		1.00	1	02/08/2018 11:01	WG1071291
trans-1,2-Dichloroethene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,2-Dichloropropane	ND		1.00	1	02/08/2018 11:01	WG1071291
cis-1,3-Dichloropropene	ND		1.00	1	02/08/2018 11:01	WG1071291
trans-1,3-Dichloropropene	ND		1.00	1	02/08/2018 11:01	WG1071291
Di-isopropyl ether	ND		1.00	1	02/08/2018 11:01	WG1071291
Ethylbenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
2-Butanone (MEK)	ND		10.0	1	02/08/2018 11:01	WG1071291
2-Hexanone	ND		10.0	1	02/08/2018 11:01	WG1071291
Methylene Chloride	ND		5.00	1	02/08/2018 11:01	WG1071291
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	02/08/2018 11:01	WG1071291
Methyl tert-butyl ether	ND		1.00	1	02/08/2018 11:01	WG1071291
Naphthalene	ND		5.00	1	02/08/2018 11:01	WG1071291
Styrene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,1,2,2-Tetrachloroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
Tetrachloroethene	ND		1.00	1	02/08/2018 11:01	WG1071291
Toluene	ND		1.00	1	02/08/2018 11:01	WG1071291
1,1,1-Trichloroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
1,1,2-Trichloroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
Trichloroethene	ND		1.00	1	02/08/2018 11:01	WG1071291
Vinyl chloride	ND		1.00	1	02/08/2018 11:01	WG1071291
o-Xylene	ND		1.00	1	02/08/2018 11:01	WG1071291
m&p-Xylene	ND		2.00	1	02/08/2018 11:01	WG1071291
Xylenes, Total	ND		3.00	1	02/08/2018 11:01	WG1071291
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	02/08/2018 11:01	WG1071291
1,2,3-Trimethylbenzene	ND		1.00	1	02/08/2018 11:01	WG1071291
(S) Toluene-d8	106		80.0-120		02/08/2018 11:01	WG1071291
(S) Dibromofluoromethane	97.5		76.0-123		02/08/2018 11:01	WG1071291
(S) a,a,a-Trifluorotoluene	97.0		80.0-120		02/08/2018 11:01	WG1071291
(S) 4-Bromofluorobenzene	99.7		80.0-120		02/08/2018 11:01	WG1071291

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc



Method Blank (MB)

(MB) R3285791-3 02/10/18 21:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	107			80.0-120
(S) Dibromofluoromethane	97.7			76.0-123
(S) 4-Bromofluorobenzene	97.7			80.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3285791-1 02/10/18 20:02 • (LCSD) R3285791-2 02/10/18 20:22

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	23.6	23.4	94.3	93.6	70.0-130			0.746	20
1,2-Dichloroethane	25.0	28.4	28.1	114	113	70.0-130			1.03	20
Ethylbenzene	25.0	25.3	24.9	101	99.6	70.0-130			1.75	20
Methyl tert-butyl ether	25.0	19.4	18.5	77.6	74.2	70.0-130			4.56	20
Naphthalene	25.0	23.6	23.3	94.5	93.1	70.0-130			1.48	20
Toluene	25.0	25.0	24.3	100	97.2	70.0-130			2.80	20
Xylenes, Total	75.0	75.1	73.6	100	98.1	70.0-130			2.02	20
(S) Toluene-d8				106	105	80.0-120				
(S) Dibromofluoromethane				98.1	98.2	76.0-123				
(S) 4-Bromofluorobenzene				101	98.6	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3285084-2 02/08/18 09:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3285084-2 02/08/18 09:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.398	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.341	2.00
(S) Toluene-d8	106			80.0-120
(S) Dibromofluoromethane	99.2			76.0-123
(S) a,a,a-Trifluorotoluene	98.7			80.0-120
(S) 4-Bromofluorobenzene	97.6			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3285084-1 02/08/18 08:49

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Acetone	125	133	106	70.0-130	
Benzene	25.0	23.8	95.3	70.0-130	
Bromodichloromethane	25.0	26.4	105	70.0-130	
Bromoform	25.0	25.6	102	70.0-130	
Bromomethane	25.0	22.5	90.0	70.0-130	
Carbon disulfide	25.0	21.5	85.9	70.0-130	
Carbon tetrachloride	25.0	26.5	106	70.0-130	
Chlorobenzene	25.0	24.8	99.4	70.0-130	
Chlorodibromomethane	25.0	26.2	105	70.0-130	
Chloroethane	25.0	19.2	76.8	70.0-130	
Chloroform	25.0	25.6	103	70.0-130	
Chloromethane	25.0	20.7	82.7	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	24.0	95.8	70.0-130	
1,2-Dibromoethane	25.0	25.0	99.9	70.0-130	
1,2-Dichlorobenzene	25.0	23.5	93.9	70.0-130	
1,3-Dichlorobenzene	25.0	23.1	92.3	70.0-130	
1,4-Dichlorobenzene	25.0	22.9	91.5	70.0-130	
1,1-Dichloroethane	25.0	27.6	110	70.0-130	
1,2-Dichloroethane	25.0	27.2	109	70.0-130	
1,1-Dichloroethene	25.0	24.5	97.9	70.0-130	
cis-1,2-Dichloroethene	25.0	25.0	99.9	70.0-130	
trans-1,2-Dichloroethene	25.0	24.9	99.8	70.0-130	
1,2-Dichloropropane	25.0	28.9	115	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3285084-1 02/08/18 08:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
cis-1,3-Dichloropropene	25.0	25.7	103	70.0-130	
trans-1,3-Dichloropropene	25.0	26.4	106	70.0-130	
Di-isopropyl ether	25.0	22.4	89.7	70.0-130	
Ethylbenzene	25.0	24.8	99.1	70.0-130	
2-Hexanone	125	145	116	70.0-130	
2-Butanone (MEK)	125	116	92.8	70.0-130	
Methylene Chloride	25.0	23.2	92.7	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	116	92.7	70.0-130	
Methyl tert-butyl ether	25.0	20.1	80.4	70.0-130	
Naphthalene	25.0	23.9	95.4	70.0-130	
Styrene	25.0	23.6	94.4	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	22.8	91.2	70.0-130	
Tetrachloroethene	25.0	24.9	99.5	70.0-130	
Toluene	25.0	24.7	98.7	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	27.3	109	70.0-130	
1,1,1-Trichloroethane	25.0	26.8	107	70.0-130	
1,1,2-Trichloroethane	25.0	25.0	100	70.0-130	
Trichloroethene	25.0	26.7	107	70.0-130	
1,2,3-Trimethylbenzene	25.0	24.1	96.5	70.0-130	
Vinyl chloride	25.0	24.2	96.7	70.0-130	
Xylenes, Total	75.0	73.5	98.0	70.0-130	
o-Xylene	25.0	24.7	98.7	70.0-130	
m&p-Xylenes	50.0	48.8	97.6	70.0-130	
(S) Toluene-d8			105	80.0-120	
(S) Dibromofluoromethane			99.2	76.0-123	
(S) a,a,a-Trifluorotoluene			101	80.0-120	
(S) 4-Bromofluorobenzene			99.5	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Ai
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ^{1,4}	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

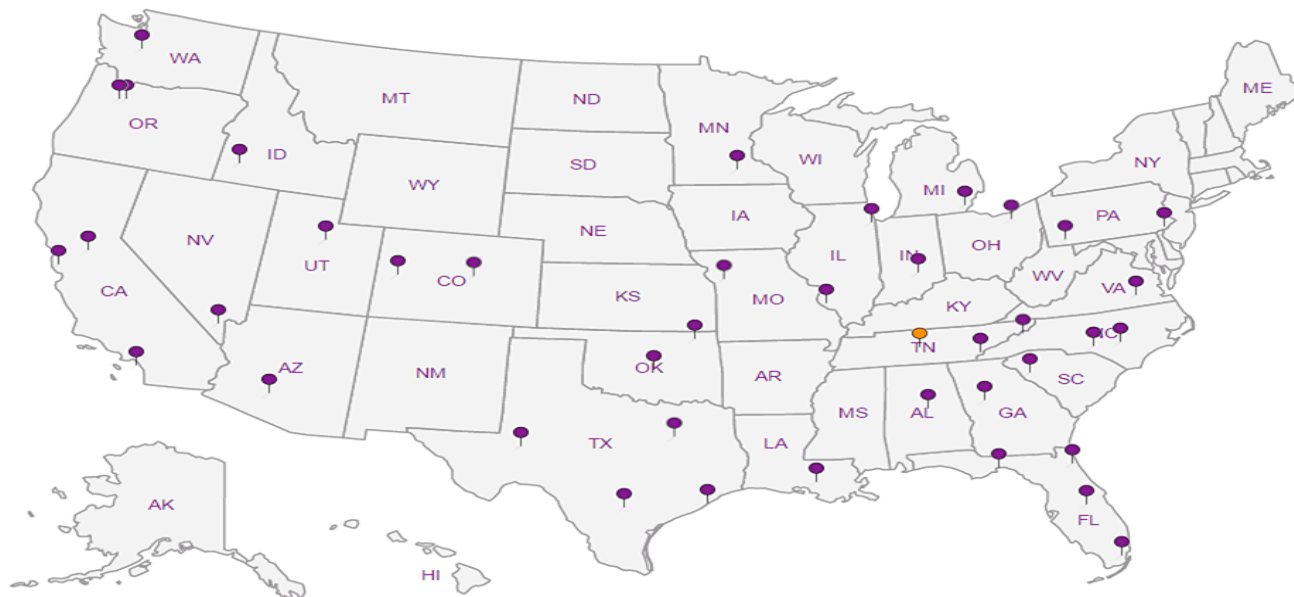
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

CH2M Hill- Kinder Morgan- Atlanta, GA

6600 Peachtree Dunwoody Road

Report to:
Bethany Garvey

Project
Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**

Fax:

Collected by (print):

MELISSA WARREN

Collected by (signature):

Melissa Warren

Immediately Packed on Ice: N Y

Billing Information:

Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;
tom.wiley@ch2m.com; scott.powell@ch2m.com;

City/State
Collected: **BELTON, SC**

Lab Project #
KINCH2MGA-LEWIS12

P.O. #

Quote #

Date Results Needed

Pres
Chk

Analysis / Container / Preservative

X X X X X

V8260BTEXMNSC 40mlAmb-HCl

V8260BTEXMNSC-TB 40mlAmb-HCl-BIK

BTEX

MTBE

NAPHTHALENE

1,2-DCA

Chain of Custody Page 1 of 3



LAB SCIENCES
a subsidiary of PerkinElmer

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L968338**

Table # **E111**

Acctnum: **KINCH2MGA**

Template: **T131319**

Prelogin: **P637822**

TSR: **526 - Chris McCord**

PB: **1-30-18**

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctrts	V8260BTEXMNSC 40mlAmb-HCl	V8260BTEXMNSC-TB 40mlAmb-HCl-BIK	BTEX	MTBE	NAPHTHALENE	1,2-DCA	Remarks	Sample # (lab only)
MW-29-020618	GRAB	GW	NA	02/06/18	0805	3	X		X	X	X	X		-01
MW-26-020618		GW			0815	3	X							02
MW-23-020618		GW			0825	3	X							03
MW-43-020618		GW			0900	3	X							04
MW-38-020618		GW			0910	3	X							05
MW-34-020618		GW			0920	3	X							06
MW-39-020618		GW			0930	3	X							07
MW-40-020618		GW			0935	3	X							08
MW-41-020618		GW			0945	3	X							09
MW-25-020618		GW			0955	3	X							10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:

UPS FedEx Courier

Tracking # **4269 9202 9201**

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero HeadSpace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)

Melissa Warren

Date:

02/06/18

Time:

1730

Received by: (Signature)

[Signature]

Trip Blank Received: Yes/No

1 HCL/ MeOH TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

[Signature]

Temp: 1.9 ^{°C} 50

Bottles Received: 61

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

[Signature]

Date:

2/1/18

Time:

845

Hold:

Condition:

NCF 10

March 14, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L975433
Samples Received: 03/07/2018
Project Number: 699858.ID.MR.GW
Description: Lewis Drive Groundwater
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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1 Cp
2 Tc
3 Ss
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5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY



MW-22-030618 L975433-02 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 09:25
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 17:13	03/08/18 17:13	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 17:13	03/08/18 17:13	MCG
Wet Chemistry by Method 9056A	WG1081704	1	03/08/18 00:23	03/08/18 00:23	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1081916	1	03/08/18 13:20	03/08/18 13:20	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 18:06	03/07/18 18:06	LRL

1
Cp

2
Tc

3
Ss

4
Cn

MW-13-030618 L975433-03 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 10:15
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 18:27	03/07/18 18:27	LRL

5
Sr

6
Qc

7
Gl

FB01-030618 L975433-04 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 13:00
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 18:48	03/07/18 18:48	LRL

8
Al

9
Sc

MW-45-030618 L975433-05 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 13:15
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 19:08	03/07/18 19:08	LRL

MW-45B-030618 L975433-06 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 13:30
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 19:29	03/07/18 19:29	LRL

MW-46-030618 L975433-08 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 14:10
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 20:10	03/07/18 20:10	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	10	03/13/18 15:58	03/13/18 15:58	BMB

MW-23B-030618 L975433-09 GW

Collected by
Melissa Warren
Collected date/time
03/06/18 14:20
Received date/time
03/07/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 20:30	03/07/18 20:30	LRL

SAMPLE SUMMARY



MW-23-030618 L975433-10 GW

Collected by Melissa Warren	Collected date/time 03/06/18 14:25	Received date/time 03/07/18 08:45
--------------------------------	---------------------------------------	--------------------------------------

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/13/18 14:59	03/13/18 14:59	BMB

1
Cp

2
Tc

3
Ss

MW-26B-030618 L975433-11 GW

Collected by Melissa Warren	Collected date/time 03/06/18 14:40	Received date/time 03/07/18 08:45
--------------------------------	---------------------------------------	--------------------------------------

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 21:11	03/07/18 21:11	LRL

4
Cn

5
Sr

MW-26-030618 L975433-12 GW

Collected by Melissa Warren	Collected date/time 03/06/18 14:45	Received date/time 03/07/18 08:45
--------------------------------	---------------------------------------	--------------------------------------

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1081780	1	03/07/18 21:32	03/07/18 21:32	LRL

6
Qc

7
Gl

TB01-030618 L975433-13 GW

Collected by Melissa Warren	Collected date/time 03/06/18 13:05	Received date/time 03/07/18 08:45
--------------------------------	---------------------------------------	--------------------------------------

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082068	1	03/08/18 12:27	03/08/18 12:27	JHH

8
Al

9
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 17:13	WG1082115

Sample Narrative:

L975433-02 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 17:13	WG1082115

Sample Narrative:

L975433-02 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	182		100	1	03/08/2018 00:23	WG1081704
Sulfate	45000		5000	1	03/08/2018 00:23	WG1081704

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	14.5		10.0	1	03/08/2018 13:20	WG1081916

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 18:06	WG1081780
Toluene	1.03		1.00	1	03/07/2018 18:06	WG1081780
Ethylbenzene	ND		1.00	1	03/07/2018 18:06	WG1081780
Xylenes, Total	ND		3.00	1	03/07/2018 18:06	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 18:06	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 18:06	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 18:06	WG1081780
(S) Toluene-d8	104		80.0-120		03/07/2018 18:06	WG1081780
(S) Dibromofluoromethane	100		76.0-123		03/07/2018 18:06	WG1081780
(S) a,a,a-Trifluorotoluene	110		80.0-120		03/07/2018 18:06	WG1081780
(S) 4-Bromofluorobenzene	98.2		80.0-120		03/07/2018 18:06	WG1081780

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	6.98		1.00	1	03/07/2018 18:27	WG1081780
Toluene	15.3		1.00	1	03/07/2018 18:27	WG1081780
Ethylbenzene	1.14		1.00	1	03/07/2018 18:27	WG1081780
Xylenes, Total	4.55		3.00	1	03/07/2018 18:27	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 18:27	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 18:27	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 18:27	WG1081780
(S) Toluene-d8	101		80.0-120		03/07/2018 18:27	WG1081780
(S) Dibromofluoromethane	98.1		76.0-123		03/07/2018 18:27	WG1081780
(S) a,a,a-Trifluorotoluene	109		80.0-120		03/07/2018 18:27	WG1081780
(S) 4-Bromofluorobenzene	97.3		80.0-120		03/07/2018 18:27	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 18:48	WG1081780
Toluene	ND		1.00	1	03/07/2018 18:48	WG1081780
Ethylbenzene	ND		1.00	1	03/07/2018 18:48	WG1081780
Xylenes, Total	ND		3.00	1	03/07/2018 18:48	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 18:48	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 18:48	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 18:48	WG1081780
(S) Toluene-d8	105		80.0-120		03/07/2018 18:48	WG1081780
(S) Dibromofluoromethane	99.9		76.0-123		03/07/2018 18:48	WG1081780
(S) a,a,a-Trifluorotoluene	113		80.0-120		03/07/2018 18:48	WG1081780
(S) 4-Bromofluorobenzene	98.3		80.0-120		03/07/2018 18:48	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	24.3		1.00	1	03/07/2018 19:08	WG1081780
Toluene	28.9		1.00	1	03/07/2018 19:08	WG1081780
Ethylbenzene	6.11		1.00	1	03/07/2018 19:08	WG1081780
Xylenes, Total	41.2		3.00	1	03/07/2018 19:08	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 19:08	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 19:08	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 19:08	WG1081780
(S) Toluene-d8	102		80.0-120		03/07/2018 19:08	WG1081780
(S) Dibromofluoromethane	100		76.0-123		03/07/2018 19:08	WG1081780
(S) a,a,a-Trifluorotoluene	111		80.0-120		03/07/2018 19:08	WG1081780
(S) 4-Bromofluorobenzene	97.6		80.0-120		03/07/2018 19:08	WG1081780

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 19:29	WG1081780
Toluene	2.75		1.00	1	03/07/2018 19:29	WG1081780
Ethylbenzene	ND		1.00	1	03/07/2018 19:29	WG1081780
Xylenes, Total	ND		3.00	1	03/07/2018 19:29	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 19:29	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 19:29	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 19:29	WG1081780
(S) Toluene-d8	104		80.0-120		03/07/2018 19:29	WG1081780
(S) Dibromofluoromethane	101		76.0-123		03/07/2018 19:29	WG1081780
(S) a,a,a-Trifluorotoluene	109		80.0-120		03/07/2018 19:29	WG1081780
(S) 4-Bromofluorobenzene	96.6		80.0-120		03/07/2018 19:29	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	173		10.0	10	03/13/2018 15:58	WG1081780
Toluene	16.5		1.00	1	03/07/2018 20:10	WG1081780
Ethylbenzene	1.76		1.00	1	03/07/2018 20:10	WG1081780
Xylenes, Total	29.5		3.00	1	03/07/2018 20:10	WG1081780
Methyl tert-butyl ether	129		1.00	1	03/07/2018 20:10	WG1081780
Naphthalene	7.21		5.00	1	03/07/2018 20:10	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 20:10	WG1081780
(S) Toluene-d8	103		80.0-120		03/07/2018 20:10	WG1081780
(S) Toluene-d8	111		80.0-120		03/13/2018 15:58	WG1081780
(S) Dibromofluoromethane	102		76.0-123		03/13/2018 15:58	WG1081780
(S) Dibromofluoromethane	97.4		76.0-123		03/07/2018 20:10	WG1081780
(S) a,a,a-Trifluorotoluene	97.3		80.0-120		03/13/2018 15:58	WG1081780
(S) a,a,a-Trifluorotoluene	110		80.0-120		03/07/2018 20:10	WG1081780
(S) 4-Bromofluorobenzene	106		80.0-120		03/13/2018 15:58	WG1081780
(S) 4-Bromofluorobenzene	96.5		80.0-120		03/07/2018 20:10	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 20:30	WG1081780
Toluene	4.57		1.00	1	03/07/2018 20:30	WG1081780
Ethylbenzene	1.20		1.00	1	03/07/2018 20:30	WG1081780
Xylenes, Total	9.14		3.00	1	03/07/2018 20:30	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 20:30	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 20:30	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 20:30	WG1081780
(S) Toluene-d8	105		80.0-120		03/07/2018 20:30	WG1081780
(S) Dibromofluoromethane	98.4		76.0-123		03/07/2018 20:30	WG1081780
(S) a,a,a-Trifluorotoluene	112		80.0-120		03/07/2018 20:30	WG1081780
(S) 4-Bromofluorobenzene	97.4		80.0-120		03/07/2018 20:30	WG1081780

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/13/2018 14:59	WG1081780
Toluene	ND		1.00	1	03/13/2018 14:59	WG1081780
Ethylbenzene	ND		1.00	1	03/13/2018 14:59	WG1081780
Xylenes, Total	ND		3.00	1	03/13/2018 14:59	WG1081780
Methyl tert-butyl ether	17.5		1.00	1	03/13/2018 14:59	WG1081780
Naphthalene	ND		5.00	1	03/13/2018 14:59	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/13/2018 14:59	WG1081780
(S) Toluene-d8	106		80.0-120		03/13/2018 14:59	WG1081780
(S) Dibromofluoromethane	97.7		76.0-123		03/13/2018 14:59	WG1081780
(S) a,a,a-Trifluorotoluene	96.9		80.0-120		03/13/2018 14:59	WG1081780
(S) 4-Bromofluorobenzene	102		80.0-120		03/13/2018 14:59	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 21:11	WG1081780
Toluene	1.03		1.00	1	03/07/2018 21:11	WG1081780
Ethylbenzene	ND		1.00	1	03/07/2018 21:11	WG1081780
Xylenes, Total	ND		3.00	1	03/07/2018 21:11	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 21:11	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 21:11	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 21:11	WG1081780
(S) Toluene-d8	105		80.0-120		03/07/2018 21:11	WG1081780
(S) Dibromofluoromethane	100		76.0-123		03/07/2018 21:11	WG1081780
(S) a,a,a-Trifluorotoluene	112		80.0-120		03/07/2018 21:11	WG1081780
(S) 4-Bromofluorobenzene	97.5		80.0-120		03/07/2018 21:11	WG1081780

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/07/2018 21:32	WG1081780
Toluene	ND		1.00	1	03/07/2018 21:32	WG1081780
Ethylbenzene	ND		1.00	1	03/07/2018 21:32	WG1081780
Xylenes, Total	ND		3.00	1	03/07/2018 21:32	WG1081780
Methyl tert-butyl ether	ND		1.00	1	03/07/2018 21:32	WG1081780
Naphthalene	ND		5.00	1	03/07/2018 21:32	WG1081780
1,2-Dichloroethane	ND		1.00	1	03/07/2018 21:32	WG1081780
(S) Toluene-d8	107		80.0-120		03/07/2018 21:32	WG1081780
(S) Dibromofluoromethane	98.6		76.0-123		03/07/2018 21:32	WG1081780
(S) a,a,a-Trifluorotoluene	111		80.0-120		03/07/2018 21:32	WG1081780
(S) 4-Bromofluorobenzene	96.4		80.0-120		03/07/2018 21:32	WG1081780

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	03/08/2018 12:27	WG1082068
Benzene	ND		1.00	1	03/08/2018 12:27	WG1082068
Bromodichloromethane	ND		1.00	1	03/08/2018 12:27	WG1082068
Bromoform	ND		1.00	1	03/08/2018 12:27	WG1082068
Bromomethane	ND		5.00	1	03/08/2018 12:27	WG1082068
Carbon disulfide	ND		1.00	1	03/08/2018 12:27	WG1082068
Carbon tetrachloride	ND		1.00	1	03/08/2018 12:27	WG1082068
Chlorobenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
Chlorodibromomethane	ND		1.00	1	03/08/2018 12:27	WG1082068
Chloroethane	ND		5.00	1	03/08/2018 12:27	WG1082068
Chloroform	ND		5.00	1	03/08/2018 12:27	WG1082068
Chloromethane	ND		2.50	1	03/08/2018 12:27	WG1082068
1,2-Dibromo-3-Chloropropane	ND		5.00	1	03/08/2018 12:27	WG1082068
1,2-Dibromoethane	ND		1.00	1	03/08/2018 12:27	WG1082068
1,2-Dichlorobenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,3-Dichlorobenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,4-Dichlorobenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,1-Dichloroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
1,2-Dichloroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
1,1-Dichloroethene	ND		1.00	1	03/08/2018 12:27	WG1082068
cis-1,2-Dichloroethene	ND		1.00	1	03/08/2018 12:27	WG1082068
trans-1,2-Dichloroethene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,2-Dichloropropane	ND		1.00	1	03/08/2018 12:27	WG1082068
cis-1,3-Dichloropropene	ND		1.00	1	03/08/2018 12:27	WG1082068
trans-1,3-Dichloropropene	ND		1.00	1	03/08/2018 12:27	WG1082068
Di-isopropyl ether	ND		1.00	1	03/08/2018 12:27	WG1082068
Ethylbenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
2-Butanone (MEK)	ND		10.0	1	03/08/2018 12:27	WG1082068
2-Hexanone	ND		10.0	1	03/08/2018 12:27	WG1082068
Methylene Chloride	ND		5.00	1	03/08/2018 12:27	WG1082068
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	03/08/2018 12:27	WG1082068
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 12:27	WG1082068
Naphthalene	ND		5.00	1	03/08/2018 12:27	WG1082068
Styrene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,1,2,2-Tetrachloroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
Tetrachloroethene	ND		1.00	1	03/08/2018 12:27	WG1082068
Toluene	ND		1.00	1	03/08/2018 12:27	WG1082068
1,1,1-Trichloroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
1,1,2-Trichloroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
Trichloroethene	ND		1.00	1	03/08/2018 12:27	WG1082068
Vinyl chloride	ND		1.00	1	03/08/2018 12:27	WG1082068
Xylenes, Total	ND		3.00	1	03/08/2018 12:27	WG1082068
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	03/08/2018 12:27	WG1082068
1,2,3-Trimethylbenzene	ND		1.00	1	03/08/2018 12:27	WG1082068
(S) Toluene-d8	104		80.0-120		03/08/2018 12:27	WG1082068
(S) Dibromofluoromethane	102		76.0-123		03/08/2018 12:27	WG1082068
(S) a,a,a-Trifluorotoluene	108		80.0-120		03/08/2018 12:27	WG1082068
(S) 4-Bromofluorobenzene	88.3		80.0-120		03/08/2018 12:27	WG1082068

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L975308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L975308-01 03/08/18 14:33 • (DUP) R3291856-1 03/08/18 14:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	136000	140000	1	2.32		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L975768-06 Original Sample (OS) • Duplicate (DUP)

(OS) L975768-06 03/08/18 17:01 • (DUP) R3291856-9 03/08/18 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	ND	6550	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291856-7 03/08/18 15:42 • (LCSD) R3291856-8 03/08/18 16:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	98500	98600	98.5	98.6	85.0-115			0.112	20

Sample Narrative:

LCS: Endpoint pH 4.5
 LCSD: Endpoint pH 4.5



L975308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L975308-01 03/08/18 14:33 • (DUP) R3291856-2 03/08/18 14:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	ug/l	ug/l	%			
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L975768-06 Original Sample (OS) • Duplicate (DUP)

(OS) L975768-06 03/08/18 17:01 • (DUP) R3291856-10 03/08/18 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	ug/l	ug/l	%			
Free Carbon Dioxide	38100	40100	1	5.11		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3291531-1 03/07/18 17:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L975288-01 Original Sample (OS) • Duplicate (DUP)

(OS) L975288-01 03/07/18 19:14 • (DUP) R3291531-4 03/07/18 19:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	3480	3630	1	4.26		15
Sulfate	22800	22800	1	0.118		15

L975439-03 Green Sample (OS) • Duplicate (DUP)

(OS) L975439-03 03/08/18 01:24 • (DUP) R3291531-7 03/08/18 01:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	254	274	1	7.38		15
Sulfate	4240	4280	1	0.971	J	15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291531-2 03/07/18 17:26 • (LCSD) R3291531-3 03/07/18 17:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Nitrate	8000	8330	8280	104	104	80.0-120			0.562	15
Sulfate	40000	40000	39800	100	99.5	80.0-120			0.534	15

L975288-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L975288-01 03/07/18 19:14 • (MS) R3291531-5 03/07/18 19:45 • (MSD) R3291531-6 03/07/18 20:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate	5000	3480	8420	8570	99.0	102	1	80.0-120			1.68	15
Sulfate	50000	22800	71900	71700	98.2	97.8	1	80.0-120			0.267	15



L975439-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L975439-03 03/08/18 01:24 • (MS) R3291531-8 03/08/18 01:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Nitrate	5000	254	5130	97.4	1	80.0-120	
Sulfate	50000	4240	54000	99.5	1	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3291615-1 03/08/18 09:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		2.91	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L974556-07 Original Sample (OS) • Duplicate (DUP)

(OS) L974556-07 03/08/18 11:16 • (DUP) R3291615-2 03/08/18 11:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	U	0.000	1	0.000		20

L974857-01 Original Sample (OS) • Duplicate (DUP)

(OS) L974857-01 03/08/18 11:59 • (DUP) R3291615-3 03/08/18 13:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291615-4 03/08/18 13:42 • (LCSD) R3291615-5 03/08/18 13:48

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	69.6	65.1	103	96.1	85.0-115			6.58	20



Method Blank (MB)

(MB) R3292676-3 03/07/18 16:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	96.6			76.0-123
(S) a,a,a-Trifluorotoluene	109			80.0-120
(S) 4-Bromofluorobenzene	97.4			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292676-1 03/07/18 15:48 • (LCSD) R3292676-2 03/07/18 16:08

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	25.0	23.4	100	93.5	70.0-130			6.75	20
1,2-Dichloroethane	25.0	25.3	22.8	101	91.3	70.0-130			10.5	20
Ethylbenzene	25.0	25.6	24.1	103	96.4	70.0-130			6.11	20
Methyl tert-butyl ether	25.0	24.3	22.1	97.4	88.5	70.0-130			9.60	20
Naphthalene	25.0	25.9	24.9	104	99.8	70.0-130			3.93	20
Toluene	25.0	24.1	22.3	96.6	89.2	70.0-130			7.93	20
Xylenes, Total	75.0	78.3	72.8	104	97.1	70.0-130			7.28	20
(S) Toluene-d8				102	99.9	80.0-120				
(S) Dibromofluoromethane				95.5	93.6	76.0-123				
(S) a,a,a-Trifluorotoluene				109	109	80.0-120				
(S) 4-Bromofluorobenzene				96.5	97.2	80.0-120				

L975470-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L975470-02 03/07/18 23:15 • (MS) R3292676-4 03/08/18 00:17 • (MSD) R3292676-5 03/08/18 00:38

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Benzene	25.0	ND	25.7	24.5	103	98.2	1	54.3-133			4.43	20
1,2-Dichloroethane	25.0	ND	25.6	25.1	103	100	1	60.0-126			2.10	20
Ethylbenzene	25.0	ND	26.7	25.0	107	100	1	61.4-133			6.56	20
Methyl tert-butyl ether	25.0	ND	25.4	24.8	102	99.2	1	57.7-134			2.30	20
Naphthalene	25.0	ND	27.1	25.2	102	94.4	1	58.0-135			7.38	25.5



L975470-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L975470-02 03/07/18 23:15 • (MS) R3292676-4 03/08/18 00:17 • (MSD) R3292676-5 03/08/18 00:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Toluene	25.0	ND	25.1	23.3	100	93.2	1	61.4-130			7.28	20
Xylenes, Total	75.0	ND	79.6	75.7	106	101	1	63.3-131			5.02	20
<i>(S) Toluene-d8</i>					102	99.5		80.0-120				
<i>(S) Dibromofluoromethane</i>					97.5	97.7		76.0-123				
<i>(S) a,a,a-Trifluorotoluene</i>					110	108		80.0-120				
<i>(S) 4-Bromofluorobenzene</i>					95.1	94.9		80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3291779-2 03/08/18 11:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	2.20	U	1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3291779-2 03/08/18 11:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.398	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	98.5			76.0-123
(S) a,a,a-Trifluorotoluene	108			80.0-120
(S) 4-Bromofluorobenzene	90.1			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3291779-1 03/08/18 10:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Acetone	125	134	107	70.0-130	
Benzene	25.0	27.0	108	70.0-130	
Bromodichloromethane	25.0	27.1	108	70.0-130	
Bromoform	25.0	18.7	74.6	70.0-130	
Bromomethane	25.0	32.0	128	70.0-130	
Carbon disulfide	25.0	28.3	113	70.0-130	
Carbon tetrachloride	25.0	27.9	111	70.0-130	
Chlorobenzene	25.0	25.4	102	70.0-130	
Chlorodibromomethane	25.0	26.0	104	70.0-130	
Chloroethane	25.0	32.1	128	70.0-130	
Chloroform	25.0	27.2	109	70.0-130	
Chloromethane	25.0	25.7	103	70.0-130	
1,2-Dibromo-3-Chloropropane	25.0	23.6	94.6	70.0-130	
1,2-Dibromoethane	25.0	25.0	100	70.0-130	
1,2-Dichlorobenzene	25.0	25.9	104	70.0-130	
1,3-Dichlorobenzene	25.0	27.1	108	70.0-130	
1,4-Dichlorobenzene	25.0	26.1	104	70.0-130	
1,1-Dichloroethane	25.0	27.1	109	70.0-130	
1,2-Dichloroethane	25.0	26.7	107	70.0-130	
1,1-Dichloroethene	25.0	28.2	113	70.0-130	
cis-1,2-Dichloroethene	25.0	26.8	107	70.0-130	
trans-1,2-Dichloroethene	25.0	26.4	105	70.0-130	
1,2-Dichloropropane	25.0	27.7	111	70.0-130	
cis-1,3-Dichloropropene	25.0	26.8	107	70.0-130	
trans-1,3-Dichloropropene	25.0	26.5	106	70.0-130	



Laboratory Control Sample (LCS)

(LCS) R3291779-1 03/08/18 10:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Di-isopropyl ether	25.0	27.5	110	70.0-130	
Ethylbenzene	25.0	25.8	103	70.0-130	
2-Hexanone	125	139	112	70.0-130	
2-Butanone (MEK)	125	132	105	70.0-130	
Methylene Chloride	25.0	26.0	104	70.0-130	
4-Methyl-2-pentanone (MIBK)	125	140	112	70.0-130	
Methyl tert-butyl ether	25.0	27.5	110	70.0-130	
Naphthalene	25.0	24.6	98.5	70.0-130	
Styrene	25.0	25.9	103	70.0-130	
1,1,2,2-Tetrachloroethane	25.0	24.3	97.1	70.0-130	
Tetrachloroethene	25.0	26.1	104	70.0-130	
Toluene	25.0	25.8	103	70.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	29.3	117	70.0-130	
1,1,1-Trichloroethane	25.0	28.7	115	70.0-130	
1,1,2-Trichloroethane	25.0	25.6	102	70.0-130	
Trichloroethene	25.0	26.8	107	70.0-130	
1,2,3-Trimethylbenzene	25.0	27.7	111	70.0-130	
Vinyl chloride	25.0	28.3	113	70.0-130	
Xylenes, Total	75.0	79.4	106	70.0-130	
<i>(S) Toluene-d8</i>			100	80.0-120	
<i>(S) Dibromofluoromethane</i>			104	76.0-123	
<i>(S) a,a,a-Trifluorotoluene</i>			101	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			90.2	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

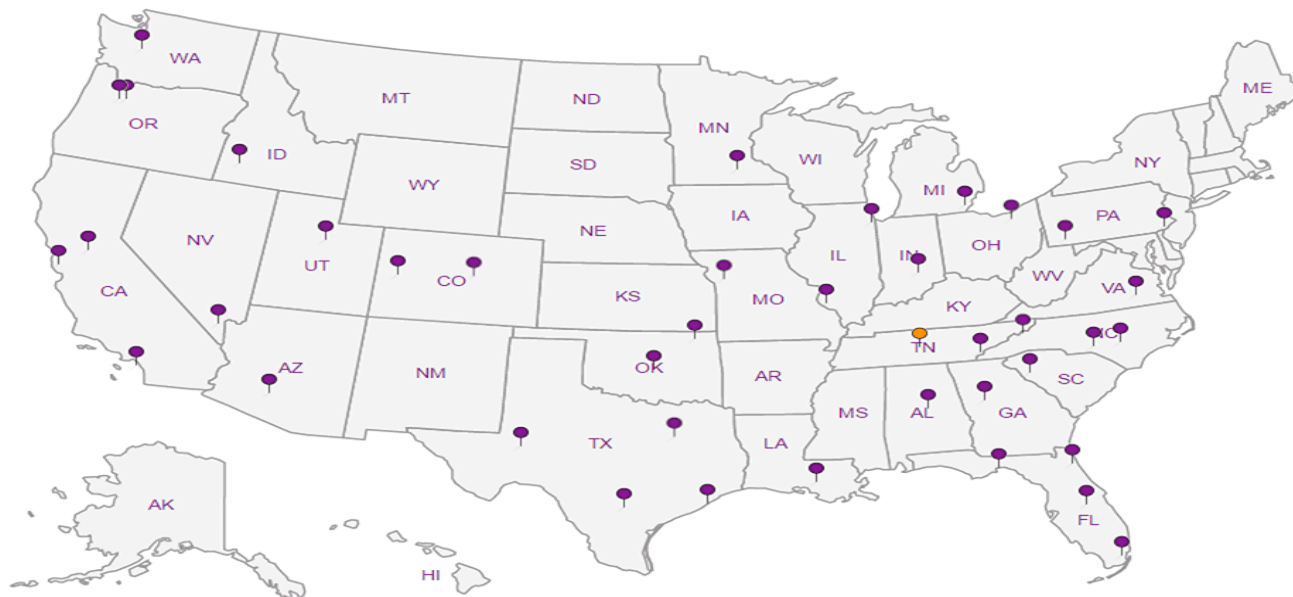
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project
 Description: **Lewis Drive Surface Water**

City/State
 Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project #
**69858.LD.MR.GW
 LEWIS DRIVE**

Lab Project #
KINCH2MGA-LEWIS

Collected by (print):
MEUSSA WARREN

Site/Facility ID # **LEWIS DRIVE
 BELTON, SC**

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)
 Same Day ___ Five Day ___
 Next Day ___ 5 Day (Rad Only) ___
 Two Day ___ 10 Day (Rad Only) ___
 Three Day ___

Quote #
 Date Results Needed

Immediately Packed on Ice **N Y**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative										Chain of Custody		
MW-22-030618	GRAB	GW	N/A	03/06/18	0925	3	X		X	X	X	X	X	X	X	X	X	V8260BTEXNSC 40mlAmb-HCl-BIK V8260BTEXNSC-TB 40mlAmb-HCl-BIK BTEX NAPHTHALENE 1,2-DCA NITRATE ALKALINITY SULFATE FELSIOUS IRON METHANE	ESC LAB SCIENCES a subsidiary of <i>[Logo]</i> 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 L# 975433 G089 Acctnum: KINCH2MGA Template: T130279 Prelogin: P640860 TSR: S26 - Chris McCord PB: 2-27-186 Shipped Via: FedEX Ground
MW-13-030618		GW	N/A		1015	3	X		X	X	X								
FBO1-030618		GW	N/A		1300	3	X		X	X	X								
MW-45-030618		GW	N/A		1315	3	X		X	X	X								
MW-46B-030618		GW			1330	3	X		X	X	X								
MW-20-030618		GW			1345	3	X		X	X	X	X	X	X	X	X			
MW-46-030618		GW			1410	3	X		X	X	X								
MW-23B-030618		GW			1420	3	X		X	X	X								
MW-23-030618		GW			1425	3	X		X	X	X								
MW-26B-030618		GW			1440	3	X		X	X	X								

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: **CO₂ - LAB CALCULATION FOR ALL SAMPLES MW-22-030618 AND MW-20-030618**

Samples returned via:
 UPS ___ FedEx ___ Courier ___

Tracking # **4269 9209 8613**

pH ___ Temp ___
 Flow ___ Other ___

Sample Receipt Checklist

COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 03/06/18	Time: 1630	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCl/MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.34°C Bottles Received: 41 TB
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 3-7-18 Time: 845 Hold: Condition: NCF <input checked="" type="checkbox"/> OK

CH2M Hill- Kinder Morgan- Atlanta, GA

Billing Information:
Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

6600 Peachtree Dunwoody Road

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Report to:
Bethany Garvey

Project Description: **Lewis Drive Surface Water**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project #
699858.LD.MR.6W

Lab Project #
KINCH2MGA-LEWIS

Collected by (print):
MELISSA WARRICK

Site/Facility ID #
LEWIS DRIVE

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Immediately Packed on Ice **N X Y**

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative	Remarks	Sample # (lab only)
MW-26-030618	GRAB	GW	NA	03/06/18	1445	3	X		12
---	---	GW	---	---	---	3	X		
---	---	GW	---	---	---	3	X		
---	---	GW	---	---	---	3	X		
---	---	GW	---	---	---	3	X		
TBO1-030618	GRAB	GW	NA	03/06/18	1305	1	X		13

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks:

Samples returned via:
 UPS FedEx Courier

Tracking # **A269 9209 8613**

Sample Receipt Checklist
 COC Seal Present/Intact: NP Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)

Date: **03/06/18**
 Time: **1630**

Received by: (Signature)

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date:
 Time:
 Temp: **0.3°C**

Received by: (Signature)

Bottles Received: **41 TB**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:
 Time:
 Received for lab by: (Signature)

Date: **3/7/18**
 Time: **815**

Hold:

Condition: **NCF / OK**

Pres Chk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
----------	-------------------------------------	-------------------------------------	-------------------------------------	-------------------------------------	-------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Chain of Custody Page 2 of 2

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L # **975433**
 Table #
 Acctnum: **KINCH2MGA**
 Template: **T130279**
 Prelogin: **P640860**
 TSR: **526 - Chris McCord**
 PB: **2-27-186**
 Shipped Via: **FedEX Ground**

Andy Vann

From: Chris McCord
Sent: Thursday, March 08, 2018 9:00 AM
To: Login; Due WetLab; Due VOC
Subject: L975433 *KINCH2MGA*

Importance: High

Please remove ALK, SULFATE, RSK175, and V8260BTEXNSC from L975433-07 per client email below.

SULFATE = WET:WIP:WG1081704
V8260BTEXNSC = VOL:WIP:WG1081780

Thanks,

✉ **Christopher McCord**

Project Manager

ESC Lab Sciences-a subsidiary of Pace Analytical
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.3281 | Cell 615.504.3183
cmccord@esclabsciences.com | www.esclabsciences.com

From: Garvey, Bethany/ATL [<mailto: Bethany.Garvey@CH2M.com>]
Sent: Wednesday, March 07, 2018 10:45 PM
To: Chris McCord
Cc: Wiley, Tom/ATL
Subject: FW: L975433 KINCH2MGA NCF MIL

Hi Chris,

Please cancel the ferrous iron analysis listed on the COC. We are not needing the lab to perform that analysis. And yes, we are still needing the Trip Blank to be analyzed for TCL VOCs. 😊

Also can you please analyze MW-20 for nitrate only (so it's within hold) and place all other MW-20 parameters 'ON-HOLD'.

Thanks,
Bethany

ESC Lab Sciences
Non-Conformance Form

Login #:975433	Client:KINCH2MGA	Date:03/07/18	Evaluated by: Matthew Lockhart
----------------	------------------	---------------	--------------------------------

Non-Conformance (check applicable items)

Sample Integrity		Chain of Custody Clarification	
Parameter(s) past holding time	X	Login Clarification Needed	If Broken Container:
Improper temperature		Chain of custody is incomplete	Insufficient packing material around container
Improper container type		Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation		Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courie
Insufficient sample volume.		Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.		Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.		Trip Blank not received.	If no Chain of Custody:
Broken container		Client did not "X" analysis.	Received by:
Broken container:		Chain of Custody is missing	Date/Time:
Sufficient sample remains			Temp./Cont. Rec./pH:
			Carrier:
			Tracking#

Login Comments:Did not receive containers to run for Ferrous Iron.

Client informed by:	Call	x	Email	Voice Mail	Date:3/7/18	Time: 22:45
TSR Initials: CM	Client Contact: Bethany Garvey					

Login Instructions:

Ferrous Iron not needed.

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

March 15, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L975693
Samples Received: 03/08/2018
Project Number: 699858. LD. MR.GW
Description: Lewis Drive Groundwater
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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MW-14B-030718 L975693-03	12	⁸Al
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¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

SAMPLE SUMMARY



MW-13B-030718 L975693-01 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 09:35

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 20:04	03/08/18 20:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	10	03/13/18 16:47	03/13/18 16:47	BMB

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-14-030718 L975693-02 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 09:40

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 20:24	03/08/18 20:24	BMB

MW-14B-030718 L975693-03 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 09:45

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 20:43	03/08/18 20:43	BMB

TB01-030718 L975693-04 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 09:50

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082412	1	03/13/18 19:23	03/13/18 19:23	DWR

MW-48B-030718 L975693-05 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 10:00

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 21:02	03/08/18 21:02	BMB

MW-50B-030718 L975693-06 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 10:10

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 21:21	03/08/18 21:21	BMB

MW-47-030718 L975693-07 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 10:20

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 21:41	03/08/18 21:41	BMB

MW-31-030718 L975693-08 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 10:25

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 22:00	03/08/18 22:00	BMB

SAMPLE SUMMARY



MW-33T-030718 L975693-09 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 10:35

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 22:19	03/08/18 22:19	BMB

1 Cp

2 Tc

3 Ss

MW-10-030718 L975693-10 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 11:00

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 15:58	03/08/18 15:58	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 15:58	03/08/18 15:58	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 19:23	03/08/18 19:23	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:13	03/09/18 11:13	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 22:38	03/08/18 22:38	BMB

4 Cn

5 Sr

6 Qc

7 Gl

MW-02-030718 L975693-11 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 12:30

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:03	03/08/18 16:03	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:03	03/08/18 16:03	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 20:09	03/08/18 20:09	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:16	03/09/18 11:16	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 22:57	03/08/18 22:57	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	10	03/13/18 17:07	03/13/18 17:07	BMB

8 Al

9 Sc

MW-02B-030718 L975693-12 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 12:35

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 23:16	03/08/18 23:16	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/13/18 17:26	03/13/18 17:26	BMB

MW-32-030718 L975693-13 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 12:50

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:14	03/08/18 16:14	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:14	03/08/18 16:14	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 20:40	03/08/18 20:40	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:19	03/09/18 11:19	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/08/18 23:36	03/08/18 23:36	BMB

MW-30-030718 L975693-15 GW

Collected by
Melissa Warren

Collected date/time
03/07/18 13:05

Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 00:15	03/09/18 00:15	BMB

SAMPLE SUMMARY



MW-04-030718 L975693-16 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 13:40
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:21	03/08/18 16:21	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:21	03/08/18 16:21	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 20:55	03/08/18 20:55	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:22	03/09/18 11:22	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 00:34	03/09/18 00:34	BMB

1
Cp

2
Tc

3
Ss

4
Cn

MW-05-030718 L975693-17 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 13:50
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 00:53	03/09/18 00:53	BMB

5
Sr

6
Qc

7
Gl

MW-06-030718 L975693-18 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 14:00
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 01:13	03/09/18 01:13	BMB

8
Al

9
Sc

MW-06B-030718 L975693-19 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 14:05
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 01:32	03/09/18 01:32	BMB

MW-16-030718 L975693-20 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 14:30
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:26	03/08/18 16:26	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:26	03/08/18 16:26	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 21:11	03/08/18 21:11	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:24	03/09/18 11:24	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	10	03/09/18 01:51	03/09/18 01:51	BMB

MW-08-030718 L975693-21 GW

Collected by: Melissa Warren
 Collected date/time: 03/07/18 14:50
 Received date/time: 03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:31	03/08/18 16:31	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:31	03/08/18 16:31	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 21:26	03/08/18 21:26	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:50	03/09/18 11:50	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082335	1	03/09/18 02:10	03/09/18 02:10	BMB

SAMPLE SUMMARY



MW-09-030718 L975693-22 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:00
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:36	03/08/18 16:36	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:36	03/08/18 16:36	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 21:41	03/08/18 21:41	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:35	03/09/18 11:35	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 00:33	03/09/18 00:33	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/14/18 16:38	03/14/18 16:38	AB

1
Cp

2
Tc

3
Ss

4
Cn

MW-09D-030718 L975693-23 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:05
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 00:54	03/09/18 00:54	DWR

5
Sr

6
Qc

7
Gl

MW-09B-030718 L975693-24 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:15
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 01:15	03/09/18 01:15	DWR

8
Al

9
Sc

MW-36-030718 L975693-25 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:20
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	10	03/09/18 01:36	03/09/18 01:36	DWR

MW-36B-030718 L975693-26 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:25
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 01:57	03/09/18 01:57	DWR

MW-21-030718 L975693-27 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 15:55
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 02:18	03/09/18 02:18	DWR

MW-17B-030718 L975693-28 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 16:00
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	200	03/15/18 04:48	03/15/18 04:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	50	03/09/18 02:39	03/09/18 02:39	DWR

SAMPLE SUMMARY

FB01-030718 L975693-29 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 16:05
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 03:00	03/09/18 03:00	DWR

1
Cp

2
Tc

3
Ss

MW-17BD-030718 L975693-30 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 16:02
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	200	03/15/18 05:07	03/15/18 05:07	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	50	03/09/18 03:21	03/09/18 03:21	DWR

4
Cn

5
Sr

6
Qc

MW-29-030718 L975693-31 GW

Collected by
Melissa Warren
Collected date/time
03/07/18 08:55
Received date/time
03/08/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1082115	1	03/08/18 16:43	03/08/18 16:43	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1082115	1	03/08/18 16:43	03/08/18 16:43	MCG
Wet Chemistry by Method 9056A	WG1082093	1	03/08/18 21:57	03/08/18 21:57	DR
Volatile Organic Compounds (GC) by Method RSK175	WG1082294	1	03/09/18 11:37	03/09/18 11:37	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082433	1	03/09/18 03:42	03/09/18 03:42	DWR

7
Gl

8
Al

9
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	252		10.0	10	03/13/2018 16:47	WG1082335
Toluene	12.1		1.00	1	03/08/2018 20:04	WG1082335
Ethylbenzene	3.13		1.00	1	03/08/2018 20:04	WG1082335
Total Xylenes	60.2		3.00	1	03/08/2018 20:04	WG1082335
Methyl tert-butyl ether	175		1.00	1	03/08/2018 20:04	WG1082335
Naphthalene	6.44		5.00	1	03/08/2018 20:04	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 20:04	WG1082335
(S) Toluene-d8	106		80.0-120		03/13/2018 16:47	WG1082335
(S) Toluene-d8	103		80.0-120		03/08/2018 20:04	WG1082335
(S) Dibromofluoromethane	89.4		76.0-123		03/13/2018 16:47	WG1082335
(S) Dibromofluoromethane	108		76.0-123		03/08/2018 20:04	WG1082335
(S) 4-Bromofluorobenzene	92.9		80.0-120		03/13/2018 16:47	WG1082335
(S) 4-Bromofluorobenzene	106		80.0-120		03/08/2018 20:04	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 20:24	WG1082335
Toluene	ND		1.00	1	03/08/2018 20:24	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 20:24	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 20:24	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 20:24	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 20:24	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 20:24	WG1082335
(S) Toluene-d8	101		80.0-120		03/08/2018 20:24	WG1082335
(S) Dibromofluoromethane	111		76.0-123		03/08/2018 20:24	WG1082335
(S) 4-Bromofluorobenzene	109		80.0-120		03/08/2018 20:24	WG1082335

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	3.57		1.00	1	03/08/2018 20:43	WG1082335
Toluene	ND		1.00	1	03/08/2018 20:43	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 20:43	WG1082335
Total Xylenes	5.60		3.00	1	03/08/2018 20:43	WG1082335
Methyl tert-butyl ether	9.28		1.00	1	03/08/2018 20:43	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 20:43	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 20:43	WG1082335
(S) Toluene-d8	102		80.0-120		03/08/2018 20:43	WG1082335
(S) Dibromofluoromethane	107		76.0-123		03/08/2018 20:43	WG1082335
(S) 4-Bromofluorobenzene	109		80.0-120		03/08/2018 20:43	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	03/13/2018 19:23	WG1082412
Benzene	ND		1.00	1	03/13/2018 19:23	WG1082412
Bromodichloromethane	ND		1.00	1	03/13/2018 19:23	WG1082412
Bromoform	ND		1.00	1	03/13/2018 19:23	WG1082412
Bromomethane	ND		5.00	1	03/13/2018 19:23	WG1082412
Carbon disulfide	ND		1.00	1	03/13/2018 19:23	WG1082412
Carbon tetrachloride	ND		1.00	1	03/13/2018 19:23	WG1082412
Chlorobenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
Chlorodibromomethane	ND		1.00	1	03/13/2018 19:23	WG1082412
Chloroethane	ND		5.00	1	03/13/2018 19:23	WG1082412
Chloroform	ND		5.00	1	03/13/2018 19:23	WG1082412
Chloromethane	ND		2.50	1	03/13/2018 19:23	WG1082412
1,2-Dibromo-3-Chloropropane	ND		5.00	1	03/13/2018 19:23	WG1082412
1,2-Dibromoethane	ND		1.00	1	03/13/2018 19:23	WG1082412
1,2-Dichlorobenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,3-Dichlorobenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,4-Dichlorobenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,1-Dichloroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
1,2-Dichloroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
1,1-Dichloroethene	ND		1.00	1	03/13/2018 19:23	WG1082412
cis-1,2-Dichloroethene	ND		1.00	1	03/13/2018 19:23	WG1082412
trans-1,2-Dichloroethene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,2-Dichloropropane	ND		1.00	1	03/13/2018 19:23	WG1082412
cis-1,3-Dichloropropene	ND		1.00	1	03/13/2018 19:23	WG1082412
trans-1,3-Dichloropropene	ND		1.00	1	03/13/2018 19:23	WG1082412
Di-isopropyl ether	ND		1.00	1	03/13/2018 19:23	WG1082412
Ethylbenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
2-Butanone (MEK)	ND		10.0	1	03/13/2018 19:23	WG1082412
2-Hexanone	ND		10.0	1	03/13/2018 19:23	WG1082412
Methylene Chloride	ND		5.00	1	03/13/2018 19:23	WG1082412
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	03/13/2018 19:23	WG1082412
Methyl tert-butyl ether	ND		1.00	1	03/13/2018 19:23	WG1082412
Naphthalene	ND		5.00	1	03/13/2018 19:23	WG1082412
Styrene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,1,2,2-Tetrachloroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
Tetrachloroethene	ND		1.00	1	03/13/2018 19:23	WG1082412
Toluene	ND		1.00	1	03/13/2018 19:23	WG1082412
1,1,1-Trichloroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
1,1,2-Trichloroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
Trichloroethene	ND		1.00	1	03/13/2018 19:23	WG1082412
Vinyl chloride	ND		1.00	1	03/13/2018 19:23	WG1082412
Xylenes, Total	ND		3.00	1	03/13/2018 19:23	WG1082412
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	03/13/2018 19:23	WG1082412
1,2,3-Trimethylbenzene	ND		1.00	1	03/13/2018 19:23	WG1082412
(S) Toluene-d8	102		80.0-120		03/13/2018 19:23	WG1082412
(S) Dibromofluoromethane	102		76.0-123		03/13/2018 19:23	WG1082412
(S) a,a,a-Trifluorotoluene	103		80.0-120		03/13/2018 19:23	WG1082412
(S) 4-Bromofluorobenzene	98.1		80.0-120		03/13/2018 19:23	WG1082412

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 21:02	WG1082335
Toluene	ND		1.00	1	03/08/2018 21:02	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 21:02	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 21:02	WG1082335
Methyl tert-butyl ether	2.97		1.00	1	03/08/2018 21:02	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 21:02	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 21:02	WG1082335
(S) Toluene-d8	100		80.0-120		03/08/2018 21:02	WG1082335
(S) Dibromofluoromethane	110		76.0-123		03/08/2018 21:02	WG1082335
(S) 4-Bromofluorobenzene	112		80.0-120		03/08/2018 21:02	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 21:21	WG1082335
Toluene	ND		1.00	1	03/08/2018 21:21	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 21:21	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 21:21	WG1082335
Methyl tert-butyl ether	26.7		1.00	1	03/08/2018 21:21	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 21:21	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 21:21	WG1082335
(S) Toluene-d8	107		80.0-120		03/08/2018 21:21	WG1082335
(S) Dibromofluoromethane	109		76.0-123		03/08/2018 21:21	WG1082335
(S) 4-Bromofluorobenzene	108		80.0-120		03/08/2018 21:21	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 21:41	WG1082335
Toluene	ND		1.00	1	03/08/2018 21:41	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 21:41	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 21:41	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 21:41	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 21:41	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 21:41	WG1082335
(S) Toluene-d8	106		80.0-120		03/08/2018 21:41	WG1082335
(S) Dibromofluoromethane	110		76.0-123		03/08/2018 21:41	WG1082335
(S) 4-Bromofluorobenzene	108		80.0-120		03/08/2018 21:41	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 22:00	WG1082335
Toluene	ND		1.00	1	03/08/2018 22:00	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 22:00	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 22:00	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 22:00	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 22:00	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 22:00	WG1082335
(S) Toluene-d8	117		80.0-120		03/08/2018 22:00	WG1082335
(S) Dibromofluoromethane	111		76.0-123		03/08/2018 22:00	WG1082335
(S) 4-Bromofluorobenzene	108		80.0-120		03/08/2018 22:00	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 22:19	WG1082335
Toluene	ND		1.00	1	03/08/2018 22:19	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 22:19	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 22:19	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 22:19	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 22:19	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 22:19	WG1082335
(S) Toluene-d8	118		80.0-120		03/08/2018 22:19	WG1082335
(S) Dibromofluoromethane	108		76.0-123		03/08/2018 22:19	WG1082335
(S) 4-Bromofluorobenzene	90.1		80.0-120		03/08/2018 22:19	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 15:58	WG1082115

Sample Narrative:

L975693-10 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	40400	<u>T8</u>	20000	1	03/08/2018 15:58	WG1082115

Sample Narrative:

L975693-10 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/08/2018 19:23	WG1082093
Sulfate	ND		5000	1	03/08/2018 19:23	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:13	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 22:38	WG1082335
Toluene	ND		1.00	1	03/08/2018 22:38	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 22:38	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 22:38	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 22:38	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 22:38	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 22:38	WG1082335
(S) Toluene-d8	87.7		80.0-120		03/08/2018 22:38	WG1082335
(S) Dibromofluoromethane	109		76.0-123		03/08/2018 22:38	WG1082335
(S) 4-Bromofluorobenzene	111		80.0-120		03/08/2018 22:38	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	128000		20000	1	03/08/2018 16:03	WG1082115

Sample Narrative:

L975693-11 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 16:03	WG1082115

Sample Narrative:

L975693-11 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	313		100	1	03/08/2018 20:09	WG1082093
Sulfate	ND		5000	1	03/08/2018 20:09	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	22.8		10.0	1	03/09/2018 11:16	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	131		1.00	1	03/08/2018 22:57	WG1082335
Toluene	594		10.0	10	03/13/2018 17:07	WG1082335
Ethylbenzene	34.1		1.00	1	03/08/2018 22:57	WG1082335
Total Xylenes	442		3.00	1	03/08/2018 22:57	WG1082335
Methyl tert-butyl ether	27.6		1.00	1	03/08/2018 22:57	WG1082335
Naphthalene	34.5		5.00	1	03/08/2018 22:57	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 22:57	WG1082335
(S) Toluene-d8	102		80.0-120		03/08/2018 22:57	WG1082335
(S) Toluene-d8	107		80.0-120		03/13/2018 17:07	WG1082335
(S) Dibromofluoromethane	90.7		76.0-123		03/13/2018 17:07	WG1082335
(S) Dibromofluoromethane	110		76.0-123		03/08/2018 22:57	WG1082335
(S) 4-Bromofluorobenzene	89.2		80.0-120		03/13/2018 17:07	WG1082335
(S) 4-Bromofluorobenzene	130	<u>J1</u>	80.0-120		03/08/2018 22:57	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 23:16	WG1082335
Toluene	ND		1.00	1	03/13/2018 17:26	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 23:16	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 23:16	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 23:16	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 23:16	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 23:16	WG1082335
(S) Toluene-d8	99.2		80.0-120		03/08/2018 23:16	WG1082335
(S) Toluene-d8	108		80.0-120		03/13/2018 17:26	WG1082335
(S) Dibromofluoromethane	86.8		76.0-123		03/13/2018 17:26	WG1082335
(S) Dibromofluoromethane	109		76.0-123		03/08/2018 23:16	WG1082335
(S) 4-Bromofluorobenzene	90.7		80.0-120		03/13/2018 17:26	WG1082335
(S) 4-Bromofluorobenzene	122	J1	80.0-120		03/08/2018 23:16	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:14	WG1082115

Sample Narrative:

L975693-13 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 16:14	WG1082115

Sample Narrative:

L975693-13 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	947		100	1	03/08/2018 20:40	WG1082093
Sulfate	ND		5000	1	03/08/2018 20:40	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:19	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/08/2018 23:36	WG1082335
Toluene	ND		1.00	1	03/08/2018 23:36	WG1082335
Ethylbenzene	ND		1.00	1	03/08/2018 23:36	WG1082335
Total Xylenes	ND		3.00	1	03/08/2018 23:36	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/08/2018 23:36	WG1082335
Naphthalene	ND		5.00	1	03/08/2018 23:36	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/08/2018 23:36	WG1082335
(S) Toluene-d8	102		80.0-120		03/08/2018 23:36	WG1082335
(S) Dibromofluoromethane	106		76.0-123		03/08/2018 23:36	WG1082335
(S) 4-Bromofluorobenzene	110		80.0-120		03/08/2018 23:36	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	22.1		1.00	1	03/09/2018 00:15	WG1082335
Toluene	8.94		1.00	1	03/09/2018 00:15	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 00:15	WG1082335
Total Xylenes	19.1		3.00	1	03/09/2018 00:15	WG1082335
Methyl tert-butyl ether	2.25		1.00	1	03/09/2018 00:15	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 00:15	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 00:15	WG1082335
(S) Toluene-d8	101		80.0-120		03/09/2018 00:15	WG1082335
(S) Dibromofluoromethane	109		76.0-123		03/09/2018 00:15	WG1082335
(S) 4-Bromofluorobenzene	114		80.0-120		03/09/2018 00:15	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:21	WG1082115

Sample Narrative:

L975693-16 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	33800	<u>T8</u>	20000	1	03/08/2018 16:21	WG1082115

Sample Narrative:

L975693-16 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/08/2018 20:55	WG1082093
Sulfate	ND		5000	1	03/08/2018 20:55	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:22	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 00:34	WG1082335
Toluene	ND		1.00	1	03/09/2018 00:34	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 00:34	WG1082335
Total Xylenes	ND		3.00	1	03/09/2018 00:34	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 00:34	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 00:34	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 00:34	WG1082335
(S) Toluene-d8	99.3		80.0-120		03/09/2018 00:34	WG1082335
(S) Dibromofluoromethane	108		76.0-123		03/09/2018 00:34	WG1082335
(S) 4-Bromofluorobenzene	111		80.0-120		03/09/2018 00:34	WG1082335

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 00:53	WG1082335
Toluene	ND		1.00	1	03/09/2018 00:53	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 00:53	WG1082335
Total Xylenes	ND		3.00	1	03/09/2018 00:53	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 00:53	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 00:53	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 00:53	WG1082335
(S) Toluene-d8	100		80.0-120		03/09/2018 00:53	WG1082335
(S) Dibromofluoromethane	107		76.0-123		03/09/2018 00:53	WG1082335
(S) 4-Bromofluorobenzene	112		80.0-120		03/09/2018 00:53	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 01:13	WG1082335
Toluene	ND		1.00	1	03/09/2018 01:13	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 01:13	WG1082335
Total Xylenes	ND		3.00	1	03/09/2018 01:13	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 01:13	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 01:13	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 01:13	WG1082335
(S) Toluene-d8	101		80.0-120		03/09/2018 01:13	WG1082335
(S) Dibromofluoromethane	106		76.0-123		03/09/2018 01:13	WG1082335
(S) 4-Bromofluorobenzene	111		80.0-120		03/09/2018 01:13	WG1082335

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 01:32	WG1082335
Toluene	3.63		1.00	1	03/09/2018 01:32	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 01:32	WG1082335
Total Xylenes	ND		3.00	1	03/09/2018 01:32	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 01:32	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 01:32	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 01:32	WG1082335
(S) Toluene-d8	105		80.0-120		03/09/2018 01:32	WG1082335
(S) Dibromofluoromethane	104		76.0-123		03/09/2018 01:32	WG1082335
(S) 4-Bromofluorobenzene	105		80.0-120		03/09/2018 01:32	WG1082335

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:26	WG1082115

Sample Narrative:

L975693-20 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 16:26	WG1082115

Sample Narrative:

L975693-20 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/08/2018 21:11	WG1082093
Sulfate	ND		5000	1	03/08/2018 21:11	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:24	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	130		10.0	10	03/09/2018 01:51	WG1082335
Toluene	1370		10.0	10	03/09/2018 01:51	WG1082335
Ethylbenzene	295		10.0	10	03/09/2018 01:51	WG1082335
Total Xylenes	2470		30.0	10	03/09/2018 01:51	WG1082335
Methyl tert-butyl ether	132		10.0	10	03/09/2018 01:51	WG1082335
Naphthalene	618		50.0	10	03/09/2018 01:51	WG1082335
1,2-Dichloroethane	ND		10.0	10	03/09/2018 01:51	WG1082335
(S) Toluene-d8	112		80.0-120		03/09/2018 01:51	WG1082335
(S) Dibromofluoromethane	109		76.0-123		03/09/2018 01:51	WG1082335
(S) 4-Bromofluorobenzene	109		80.0-120		03/09/2018 01:51	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:31	WG1082115

Sample Narrative:

L975693-21 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 16:31	WG1082115

Sample Narrative:

L975693-21 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/08/2018 21:26	WG1082093
Sulfate	ND		5000	1	03/08/2018 21:26	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:50	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 02:10	WG1082335
Toluene	ND		1.00	1	03/09/2018 02:10	WG1082335
Ethylbenzene	ND		1.00	1	03/09/2018 02:10	WG1082335
Total Xylenes	ND		3.00	1	03/09/2018 02:10	WG1082335
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 02:10	WG1082335
Naphthalene	ND		5.00	1	03/09/2018 02:10	WG1082335
1,2-Dichloroethane	ND		1.00	1	03/09/2018 02:10	WG1082335
(S) Toluene-d8	104		80.0-120		03/09/2018 02:10	WG1082335
(S) Dibromofluoromethane	107		76.0-123		03/09/2018 02:10	WG1082335
(S) 4-Bromofluorobenzene	111		80.0-120		03/09/2018 02:10	WG1082335

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:36	WG1082115

Sample Narrative:

L975693-22 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/08/2018 16:36	WG1082115

Sample Narrative:

L975693-22 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/08/2018 21:41	WG1082093
Sulfate	ND		5000	1	03/08/2018 21:41	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:35	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	3.30		1.00	1	03/09/2018 00:33	WG1082433
Toluene	11.0		1.00	1	03/09/2018 00:33	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 00:33	WG1082433
Total Xylenes	3.92		3.00	1	03/14/2018 16:38	WG1082433
Methyl tert-butyl ether	8.74		1.00	1	03/09/2018 00:33	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 00:33	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 00:33	WG1082433
(S) Toluene-d8	101		80.0-120		03/14/2018 16:38	WG1082433
(S) Toluene-d8	104		80.0-120		03/09/2018 00:33	WG1082433
(S) Dibromofluoromethane	101		76.0-123		03/14/2018 16:38	WG1082433
(S) Dibromofluoromethane	97.9		76.0-123		03/09/2018 00:33	WG1082433
(S) 4-Bromofluorobenzene	102		80.0-120		03/14/2018 16:38	WG1082433
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 00:33	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 00:54	WG1082433
Toluene	1.32		1.00	1	03/09/2018 00:54	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 00:54	WG1082433
Total Xylenes	ND		3.00	1	03/09/2018 00:54	WG1082433
Methyl tert-butyl ether	8.74		1.00	1	03/09/2018 00:54	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 00:54	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 00:54	WG1082433
(S) Toluene-d8	104		80.0-120		03/09/2018 00:54	WG1082433
(S) Dibromofluoromethane	97.3		76.0-123		03/09/2018 00:54	WG1082433
(S) 4-Bromofluorobenzene	104		80.0-120		03/09/2018 00:54	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	4.36		1.00	1	03/09/2018 01:15	WG1082433
Toluene	18.1		1.00	1	03/09/2018 01:15	WG1082433
Ethylbenzene	4.50		1.00	1	03/09/2018 01:15	WG1082433
Total Xylenes	33.3		3.00	1	03/09/2018 01:15	WG1082433
Methyl tert-butyl ether	1.37		1.00	1	03/09/2018 01:15	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 01:15	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 01:15	WG1082433
(S) Toluene-d8	103		80.0-120		03/09/2018 01:15	WG1082433
(S) Dibromofluoromethane	97.9		76.0-123		03/09/2018 01:15	WG1082433
(S) 4-Bromofluorobenzene	101		80.0-120		03/09/2018 01:15	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	44.2		10.0	10	03/09/2018 01:36	WG1082433
Toluene	75.2		10.0	10	03/09/2018 01:36	WG1082433
Ethylbenzene	ND		10.0	10	03/09/2018 01:36	WG1082433
Total Xylenes	38.4		30.0	10	03/09/2018 01:36	WG1082433
Methyl tert-butyl ether	ND		10.0	10	03/09/2018 01:36	WG1082433
Naphthalene	ND		50.0	10	03/09/2018 01:36	WG1082433
1,2-Dichloroethane	ND		10.0	10	03/09/2018 01:36	WG1082433
(S) Toluene-d8	105		80.0-120		03/09/2018 01:36	WG1082433
(S) Dibromofluoromethane	94.6		76.0-123		03/09/2018 01:36	WG1082433
(S) 4-Bromofluorobenzene	105		80.0-120		03/09/2018 01:36	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Sample Narrative:

L975693-25 WG1082433: Non-target compounds too high to run at a lower dilution.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 01:57	WG1082433
Toluene	ND		1.00	1	03/09/2018 01:57	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 01:57	WG1082433
Total Xylenes	ND		3.00	1	03/09/2018 01:57	WG1082433
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 01:57	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 01:57	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 01:57	WG1082433
(S) Toluene-d8	105		80.0-120		03/09/2018 01:57	WG1082433
(S) Dibromofluoromethane	97.2		76.0-123		03/09/2018 01:57	WG1082433
(S) 4-Bromofluorobenzene	102		80.0-120		03/09/2018 01:57	WG1082433

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 02:18	WG1082433
Toluene	ND		1.00	1	03/09/2018 02:18	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 02:18	WG1082433
Total Xylenes	ND		3.00	1	03/09/2018 02:18	WG1082433
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 02:18	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 02:18	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 02:18	WG1082433
(S) Toluene-d8	106		80.0-120		03/09/2018 02:18	WG1082433
(S) Dibromofluoromethane	97.9		76.0-123		03/09/2018 02:18	WG1082433
(S) 4-Bromofluorobenzene	102		80.0-120		03/09/2018 02:18	WG1082433

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	8830		50.0	50	03/09/2018 02:39	WG1082433
Toluene	20200		200	200	03/15/2018 04:48	WG1082433
Ethylbenzene	1110		50.0	50	03/09/2018 02:39	WG1082433
Total Xylenes	8220		150	50	03/09/2018 02:39	WG1082433
Methyl tert-butyl ether	960		50.0	50	03/09/2018 02:39	WG1082433
Naphthalene	ND		250	50	03/09/2018 02:39	WG1082433
1,2-Dichloroethane	ND		50.0	50	03/09/2018 02:39	WG1082433
(S) Toluene-d8	105		80.0-120		03/09/2018 02:39	WG1082433
(S) Toluene-d8	109		80.0-120		03/15/2018 04:48	WG1082433
(S) Dibromofluoromethane	95.5		76.0-123		03/09/2018 02:39	WG1082433
(S) Dibromofluoromethane	85.9		76.0-123		03/15/2018 04:48	WG1082433
(S) 4-Bromofluorobenzene	102		80.0-120		03/09/2018 02:39	WG1082433
(S) 4-Bromofluorobenzene	92.4		80.0-120		03/15/2018 04:48	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 03:00	WG1082433
Toluene	ND		1.00	1	03/09/2018 03:00	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 03:00	WG1082433
Total Xylenes	ND		3.00	1	03/09/2018 03:00	WG1082433
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 03:00	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 03:00	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 03:00	WG1082433
(S) Toluene-d8	104		80.0-120		03/09/2018 03:00	WG1082433
(S) Dibromofluoromethane	95.8		76.0-123		03/09/2018 03:00	WG1082433
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 03:00	WG1082433

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	8700		50.0	50	03/09/2018 03:21	WG1082433
Toluene	19400		200	200	03/15/2018 05:07	WG1082433
Ethylbenzene	1080		50.0	50	03/09/2018 03:21	WG1082433
Total Xylenes	7770		150	50	03/09/2018 03:21	WG1082433
Methyl tert-butyl ether	983		50.0	50	03/09/2018 03:21	WG1082433
Naphthalene	ND		250	50	03/09/2018 03:21	WG1082433
1,2-Dichloroethane	ND		50.0	50	03/09/2018 03:21	WG1082433
(S) Toluene-d8	111		80.0-120		03/15/2018 05:07	WG1082433
(S) Toluene-d8	106		80.0-120		03/09/2018 03:21	WG1082433
(S) Dibromofluoromethane	97.0		76.0-123		03/09/2018 03:21	WG1082433
(S) Dibromofluoromethane	84.8		76.0-123		03/15/2018 05:07	WG1082433
(S) 4-Bromofluorobenzene	91.8		80.0-120		03/15/2018 05:07	WG1082433
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 03:21	WG1082433

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/08/2018 16:43	WG1082115

Sample Narrative:

L975693-31 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	67400	<u>T8</u>	20000	1	03/08/2018 16:43	WG1082115

Sample Narrative:

L975693-31 WG1082115: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	3280		100	1	03/08/2018 21:57	WG1082093
Sulfate	69600		5000	1	03/08/2018 21:57	WG1082093

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/09/2018 11:37	WG1082294

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 03:42	WG1082433
Toluene	ND		1.00	1	03/09/2018 03:42	WG1082433
Ethylbenzene	ND		1.00	1	03/09/2018 03:42	WG1082433
Total Xylenes	ND		3.00	1	03/09/2018 03:42	WG1082433
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 03:42	WG1082433
Naphthalene	ND		5.00	1	03/09/2018 03:42	WG1082433
1,2-Dichloroethane	ND		1.00	1	03/09/2018 03:42	WG1082433
(S) Toluene-d8	106		80.0-120		03/09/2018 03:42	WG1082433
(S) Dibromofluoromethane	98.7		76.0-123		03/09/2018 03:42	WG1082433
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 03:42	WG1082433

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L975308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L975308-01 03/08/18 14:33 • (DUP) R3291856-1 03/08/18 14:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	136000	140000	1	2.32		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

L975768-06 Original Sample (OS) • Duplicate (DUP)

(OS) L975768-06 03/08/18 17:01 • (DUP) R3291856-9 03/08/18 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Alkalinity	ND	6550	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291856-7 03/08/18 15:42 • (LCSD) R3291856-8 03/08/18 16:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	98500	98600	98.5	98.6	85.0-115			0.112	20

Sample Narrative:

LCS: Endpoint pH 4.5
 LCSD: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L975308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L975308-01 03/08/18 14:33 • (DUP) R3291856-2 03/08/18 14:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

L975768-06 Original Sample (OS) • Duplicate (DUP)

(OS) L975768-06 03/08/18 17:01 • (DUP) R3291856-10 03/08/18 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	38100	40100	1	5.11		20

Sample Narrative:

OS: Endpoint pH 4.5
DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3291805-1 03/08/18 12:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L975690-03 Original Sample (OS) • Duplicate (DUP)

(OS) L975690-03 03/08/18 17:50 • (DUP) R3291805-4 03/08/18 18:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	U	0.000	1	0.000		15

L975693-31 Original Sample (OS) • Duplicate (DUP)

(OS) L975693-31 03/08/18 21:57 • (DUP) R3291805-7 03/08/18 22:12

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate	3280	3670	1	11.1		15
Sulfate	69600	70200	1	0.794		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291805-2 03/08/18 12:40 • (LCSD) R3291805-3 03/08/18 12:55

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Nitrate	8000	8410	8350	105	104	80.0-120			0.734	15
Sulfate	40000	40000	39700	100	99.3	80.0-120			0.806	15

L975690-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L975690-03 03/08/18 17:50 • (MS) R3291805-5 03/08/18 18:21 • (MSD) R3291805-6 03/08/18 18:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate	5000	U	4810	4850	96.3	97.0	1	80.0-120			0.784	15



L975693-31 Original Sample (OS) • Matrix Spike (MS)

(OS) L975693-31 03/08/18 21:57 • (MS) R3291805-8 03/08/18 22:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5000	3280	8570	106	1	80.0-120	
Sulfate	50000	69600	116000	93.3	1	80.0-120	E

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3291940-1 03/09/18 10:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		2.91	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L975682-06 Original Sample (OS) • Duplicate (DUP)

(OS) L975682-06 03/09/18 10:44 • (DUP) R3291940-2 03/09/18 11:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	U	0.000	1	0.000		20

L975693-31 Original Sample (OS) • Duplicate (DUP)

(OS) L975693-31 03/09/18 11:37 • (DUP) R3291940-3 03/09/18 11:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291940-4 03/09/18 11:56 • (LCSD) R3291940-5 03/09/18 11:59

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	68.2	72.3	101	107	85.0-115			5.92	20



Method Blank (MB)

(MB) R3292538-2 03/08/18 16:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	109			76.0-123
(S) 4-Bromofluorobenzene	108			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3292538-1 03/08/18 15:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	28.8	115	70.0-130	
1,2-Dichloroethane	25.0	28.0	112	70.0-130	
Ethylbenzene	25.0	28.0	112	70.0-130	
Methyl tert-butyl ether	25.0	29.3	117	70.0-130	
Naphthalene	25.0	20.0	80.1	70.0-130	
Toluene	25.0	27.1	108	70.0-130	
Xylenes, Total	75.0	82.9	111	70.0-130	
(S) Toluene-d8			102	80.0-120	
(S) Dibromofluoromethane			107	76.0-123	
(S) 4-Bromofluorobenzene			111	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3293119-4 03/13/18 18:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3293119-4 03/13/18 18:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Trichloroethene	U		0.398	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	101			80.0-120
(S) Dibromofluoromethane	101			76.0-123
(S) a,a,a-Trifluorotoluene	102			80.0-120
(S) 4-Bromofluorobenzene	95.9			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3293119-1 03/13/18 17:05 • (LCSD) R3293119-2 03/13/18 17:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	137	115	110	92.0	70.0-130			17.6	23.9
Benzene	25.0	22.9	22.8	91.4	91.3	70.0-130			0.165	20
Bromodichloromethane	25.0	26.8	27.1	107	108	70.0-130			0.796	20
Bromoform	25.0	25.0	25.3	99.9	101	70.0-130			1.18	20
Bromomethane	25.0	21.1	21.5	84.2	86.1	70.0-130			2.21	20
Carbon disulfide	25.0	20.7	20.8	83.0	83.1	70.0-130			0.112	20
Carbon tetrachloride	25.0	26.9	26.6	107	106	70.0-130			1.13	20
Chlorobenzene	25.0	23.5	22.9	93.9	91.6	70.0-130			2.43	20
Chlorodibromomethane	25.0	26.6	25.2	106	101	70.0-130			5.45	20
Chloroethane	25.0	19.4	20.0	77.6	79.8	70.0-130			2.81	20
Chloroform	25.0	28.1	27.8	112	111	70.0-130			0.924	20
Chloromethane	25.0	17.8	17.6	71.1	70.6	70.0-130			0.716	20
1,2-Dibromo-3-Chloropropane	25.0	27.4	27.7	110	111	70.0-130			0.946	20
1,2-Dibromoethane	25.0	26.3	25.8	105	103	70.0-130			2.11	20
1,2-Dichlorobenzene	25.0	23.3	22.7	93.0	90.7	70.0-130			2.55	20
1,3-Dichlorobenzene	25.0	21.2	21.8	84.9	87.2	70.0-130			2.69	20
1,4-Dichlorobenzene	25.0	23.1	22.6	92.3	90.6	70.0-130			1.91	20
1,1-Dichloroethane	25.0	22.4	22.0	89.5	87.9	70.0-130			1.78	20
1,2-Dichloroethane	25.0	27.7	26.9	111	108	70.0-130			3.11	20
1,1-Dichloroethene	25.0	22.5	22.6	90.2	90.5	70.0-130			0.352	20
cis-1,2-Dichloroethene	25.0	23.8	24.0	95.0	96.1	70.0-130			1.10	20
trans-1,2-Dichloroethene	25.0	23.3	23.5	93.1	94.1	70.0-130			1.04	20
1,2-Dichloropropane	25.0	20.4	20.5	81.7	82.0	70.0-130			0.354	20
cis-1,3-Dichloropropene	25.0	26.6	26.2	106	105	70.0-130			1.64	20
trans-1,3-Dichloropropene	25.0	27.7	26.8	111	107	70.0-130			3.45	20

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3293119-1 03/13/18 17:05 • (LCSD) R3293119-2 03/13/18 17:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Di-isopropyl ether	25.0	22.1	21.7	88.6	86.9	70.0-130			1.89	20
Ethylbenzene	25.0	24.8	24.2	99.1	97.0	70.0-130			2.15	20
2-Hexanone	125	109	103	87.2	82.5	70.0-130			5.62	20
2-Butanone (MEK)	125	104	94.1	83.2	75.3	70.0-130			9.97	20
Methylene Chloride	25.0	23.7	22.8	94.9	91.2	70.0-130			3.97	20
4-Methyl-2-pentanone (MIBK)	125	127	120	102	95.8	70.0-130			6.10	20
Methyl tert-butyl ether	25.0	26.5	24.4	106	97.6	70.0-130			8.18	20
Naphthalene	25.0	25.1	25.5	100	102	70.0-130			1.81	20
Styrene	25.0	20.9	21.5	83.5	85.8	70.0-130			2.74	20
1,1,2-Tetrachloroethane	25.0	22.7	21.8	90.7	87.2	70.0-130			3.94	20
Tetrachloroethene	25.0	23.1	22.6	92.5	90.5	70.0-130			2.19	20
Toluene	25.0	22.3	22.4	89.4	89.5	70.0-130			0.146	20
1,1,2-Trichlorotrifluoroethane	25.0	27.7	27.0	111	108	70.0-130			2.78	20
1,1,1-Trichloroethane	25.0	29.5	28.5	118	114	70.0-130			3.45	20
1,1,2-Trichloroethane	25.0	24.5	23.6	98.2	94.3	70.0-130			4.07	20
Trichloroethene	25.0	25.2	25.1	101	100	70.0-130			0.183	20
1,2,3-Trimethylbenzene	25.0	26.3	27.0	105	108	70.0-130			2.58	20
Vinyl chloride	25.0	20.7	20.7	82.6	82.8	70.0-130			0.237	20
Xylenes, Total	75.0	73.4	75.0	97.9	100	70.0-130			2.16	20
<i>(S) Toluene-d8</i>				103	101	80.0-120				
<i>(S) Dibromofluoromethane</i>				102	101	76.0-123				
<i>(S) a,a,a-Trifluorotoluene</i>				103	103	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				93.8	95.1	80.0-120				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3292764-2 03/08/18 22:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	107			80.0-120
(S) Dibromofluoromethane	96.0			76.0-123
(S) 4-Bromofluorobenzene	105			80.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292764-1 03/08/18 20:21 • (LCSD) R3292764-3 03/08/18 20:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	25.0	26.5	26.6	106	106	70.0-130			0.245	20
1,2-Dichloroethane	25.0	28.6	28.0	114	112	70.0-130			1.97	20
Ethylbenzene	25.0	26.2	26.2	105	105	70.0-130			0.219	20
Methyl tert-butyl ether	25.0	25.1	24.6	100	98.6	70.0-130			1.81	20
Naphthalene	25.0	26.4	26.3	106	105	70.0-130			0.249	20
Toluene	25.0	26.5	26.1	106	104	70.0-130			1.59	20
Xylenes, Total	75.0	80.6	78.3	107	104	70.0-130			2.89	20
(S) Toluene-d8				107	104	80.0-120				
(S) Dibromofluoromethane				96.9	98.2	76.0-123				
(S) 4-Bromofluorobenzene				103	106	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
T8	Sample(s) received past/too close to holding time expiration.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

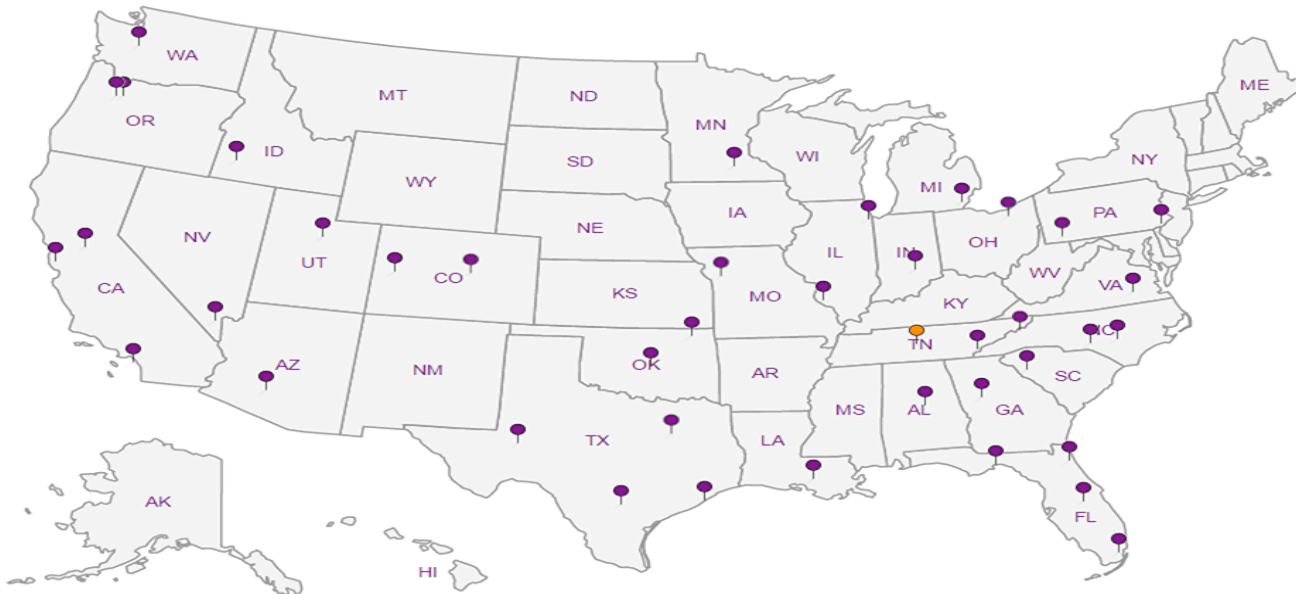
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



CH2M Hill- Kinder Morgan- Atlanta, GA

6600 Peachtree Dunwoody Road

Report to:
Bethany Garvey

Billing Information:
Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;
tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Groundwater**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
Fax:

Client Project #
699858.LD.MR.6W

Lab Project #
KINCH2MGA-LEWIS12

Collected by (print):
MELISSA WARREN

Site/Facility ID #
LEWIS DRIVE

P.O. #

Collected by (signature):
Melissa Warren

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
Date Results Needed

Immediately Packed on Ice N Y

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* NITRATE, SULFATE* 125mlHDPE-NoPres	ALK, CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENE	BTEX	1,2-DCA	V8260BTEXNSC-TB 10mlHDPE-HCl	Remarks	Sample # (lab only)
MW-13B-030718	GRAB	GW	NA	03/07/18	0935	3					X	X	X			-01
MW-14-030718		GW			0940	3					X	X	X			-02
MW-14B-030718		GW			0945	3					X	X	X			-03
TB01-030718		GW			0950	1					X	X	X	X		-04
MW-48B-030718		GW			1000	3					X	X	X			-05
MW-50B-030718		GW			1010	3					X	X	X			-06
MW-47-030718		GW			1020	3					X	X	X			-07
MW-31-030718		GW			1025	3					X	X	X			-08
MW-33T-030718		GW			1035	3					X	X	X			-09
MW-10-030718	✓	GW	✓	✓	1100	3	X	X	X	X	X	X	X	X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time:

Samples returned via:
UPS FedEX Courier

Tracking # **4269 9209 8543**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>Melissa Warren</i>	Date: 03/07/18	Time: 1730	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 1 <input checked="" type="checkbox"/> HCl / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.2 °C Bottles Received: 126
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Tom Wiley</i>	Date: 3/8/18 Time: 9:00

Analysis / Container / Preservative

Chain of Custody Page 1 of 9

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# **L975693**
D068
Acctnum: **KINCH2MGA**
Template: **T130277**
Prelogin: **P640853**
TSR: **526 - Chris McCord**
PB: **2-77186**
Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08
	-09
	-10

CH2M Hill- Kinder Morgan- Atlanta, GA

6600 Peachtree Dunwoody Road

Report to:
Bethany Garvey

Billing Information:
Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;
tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project
Description: **Lewis Drive Groundwater**

Phone: 770-604-9182
Fax:

Client Project #
699858, LD, MR, GW

Collected by (print):
MELISSA WARREN

Site/Facility ID #
LEWIS DRIVE

Collected by (signature):
Melissa Warren

Rush? (Lab MUST Be Notified)
Same Day ___ Five Day ___
Next Day ___ 5 Day (Rad Only) ___
Two Day ___ 10 Day (Rad Only) ___
Three Day ___

Immediately
Packed on Ice N Y ___

City/State Collected:
Lab Project # **KINCH2MGA-LEWIS12**
P.O. #
Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 4



L.A.B. S.C.I.E.N.C.E.S

a subsidiary of

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L975693**

Table #

Acctnum: **KINCH2MGA**

Template: **T130277**

Prelogin: **P640853**

TSR: **526 - Chris McCord**

PB: **2-27-18**

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Entrs	*NITRATE,SULFATE* 125mlHDPE-NoPres	ALK.CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	BTEX	NAPHTHALENE	1,2-DSA	Remarks	Sample # (lab only)
MW-02-030718	GRAB	GW	N/A	03/07/18	1230	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-11
MW-02B-030718		GW			1235	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-12
MW-32-030718		GW			1250	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-13
MW-03-030718		GW			1300	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-14
MW-30-030718		GW			1305	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-15
MW-04-030718		GW			1340	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-16
MW-05-030718		GW			1350	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-17
MW-06-030718		GW			1400	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-18
MW-06B-030718		GW			1405	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-19
MW-16-030718		GW			1430	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # **4269 9209 8543**

Sample Receipt Checklist
COC Seal Present/Intact: N
COC Signed/Accurate: N
Bottles arrive intact: N
Correct bottles used: N
Sufficient volume sent: N
If Applicable
VOA Zero Headspace: N
Preservation Correct/Checked: N

Relinquished by: (Signature) *Melissa Warren* Date: **03/07/18** Time: **1730**

Received by: (Signature) Trip Blank Received: No HDL/MeOH TBR

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Temp: **3.72** °C Bottles Received: **126**

Relinquished by: (Signature) Date: Time:

Received for lab by: (Signature) *[Signature]* Date: **3/8/18** Time: **9:00**

If preservation required by Login: Date/Time
Hold: Condition: NCF OK

CH2M Hill- Kinder Morgan- Atlanta, GA

6600 Peachtree Dunwoody Road

Report to:
Bethany Garvey

Project Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**
Fax:

Collected by (print):
MELISSA WARREN

Collected by (signature):
Melissa Warren

Immediately Packed on Ice Y N

Billing Information:
Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;
tom.wiley@ch2m.com; scott.powell@ch2m.com;

City/State Collected: **BELTON, SC**

Lab Project #
KINCH2MGA-LEWIS12

P.O. #

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

NITRATE,SULFATE 125mlHDPE-NoPres
ALK,CO2 125mlHDPE-NoPres
RSK175 40mlAmb HCl
V8260BTEXMNSC 40mlAmb-HCl
BTEX
NAPHTHALENE
1,2-DCA

Chain of Custody Page 3 of 4



A B S C I E N C E S

a subsidiary of

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **L975693**

Table #

Acctnum: **KINCH2MGA**

Template: **T130277**

Prelogin: **P640853**

TSR: **526 - Chris McCord**

PB: **2-27-186**

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NITRATE,SULFATE* 125mlHDPE-NoPres	ALK,CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	BTEX	NAPHTHALENE	1,2-DCA	Remarks	Sample # (lab only)
MW-08-030718	GRAB	GW	N/A	03/02/18	1450	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-21
MW-09-030718		GW			1500	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-22
MW-09D-030718		GW			1505	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-23
MW-09B-030718		GW			1515	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-24
MW-36-030718		GW			1520	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-25
MW-36B-030718		GW			1525	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-26
MW-21-030718		GW			1555	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-27
MW-17B-030718		GW			1600	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-28
FB01-030718		GW			1605	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-29
MW-17BD-030718		GW			1602	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-30

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
UPS _____ FedEx _____ Courier _____ Tracking # **4269 9209 8543**

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VQA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>Melissa Warren</i>	Date: 03/02/18	Time: 1730	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No 1 <input checked="" type="checkbox"/> MeOH TBR	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 33.2 °C Bottles Received: 126	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Tom Wiley</i>	Date: 3/8/18 Time: 9:00	

Hold: _____ Condition: NCF OK

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Groundwater**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project #
699858, LD.MR.GW

Lab Project #
KINCH2MGA-LEWIS12

Collected by (print):
MELISSA WARREN

Site/Facility ID #
LEWIS DRIVE

P.O. #

Collected by (signature):
Melissa Warren

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

Immediately Packed on Ice

Pres Chk	Analysis / Container / Preservative						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	* NITRATE,SULFATE* 125mlHDPE-NoPres	ALK,CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENUS	BTEX	1,2-DCA

Chain of Custody Page 4 of 4



LAB SCIENCES
 a subsidiary of *PerkinElmer*

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **L975693**

Table #

Acctnum: **KINCH2MGA**

Template: **T130277**

Prelogin: **P640853**

TSR: **526 - Chris McCord**

PB: **2-27-186**

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* NITRATE,SULFATE* 125mlHDPE-NoPres	ALK,CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENUS	BTEX	1,2-DCA	Remarks	Sample # (lab only)
MW-29-030718	GRAB	GW	NA	03/07/18	0855	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-31
MW-138-030718															
MW-14-030718															
MW-148-030718															

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **4269 9209 8543**

Sample Receipt Checklist:

COC Seal Present/Intact: NP N

COC Signed/Accurate: N N

Bottles arrive intact: N N

Correct bottles used: N N

Sufficient volume sent: N N

VOA Zero Headspace: N N

Preservation Correct/Checked: Y N

Relinquished by: (Signature) <i>Melissa Warren</i>	Date: 03/07/18	Time: 1730	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> No <input type="checkbox"/> HQ / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.3°C Bottles Received: 126
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 3/8/18 Time: 9:00 Hold: Condition: NCF OK

Andy Vann

From: Jason Romer
Sent: Monday, March 12, 2018 1:23 PM
To: Login; Due VOC
Cc: Chris McCord
Subject: L975693-14 - KINCH2MGA

Per client email, please cancel VOC analysis for MW-03-030718

Login - Please delete L975693-14 and scan a copy of the email with the COC.

Thanks,

✉ **Jason Romer**

Project Manager

ESC Lab Sciences-a subsidiary of Pace Analytical
12065 Lebanon Road | Mt. Juliet, TN 37122
800.767.5859 Ext. 9713 | Direct 615.773.9713
jromer@esclabsciences.com | www.esclabsciences.com

March 19, 2018

CH2M Hill- Kinder Morgan- Atlanta, GA

Sample Delivery Group: L976079
Samples Received: 03/09/2018
Project Number: 699858.LD.MR.GW
Description: Lewis Drive Groundwater
Site: LEWIS DRIVE
Report To: Bethany Garvey
6600 Peachtree Dunwoody Road
400 Embassy Row - Suite 600
Atlanta, GA 30328

Entire Report Reviewed By:



Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Ai⁹ Sc

SAMPLE SUMMARY



MW-07-030818 L976079-01 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 07:30
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	250	03/15/18 12:19	03/15/18 12:19	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	50	03/15/18 00:51	03/15/18 00:51	JAH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-03-030818 L976079-02 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 07:45
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 09:31	03/12/18 09:31	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 09:31	03/12/18 09:31	MCG
Wet Chemistry by Method 9056A	WG1082626	1	03/09/18 20:30	03/09/18 20:30	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 11:47	03/12/18 11:47	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 01:11	03/15/18 01:11	JAH

MW-15B-030818 L976079-03 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 08:30
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	25	03/15/18 01:30	03/15/18 01:30	JAH

MW-15-030818 L976079-04 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 08:35
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 09:38	03/12/18 09:38	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 09:38	03/12/18 09:38	MCG
Wet Chemistry by Method 9056A	WG1082626	1	03/09/18 20:43	03/09/18 20:43	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 11:49	03/12/18 11:49	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 01:50	03/15/18 01:50	JAH

MW-38-030818 L976079-05 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 08:50
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	5	03/15/18 02:09	03/15/18 02:09	JAH

MW-37-030818 L976079-06 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 08:55
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 16:58	03/09/18 16:58	AB

MW-43B-030818 L976079-07 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 09:10
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 17:17	03/09/18 17:17	AB

SAMPLE SUMMARY



MW-43-030818 L976079-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:15	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 17:37	03/09/18 17:37	AB

1 Cp

2 Tc

3 Ss

MW-24-030818 L976079-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:25	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 17:56	03/09/18 17:56	AB

4 Cn

5 Sr

MW-24B-030818 L976079-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:30	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 18:15	03/09/18 18:15	AB

6 Qc

7 Gl

FB01-030818 L976079-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:35	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 18:34	03/09/18 18:34	AB

8 Al

9 Sc

TB01-030818 L976079-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:37	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1084658	1	03/14/18 17:43	03/14/18 17:43	JAH

MW-34-030818 L976079-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 09:55	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 18:54	03/09/18 18:54	AB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	10	03/15/18 02:29	03/15/18 02:29	JAH

MW-39-030818 L976079-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 10:00	Received date/time 03/09/18 08:45
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 19:13	03/09/18 19:13	AB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	5	03/15/18 02:49	03/15/18 02:49	JAH

MW-40-030818 L976079-15 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Collected by Melissa Warren				Collected date/time 03/08/18 10:15	Received date/time 03/09/18 08:45
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 09:44	03/12/18 09:44	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 09:44	03/12/18 09:44	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 12:32	03/09/18 12:32	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 11:52	03/12/18 11:52	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	250	03/15/18 12:38	03/15/18 12:38	LRL

SAMPLE SUMMARY



MW-40-030818 L976079-15 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:15
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	50	03/15/18 03:09	03/15/18 03:09	JAH

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

MW-41-030818 L976079-16 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:20
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 03:29	03/15/18 03:29	JAH

MW-42-030818 L976079-17 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:30
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 09:49	03/12/18 09:49	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 09:49	03/12/18 09:49	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 12:48	03/09/18 12:48	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 12:12	03/12/18 12:12	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 03:49	03/15/18 03:49	JAH

MW-25-030818 L976079-18 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:40
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 09:55	03/12/18 09:55	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 09:55	03/12/18 09:55	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 13:49	03/09/18 13:49	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 12:15	03/12/18 12:15	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 04:08	03/15/18 04:08	JAH

MW-25B-030818 L976079-19 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:45
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/15/18 04:28	03/15/18 04:28	JAH

MW-35-030818 L976079-20 GW

Collected by
Melissa Warren
Collected date/time
03/08/18 10:55
Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 10:00	03/12/18 10:00	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 10:00	03/12/18 10:00	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 14:35	03/09/18 14:35	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 12:18	03/12/18 12:18	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082735	1	03/09/18 21:08	03/09/18 21:08	AB

SAMPLE SUMMARY



MW-49-030818 L976079-21 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 12:05

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 01:22	03/10/18 01:22	ACE

1 Cp

2 Tc

3 Ss

MW-28-030818 L976079-22 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 12:10

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 01:41	03/10/18 01:41	ACE

4 Cn

5 Sr

MW-12B-030818 L976079-23 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 12:25

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 02:00	03/10/18 02:00	ACE

6 Qc

7 Gl

MW-12-030818 L976079-24 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 12:30

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 10:13	03/12/18 10:13	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 10:13	03/12/18 10:13	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 14:51	03/09/18 14:51	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083421	1	03/12/18 12:21	03/12/18 12:21	BG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	10	03/10/18 02:20	03/10/18 02:20	ACE

8 Al

9 Sc

MW-27-030818 L976079-25 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:00

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 02:39	03/10/18 02:39	ACE

MW-27B-030818 L976079-26 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:05

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 02:58	03/10/18 02:58	ACE

MW-01-030818 L976079-27 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:20

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 2320 B-2011	WG1083076	1	03/12/18 10:19	03/12/18 10:19	MCG
Wet Chemistry by Method 4500CO2 D-2011	WG1083076	1	03/12/18 10:19	03/12/18 10:19	MCG
Wet Chemistry by Method 9056A	WG1082627	1	03/09/18 15:06	03/09/18 15:06	MAJ
Volatile Organic Compounds (GC) by Method RSK175	WG1083671	1	03/13/18 10:46	03/13/18 10:46	AMC
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 03:17	03/10/18 03:17	ACE

SAMPLE SUMMARY



MW-01B-030818 L976079-28 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:30

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 03:36	03/10/18 03:36	ACE

1 Cp

2 Tc

3 Ss

MW-27BD-030818 L976079-29 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:07

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 03:55	03/10/18 03:55	ACE

4 Cn

5 Sr

MW-44-030818 L976079-30 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:35

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 04:14	03/10/18 04:14	ACE

6 Qc

7 Gl

MW-44D-030818 L976079-31 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:40

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 04:33	03/10/18 04:33	ACE

8 Al

9 Sc

MW-44B-030818 L976079-32 GW

Collected by
Melissa Warren

Collected date/time
03/08/18 13:45

Received date/time
03/09/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1082917	1	03/10/18 04:53	03/10/18 04:53	ACE



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	4550		50.0	50	03/15/2018 00:51	WG1082735
Toluene	14100		250	250	03/15/2018 12:19	WG1082735
Ethylbenzene	802		50.0	50	03/15/2018 00:51	WG1082735
Total Xylenes	7520		150	50	03/15/2018 00:51	WG1082735
Methyl tert-butyl ether	ND		50.0	50	03/15/2018 00:51	WG1082735
Naphthalene	ND		250	50	03/15/2018 00:51	WG1082735
1,2-Dichloroethane	ND		50.0	50	03/15/2018 00:51	WG1082735
(S) Toluene-d8	104		80.0-120		03/15/2018 00:51	WG1082735
(S) Toluene-d8	106		80.0-120		03/15/2018 12:19	WG1082735
(S) Dibromofluoromethane	84.9		76.0-123		03/15/2018 00:51	WG1082735
(S) Dibromofluoromethane	97.1		76.0-123		03/15/2018 12:19	WG1082735
(S) 4-Bromofluorobenzene	96.8		80.0-120		03/15/2018 00:51	WG1082735
(S) 4-Bromofluorobenzene	99.9		80.0-120		03/15/2018 12:19	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 09:31	WG1083076

Sample Narrative:

L976079-02 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/12/2018 09:31	WG1083076

Sample Narrative:

L976079-02 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	497		100	1	03/09/2018 20:30	WG1082626
Sulfate	ND		5000	1	03/09/2018 20:30	WG1082626

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/12/2018 11:47	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/15/2018 01:11	WG1082735
Toluene	ND		1.00	1	03/15/2018 01:11	WG1082735
Ethylbenzene	ND		1.00	1	03/15/2018 01:11	WG1082735
Total Xylenes	ND		3.00	1	03/15/2018 01:11	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/15/2018 01:11	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 01:11	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 01:11	WG1082735
(S) Toluene-d8	110		80.0-120		03/15/2018 01:11	WG1082735
(S) Dibromofluoromethane	87.0		76.0-123		03/15/2018 01:11	WG1082735
(S) 4-Bromofluorobenzene	95.5		80.0-120		03/15/2018 01:11	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1290		25.0	25	03/15/2018 01:30	WG1082735
Toluene	3140		25.0	25	03/15/2018 01:30	WG1082735
Ethylbenzene	151		25.0	25	03/15/2018 01:30	WG1082735
Total Xylenes	1070		75.0	25	03/15/2018 01:30	WG1082735
Methyl tert-butyl ether	93.2		25.0	25	03/15/2018 01:30	WG1082735
Naphthalene	ND		125	25	03/15/2018 01:30	WG1082735
1,2-Dichloroethane	ND		25.0	25	03/15/2018 01:30	WG1082735
(S) Toluene-d8	106		80.0-120		03/15/2018 01:30	WG1082735
(S) Dibromofluoromethane	88.3		76.0-123		03/15/2018 01:30	WG1082735
(S) 4-Bromofluorobenzene	96.4		80.0-120		03/15/2018 01:30	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 09:38	WG1083076

Sample Narrative:

L976079-04 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	<u>T8</u>	20000	1	03/12/2018 09:38	WG1083076

Sample Narrative:

L976079-04 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	1080		100	1	03/09/2018 20:43	WG1082626
Sulfate	ND		5000	1	03/09/2018 20:43	WG1082626

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/12/2018 11:49	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	53.1		1.00	1	03/15/2018 01:50	WG1082735
Toluene	89.9		1.00	1	03/15/2018 01:50	WG1082735
Ethylbenzene	2.75		1.00	1	03/15/2018 01:50	WG1082735
Total Xylenes	53.1		3.00	1	03/15/2018 01:50	WG1082735
Methyl tert-butyl ether	85.0		1.00	1	03/15/2018 01:50	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 01:50	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 01:50	WG1082735
(S) Toluene-d8	106		80.0-120		03/15/2018 01:50	WG1082735
(S) Dibromofluoromethane	85.6		76.0-123		03/15/2018 01:50	WG1082735
(S) 4-Bromofluorobenzene	93.3		80.0-120		03/15/2018 01:50	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	364		5.00	5	03/15/2018 02:09	WG1082735
Toluene	ND		5.00	5	03/15/2018 02:09	WG1082735
Ethylbenzene	ND		5.00	5	03/15/2018 02:09	WG1082735
Total Xylenes	202		15.0	5	03/15/2018 02:09	WG1082735
Methyl tert-butyl ether	54.8		5.00	5	03/15/2018 02:09	WG1082735
Naphthalene	ND		25.0	5	03/15/2018 02:09	WG1082735
1,2-Dichloroethane	ND		5.00	5	03/15/2018 02:09	WG1082735
(S) Toluene-d8	108		80.0-120		03/15/2018 02:09	WG1082735
(S) Dibromofluoromethane	83.1		76.0-123		03/15/2018 02:09	WG1082735
(S) 4-Bromofluorobenzene	94.6		80.0-120		03/15/2018 02:09	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 16:58	WG1082735
Toluene	ND		1.00	1	03/09/2018 16:58	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 16:58	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 16:58	WG1082735
Methyl tert-butyl ether	3.71		1.00	1	03/09/2018 16:58	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 16:58	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 16:58	WG1082735
(S) Toluene-d8	104		80.0-120		03/09/2018 16:58	WG1082735
(S) Dibromofluoromethane	94.5		76.0-123		03/09/2018 16:58	WG1082735
(S) 4-Bromofluorobenzene	101		80.0-120		03/09/2018 16:58	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 17:17	WG1082735
Toluene	ND		1.00	1	03/09/2018 17:17	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 17:17	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 17:17	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 17:17	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 17:17	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 17:17	WG1082735
(S) Toluene-d8	110		80.0-120		03/09/2018 17:17	WG1082735
(S) Dibromofluoromethane	94.9		76.0-123		03/09/2018 17:17	WG1082735
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 17:17	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 17:37	WG1082735
Toluene	ND		1.00	1	03/09/2018 17:37	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 17:37	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 17:37	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 17:37	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 17:37	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 17:37	WG1082735
(S) Toluene-d8	106		80.0-120		03/09/2018 17:37	WG1082735
(S) Dibromofluoromethane	93.6		76.0-123		03/09/2018 17:37	WG1082735
(S) 4-Bromofluorobenzene	103		80.0-120		03/09/2018 17:37	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 17:56	WG1082735
Toluene	ND		1.00	1	03/09/2018 17:56	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 17:56	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 17:56	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 17:56	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 17:56	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 17:56	WG1082735
(S) Toluene-d8	104		80.0-120		03/09/2018 17:56	WG1082735
(S) Dibromofluoromethane	96.2		76.0-123		03/09/2018 17:56	WG1082735
(S) 4-Bromofluorobenzene	101		80.0-120		03/09/2018 17:56	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 18:15	WG1082735
Toluene	ND		1.00	1	03/09/2018 18:15	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 18:15	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 18:15	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 18:15	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 18:15	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 18:15	WG1082735
(S) Toluene-d8	106		80.0-120		03/09/2018 18:15	WG1082735
(S) Dibromofluoromethane	92.6		76.0-123		03/09/2018 18:15	WG1082735
(S) 4-Bromofluorobenzene	107		80.0-120		03/09/2018 18:15	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 18:34	WG1082735
Toluene	ND		1.00	1	03/09/2018 18:34	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 18:34	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 18:34	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 18:34	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 18:34	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 18:34	WG1082735
(S) Toluene-d8	104		80.0-120		03/09/2018 18:34	WG1082735
(S) Dibromofluoromethane	92.2		76.0-123		03/09/2018 18:34	WG1082735
(S) 4-Bromofluorobenzene	101		80.0-120		03/09/2018 18:34	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	03/14/2018 17:43	WG1084658
Benzene	ND		1.00	1	03/14/2018 17:43	WG1084658
Bromodichloromethane	ND		1.00	1	03/14/2018 17:43	WG1084658
Bromoform	ND		1.00	1	03/14/2018 17:43	WG1084658
Bromomethane	ND		5.00	1	03/14/2018 17:43	WG1084658
Carbon disulfide	ND		1.00	1	03/14/2018 17:43	WG1084658
Carbon tetrachloride	ND		1.00	1	03/14/2018 17:43	WG1084658
Chlorobenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
Chlorodibromomethane	ND		1.00	1	03/14/2018 17:43	WG1084658
Chloroethane	ND		5.00	1	03/14/2018 17:43	WG1084658
Chloroform	ND		5.00	1	03/14/2018 17:43	WG1084658
Chloromethane	ND		2.50	1	03/14/2018 17:43	WG1084658
1,2-Dibromo-3-Chloropropane	ND		5.00	1	03/14/2018 17:43	WG1084658
1,2-Dibromoethane	ND		1.00	1	03/14/2018 17:43	WG1084658
1,2-Dichlorobenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,3-Dichlorobenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,4-Dichlorobenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,1-Dichloroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
1,2-Dichloroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
1,1-Dichloroethene	ND		1.00	1	03/14/2018 17:43	WG1084658
cis-1,2-Dichloroethene	ND		1.00	1	03/14/2018 17:43	WG1084658
trans-1,2-Dichloroethene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,2-Dichloropropane	ND		1.00	1	03/14/2018 17:43	WG1084658
cis-1,3-Dichloropropene	ND		1.00	1	03/14/2018 17:43	WG1084658
trans-1,3-Dichloropropene	ND		1.00	1	03/14/2018 17:43	WG1084658
Di-isopropyl ether	ND		1.00	1	03/14/2018 17:43	WG1084658
Ethylbenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
2-Butanone (MEK)	ND		10.0	1	03/14/2018 17:43	WG1084658
2-Hexanone	ND		10.0	1	03/14/2018 17:43	WG1084658
Methylene Chloride	ND		5.00	1	03/14/2018 17:43	WG1084658
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	03/14/2018 17:43	WG1084658
Methyl tert-butyl ether	ND		1.00	1	03/14/2018 17:43	WG1084658
Naphthalene	ND		5.00	1	03/14/2018 17:43	WG1084658
Styrene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,1,2,2-Tetrachloroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
Tetrachloroethene	ND		1.00	1	03/14/2018 17:43	WG1084658
Toluene	ND		1.00	1	03/14/2018 17:43	WG1084658
1,1,1-Trichloroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
1,1,2-Trichloroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
Trichloroethene	ND		1.00	1	03/14/2018 17:43	WG1084658
Vinyl chloride	ND		1.00	1	03/14/2018 17:43	WG1084658
Xylenes, Total	ND		3.00	1	03/14/2018 17:43	WG1084658
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	03/14/2018 17:43	WG1084658
1,2,3-Trimethylbenzene	ND		1.00	1	03/14/2018 17:43	WG1084658
(S) Toluene-d8	105		80.0-120		03/14/2018 17:43	WG1084658
(S) Dibromofluoromethane	83.0		76.0-123		03/14/2018 17:43	WG1084658
(S) a,a,a-Trifluorotoluene	99.5		80.0-120		03/14/2018 17:43	WG1084658
(S) 4-Bromofluorobenzene	102		80.0-120		03/14/2018 17:43	WG1084658

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	696		10.0	10	03/15/2018 02:29	WG1082735
Toluene	51.6		1.00	1	03/09/2018 18:54	WG1082735
Ethylbenzene	7.35		1.00	1	03/09/2018 18:54	WG1082735
Total Xylenes	180		3.00	1	03/09/2018 18:54	WG1082735
Methyl tert-butyl ether	229		10.0	10	03/15/2018 02:29	WG1082735
Naphthalene	5.84		5.00	1	03/09/2018 18:54	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 18:54	WG1082735
(S) Toluene-d8	110		80.0-120		03/15/2018 02:29	WG1082735
(S) Toluene-d8	104		80.0-120		03/09/2018 18:54	WG1082735
(S) Dibromofluoromethane	84.7		76.0-123		03/15/2018 02:29	WG1082735
(S) Dibromofluoromethane	103		76.0-123		03/09/2018 18:54	WG1082735
(S) 4-Bromofluorobenzene	101		80.0-120		03/09/2018 18:54	WG1082735
(S) 4-Bromofluorobenzene	95.4		80.0-120		03/15/2018 02:29	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 19:13	WG1082735
Toluene	ND		1.00	1	03/09/2018 19:13	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 19:13	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 19:13	WG1082735
Methyl tert-butyl ether	304		5.00	5	03/15/2018 02:49	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 19:13	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 19:13	WG1082735
(S) Toluene-d8	107		80.0-120		03/09/2018 19:13	WG1082735
(S) Toluene-d8	108		80.0-120		03/15/2018 02:49	WG1082735
(S) Dibromofluoromethane	95.4		76.0-123		03/09/2018 19:13	WG1082735
(S) Dibromofluoromethane	87.5		76.0-123		03/15/2018 02:49	WG1082735
(S) 4-Bromofluorobenzene	92.6		80.0-120		03/15/2018 02:49	WG1082735
(S) 4-Bromofluorobenzene	102		80.0-120		03/09/2018 19:13	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	28100		20000	1	03/12/2018 09:44	WG1083076

Sample Narrative:

L976079-15 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	49500	<u>T8</u>	20000	1	03/12/2018 09:44	WG1083076

Sample Narrative:

L976079-15 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/09/2018 12:32	WG1082627
Sulfate	ND		5000	1	03/09/2018 12:32	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	29.0		10.0	1	03/12/2018 11:52	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	8450		50.0	50	03/15/2018 03:09	WG1082735
Toluene	14500		250	250	03/15/2018 12:38	WG1082735
Ethylbenzene	498		50.0	50	03/15/2018 03:09	WG1082735
Total Xylenes	7580		150	50	03/15/2018 03:09	WG1082735
Methyl tert-butyl ether	337		50.0	50	03/15/2018 03:09	WG1082735
Naphthalene	ND		250	50	03/15/2018 03:09	WG1082735
1,2-Dichloroethane	ND		50.0	50	03/15/2018 03:09	WG1082735
(S) Toluene-d8	109		80.0-120		03/15/2018 12:38	WG1082735
(S) Toluene-d8	110		80.0-120		03/15/2018 03:09	WG1082735
(S) Dibromofluoromethane	95.1		76.0-123		03/15/2018 12:38	WG1082735
(S) Dibromofluoromethane	81.4		76.0-123		03/15/2018 03:09	WG1082735
(S) 4-Bromofluorobenzene	96.8		80.0-120		03/15/2018 03:09	WG1082735
(S) 4-Bromofluorobenzene	101		80.0-120		03/15/2018 12:38	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/15/2018 03:29	WG1082735
Toluene	ND		1.00	1	03/15/2018 03:29	WG1082735
Ethylbenzene	ND		1.00	1	03/15/2018 03:29	WG1082735
Total Xylenes	ND		3.00	1	03/15/2018 03:29	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/15/2018 03:29	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 03:29	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 03:29	WG1082735
(S) Toluene-d8	105		80.0-120		03/15/2018 03:29	WG1082735
(S) Dibromofluoromethane	88.8		76.0-123		03/15/2018 03:29	WG1082735
(S) 4-Bromofluorobenzene	93.5		80.0-120		03/15/2018 03:29	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 09:49	WG1083076

Sample Narrative:

L976079-17 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	27300	<u>T8</u>	20000	1	03/12/2018 09:49	WG1083076

Sample Narrative:

L976079-17 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	510	<u>J3</u>	100	1	03/09/2018 12:48	WG1082627
Sulfate	ND		5000	1	03/09/2018 12:48	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	30.4		10.0	1	03/12/2018 12:12	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.02		1.00	1	03/15/2018 03:49	WG1082735
Toluene	ND		1.00	1	03/15/2018 03:49	WG1082735
Ethylbenzene	ND		1.00	1	03/15/2018 03:49	WG1082735
Total Xylenes	ND		3.00	1	03/15/2018 03:49	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/15/2018 03:49	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 03:49	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 03:49	WG1082735
(S) Toluene-d8	112		80.0-120		03/15/2018 03:49	WG1082735
(S) Dibromofluoromethane	85.4		76.0-123		03/15/2018 03:49	WG1082735
(S) 4-Bromofluorobenzene	92.6		80.0-120		03/15/2018 03:49	WG1082735

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 09:55	WG1083076

Sample Narrative:

L976079-18 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	45000	<u>T8</u>	20000	1	03/12/2018 09:55	WG1083076

Sample Narrative:

L976079-18 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/09/2018 13:49	WG1082627
Sulfate	ND		5000	1	03/09/2018 13:49	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/12/2018 12:15	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/15/2018 04:08	WG1082735
Toluene	ND		1.00	1	03/15/2018 04:08	WG1082735
Ethylbenzene	ND		1.00	1	03/15/2018 04:08	WG1082735
Total Xylenes	ND		3.00	1	03/15/2018 04:08	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/15/2018 04:08	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 04:08	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 04:08	WG1082735
(S) Toluene-d8	110		80.0-120		03/15/2018 04:08	WG1082735
(S) Dibromofluoromethane	85.5		76.0-123		03/15/2018 04:08	WG1082735
(S) 4-Bromofluorobenzene	94.1		80.0-120		03/15/2018 04:08	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/15/2018 04:28	WG1082735
Toluene	ND		1.00	1	03/15/2018 04:28	WG1082735
Ethylbenzene	ND		1.00	1	03/15/2018 04:28	WG1082735
Total Xylenes	ND		3.00	1	03/15/2018 04:28	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/15/2018 04:28	WG1082735
Naphthalene	ND		5.00	1	03/15/2018 04:28	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/15/2018 04:28	WG1082735
(S) Toluene-d8	111		80.0-120		03/15/2018 04:28	WG1082735
(S) Dibromofluoromethane	85.5		76.0-123		03/15/2018 04:28	WG1082735
(S) 4-Bromofluorobenzene	94.5		80.0-120		03/15/2018 04:28	WG1082735

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 10:00	WG1083076

Sample Narrative:

L976079-20 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	45300	<u>T8</u>	20000	1	03/12/2018 10:00	WG1083076

Sample Narrative:

L976079-20 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	643		100	1	03/09/2018 14:35	WG1082627
Sulfate	ND		5000	1	03/09/2018 14:35	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/12/2018 12:18	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/09/2018 21:08	WG1082735
Toluene	ND		1.00	1	03/09/2018 21:08	WG1082735
Ethylbenzene	ND		1.00	1	03/09/2018 21:08	WG1082735
Total Xylenes	ND		3.00	1	03/09/2018 21:08	WG1082735
Methyl tert-butyl ether	ND		1.00	1	03/09/2018 21:08	WG1082735
Naphthalene	ND		5.00	1	03/09/2018 21:08	WG1082735
1,2-Dichloroethane	ND		1.00	1	03/09/2018 21:08	WG1082735
(S) Toluene-d8	105		80.0-120		03/09/2018 21:08	WG1082735
(S) Dibromofluoromethane	95.3		76.0-123		03/09/2018 21:08	WG1082735
(S) 4-Bromofluorobenzene	104		80.0-120		03/09/2018 21:08	WG1082735

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 01:22	WG1082917
Toluene	ND		1.00	1	03/10/2018 01:22	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 01:22	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 01:22	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 01:22	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 01:22	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 01:22	WG1082917
(S) Toluene-d8	103		80.0-120		03/10/2018 01:22	WG1082917
(S) Dibromofluoromethane	94.3		76.0-123		03/10/2018 01:22	WG1082917
(S) 4-Bromofluorobenzene	102		80.0-120		03/10/2018 01:22	WG1082917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	10.1		1.00	1	03/10/2018 01:41	WG1082917
Toluene	5.27		1.00	1	03/10/2018 01:41	WG1082917
Ethylbenzene	9.92		1.00	1	03/10/2018 01:41	WG1082917
Total Xylenes	21.2		3.00	1	03/10/2018 01:41	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 01:41	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 01:41	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 01:41	WG1082917
(S) Toluene-d8	106		80.0-120		03/10/2018 01:41	WG1082917
(S) Dibromofluoromethane	95.6		76.0-123		03/10/2018 01:41	WG1082917
(S) 4-Bromofluorobenzene	89.6		80.0-120		03/10/2018 01:41	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	3.60		1.00	1	03/10/2018 02:00	WG1082917
Toluene	ND		1.00	1	03/10/2018 02:00	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 02:00	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 02:00	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 02:00	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 02:00	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 02:00	WG1082917
(S) Toluene-d8	97.5		80.0-120		03/10/2018 02:00	WG1082917
(S) Dibromofluoromethane	105		76.0-123		03/10/2018 02:00	WG1082917
(S) 4-Bromofluorobenzene	101		80.0-120		03/10/2018 02:00	WG1082917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	26000		20000	1	03/12/2018 10:13	WG1083076

Sample Narrative:

L976079-24 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	21900	<u>T8</u>	20000	1	03/12/2018 10:13	WG1083076

Sample Narrative:

L976079-24 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/09/2018 14:51	WG1082627
Sulfate	ND		5000	1	03/09/2018 14:51	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		10.0	1	03/12/2018 12:21	WG1083421

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	486		10.0	10	03/10/2018 02:20	WG1082917
Toluene	1880		10.0	10	03/10/2018 02:20	WG1082917
Ethylbenzene	25.2		10.0	10	03/10/2018 02:20	WG1082917
Total Xylenes	1980		30.0	10	03/10/2018 02:20	WG1082917
Methyl tert-butyl ether	ND		10.0	10	03/10/2018 02:20	WG1082917
Naphthalene	ND		50.0	10	03/10/2018 02:20	WG1082917
1,2-Dichloroethane	ND		10.0	10	03/10/2018 02:20	WG1082917
(S) Toluene-d8	98.1		80.0-120		03/10/2018 02:20	WG1082917
(S) Dibromofluoromethane	106		76.0-123		03/10/2018 02:20	WG1082917
(S) 4-Bromofluorobenzene	105		80.0-120		03/10/2018 02:20	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	14.5		1.00	1	03/10/2018 02:39	WG1082917
Toluene	62.3		1.00	1	03/10/2018 02:39	WG1082917
Ethylbenzene	29.7		1.00	1	03/10/2018 02:39	WG1082917
Total Xylenes	227		3.00	1	03/10/2018 02:39	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 02:39	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 02:39	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 02:39	WG1082917
(S) Toluene-d8	99.1		80.0-120		03/10/2018 02:39	WG1082917
(S) Dibromofluoromethane	86.3		76.0-123		03/10/2018 02:39	WG1082917
(S) 4-Bromofluorobenzene	117		80.0-120		03/10/2018 02:39	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 02:58	WG1082917
Toluene	6.82		1.00	1	03/10/2018 02:58	WG1082917
Ethylbenzene	3.44		1.00	1	03/10/2018 02:58	WG1082917
Total Xylenes	28.8		3.00	1	03/10/2018 02:58	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 02:58	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 02:58	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 02:58	WG1082917
(S) Toluene-d8	101		80.0-120		03/10/2018 02:58	WG1082917
(S) Dibromofluoromethane	101		76.0-123		03/10/2018 02:58	WG1082917
(S) 4-Bromofluorobenzene	96.5		80.0-120		03/10/2018 02:58	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Wet Chemistry by Method 2320 B-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	ND		20000	1	03/12/2018 10:19	WG1083076

Sample Narrative:

L976079-27 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	35300	<u>T8</u>	20000	1	03/12/2018 10:19	WG1083076

Sample Narrative:

L976079-27 WG1083076: Endpoint pH 4.5

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate as (N)	ND		100	1	03/09/2018 15:06	WG1082627
Sulfate	ND		5000	1	03/09/2018 15:06	WG1082627

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	14.5		10.0	1	03/13/2018 10:46	WG1083671

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	1.85		1.00	1	03/10/2018 03:17	WG1082917
Toluene	ND		1.00	1	03/10/2018 03:17	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 03:17	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 03:17	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 03:17	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 03:17	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 03:17	WG1082917
(S) Toluene-d8	102		80.0-120		03/10/2018 03:17	WG1082917
(S) Dibromofluoromethane	99.6		76.0-123		03/10/2018 03:17	WG1082917
(S) 4-Bromofluorobenzene	105		80.0-120		03/10/2018 03:17	WG1082917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	3.51		1.00	1	03/10/2018 03:36	WG1082917
Toluene	ND		1.00	1	03/10/2018 03:36	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 03:36	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 03:36	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 03:36	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 03:36	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 03:36	WG1082917
(S) Toluene-d8	97.8		80.0-120		03/10/2018 03:36	WG1082917
(S) Dibromofluoromethane	93.2		76.0-123		03/10/2018 03:36	WG1082917
(S) 4-Bromofluorobenzene	105		80.0-120		03/10/2018 03:36	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 03:55	WG1082917
Toluene	7.97		1.00	1	03/10/2018 03:55	WG1082917
Ethylbenzene	4.02		1.00	1	03/10/2018 03:55	WG1082917
Total Xylenes	30.7		3.00	1	03/10/2018 03:55	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 03:55	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 03:55	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 03:55	WG1082917
(S) Toluene-d8	129	J1	80.0-120		03/10/2018 03:55	WG1082917
(S) Dibromofluoromethane	97.5		76.0-123		03/10/2018 03:55	WG1082917
(S) 4-Bromofluorobenzene	88.6		80.0-120		03/10/2018 03:55	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 04:14	WG1082917
Toluene	ND		1.00	1	03/10/2018 04:14	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 04:14	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 04:14	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 04:14	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 04:14	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 04:14	WG1082917
(S) Toluene-d8	98.3		80.0-120		03/10/2018 04:14	WG1082917
(S) Dibromofluoromethane	100		76.0-123		03/10/2018 04:14	WG1082917
(S) 4-Bromofluorobenzene	110		80.0-120		03/10/2018 04:14	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 04:33	WG1082917
Toluene	ND		1.00	1	03/10/2018 04:33	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 04:33	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 04:33	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 04:33	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 04:33	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 04:33	WG1082917
(S) Toluene-d8	101		80.0-120		03/10/2018 04:33	WG1082917
(S) Dibromofluoromethane	92.1		76.0-123		03/10/2018 04:33	WG1082917
(S) 4-Bromofluorobenzene	106		80.0-120		03/10/2018 04:33	WG1082917

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	03/10/2018 04:53	WG1082917
Toluene	ND		1.00	1	03/10/2018 04:53	WG1082917
Ethylbenzene	ND		1.00	1	03/10/2018 04:53	WG1082917
Total Xylenes	ND		3.00	1	03/10/2018 04:53	WG1082917
Methyl tert-butyl ether	ND		1.00	1	03/10/2018 04:53	WG1082917
Naphthalene	ND		5.00	1	03/10/2018 04:53	WG1082917
1,2-Dichloroethane	ND		1.00	1	03/10/2018 04:53	WG1082917
(S) Toluene-d8	108		80.0-120		03/10/2018 04:53	WG1082917
(S) Dibromofluoromethane	96.5		76.0-123		03/10/2018 04:53	WG1082917
(S) 4-Bromofluorobenzene	107		80.0-120		03/10/2018 04:53	WG1082917

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L976094-01 Original Sample (OS) • Duplicate (DUP)

(OS) L976094-01 03/12/18 09:04 • (DUP) R3292406-1 03/12/18 09:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	113000	114000	1	1.23		20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L976002-02 Original Sample (OS) • Duplicate (DUP)

(OS) L976002-02 03/12/18 11:26 • (DUP) R3292406-5 03/12/18 11:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	ug/l	ug/l	%			
Alkalinity	8130	6420	1	23.5	J P1	20

Sample Narrative:

OS: Endpoint pH 4.5
 DUP: Endpoint pH 4.5

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292406-3 03/12/18 10:06 • (LCSD) R3292406-4 03/12/18 11:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Alkalinity	ug/l	ug/l	ug/l	%	%	%			%	%
Alkalinity	100000	96300	97600	96.3	97.6	85.0-115			1.30	20

Sample Narrative:

LCS: Endpoint pH 4.5
 LCSD: Endpoint pH 4.5



L976094-01 Original Sample (OS) • Duplicate (DUP)

(OS) L976094-01 03/12/18 09:04 • (DUP) R3292406-2 03/12/18 09:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	ug/l	ug/l	%			
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L976002-02 Original Sample (OS) • Duplicate (DUP)

(OS) L976002-02 03/12/18 11:26 • (DUP) R3292406-6 03/12/18 11:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Free Carbon Dioxide	ug/l	ug/l	%			
Free Carbon Dioxide	U	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3292164-1 03/09/18 11:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L976070-02 Original Sample (OS) • Duplicate (DUP)

(OS) L976070-02 03/09/18 15:35 • (DUP) R3292164-4 03/09/18 16:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Nitrate	U	0.000	1	0.000		15
Sulfate	3950	3900	1	1.32	J	15

L976080-01 Original Sample (OS) • Duplicate (DUP)

(OS) L976080-01 03/09/18 20:57 • (DUP) R3292164-7 03/09/18 21:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Sulfate	21200	21300	1	0.252		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292164-2 03/09/18 11:45 • (LCSD) R3292164-3 03/09/18 11:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Nitrate	8000	8120	8100	102	101	80.0-120			0.260	15
Sulfate	40000	40100	39900	100	99.8	80.0-120			0.364	15

L976070-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L976070-02 03/09/18 15:35 • (MS) R3292164-5 03/09/18 16:28 • (MSD) R3292164-6 03/09/18 16:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Nitrate	5000	U	4850	4960	97.0	99.2	1	80.0-120			2.26	15
Sulfate	50000	3950	54000	53900	100	99.8	1	80.0-120			0.159	15



L976080-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L976080-01 03/09/18 20:57 • (MS) R3292164-8 03/09/18 21:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5000	9840	14500	93.5	1	80.0-120	E
Sulfate	50000	21200	70700	98.9	1	80.0-120	

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Method Blank (MB)

(MB) R3292167-1 03/09/18 07:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Nitrate	U		22.7	100
Sulfate	U		77.4	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L976079-17 Original Sample (OS) • Duplicate (DUP)

(OS) L976079-17 03/09/18 12:48 • (DUP) R3292167-4 03/09/18 13:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Nitrate	510	642	1	23.0	J3	15
Sulfate	ND	87.5	1	0.000		15

L976092-10 Original Sample (OS) • Duplicate (DUP)

(OS) L976092-10 03/09/18 18:42 • (DUP) R3292167-7 03/09/18 18:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Nitrate	872	910	1	4.21		15
Sulfate	47100	46700	1	0.954		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292167-2 03/09/18 07:16 • (LCSD) R3292167-3 03/09/18 07:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Nitrate	8000	8200	8200	102	103	80.0-120			0.0866	15
Sulfate	40000	39400	39200	98.5	98.1	80.0-120			0.464	15

L976079-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L976079-17 03/09/18 12:48 • (MS) R3292167-5 03/09/18 13:18 • (MSD) R3292167-6 03/09/18 13:34

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Nitrate	5000	510	5550	5790	101	106	1	80.0-120			4.21	15
Sulfate	50000	ND	50200	50800	100	101	1	80.0-120			1.17	15



L976092-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L976092-10 03/09/18 18:42 • (MS) R3292167-8 03/09/18 19:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Nitrate	5000	872	5930	101	1	80.0-120	
Sulfate	50000	47100	95000	95.7	1	80.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3292460-1 03/12/18 08:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		2.91	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L975931-05 Original Sample (OS) • Duplicate (DUP)

(OS) L975931-05 03/12/18 11:20 • (DUP) R3292460-2 03/12/18 11:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

L976079-04 Original Sample (OS) • Duplicate (DUP)

(OS) L976079-04 03/12/18 11:49 • (DUP) R3292460-3 03/12/18 12:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292460-4 03/12/18 12:42 • (LCSD) R3292460-5 03/12/18 12:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	70.4	74.6	104	110	85.0-115			5.89	20



Method Blank (MB)

(MB) R3292710-1 03/13/18 10:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Methane	U		2.91	10.0

1 Cp

2 Tc

3 Ss

4 Cn

L976448-06 Original Sample (OS) • Duplicate (DUP)

(OS) L976448-06 03/13/18 11:09 • (DUP) R3292710-2 03/13/18 11:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Methane	13.6	11.7	1	15.5		20

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3292710-3 03/13/18 11:23 • (LCSD) R3292710-4 03/13/18 11:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Methane	67.8	77.5	76.1	114	112	85.0-115			1.84	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3293235-2 03/09/18 14:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	108			80.0-120
(S) Dibromofluoromethane	93.3			76.0-123
(S) 4-Bromofluorobenzene	103			80.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3293235-1 03/09/18 13:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	24.0	95.8	70.0-130	
1,2-Dichloroethane	25.0	28.6	115	70.0-130	
Ethylbenzene	25.0	28.9	116	70.0-130	
Methyl tert-butyl ether	25.0	24.6	98.4	70.0-130	
Naphthalene	25.0	30.4	122	70.0-130	
Toluene	25.0	27.5	110	70.0-130	
Xylenes, Total	75.0	85.9	115	70.0-130	
(S) Toluene-d8			106	80.0-120	
(S) Dibromofluoromethane			94.6	76.0-123	
(S) 4-Bromofluorobenzene			103	80.0-120	



Method Blank (MB)

(MB) R3292885-2 03/10/18 01:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
1,2-Dichloroethane	U		0.361	1.00
Ethylbenzene	U		0.384	1.00
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.412	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	95.3			76.0-123
(S) 4-Bromofluorobenzene	97.8			80.0-120

Laboratory Control Sample (LCS)

(LCS) R3292885-1 03/10/18 00:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	22.2	88.6	70.0-130	
1,2-Dichloroethane	25.0	25.4	102	70.0-130	
Ethylbenzene	25.0	25.7	103	70.0-130	
Methyl tert-butyl ether	25.0	22.5	90.1	70.0-130	
Naphthalene	25.0	23.8	95.1	70.0-130	
Toluene	25.0	24.9	99.8	70.0-130	
Xylenes, Total	75.0	74.3	99.1	70.0-130	
(S) Toluene-d8			106	80.0-120	
(S) Dibromofluoromethane			97.6	76.0-123	
(S) 4-Bromofluorobenzene			98.8	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3293387-3 03/14/18 16:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3293387-3 03/14/18 16:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.398	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	105			80.0-120
(S) Dibromofluoromethane	82.6			76.0-123
(S) a,a,a-Trifluorotoluene	101			80.0-120
(S) 4-Bromofluorobenzene	101			80.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3293387-1 03/14/18 15:41 • (LCSD) R3293387-2 03/14/18 16:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Acetone	125	102	100	81.7	80.1	70.0-130			2.05	23.9
Benzene	25.0	23.7	23.7	94.8	94.9	70.0-130			0.201	20
Bromodichloromethane	25.0	25.6	25.4	102	102	70.0-130			0.497	20
Bromoform	25.0	29.2	28.6	117	115	70.0-130			1.84	20
Bromomethane	25.0	25.1	25.7	101	103	70.0-130			2.21	20
Carbon disulfide	25.0	24.0	24.0	95.8	95.9	70.0-130			0.0454	20
Carbon tetrachloride	25.0	24.5	24.8	98.1	99.4	70.0-130			1.30	20
Chlorobenzene	25.0	28.2	28.0	113	112	70.0-130			0.518	20
Chlorodibromomethane	25.0	27.9	27.8	112	111	70.0-130			0.372	20
Chloroethane	25.0	24.0	24.5	96.0	97.9	70.0-130			1.99	20
Chloroform	25.0	23.6	23.7	94.2	94.9	70.0-130			0.742	20
Chloromethane	25.0	23.6	24.0	94.2	95.8	70.0-130			1.67	20
1,2-Dibromo-3-Chloropropane	25.0	26.3	25.3	105	101	70.0-130			4.21	20
1,2-Dibromoethane	25.0	27.8	28.0	111	112	70.0-130			0.790	20
1,2-Dichlorobenzene	25.0	29.0	29.0	116	116	70.0-130			0.216	20
1,3-Dichlorobenzene	25.0	28.1	28.8	112	115	70.0-130			2.73	20
1,4-Dichlorobenzene	25.0	27.1	27.4	108	110	70.0-130			1.07	20
1,1-Dichloroethane	25.0	23.8	24.0	95.4	96.0	70.0-130			0.605	20
1,2-Dichloroethane	25.0	23.0	23.7	92.0	94.7	70.0-130			2.95	20
1,1-Dichloroethene	25.0	24.2	24.1	96.8	96.3	70.0-130			0.526	20
cis-1,2-Dichloroethene	25.0	23.0	23.4	92.0	93.5	70.0-130			1.63	20
trans-1,2-Dichloroethene	25.0	24.2	24.3	96.7	97.2	70.0-130			0.478	20
1,2-Dichloropropane	25.0	27.8	26.6	111	106	70.0-130			4.46	20
cis-1,3-Dichloropropene	25.0	27.8	26.9	111	108	70.0-130			3.11	20
trans-1,3-Dichloropropene	25.0	24.2	24.0	96.8	95.9	70.0-130			0.887	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3293387-1 03/14/18 15:41 • (LCSD) R3293387-2 03/14/18 16:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Di-isopropyl ether	25.0	22.6	22.8	90.2	91.1	70.0-130			0.993	20
Ethylbenzene	25.0	28.6	28.7	114	115	70.0-130			0.461	20
2-Hexanone	125	129	127	103	102	70.0-130			1.65	20
2-Butanone (MEK)	125	113	113	90.6	90.1	70.0-130			0.525	20
Methylene Chloride	25.0	21.6	22.1	86.4	88.3	70.0-130			2.18	20
4-Methyl-2-pentanone (MIBK)	125	130	132	104	106	70.0-130			1.19	20
Methyl tert-butyl ether	25.0	23.5	23.6	93.9	94.3	70.0-130			0.424	20
Naphthalene	25.0	27.8	27.8	111	111	70.0-130			0.0974	20
Styrene	25.0	29.5	29.7	118	119	70.0-130			0.507	20
1,1,2-Tetrachloroethane	25.0	24.3	24.3	97.1	97.2	70.0-130			0.0543	20
Tetrachloroethene	25.0	28.9	28.3	115	113	70.0-130			1.95	20
Toluene	25.0	28.2	27.8	113	111	70.0-130			1.57	20
1,1,2-Trichlorotrifluoroethane	25.0	21.0	21.2	84.1	84.7	70.0-130			0.684	20
1,1,1-Trichloroethane	25.0	23.9	24.2	95.8	96.8	70.0-130			1.04	20
1,1,2-Trichloroethane	25.0	27.4	26.9	109	108	70.0-130			1.60	20
Trichloroethene	25.0	29.0	29.4	116	118	70.0-130			1.33	20
1,2,3-Trimethylbenzene	25.0	26.7	27.0	107	108	70.0-130			1.19	20
Vinyl chloride	25.0	24.6	24.5	98.3	98.2	70.0-130			0.0744	20
Xylenes, Total	75.0	85.9	85.4	115	114	70.0-130			0.584	20
<i>(S) Toluene-d8</i>				102	101	80.0-120				
<i>(S) Dibromofluoromethane</i>				84.5	85.2	76.0-123				
<i>(S) a,a,a-Trifluorotoluene</i>				101	99.1	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				99.1	95.7	80.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

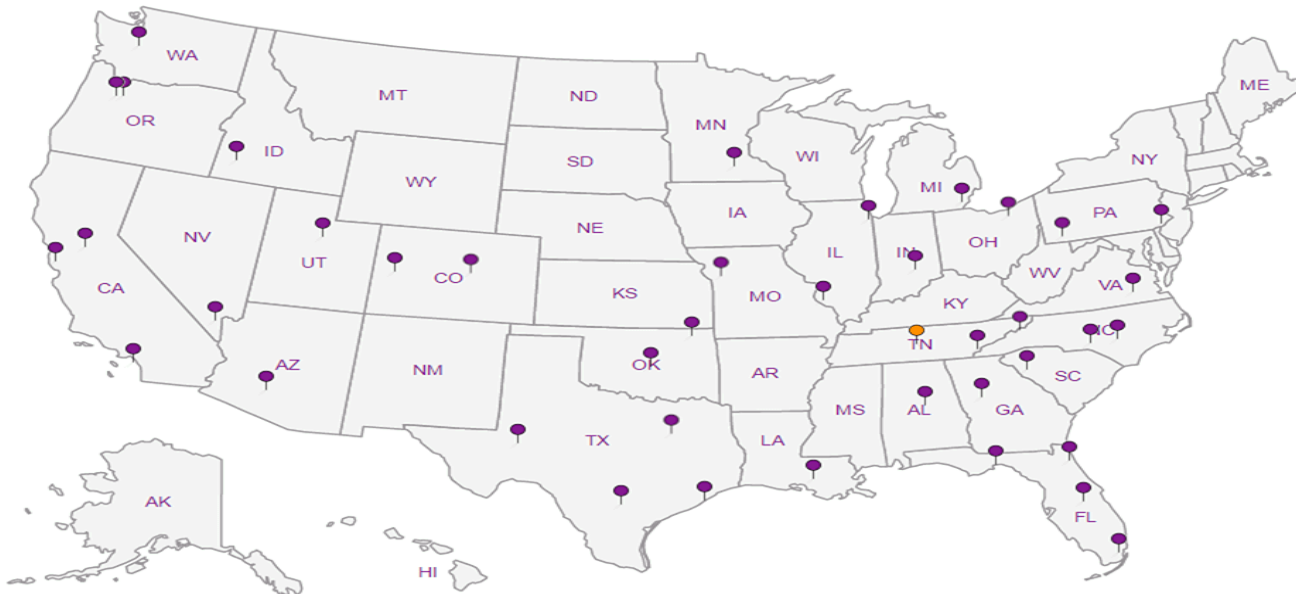
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Groundwater**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project # **699858, LD.MR.LW**
LEWIS DRIVE

Lab Project # **KINCH2MGA-LEWIS12**

Collected by (print): **MELISSA WARREN**

Site/Facility ID # **LEWIS DRIVE**

P.O. #

Collected by (signature): *Melissa Warren*

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
 Date Results Needed

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* NITRATE, SULFATE* 125mlHDPE-NoPres	ALK, CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENE	BTEX	1,2-DCA
MW-07-030818	GRAB	GW	NA	03/08/18	0730	3							
MW-03-030818		GW			0745	3							
MW-15B-030818		GW			0830	3							
MW-15-030818		GW			0835	3							
MW-38-030818		GW			0850	3							
MW-37-030818		GW			0855	3							
MW-43B-030818		GW			0910	3							
MW-43-030818		GW			0915	3							
MW-24-030818		GW			0925	3							
MW-24B-030818		GW			0930	3							

Analysis / Container / Preservative												
Pres Chk												
X	X	X	X	X	X	X	X	X	X	X	X	X

Chain of Custody Page 1 of 4



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12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# **976079**
H198

Acctnum: **KINCH2MGA**
 Template: **T130277**
 Prelogin: **P640853**
 TSR: **526 - Chris McCord**
 PB: **2-27-186**

Shipped Via: **FedEX Ground**

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking # **4142 5221 2801**

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y	N
COC Signed/Accurate:		X	N
Bottles arrive intact:		X	N
Correct bottles used:		X	N
Sufficient volume sent:		X	N
IF Applicable			
VOA Zero Headspace:		X	N
Preservation Correct/Checked:		X	N

Relinquished by: (Signature) *Melissa Warren*
 Date: **03/08/18** Time: **1630**

Relinquished by: (Signature) _____
 Date: _____ Time: _____

Relinquished by: (Signature) _____
 Date: _____ Time: _____

Received by: (Signature) _____
 Date: _____ Time: _____

Received by: (Signature) _____
 Date: _____ Time: _____

Received for lab by: (Signature) *Kate Powell*
 Date: **3/9/18** Time: **0845**

Trip Blank Received: Yes No
 HCL MeOH TBR

Temp: **35.5** °C
 Bottles Received: **123**

If preservation required by Login: Date/Time

Hold: _____ Condition: **NCF / OK**

CH2M Hill- Kinder Morgan- Atlanta, GA

6600 Peachtree Dunwoody Road

Report to:
Bethany Garvey

Project Description: **Lewis Drive Groundwater**

Phone: **770-604-9182**
Fax:

Client Project #
699858.LD.MP.GW

Collected by (print):
MELISSA WARREN

Site/Facility ID #
LEWIS DRIVE

Collected by (signature):
Melissa Warren

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Immediately Packed on Ice

Billing Information:
Accounts Payable
1000 Windward Concourse
Ste 450
Alpharetta, GA 30005

Email To: bgarvey@ch2m.com;
tom.wiley@ch2m.com; scott.powell@ch2m.com;

City/State Collected: **BELTON, SC**

Lab Project #
KINCH2MGA-LEWIS12

P.O. #

Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

* NITRATE,SULFATE* 125mlHDPE-NoPres
 ALK,CO2 125mlHDPE-NoPres
 RSK175 40mlAmb HCl
 V8260BTEXMNSC 40mlAmb-HCl
 NAPHTHALENE
 BTEX
 1,2-DCA
 V8260BTEX NSC-TB-40mlAmb-HCl-BLK



A-B-S-C-I-E-N-C-E-S
a subsidiary of

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **97609**

Table #

Acctnum: **KINCH2MGA**

Template: **T130277**

Prelogin: **P640853**

TSR: **526 - Chris McCord**

PB: **2-27-18**

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* NITRATE,SULFATE* 125mlHDPE-NoPres	ALK,CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENE	BTEX	1,2-DCA	V8260BTEX NSC-TB-40mlAmb-HCl-BLK	Remarks	Sample # (lab only)
FBO1-030818	1-GRAB	GW	NA	03/08/18	0935	3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			11
TB01-030818		GW			0937	1								<input checked="" type="checkbox"/>		12
MW-34-030818		GW			0955	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				13
MW-39-030818		GW			1000	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				14
MW-40-030818		GW			1015	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			15
MW-41-030818		GW			1020	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				16
MW-42-030818		GW			1030	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			17
MW-25-030818		GW			1040	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			18
MW-25B-030818		GW			1045	3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				19
MW-35-030818		GW			1055	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			20

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Samples returned via:
 UPS FedEx Courier

Tracking # **4142 5221 2801**

Received by: (Signature) _____ Trip Blank Received: Yes No
 HCL MeOH
 TBR

Received by: (Signature) _____ Temp: **3.5** °C Bottles Received: **123**

Received for lab by: (Signature) *Kate Coffey* Date: **3/9/18** Time: **0845**

Relinquished by: (Signature) *Melissa Warren* Date: **03/08/18** Time: **1630**

Relinquished by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: _____ Time: _____

If preservation required by Login: Date/Time

Hold: _____ Condition: **NCF / OK**

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project Description: **Lewis Drive Groundwater**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project #
699858, LD.MR.GW

Lab Project #
KINCH2MGA-LEWIS12

Collected by (print):
MELISSA WARREN

Site/Facility ID #
LEWIS DRIVE

P.O. #

Collected by (signature):
Melissa Warren

Rush? (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Quote #

Immediately Packed on Ice N Y ___

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Entrs
-----------	-----------	----------	-------	------	------	--------------

MW-49-030818	GRAB	GW	NA	03/08/18	1205	3
MW-28-030818		GW			1210	3
MW-12B-030818		GW			1225	3
MW-12-030818		GW			1230	3
MW-27-030818		GW			1300	3
MW-27B-030818		GW			1305	3
MW-01-030818		GW			1320	3
MW-01B-030818		GW			1330	3
MW-27BD-030818		GW			1307	3
MW-44-030818		GW			1335	3

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

Samples returned via:
 UPS FedEx Courier

Analysis / Container / Preservative	Pres Chk
NITRATE,SULFATE 125mlHDPE-NoPres	<input checked="" type="checkbox"/>
ALK,CO2 125mlHDPE-NoPres	<input checked="" type="checkbox"/>
RSK175 40mlAmb HCl	<input checked="" type="checkbox"/>
V8260BTEXMNSC 40mlAmb-HCl	<input checked="" type="checkbox"/>
NAPHTHALENE	<input checked="" type="checkbox"/>
BTEX	<input checked="" type="checkbox"/>
1,2-DCA	<input checked="" type="checkbox"/>

Chain of Custody Page 3 of 4

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **976079**

Table #

Acctnum: **KINCH2MGA**

Template: **T130277**

Prelogin: **P640853**

TSR: **526 - Chris McCord**

PB: **2-27-106**

Shipped Via: **FedEx Ground**

Relinquished by: (Signature) <i>Melissa Warren</i>	Date: 03/08/18	Time: 1630	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No HCl/ MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 35°C Bottles Received: 123
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Kate Goff</i>	Date: 3/9/11 Time: 0845 Hold: Condition: NCF OK

Remarks	Sample # (lab only)
	21
	22
	23
	24
	25
	26
	27
	28
	29
	30

Sample Receipt Checklist

COC Seal Present/Intact: Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VQA Zero Headspace: Y N

Preservation Correct/Checked: Y N

CH2M Hill- Kinder Morgan- Atlanta, GA
 6600 Peachtree Dunwoody Road

Billing Information:
 Accounts Payable
 1000 Windward Concourse
 Ste 450
 Alpharetta, GA 30005

Report to:
Bethany Garvey

Email To: bgarvey@ch2m.com;
 tom.wiley@ch2m.com; scott.powell@ch2m.com;

Project
 Description: **Lewis Drive Groundwater**

City/State Collected: **BELTON, SC**

Phone: **770-604-9182**
 Fax:

Client Project #
699856.LD.MR.GW

Lab Project #
KINCH2MGA-LEWIS12

Collected by (print):
Melissa Wynn

Site/Facility ID #
LEWIS DRIVE

P.O. #

Quote #

Collected by (signature):

Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

Immediately
 Packed on Ice N Y

No. of Cntrs

Analysis / Container / Preservative

Chain of Custody Page **4** of **4**

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12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	* NITRATE,SULFATE* 125mlHDPE-NoPres	ALK,CO2 125mlHDPE-NoPres	RSK175 40mlAmb HCl	V8260BTEXMNSC 40mlAmb-HCl	NAPHTHALENE	BTEX	1,2-DCA
MW-44D-030818	GRAB	GW	NA	03/08/18	1340	3							
MW-44B-030818	GRAB	GW	NA	03/08/18	1345	3							
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: *NITRATE/SULFATE* has a 48hr hold time.

Samples returned via:
 UPS FedEx Courier

Tracking # **41425221 2801**

Relinquished by: (Signature) Date: **03/08/18** Time: **1630**

Received by: (Signature) Trip Blank Received: Yes/No **HCl MeOH**

Relinquished by: (Signature) Date: Time: Received by: (Signature) Temp: **3.5** °C Bottles Received: **123**

Relinquished by: (Signature) Date: Time: Received for Lab by: (Signature) **Kate Offord** Date: **3/9/18** Time: **0845** Hold: Condition: **NCF / OK**

Sample Receipt Checklist
 CDC Seal Present/Intact: Y N
 CDC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Appendix D
Operation and Maintenance Logs



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
<i>11/20/18 10:15</i>	<i>Scott Smith</i>		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No	-	
Activate and inspect condition of receiver auto drain.	Each visit	Yes / <input checked="" type="radio"/> No	Yes / No		<i>Frozen, thaw w/ hot gas and improve insulation.</i>
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / <input checked="" type="radio"/> No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / <input checked="" type="radio"/> No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Calibrate EAD	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/4/2018 10:15 BIS	SCOTT Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	5089.2	—
Air Compressor 1 Load Time	(hours)	NA	NA	2584.5	—
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	—	—
Air Compressor 1 Pressure	(psig)	90 - 110	100	—	—
Air Compressor 2 Run Time	(hours)	NA	NA	2985:18	2988:11
Air Compressor 2 Load Time	(hours)	NA	NA	2049:18	2051:59
Air Compressor 2 Temp	(F)	60 - 100	110	179	181
Air Compressor 2 Pressure	(psig)	90 - 110	100	110	97
Receiver Tank Pressure	(psig)	90 - 110	100	115	105
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	105	100
Manifold Temperature	(F)	60 - 100	110	46	50
Manifold Flow Rate	(scfm)	TBD	TBD	1014	1120
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	435.0	435.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	448.3	432.4
HAS-1 Valve Position	(%)	TBD	TBD	16.8	15.5
HAS-1 Pressure	(psig)	10 - 20	30	22	22
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	72.0	130.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	73.5	133.1
HAS-2 Valve Position	(%)	TBD	TBD	5.5	7.5
HAS-2 Pressure	(psig)	10 - 20	30	16	20
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	217.5	217.5
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	219.6	218.8
HAS-3 Valve Position	(%)	TBD	TBD	32.2	32.3
HAS-3 Pressure	(psig)	10 - 20	30	17	17

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
AC#1, run on 1/2/18 @ 0805 P2 sensor fail. See field book for details.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/4/2018 10:15	13:15	Scott SwiPA	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-01 Pressure	(psig)	10 - 20	30	25	
VAS-02 Flow Rate	(scfm)	TBD	TBD	10.3	
VAS-02 Pressure	(psig)	10 - 20	30	10	
VAS-03 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-03 Pressure	(psig)	10 - 20	30	5	
VAS-04 Flow Rate	(scfm)	TBD	TBD	10.1	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	10.1	
VAS-05 Pressure	(psig)	10 - 20	30	2	
VAS-06 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-06 Pressure	(psig)	10 - 20	30	3	
VAS-07 Flow Rate	(scfm)	TBD	TBD	10.3	
VAS-07 Pressure	(psig)	10 - 20	30	12	
VAS-08 Flow Rate	(scfm)	TBD	TBD	10.7	
VAS-08 Pressure	(psig)	10 - 20	30	14	
VAS-09 Flow Rate	(scfm)	TBD	TBD	10.3	
VAS-09 Pressure	(psig)	10 - 20	30	5	
VAS-10 Flow Rate	(scfm)	TBD	TBD	10.5	
VAS-10 Pressure	(psig)	10 - 20	30	11	
VAS-11 Flow Rate	(scfm)	TBD	TBD		10.5
VAS-11 Pressure	(psig)	10 - 20	30		14
VAS-12 Flow Rate	(scfm)	TBD	TBD		10.4
VAS-12 Pressure	(psig)	10 - 20	30		12
VAS-13 Flow Rate	(scfm)	TBD	TBD		9.8
VAS-13 Pressure	(psig)	10 - 20	30		15
VAS-14 Flow Rate	(scfm)	TBD	TBD		10.3
VAS-14 Pressure	(psig)	10 - 20	30		7
VAS-15 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-15 Pressure	(psig)	10 - 20	30		6
VAS-16 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-16 Pressure	(psig)	10 - 20	30		15
VAS-17 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-17 Pressure	(psig)	10 - 20	30		13



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/4/2019 10:15 AM	Scott Waldron		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD	11.1	—	
VAS-18 Pressure	(psig)	10 - 20	30	2	—	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	9.4	
VAS-19 Pressure	(psig)	10 - 20	30		18	
VAS-20 Flow Rate	(scfm)	TBD	TBD		9.8	
VAS-20 Pressure	(psig)	10 - 20	30		33	
VAS-21 Flow Rate	(scfm)	TBD	TBD		10.5	
VAS-21 Pressure	(psig)	10 - 20	30		30	
VAS-22 Flow Rate	(scfm)	TBD	TBD		11.0	
VAS-22 Pressure	(psig)	10 - 20	30		38	
VAS-23 Flow Rate	(scfm)	TBD	TBD		16.5	
VAS-23 Pressure	(psig)	10 - 20	30		25	
VAS-24 Flow Rate	(scfm)	TBD	TBD		8.5	
VAS-24 Pressure	(psig)	10 - 20	30		35	
VAS-25 Flow Rate	(scfm)	TBD	TBD		9.7	
VAS-25 Pressure	(psig)	10 - 20	30		24	
VAS-26 Flow Rate	(scfm)	TBD	TBD		7.4	
VAS-26 Pressure	(psig)	10 - 20	30		34	
VAS-27 Flow Rate	(scfm)	TBD	TBD		8.0	
VAS-27 Pressure	(psig)	10 - 20	30		40	
VAS-28 Flow Rate	(scfm)	TBD	TBD		16.6	
VAS-28 Pressure	(psig)	10 - 20	30		13	
VAS-29 Flow Rate	(scfm)	TBD	TBD		10.7	
VAS-29 Pressure	(psig)	10 - 20	30		14	
VAS-30 Flow Rate	(scfm)	TBD	TBD		10.6	
VAS-30 Pressure	(psig)	10 - 20	30		8	
VAS-31 Flow Rate	(scfm)	TBD	TBD		10.5	
VAS-31 Pressure	(psig)	10 - 20	30		30	
VAS-32 Flow Rate	(scfm)	TBD	TBD		↓	—
VAS-32 Pressure	(psig)	10 - 20	30			—
VAS-33 Flow Rate	(scfm)	TBD	TBD			—
VAS-33 Pressure	(psig)	10 - 20	30			—
VAS-34 Flow Rate	(scfm)	TBD	TBD		—	
VAS-34 Pressure	(psig)	10 - 20	30		—	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/4/2018 10:15	1315 Scott Shulka	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
VAS-35 Flow Rate	(scfm)	TBD	TBD				
VAS-35 Pressure	(psig)	10 - 20	30				
VAS-36 Flow Rate	(scfm)	TBD	TBD				
VAS-36 Pressure	(psig)	10 - 20	30				
VAS-37 Flow Rate	(scfm)	TBD	TBD				
VAS-37 Pressure	(psig)	10 - 20	30				
VAS-38 Flow Rate	(scfm)	TBD	TBD				
VAS-38 Pressure	(psig)	10 - 20	30				
VAS-39 Flow Rate	(scfm)	TBD	TBD				
VAS-39 Pressure	(psig)	10 - 20	30				
VAS-40 Flow Rate	(scfm)	TBD	TBD				
VAS-40 Pressure	(psig)	10 - 20	30				
VAS-41 Flow Rate	(scfm)	TBD	TBD			10.5	
VAS-41 Pressure	(psig)	20-Oct	30			8	
VAS-42 Flow Rate	(scfm)	TBD	TBD			—	
VAS-42 Pressure	(psig)	10 - 20	30			—	
VAS-43 Flow Rate	(scfm)	TBD	TBD			10.7	
VAS-43 Pressure	(psig)	10 - 20	30			32	
VAS-44 Flow Rate	(scfm)	TBD	TBD			4.0	
VAS-44 Pressure	(psig)	10 - 20	30			40	
VAS-45 Flow Rate	(scfm)	TBD	TBD	10.5			
VAS-45 Pressure	(psig)	10 - 20	30	11			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure		
BCA-01 Flow Rate	(scfm)	TBD	TBD	15.8	15.4		
BCA-01 Pressure	(psig)	0 - 5	5	20	20		
BCA-02 Flow Rate	(scfm)	TBD	TBD	15.5	15.4		
BCA-02 Pressure	(psig)	0 - 5	5	20	18		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
BRS-01 Flow Rate	(scfm)	TBD	TBD	-			
BRS-01 Pressure	(psig)	10 - 20	30				
BRS-02 Flow Rate	(scfm)	TBD	TBD				
BRS-02 Pressure	(psig)	10 - 20	30				
BRS-03 Flow Rate	(scfm)	TBD	TBD				
BRS-03 Pressure	(psig)	10 - 20	30				



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Log Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
<i>11/9/08 11:20</i>	<i>Scott Smith</i>	<i>—</i>	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No	<i>—</i>	
Activate and inspect condition of receiver auto drain.	Each visit	<input checked="" type="radio"/> Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	<input checked="" type="radio"/> Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	<input checked="" type="radio"/> Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		
Calibrate EAD	Annually	Yes / <input checked="" type="radio"/> No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

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Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/12/18 12:00 1500	Scott Smith	←	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	NO	Yes
Air Compressor 1 Run Time	(hours)	NA	NA	5090:01	5093:02
Air Compressor 1 Load Time	(hours)	NA	NA	2584:55	2586:25
Air Compressor 1 Discharge Temp	(F)	60 - 100	110		178
Air Compressor 1 Pressure	(psig)	90 - 110	100		111
Air Compressor 2 Run Time	(hours)	NA	NA	3031:27	3032:12
Air Compressor 2 Load Time	(hours)	NA	NA	2044:04	2044:20
Air Compressor 2 Temp	(F)	60 - 100	110		-
Air Compressor 2 Pressure	(psig)	90 - 110	100		-
Receiver Tank Pressure	(psig)	90 - 110	100		112
Receiver Tank Temperature	(F)	60 - 100	110		N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100		110
Manifold Temperature	(F)	60 - 100	110		71
Manifold Flow Rate	(scfm)	TBD	TBD		662.2
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD		113.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		112.6
HAS-1 Valve Position	(%)	TBD	TBD		2.9
HAS-1 Pressure	(psig)	10 - 20	30		12
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		108.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		107.5
HAS-2 Valve Position	(%)	TBD	TBD		7.7
HAS-2 Pressure	(psig)	10 - 20	30		14
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		56.6
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		49.3
HAS-3 Valve Position	(%)	TBD	TBD		24.5
HAS-3 Pressure	(psig)	10 - 20	30		14

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/12/2016 1500	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD		
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD		10.1
VAS-11 Pressure	(psig)	10 - 20	30		10
VAS-12 Flow Rate	(scfm)	TBD	TBD		10.5
VAS-12 Pressure	(psig)	10 - 20	30		10
VAS-13 Flow Rate	(scfm)	TBD	TBD		10.0
VAS-13 Pressure	(psig)	10 - 20	30		13
VAS-14 Flow Rate	(scfm)	TBD	TBD		10.2
VAS-14 Pressure	(psig)	10 - 20	30		5
VAS-15 Flow Rate	(scfm)	TBD	TBD		9.5
VAS-15 Pressure	(psig)	10 - 20	30		6
VAS-16 Flow Rate	(scfm)	TBD	TBD		10.4
VAS-16 Pressure	(psig)	10 - 20	30		13
VAS-17 Flow Rate	(scfm)	TBD	TBD		9.8
VAS-17 Pressure	(psig)	10 - 20	30		12



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/12/2018 15:00	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD		-	
VAS-18 Pressure	(psig)	10 - 20	30		-	
VAS-19 Flow Rate	(scfm)	TBD	TBD		18.1	
VAS-19 Pressure	(psig)	10 - 20	30		15	
VAS-20 Flow Rate	(scfm)	TBD	TBD		↓	
VAS-20 Pressure	(psig)	10 - 20	30			
VAS-21 Flow Rate	(scfm)	TBD	TBD			
VAS-21 Pressure	(psig)	10 - 20	30			
VAS-22 Flow Rate	(scfm)	TBD	TBD			
VAS-22 Pressure	(psig)	10 - 20	30			
VAS-23 Flow Rate	(scfm)	TBD	TBD			
VAS-23 Pressure	(psig)	10 - 20	30			
VAS-24 Flow Rate	(scfm)	TBD	TBD			
VAS-24 Pressure	(psig)	10 - 20	30			
VAS-25 Flow Rate	(scfm)	TBD	TBD			
VAS-25 Pressure	(psig)	10 - 20	30			
VAS-26 Flow Rate	(scfm)	TBD	TBD			
VAS-26 Pressure	(psig)	10 - 20	30			
VAS-27 Flow Rate	(scfm)	TBD	TBD			
VAS-27 Pressure	(psig)	10 - 20	30			
VAS-28 Flow Rate	(scfm)	TBD	TBD			
VAS-28 Pressure	(psig)	10 - 20	30			
VAS-29 Flow Rate	(scfm)	TBD	TBD			
VAS-29 Pressure	(psig)	10 - 20	30			
VAS-30 Flow Rate	(scfm)	TBD	TBD			
VAS-30 Pressure	(psig)	10 - 20	30			
VAS-31 Flow Rate	(scfm)	TBD	TBD			
VAS-31 Pressure	(psig)	10 - 20	30			
VAS-32 Flow Rate	(scfm)	TBD	TBD			9.5
VAS-32 Pressure	(psig)	10 - 20	30			19
VAS-33 Flow Rate	(scfm)	TBD	TBD			8.2
VAS-33 Pressure	(psig)	10 - 20	30			30
VAS-34 Flow Rate	(scfm)	TBD	TBD			10.5
VAS-34 Pressure	(psig)	10 - 20	30			24



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Chris Shores/RAL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/9/2018 1530	SCOTT SMITH		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		10.6
VAS-35 Pressure	(psig)	10 - 20	30		21
VAS-36 Flow Rate	(scfm)	TBD	TBD		10.8
VAS-36 Pressure	(psig)	10 - 20	30		12
VAS-37 Flow Rate	(scfm)	TBD	TBD		9.3
VAS-37 Pressure	(psig)	10 - 20	30		6
VAS-38 Flow Rate	(scfm)	TBD	TBD		9.9
VAS-38 Pressure	(psig)	10 - 20	30		8
VAS-39 Flow Rate	(scfm)	TBD	TBD		10.0
VAS-39 Pressure	(psig)	10 - 20	30		11
VAS-40 Flow Rate	(scfm)	TBD	TBD		10.7
VAS-40 Pressure	(psig)	10 - 20	30		28
VAS-41 Flow Rate	(scfm)	TBD	TBD		-
VAS-41 Pressure	(psig)	20-Oct	30		-
VAS-42 Flow Rate	(scfm)	TBD	TBD		9.8
VAS-42 Pressure	(psig)	10 - 20	30		11
VAS-43 Flow Rate	(scfm)	TBD	TBD		↓
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD		14.8
BCA-01 Pressure	(psig)	0 - 5	5		15
BCA-02 Flow Rate	(scfm)	TBD	TBD		14.9
BCA-02 Pressure	(psig)	0 - 5	5		16
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
1/15/2018 0945	SCOTT SMITH		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		- see notes for details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → activated receiver tank auto drain, ok.
 → checked water in gwa wet units. Both clear/ok.
 → replaced 5 VAS well pressure gauges that had leaked glycerin
 → Adjusted HPS wells from 0.13 SCFM/HR to 0.40 SCFM/HR
 → drained water from storage tank compartment after inspecting and finding it free of odor or sheen.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/15/2018 0945 1545	SCOTT Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	5231:55	5237:49
Air Compressor 1 Load Time	(hours)	NA	NA	2664:27	2668:15
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	186	185
Air Compressor 1 Pressure	(psig)	90 - 110	100	110	110
Air Compressor 2 Run Time	(hours)	NA	NA	3032:12	3034:58
Air Compressor 2 Load Time	(hours)	NA	NA	2094:20	2096:13
Air Compressor 2 Temp	(F)	60 - 100	110	—	183
Air Compressor 2 Pressure	(psig)	90 - 110	100	—	110
Receiver Tank Pressure	(psig)	90 - 110	100	112	115
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	110	110
Manifold Temperature	(F)	60 - 100	110	40	52
Manifold Flow Rate	(scfm)	TBD	TBD	569.3	1177
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	135.0	300
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	155.4	295.7
HAS-1 Valve Position	(%)	TBD	TBD	21	18.4
HAS-1 Pressure	(psig)	10 - 20	30	19	24
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	129.0	287.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	127.5	279.6
HAS-2 Valve Position	(%)	TBD	TBD	8.0	27.8
HAS-2 Pressure	(psig)	10 - 20	30	20.5	26
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	67.5	150.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	84.5	163.4
HAS-3 Valve Position	(%)	TBD	TBD	25.7	28.5
HAS-3 Pressure	(psig)	10 - 20	30	15	19

Parts Needed:	
Parts Installed:	5 pressure gauges, VAS 10, 15, 17, 19 + 25

Notes (include alarms since previous visit):
 → Remotely increased HAS wells from 0.15 SCFM/FT to 0.18 SCFM/FT on 11/11/2018



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/5/2018 0945 1545	Scott Simon		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-01 Pressure	(psig)	10 - 20	30	12	
VAS-02 Flow Rate	(scfm)	TBD	TBD	9.3	
VAS-02 Pressure	(psig)	10 - 20	30	11	
VAS-03 Flow Rate	(scfm)	TBD	TBD	9.2	
VAS-03 Pressure	(psig)	10 - 20	30	5	
VAS-04 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-04 Pressure	(psig)	10 - 20	30	3	
VAS-05 Flow Rate	(scfm)	TBD	TBD	8.1	
VAS-05 Pressure	(psig)	10 - 20	30	2	
VAS-06 Flow Rate	(scfm)	TBD	TBD	10.4	
VAS-06 Pressure	(psig)	10 - 20	30	4	
VAS-07 Flow Rate	(scfm)	TBD	TBD	9.0	
VAS-07 Pressure	(psig)	10 - 20	30	12	
VAS-08 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-08 Pressure	(psig)	10 - 20	30	12	
VAS-09 Flow Rate	(scfm)	TBD	TBD	9.8	
VAS-09 Pressure	(psig)	10 - 20	30	5	
VAS-10 Flow Rate	(scfm)	TBD	TBD	10.8	
VAS-10 Pressure	(psig)	10 - 20	30	10	
VAS-11 Flow Rate	(scfm)	TBD	TBD		11.0
VAS-11 Pressure	(psig)	10 - 20	30		10
VAS-12 Flow Rate	(scfm)	TBD	TBD		10.7
VAS-12 Pressure	(psig)	10 - 20	30		10
VAS-13 Flow Rate	(scfm)	TBD	TBD		8.9
VAS-13 Pressure	(psig)	10 - 20	30		13
VAS-14 Flow Rate	(scfm)	TBD	TBD		10.3
VAS-14 Pressure	(psig)	10 - 20	30		5
VAS-15 Flow Rate	(scfm)	TBD	TBD		10.5
VAS-15 Pressure	(psig)	10 - 20	30		1
VAS-16 Flow Rate	(scfm)	TBD	TBD		10.3
VAS-16 Pressure	(psig)	10 - 20	30		13
VAS-17 Flow Rate	(scfm)	TBD	TBD		10.5
VAS-17 Pressure	(psig)	10 - 20	30		5



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/15/2018 0945 1545	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD	10.0	—	
VAS-18 Pressure	(psig)	10 - 20	30	1	—	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	9.3	
VAS-19 Pressure	(psig)	10 - 20	30		17	
VAS-20 Flow Rate	(scfm)	TBD	TBD		10.8	
VAS-20 Pressure	(psig)	10 - 20	30		32	
VAS-21 Flow Rate	(scfm)	TBD	TBD		11.2	
VAS-21 Pressure	(psig)	10 - 20	30		23	
VAS-22 Flow Rate	(scfm)	TBD	TBD		11.3	
VAS-22 Pressure	(psig)	10 - 20	30		24	
VAS-23 Flow Rate	(scfm)	TBD	TBD		11.6	
VAS-23 Pressure	(psig)	10 - 20	30		21	
VAS-24 Flow Rate	(scfm)	TBD	TBD		10.9	
VAS-24 Pressure	(psig)	10 - 20	30		32	
VAS-25 Flow Rate	(scfm)	TBD	TBD		10.9	
VAS-25 Pressure	(psig)	10 - 20	30		19	
VAS-26 Flow Rate	(scfm)	TBD	TBD		10.9	
VAS-26 Pressure	(psig)	10 - 20	30		31	
VAS-27 Flow Rate	(scfm)	TBD	TBD		11.5	
VAS-27 Pressure	(psig)	10 - 20	30		36	
VAS-28 Flow Rate	(scfm)	TBD	TBD		10.5	
VAS-28 Pressure	(psig)	10 - 20	30		12	
VAS-29 Flow Rate	(scfm)	TBD	TBD		10.3	
VAS-29 Pressure	(psig)	10 - 20	30		12	
VAS-30 Flow Rate	(scfm)	TBD	TBD		10.2	
VAS-30 Pressure	(psig)	10 - 20	30		6	
VAS-31 Flow Rate	(scfm)	TBD	TBD		10.4	
VAS-31 Pressure	(psig)	10 - 20	30		30	
VAS-32 Flow Rate	(scfm)	TBD	TBD		—	—
VAS-32 Pressure	(psig)	10 - 20	30		—	—
VAS-33 Flow Rate	(scfm)	TBD	TBD		—	—
VAS-33 Pressure	(psig)	10 - 20	30		—	—
VAS-34 Flow Rate	(scfm)	TBD	TBD		—	—
VAS-34 Pressure	(psig)	10 - 20	30		—	—



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/15/2018 0945 1545	Scott Swain	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
VAS-35 Flow Rate	(scfm)	TBD	TBD	↓	↓		
VAS-35 Pressure	(psig)	10 - 20	30				
VAS-36 Flow Rate	(scfm)	TBD	TBD				
VAS-36 Pressure	(psig)	10 - 20	30				
VAS-37 Flow Rate	(scfm)	TBD	TBD				
VAS-37 Pressure	(psig)	10 - 20	30				
VAS-38 Flow Rate	(scfm)	TBD	TBD				
VAS-38 Pressure	(psig)	10 - 20	30				
VAS-39 Flow Rate	(scfm)	TBD	TBD				
VAS-39 Pressure	(psig)	10 - 20	30				
VAS-40 Flow Rate	(scfm)	TBD	TBD				
VAS-40 Pressure	(psig)	10 - 20	30				
VAS-41 Flow Rate	(scfm)	TBD	TBD			16.4	
VAS-41 Pressure	(psig)	20-Oct	30			8	
VAS-42 Flow Rate	(scfm)	TBD	TBD			—	
VAS-42 Pressure	(psig)	10 - 20	30	—			
VAS-43 Flow Rate	(scfm)	TBD	TBD	7.4			
VAS-43 Pressure	(psig)	10 - 20	30	31			
VAS-44 Flow Rate	(scfm)	TBD	TBD	4.6			
VAS-44 Pressure	(psig)	10 - 20	30	38			
VAS-45 Flow Rate	(scfm)	TBD	TBD	10.2			
VAS-45 Pressure	(psig)	10 - 20	30	11			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure		
BCA-01 Flow Rate	(scfm)	TBD	TBD	15.3	14.4		
BCA-01 Pressure	(psig)	0 - 5	5	19	18		
BCA-02 Flow Rate	(scfm)	TBD	TBD	15.7	14.7		
BCA-02 Pressure	(psig)	0 - 5	5	19	18		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
BRS-01 Flow Rate	(scfm)	TBD	TBD				
BRS-01 Pressure	(psig)	10 - 20	30				
BRS-02 Flow Rate	(scfm)	TBD	TBD				
BRS-02 Pressure	(psig)	10 - 20	30				
BRS-03 Flow Rate	(scfm)	TBD	TBD				
BRS-03 Pressure	(psig)	10 - 20	30				



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
1/22/2018 0945	Scott Smith	Jake Crostic	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		- see field book for details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: Drain stormwater from storage tank containment after calibrating no signs of petro-contamination.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/22/2018 6:45 1710	Scott Smith	Jake Crashe	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	Yes
Air Compressor 1 Run Time	(hours)	NA	NA	5399:51	5406:50
Air Compressor 1 Load Time	(hours)	NA	NA	2783:49	2789:50
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	180	183
Air Compressor 1 Pressure	(psig)	90 - 110	100	110	110
Air Compressor 2 Run Time	(hours)	NA	NA	3197:60	3204:08
Air Compressor 2 Load Time	(hours)	NA	NA	2225:20	2231:57
Air Compressor 2 Temp	(F)	60 - 100	110	180	198
Air Compressor 2 Pressure	(psig)	90 - 110	100	108	110
Receiver Tank Pressure	(psig)	90 - 110	100	112	111
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	110	110
Manifold Temperature	(F)	60 - 100	110	68	86
Manifold Flow Rate	(scfm)	TBD	TBD	1671	1671
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	300.0	450.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	301.2	451.2
HAS-1 Valve Position	(%)	TBD	TBD	13.7	25.7
HAS-1 Pressure	(psig)	10 - 20	30	22	26
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	287.6	430.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	284.1	422.9
HAS-2 Valve Position	(%)	TBD	TBD	23.0	32.0
HAS-2 Pressure	(psig)	10 - 20	30	24	29
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	150.0	225.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	135.2	231.6
HAS-3 Valve Position	(%)	TBD	TBD	27.6	32.9
HAS-3 Pressure	(psig)	10 - 20	30	16	20

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
<p>→ Not loading properly, will troubleshoot. Worked on this throughout day, now load/unload is operating normally</p> <p>→ All vertical wells adjusted close to 10 scfm after data collection.</p>



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/22/2018 0945 1710	Scott Shibt	Janet Crashe	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-01 Pressure	(psig)	10 - 20	30	22	
VAS-02 Flow Rate	(scfm)	TBD	TBD	8.4	
VAS-02 Pressure	(psig)	10 - 20	30	10	
VAS-03 Flow Rate	(scfm)	TBD	TBD	9.2	
VAS-03 Pressure	(psig)	10 - 20	30	4	
VAS-04 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	7.3	
VAS-05 Pressure	(psig)	10 - 20	30	1	
VAS-06 Flow Rate	(scfm)	TBD	TBD	9.0	
VAS-06 Pressure	(psig)	10 - 20	30	2	
VAS-07 Flow Rate	(scfm)	TBD	TBD	8.1	
VAS-07 Pressure	(psig)	10 - 20	30	12	
VAS-08 Flow Rate	(scfm)	TBD	TBD	8.5	
VAS-08 Pressure	(psig)	10 - 20	30	11	
VAS-09 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-09 Pressure	(psig)	10 - 20	30	5	
VAS-10 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD		10.6
VAS-11 Pressure	(psig)	10 - 20	30		8
VAS-12 Flow Rate	(scfm)	TBD	TBD		10.8
VAS-12 Pressure	(psig)	10 - 20	30		10
VAS-13 Flow Rate	(scfm)	TBD	TBD		9.9
VAS-13 Pressure	(psig)	10 - 20	30		11
VAS-14 Flow Rate	(scfm)	TBD	TBD		10.3
VAS-14 Pressure	(psig)	10 - 20	30		5
VAS-15 Flow Rate	(scfm)	TBD	TBD		10.2
VAS-15 Pressure	(psig)	10 - 20	30		1
VAS-16 Flow Rate	(scfm)	TBD	TBD		11.6
VAS-16 Pressure	(psig)	10 - 20	30		12
VAS-17 Flow Rate	(scfm)	TBD	TBD		11.2
VAS-17 Pressure	(psig)	10 - 20	30		2



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/22/2018 0945 1710	Scott Smith	Jake Croshic	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD	9.2	---	
VAS-18 Pressure	(psig)	10 - 20	30	0	-	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	12.3	
VAS-19 Pressure	(psig)	10 - 20	30		12	
VAS-20 Flow Rate	(scfm)	TBD	TBD		13.1	
VAS-20 Pressure	(psig)	10 - 20	30		23	
VAS-21 Flow Rate	(scfm)	TBD	TBD		12.3	
VAS-21 Pressure	(psig)	10 - 20	30		22	
VAS-22 Flow Rate	(scfm)	TBD	TBD		11.5	
VAS-22 Pressure	(psig)	10 - 20	30		23	
VAS-23 Flow Rate	(scfm)	TBD	TBD		11.4	
VAS-23 Pressure	(psig)	10 - 20	30		20	
VAS-24 Flow Rate	(scfm)	TBD	TBD		11.7	
VAS-24 Pressure	(psig)	10 - 20	30		32	
VAS-25 Flow Rate	(scfm)	TBD	TBD		12.1	
VAS-25 Pressure	(psig)	10 - 20	30		18	
VAS-26 Flow Rate	(scfm)	TBD	TBD		15.2	
VAS-26 Pressure	(psig)	10 - 20	30		31	
VAS-27 Flow Rate	(scfm)	TBD	TBD		15.0	
VAS-27 Pressure	(psig)	10 - 20	30		35	
VAS-28 Flow Rate	(scfm)	TBD	TBD		9.5	
VAS-28 Pressure	(psig)	10 - 20	30		11	
VAS-29 Flow Rate	(scfm)	TBD	TBD		16.2	
VAS-29 Pressure	(psig)	10 - 20	30		10	
VAS-30 Flow Rate	(scfm)	TBD	TBD		9.0	
VAS-30 Pressure	(psig)	10 - 20	30		5	
VAS-31 Flow Rate	(scfm)	TBD	TBD		11.3	
VAS-31 Pressure	(psig)	10 - 20	30		30	
VAS-32 Flow Rate	(scfm)	TBD	TBD		↓	---
VAS-32 Pressure	(psig)	10 - 20	30			---
VAS-33 Flow Rate	(scfm)	TBD	TBD			---
VAS-33 Pressure	(psig)	10 - 20	30			---
VAS-34 Flow Rate	(scfm)	TBD	TBD		---	---
VAS-34 Pressure	(psig)	10 - 20	30		---	---



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
11/22/2018 0945 1710	SCOTT Smith	Jake Crutch	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
VAS-35 Flow Rate	(scfm)	TBD	TBD	↓	↓		
VAS-35 Pressure	(psig)	10 - 20	30				
VAS-36 Flow Rate	(scfm)	TBD	TBD				
VAS-36 Pressure	(psig)	10 - 20	30				
VAS-37 Flow Rate	(scfm)	TBD	TBD				
VAS-37 Pressure	(psig)	10 - 20	30				
VAS-38 Flow Rate	(scfm)	TBD	TBD				
VAS-38 Pressure	(psig)	10 - 20	30				
VAS-39 Flow Rate	(scfm)	TBD	TBD				
VAS-39 Pressure	(psig)	10 - 20	30				
VAS-40 Flow Rate	(scfm)	TBD	TBD				
VAS-40 Pressure	(psig)	10 - 20	30				
VAS-41 Flow Rate	(scfm)	TBD	TBD			9.3	
VAS-41 Pressure	(psig)	20-Oct	30			5	
VAS-42 Flow Rate	(scfm)	TBD	TBD			—	
VAS-42 Pressure	(psig)	10 - 20	30			—	
VAS-43 Flow Rate	(scfm)	TBD	TBD			7.4	
VAS-43 Pressure	(psig)	10 - 20	30			26	
VAS-44 Flow Rate	(scfm)	TBD	TBD			3.8	
VAS-44 Pressure	(psig)	10 - 20	30			38	
VAS-45 Flow Rate	(scfm)	TBD	TBD	9.3			
VAS-45 Pressure	(psig)	10 - 20	30	9			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure		
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.0	14.9		
BCA-01 Pressure	(psig)	0 - 5	5	17	17		
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.4	15.1		
BCA-02 Pressure	(psig)	0 - 5	5	16	17		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
BRS-01 Flow Rate	(scfm)	TBD	TBD				
BRS-01 Pressure	(psig)	10 - 20	30				
BRS-02 Flow Rate	(scfm)	TBD	TBD				
BRS-02 Pressure	(psig)	10 - 20	30				
BRS-03 Flow Rate	(scfm)	TBD	TBD				
BRS-03 Pressure	(psig)	10 - 20	30				



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
12/9/2018 1430	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		-see field book for details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	March 2018	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
12/20/18 1030 1530	Scott Swartz	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	5568:26	5573:11
Air Compressor 1 Load Time	(hours)	NA	NA	2911:24	2915:22
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	183	181
Air Compressor 1 Pressure	(psig)	90 - 110	100	111	111
Air Compressor 2 Run Time	(hours)	NA	NA	3365:44	3370:29
Air Compressor 2 Load Time	(hours)	NA	NA	2357:02	2361:14
Air Compressor 2 Temp	(F)	60 - 100	110	188	194
Air Compressor 2 Pressure	(psig)	90 - 110	100	110	110
Receiver Tank Pressure	(psig)	90 - 110	100	112	112
Receiver Tank Temperature	(F)	60 - 100	110	N/A	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	110	110
Manifold Temperature	(F)	60 - 100	110	77	77
Manifold Flow Rate	(scfm)	TBD	TBD	1643	1855
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	450.0	487.5
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	447.3	491.4
HAS-1 Valve Position	(%)	TBD	TBD	19.7	28.8
HAS-1 Pressure	(psig)	10 - 20	30	25	26
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	430.0	466.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	429.7	469.1
HAS-2 Valve Position	(%)	TBD	TBD	25.8	34.5
HAS-2 Pressure	(psig)	10 - 20	30	28	29
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	225.0	244.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	220.7	233.7
HAS-3 Valve Position	(%)	TBD	TBD	28.2	30.3
HAS-3 Pressure	(psig)	10 - 20	30	18	20

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
Compressor service is done ~ 700 hrs



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/29/2018 1030	SCOTT SMITH		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-01 Pressure	(psig)	10 - 20	30	22	
VAS-02 Flow Rate	(scfm)	TBD	TBD	10.0	
VAS-02 Pressure	(psig)	10 - 20	30	11	
VAS-03 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-03 Pressure	(psig)	10 - 20	30	5	
VAS-04 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	11.4	
VAS-05 Pressure	(psig)	10 - 20	30	3	
VAS-06 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-06 Pressure	(psig)	10 - 20	30	4	
VAS-07 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-07 Pressure	(psig)	10 - 20	30	14	
VAS-08 Flow Rate	(scfm)	TBD	TBD	8.7	
VAS-08 Pressure	(psig)	10 - 20	30	12	
VAS-09 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-09 Pressure	(psig)	10 - 20	30	4	
VAS-10 Flow Rate	(scfm)	TBD	TBD	9.3	
VAS-10 Pressure	(psig)	10 - 20	30	4	
VAS-11 Flow Rate	(scfm)	TBD	TBD		9.1
VAS-11 Pressure	(psig)	10 - 20	30		11
VAS-12 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-12 Pressure	(psig)	10 - 20	30		10
VAS-13 Flow Rate	(scfm)	TBD	TBD		8.1
VAS-13 Pressure	(psig)	10 - 20	30		13
VAS-14 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-14 Pressure	(psig)	10 - 20	30		5
VAS-15 Flow Rate	(scfm)	TBD	TBD		10.1
VAS-15 Pressure	(psig)	10 - 20	30		1
VAS-16 Flow Rate	(scfm)	TBD	TBD		8.2
VAS-16 Pressure	(psig)	10 - 20	30		12
VAS-17 Flow Rate	(scfm)	TBD	TBD		8.7
VAS-17 Pressure	(psig)	10 - 20	30		8



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/29/2018 1630 1530	SCOTT SMIDA		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD	9.2	—	
VAS-18 Pressure	(psig)	10 - 20	30	0	—	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	8.0	
VAS-19 Pressure	(psig)	10 - 20	30		11	
VAS-20 Flow Rate	(scfm)	TBD	TBD		7.6	
VAS-20 Pressure	(psig)	10 - 20	30		22	
VAS-21 Flow Rate	(scfm)	TBD	TBD		7.3	
VAS-21 Pressure	(psig)	10 - 20	30		21	
VAS-22 Flow Rate	(scfm)	TBD	TBD		6.9	
VAS-22 Pressure	(psig)	10 - 20	30		23	
VAS-23 Flow Rate	(scfm)	TBD	TBD		8.9	
VAS-23 Pressure	(psig)	10 - 20	30		20	
VAS-24 Flow Rate	(scfm)	TBD	TBD		8.2	
VAS-24 Pressure	(psig)	10 - 20	30		31	
VAS-25 Flow Rate	(scfm)	TBD	TBD		8.1	
VAS-25 Pressure	(psig)	10 - 20	30		18	
VAS-26 Flow Rate	(scfm)	TBD	TBD		6.0	
VAS-26 Pressure	(psig)	10 - 20	30		28	
VAS-27 Flow Rate	(scfm)	TBD	TBD		9.6	
VAS-27 Pressure	(psig)	10 - 20	30		12	
VAS-28 Flow Rate	(scfm)	TBD	TBD		9.4	
VAS-28 Pressure	(psig)	10 - 20	30		12	
VAS-29 Flow Rate	(scfm)	TBD	TBD		9.4	
VAS-29 Pressure	(psig)	10 - 20	30		12	
VAS-30 Flow Rate	(scfm)	TBD	TBD		9.4	
VAS-30 Pressure	(psig)	10 - 20	30		5	
VAS-31 Flow Rate	(scfm)	TBD	TBD		10.7	
VAS-31 Pressure	(psig)	10 - 20	30		28	
VAS-32 Flow Rate	(scfm)	TBD	TBD		↓	—
VAS-32 Pressure	(psig)	10 - 20	30			
VAS-33 Flow Rate	(scfm)	TBD	TBD			
VAS-33 Pressure	(psig)	10 - 20	30			
VAS-34 Flow Rate	(scfm)	TBD	TBD			
VAS-34 Pressure	(psig)	10 - 20	30			



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
1/29/2018 1030 1530	Scott Shick	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD			
VAS-35 Pressure	(psig)	10 - 20	30			
VAS-36 Flow Rate	(scfm)	TBD	TBD			
VAS-36 Pressure	(psig)	10 - 20	30			
VAS-37 Flow Rate	(scfm)	TBD	TBD			
VAS-37 Pressure	(psig)	10 - 20	30			
VAS-38 Flow Rate	(scfm)	TBD	TBD			
VAS-38 Pressure	(psig)	10 - 20	30			
VAS-39 Flow Rate	(scfm)	TBD	TBD			
VAS-39 Pressure	(psig)	10 - 20	30			
VAS-40 Flow Rate	(scfm)	TBD	TBD			
VAS-40 Pressure	(psig)	10 - 20	30			
VAS-41 Flow Rate	(scfm)	TBD	TBD			9.4
VAS-41 Pressure	(psig)	20-Oct	30			5
VAS-42 Flow Rate	(scfm)	TBD	TBD			—
VAS-42 Pressure	(psig)	10 - 20	30			—
VAS-43 Flow Rate	(scfm)	TBD	TBD	7.7		
VAS-43 Pressure	(psig)	10 - 20	30	29		
VAS-44 Flow Rate	(scfm)	TBD	TBD	3.6		
VAS-44 Pressure	(psig)	10 - 20	30	36		
VAS-45 Flow Rate	(scfm)	TBD	TBD	8.4		
VAS-45 Pressure	(psig)	10 - 20	30	8		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure	
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.8	14.7	
BCA-01 Pressure	(psig)	0 - 5	5	18	18	
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.6	14.7	
BCA-02 Pressure	(psig)	0 - 5	5	18	18	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD			
BRS-01 Pressure	(psig)	10 - 20	30			
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			

Adjustments
not made
to increase
flows because
pressures are
high.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
2/5/2018 11:15	Scott Swiba		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		→ see field notes for details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		M.../L
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/5/2018 11:15 14:15	SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	5737:12	5739:55
Air Compressor 1 Load Time	(hours)	NA	NA	3060:13	3062:40
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	185	186
Air Compressor 1 Pressure	(psig)	90 - 110	100	110	110
Air Compressor 2 Run Time	(hours)	NA	NA	3534:08	3536:48
Air Compressor 2 Load Time	(hours)	NA	NA	2511:35	2514:12
Air Compressor 2 Temp	(F)	60 - 100	110	187	191
Air Compressor 2 Pressure	(psig)	90 - 110	100	110	
Receiver Tank Pressure	(psig)	90 - 110	100	112	112
Receiver Tank Temperature	(F)	60 - 100	110	NA	N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	110	110
Manifold Temperature	(F)	60 - 100	110	72	72
Manifold Flow Rate	(scfm)	TBD	TBD	1881	1870
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	487.5	525.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	500.5	514.4
HAS-1 Valve Position	(%)	TBD	TBD	29.8	41.9
HAS-1 Pressure	(psig)	10 - 20	30	26	27
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	466.0	562.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	458.1	516.0
HAS-2 Valve Position	(%)	TBD	TBD	32.2	39.0
HAS-2 Pressure	(psig)	10 - 20	30	29	30
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	244.0	262.5
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	250.9	285.4
HAS-3 Valve Position	(%)	TBD	TBD	28.6	26.7
HAS-3 Pressure	(psig)	10 - 20	30	20	20

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
→ Spruz wells adjusted close to target flows after data collected
HAS01 SCF = 7816.7415
HAS02 SCF = 6424.245015
HAS03 SCF = 3907.5050.0



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/5/2018 1/15 1415	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-01 Pressure	(psig)	10 - 20	30	23	
VAS-02 Flow Rate	(scfm)	TBD	TBD	9.9	
VAS-02 Pressure	(psig)	10 - 20	30	12	
VAS-03 Flow Rate	(scfm)	TBD	TBD	9.7	
VAS-03 Pressure	(psig)	10 - 20	30	5	
VAS-04 Flow Rate	(scfm)	TBD	TBD	9.3	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-05 Pressure	(psig)	10 - 20	30	4	
VAS-06 Flow Rate	(scfm)	TBD	TBD	10.3	
VAS-06 Pressure	(psig)	10 - 20	30	4	
VAS-07 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-07 Pressure	(psig)	10 - 20	30	15	
VAS-08 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-08 Pressure	(psig)	10 - 20	30	14	
VAS-09 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-09 Pressure	(psig)	10 - 20	30	5	
VAS-10 Flow Rate	(scfm)	TBD	TBD	9.3	
VAS-10 Pressure	(psig)	10 - 20	30	6	
VAS-11 Flow Rate	(scfm)	TBD	TBD		10.5
VAS-11 Pressure	(psig)	10 - 20	30		12
VAS-12 Flow Rate	(scfm)	TBD	TBD		9.9
VAS-12 Pressure	(psig)	10 - 20	30		11
VAS-13 Flow Rate	(scfm)	TBD	TBD		9.9
VAS-13 Pressure	(psig)	10 - 20	30		14
VAS-14 Flow Rate	(scfm)	TBD	TBD		10.1
VAS-14 Pressure	(psig)	10 - 20	30		5
VAS-15 Flow Rate	(scfm)	TBD	TBD		9.7
VAS-15 Pressure	(psig)	10 - 20	30		2
VAS-16 Flow Rate	(scfm)	TBD	TBD		10.0
VAS-16 Pressure	(psig)	10 - 20	30		16
VAS-17 Flow Rate	(scfm)	TBD	TBD		9.8
VAS-17 Pressure	(psig)	10 - 20	30		10



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/5/18 11:55 14:15	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD	10.2	—	
VAS-18 Pressure	(psig)	10 - 20	30	1	—	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	10.1	
VAS-19 Pressure	(psig)	10 - 20	30		13	
VAS-20 Flow Rate	(scfm)	TBD	TBD		9.6	
VAS-20 Pressure	(psig)	10 - 20	30		28	
VAS-21 Flow Rate	(scfm)	TBD	TBD		9.7	
VAS-21 Pressure	(psig)	10 - 20	30		23	
VAS-22 Flow Rate	(scfm)	TBD	TBD		9.5	
VAS-22 Pressure	(psig)	10 - 20	30		29	
VAS-23 Flow Rate	(scfm)	TBD	TBD		9.4	
VAS-23 Pressure	(psig)	10 - 20	30		21	
VAS-24 Flow Rate	(scfm)	TBD	TBD		8.6	
VAS-24 Pressure	(psig)	10 - 20	30		32	
VAS-25 Flow Rate	(scfm)	TBD	TBD		9.3	
VAS-25 Pressure	(psig)	10 - 20	30		20	
VAS-26 Flow Rate	(scfm)	TBD	TBD		8.8	
VAS-26 Pressure	(psig)	10 - 20	30		31	
VAS-27 Flow Rate	(scfm)	TBD	TBD		5.6	
VAS-27 Pressure	(psig)	10 - 20	30		32	
VAS-28 Flow Rate	(scfm)	TBD	TBD		9.6	
VAS-28 Pressure	(psig)	10 - 20	30		11	
VAS-29 Flow Rate	(scfm)	TBD	TBD		9.7	
VAS-29 Pressure	(psig)	10 - 20	30		11	
VAS-30 Flow Rate	(scfm)	TBD	TBD		7.5	
VAS-30 Pressure	(psig)	10 - 20	30		7	
VAS-31 Flow Rate	(scfm)	TBD	TBD		10.3	
VAS-31 Pressure	(psig)	10 - 20	30		24	
VAS-32 Flow Rate	(scfm)	TBD	TBD		↓	—
VAS-32 Pressure	(psig)	10 - 20	30			—
VAS-33 Flow Rate	(scfm)	TBD	TBD			—
VAS-33 Pressure	(psig)	10 - 20	30			—
VAS-34 Flow Rate	(scfm)	TBD	TBD		—	—
VAS-34 Pressure	(psig)	10 - 20	30		—	—



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/5/18 11:15	1415 SCOTT SMITH	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
VAS-35 Flow Rate	(scfm)	TBD	TBD				
VAS-35 Pressure	(psig)	10 - 20	30				
VAS-36 Flow Rate	(scfm)	TBD	TBD				
VAS-36 Pressure	(psig)	10 - 20	30				
VAS-37 Flow Rate	(scfm)	TBD	TBD				
VAS-37 Pressure	(psig)	10 - 20	30				
VAS-38 Flow Rate	(scfm)	TBD	TBD				
VAS-38 Pressure	(psig)	10 - 20	30				
VAS-39 Flow Rate	(scfm)	TBD	TBD				
VAS-39 Pressure	(psig)	10 - 20	30				
VAS-40 Flow Rate	(scfm)	TBD	TBD				
VAS-40 Pressure	(psig)	10 - 20	30				
VAS-41 Flow Rate	(scfm)	TBD	TBD			9.7	
VAS-41 Pressure	(psig)	20-Oct	30			6	
VAS-42 Flow Rate	(scfm)	TBD	TBD			—	
VAS-42 Pressure	(psig)	10 - 20	30	—			
VAS-43 Flow Rate	(scfm)	TBD	TBD	8.4			
VAS-43 Pressure	(psig)	10 - 20	30	28			
VAS-44 Flow Rate	(scfm)	TBD	TBD	4.1			
VAS-44 Pressure	(psig)	10 - 20	30	36			
VAS-45 Flow Rate	(scfm)	TBD	TBD	8.8			
VAS-45 Pressure	(psig)	10 - 20	30	9			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure		
BCA-01 Flow Rate	(scfm)	TBD	TBD	15.2	14.5		
BCA-01 Pressure	(psig)	0 - 5	5	19	18		
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.5	14.8		
BCA-02 Pressure	(psig)	0 - 5	5	18	17		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure		
BRS-01 Flow Rate	(scfm)	TBD	TBD				
BRS-01 Pressure	(psig)	10 - 20	30				
BRS-02 Flow Rate	(scfm)	TBD	TBD				
BRS-02 Pressure	(psig)	10 - 20	30				
BRS-03 Flow Rate	(scfm)	TBD	TBD				
BRS-03 Pressure	(psig)	10 - 20	30				



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
2/2/2018 1330	SCOTT Smith	Tyler Hume	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		→ see field book for air monitoring details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		→ see below comments
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: Airite onsite to troubleshoot loading issues. Find problem w/ AC#1 inlet valve. Suspect bad seals, will need to rebuild.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/12/2018 1530	Scott Snicek	Tyler Hall	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	4:45	
Air Compressor 1 Run Time	(hours)	NA	NA	5906:48	
Air Compressor 1 Load Time	(hours)	NA	NA	3221:46	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	182	
Air Compressor 1 Pressure	(psig)	90 - 110	100	44	
Air Compressor 2 Run Time	(hours)	NA	NA	3704:12	
Air Compressor 2 Load Time	(hours)	NA	NA	2606:18	
Air Compressor 2 Temp	(F)	60 - 100	110	198	
Air Compressor 2 Pressure	(psig)	90 - 110	100	43	
Receiver Tank Pressure	(psig)	90 - 110	100	48	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	40	
Manifold Temperature	(F)	60 - 100	110	90	
Manifold Flow Rate	(scfm)	TBD	TBD	1884	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	525.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	525.5	
HAS-1 Valve Position	(%)	TBD	TBD	52.9	
HAS-1 Pressure	(psig)	10 - 20	30	26	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	572.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	501.0	
HAS-2 Valve Position	(%)	TBD	TBD	50.5	
HAS-2 Pressure	(psig)	10 - 20	30	28	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	262.5	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	263.5	
HAS-3 Valve Position	(%)	TBD	TBD	30.1	
HAS-3 Pressure	(psig)	10 - 20	30	19	

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/12/2018 1330	Scott Snow	Tyler Hall	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD		
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-11 Pressure	(psig)	10 - 20	30	12	
VAS-12 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-12 Pressure	(psig)	10 - 20	30	10	
VAS-13 Flow Rate	(scfm)	TBD	TBD	8.3	
VAS-13 Pressure	(psig)	10 - 20	30	12	
VAS-14 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-14 Pressure	(psig)	10 - 20	30	8	
VAS-15 Flow Rate	(scfm)	TBD	TBD	8.4	
VAS-15 Pressure	(psig)	10 - 20	30	2	
VAS-16 Flow Rate	(scfm)	TBD	TBD	11.2	
VAS-16 Pressure	(psig)	10 - 20	30	12	
VAS-17 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-17 Pressure	(psig)	10 - 20	30	4	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/12/2018 1330	Scott Smith	Tyler Hall	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	.	
VAS-18 Pressure	(psig)	10 - 20	30	.	
VAS-19 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-19 Pressure	(psig)	10 - 20	30	12	
VAS-20 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-20 Pressure	(psig)	10 - 20	30	24	
VAS-21 Flow Rate	(scfm)	TBD	TBD	8.7	
VAS-21 Pressure	(psig)	10 - 20	30	22	
VAS-22 Flow Rate	(scfm)	TBD	TBD	8.5	
VAS-22 Pressure	(psig)	10 - 20	30	24	
VAS-23 Flow Rate	(scfm)	TBD	TBD	8.2	
VAS-23 Pressure	(psig)	10 - 20	30	20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	6.6	
VAS-24 Pressure	(psig)	10 - 20	30	31	
VAS-25 Flow Rate	(scfm)	TBD	TBD	8.7	
VAS-25 Pressure	(psig)	10 - 20	30	18	
VAS-26 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-26 Pressure	(psig)	10 - 20	30	30	
VAS-27 Flow Rate	(scfm)	TBD	TBD	7.0	
VAS-27 Pressure	(psig)	10 - 20	30	30	
VAS-28 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-28 Pressure	(psig)	10 - 20	30	11	
VAS-29 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-29 Pressure	(psig)	10 - 20	30	11	
VAS-30 Flow Rate	(scfm)	TBD	TBD	8.5	
VAS-30 Pressure	(psig)	10 - 20	30	4	
VAS-31 Flow Rate	(scfm)	TBD	TBD	8.3	
VAS-31 Pressure	(psig)	10 - 20	30	24	
VAS-32 Flow Rate	(scfm)	TBD	TBD		
VAS-32 Pressure	(psig)	10 - 20	30		
VAS-33 Flow Rate	(scfm)	TBD	TBD		
VAS-33 Pressure	(psig)	10 - 20	30		
VAS-34 Flow Rate	(scfm)	TBD	TBD		
VAS-34 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/12/2018 1330	Scott Smith	Tyler Hill	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		
VAS-35 Pressure	(psig)	10 - 20	30		
VAS-36 Flow Rate	(scfm)	TBD	TBD		
VAS-36 Pressure	(psig)	10 - 20	30		
VAS-37 Flow Rate	(scfm)	TBD	TBD		
VAS-37 Pressure	(psig)	10 - 20	30		
VAS-38 Flow Rate	(scfm)	TBD	TBD		
VAS-38 Pressure	(psig)	10 - 20	30		
VAS-39 Flow Rate	(scfm)	TBD	TBD		
VAS-39 Pressure	(psig)	10 - 20	30		
VAS-40 Flow Rate	(scfm)	TBD	TBD		
VAS-40 Pressure	(psig)	10 - 20	30		
VAS-41 Flow Rate	(scfm)	TBD	TBD		
VAS-41 Pressure	(psig)	20-Oct	30		
VAS-42 Flow Rate	(scfm)	TBD	TBD		
VAS-42 Pressure	(psig)	10 - 20	30		
VAS-43 Flow Rate	(scfm)	TBD	TBD		
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	12.8	
BCA-01 Pressure	(psig)	0 - 5	5	15	
BCA-02 Flow Rate	(scfm)	TBD	TBD	13.2	
BCA-02 Pressure	(psig)	0 - 5	5	15	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
2/19/2018 1815	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		See field book for details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		"
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No	6/2018	
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No	—	
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No	—	
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No	—	
Calibrate EAD	Annually	Yes / No	Yes / No	—	

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → cleaned several VAS solenoid valves that have been sticking, will monitor to see if cleaning worked
 → Turned Act1 exhaust hood 180°, and re-installed pointing away from Act2



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/19/2015 1010	1015 Scott Powell	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	yes
Air Compressor 1 Run Time	(hours)	NA	NA	6071:11	6072:43
Air Compressor 1 Load Time	(hours)	NA	NA	3301:30	3302:43
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	—	181
Air Compressor 1 Pressure	(psig)	90 - 110	100	—	104
Air Compressor 2 Run Time	(hours)	NA	NA	3808:34	3809:50
Air Compressor 2 Load Time	(hours)	NA	NA	1844:22	2845:4
Air Compressor 2 Temp	(F)	60 - 100	110		180
Air Compressor 2 Pressure	(psig)	90 - 110	100		106
Receiver Tank Pressure	(psig)	90 - 110	100		111
Receiver Tank Temperature	(F)	60 - 100	110		—
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100		105
Manifold Temperature	(F)	60 - 100	110		68
Manifold Flow Rate	(scfm)	TBD	TBD		1738
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD		525.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	scf = 8881385.1	526.6
HAS-1 Valve Position	(%)	TBD	TBD		15.4
HAS-1 Pressure	(psig)	10 - 20	30		20
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		502.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	scf = 74216655.3	503.1
HAS-2 Valve Position	(%)	TBD	TBD		23.4
HAS-2 Pressure	(psig)	10 - 20	30		22
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		262.5
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	scf = 44315538.6	261.8
HAS-3 Valve Position	(%)	TBD	TBD		29.0
HAS-3 Pressure	(psig)	10 - 20	30		17

Parts Needed:	
Parts Installed:	AC#1 Inlet Valve REBUILD KIT (AIRITE)

Notes (include alarms since previous visit):



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
2/26/18 GSA			Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		- see field book for air monitoring details
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: - HMI screen went inactive, not allowing remote connection. Required reboot. Remote connection now working.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/20/18 0900	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	Yes	
Air Compressor 1 Run Time	(hours)	NA	NA	6:23:36	
Air Compressor 1 Load Time	(hours)	NA	NA	3:54:36	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	182	
Air Compressor 1 Pressure	(psig)	90 - 110	100	88	
Air Compressor 2 Run Time	(hours)	NA	NA	4:02:44	
Air Compressor 2 Load Time	(hours)	NA	NA	3:00:49	
Air Compressor 2 Temp	(F)	60 - 100	110	182	
Air Compressor 2 Pressure	(psig)	90 - 110	100	89	
Receiver Tank Pressure	(psig)	90 - 110	100	95	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	87	
Manifold Temperature	(F)	60 - 100	110	79	
Manifold Flow Rate	(scfm)	TBD	TBD	1918	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	525.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	521.0	
HAS-1 Valve Position	(%)	TBD	TBD	24.5	
HAS-1 Pressure	(psig)	10 - 20	30	26	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	502.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	500.1	
HAS-2 Valve Position	(%)	TBD	TBD	31.9	
HAS-2 Pressure	(psig)	10 - 20	30	30	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	262.5	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	258.7	
HAS-3 Valve Position	(%)	TBD	TBD	30.5	
HAS-3 Pressure	(psig)	10 - 20	30	20	

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/26/18 0930	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	7.2	
VAS-01 Pressure	(psig)	10 - 20	30	22	
VAS-02 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-02 Pressure	(psig)	10 - 20	30	13	
VAS-03 Flow Rate	(scfm)	TBD	TBD	8.9	
VAS-03 Pressure	(psig)	10 - 20	30	8	
VAS-04 Flow Rate	(scfm)	TBD	TBD	9.8	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	9.7	
VAS-05 Pressure	(psig)	10 - 20	30	3	
VAS-06 Flow Rate	(scfm)	TBD	TBD	8.7	
VAS-06 Pressure	(psig)	10 - 20	30	5	
VAS-07 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-07 Pressure	(psig)	10 - 20	30	16	
VAS-08 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-08 Pressure	(psig)	10 - 20	30	14	
VAS-09 Flow Rate	(scfm)	TBD	TBD	10.1	
VAS-09 Pressure	(psig)	10 - 20	30	6	
VAS-10 Flow Rate	(scfm)	TBD	TBD	9.0	
VAS-10 Pressure	(psig)	10 - 20	30	5	
VAS-11 Flow Rate	(scfm)	TBD	TBD	T ↓	
VAS-11 Pressure	(psig)	10 - 20	30		
VAS-12 Flow Rate	(scfm)	TBD	TBD		
VAS-12 Pressure	(psig)	10 - 20	30		
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/6/2018 0900	Scott Simpson	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-18 Pressure	(psig)	10 - 20	30	0	
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD		
VAS-20 Pressure	(psig)	10 - 20	30		
VAS-21 Flow Rate	(scfm)	TBD	TBD		
VAS-21 Pressure	(psig)	10 - 20	30		
VAS-22 Flow Rate	(scfm)	TBD	TBD	14.5	
VAS-22 Pressure	(psig)	10 - 20	30	24	
VAS-23 Flow Rate	(scfm)	TBD	TBD	11.2	
VAS-23 Pressure	(psig)	10 - 20	30	20	
VAS-24 Flow Rate	(scfm)	TBD	TBD	18.1	
VAS-24 Pressure	(psig)	10 - 20	30	20	
VAS-25 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-25 Pressure	(psig)	10 - 20	30		
VAS-26 Flow Rate	(scfm)	TBD	TBD		
VAS-26 Pressure	(psig)	10 - 20	30		
VAS-27 Flow Rate	(scfm)	TBD	TBD		
VAS-27 Pressure	(psig)	10 - 20	30		
VAS-28 Flow Rate	(scfm)	TBD	TBD		
VAS-28 Pressure	(psig)	10 - 20	30		
VAS-29 Flow Rate	(scfm)	TBD	TBD		
VAS-29 Pressure	(psig)	10 - 20	30		
VAS-30 Flow Rate	(scfm)	TBD	TBD		
VAS-30 Pressure	(psig)	10 - 20	30		
VAS-31 Flow Rate	(scfm)	TBD	TBD		
VAS-31 Pressure	(psig)	10 - 20	30		
VAS-32 Flow Rate	(scfm)	TBD	TBD	10.4	
VAS-32 Pressure	(psig)	10 - 20	30	16	
VAS-33 Flow Rate	(scfm)	TBD	TBD	17.8	
VAS-33 Pressure	(psig)	10 - 20	30	20	
VAS-34 Flow Rate	(scfm)	TBD	TBD	13.0	
VAS-34 Pressure	(psig)	10 - 20	30	26	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
2/24/2018 0900	SCOTT SWINOA		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		
VAS-35 Pressure	(psig)	10 - 20	30		
VAS-36 Flow Rate	(scfm)	TBD	TBD		
VAS-36 Pressure	(psig)	10 - 20	30		
VAS-37 Flow Rate	(scfm)	TBD	TBD		
VAS-37 Pressure	(psig)	10 - 20	30		
VAS-38 Flow Rate	(scfm)	TBD	TBD		
VAS-38 Pressure	(psig)	10 - 20	30		
VAS-39 Flow Rate	(scfm)	TBD	TBD		
VAS-39 Pressure	(psig)	10 - 20	30		
VAS-40 Flow Rate	(scfm)	TBD	TBD		
VAS-40 Pressure	(psig)	10 - 20	30		
VAS-41 Flow Rate	(scfm)	TBD	TBD	9.6	
VAS-41 Pressure	(psig)	20-Oct	30	8	
VAS-42 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-42 Pressure	(psig)	10 - 20	30	12	
VAS-43 Flow Rate	(scfm)	TBD	TBD	11.4	
VAS-43 Pressure	(psig)	10 - 20	30	27	
VAS-44 Flow Rate	(scfm)	TBD	TBD	1.9	
VAS-44 Pressure	(psig)	10 - 20	30	38	
VAS-45 Flow Rate	(scfm)	TBD	TBD	8.8	
VAS-45 Pressure	(psig)	10 - 20	30	16	
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.3	
BCA-01 Pressure	(psig)	0 - 5	5	18	
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.4	
BCA-02 Pressure	(psig)	0 - 5	5	18	
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/5/2018 1040	Scott Smith	Chris Carubba	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/5/2018 1040	Scott Sinner	Chris Corabba	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	yes	
Air Compressor 1 Run Time	(hours)	NA	NA	6401:14	
Air Compressor 1 Load Time	(hours)	NA	NA	3711:12	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	183	
Air Compressor 1 Pressure	(psig)	90 - 110	100	104	
Air Compressor 2 Run Time	(hours)	NA	NA	4198:22	
Air Compressor 2 Load Time	(hours)	NA	NA	3173:47	
Air Compressor 2 Temp	(F)	60 - 100	110	181	
Air Compressor 2 Pressure	(psig)	90 - 110	100	165	
Receiver Tank Pressure	(psig)	90 - 110	100	110	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	105	
Manifold Temperature	(F)	60 - 100	110	71	
Manifold Flow Rate	(scfm)	TBD	TBD	1920	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	525.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	526.9	
HAS-1 Valve Position	(%)	TBD	TBD	13.4	
HAS-1 Pressure	(psig)	10 - 20	30	20	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	502.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	501.4	
HAS-2 Valve Position	(%)	TBD	TBD	24.4	
HAS-2 Pressure	(psig)	10 - 20	30	20	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	262.5	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	264.4	
HAS-3 Valve Position	(%)	TBD	TBD	28.6	
HAS-3 Pressure	(psig)	10 - 20	30	20	

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
→ After data collection WAS wells adjusted to 10 scfm because they have dr. chgd.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/5/2018 1640	Scott Smith	Chris Charrabba	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD	10.2	
VAS-01 Pressure	(psig)	10 - 20	30	18	
VAS-02 Flow Rate	(scfm)	TBD	TBD	8.2	
VAS-02 Pressure	(psig)	10 - 20	30	15	
VAS-03 Flow Rate	(scfm)	TBD	TBD	8.5	
VAS-03 Pressure	(psig)	10 - 20	30	10	
VAS-04 Flow Rate	(scfm)	TBD	TBD	9.7	
VAS-04 Pressure	(psig)	10 - 20	30	2	
VAS-05 Flow Rate	(scfm)	TBD	TBD	7.2	
VAS-05 Pressure	(psig)	10 - 20	30	3	
VAS-06 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-06 Pressure	(psig)	10 - 20	30	5	
VAS-07 Flow Rate	(scfm)	TBD	TBD	8.4	
VAS-07 Pressure	(psig)	10 - 20	30	18	
VAS-08 Flow Rate	(scfm)	TBD	TBD	7.9	
VAS-08 Pressure	(psig)	10 - 20	30	18	
VAS-09 Flow Rate	(scfm)	TBD	TBD	7.8	
VAS-09 Pressure	(psig)	10 - 20	30	8	
VAS-10 Flow Rate	(scfm)	TBD	TBD	7.1	
VAS-10 Pressure	(psig)	10 - 20	30	11	
VAS-11 Flow Rate	(scfm)	TBD	TBD	10.6	
VAS-11 Pressure	(psig)	10 - 20	30	16	
VAS-12 Flow Rate	(scfm)	TBD	TBD	10.1	
VAS-12 Pressure	(psig)	10 - 20	30	11	
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/5/2018 1040	Scott Smith	Chris Curran	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	T	
VAS-18 Pressure	(psig)	10 - 20	30		
VAS-19 Flow Rate	(scfm)	TBD	TBD		
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD	11.5	
VAS-20 Pressure	(psig)	10 - 20	30	28	
VAS-21 Flow Rate	(scfm)	TBD	TBD	9.1	
VAS-21 Pressure	(psig)	10 - 20	30	24	
VAS-22 Flow Rate	(scfm)	TBD	TBD	15.3	
VAS-22 Pressure	(psig)	10 - 20	30	25	
VAS-23 Flow Rate	(scfm)	TBD	TBD	11.7	
VAS-23 Pressure	(psig)	10 - 20	30	22	
VAS-24 Flow Rate	(scfm)	TBD	TBD	16.9	
VAS-24 Pressure	(psig)	10 - 20	30	25	
VAS-25 Flow Rate	(scfm)	TBD	TBD	8.2	
VAS-25 Pressure	(psig)	10 - 20	30	23	
VAS-26 Flow Rate	(scfm)	TBD	TBD	6.7	
VAS-26 Pressure	(psig)	10 - 20	30	33	
VAS-27 Flow Rate	(scfm)	TBD	TBD	8.3	
VAS-27 Pressure	(psig)	10 - 20	30	32	
VAS-28 Flow Rate	(scfm)	TBD	TBD	8.6	
VAS-28 Pressure	(psig)	10 - 20	30	24	
VAS-29 Flow Rate	(scfm)	TBD	TBD	9.9	
VAS-29 Pressure	(psig)	10 - 20	30	13	
VAS-30 Flow Rate	(scfm)	TBD	TBD	9.5	
VAS-30 Pressure	(psig)	10 - 20	30	7	
VAS-31 Flow Rate	(scfm)	TBD	TBD	11.9	
VAS-31 Pressure	(psig)	10 - 20	30	27	
VAS-32 Flow Rate	(scfm)	TBD	TBD	10.5	
VAS-32 Pressure	(psig)	10 - 20	30	17	
VAS-33 Flow Rate	(scfm)	TBD	TBD	18.8	
VAS-33 Pressure	(psig)	10 - 20	30	22	
VAS-34 Flow Rate	(scfm)	TBD	TBD	13.3	
VAS-34 Pressure	(psig)	10 - 20	30	2	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/5/2018 1040	Scott Smith	Chris Carrollo	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD			
VAS-35 Pressure	(psig)	10 - 20	30			
VAS-36 Flow Rate	(scfm)	TBD	TBD			
VAS-36 Pressure	(psig)	10 - 20	30			
VAS-37 Flow Rate	(scfm)	TBD	TBD			
VAS-37 Pressure	(psig)	10 - 20	30			
VAS-38 Flow Rate	(scfm)	TBD	TBD			
VAS-38 Pressure	(psig)	10 - 20	30			
VAS-39 Flow Rate	(scfm)	TBD	TBD			
VAS-39 Pressure	(psig)	10 - 20	30			
VAS-40 Flow Rate	(scfm)	TBD	TBD			
VAS-40 Pressure	(psig)	10 - 20	30			
VAS-41 Flow Rate	(scfm)	TBD	TBD			
VAS-41 Pressure	(psig)	20-Oct	30			
VAS-42 Flow Rate	(scfm)	TBD	TBD		16.3	
VAS-42 Pressure	(psig)	10 - 20	30		13	
VAS-43 Flow Rate	(scfm)	TBD	TBD			
VAS-43 Pressure	(psig)	10 - 20	30			
VAS-44 Flow Rate	(scfm)	TBD	TBD			
VAS-44 Pressure	(psig)	10 - 20	30			
VAS-45 Flow Rate	(scfm)	TBD	TBD			
VAS-45 Pressure	(psig)	10 - 20	30			
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure	
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.4		
BCA-01 Pressure	(psig)	0 - 5	5	19		
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.7		
BCA-02 Pressure	(psig)	0 - 5	5	18		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD			
BRS-01 Pressure	(psig)	10 - 20	30			
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/12/2018 10:15	SCOTT Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		→ see field book for det. (s)
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/12/2015 10:15	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	YES	
Air Compressor 1 Run Time	(hours)	NA	NA	6567:53	
Air Compressor 1 Load Time	(hours)	NA	NA	3876:27	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	181	
Air Compressor 1 Pressure	(psig)	90 - 110	100	106	
Air Compressor 2 Run Time	(hours)	NA	NA	4365:00	
Air Compressor 2 Load Time	(hours)	NA	NA	3346:14	
Air Compressor 2 Temp	(F)	60 - 100	110	179	
Air Compressor 2 Pressure	(psig)	90 - 110	100	167	
Receiver Tank Pressure	(psig)	90 - 110	100	116	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	106	
Manifold Temperature	(F)	60 - 100	110	40	
Manifold Flow Rate	(scfm)	TBD	TBD	10	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	525.6	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	521.7	
HAS-1 Valve Position	(%)	TBD	TBD	10.3	
HAS-1 Pressure	(psig)	10 - 20	30	25	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	502.6	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	505.7	
HAS-2 Valve Position	(%)	TBD	TBD	24.1	
HAS-2 Pressure	(psig)	10 - 20	30	28	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	262.5	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	261.9	
HAS-3 Valve Position	(%)	TBD	TBD	28.4	
HAS-3 Pressure	(psig)	10 - 20	30	19	

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):

→ Following data collection all operating vertical wells adjusted to 10 SCFM unless pressures are very high, then they were left to operate as is.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/12/2018 1:05	Scott Swort		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD		
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD		
VAS-11 Pressure	(psig)	10 - 20	30		
VAS-12 Flow Rate	(scfm)	TBD	TBD		
VAS-12 Pressure	(psig)	10 - 20	30		
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/12/2018 105	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-18 Flow Rate	(scfm)	TBD	TBD			
VAS-18 Pressure	(psig)	10 - 20	30			
VAS-19 Flow Rate	(scfm)	TBD	TBD			
VAS-19 Pressure	(psig)	10 - 20	30			
VAS-20 Flow Rate	(scfm)	TBD	TBD			
VAS-20 Pressure	(psig)	10 - 20	30			
VAS-21 Flow Rate	(scfm)	TBD	TBD			
VAS-21 Pressure	(psig)	10 - 20	30			
VAS-22 Flow Rate	(scfm)	TBD	TBD		8.6	
VAS-22 Pressure	(psig)	10 - 20	30		22	
VAS-23 Flow Rate	(scfm)	TBD	TBD		11.9	
VAS-23 Pressure	(psig)	10 - 20	30		22	
VAS-24 Flow Rate	(scfm)	TBD	TBD		4.3	
VAS-24 Pressure	(psig)	10 - 20	30		22	
VAS-25 Flow Rate	(scfm)	TBD	TBD			
VAS-25 Pressure	(psig)	10 - 20	30			
VAS-26 Flow Rate	(scfm)	TBD	TBD			
VAS-26 Pressure	(psig)	10 - 20	30			
VAS-27 Flow Rate	(scfm)	TBD	TBD			
VAS-27 Pressure	(psig)	10 - 20	30			
VAS-28 Flow Rate	(scfm)	TBD	TBD			
VAS-28 Pressure	(psig)	10 - 20	30			
VAS-29 Flow Rate	(scfm)	TBD	TBD			
VAS-29 Pressure	(psig)	10 - 20	30			
VAS-30 Flow Rate	(scfm)	TBD	TBD			
VAS-30 Pressure	(psig)	10 - 20	30			
VAS-31 Flow Rate	(scfm)	TBD	TBD			
VAS-31 Pressure	(psig)	10 - 20	30			
VAS-32 Flow Rate	(scfm)	TBD	TBD		10.7	
VAS-32 Pressure	(psig)	10 - 20	30		17	
VAS-33 Flow Rate	(scfm)	TBD	TBD		7.5	
VAS-33 Pressure	(psig)	10 - 20	30		16	
VAS-34 Flow Rate	(scfm)	TBD	TBD		11.5	
VAS-34 Pressure	(psig)	10 - 20	30		20	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/12/2018 10:15	Scott Smith	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD			
VAS-35 Pressure	(psig)	10 - 20	30			
VAS-36 Flow Rate	(scfm)	TBD	TBD			
VAS-36 Pressure	(psig)	10 - 20	30			
VAS-37 Flow Rate	(scfm)	TBD	TBD			
VAS-37 Pressure	(psig)	10 - 20	30			
VAS-38 Flow Rate	(scfm)	TBD	TBD			
VAS-38 Pressure	(psig)	10 - 20	30			
VAS-39 Flow Rate	(scfm)	TBD	TBD			
VAS-39 Pressure	(psig)	10 - 20	30			
VAS-40 Flow Rate	(scfm)	TBD	TBD			
VAS-40 Pressure	(psig)	10 - 20	30			
VAS-41 Flow Rate	(scfm)	TBD	TBD		16.1	
VAS-41 Pressure	(psig)	20-Oct	30		11	
VAS-42 Flow Rate	(scfm)	TBD	TBD		10.6	
VAS-42 Pressure	(psig)	10 - 20	30		13	
VAS-43 Flow Rate	(scfm)	TBD	TBD	5.1		
VAS-43 Pressure	(psig)	10 - 20	30	33		
VAS-44 Flow Rate	(scfm)	TBD	TBD	2.9		
VAS-44 Pressure	(psig)	10 - 20	30	39		
VAS-45 Flow Rate	(scfm)	TBD	TBD	8.4		
VAS-45 Pressure	(psig)	10 - 20	30	13		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure	
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.9		
BCA-01 Pressure	(psig)	0 - 5	5	19		
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.7		
BCA-02 Pressure	(psig)	0 - 5	5	18		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD			
BRS-01 Pressure	(psig)	10 - 20	30			
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			

NOT OPERATING



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/19/2018 1000	SCOTT SMITH	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments:

→ Clean air intake filters on compressors

→ Change coalescing filters, gaskets on hand hole covers were unable to be reinstalled. Very bad condition. System will be down until new gaskets come in.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 Lewis Drive, Belton, South Carolina
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/19/2016 1000 1700	SCOTT SMICKA		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	YES	* NO *
Air Compressor 1 Run Time	(hours)	NA	NA	6735:35	
Air Compressor 1 Load Time	(hours)	NA	NA	4642:55	
Air Compressor 1 Discharge Temp	(F)	60 - 100	110	183	
Air Compressor 1 Pressure	(psig)	90 - 110	100	104	
Air Compressor 2 Run Time	(hours)	NA	NA	4532:42	
Air Compressor 2 Load Time	(hours)	NA	NA	3507:00	
Air Compressor 2 Temp	(F)	60 - 100	110	182	
Air Compressor 2 Pressure	(psig)	90 - 110	100	106	
Receiver Tank Pressure	(psig)	90 - 110	100	112	
Receiver Tank Temperature	(F)	60 - 100	110	N/A	
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100	108	
Manifold Temperature	(F)	60 - 100	110	77	
Manifold Flow Rate	(scfm)	TBD	TBD	1744	
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD	475.0	
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD	421.0	
HAS-1 Valve Position	(%)	TBD	TBD	9.3	
HAS-1 Pressure	(psig)	10 - 20	30	22	
HAS-2 Target Flow Rate	(scfm)	TBD	TBD	502.0	
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD	501.0	
HAS-2 Valve Position	(%)	TBD	TBD	24.1	
HAS-2 Pressure	(psig)	10 - 20	30	27	
HAS-3 Target Flow Rate	(scfm)	TBD	TBD	262.5	
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD	261.5	
HAS-3 Valve Position	(%)	TBD	TBD	30.4	
HAS-3 Pressure	(psig)	10 - 20	30	19	

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
** Down because bad gaskets in inline coalescing filter housings. Will submit order new gaskets received.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
<i>3/19/2018 1006</i>	<i>Scott Simon</i>	<i>[Signature]</i>	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		
VAS-01 Pressure	(psig)	10 - 20	30		
VAS-02 Flow Rate	(scfm)	TBD	TBD		
VAS-02 Pressure	(psig)	10 - 20	30		
VAS-03 Flow Rate	(scfm)	TBD	TBD		
VAS-03 Pressure	(psig)	10 - 20	30		
VAS-04 Flow Rate	(scfm)	TBD	TBD		
VAS-04 Pressure	(psig)	10 - 20	30		
VAS-05 Flow Rate	(scfm)	TBD	TBD		
VAS-05 Pressure	(psig)	10 - 20	30		
VAS-06 Flow Rate	(scfm)	TBD	TBD		
VAS-06 Pressure	(psig)	10 - 20	30		
VAS-07 Flow Rate	(scfm)	TBD	TBD		
VAS-07 Pressure	(psig)	10 - 20	30		
VAS-08 Flow Rate	(scfm)	TBD	TBD		
VAS-08 Pressure	(psig)	10 - 20	30		
VAS-09 Flow Rate	(scfm)	TBD	TBD		
VAS-09 Pressure	(psig)	10 - 20	30		
VAS-10 Flow Rate	(scfm)	TBD	TBD		
VAS-10 Pressure	(psig)	10 - 20	30		
VAS-11 Flow Rate	(scfm)	TBD	TBD		
VAS-11 Pressure	(psig)	10 - 20	30		
VAS-12 Flow Rate	(scfm)	TBD	TBD		
VAS-12 Pressure	(psig)	10 - 20	30		
VAS-13 Flow Rate	(scfm)	TBD	TBD		
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/14/2018 1000	SCOTT SWAN		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-18 Pressure	(psig)	10 - 20	30		
VAS-19 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-20 Pressure	(psig)	10 - 20	30		
VAS-21 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-21 Pressure	(psig)	10 - 20	30		
VAS-22 Flow Rate	(scfm)	TBD	TBD	10.0	
VAS-22 Pressure	(psig)	10 - 20	30	22	
VAS-23 Flow Rate	(scfm)	TBD	TBD	9.8	
VAS-23 Pressure	(psig)	10 - 20	30	19	
VAS-24 Flow Rate	(scfm)	TBD	TBD	8.7	
VAS-24 Pressure	(psig)	10 - 20	30	27	
VAS-25 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-25 Pressure	(psig)	10 - 20	30		
VAS-26 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-26 Pressure	(psig)	10 - 20	30		
VAS-27 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-27 Pressure	(psig)	10 - 20	30		
VAS-28 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-28 Pressure	(psig)	10 - 20	30		
VAS-29 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-29 Pressure	(psig)	10 - 20	30		
VAS-30 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-30 Pressure	(psig)	10 - 20	30		
VAS-31 Flow Rate	(scfm)	TBD	TBD	↓	
VAS-31 Pressure	(psig)	10 - 20	30		
VAS-32 Flow Rate	(scfm)	TBD	TBD	9.4	
VAS-32 Pressure	(psig)	10 - 20	30	16	
VAS-33 Flow Rate	(scfm)	TBD	TBD	16.9	
VAS-33 Pressure	(psig)	10 - 20	30	17	
VAS-34 Flow Rate	(scfm)	TBD	TBD	7.4	
VAS-34 Pressure	(psig)	10 - 20	30	19	



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/19/2018 1600	Scott Smith		Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
VAS-35 Flow Rate	(scfm)	TBD	TBD			
VAS-35 Pressure	(psig)	10 - 20	30			
VAS-36 Flow Rate	(scfm)	TBD	TBD			
VAS-36 Pressure	(psig)	10 - 20	30			
VAS-37 Flow Rate	(scfm)	TBD	TBD			
VAS-37 Pressure	(psig)	10 - 20	30			
VAS-38 Flow Rate	(scfm)	TBD	TBD			
VAS-38 Pressure	(psig)	10 - 20	30			
VAS-39 Flow Rate	(scfm)	TBD	TBD			
VAS-39 Pressure	(psig)	10 - 20	30			
VAS-40 Flow Rate	(scfm)	TBD	TBD			
VAS-40 Pressure	(psig)	10 - 20	30			
VAS-41 Flow Rate	(scfm)	TBD	TBD		9.4	
VAS-41 Pressure	(psig)	20-Oct	30		11	
VAS-42 Flow Rate	(scfm)	TBD	TBD		9.9	
VAS-42 Pressure	(psig)	10 - 20	30		12	
VAS-43 Flow Rate	(scfm)	TBD	TBD	1.3		
VAS-43 Pressure	(psig)	10 - 20	30	33		
VAS-44 Flow Rate	(scfm)	TBD	TBD	2.3		
VAS-44 Pressure	(psig)	10 - 20	30	39		
VAS-45 Flow Rate	(scfm)	TBD	TBD	9.0		
VAS-45 Pressure	(psig)	10 - 20	30	16		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure	
BCA-01 Flow Rate	(scfm)	TBD	TBD	14.6		
BCA-01 Pressure	(psig)	0 - 5	5	18		
BCA-02 Flow Rate	(scfm)	TBD	TBD	14.6		
BCA-02 Pressure	(psig)	0 - 5	5	18		
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure	
BRS-01 Flow Rate	(scfm)	TBD	TBD			
BRS-01 Pressure	(psig)	10 - 20	30			
BRS-02 Flow Rate	(scfm)	TBD	TBD			
BRS-02 Pressure	(psig)	10 - 20	30			
BRS-03 Flow Rate	(scfm)	TBD	TBD			
BRS-03 Pressure	(psig)	10 - 20	30			



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance Maintenance Log <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Discharge Permit and Expiration Date
3/24/2018 1500	Scott Powell	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Site Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect condition of Brown's Creek.	Each visit	Yes / No	Yes / No		
Perform air monitoring near Cupboard Creek.	Each visit	Yes / No	Yes / No		
Activate and inspect condition of receiver auto drain.	Each visit	Yes / No	Yes / No		
...	...				
...	...				

Equipment Maintenance	Frequency	Conditions Good?	Repaired/Replaced?	Scheduled	Comment
Inspect receiver tank and discharge lines.	Monthly	Yes / No	Yes / No		
Inspect condensate system components. Drain and clean as needed.	Monthly	Yes / No	Yes / No		
Inspect the two fire extinguishers for signs of deterioration. Shake contents.	Monthly	Yes / No	Yes / No		
Coordinate with Airite to performed quarterly and annual PM on both machines.	Quarterly	Yes / No	Yes / No		
Inspect various building components detailed in Section X.X.X.	Semi-Annually	Yes / No	Yes / No		
Test relief valve on receiver tank for proper operation.	Annually	Yes / No	Yes / No		
Inspect flow meters per Section X.X.X. Verify calibration.	Annually	Yes / No	Yes / No		
Calibrate EAD	Annually	Yes / No	Yes / No		

NOTE: Please check the manufacturer's instructions for the specific maintenance schedule and instructions.

Additional Comments: → Replace coalescing filter housing gaskets w/ new and restart sponge system



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 1 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/26/2018 1500	Scott Smioa	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Exterior Components	(Units)	Optimal Level	Max Level	Arrival	Departure
System Operating	(Yes/No)	NA	NA	NO- restart, see notes	YES
Air Compressor 1 Run Time	(hours)	NA	NA		6736:08
Air Compressor 1 Load Time	(hours)	NA	NA		4643:20
Air Compressor 1 Discharge Temp	(F)	60 - 100	110		—
Air Compressor 1 Pressure	(psig)	90 - 110	100		—
Air Compressor 2 Run Time	(hours)	NA	NA		4538:17
Air Compressor 2 Load Time	(hours)	NA	NA		3511:30
Air Compressor 2 Temp	(F)	60 - 100	110		177
Air Compressor 2 Pressure	(psig)	90 - 110	100		110
Receiver Tank Pressure	(psig)	90 - 110	100		112
Receiver Tank Temperature	(F)	60 - 100	110		N/A
Interior Manifold	(Units)	Optimal Level	Max Level	Arrival	Departure
Manifold Pressure	(psig)	90 - 110	100		108
Manifold Temperature	(F)	60 - 100	110		60
Manifold Flow Rate	(scfm)	TBD	TBD		958.4
Horizontal Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
HAS-1 Target Flow Rate	(scfm)	TBD	TBD		275.0
HAS-1 Actual Flow Rate	(scfm)	TBD	TBD		271.5
HAS-1 Valve Position	(%)	TBD	TBD		36.3
HAS-1 Pressure	(psig)	10 - 20	30		27
HAS-2 Target Flow Rate	(scfm)	TBD	TBD		200.0
HAS-2 Actual Flow Rate	(scfm)	TBD	TBD		204.1
HAS-2 Valve Position	(%)	TBD	TBD		11.7
HAS-2 Pressure	(psig)	10 - 20	30		18
HAS-3 Target Flow Rate	(scfm)	TBD	TBD		150.0
HAS-3 Actual Flow Rate	(scfm)	TBD	TBD		152.2
HAS-3 Valve Position	(%)	TBD	TBD		22.9
HAS-3 Pressure	(psig)	10 - 20	30		20

Parts Needed:	
Parts Installed:	

Notes (include alarms since previous visit):
→ restart today, gradually increasing flows until target flows reached.



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 2 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
<i>Feb 18 1500</i>	<i>SCOTT SMITH</i>	<i>[Signature]</i>	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-01 Flow Rate	(scfm)	TBD	TBD		<i>6.9</i>
VAS-01 Pressure	(psig)	10 - 20	30		<i>22</i>
VAS-02 Flow Rate	(scfm)	TBD	TBD		<i>7.3</i>
VAS-02 Pressure	(psig)	10 - 20	30		<i>12</i>
VAS-03 Flow Rate	(scfm)	TBD	TBD		<i>7.3</i>
VAS-03 Pressure	(psig)	10 - 20	30		<i>12</i>
VAS-04 Flow Rate	(scfm)	TBD	TBD		<i>7.8</i>
VAS-04 Pressure	(psig)	10 - 20	30		<i>2</i>
VAS-05 Flow Rate	(scfm)	TBD	TBD		<i>7.3</i>
VAS-05 Pressure	(psig)	10 - 20	30		<i>6</i>
VAS-06 Flow Rate	(scfm)	TBD	TBD		<i>7.3</i>
VAS-06 Pressure	(psig)	10 - 20	30		<i>8</i>
VAS-07 Flow Rate	(scfm)	TBD	TBD		<i>6.5</i>
VAS-07 Pressure	(psig)	10 - 20	30		<i>18</i>
VAS-08 Flow Rate	(scfm)	TBD	TBD		<i>6.8</i>
VAS-08 Pressure	(psig)	10 - 20	30		<i>17</i>
VAS-09 Flow Rate	(scfm)	TBD	TBD		<i>6.9</i>
VAS-09 Pressure	(psig)	10 - 20	30		<i>8</i>
VAS-10 Flow Rate	(scfm)	TBD	TBD		<i>7.7</i>
VAS-10 Pressure	(psig)	10 - 20	30		<i>10</i>
VAS-11 Flow Rate	(scfm)	TBD	TBD		<i>6.8</i>
VAS-11 Pressure	(psig)	10 - 20	30		<i>10</i>
VAS-12 Flow Rate	(scfm)	TBD	TBD		<i>7.3</i>
VAS-12 Pressure	(psig)	10 - 20	30		<i>12</i>
VAS-13 Flow Rate	(scfm)	TBD	TBD		<i>T</i>
VAS-13 Pressure	(psig)	10 - 20	30		
VAS-14 Flow Rate	(scfm)	TBD	TBD		
VAS-14 Pressure	(psig)	10 - 20	30		
VAS-15 Flow Rate	(scfm)	TBD	TBD		
VAS-15 Pressure	(psig)	10 - 20	30		
VAS-16 Flow Rate	(scfm)	TBD	TBD		
VAS-16 Pressure	(psig)	10 - 20	30		
VAS-17 Flow Rate	(scfm)	TBD	TBD		
VAS-17 Pressure	(psig)	10 - 20	30		



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 3 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
5/26/2013 1500	Scott Powell	_____	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-18 Flow Rate	(scfm)	TBD	TBD		↓
VAS-18 Pressure	(psig)	10 - 20	30		
VAS-19 Flow Rate	(scfm)	TBD	TBD		
VAS-19 Pressure	(psig)	10 - 20	30		
VAS-20 Flow Rate	(scfm)	TBD	TBD		7.1
VAS-20 Pressure	(psig)	10 - 20	30		20
VAS-21 Flow Rate	(scfm)	TBD	TBD		7.7
VAS-21 Pressure	(psig)	10 - 20	30		20
VAS-22 Flow Rate	(scfm)	TBD	TBD		7.8
VAS-22 Pressure	(psig)	10 - 20	30		23
VAS-23 Flow Rate	(scfm)	TBD	TBD		6.7
VAS-23 Pressure	(psig)	10 - 20	30		20
VAS-24 Flow Rate	(scfm)	TBD	TBD		7.4
VAS-24 Pressure	(psig)	10 - 20	30		27
VAS-25 Flow Rate	(scfm)	TBD	TBD		7.5
VAS-25 Pressure	(psig)	10 - 20	30		21
VAS-26 Flow Rate	(scfm)	TBD	TBD		7.7
VAS-26 Pressure	(psig)	10 - 20	30		26
VAS-27 Flow Rate	(scfm)	TBD	TBD		7.7
VAS-27 Pressure	(psig)	10 - 20	30		31
VAS-28 Flow Rate	(scfm)	TBD	TBD		7.5
VAS-28 Pressure	(psig)	10 - 20	30		12
VAS-29 Flow Rate	(scfm)	TBD	TBD		6.7
VAS-29 Pressure	(psig)	10 - 20	30		11
VAS-30 Flow Rate	(scfm)	TBD	TBD		6.7
VAS-30 Pressure	(psig)	10 - 20	30		3
VAS-31 Flow Rate	(scfm)	TBD	TBD		6.7
VAS-31 Pressure	(psig)	10 - 20	30		28
VAS-32 Flow Rate	(scfm)	TBD	TBD		7.7
VAS-32 Pressure	(psig)	10 - 20	30		20
VAS-33 Flow Rate	(scfm)	TBD	TBD		7.7
VAS-33 Pressure	(psig)	10 - 20	30		19
VAS-34 Flow Rate	(scfm)	TBD	TBD		7.4
VAS-34 Pressure	(psig)	10 - 20	30		21



Site Name	Site Location	Project Manager	Project Engineer	Biosparging Operation and Maintenance System Data Log 4 of 4 <i>Lewis Drive, Belton, South Carolina</i>
Lewis Drive	Belton, SC	Bill Waldron/RAL	Scott Powell/ATL	

Date & Time	O&M Technician #1	O&M Technician #2	Equipment Type	Equipment Model	Permits
3/26/18 1500	Scott Smith	—	Air Compressors Condensate Treatment	Sullair TS-20-200 Beko Qwik Pure 350	UIC Permit To Operate: SCHE03020469 Air Permit Exempt

Vertical Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
VAS-35 Flow Rate	(scfm)	TBD	TBD		6.6
VAS-35 Pressure	(psig)	10 - 20	30		22
VAS-36 Flow Rate	(scfm)	TBD	TBD		7.3
VAS-36 Pressure	(psig)	10 - 20	30		15
VAS-37 Flow Rate	(scfm)	TBD	TBD		7.2
VAS-37 Pressure	(psig)	10 - 20	30		8
VAS-38 Flow Rate	(scfm)	TBD	TBD		7.2
VAS-38 Pressure	(psig)	10 - 20	30		8
VAS-39 Flow Rate	(scfm)	TBD	TBD		7.2
VAS-39 Pressure	(psig)	10 - 20	30		14
VAS-40 Flow Rate	(scfm)	TBD	TBD		6.6
VAS-40 Pressure	(psig)	10 - 20	30		24
VAS-41 Flow Rate	(scfm)	TBD	TBD		—
VAS-41 Pressure	(psig)	20-Oct	30		—
VAS-42 Flow Rate	(scfm)	TBD	TBD		7.5
VAS-42 Pressure	(psig)	10 - 20	30		12
VAS-43 Flow Rate	(scfm)	TBD	TBD		
VAS-43 Pressure	(psig)	10 - 20	30		
VAS-44 Flow Rate	(scfm)	TBD	TBD		
VAS-44 Pressure	(psig)	10 - 20	30		
VAS-45 Flow Rate	(scfm)	TBD	TBD		
VAS-45 Pressure	(psig)	10 - 20	30		
Brown's Creek Aerators	(Units)	Optimal Level	Max Level	Arrival	Departure
BCA-01 Flow Rate	(scfm)	TBD	TBD		10.4
BCA-01 Pressure	(psig)	0 - 5	5		12
BCA-02 Flow Rate	(scfm)	TBD	TBD		10.4
BCA-02 Pressure	(psig)	0 - 5	5		12
Bedrock Wells	(Units)	Optimal Level	Max Level	Arrival	Departure
BRS-01 Flow Rate	(scfm)	TBD	TBD		
BRS-01 Pressure	(psig)	10 - 20	30		
BRS-02 Flow Rate	(scfm)	TBD	TBD		
BRS-02 Pressure	(psig)	10 - 20	30		
BRS-03 Flow Rate	(scfm)	TBD	TBD		
BRS-03 Pressure	(psig)	10 - 20	30		

Appendix E
Bills of Lading

0118460



A&D Environmental Services

Bill of Lading / Material Manifest

A&D Job No: 219094	Generator ID Number	Page 1 of 1	Emergency Response Phone 800-434-7750	Tracking Number 04317
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Generator's Name and Mailing Address Kindler Morgan 112 Lewis Drive Belton SC		Generator's site address (if different from mailing address)
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Transporter 1 <input type="checkbox"/> 2 <input type="checkbox"/>	Company Name A&D Environmental Services, Inc.	US EPA ID No: NCD98623222
Transporter 1 <input type="checkbox"/> 2 <input type="checkbox"/>	Company Name A&D Environmental Services (SC), LLC	US EPA ID No: SCD987598331

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
A&D Environmental Services, Inc. 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	A&D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	A&D Environmental Services (SC), LLC 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	A&D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	A&D Environmental Services (SC), LLC 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number

Petroleum Products for Recycle						
X	NA1993, Diesel fuel, 3, III	ERG# 128	No.	Type	QTY	Wt/Vol
X	NA1993, Fuel oil (No.1,2,4,5 or 6), 3, III	ERG# 128				
X	UN1203, Gasoline, 3, II water mixture	ERG# 128	1	TT 2262	6	20150163
X	NA1270, Petroleum Oil, 3, III	ERG# 128				

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III ERG# 172	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III ERG# 172	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/U/V Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Offor's Printed/Typed Name Mark Fuller	Signature <i>Mark Fuller</i>	Month 1	Day 8	Year 18
Transporter 1 Printed/Typed Name Mark Fuller	Signature <i>Mark Fuller</i>	Month 1	Day 8	Year 18
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

Discrepancy Indication / Additional Information: _____

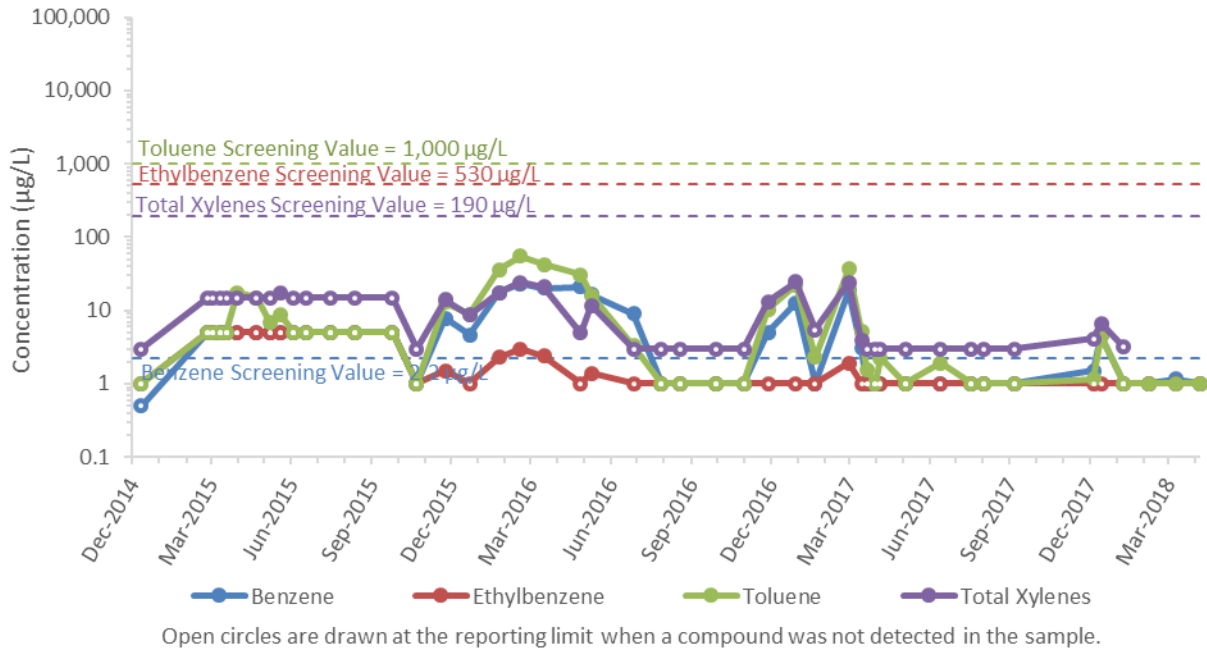
Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name Travis Cliff	Signature <i>T Cliff</i>	Month 01	Day 08	Year 18
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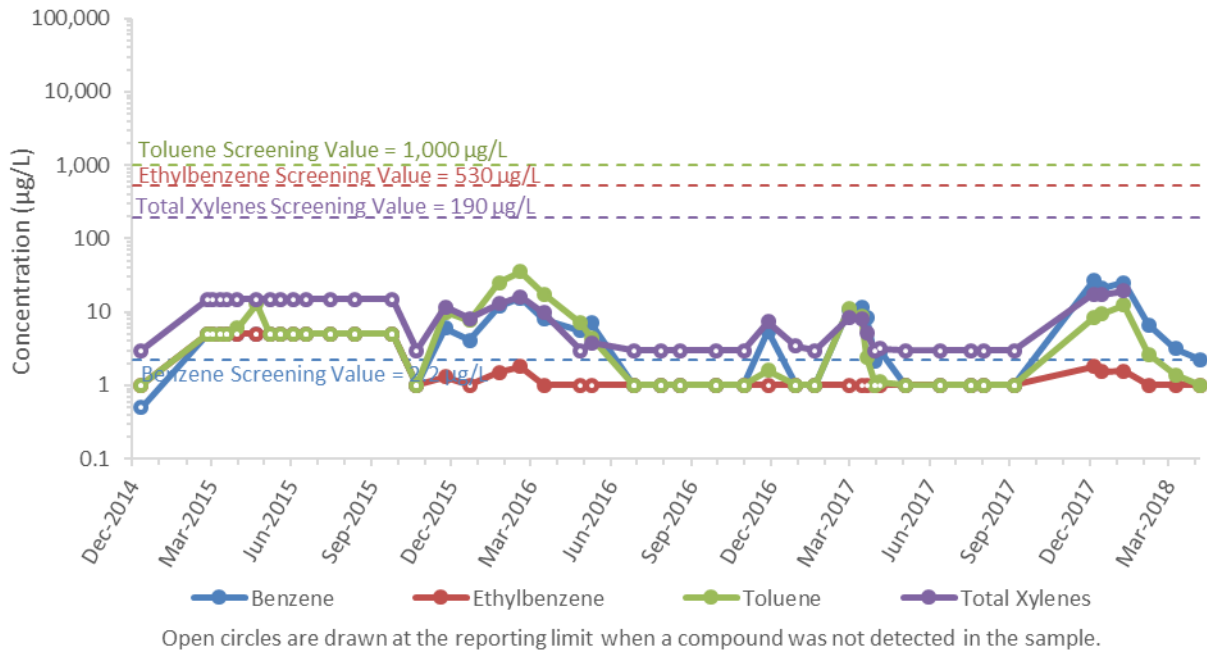
DESIGNATED FACILITY TO GENERATOR

Appendix F
Surface Water Analytical Trends

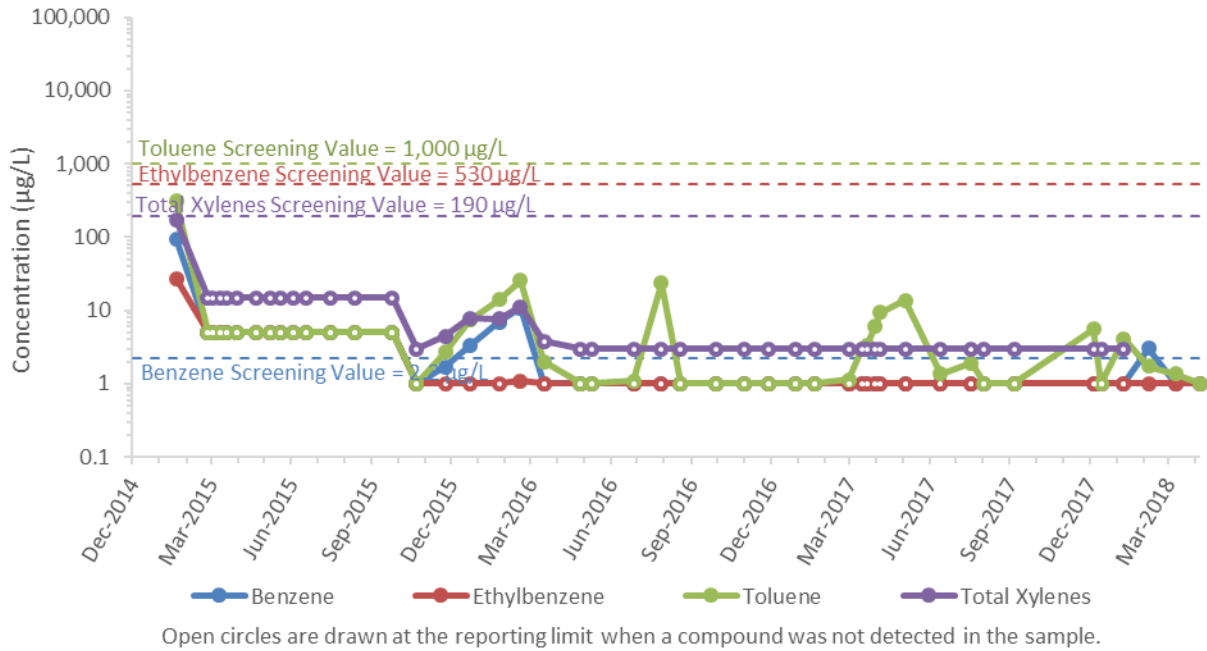
SW-01



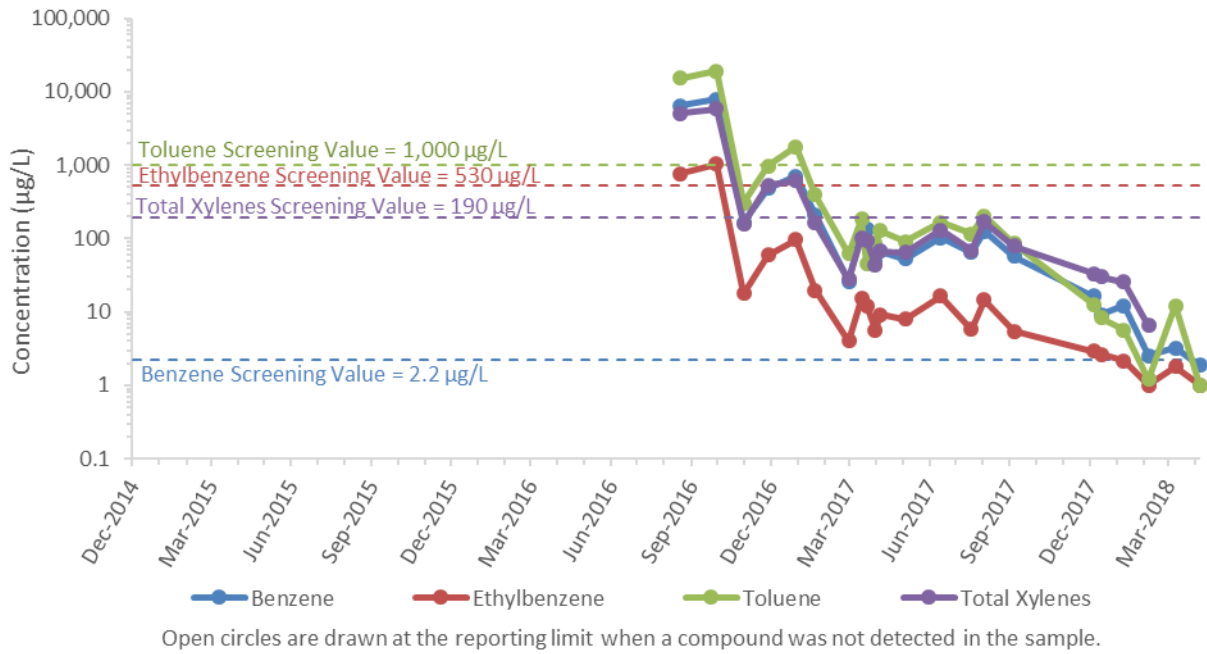
SW-02



SW-04



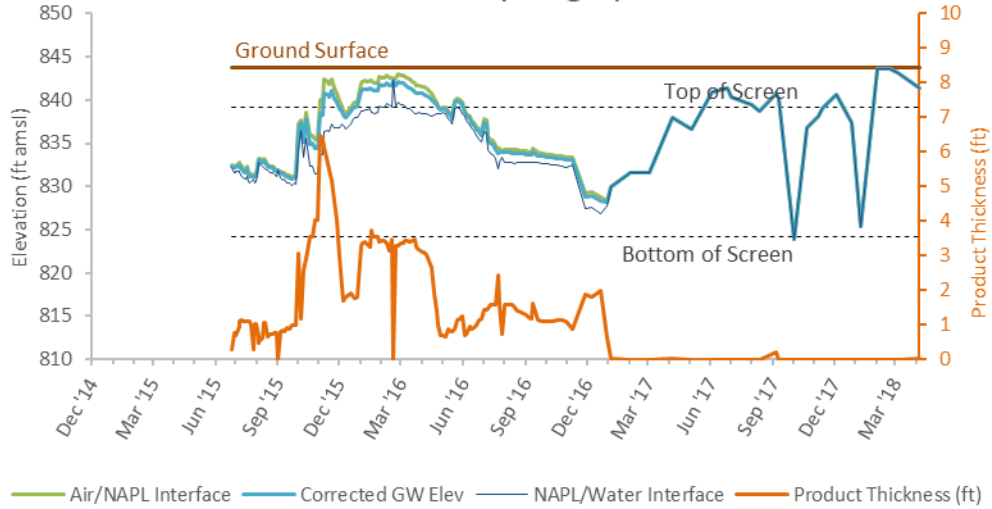
SW-12



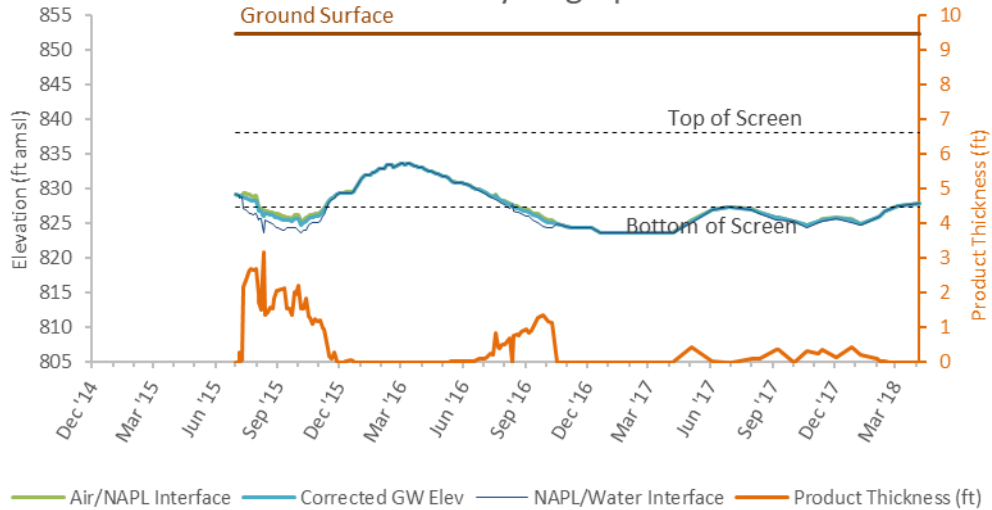
Appendix G

Product Thickness Trends

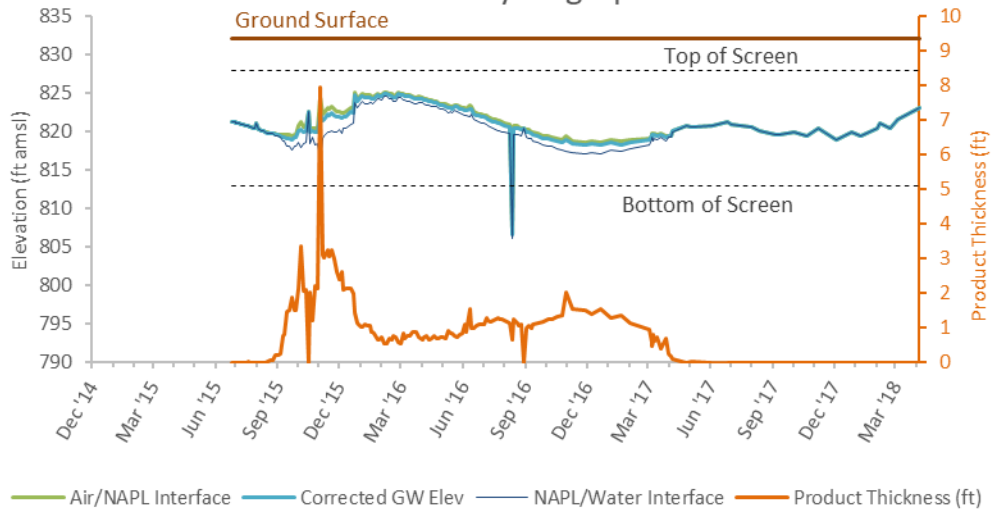
MW-09 Hydrograph

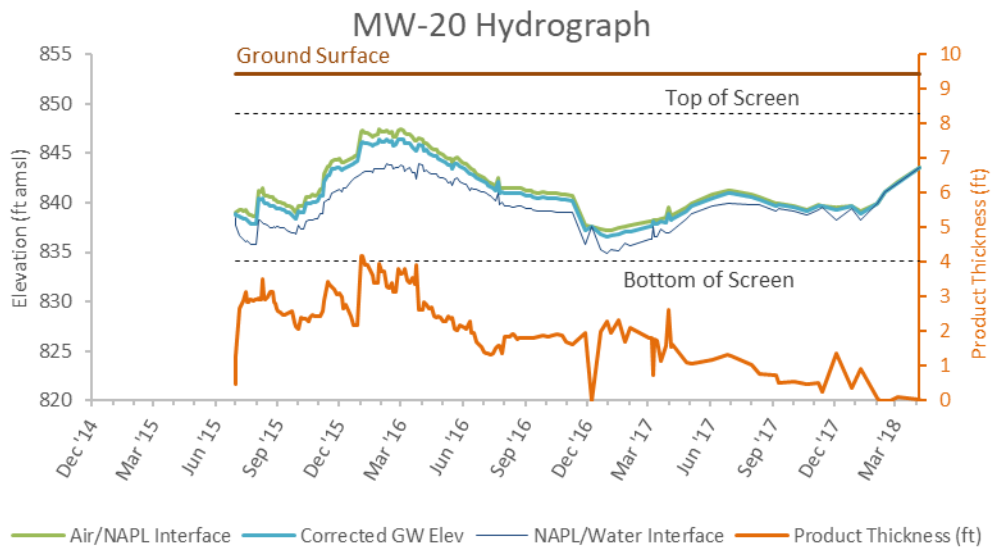
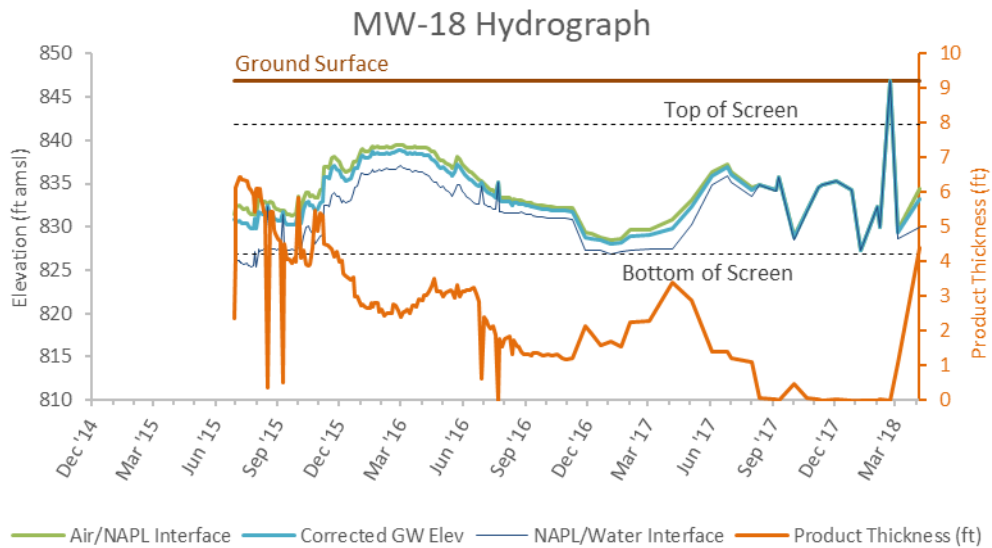
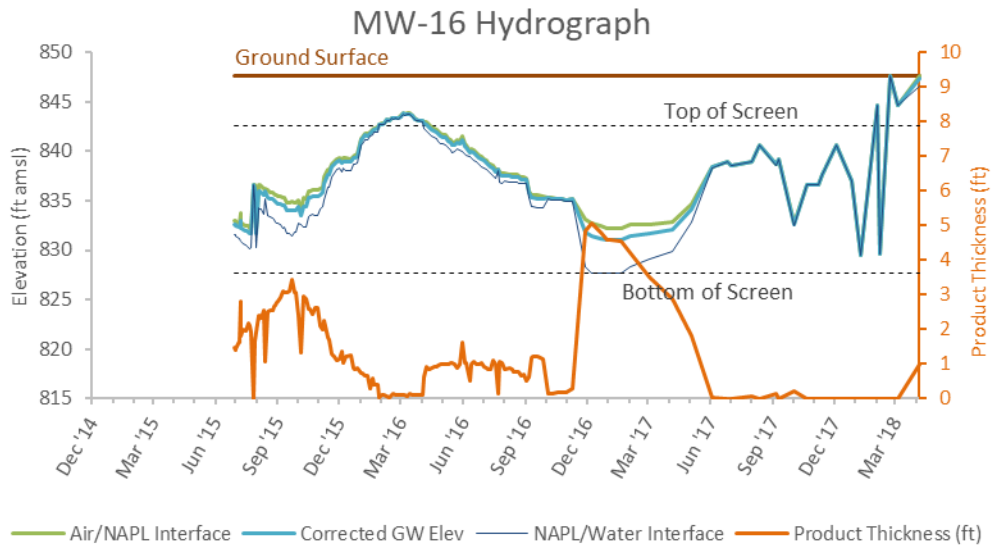


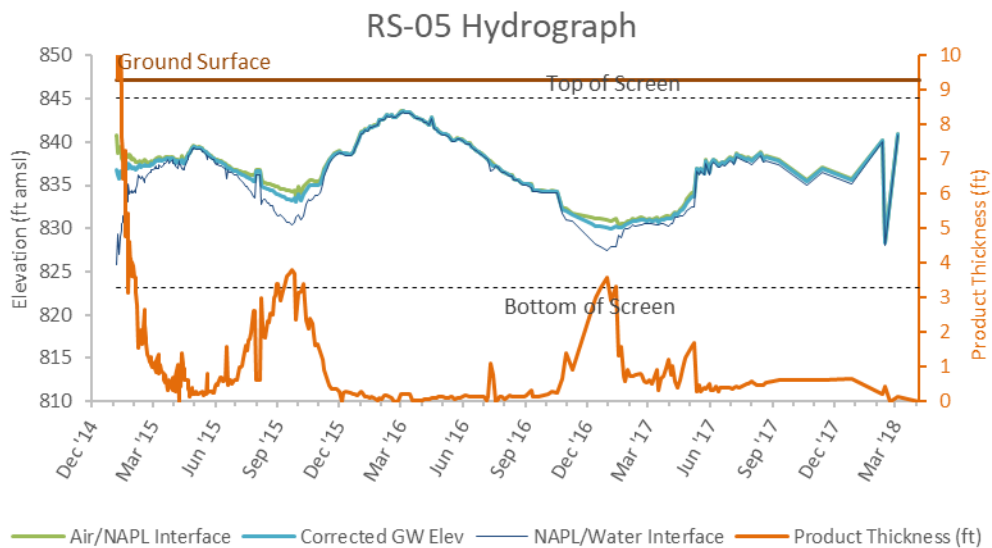
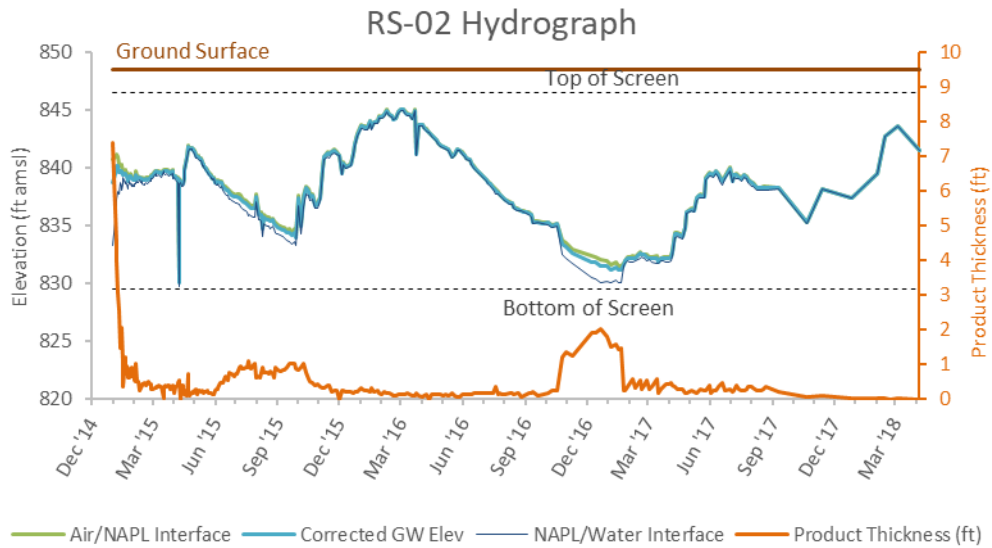
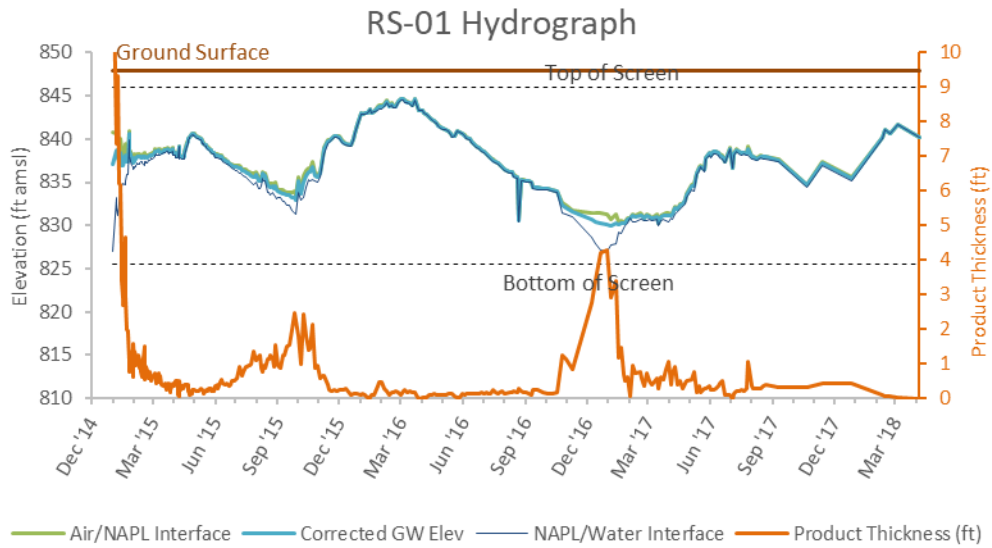
MW-11 Hydrograph



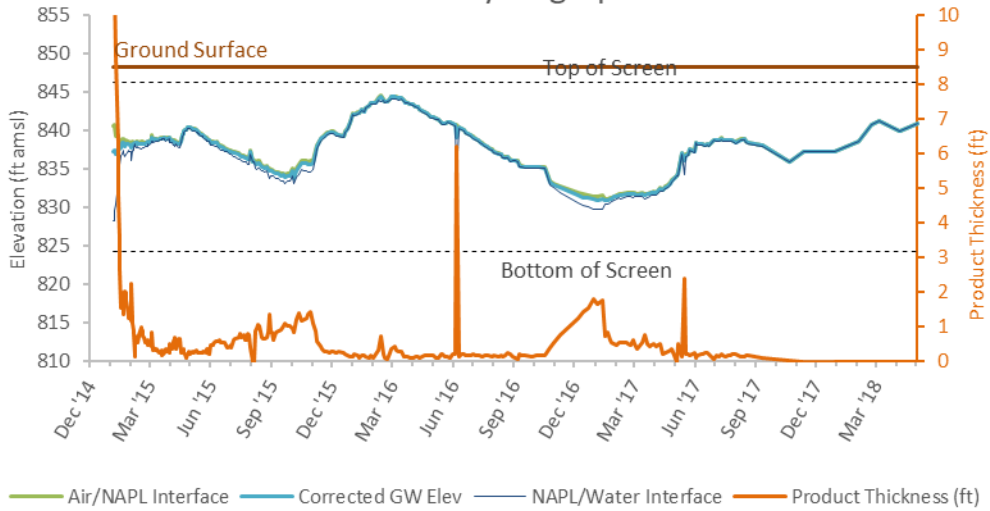
MW-12 Hydrograph



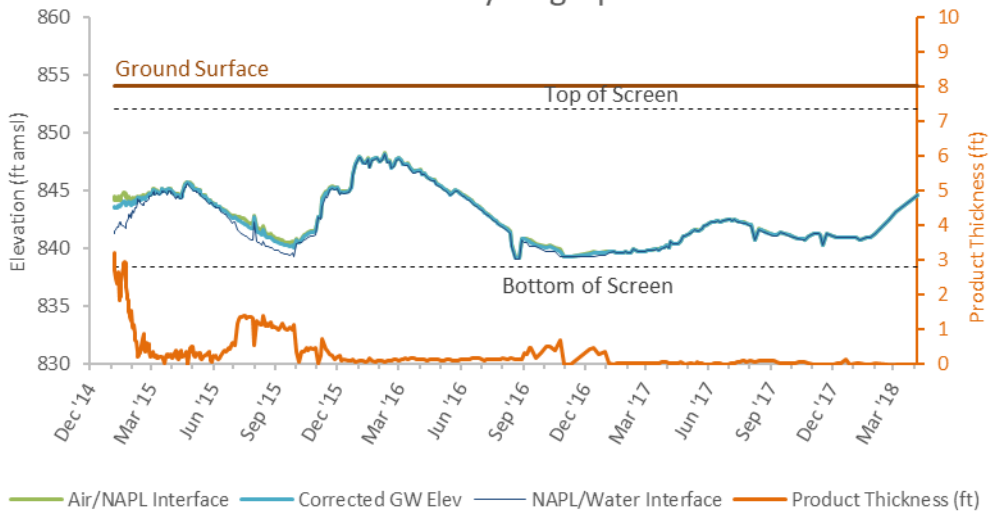




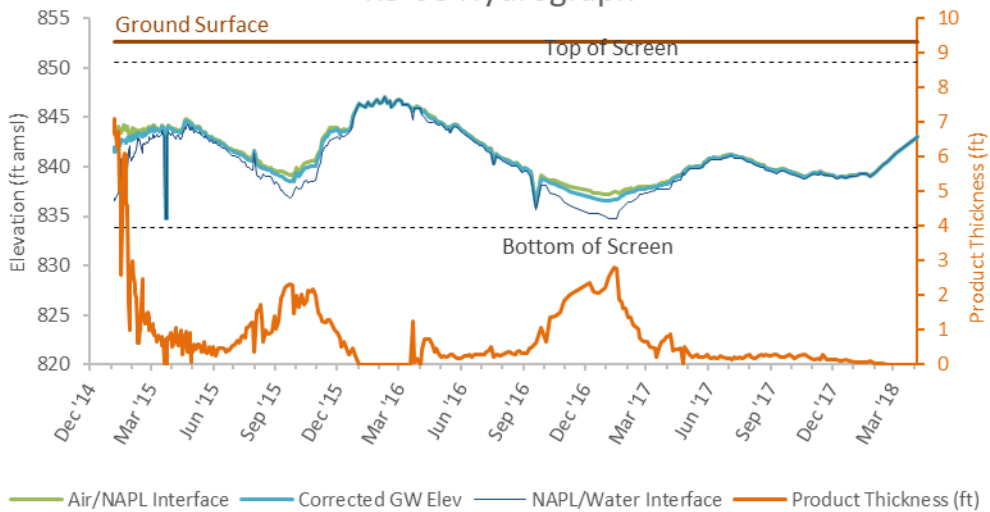
RS-06 Hydrograph



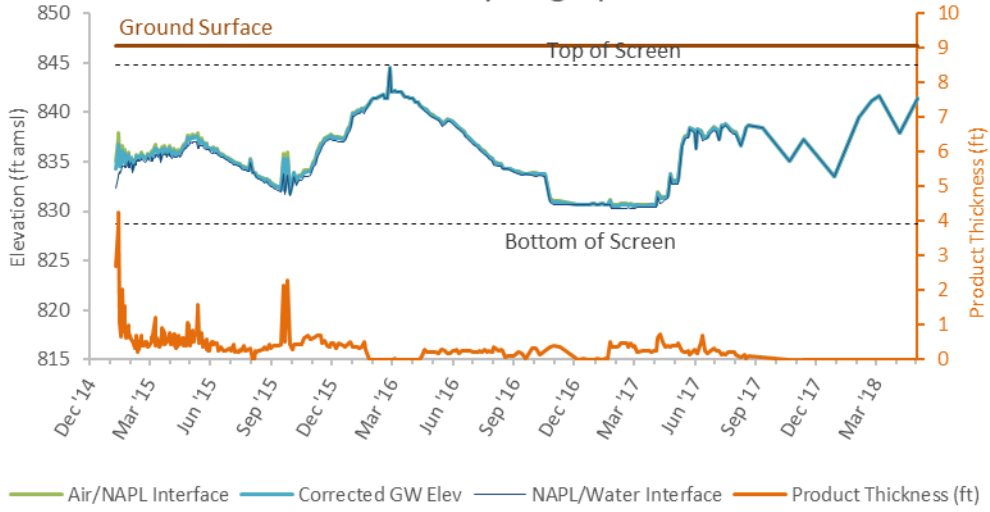
RS-07 Hydrograph



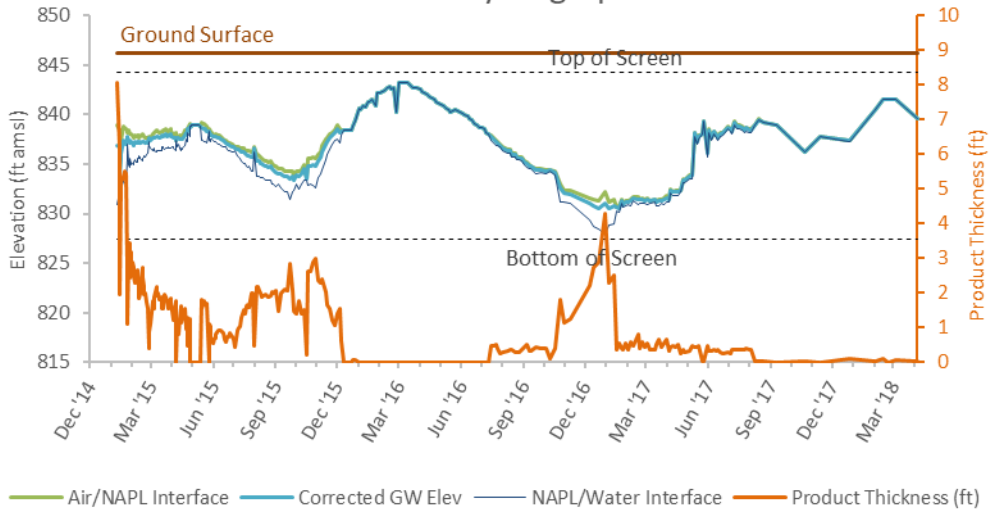
RS-08 Hydrograph



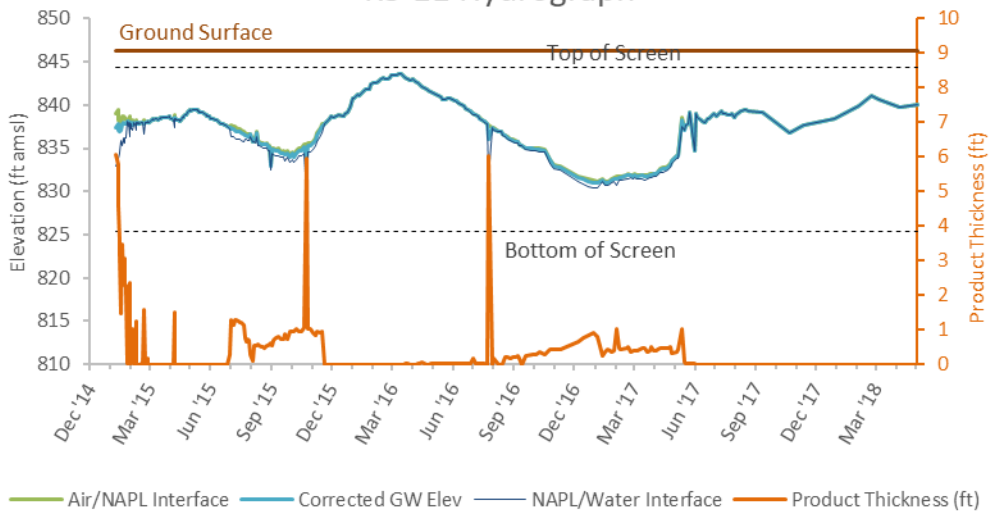
RS-09 Hydrograph



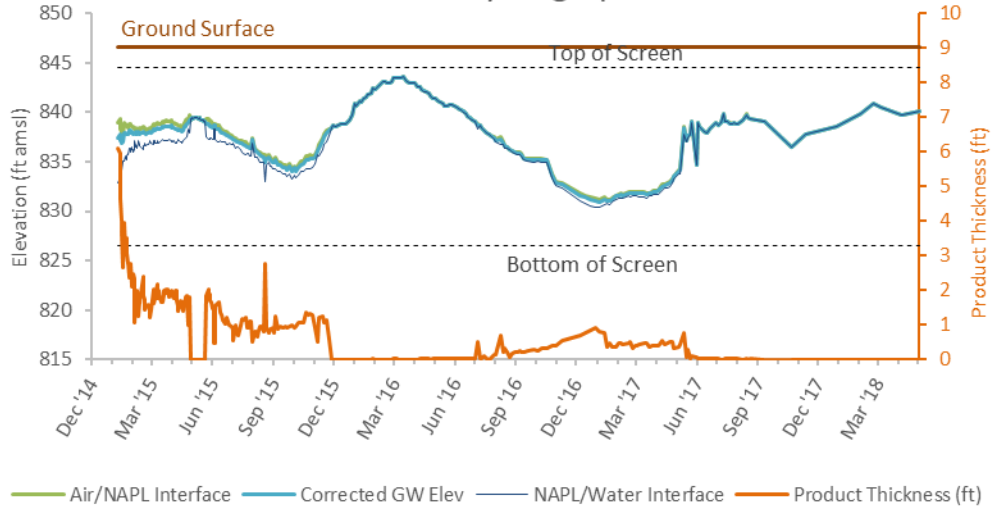
RS-10 Hydrograph



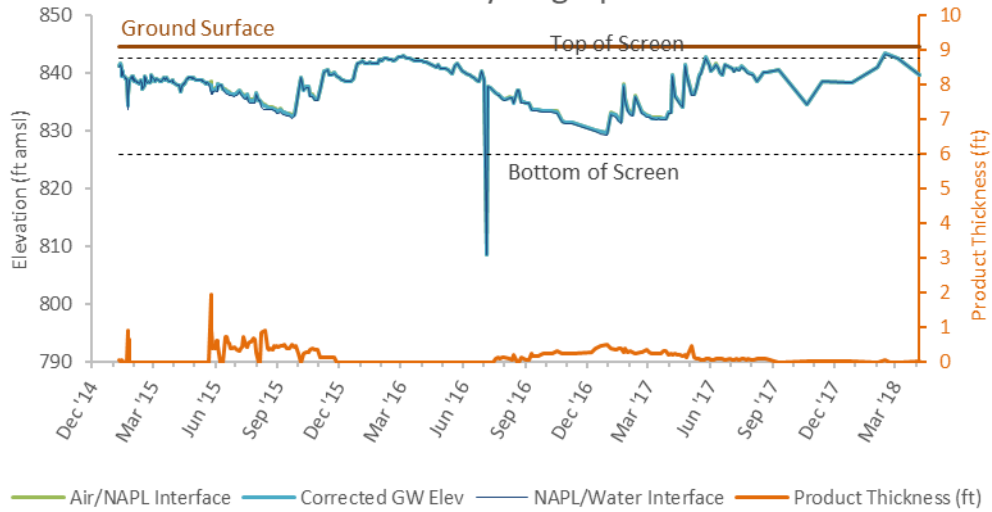
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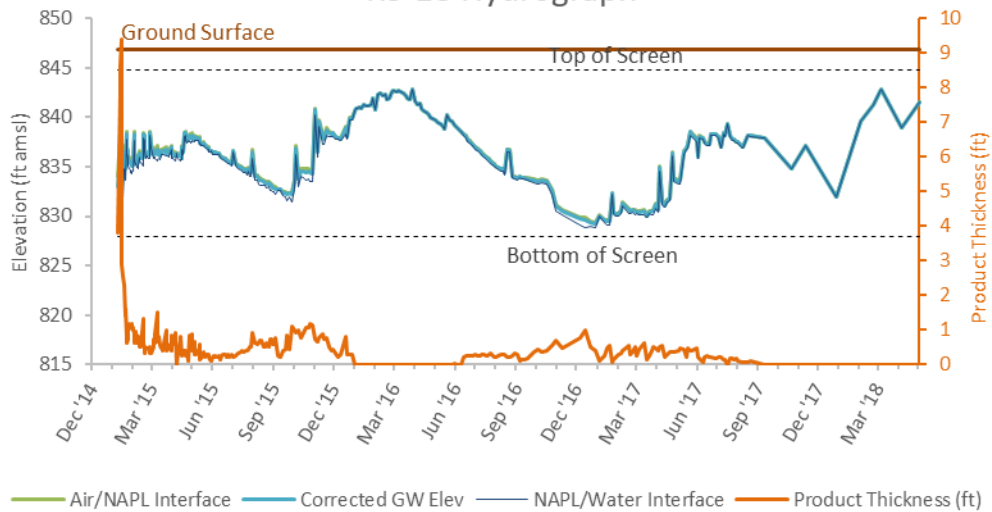
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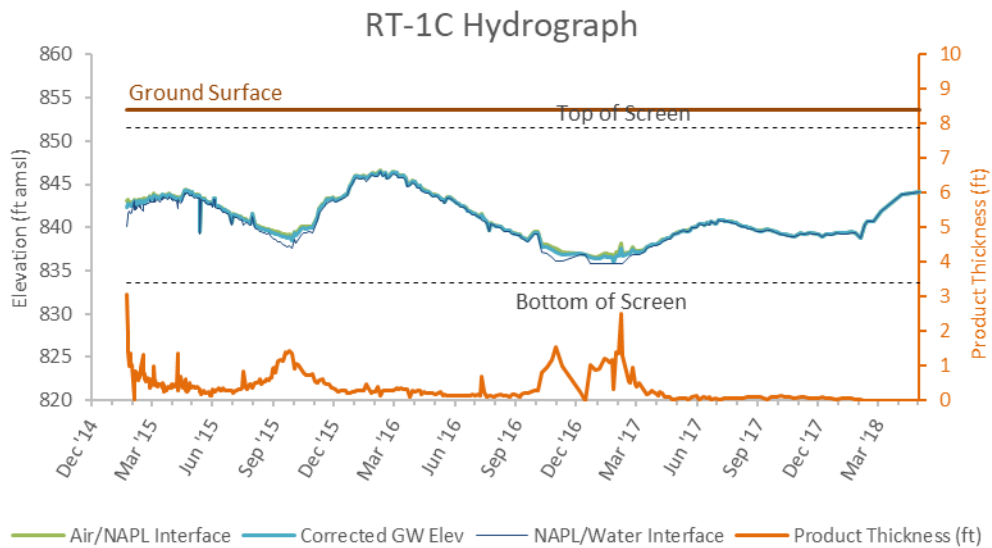
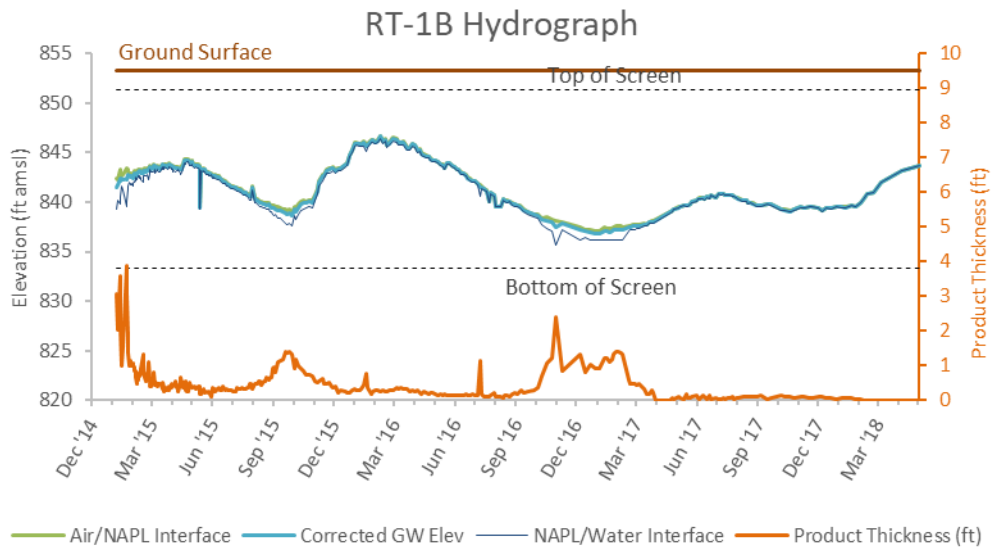
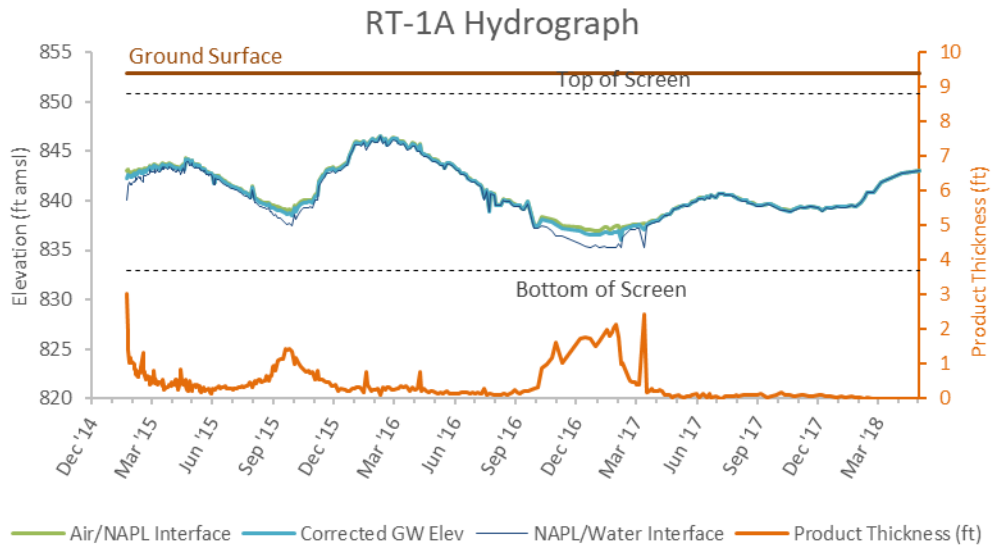


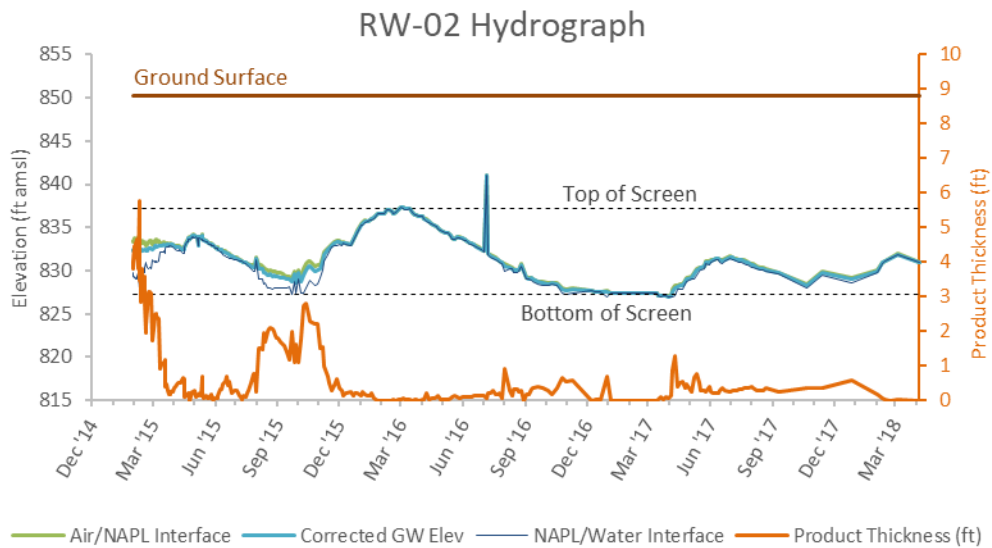
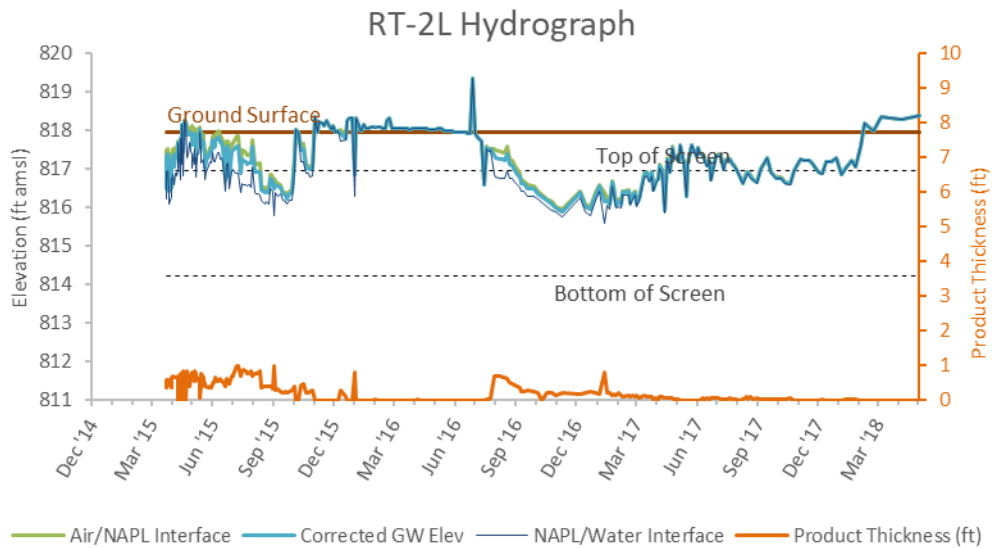
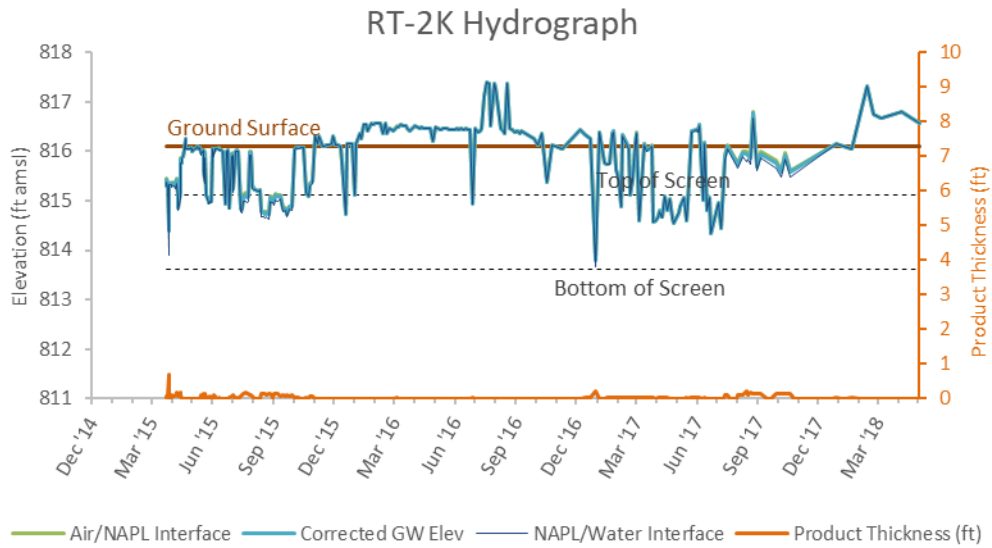
RS-14 Hydrograph



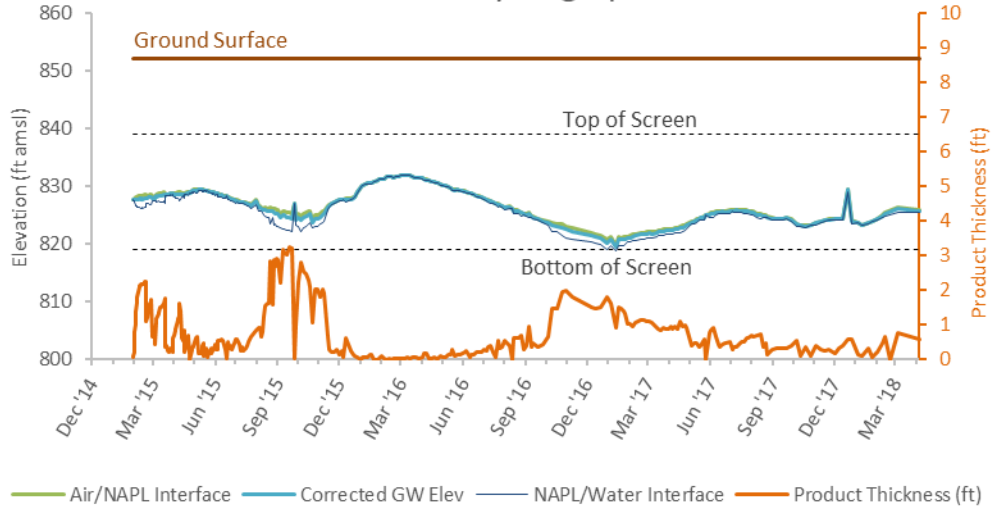
RS-18 Hydrograph



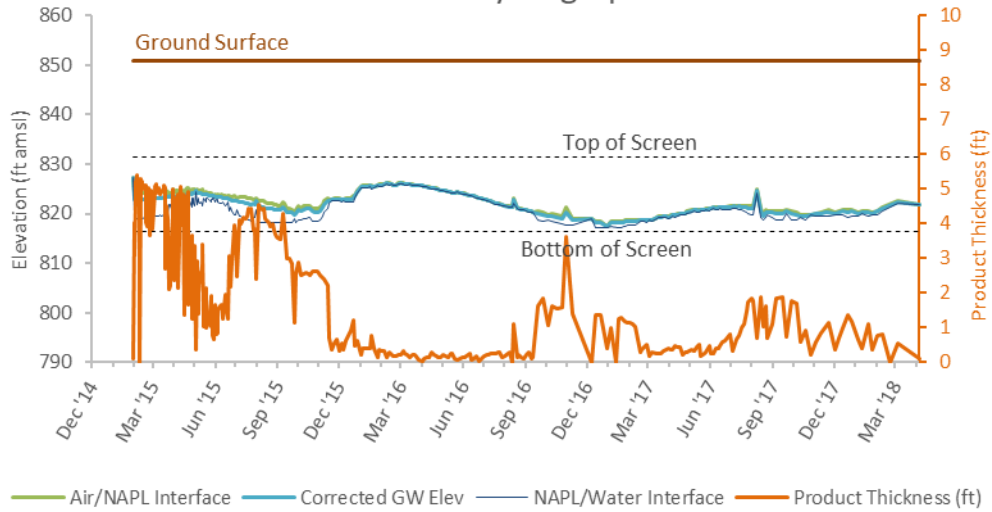




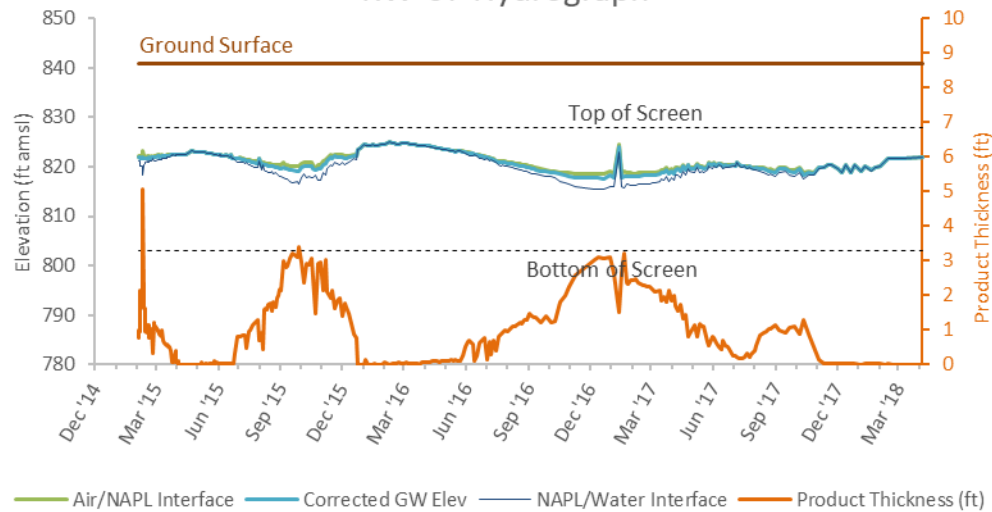
RW-04 Hydrograph



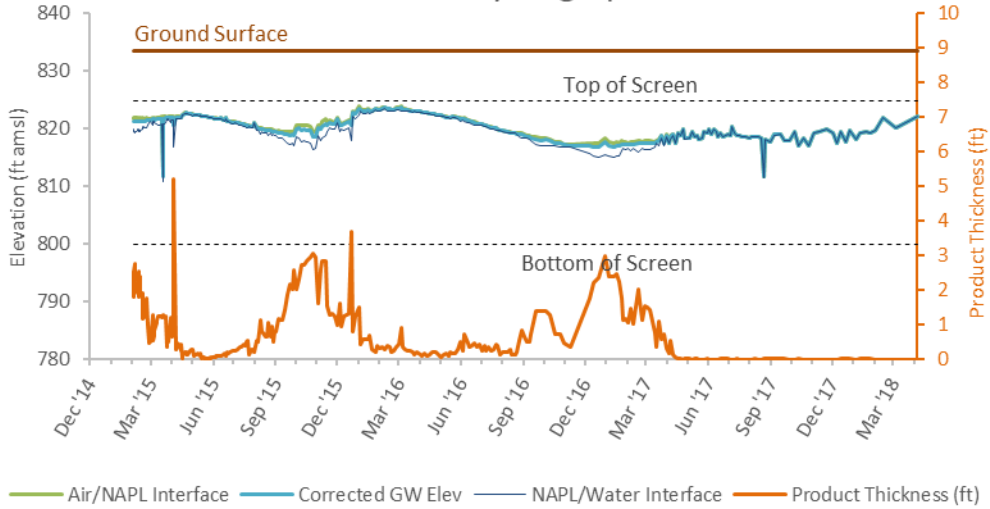
RW-05 Hydrograph



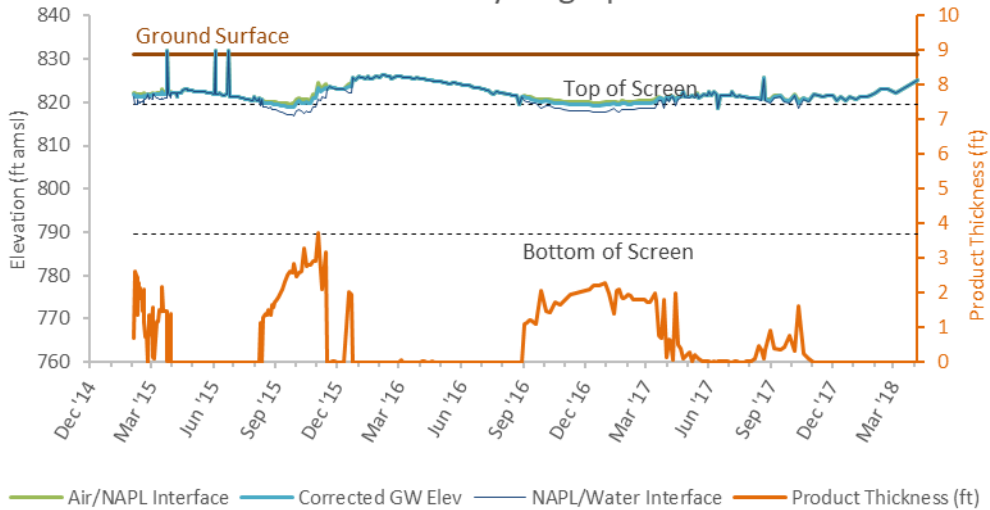
RW-07 Hydrograph



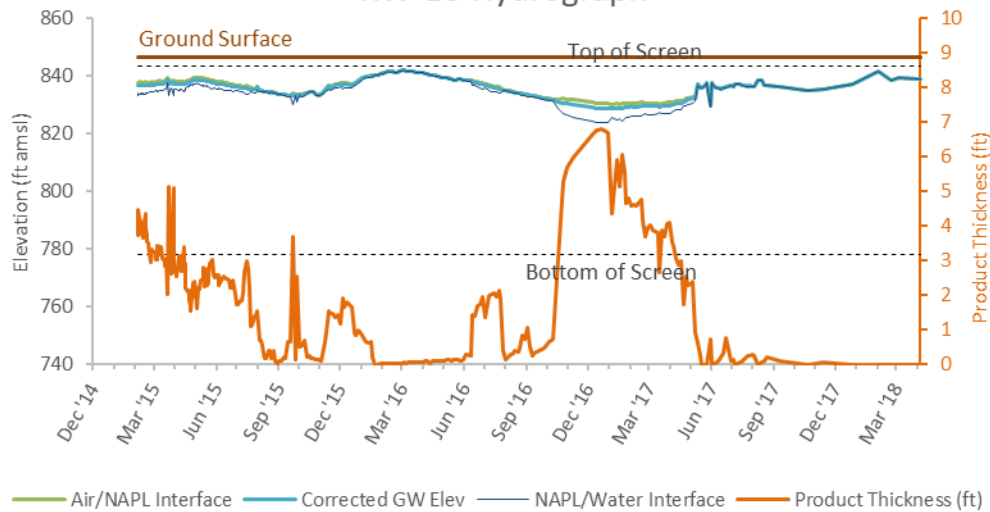
RW-08 Hydrograph



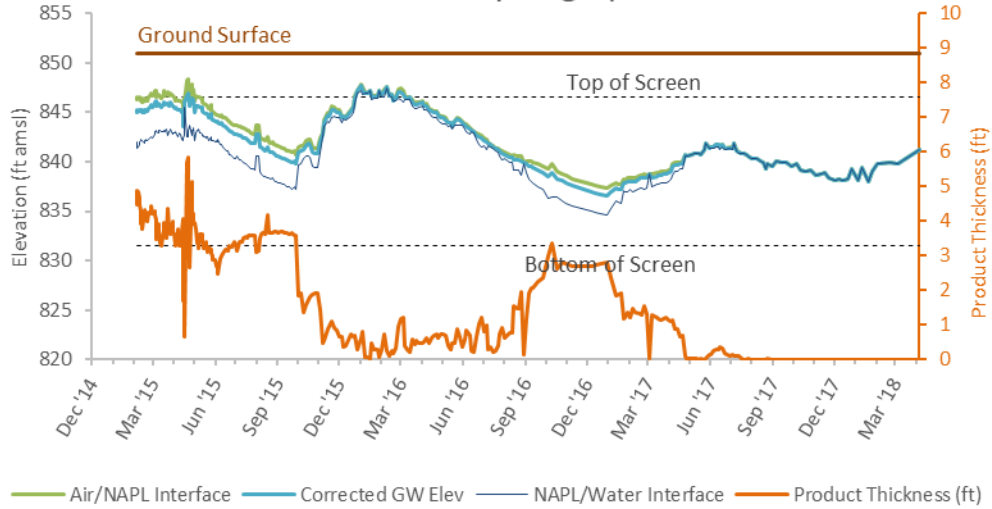
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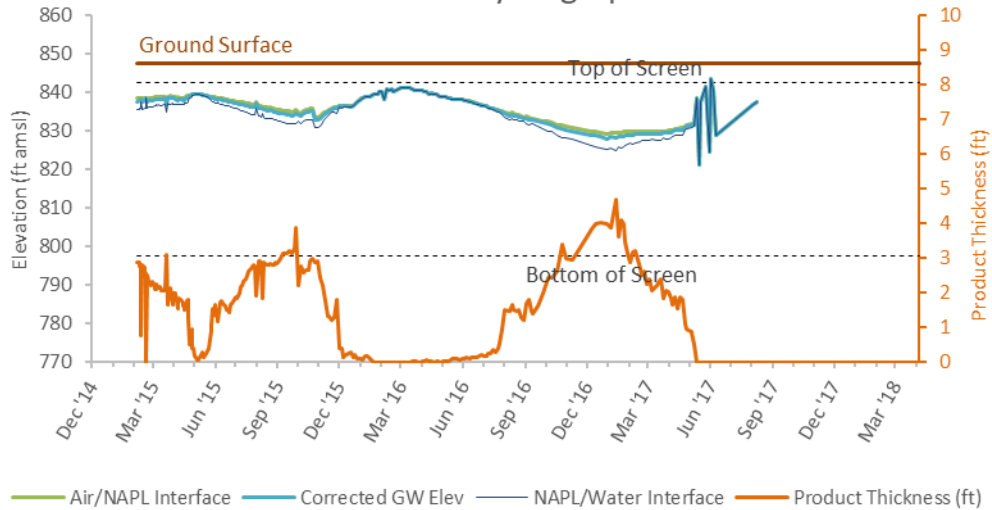
RW-10 Hydrograph



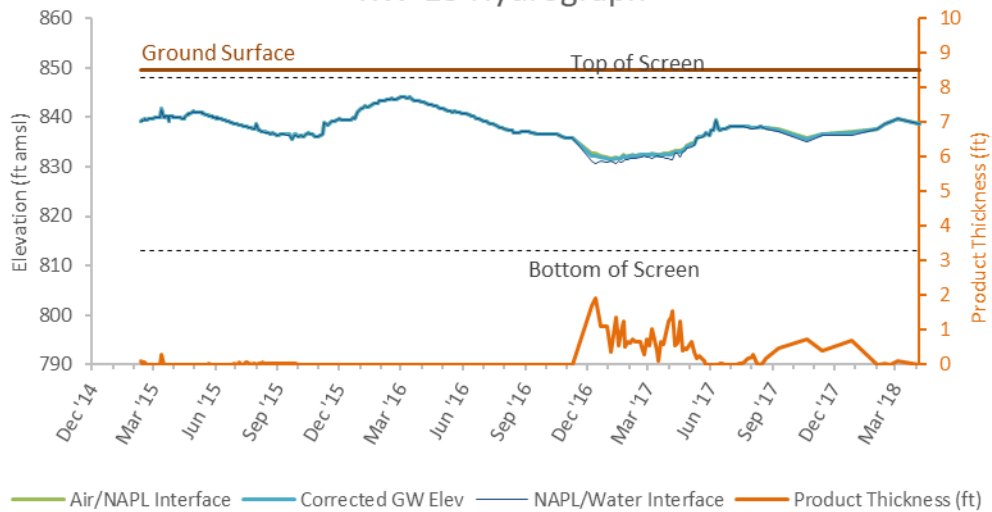
RW-11 Hydrograph



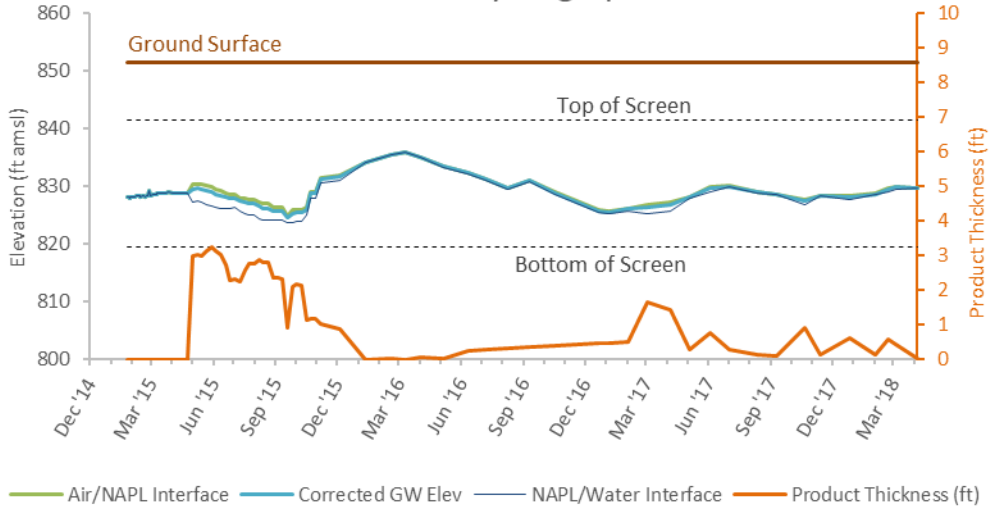
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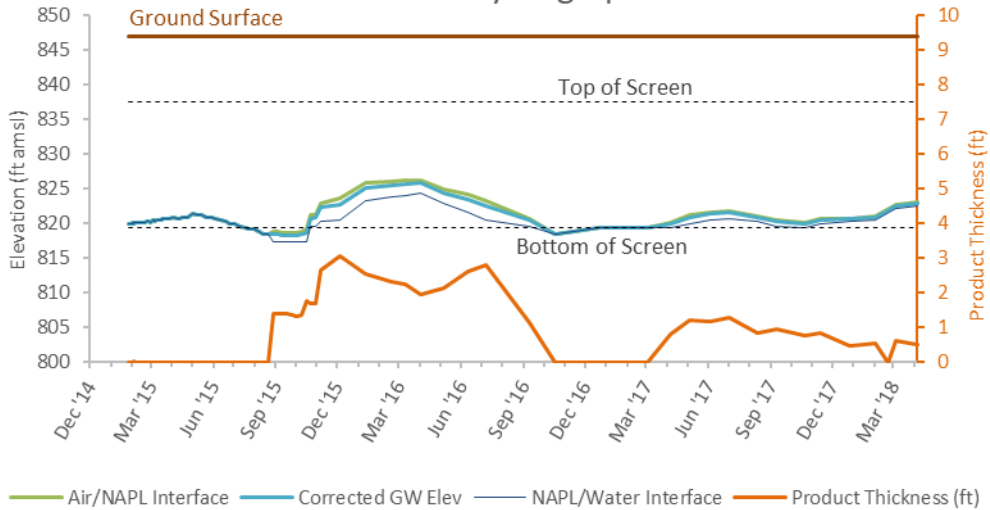
RW-15 Hydrograph



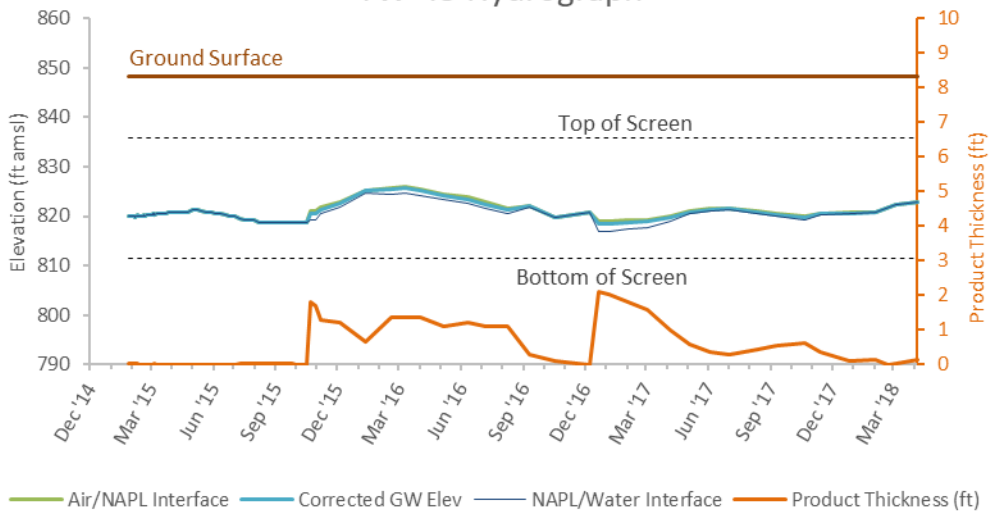
TW-28 Hydrograph



TW-42 Hydrograph

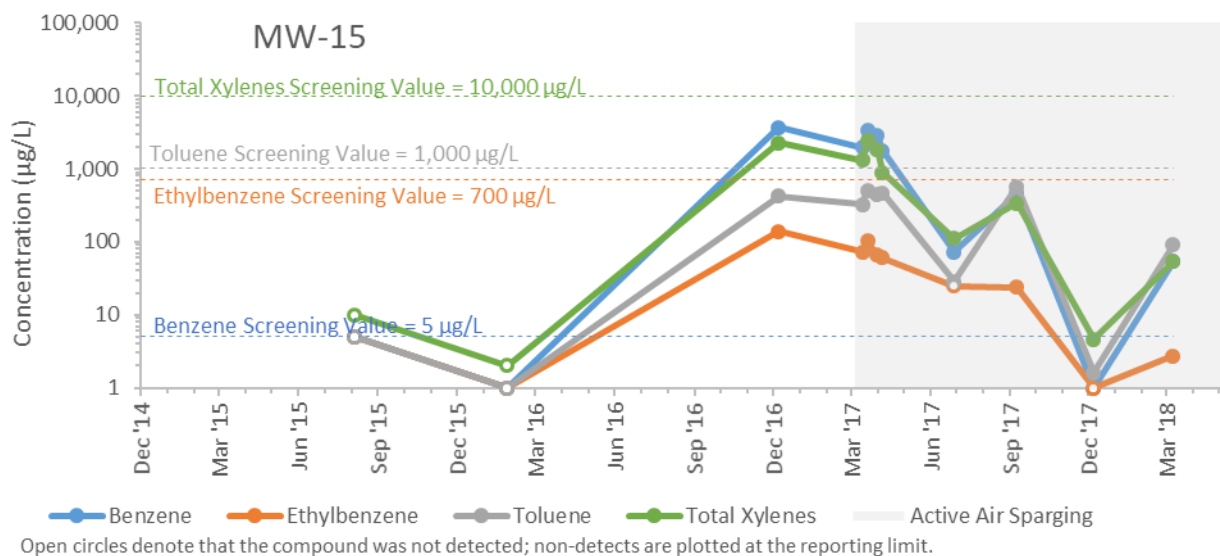
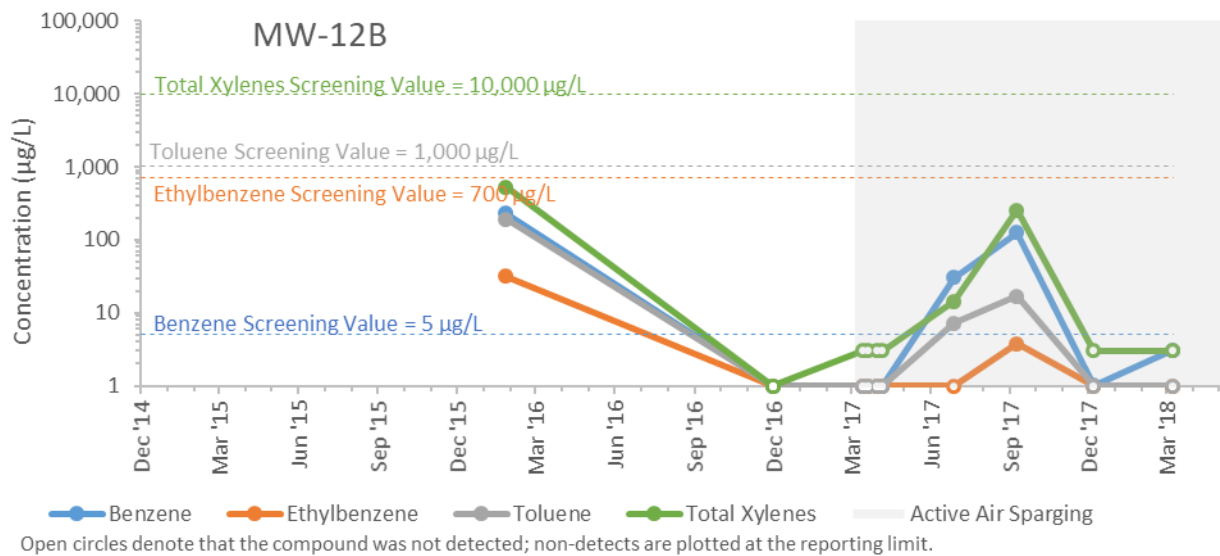
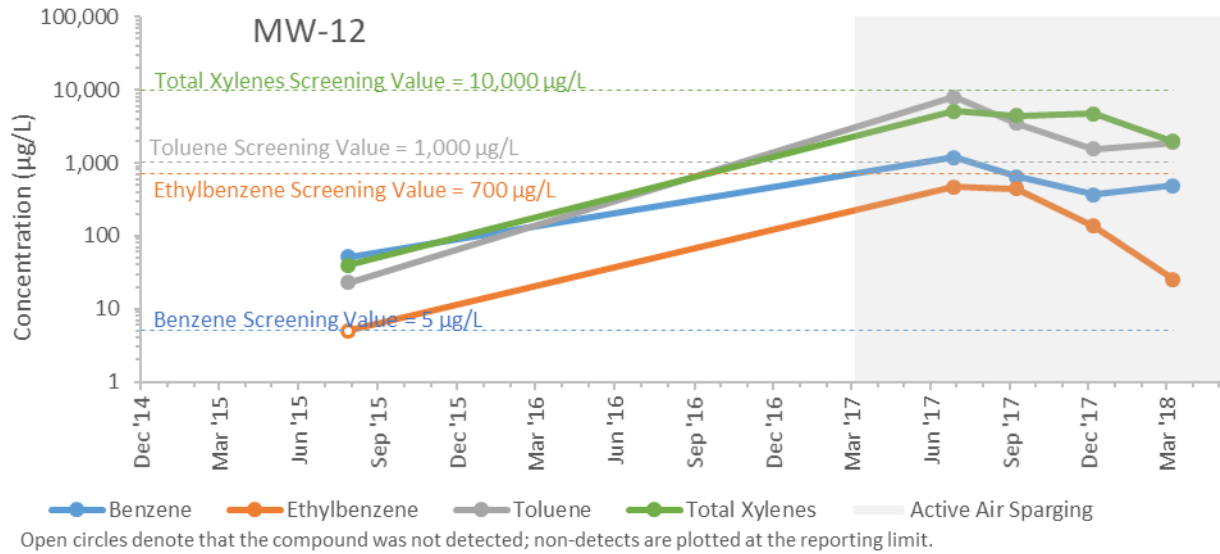


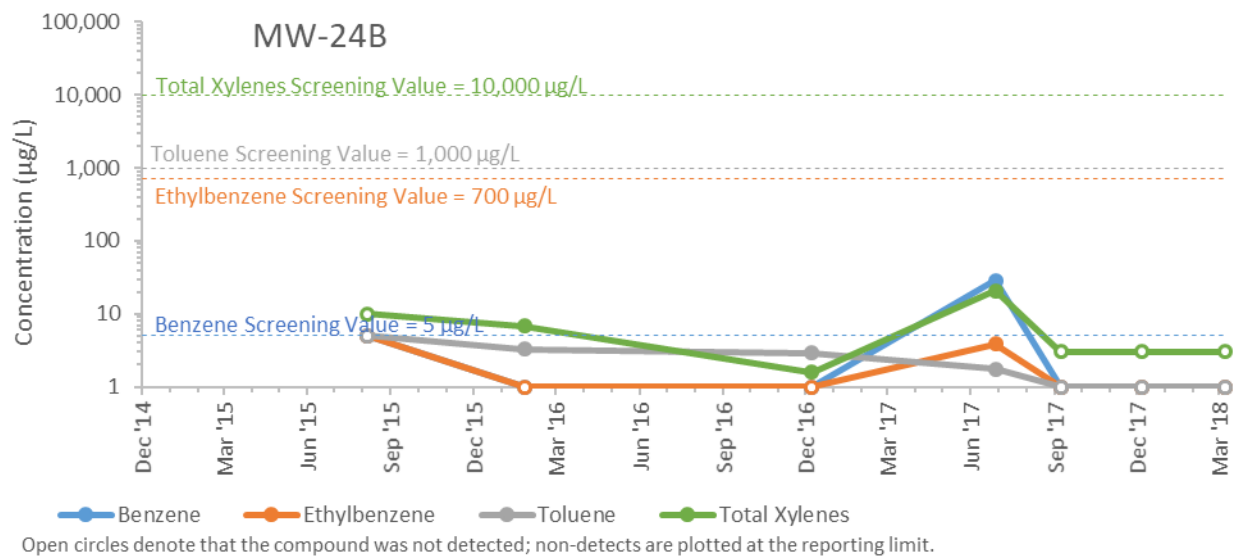
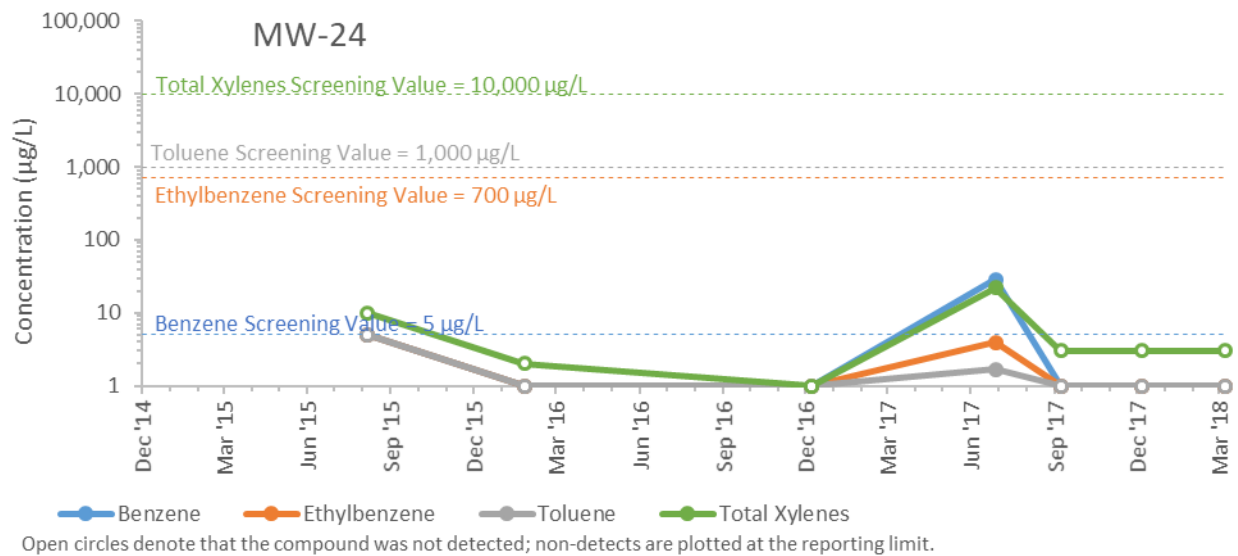
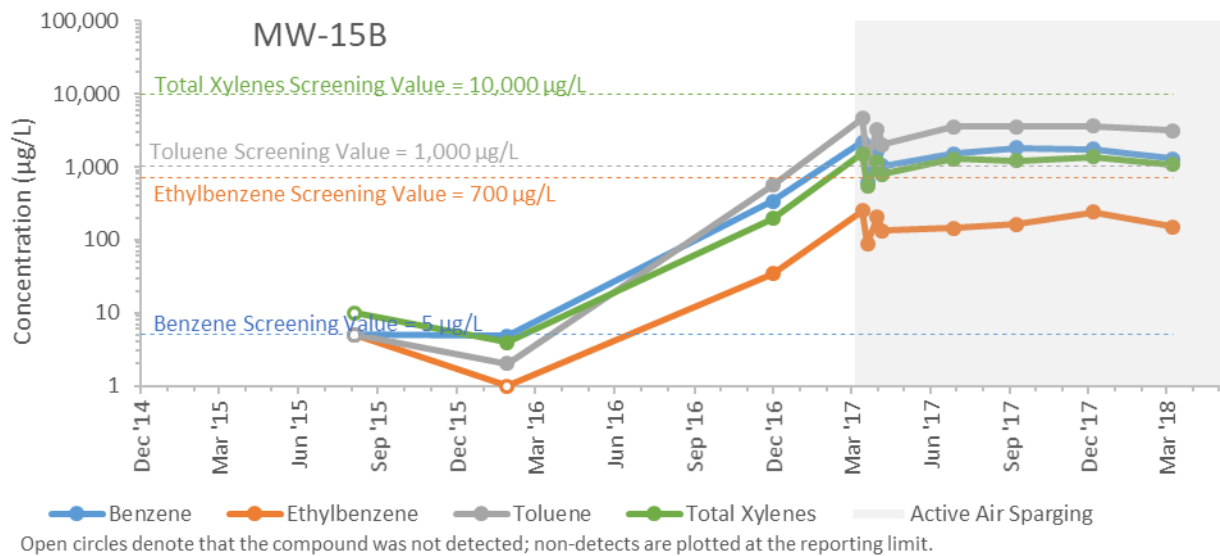
TW-45 Hydrograph

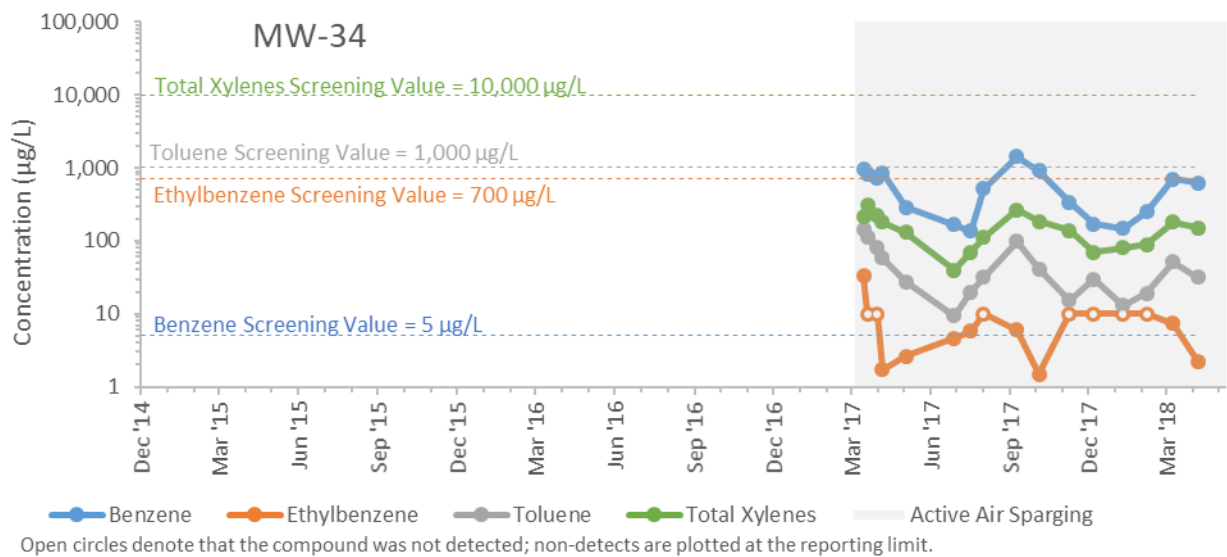
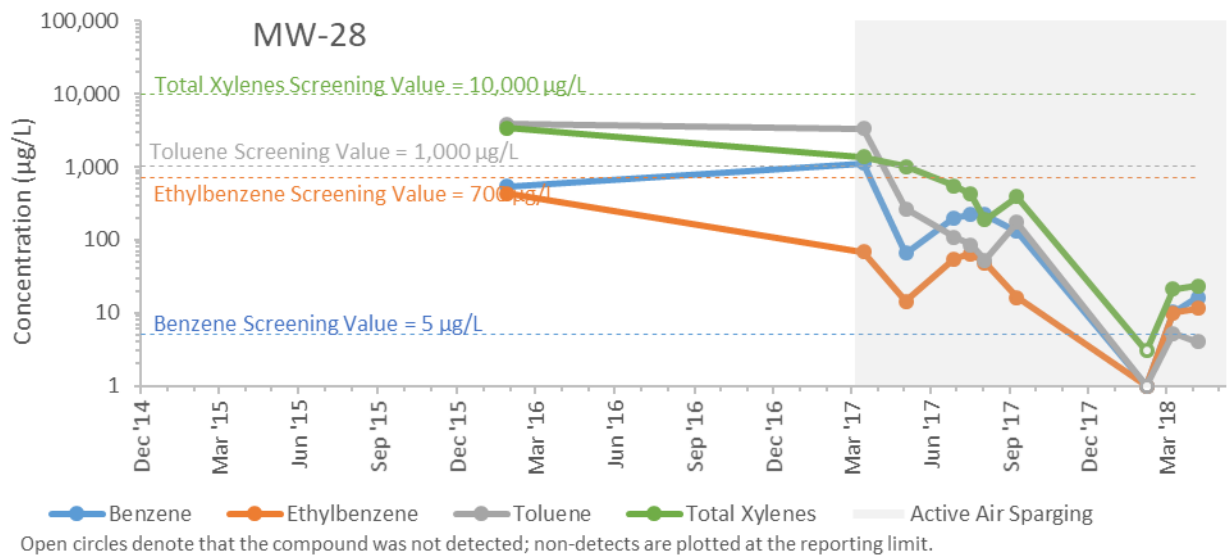
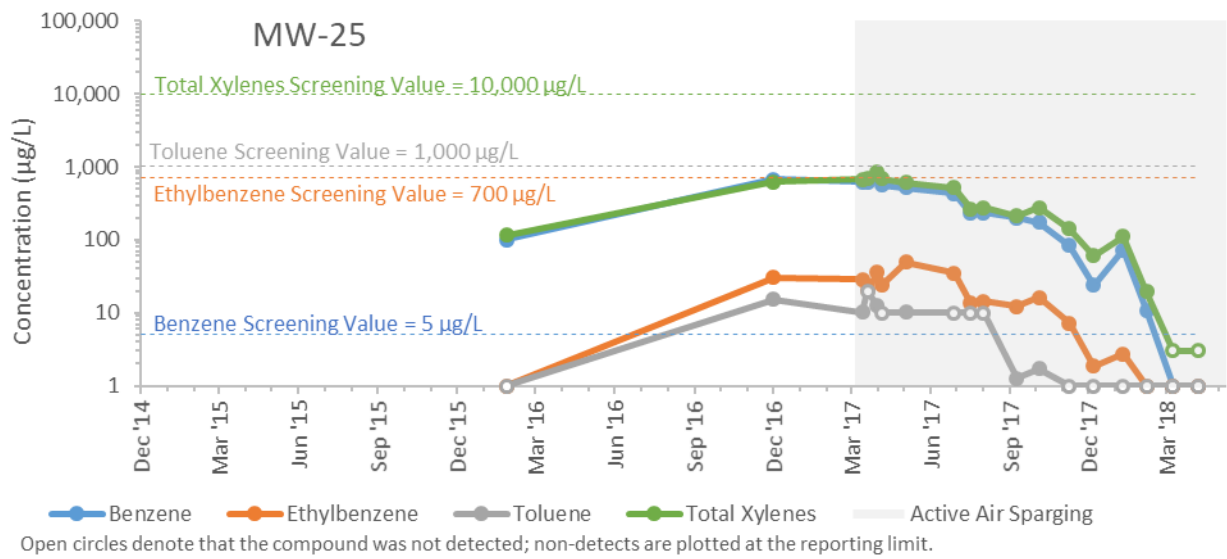


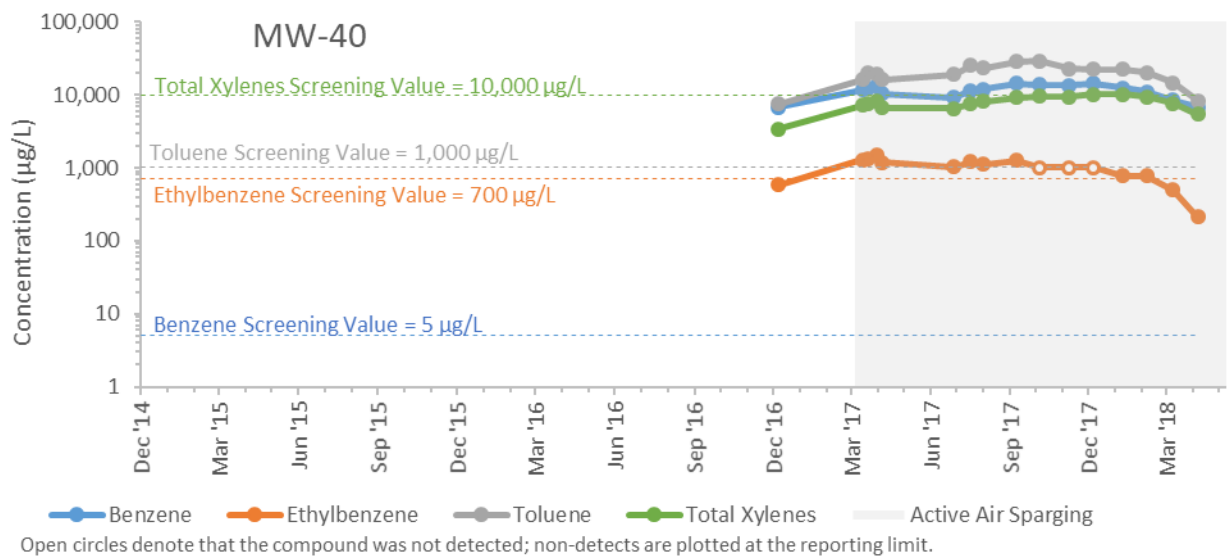
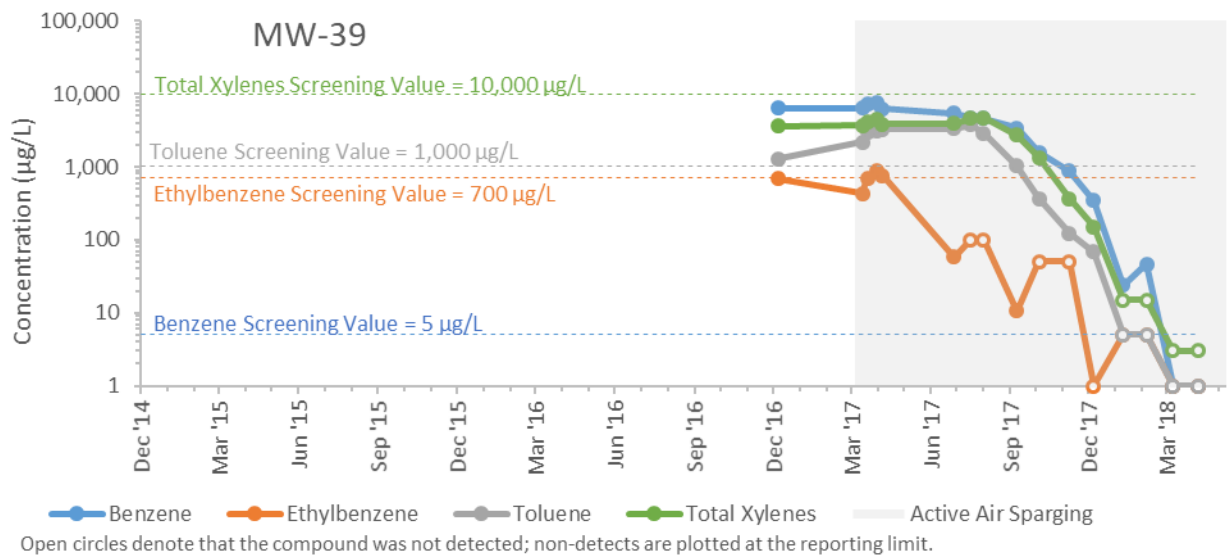
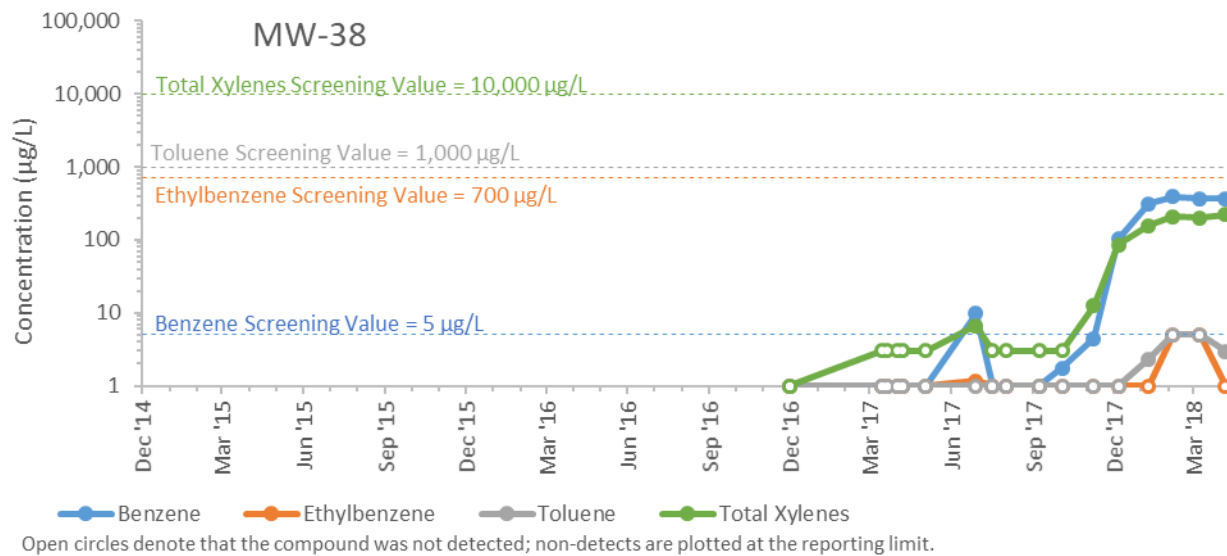
Appendix H
Groundwater Analytical Trends

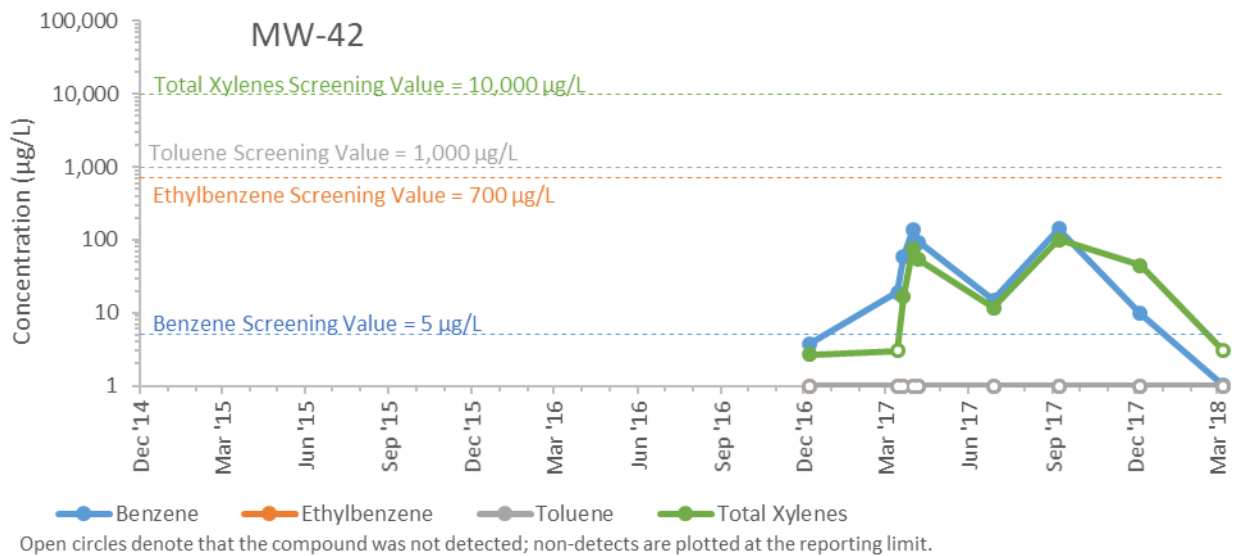
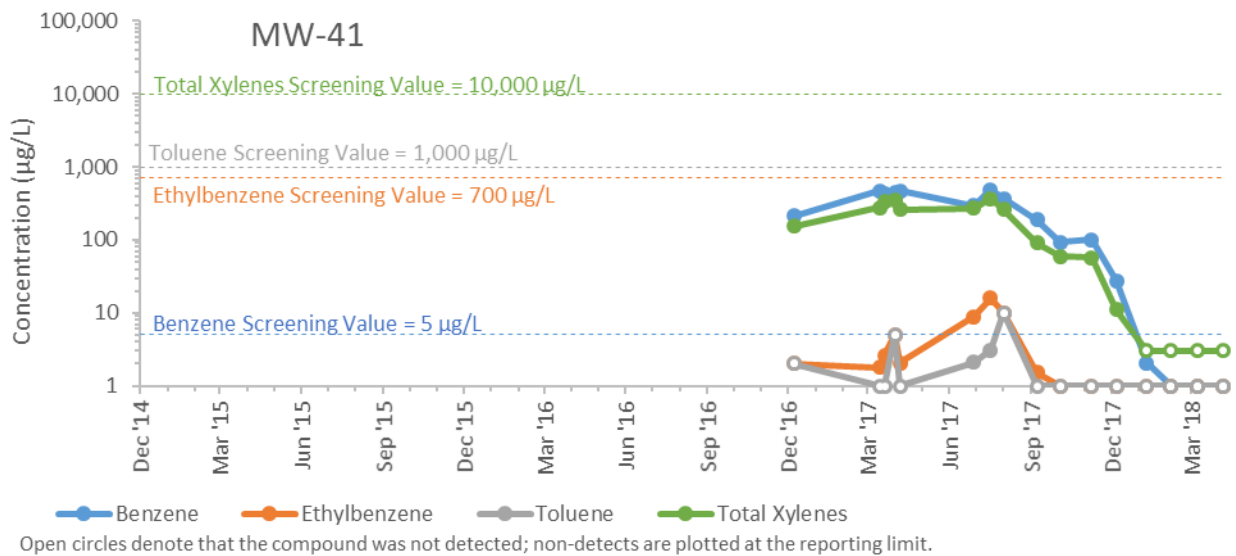
Brown's Creek Monitoring Well Trends:



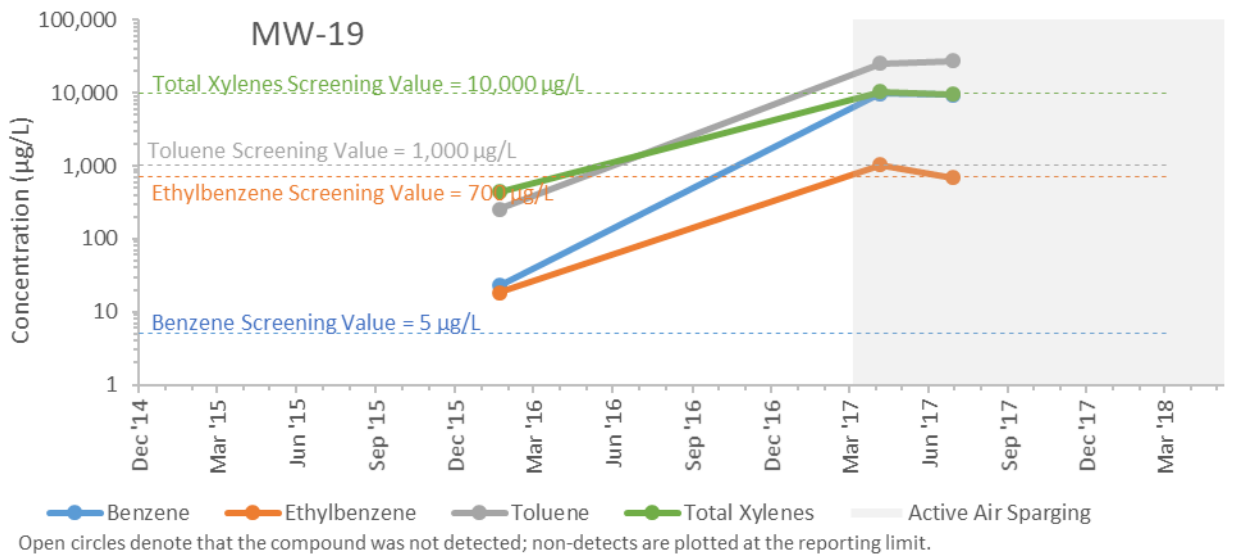


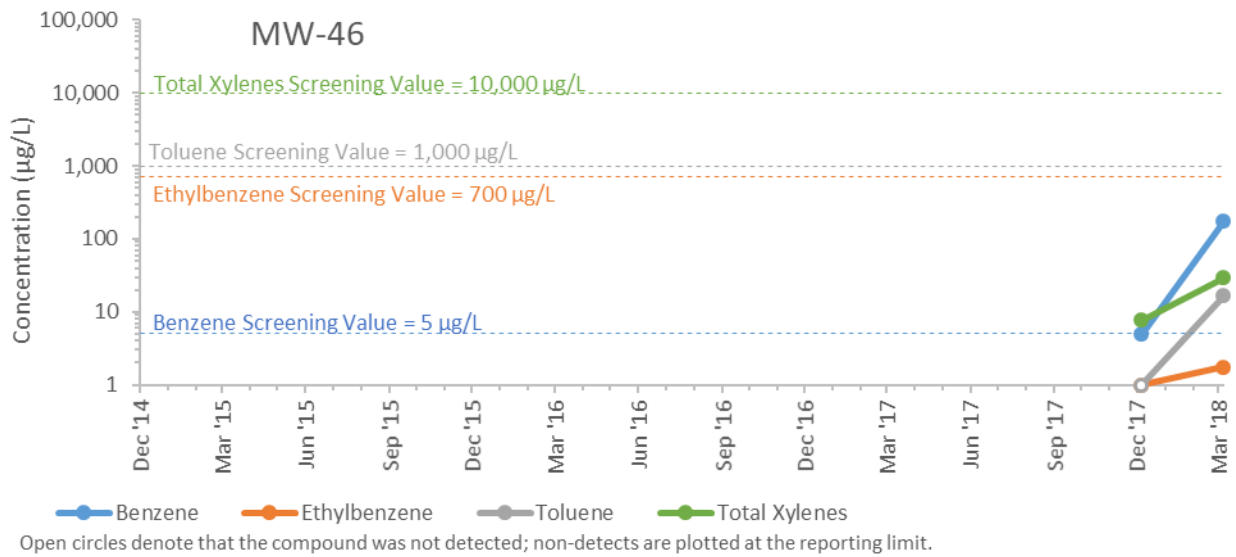
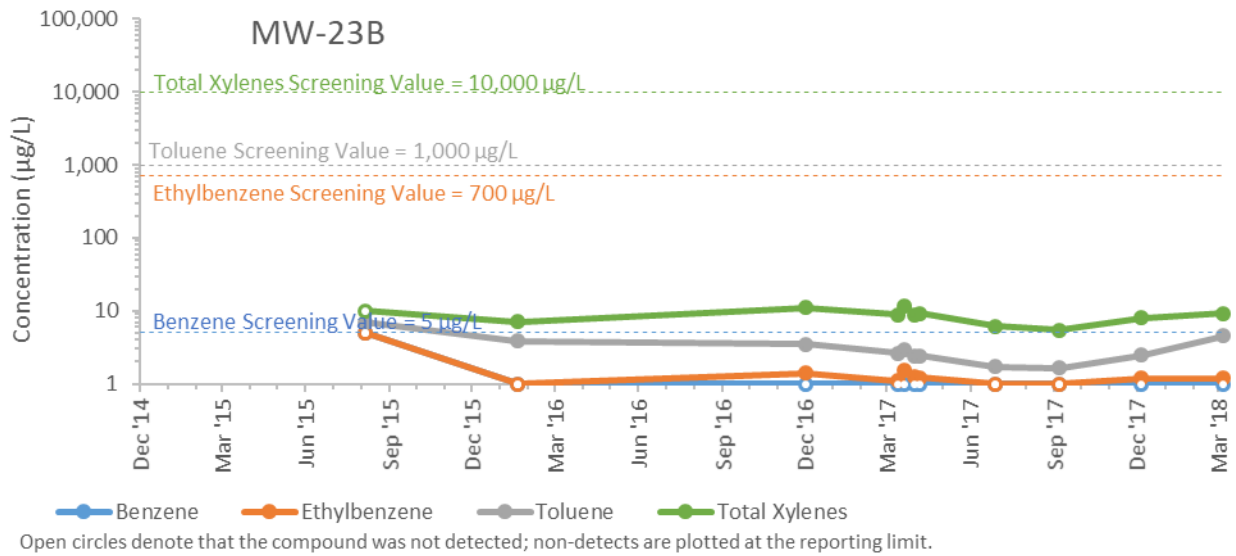
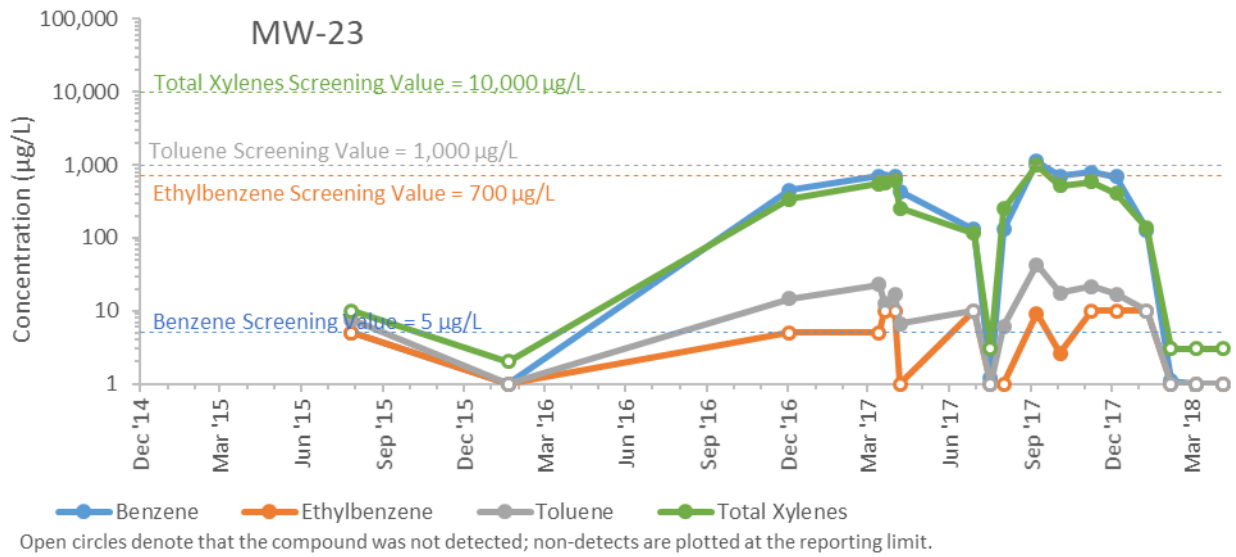




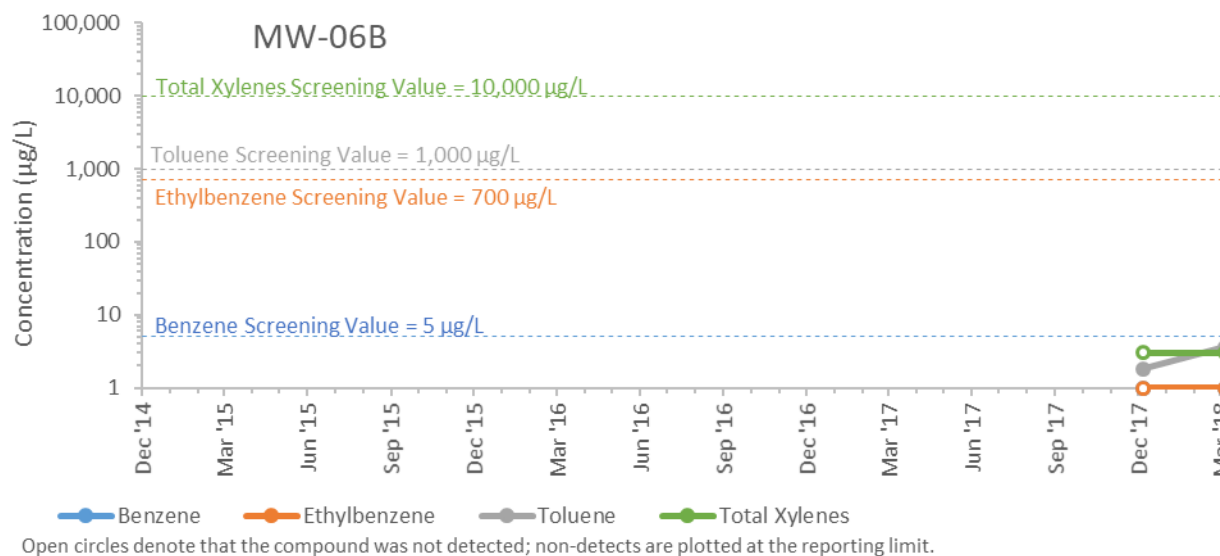
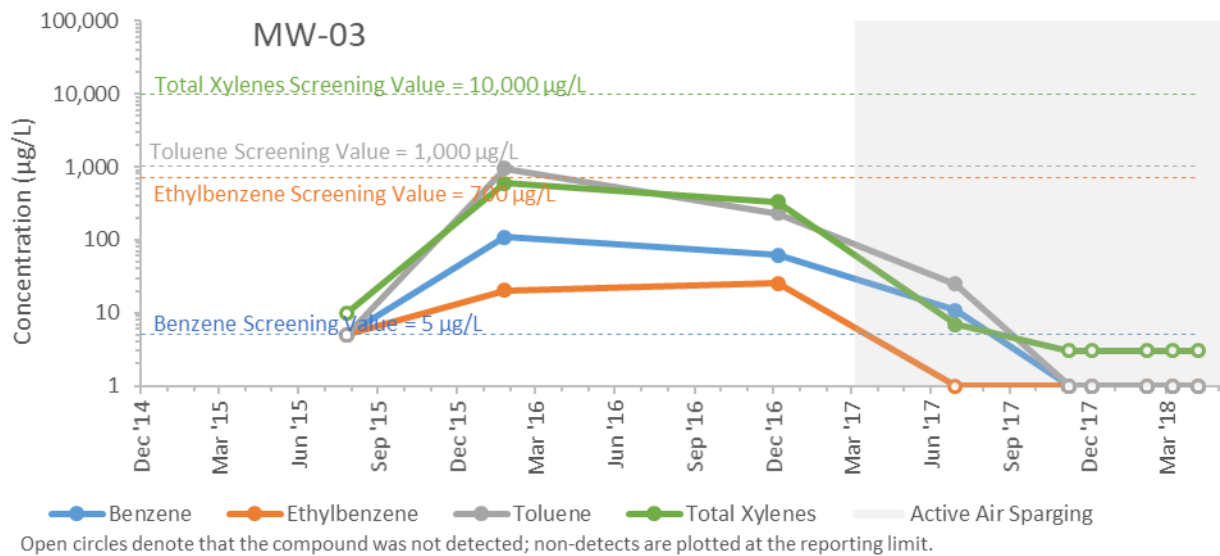
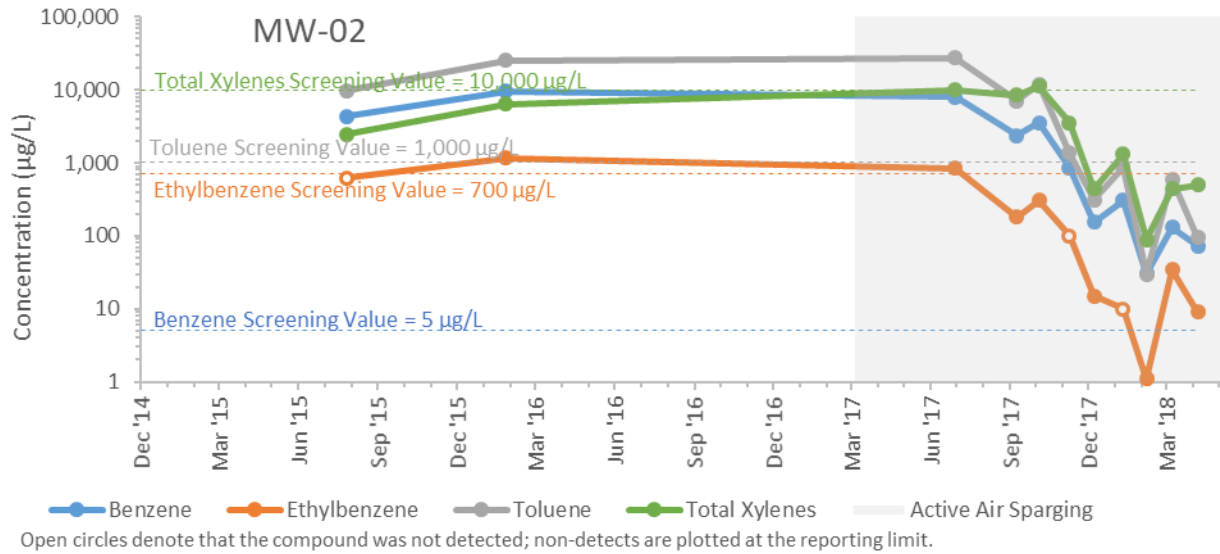


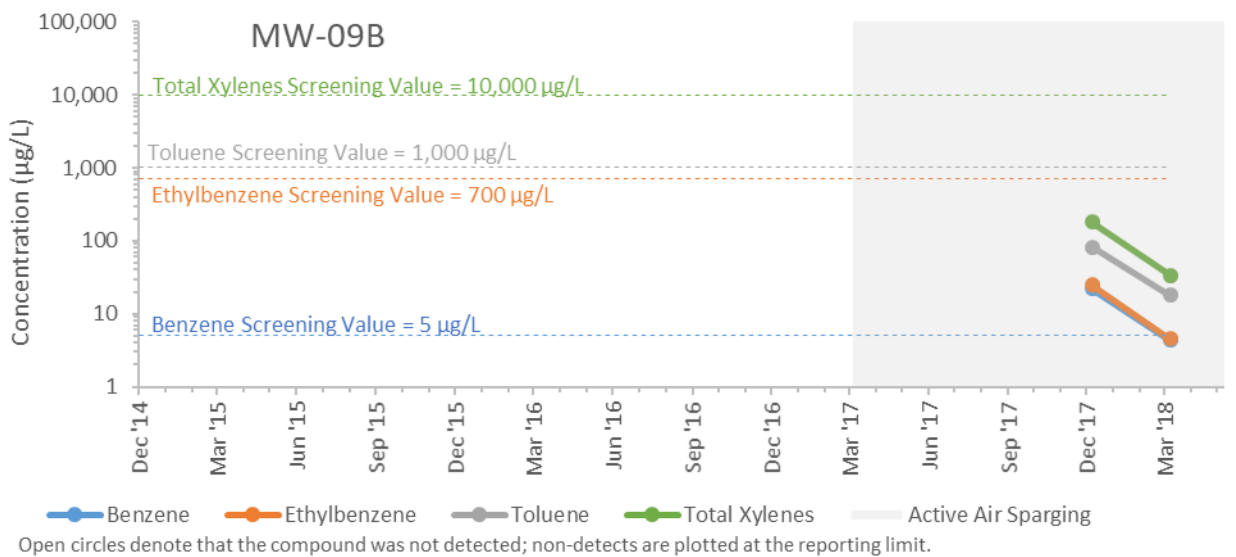
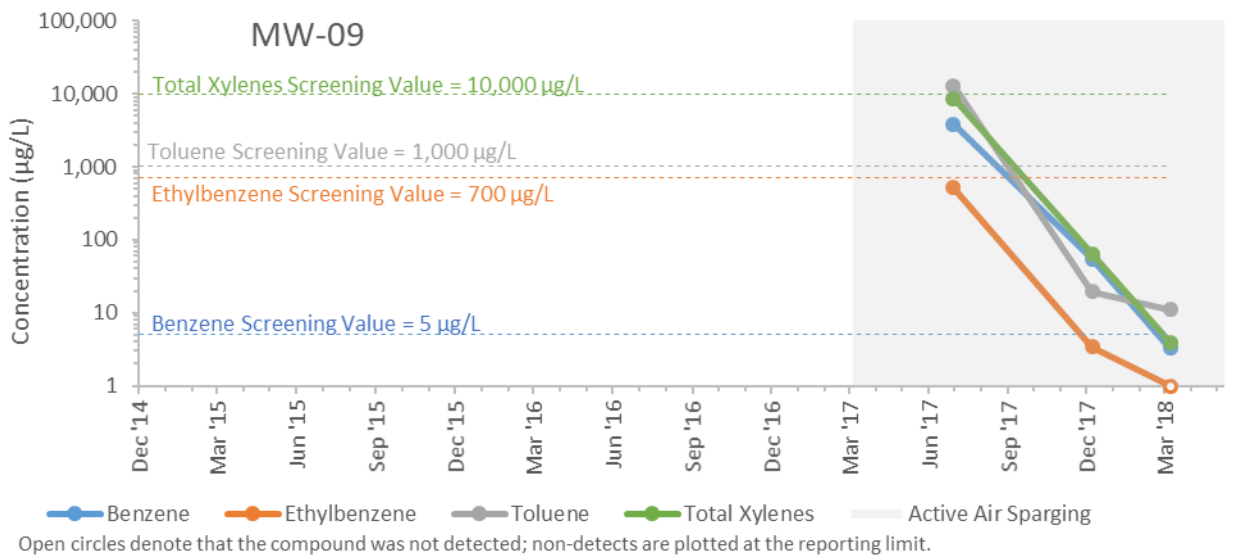
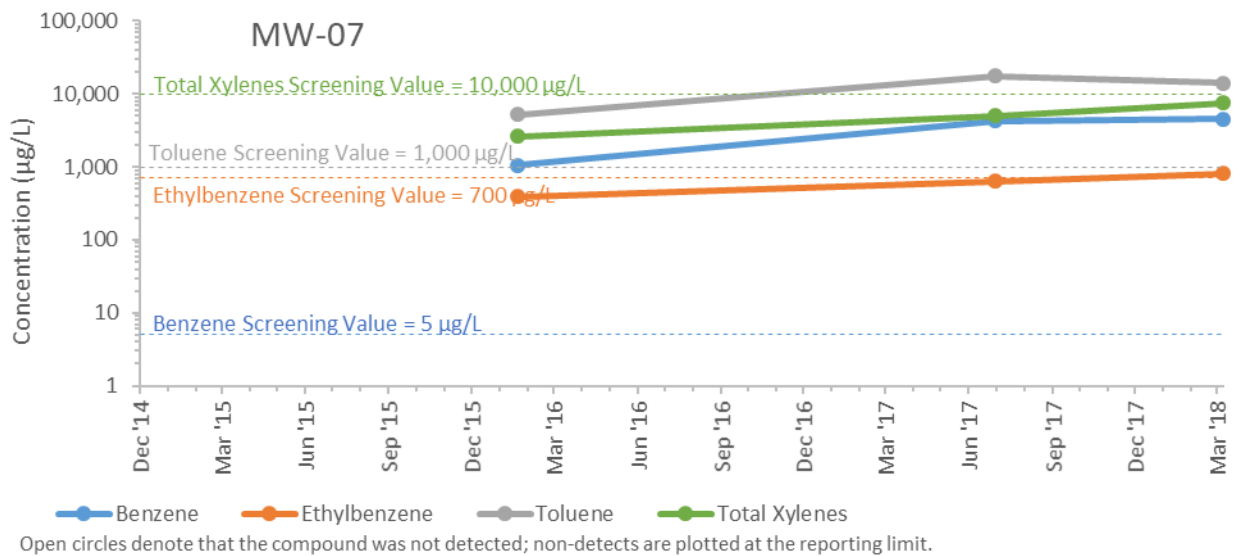
Cupboard Creek Monitoring Well Trends:

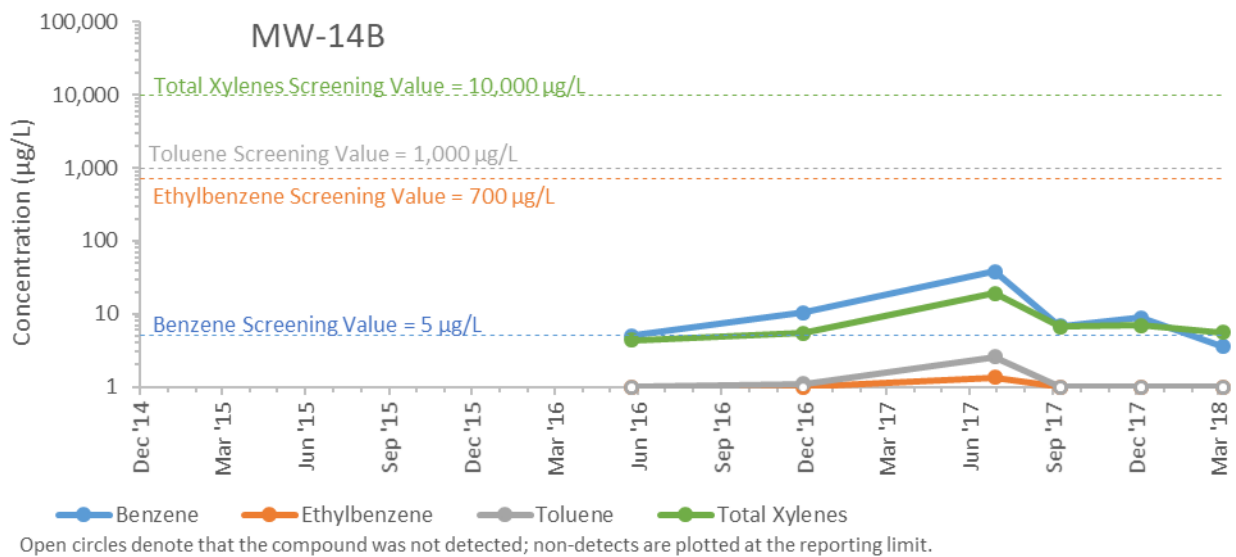
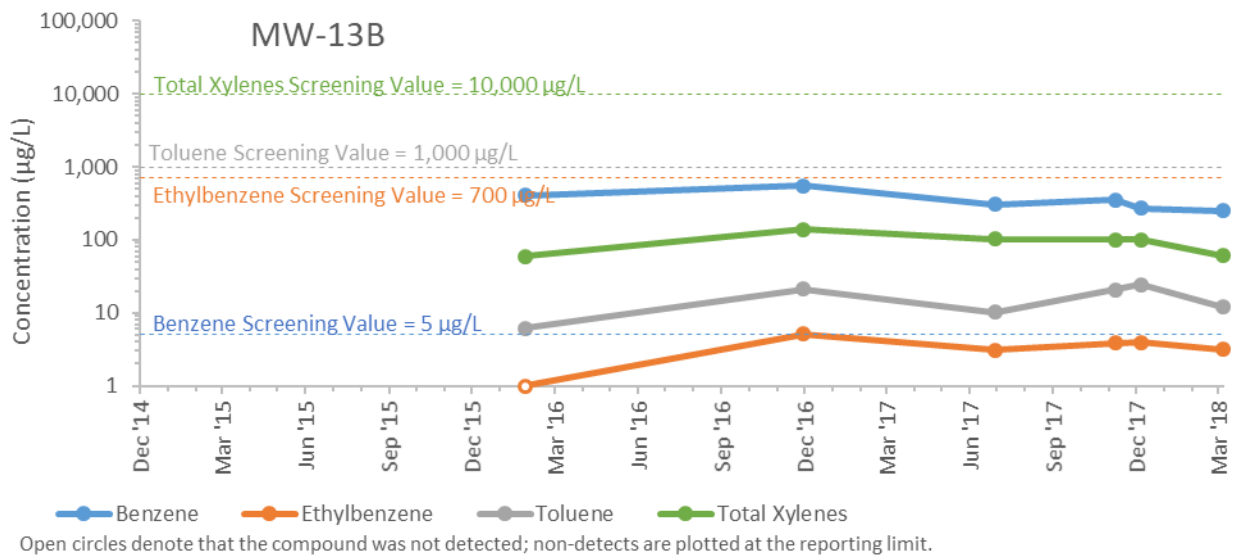
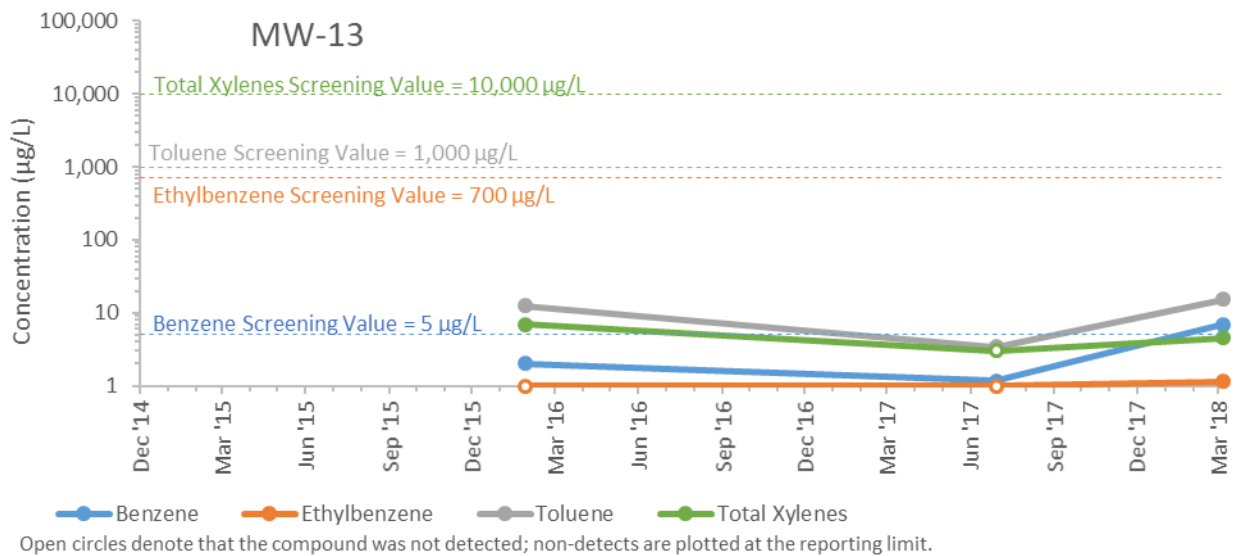


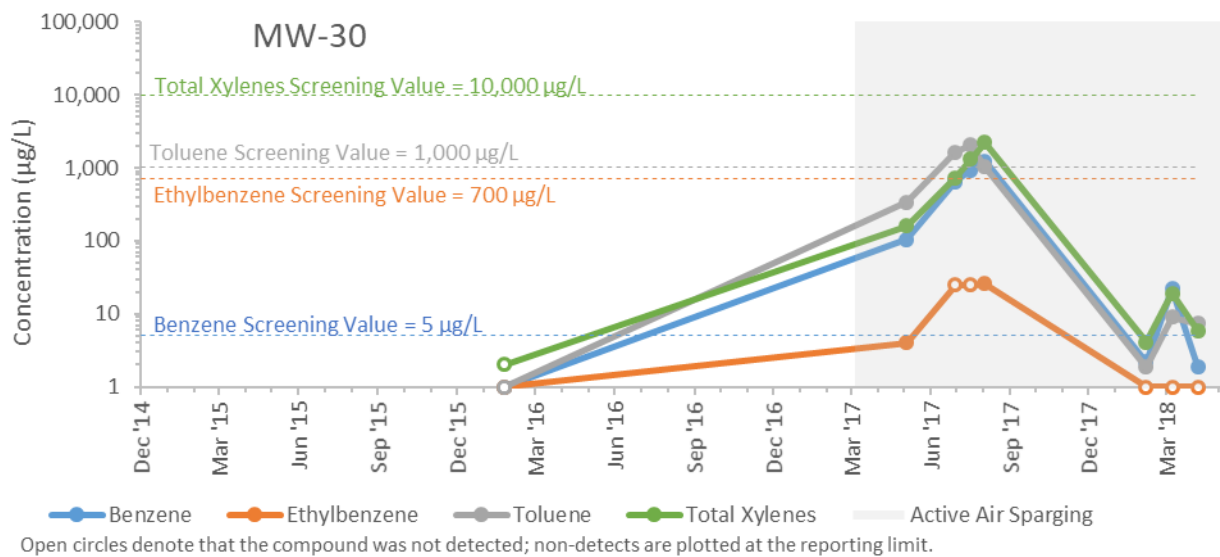
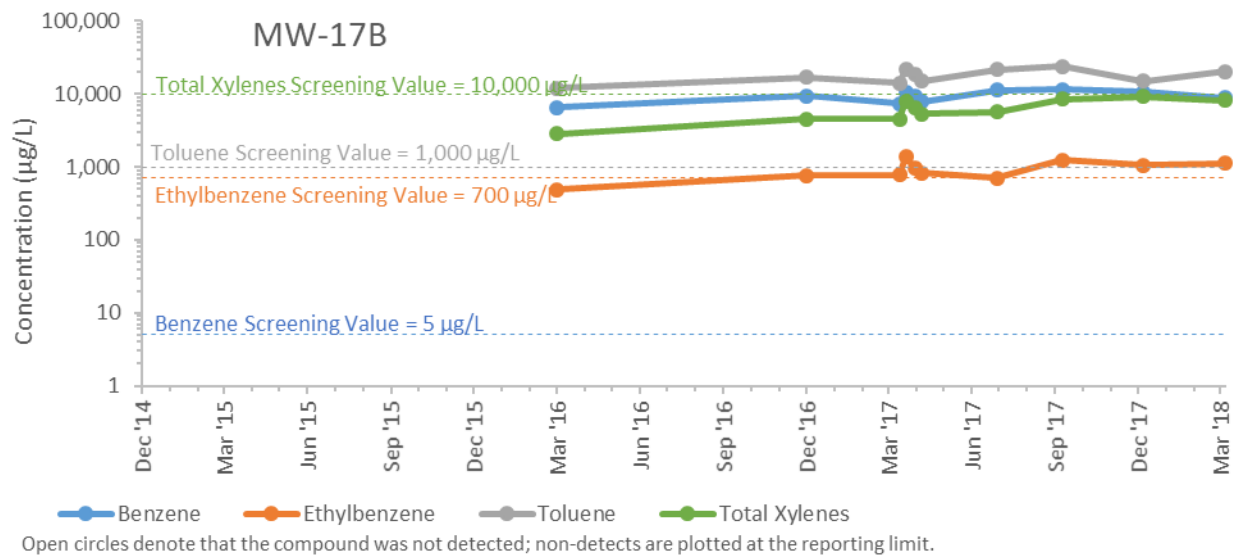
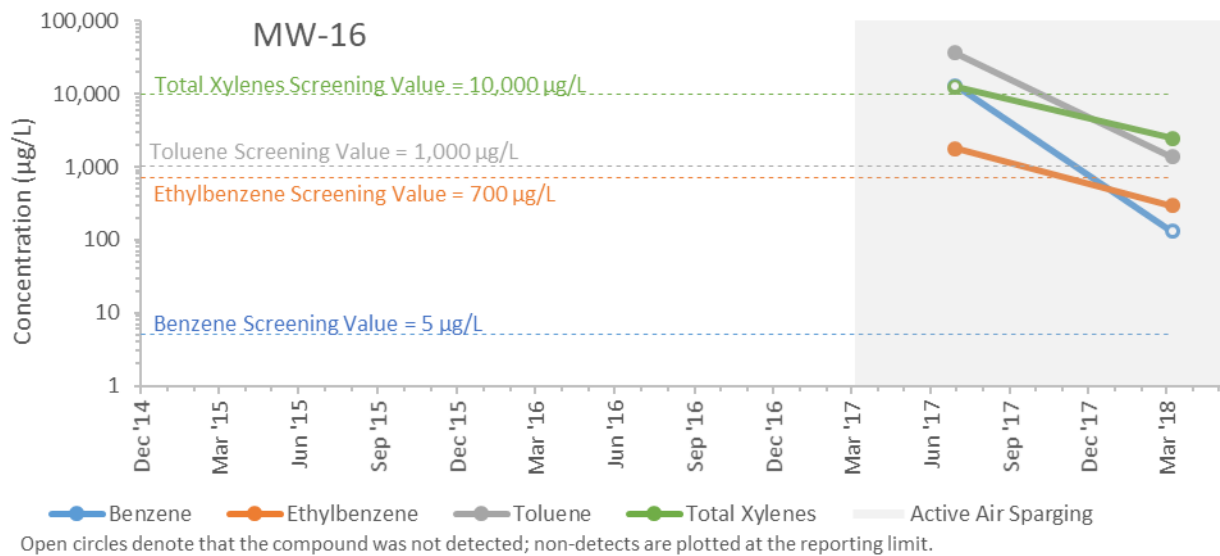


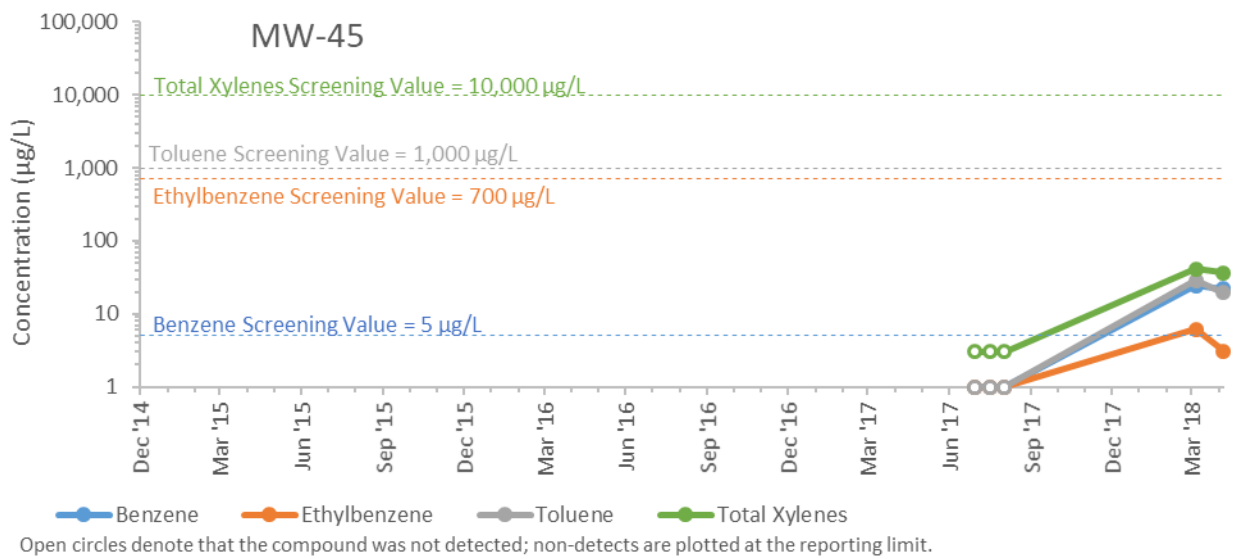
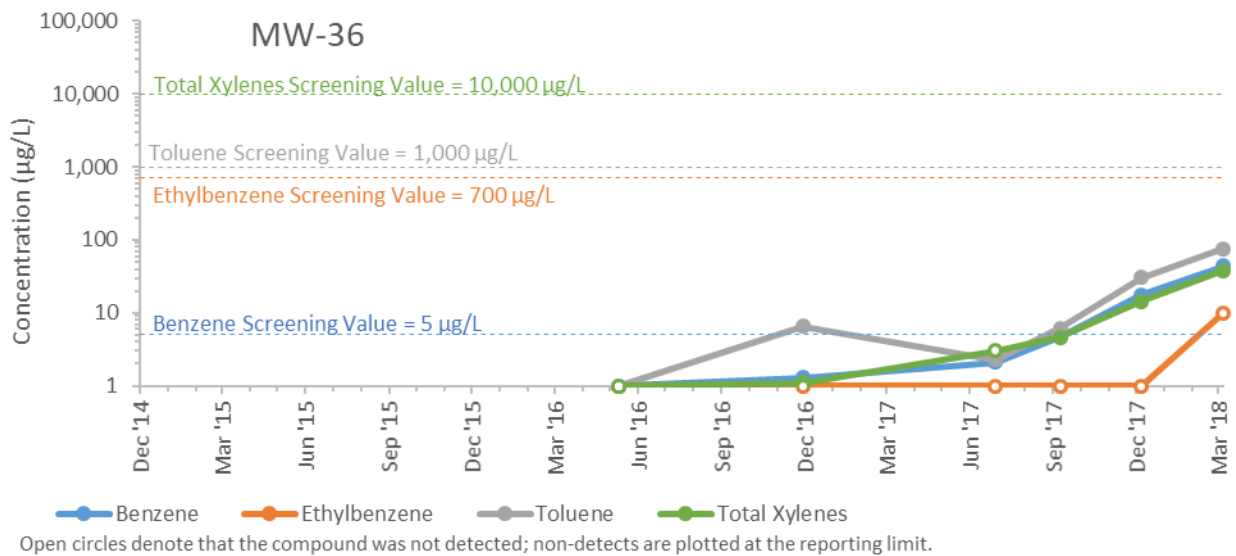
Hayfield Monitoring Well Trends:











Shallow Bedrock Monitoring Well Trends:

