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December 21, 2017

*Delivered via FedEx Overnight Delivery*

Ms. Bobbi Coleman  
South Carolina Department of Health and Environmental Control (SCDHEC)  
Assessment Section, UST Management Division  
Bureau of Land and Waste Management  
2600 Bull Street  
Columbia, SC 29201

Subject: **Lewis Drive – November 2017 Monthly Status Update**  
Plantation Pipe Line Company  
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) is submitting the attached Monthly Status Update covering activities conducted in November 2017 at the Lewis Drive site. If you have any questions or concerns, please call me at 919-760-1777, Mr. Scott Powell/CH2M at 678-530-4457, or Mr. Jerry Aycock/Plantation at 770-751-4165.

Regards,  
CH2M HILL Engineers, Inc.

William M. Waldron, P.E.  
Program Manager

Attachments:

- Monthly Status Update including:
  - Figure 1 – Groundwater and Surface Water Elevation Map
  - Figure 2 – Product Thickness Map
  - Table 1 – Field Observations
  - Table 2 – Stream Gauge Construction Information
  - Table 3 – Well Construction Information
  - Table 4 – Groundwater Elevation and Product Thickness Data
  - Table 5 – Analytical Results for Groundwater
  - Groundwater Analytical Laboratory Reports
  - Soil Boring Logs and Well Construction Diagrams

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File

**Monthly Status Update**  
**Plantation Pipe Line Company**  
**Lewis Drive Remediation**  
**Site ID #18693 “Kinder Morgan Belton Pipeline Release”**  
**November 2017**

**Surface Water**

- Routinely inspected Brown’s Creek and the wetland area south of West Calhoun Road adjacent to Cupboard Creek for hydrocarbon sheen, odor, or distressed vegetation. No new signs of distressed vegetation, hydrocarbon sheen, or odor were noted at Brown’s Creek or the wetland area south of West Calhoun Road adjacent to Cupboard Creek. The route of inspection is indicated on Figure 1. A summary of the field observations is provided in Table 1.
- Stream elevations from staff gauges are tabulated in Table 2 and are shown along with groundwater elevations on Figure 1.
- During this reporting period, surface water samples were not collected in accordance with the Corrective Action Plan Addendum Revision 2. The next surface water sampling event will be performed in December.

**Product Recovery**

- Gauged depth to product and depth to water in recovery sumps/trenches/wells, piezometers, monitoring wells, and stream gauges on a routine basis. A site-wide gauging event was performed on November 12 and 17, 2017. Three locations displayed measurable product thicknesses of 0.5 foot or greater. The greatest product thickness measured from a recovery feature (recovery sumps, trenches, and wells) was 0.99 feet, at RW-05. The greatest product thickness measured from a non-recovery feature (piezometers, monitoring wells, and stream gauges) was 0.82 feet, at TW-42. All locations showing greater than 0.5 feet of product are away from surface water bodies at the site and have limited influence from the air sparging remediation system. Construction information for recovery features, piezometers, and monitoring wells is presented in Table 3. Groundwater elevation and product thickness data for November 2017 are presented in Table 4. Groundwater elevation and product thicknesses for November 2017 are presented on Figures 1 and 2, respectively.
- Less product was recovered in November 2017 than could be measured accurately by gauging the 1,500-gallon holding tanks. See Table 4 for the specific dates and times certain wells and sumps were used for product recovery.
- Through the end of November 2017, approximately 222,974 gallons (5,309 barrels) of product have been collected.

**Groundwater**

- Operated and recorded data from six continuous water level data loggers (In Situ Rugged Troll 100) in MW-02, MW-12, MW-15, MW-20, MW-25, and MW-40, and two barometric pressure loggers in MW-01 and MW-10 during the month.
- Collected monthly groundwater samples in accordance with the Corrective Action Plan and Addendum. The analytical lab report is attached and results are summarized in Table 5.
  - During this reporting period, groundwater samples were collected on November 8, 2017, from 17 monitoring wells. Samples were analyzed for benzene, ethylbenzene, toluene, xylenes, 1,2-dichloroethane, methyl tert-butyl ether (MTBE), and naphthalene.
  - The following constituents were detected above their respective groundwater standards:
    - Benzene – in eight monitoring wells ranging from 82.9 to 13,500 µg/L
    - Toluene – in two monitoring wells ranging from 1,370 to 23,000 µg/L
    - MTBE – in four monitoring wells ranging from 118 to 442 µg/L
  - Apart from these locations, no dissolved hydrocarbons were detected above their respective groundwater standards in the remaining groundwater samples.
- The soil boring logs, well construction diagrams, and 1903 well installation forms are attached for MW-46, MW-47, and MW-49 that were installed in September 2017 and MW-06B, MW-09B, MW-43, MW-43B, MW-48B, and MW-50B that were installed in October 2017. A new soil boring logs, well construction diagrams, and 1903 well installation forms are attached to show the rehabilitation work done on MW-02B in October 2017.

### **Remedial System Operation**

- Continued biosparging via vertical well curtains in the Brown's Creek Protection Zone and Cupboard Creek Protection Zone, and biosparging via horizontal wells in the Hayfield Zone.
- In accordance with the *Sparging Operating Limits* letter sent to SCDHEC dated July 26, 2017, and approved September 12, 2017, the flows in the vertical sparging wells and stream aerators were incrementally increased to approximately 10 standard cubic feet per minute (scfm) each during this period. Likewise, the flows in the 3 horizontal wells in the Hayfield Zone were incrementally increased to approximately 0.43 scfm per foot of screen during this period.
- Increased the flows in the two stream aerators in Brown's Creek to a rate of 10 scfm each.

### **Regulatory Interaction**

- Submitted *Private Well Sampling Results* letter to Mr. Chandler to Mr. Chandler (and copied SCDHEC) on November 8, 2017.
- Submitted *Monthly Status Update for October 2017* to SCDHEC on November 28, 2017.
- Conducted internal stormwater pollution prevention plan (SWPPP) inspections on November 2, 8, 15, 21, and 28, 2017.
- The Anderson County Stormwater Department performed a SWPPP inspection on November 28, 2017. No findings were noted.

### **Future Activities**

- In accordance with the *Sparging Operating Limits* letter to SCDHEC dated July 26, 2017:
  - Increase flow in the stream aerators to up to a maximum of 15 scfm each.
  - Increase flow in the vertical sparging wells up to a maximum of 15 scfm each.
  - Increase flow in the horizontal sparging wells up to a maximum of 0.75 scfm per foot of screen.
- Conduct monitoring and reporting monthly.
- Gauge select recovery sumps, trenches, and wells once weekly located near Brown's Creek and Cupboard Creek for depth to groundwater and free product thickness.
- Evacuate product from select product recovery sumps, trenches, and wells once weekly located near Brown's Creek and Cupboard Creek. Collect liquids in two on-site 1,550-gallon poly tanks for eventual off-site disposal.
- Gauge monitoring wells and piezometers monthly for depth to groundwater and free product thickness.
- Continue routine visual inspections of Brown's Creek and Cupboard Creek.
- Conduct quarterly surface water sampling at 17 established locations along Brown's Creek and Cupboard Creek in December 2017.
- Continue coordination with landowners and legal counsel on an as-needed basis.

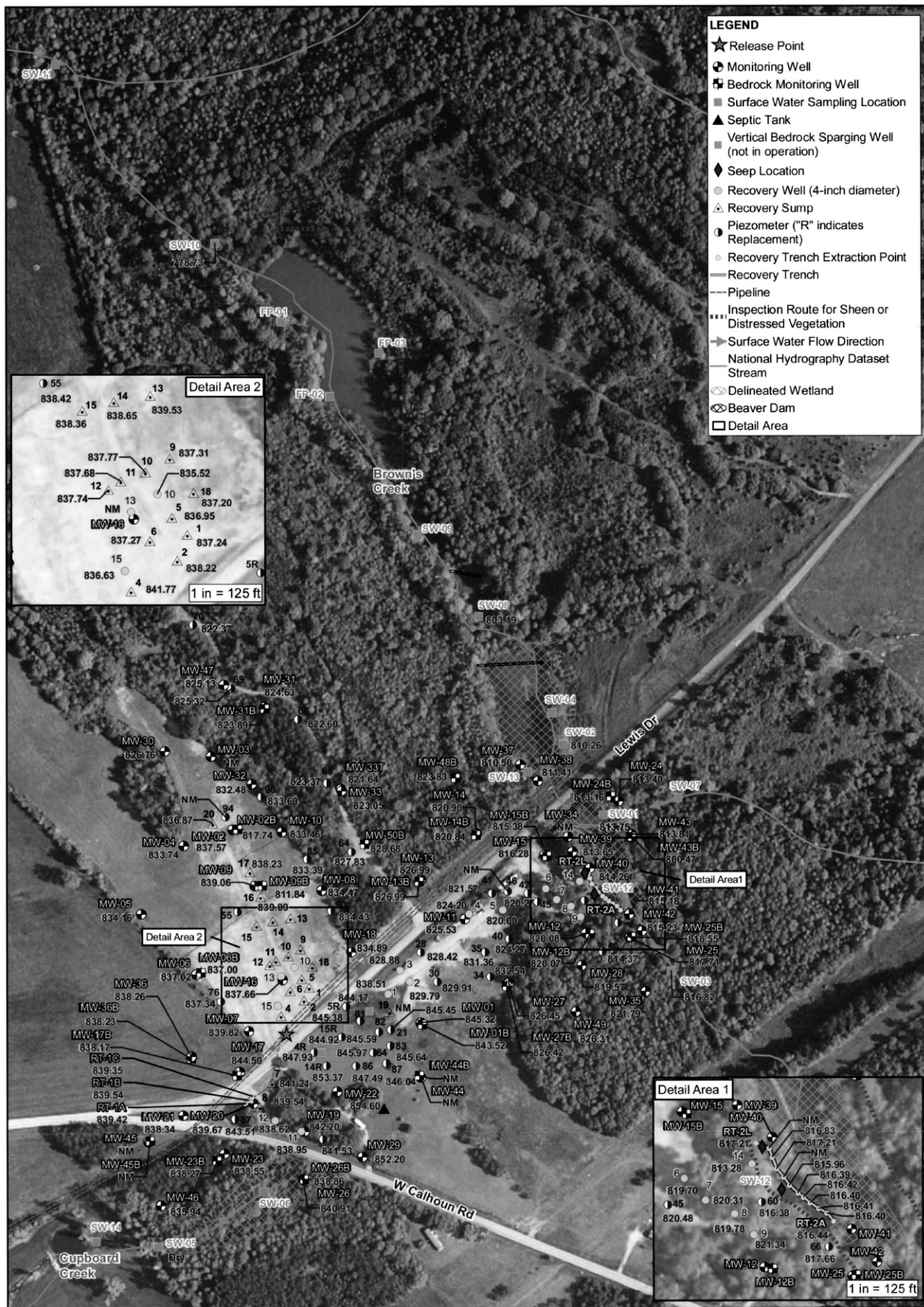
**Cumulative Product Shipped from the Site**

Date	Destination	Total Product (gal)
12/9/2014	PPL Greensboro	4,289
12/9/2014	PPL Greensboro	3,100
12/12/2014	PPL Greensboro	1,189
12/30/2014	Crystal Clean (FCC)	5,057
12/31/2014	Crystal Clean (FCC)	5,333
1/4/2015	Crystal Clean (FCC)	5,000
1/4/2015	Crystal Clean (FCC)	2,872
1/5/2015	Crystal Clean (FCC)	5,013
1/6/2015	Crystal Clean (FCC)	4,800
1/7/2015	Allied Energies	6,532
1/7/2015	Allied Energies	6,425
1/7/2015	Allied Energies	8,200
1/9/2015	Allied Energies	6,482
1/9/2015	Allied Energies	7,825
1/12/2015	Allied Energies	6,540
1/12/2015	Allied Energies	6,467
1/13/2015	Allied Energies	6,732
1/13/2015	Allied Energies	6,595
1/15/2015	Allied Energies	6,500
1/22/2015	Allied Energies	5,791
1/23/2015	Allied Energies	5,450
1/27/2015	Allied Energies	5,791
1/27/2015	Allied Energies	5,557
1/27/2015	Allied Energies	6,043
1/28/2015	Allied Energies	4,411
2/5/2015	Allied Energies	5,513
2/11/2015	Allied Energies	5,732
2/11/2015	Allied Energies	5,606
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

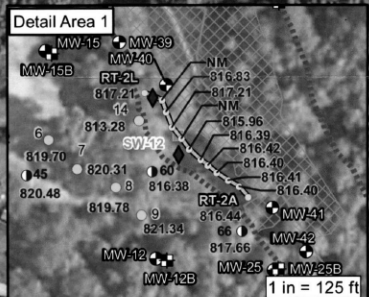
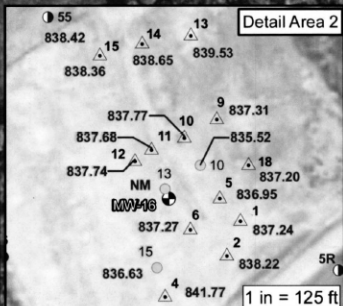
Date	Destination	Total Product (gal)
6/3/2015	Allied Energies	4,214
8/10/2015	Allied Energies	6,000
11/2/2015	Allied Energies	5,800
11/13/2015	Crystal Clean (FCC)	2,900
12/1/2015	Allied Energies	6,690
12/1/2015	Allied Energies	6,700
12/7/2015	Crystal Clean (FCC)	500
9/28/2016	Shamrock	495
10/17/2016	Shamrock	110
10/24/2016	Shamrock	85
10/31/2016	Shamrock	70
11/10/2016	Shamrock	168
1/18/2017	A&D Archdale, NC	3,758
3/3/2017	A&D Archdale, NC	460
3/8/2017	A&D Archdale, NC	500
3/15/2017	A&D Archdale, NC	4,189
4/3/2017	A&D Archdale, NC	458
4/19/2017	A&D Archdale, NC	927
4/19/2017	A&D Archdale, NC	747
5/22/2017	A&D Archdale, NC	50
6/7/2017	A&D Archdale, NC	658
6/29/2017	A&D Archdale, NC	695
8/25/2017	A&D Archdale, NC	566
9/8/2017	A&D Archdale, NC	99
11/30/2017	Remaining in poly tanks on site	6
<b>Total (gallons)</b>		<b>222,974</b>
<b>Total (barrels)</b>		<b>5,309</b>

Notes:

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



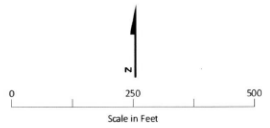
- LEGEND**
- ★ Release Point
  - Monitoring Well
  - Bedrock Monitoring Well
  - Surface Water Sampling Location
  - ▲ Septic Tank
  - Vertical Bedrock Sparging Well (not in operation)
  - ◆ Seep Location
  - Recovery Well (4-inch diameter)
  - △ Recovery Sump
  - Piezometer ("R" indicates Replacement)
  - Recovery Trench Extraction Point
  - Recovery Trench
  - Pipeline
  - ⋯ Inspection Route for Sheen or Distressed Vegetation
  - Surface Water Flow Direction
  - National Hydrography Dataset Stream
  - ◇ Delineated Wetland
  - ⊠ Beaver Dam
  - Detail Area



Corrected Groundwater Elevation as of  
11/12/2017 and 11/17/2017  
in feet above mean sea level

NM Not measured

Base Map Sources:  
\*USDA, Farm Service Agency (FSA), National Agriculture  
Imagery Program (NAIP), Published 8/19/2015  
\*United States Geological Survey (USGS)  
National Hydrography Dataset (NHD)



**Figure 1. Groundwater and Surface Water 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 Saprolite Sparging Well
  - ▲ Surface Water Sampling Location
  - Septic Tank
  - Recovery Trench Extraction Point
  - Recovery Trench
  - Surface Water Flow Direction
  - Horizontal Sparging Well Risers
  - Horizontal Sparging Well Screen
  - Pipeline
  - National Hydrography Dataset Stream
  - ▨ Delineated Wetland
  - ▧ Beaver Dam
  - ▭ Detail Area
- 0.82 Product thickness in feet as of 11/12/2017 and 11/17/2017
- NP No product detected  
NM Not measured

Base Map Sources:  
 \*USDA, Farm Service Agency (FSA), National Agriculture Imagery Program (NAIP), Published 8/19/2015  
 \*United States Geological Survey (USGS) National Hydrography Dataset (NHD)



**Figure 2. Product Thickness Map**  
 Lewis Drive Remediation Site  
 Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

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.)
11/3/2017	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.
11/10/2017	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.
11/12&17/2017	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.
11/22/2017	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.

Notes:

ID = identification



Table 2. 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 (ft amsl)	Elevation of Zero 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 3. 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 Screen or	Bottom of Screen or	Top of Screen or	Bottom of Screen or	Top of Screen or	Bottom of Screen or	Length of Screen or Open Borehole (ft)
													Open Interval (ft BTOC)	Open Interval (ft BTOC)	Open Interval (ft bgs)	Open Interval (ft bgs)	Open Interval (ft amsl)	Open 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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 3. 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 Screen or Open Borehole Interval (ft BTOC)	Bottom of Screen or Open Borehole Interval (ft BTOC)	Top of Screen or Open Borehole Interval (ft bgs)	Bottom of Screen or Open Borehole Interval (ft bgs)	Top of Screen or Open Borehole Interval (ft amsl)	Bottom of Screen or Open Borehole Interval (ft amsl)	Length of Screen or Open Borehole Interval (ft)
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  
 in = inches  
 NA = not applicable  
 BTOC = below top of casing  
 NS = location not surveyed  
 DPT = direct push  
 RNE = Refusal not encountered  
 ft = feet  
 HSA = hollow-stem auger  
 TOC = top of casing

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-01	11/12/2017	-	7.75	-	853.07	845.32	-	-	-	-
	11/7/2017	-	6.63	-		846.44	-	-	-	-
MW-01B	11/12/2017	-	9.47	-	852.99	843.52	-	-	-	-
	11/7/2017	-	9.55	-		843.44	-	-	-	-
MW-02	11/12/2017	-	3.47	-	841.04	837.57	-	-	-	-
	11/7/2017	-	4.20	-		836.84	-	-	-	-
MW-02B	11/12/2017	-	23.45	-	841.19	817.74	-	-	-	-
	11/10/2017	-	7.03	-		834.16	-	-	-	-
	11/7/2017	-	13.41	-		827.78	-	-	-	-
MW-03	11/12/2017	-	NM	-	838.36	-	-	-	-	-
	11/7/2017	-	1.50	-		836.86	-	-	-	-
MW-04	11/12/2017	-	10.68	-	844.42	833.74	-	-	-	-
	11/7/2017	-	11.03	-		833.39	-	-	-	-
MW-05	11/12/2017	-	16.95	-	851.11	834.16	-	-	-	-
	11/7/2017	-	17.18	-		833.93	-	-	-	-
MW-06	11/12/2017	-	15.90	-	852.92	837.02	-	-	-	-
MW-06B	11/12/2017	-	15.57	-	852.57	837.00	-	-	-	-
	11/10/2017	-	15.59	-		836.98	-	-	-	-
MW-07	11/12/2017	-	13.20	-	853.02	839.82	-	-	-	-
	11/7/2017	-	13.20	-		839.82	-	-	-	-
MW-08	11/12/2017	-	10.25	-	844.72	834.47	-	-	-	-
	11/7/2017	-	10.38	-		834.34	-	-	-	-
MW-09	11/12/2017	-	4.57	-	843.63	839.06	-	-	-	-
	11/7/2017	-	5.56	-		838.07	-	-	-	-
MW-09B	11/12/2017	-	32.08	-	843.92	811.84	-	-	-	-
	11/10/2017	-	40.58	-		803.34	-	-	-	-
MW-10	11/12/2017	-	11.95	-	845.41	833.46	-	-	-	-
	11/7/2017	-	12.64	-		832.77	-	-	-	-
MW-11	11/12/2017	30.00	30.35	0.35	855.63	825.28	825.53	-	-	-
	11/7/2017	30.26	30.52	0.26		825.11	825.30	-	-	-
MW-12	11/12/2017	-	14.45	-	834.53	820.08	-	-	-	-
	11/7/2017	-	14.00	-		820.53	-	-	-	-
MW-12B	11/12/2017	-	14.91	-	834.98	820.07	-	-	-	-
	11/7/2017	-	14.25	-		820.73	-	-	-	-
MW-13	11/12/2017	-	21.85	-	848.84	826.99	-	-	-	-
MW-13B	11/12/2017	-	22.83	-	849.82	826.99	-	-	-	-
	11/7/2017	-	23.08	-		826.74	-	-	-	-

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-14	11/12/2017	-	17.80	-	838.70	820.90	-	-	-	-
MW-14B	11/12/2017	-	19.36	-	840.20	820.84	-	-	-	-
MW-15	11/12/2017	-	14.75	-	831.03	816.28	-	-	-	-
	11/7/2017	-	13.32	-		817.71	-	-	-	-
MW-15B	11/12/2017	-	15.91	-	831.29	815.38	-	-	-	-
	11/7/2017	-	16.08	-		815.21	-	-	-	-
MW-16	11/12/2017	-	10.00	-	847.67	837.67	-	-	-	-
	11/7/2017	-	11.00	-		836.67	-	-	-	-
MW-17	11/12/2017	-	10.85	-	855.35	844.50	-	-	-	-
MW-17B	11/12/2017	-	17.20	-	855.37	838.17	-	-	-	-
MW-18	11/12/2017	-	12.00	-	846.89	834.89	-	-	-	-
	11/7/2017	12.35	12.37	0.02		834.52	834.53	-	-	-
MW-19	11/12/2017	-	11.74	-	853.94	842.20	-	-	-	-
	11/7/2017	-	11.80	-		842.14	-	-	-	-
MW-20	11/12/2017	13.15	13.40	0.25	852.89	839.49	839.67	-	-	-
	11/7/2017	13.12	13.61	0.49		839.28	839.63	-	-	-
MW-21	11/12/2017	-	17.43	-	855.77	838.34	-	-	-	-
MW-22	11/12/2017	-	NM	-	854.60	-	-	-	-	-
	11/7/2017	-	9.96	-		844.64	-	-	-	-
MW-23	11/12/2017	-	11.02	-	849.57	838.55	-	-	-	-
	11/7/2017	-	11.10	-		838.47	-	-	-	-
MW-23B	11/12/2017	-	11.42	-	849.69	838.27	-	-	-	-
MW-24	11/17/2017	-	4.52	-	817.92	813.40	-	-	-	-
MW-24B	11/17/2017	-	5.56	-	818.72	813.16	-	-	-	-
MW-25	11/12/2017	-	8.47	-	826.18	817.71	-	-	-	-
	11/7/2017	-	8.35	-		817.83	-	-	-	-
MW-25B	11/12/2017	-	5.26	-	823.81	818.55	-	-	-	-
	11/7/2017	-	5.47	-		818.34	-	-	-	-
MW-26	11/12/2017	-	6.65	-	847.56	840.91	-	-	-	-
	11/7/2017	-	6.56	-		841.00	-	-	-	-
MW-26B	11/12/2017	-	8.95	-	847.81	838.86	-	-	-	-
MW-27	11/12/2017	-	27.66	-	854.11	826.45	-	-	-	-
MW-27B	11/12/2017	-	30.72	-	857.14	826.42	-	-	-	-
MW-28					844.31					



Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
MW-28 (cont'd)	11/12/2017	-	24.74	-		819.57	-	-	-	-
	11/7/2017	-	23.78	-		820.53	-	-	-	-
MW-29					852.20					
	11/12/2017	-	NM	-		-	-	-	-	-
MW-30	11/7/2017	-	10.06	-		842.14	-	-	-	-
					841.28					
MW-31	11/12/2017	-	14.52	-		826.76	-	-	-	-
	11/7/2017	-	14.60	-		826.68	-	-	-	-
MW-31B					845.04					
	11/12/2017	-	20.41	-		824.63	-	-	-	-
MW-32	11/7/2017	-	20.81	-		824.23	-	-	-	-
					844.94					
MW-33	11/12/2017	-	21.05	-		823.89	-	-	-	-
					842.93					
MW-33T	11/12/2017	-	10.45	-		832.48	-	-	-	-
					849.20					
MW-34	11/12/2017	-	26.15	-		823.05	-	-	-	-
					849.11					
MW-35	11/12/2017	-	27.47	-		821.64	-	-	-	-
					816.35					
MW-36	11/7/2017	-	2.48	-		813.87	-	-	-	-
					829.40					
MW-36B	11/12/2017	-	7.61	-		821.79	-	-	-	-
	11/7/2017	-	8.94	-		820.46	-	-	-	-
MW-37					858.47					
	11/17/2017	-	20.21	-		838.26	-	-	-	-
MW-38					858.15					
	11/17/2017	-	19.92	-		838.23	-	-	-	-
MW-39					813.92					
	11/17/2017	-	3.42	-		810.50	-	-	-	-
MW-40					813.28					
	11/17/2017	-	1.87	-		811.41	-	-	-	-
MW-41	11/7/2017	-	1.88	-		811.40	-	-	-	-
					819.90					
MW-42	11/12/2017	-	6.25	-		813.65	-	-	-	-
	11/7/2017	-	4.89	-		815.01	-	-	-	-
MW-43					817.79					
	11/12/2017	-	3.53	-		814.26	-	-	-	-
MW-44	11/7/2017	-	2.11	-		815.68	-	-	-	-
					819.68					
MW-45	11/12/2017	-	4.50	-		815.18	-	-	-	-
	11/7/2017	-	4.39	-		815.29	-	-	-	-
MW-46					820.33					
	11/12/2017	-	5.10	-		815.23	-	-	-	-
MW-47	11/7/2017	-	5.10	-		815.23	-	-	-	-
					818.12					
MW-48	11/10/2017	-	4.31	-		813.81	-	-	-	-
	11/7/2017	-	4.45	-		813.67	-	-	-	-
MW-49					818.80					
	11/10/2017	-	18.33	-		800.47	-	-	-	-
MW-50					852.47					
	11/7/2017	-	14.24	-		838.23	-	-	-	-
MW-51					845.47					
	11/12/2017	-	9.53	-		835.94	-	-	-	-
MW-52	11/10/2017	-	9.57	-		835.90	-	-	-	-
					842.98					

Table 4. 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 <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
MW-47 (cont'd)	11/17/2017	-	17.85	-		825.13	-	-	-	-
	11/10/2017	-	17.85	-		825.13	-	-	-	-
MW-48B					832.34					
	11/12/2017	-	8.51	-		823.83	-	-	-	-
	11/10/2017	-	18.74	-		813.60	-	-	-	-
MW-49					846.78					
	11/12/2017	-	20.47	-		826.31	-	-	-	-
	11/10/2017	-	20.47	-		826.31	-	-	-	-
MW-50B					850.34					
	11/12/2017	-	21.66	-		828.68	-	-	-	-
	11/10/2017	-	21.42	-		828.92	-	-	-	-
RS-01					849.13					
	11/12/2017	11.77	12.20	0.43		836.93	837.24	-	-	-
RS-02					849.52					
	11/12/2017	11.27	11.37	0.10		838.15	838.22	-	-	-
RS-04					851.47					
	11/12/2017	-	9.70	-		841.77	-	-	-	-
RS-05					848.31					
	11/12/2017	11.20	11.80	0.60		836.51	836.95	-	-	-
RS-06					849.47					
	11/12/2017	-	12.20	-		837.27	-	-	-	-
RS-07					855.08					
	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
RS-08					854.00					
	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	-	-	-
	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
RS-09					847.60					
	11/12/2017	-	10.29	-		837.31	-	-	-	-
RS-10					847.42					
	11/12/2017	-	9.65	-		837.77	-	-	-	-
RS-11					847.44					
	11/12/2017	-	9.76	-		837.68	-	-	-	-
RS-12					847.74					
	11/12/2017	-	10.00	-		837.74	-	-	-	-
RS-13					845.98					
	11/12/2017	-	6.45	-		839.53	-	-	-	-
RS-14					845.97					
	11/12/2017	7.31	7.33	0.02		838.64	838.65	-	-	-
RS-15					846.41					
	11/12/2017	-	8.05	-		838.36	-	-	-	-
RS-16					845.44					
	11/12/2017	-	6.35	-		839.09	-	-	-	-
RS-17					844.22					
	11/12/2017	5.99	6.00	0.01		838.22	838.23	-	-	-
RS-18					847.89					
	11/12/2017	-	10.69	-		837.20	-	-	-	-
RS-20					842.69					
	11/12/2017	-	5.82	-		836.87	-	-	-	-
RT-1A					854.06					

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RT-1A (cont'd)	11/22/2017	14.65	14.71	0.06	839.35	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
RT-1B					854.15					
	11/22/2017	14.61	14.67	0.06	854.15	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	
RT-1C					854.55					
	11/22/2017	15.20	15.26	0.06	854.55	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	
RT-2A					817.48					
	11/22/2017	-	1.12	-	817.48	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		-	-	-	-	
RT-2B					817.61					
	11/22/2017	-	1.22	-	817.61	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		-	-	-	-	
RT-2C					818.06					
	11/22/2017	-	1.71	-	818.06	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		-	-	-	-	
RT-2D					818.12					
	11/22/2017	-	1.78	-	818.12	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		-	-	-	-	
RT-2E					818.25					
	11/22/2017	-	1.89	-	818.25	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		-	-	-	-	
RT-2F					818.57					
	11/22/2017	-	2.25	-	818.57	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		-	-	-	-	
RT-2G					820.07					
	11/22/2017	-	4.27	-	820.07	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		-	-	-	-	
RT-2I					819.51					
	11/22/2017	-	2.58	-	819.51	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		-	-	-	-	
RT-2J	11/22/2017	-	0.99	-	817.63	816.64	-	11/22/2017	10:50	10:55

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup>		Date of Product Evacuation	Start Time	Finish Time
							Groundwater Elevation (ft amsl)	Groundwater Elevation (ft amsl)			
RT-2J (cont'd)	11/17/2017	-	0.80	-		816.83	-	-	-	-	-
	11/10/2017	-	NM	-		-	-	-	-	-	-
	11/3/2017	-	-	-		817.63	-	-	-	-	-
RT-2K					817.40						
	11/22/2017	-	NM	-		-	-	-	-	-	-
	11/17/2017	-	NM	-		-	-	-	-	-	-
	11/10/2017	-	NM	-		-	-	11/9/2017	9:10	9:15	
RT-2L	11/3/2017	-	NM	-		-	-	11/3/2017	10:40	10:45	
					819.54						
	11/22/2017	-	2.39	-		817.15	-	11/22/2017	10:55	11:00	
	11/17/2017	-	2.33	-		817.21	-	-	-	-	
RW-01	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	
					851.92						
	11/12/2017	-	13.41	-		838.51	-	-	-	-	
RW-02					852.69						
	11/12/2017	22.80	23.15	0.35		829.54	829.79	-	-	-	
RW-03					852.34						
	11/12/2017	23.46	23.47	0.01		828.87	828.88	-	-	-	
RW-04					853.93						
	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	
RW-05	11/3/2017	30.17	30.56	0.39		823.37	823.66	11/3/2017	9:50	9:55	
					853.53						
	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	-	-	-	
RW-06	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	
					846.21						
	11/22/2017	-	26.43	-		819.78	-	-	-	-	
RW-07	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	
					843.19						
RW-08	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	
RW-09					835.48						
	11/22/2017	-	15.45	-		820.03	-	-	-	-	
	11/17/2017	-	15.70	-		819.78	-	-	-	-	
	11/10/2017	-	16.07	-		819.41	-	-	-	-	
RW-10	11/3/2017	-	16.13	-		819.35	-	-	-	-	
					835.12						
	11/22/2017	-	13.64	-		821.48	-	-	-	-	
	11/17/2017	-	13.78	-		821.34	-	-	-	-	
RW-11	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	
					848.53						
11/12/2017	13.00	13.05	0.05		835.48	835.52	-	-	-		
RW-11					852.97						
	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	-	-	-	-		

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
RW-12					854.49					
	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	-	-	-	-
RW-13					847.97					
	11/12/2017	-	NM	-		-	-	-	-	-
RW-14					827.54					
	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	-	-	-	-
RW-15					851.64					
	11/12/2017	14.90	15.30	0.40		836.34	836.63	-	-	-
SW-01					812.82					
	11/17/2017	-	(0.93)	-		813.75	-	-	-	-
	11/7/2017	-	(0.90)	-		813.72	-	-	-	-
SW-02					808.65					
	11/17/2017	-	(1.61)	-		810.26	-	-	-	-
SW-03					815.09					
	11/12/2017	-	(1.73)	-		816.82	-	-	-	-
	11/7/2017	-	(1.60)	-		816.69	-	-	-	-
SW-08					802.04					
	11/17/2017	-	(1.15)	-		803.19	-	-	-	-
SW-10					778.09					
	11/17/2017	-	(0.64)	-		778.73	-	-	-	-
SW-13					-					
	11/7/2017	-	(0.90)	-		0.90	-	-	-	-
TW-04R					852.64					
	11/12/2017	-	4.71	-		847.93	-	-	-	-
TW-05R					849.93					
	11/12/2017	-	5.76	-		844.17	-	-	-	-
TW-14R					853.37					
	11/12/2017	-	NM	-		-	-	-	-	-
TW-15R					850.62					
	11/12/2017	-	5.70	-		844.92	-	-	-	-
TW-21					849.70					
	11/12/2017	-	4.25	-		845.45	-	-	-	-
TW-28					851.42					
	11/12/2017	22.97	23.10	0.13		828.32	828.42	-	-	-
TW-30					851.81					
	11/12/2017	-	21.90	-		829.91	-	-	-	-
TW-34					854.79					
	11/12/2017	-	22.25	-		832.54	-	-	-	-
TW-35					854.10					
	11/12/2017	-	22.74	-		831.36	-	-	-	-
TW-40					853.35					
	11/12/2017	-	29.08	-		824.27	-	-	-	-
TW-41					849.38					
	11/12/2017	-	27.81	-		821.57	-	-	-	-
TW-42					846.84					
	11/12/2017	26.15	26.97	0.82		819.87	820.47	-	-	-
TW-45					848.31					
	11/12/2017	27.73	28.10	0.37		820.21	820.48	-	-	-
TW-55					845.93					
	11/12/2017	-	7.51	-		838.42	-	-	-	-

Table 4. 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 Casing Elevation <sup>1,2</sup> (ft amsl)	Groundwater Elevation (ft amsl)	Corrected <sup>3</sup> Groundwater Elevation (ft amsl)	Date of Product Evacuation	Start Time	Finish Time
TW-55 (cont'd)	11/7/2017	-	8.12	-		837.81	-	-	-	-
TW-59					834.78					
	11/12/2017	-	20.41	-		814.37	-	-	-	-
	11/7/2017	-	20.00	-		814.78	-	-	-	-
TW-60					828.03					
	11/12/2017	-	11.65	-		816.38	-	-	-	-
	11/7/2017	-	10.20	-		817.83	-	-	-	-
TW-64					845.88					
	11/12/2017	-	18.05	-		827.83	-	-	-	-
	11/7/2017	-	18.20	-		827.68	-	-	-	-
TW-65					845.62					
	11/12/2017	-	22.25	-		823.37	-	-	-	-
TW-66					820.31					
	11/12/2017	-	2.65	-		817.66	-	-	-	-
	11/7/2017	-	2.15	-		818.16	-	-	-	-
TW-67					852.71					
	11/12/2017	-	9.20	-		843.51	-	-	-	-
	11/7/2017	-	13.91	-		838.80	-	-	-	-
TW-68					846.45					
	11/12/2017	-	23.85	-		822.60	-	-	-	-
TW-69					840.27					
	11/12/2017	-	14.95	-		825.32	-	-	-	-
TW-70					841.95					
	11/12/2017	-	19.58	-		822.37	-	-	-	-
TW-73					850.53					
	11/12/2017	-	9.00	-		841.53	-	-	-	-
	11/7/2017	-	8.55	-		841.98	-	-	-	-
TW-76					852.44					
	11/12/2017	-	15.10	-		837.34	-	-	-	-
TW-81					849.43					
	11/12/2017	-	4.05	-		845.38	-	-	-	-
TW-82					849.64					
	11/12/2017	-	4.05	-		845.59	-	-	-	-
TW-83					850.44					
	11/12/2017	-	4.80	-		845.64	-	-	-	-
TW-84					851.22					
	11/12/2017	-	5.25	-		845.97	-	-	-	-
TW-85					843.49					
	11/12/2017	-	10.10	-		833.39	-	-	-	-
TW-86					853.10					
	11/12/2017	-	5.61	-		847.49	-	-	-	-
TW-87					852.25					
	11/12/2017	-	6.21	-		846.04	-	-	-	-
TW-90					845.43					
	11/12/2017	-	11.00	-		834.43	-	-	-	-
TW-94					840.58					
	11/12/2017	-	NM	-			-	-	-	-

Table 4. 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 <sup>3</sup>	Date of Product Evacuation	Start Time	Finish Time
					Casing Elevation <sup>1,2</sup> (ft amsl)		Groundwater Elevation (ft amsl)			
TW-96					840.40			-	-	-
	11/12/2017	-	6.80	-		833.60	-	-	-	-
	11/7/2017	-	8.58	-		831.82	-	-	-	-

Notes:

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

2. "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 after trimming is displayed. Groundwater elevation calculations are based on the true top of casing elevation at the time of gauging.

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

**Bold** indicates the gauged product thickness was greater than 0.5 feet.

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 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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-01	MW-01-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-01B	MW-01B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-02	MW-02-072715	7/27/2015	µg/L	<b>4,320</b>	625 U	<b>9,670</b>	<b>2,460</b>	5 U	<b>171</b>	<b>74.7</b>	0.02 U
	MW-02-012616	1/26/2016	µg/L	<b>9,500</b>	<b>1,160</b>	<b>25,000</b>	<b>6,310</b>	50 U <sup>b</sup>	<b>285</b>	<b>139</b>	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	<b>8,040</b>	<b>833</b>	<b>27,100</b>	<b>9,890</b>	250 U <sup>b</sup>	250 U <sup>b</sup>	1,250 U <sup>b</sup>	--
	MW-02-090817	9/8/2017	µg/L	<b>2,340</b>	<b>181</b>	<b>7,120</b>	<b>8,510</b>	50 U <sup>b</sup>	50 U <sup>b</sup>	<b>389</b>	--
	MW-02-100417	10/4/2017	µg/L	<b>3,510</b>	<b>306</b>	<b>11,900</b>	<b>11,200</b>	50 U <sup>b</sup>	<b>53.9</b>	250 U <sup>b</sup>	--
	MW-02-110817	11/8/2017	µg/L	<b>850</b>	100 U	<b>1,370</b>	<b>3,520</b>	100 U <sup>b</sup>	100 U <sup>b</sup>	500 U <sup>b</sup>	--
MW-02B	MW-02B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-02B-D-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	<b>4.8</b>	<b>4.6</b>	1 U	1 U	1 U	0.019 U
	MW-02B-D-030116	3/1/2016	µg/L	1 U	1 U	<b>4.8</b>	<b>5.3</b>	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	--	
	MW-02B-090817	9/8/2017	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	5 U	5 U	10 U	5 U	5 U	5 U	0.02 U
	MW-03-012516	1/25/2016	µg/L	<b>108</b>	<b>20.1</b>	<b>958</b>	<b>598</b>	1 U	1 U	<b>11.1</b>	0.02 U
	MW-03-120616	12/6/2016	µg/L	<b>61.1</b>	<b>25.1</b>	<b>229</b>	<b>330</b>	2 U	2 U	<b>3.6</b>	--
	MW-03-062917	6/29/2017	µg/L	<b>10.9</b>	1 U	<b>24.6</b>	<b>6.98</b>	1 U	<b>2.34</b>	5 U	--
	MW-03-110817	11/8/2017	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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-04	MW-04-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-05	MW-05-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-05-110817	11/8/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-06	MW-06-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-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	<b>1,060</b>	<b>389</b>	<b>5,210</b>	<b>2,620</b>	40 U <sup>b</sup>	40 U	40 U <sup>b</sup>	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	<b>4,290</b>	<b>629</b>	<b>17,700</b>	<b>4,990</b>	250 U <sup>b</sup>	250 U <sup>b</sup>	1,250 U <sup>b</sup>	--
MW-08	MW-08-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	<b>14.4</b>	<b>7.1</b>	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-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	<b>3,860</b>	<b>517</b>	<b>13,000</b>	<b>8,680</b>	200 U <sup>b</sup>	200 U <sup>b</sup>	1,000 U <sup>b</sup>	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-10	MW-10-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-10-110817	11/8/2017	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	<b>10,600</b>	<b>948</b>	<b>24,400</b>	<b>4,700</b>	10 U <sup>b</sup>	<b>432</b>	<b>123</b>	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	<b>10,900</b>	<b>2,140</b>	<b>29,600</b>	<b>11,700</b>	100 U <sup>b</sup>	<b>147</b>	500 U <sup>b</sup>	--	
MW-12	MW-12-072815	7/28/2015	µg/L	<b>51.3</b>	5 U	<b>22.9</b>	<b>39.2</b>	5 U	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
	--	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	<b>1,190</b>	<b>467</b>	<b>7,910</b>	<b>5,100</b>	50 U <sup>b</sup>	50 U <sup>b</sup>	250 U <sup>b</sup>	--
	MW-12-090817	9/8/2017	µg/L	<b>648</b>	<b>436</b>	<b>3,470</b>	<b>4,440</b>	100 U <sup>b</sup>	100 U <sup>b</sup>	500 U <sup>b</sup>	--
	MW-12B	MW-12B-012616	1/26/2016	µg/L	<b>228</b>	<b>31.4</b>	<b>193</b>	<b>532</b>	1 U	<b>5.4</b>	<b>14.6</b>
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	<b>30.1</b>	1 U	<b>7.28</b>	<b>14.3</b>	1 U	<b>11.8</b>	5 U	--
MW-12B-090817		9/8/2017	µg/L	<b>126</b>	<b>3.81</b>	<b>16.8</b>	<b>256</b>	1 U	1 U	<b>12</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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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	<b>2</b>	1 U	<b>12.5</b>	<b>6.9</b>	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	<b>1.18</b>	1 U	<b>3.39</b>	3 U	1 U	1 U	5 U	--
MW-13B	MW-13B-012816	1/28/2016	µg/L	<b>367</b>	1 U	<b>5.6</b>	<b>59.5</b>	1 U	<b>119</b>	1 U	0.02 U
	MW-13B-D-012816	1/28/2016	µg/L	<b>405</b>	1 U	<b>6.1</b>	<b>59.1</b>	1 U	<b>108</b>	1 U	0.02 U
	MW-13B-113016	11/30/2016	µg/L	<b>550</b>	<b>5.1</b>	<b>21.2</b>	<b>140</b>	5 U	<b>158</b>	<b>7.9</b>	--
	MW-13B-062817	6/28/2017	µg/L	<b>308</b>	<b>3.09</b>	<b>10.3</b>	<b>103</b>	1 U	<b>121</b>	<b>5.13</b>	--
	MW-13B-110817	11/8/2017	µg/L	<b>325</b>	<b>3.42</b>	<b>19</b>	<b>91.6</b>	1 U	<b>173</b>	<b>5.55</b>	--
	MW-13B-D-110817	11/8/2017	µg/L	<b>356</b>	<b>3.85</b>	<b>20.8</b>	<b>100</b>	1 U	<b>168</b>	<b>6.61</b>	--
MW-14	MW-14-072815	7/28/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-14-113016	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-14B	MW-14B-052516	5/25/2016	µg/L	<b>5</b>	1 U	1 U	<b>4.4</b>	1 U	<b>17.2</b>	1 U	0.02 U
	MW-14B-052516-FD	5/25/2016	µg/L	<b>4.6</b>	1 U	1 U	<b>4.1</b>	1 U	<b>23.6</b>	1 U	0.02 U
	MW-14B-113016	11/30/2016	µg/L	<b>10.5</b>	1 U	<b>1.1</b>	<b>5.5</b>	1 U	<b>19.7</b>	1 U	--
	MW-14B-062817	6/28/2017	µg/L	<b>38.1</b>	<b>1.34</b>	<b>2.56</b>	<b>19.1</b>	1 U	<b>36.2</b>	5 U	--
	MW-14B-090817	9/8/2017	µg/L	<b>6.81</b>	1 U	1 U	<b>6.67</b>	1 U	<b>18.7</b>	5 U	--
MW-15	MW-15-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	<b>3,680</b>	<b>139</b>	<b>422</b>	<b>2,280</b>	25 U	<b>188</b>	<b>43.8</b>	--
	MW-15-031417	3/14/2017	µg/L	<b>1,960</b>	<b>72</b>	<b>324</b>	<b>1,320</b>	25 U	<b>161</b>	125 U	--
	MW-15-031417-FD	3/14/2017	µg/L	<b>1,820</b>	<b>61</b>	<b>286</b>	<b>1,120</b>	25 U	<b>153</b>	125 U	--
	MW-15-032017	3/20/2017	µg/L	<b>3,390</b>	<b>103</b>	<b>505</b>	<b>2,460</b>	50 U	<b>194</b>	250 U	--
	MW-15-033117	3/31/2017	µg/L	<b>2,850</b>	<b>65.4</b>	<b>444</b>	<b>1,860</b>	20 U	<b>221</b>	100 U	--
	MW-15-040617	4/6/2017	µg/L	<b>1,790</b>	<b>60.6</b>	<b>465</b>	<b>886</b>	25 U	<b>181</b>	125 U	--
	MW-15-062817	6/28/2017	µg/L	<b>73</b>	25 U	<b>29</b>	<b>110</b>	25 U	<b>91.8</b>	125 U	--
	MW-15-090817	9/8/2017	µg/L	<b>454</b>	<b>24</b>	<b>567</b>	<b>338</b>	5 U	<b>193</b>	25 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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-15B	MW-15B-080415	8/4/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	26.7	5	--
	MW-15B-031417	3/14/2017	µg/L	2,160	248	4,580	1,500	100 U	118	500 U	--
	MW-15B-032017	3/20/2017	µg/L	615	88.6	1,270	555	25 U	67.5	125 U	--
	MW-15B-033117	3/31/2017	µg/L	1,630	205	3,240	1,180	50 U	115	250 U	--
	MW-15B-040617	4/6/2017	µg/L	1,020	132	2,020	789	25 U	84.7	125 U	--
	MW-15B-040617-FD	4/6/2017	µg/L	973	124	1,910	742	25 U	82.9	125 U	--
	MW-15B-062817	6/28/2017	µg/L	1,510	145	3,520	1,280	100 U <sup>b</sup>	100 U <sup>b</sup>	500 U <sup>b</sup>	--
MW-15B-090817	9/8/2017	µg/L	1,820	164	3,560	1,210	50 U <sup>b</sup>	133	250 U <sup>b</sup>	--	
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 <sup>b</sup>	1,740	2,500 U <sup>b</sup>	--
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
	--	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
	MW-17-090817	9/8/2017	µg/L	11,400	1,240	23,900	8,460	20 U <sup>b</sup>	1,330	201	--
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	954	112	--
	MW-17B-031317	3/13/2017	µg/L	7,350	770	14,100	4,510	200 U	944	1,000 U	--
	MW-17B-032017	3/20/2017	µg/L	10,700	1,360	21,400	7,910	323	1,210	1,000 U	--
	MW-17B-033117	3/31/2017	µg/L	9,190	900	17,500	5,910	100 U	1,200	500 U	--
	MW-17B-033117FD	3/31/2017	µg/L	9,190	956	18,200	6,330	100 U	1,210	500 U	--
	MW-17B-040617	4/6/2017	µg/L	7,780	833	14,900	5,330	200 U	991	1,000 U	--
MW-17B-062817	6/28/2017	µg/L	11,200	704	21,600	5,650	200 U <sup>b</sup>	1,150	1,000 U <sup>b</sup>	--	
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

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 Plantation Pipe Line Company  
 Lewis Drive Remediation Site, Belton, South Carolina  
 Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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	<b>22.8</b>	<b>18.5</b>	<b>256</b>	<b>437</b>	1 U	1 U	<b>10.7</b>	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
	--	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	<b>9,810</b>	<b>1,030</b>	<b>25,000</b>	<b>10,300</b>	250 U	250 U	1,250 U	--
	MW-19-062917	6/29/2017	µg/L	<b>9,410</b>	<b>683</b>	<b>27,200</b>	<b>9,580</b>	200 U <sup>b</sup>	<b>320</b>	1,000 U <sup>b</sup>	--
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
	--	6/26/2017	--	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	5 U	5 U	10 U	5 U	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-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	<b>19.8</b>	<b>3.4</b>	<b>47.2</b>	<b>37.4</b>	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-22-062917	6/29/2017	µg/L	<b>234</b>	10 U	<b>125</b>	30 U	10 U <sup>b</sup>	10 U	50 U <sup>b</sup>	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-23	MW-23-072715	7/27/2015	µg/L	5 U	5 U	7.5	10 U	5 U	5 U	5 U	0.02 U
	MW-23D-072715	7/27/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	46.4	5.9	--
	MW-23-031317	3/13/2017	µg/L	709	5 U	23.1	548	5 U	127	25 U	--
	MW-23-032017	3/20/2017	µg/L	642	10 U	12.7	579	10 U	108	50 U	--
	MW-23-032017-FD	3/20/2017	µg/L	620	10 U	12.0	548	10 U	110	50 U	--
	MW-23-033117	3/31/2017	µg/L	685	10 U	16.5	624	10 U	130	50 U	--
	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 <sup>b</sup>	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	141	25 U	--
	MW-23-100417	10/4/2017	µg/L	703	10 U	17.5	515	10 U <sup>b</sup>	90.1	50 U <sup>b</sup>	--
MW-23-100417-DUP	10/4/2017	µg/L	543	2.65	11.5	424	1 U	69.2	5 U	--	
MW-23-110817	11/8/2017	µg/L	788	10 U	21.5	580	10 U <sup>b</sup>	118	50 U <sup>b</sup>	--	
MW-23B	MW-23B-080515	8/5/2015	µg/L	5 U	5 U	7.0	10 U	5 U	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-24	MW-24-080515	8/5/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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-24B	MW-24B-080515	8/5/2015	µg/L	5 U	5 U	5 U	10 U	5 U	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	--

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	Sample Date	Analyte:	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
			Units								
MW-25	MW-25-012716	1/27/2016	µg/L	<b>101</b>	1 U	1 U	<b>115</b>	1 U	1 U	<b>1.8</b>	0.02 U
	MW-25-012716	12/1/2016	µg/L	<b>675</b>	<b>30.2</b>	<b>15.3</b>	<b>619</b>	5 U	<b>5.9</b>	<b>29.7</b>	--
	MW-25-031417	3/14/2017	µg/L	<b>627</b>	<b>28.6</b>	<b>10.1</b>	<b>668</b>	10 U	10 U	50 U	--
	MW-25-032017	3/20/2017	µg/L	<b>604</b>	<b>20.4</b>	20 U	<b>680</b>	20 U	20 U	100 U	--
	MW-25-033117	3/31/2017	µg/L	<b>673</b>	<b>30.1</b>	<b>12</b>	<b>736</b>	10 U	10 U	50 U	--
	MW-25-033117FD	3/31/2017	µg/L	<b>790</b>	<b>35.4</b>	<b>12.5</b>	<b>861</b>	10 U	10 U	50 U	--
	MW-25-040617	4/6/2017	µg/L	<b>558</b>	<b>24.3</b>	10 U	<b>682</b>	10 U	10 U	50 U	--
	MW-25-050317	5/3/2017	µg/L	<b>519</b>	<b>49.3</b>	<b>10.1</b>	<b>614</b>	1 U	1 U	<b>43.2</b>	--
	MW-25-062817	6/28/2017	µg/L	<b>431</b>	<b>34.8</b>	10 U	<b>520</b>	10 U <sup>b</sup>	10 U	50 U <sup>b</sup>	--
	MW-25-071717	7/17/2017	µg/L	<b>230</b>	<b>13.4</b>	10 U	<b>264</b>	10 U <sup>b</sup>	10 U	50 U <sup>b</sup>	--
	MW-25-080117	8/1/2017	µg/L	<b>234</b>	<b>14.4</b>	10 U	<b>277</b>	10 U <sup>b</sup>	10 U	50 U <sup>b</sup>	--
	MW-25-090817	9/8/2017	µg/L	<b>200</b>	<b>12.2</b>	<b>1.27</b>	<b>214</b>	1 U	1 U	<b>10.6</b>	--
	MW-25-100417	10/4/2017	µg/L	<b>173</b>	<b>16.2</b>	<b>1.73</b>	<b>276</b>	1 U	<b>1.1</b>	<b>6.77</b>	--
MW-25-110817	11/8/2017	µg/L	<b>82.9</b>	<b>7.21</b>	1 U	<b>143</b>	1 U	1 U	<b>7.74</b>	--	
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	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-26-110817	11/8/2017	µg/L	1 U	1 U	1.17	3 U	1 U	1 U	5 U	--
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-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-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	--



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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-28	MW-28-012716	1/27/2016	µg/L	<b>542</b>	<b>430</b>	<b>3,850</b>	<b>3,370</b>	1 U	<b>4.8</b>	<b>96.3</b>	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	<b>1,120</b>	<b>68.9</b>	<b>3,350</b>	<b>1,370</b>	50 U	50 U	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	<b>65.9</b>	<b>14.5</b>	<b>263</b>	<b>1,010</b>	1 U	<b>2.94</b>	<b>9.33</b>	--
	MW-28-062817	6/28/2017	µg/L	<b>199</b>	<b>55</b>	<b>108</b>	<b>546</b>	1 U	1 U	<b>10.1</b>	--
	MW-28-071717	7/17/2017	µg/L	<b>219</b>	<b>64.2</b>	<b>85.8</b>	<b>422</b>	1 U	1 U	<b>14.7</b>	--
	MW-28-080217	8/2/2017	µg/L	<b>219</b>	<b>48.7</b>	<b>52.7</b>	<b>187</b>	1 U	<b>3.46</b>	<b>11.9</b>	--
	MW-28-090817	9/8/2017	µg/L	<b>130</b>	<b>16.2</b>	<b>175</b>	<b>388</b>	1 U	<b>4.77</b>	<b>13.6</b>	--
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-29-080117	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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--	
MW-29-110817	11/8/2017	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	<b>104</b>	<b>3.98</b>	<b>341</b>	<b>161</b>	1 U	1 U	5 U	--
	MW-30-062917	6/29/2017	µg/L	<b>646</b>	25 U	<b>1,630</b>	<b>736</b>	25 U <sup>b</sup>	25 U	125 U <sup>b</sup>	--
	MW-30-071717	7/17/2017	µg/L	<b>922</b>	25 U	<b>2,050</b>	<b>1,320</b>	25 U <sup>b</sup>	25 U	125 U <sup>b</sup>	--
	MW-30-080217	8/2/2017	µg/L	<b>1,240</b>	<b>25.9</b>	<b>1,020</b>	<b>2,230</b>	25 U <sup>b</sup>	25 U	125 U <sup>b</sup>	--

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	Sample Date	Analyte:	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
			Units								
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	--
	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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
MW-31-110817	11/8/2017	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-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-34	MW-34-031517	3/15/2017	--	978	33.0	143	218	10 U	157	50 U	--
	MW-34-032017	3/20/2017	µg/L	801	10.0 U	113	305	10 U	149	50 U	--
	MW-34-033117	3/31/2017	µg/L	728	10.0 U	81.4	224	10 U	152	50 U	--
	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 <sup>b</sup>	98.3	50 U <sup>b</sup>	--
	MW-31-090817	9/8/2017	µg/L	1,430	6.01	98.0	264	1 U	191	7.33	--
	MW-34-100417	10/4/2017	µg/L	919	10 U	36.8	157	10 U <sup>b</sup>	151	50 U <sup>b</sup>	--
	MW-34-100417-DUP	10/4/2017	µg/L	846	1.49	40.8	186	1 U	148	5 U	--
MW-34-110817	11/8/2017	µg/L	338	10 U	15.3	140	10 U <sup>b</sup>	266	50 U <sup>b</sup>	--	

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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-35-062817	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	10/4/2017	µg/L	1 U	1 U	1 U	3 U	1 U	1 U	5 U	--
	MW-35-110817	11/8/2017	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-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-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	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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-38-050317	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	10/4/2017	µg/L	1.75	1 U	1 U	3 U	1 U	11.2	5 U	--
	MW-38-110817	11/8/2017	µg/L	4.48	1 U	1 U	12.4	1 U	29.2	5 U	--
	MW-39	MW-39-120716	12/7/2016	µg/L	6,320	682	1,290	3,650	50 U	311	86
MW-39-031417		3/14/2017	µg/L	6,370	431	2,200	3,700	10 U	199	117	--
MW-39-032017		3/20/2017	µg/L	7,340	704	2,990	4,050	100 U	248	500 U	--
MW-39-033117		3/31/2017	µg/L	7,540	899	3,140	4,400	50 U	272	250 U	--
MW-39-040617		4/6/2017	µg/L	6,180	754	3,280	3,860	50 U	257	250 U	--
MW-39-062817		6/28/2017	µg/L	5,470	58	3,360	3,900	20 U <sup>b</sup>	239	100 U <sup>b</sup>	--
MW-39-071717		7/17/2017	µg/L	4,690	100 U	3,760	4,580	100 U <sup>b</sup>	344	500 U <sup>b</sup>	--
MW-39-080117		8/1/2017	µg/L	4,630	100 U	2,880	4,740	100 U <sup>b</sup>	348	500 U <sup>b</sup>	--
MW-39-090817		9/8/2017	µg/L	3,380	10.7	1,040	2,740	1 U	376	15.6	--
MW-39-100417		10/4/2017	µg/L	1,560	50 U	365	1,350	50 U <sup>b</sup>	305	250 U <sup>b</sup>	--
MW-39-110817		11/8/2017	µg/L	878	50 U	123	368	50 U <sup>b</sup>	442	250 U <sup>b</sup>	--
MW-40	MW-40-120716	12/7/2016	µg/L	6,730	588	7,460	3,390	50 U	373	64.8	--
	MW-40-031417	3/14/2017	µg/L	11,600	1,280	16,100	7,260	50 U	691	250 U	--
	MW-40-032017	3/20/2017	µg/L	12,300	1,330	19,600	7,500	200 U	654	1,000 U	--
	MW-40-033117	3/31/2017	µg/L	13,300	1,500	19,500	8,070	100 U	727	500 U	--
	MW-40-040617	4/6/2017	µg/L	10,400	1,180	16,200	6,570	200 U	650	1,000 U	--
	MW-40-062817	6/28/2017	µg/L	9,250	1,030	19,200	6,540	500 U <sup>b</sup>	590	2,500 U <sup>b</sup>	--
	MW-40-071717	7/17/2017	µg/L	11,400	1,210	25,300	7,430	500 U <sup>b</sup>	727	2,500 U <sup>b</sup>	--
	MW-40-080117	8/1/2017	µg/L	12,000	1,120	23,200	8,070	500 U <sup>b</sup>	631	2,500 U <sup>b</sup>	--
	MW-40-090817	9/8/2017	µg/L	14,300	1,250	28,700	9,250	20 U <sup>b</sup>	716	219	--
	MW-40-100417	10/4/2017	µg/L	13,800	1,000 U <sup>b</sup>	28,800	9,530	1,000 U <sup>b</sup>	1,000 U <sup>b</sup>	5,000 U <sup>b</sup>	--
	MW-40-110817	11/8/2017	µg/L	13,500	1,000 U <sup>b</sup>	23,000	9,290	1,000 U <sup>b</sup>	1,000 U <sup>b</sup>	5,000 U <sup>b</sup>	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
MW-41	MW-41-120716	12/7/2016	µg/L	<b>212</b>	2 U	2 U	155	2 U	6.7	5.6	--
	MW-41-031417	3/14/2017	µg/L	<b>469</b>	1.78	1 U	275	1 U	4.34	18.1	--
	MW-41-032017	3/20/2017	µg/L	<b>424</b>	2.62	1 U	342	1 U	1 U	16.9	--
	MW-41-033117	3/31/2017	µg/L	<b>449</b>	5 U	5 U	343	5 U	5 U	25 U	--
	MW-41-040617	4/6/2017	µg/L	<b>470</b>	2.06	1 U	258	1 U	3.84	10.6	--
	MW-41-062817	6/28/2017	µg/L	<b>292</b>	8.83	2.09	271	1 U	3.36	13.3	--
	MW-41-071717	7/17/2017	µg/L	<b>487</b>	15.8	3.09	366	1 U	3.62	27.9	--
	MW-41-080117	8/1/2017	µg/L	<b>371</b>	10 U	10 U	260	10 U <sup>b</sup>	10 U	50 U <sup>b</sup>	--
	MW-41-090817	9/8/2017	µg/L	<b>189</b>	1.51	1 U	90	1 U	3.74	5 U	--
	MW-41-100417	10/4/2017	µg/L	<b>93.5</b>	1 U	1 U	59.9	1 U	1.84	5 U	--
MW-41-110817	11/8/2017	µg/L	<b>99.6</b>	1 U	1 U	56.6	1 U	2.46	5.68	--	
MW-42	MW-42-120716	12/7/2016	µg/L	<b>3.8</b>	1 U	1 U	2.7	1 U	1 U	1 U	--
	MW-42-031417	3/14/2017	µg/L	<b>19.3</b>	1 U	1 U	3 U	1 U	1.12	5 U	--
	MW-42-032017	3/20/2017	µg/L	<b>59.6</b>	1 U	1 U	16.9	1 U	1.24	5 U	--
	MW-42-033117	3/31/2017	µg/L	<b>135</b>	1 U	1 U	73.8	1 U	1 U	5.19	--
	MW-42-040617	4/6/2017	µg/L	<b>93.5</b>	1 U	1 U	53.3	1 U	1.18	5 U	--
	MW-42-062817	6/28/2017	µg/L	<b>15.1</b>	1 U	1 U	11.7	1 U	1.25	5 U	--
	MW-42-090817	9/8/2017	µg/L	<b>143</b>	1 U	1 U	100	1 U	1.51	5.52	--
	MW-43	MW-43-110817	11/8/2017	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	<b>1.06</b>	1 U	<b>7.12</b>	<b>3.11</b>	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	<b>2.39</b>	3 U	1 U	1 U	5 U	--
	MW-44B-090717	9/7/2017	µg/L	1 U	1 U	<b>3.07</b>	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
	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	--

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	Sample Date	Analyte: Units	Benzene	Ethylbenzene	Toluene	Total Xylenes	1,2-DCA	MTBE	Naphthalene	EDB
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-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	<b>1.73</b>	3 U	1 U	1 U	5 U	--
RBSL <sup>a</sup> :			µg/L	5.0	700	1,000	10,000	5.0	40	25	0.05

Notes:

<sup>a</sup> 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

<sup>b</sup> 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 can not be determined.

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.

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

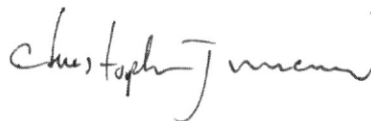
U = analyte was not detected above the reported sample quantitation limit

November 16, 2017

## CH2M Hill- Kinder Morgan- Atlanta, GA

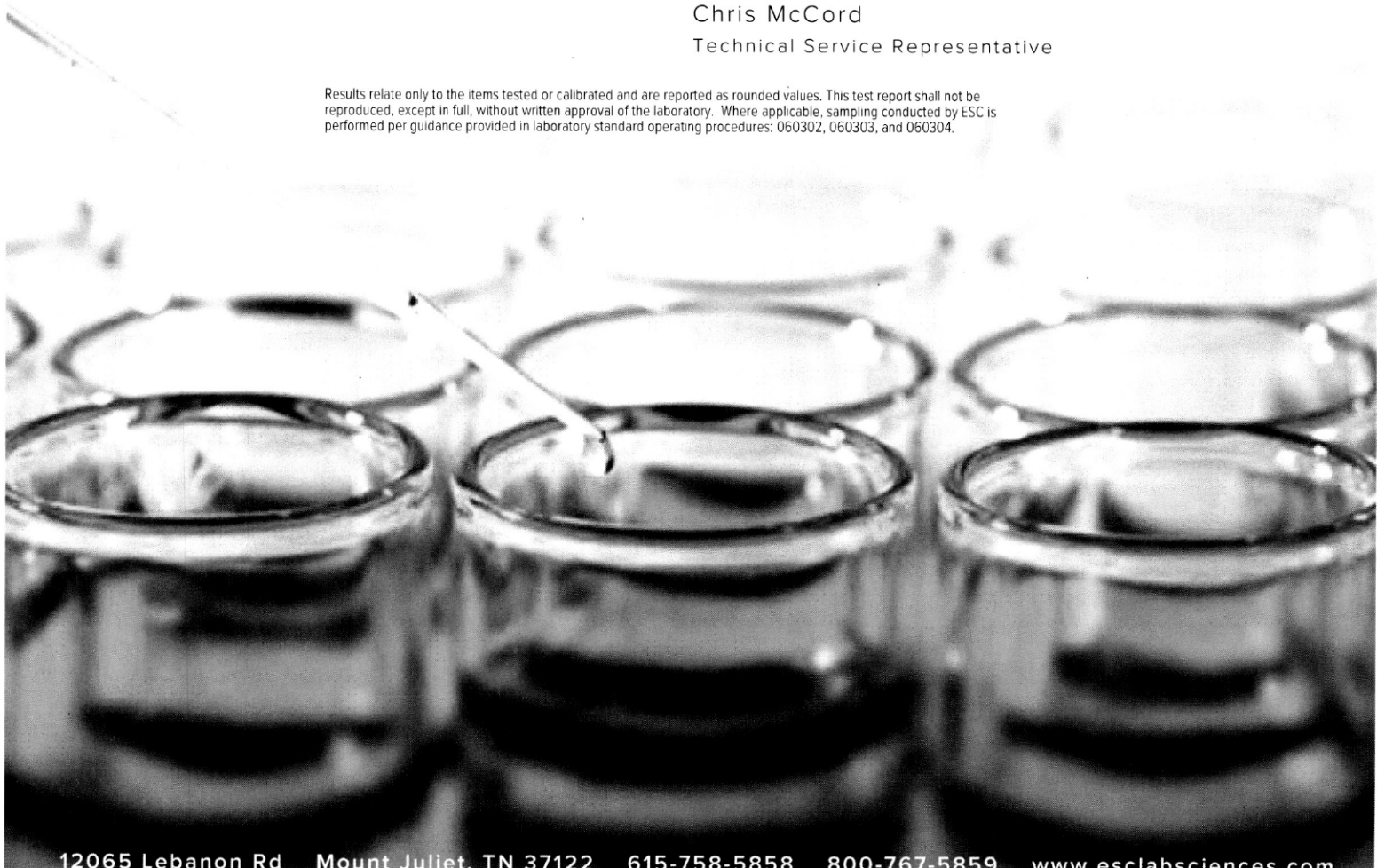
Sample Delivery Group: L949634  
Samples Received: 11/09/2017  
Project Number: 684910.LD.MR.GW  
Description: Lewis Drive Groundwater  
Site: LEWIS DRIVE  
Report To: Bethany Garvey  
6600 Peachtree Dunwoody Road  
400 Embassy Row - Suite 600  
Atlanta, GA 30328

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

ONE LAB. NATIONWIDE.

MW-29-110817 L949634-01 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 07:55	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/09/17 22:52	11/09/17 22:52	ACG
MW-26-110817 L949634-02 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 08:05	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/09/17 23:13	11/09/17 23:13	ACG
MW-23-110817 L949634-03 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 08:15	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	10	11/09/17 23:34	11/09/17 23:34	ACG
MW-43-110817 L949634-04 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 08:38	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/09/17 23:55	11/09/17 23:55	ACG
MW-38-110817 L949634-05 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 08:48	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 00:17	11/10/17 00:17	ACG
MW-34-110817 L949634-06 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 08:58	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	10	11/10/17 00:38	11/10/17 00:38	ACG
MW-39-110817 L949634-07 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 09:05	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	50	11/10/17 00:59	11/10/17 00:59	ACG
MW-40-110817 L949634-08 GW					
			Collected by Melissa Warren	Collected date/time 11/08/17 09:15	Received date/time 11/09/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1000	11/10/17 01:21	11/10/17 01:21	ACG

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

# SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

MW-35-110817 L949634-09 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 09:38  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 01:42	11/10/17 01:42	ACG

MW-25-110817 L949634-10 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 09:45  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/13/17 20:17	11/13/17 20:17	DWR

MW-41-110817 L949634-11 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 09:55  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 02:26	11/10/17 02:26	ACG

MW-13B-110817 L949634-12 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 10:07  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 02:47	11/10/17 02:47	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	10	11/13/17 20:36	11/13/17 20:36	DWR

MW-13B-D-110817 L949634-13 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 10:10  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 03:08	11/10/17 03:08	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	10	11/13/17 20:56	11/13/17 20:56	DWR

MW-31-110817 L949634-14 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 10:20  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 03:29	11/10/17 03:29	ACG

MW-05-110817 L949634-15 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 10:35  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 04:55	11/10/17 04:55	ACG

MW-03-110817 L949634-16 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 10:55  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 05:17	11/10/17 05:17	ACG

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

# SAMPLE SUMMARY

ONE LAB. NATIONWIDE. 

MW-10-110817 L949634-17 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 11:05  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 05:38	11/10/17 05:38	ACG

1  
Cp

2  
Tc

3  
Ss

MW-02-110817 L949634-18 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 11:15  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	100	11/13/17 21:16	11/13/17 21:16	DWR

4  
Cn

5  
Sr

6  
Qc

TB01-110817 L949634-19 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 11:48  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/13/17 21:54	11/13/17 21:54	DWR

7  
Gl

8  
Al

FB01-110817 L949634-20 GW Collected by: Melissa Warren  
Collected date/time: 11/08/17 11:50  
Received date/time: 11/09/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1041205	1	11/10/17 06:21	11/10/17 06:21	ACG

9  
Sc

# CASE NARRATIVE



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. 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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

MW-29-110817

Collected date/time: 11/08/17 07:55

SAMPLE RESULTS - 01

L949634

ONE LAB. NATIONWIDE.



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	11/09/2017 22:52	WG1041205
Toluene	ND		1.00	1	11/09/2017 22:52	WG1041205
Ethylbenzene	ND		1.00	1	11/09/2017 22:52	WG1041205
Total Xylenes	ND		3.00	1	11/09/2017 22:52	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/09/2017 22:52	WG1041205
Naphthalene	ND		5.00	1	11/09/2017 22:52	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/09/2017 22:52	WG1041205
(S) Toluene-d8	99.0		80.0-120		11/09/2017 22:52	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/09/2017 22:52	WG1041205
(S) 4-Bromofluorobenzene	97.1		80.0-120		11/09/2017 22:52	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-26-110817

Collected date/time: 11/08/17 08:05

SAMPLE RESULTS - 02

L949634

ONE LAB. NATIONWIDE.



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	11/09/2017 23:13	<u>WG1041205</u>
Toluene	1.17		1.00	1	11/09/2017 23:13	<u>WG1041205</u>
Ethylbenzene	ND		1.00	1	11/09/2017 23:13	<u>WG1041205</u>
Total Xylenes	ND		3.00	1	11/09/2017 23:13	<u>WG1041205</u>
Methyl tert-butyl ether	ND		1.00	1	11/09/2017 23:13	<u>WG1041205</u>
Naphthalene	ND		5.00	1	11/09/2017 23:13	<u>WG1041205</u>
1,2-Dichloroethane	ND		1.00	1	11/09/2017 23:13	<u>WG1041205</u>
(S) Toluene-d8	99.0		80.0-120		11/09/2017 23:13	<u>WG1041205</u>
(S) Dibromofluoromethane	109		76.0-123		11/09/2017 23:13	<u>WG1041205</u>
(S) 4-Bromofluorobenzene	97.6		80.0-120		11/09/2017 23:13	<u>WG1041205</u>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-23-110817

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.



Collected date/time: 11/08/17 08:15

L949634

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	788		10.0	10	11/09/2017 23:34	WG1041205
Toluene	21.5		10.0	10	11/09/2017 23:34	WG1041205
Ethylbenzene	ND		10.0	10	11/09/2017 23:34	WG1041205
Total Xylenes	580		30.0	10	11/09/2017 23:34	WG1041205
Methyl tert-butyl ether	118		10.0	10	11/09/2017 23:34	WG1041205
Naphthalene	ND		50.0	10	11/09/2017 23:34	WG1041205
1,2-Dichloroethane	ND		10.0	10	11/09/2017 23:34	WG1041205
(S) Toluene-d8	101		80.0-120		11/09/2017 23:34	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/09/2017 23:34	WG1041205
(S) 4-Bromofluorobenzene	96.2		80.0-120		11/09/2017 23:34	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-43-110817

SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.



Collected date/time: 11/08/17 08:38

L949634

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	11/09/2017 23:55	WG1041205
Toluene	ND		1.00	1	11/09/2017 23:55	WG1041205
Ethylbenzene	ND		1.00	1	11/09/2017 23:55	WG1041205
Total Xylenes	ND		3.00	1	11/09/2017 23:55	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/09/2017 23:55	WG1041205
Naphthalene	ND		5.00	1	11/09/2017 23:55	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/09/2017 23:55	WG1041205
(S) Toluene-d8	98.4		80.0-120		11/09/2017 23:55	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/09/2017 23:55	WG1041205
(S) 4-Bromofluorobenzene	99.5		80.0-120		11/09/2017 23:55	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



MW-38-110817

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 11/08/17 08:48

L949634

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	4.48		1.00	1	11/10/2017 00:17	WG1041205
Toluene	ND		1.00	1	11/10/2017 00:17	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 00:17	WG1041205
Total Xylenes	12.4		3.00	1	11/10/2017 00:17	WG1041205
Methyl tert-butyl ether	29.2		1.00	1	11/10/2017 00:17	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 00:17	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 00:17	WG1041205
(S) Toluene-d8	100		80.0-120		11/10/2017 00:17	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/10/2017 00:17	WG1041205
(S) 4-Bromofluorobenzene	99.7		80.0-120		11/10/2017 00:17	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-34-110817

Collected date/time: 11/08/17 08:58

SAMPLE RESULTS - 06

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	338		10.0	10	11/10/2017 00:38	WG1041205
Toluene	15.3		10.0	10	11/10/2017 00:38	WG1041205
Ethylbenzene	ND		10.0	10	11/10/2017 00:38	WG1041205
Total Xylenes	140		30.0	10	11/10/2017 00:38	WG1041205
Methyl tert-butyl ether	266		10.0	10	11/10/2017 00:38	WG1041205
Naphthalene	ND		50.0	10	11/10/2017 00:38	WG1041205
1,2-Dichloroethane	ND		10.0	10	11/10/2017 00:38	WG1041205
(S) Toluene-d8	99.0		80.0-120		11/10/2017 00:38	WG1041205
(S) Dibromofluoromethane	109		76.0-123		11/10/2017 00:38	WG1041205
(S) 4-Bromofluorobenzene	100		80.0-120		11/10/2017 00:38	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-39-110817

Collected date/time: 11/08/17 09:05

SAMPLE RESULTS - 07

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	878		50.0	50	11/10/2017 00:59	WG1041205
Toluene	123		50.0	50	11/10/2017 00:59	WG1041205
Ethylbenzene	ND		50.0	50	11/10/2017 00:59	WG1041205
Total Xylenes	368		150	50	11/10/2017 00:59	WG1041205
Methyl tert-butyl ether	442		50.0	50	11/10/2017 00:59	WG1041205
Naphthalene	ND		250	50	11/10/2017 00:59	WG1041205
1,2-Dichloroethane	ND		50.0	50	11/10/2017 00:59	WG1041205
(S) Toluene-d8	99.5		80.0-120		11/10/2017 00:59	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/10/2017 00:59	WG1041205
(S) 4-Bromofluorobenzene	99.4		80.0-120		11/10/2017 00:59	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-40-110817

Collected date/time: 11/08/17 09:15

SAMPLE RESULTS - 08

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	13500		1000	1000	11/10/2017 01:21	<u>WG1041205</u>
Toluene	23000		1000	1000	11/10/2017 01:21	<u>WG1041205</u>
Ethylbenzene	ND		1000	1000	11/10/2017 01:21	<u>WG1041205</u>
Total Xylenes	9290		3000	1000	11/10/2017 01:21	<u>WG1041205</u>
Methyl tert-butyl ether	ND		1000	1000	11/10/2017 01:21	<u>WG1041205</u>
Naphthalene	ND		5000	1000	11/10/2017 01:21	<u>WG1041205</u>
1,2-Dichloroethane	ND		1000	1000	11/10/2017 01:21	<u>WG1041205</u>
(S) Toluene-d8	100		80.0-120		11/10/2017 01:21	<u>WG1041205</u>
(S) Dibromofluoromethane	108		76.0-123		11/10/2017 01:21	<u>WG1041205</u>
(S) 4-Bromofluorobenzene	100		80.0-120		11/10/2017 01:21	<u>WG1041205</u>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-35-110817

Collected date/time: 11/08/17 09:38

SAMPLE RESULTS - 09

L949634

ONE LAB. NATIONWIDE.



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	11/10/2017 01:42	WG1041205
Toluene	ND		1.00	1	11/10/2017 01:42	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 01:42	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 01:42	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 01:42	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 01:42	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 01:42	WG1041205
(S) Toluene-d8	100		80.0-120		11/10/2017 01:42	WG1041205
(S) Dibromofluoromethane	107		76.0-123		11/10/2017 01:42	WG1041205
(S) 4-Bromofluorobenzene	96.8		80.0-120		11/10/2017 01:42	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-25-110817

Collected date/time: 11/08/17 09:45

SAMPLE RESULTS - 10

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Benzene	82.9		1.00	1	11/13/2017 20:17	WG1041205
Toluene	ND		1.00	1	11/13/2017 20:17	WG1041205
Ethylbenzene	7.21		1.00	1	11/13/2017 20:17	WG1041205
Total Xylenes	143		3.00	1	11/13/2017 20:17	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/13/2017 20:17	WG1041205
Naphthalene	7.74		5.00	1	11/13/2017 20:17	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/13/2017 20:17	WG1041205
(S) Toluene-d8	104		80.0-120		11/13/2017 20:17	WG1041205
(S) Dibromofluoromethane	99.8		76.0-123		11/13/2017 20:17	WG1041205
(S) 4-Bromofluorobenzene	107		80.0-120		11/13/2017 20:17	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-41-110817

SAMPLE RESULTS - 11

ONE LAB. NATIONWIDE.



Collected date/time: 11/08/17 09:55

L949634

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	99.6		1.00	1	11/10/2017 02:26	WG1041205
Toluene	ND		1.00	1	11/10/2017 02:26	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 02:26	WG1041205
Total Xylenes	56.6		3.00	1	11/10/2017 02:26	WG1041205
Methyl tert-butyl ether	2.46		1.00	1	11/10/2017 02:26	WG1041205
Naphthalene	5.68		5.00	1	11/10/2017 02:26	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 02:26	WG1041205
(S) Toluene-d8	101		80.0-120		11/10/2017 02:26	WG1041205
(S) Dibromofluoromethane	106		76.0-123		11/10/2017 02:26	WG1041205
(S) 4-Bromofluorobenzene	99.5		80.0-120		11/10/2017 02:26	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-13B-110817

Collected date/time: 11/08/17 10:07

SAMPLE RESULTS - 12

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Benzene	325		10.0	10	11/13/2017 20:36	WG1041205
Toluene	19.0		1.00	1	11/10/2017 02:47	WG1041205
Ethylbenzene	3.42		1.00	1	11/10/2017 02:47	WG1041205
Total Xylenes	91.6		3.00	1	11/10/2017 02:47	WG1041205
Methyl tert-butyl ether	173		1.00	1	11/10/2017 02:47	WG1041205
Naphthalene	5.55		5.00	1	11/10/2017 02:47	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 02:47	WG1041205
(S) Toluene-d8	99.9		80.0-120		11/10/2017 02:47	WG1041205
(S) Toluene-d8	102		80.0-120		11/13/2017 20:36	WG1041205
(S) Dibromofluoromethane	110		76.0-123		11/10/2017 02:47	WG1041205
(S) Dibromofluoromethane	100		76.0-123		11/13/2017 20:36	WG1041205
(S) 4-Bromofluorobenzene	100		80.0-120		11/13/2017 20:36	WG1041205
(S) 4-Bromofluorobenzene	98.3		80.0-120		11/10/2017 02:47	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



MW-13B-D-110817

Collected date/time: 11/08/17 10:10

SAMPLE RESULTS - 13

L949634

ONE LAB. NATIONWIDE



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	356		10.0	10	11/13/2017 20:56	WG1041205
Toluene	20.8		1.00	1	11/10/2017 03:08	WG1041205
Ethylbenzene	3.85		1.00	1	11/10/2017 03:08	WG1041205
Total Xylenes	100		3.00	1	11/10/2017 03:08	WG1041205
Methyl tert-butyl ether	168		1.00	1	11/10/2017 03:08	WG1041205
Naphthalene	6.61		5.00	1	11/10/2017 03:08	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 03:08	WG1041205
(S) Toluene-d8	102		80.0-120		11/13/2017 20:56	WG1041205
(S) Toluene-d8	100		80.0-120		11/10/2017 03:08	WG1041205
(S) Dibromofluoromethane	101		76.0-123		11/13/2017 20:56	WG1041205
(S) Dibromofluoromethane	111		76.0-123		11/10/2017 03:08	WG1041205
(S) 4-Bromofluorobenzene	103		80.0-120		11/13/2017 20:56	WG1041205
(S) 4-Bromofluorobenzene	99.7		80.0-120		11/10/2017 03:08	WG1041205

- Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

MW-31-110817

Collected date/time: 11/08/17 10:20

SAMPLE RESULTS - 14

L949634

ONE LAB. NATIONWIDE.



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	11/10/2017 03:29	WG1041205
Toluene	ND		1.00	1	11/10/2017 03:29	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 03:29	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 03:29	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 03:29	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 03:29	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 03:29	WG1041205
(S) Toluene-d8	99.7		80.0-120		11/10/2017 03:29	WG1041205
(S) Dibromofluoromethane	107		76.0-123		11/10/2017 03:29	WG1041205
(S) 4-Bromofluorobenzene	100		80.0-120		11/10/2017 03:29	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-05-110817

Collected date/time: 11/08/17 10:35

SAMPLE RESULTS - 15

L949634

ONE LAB. NATIONWIDE.



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	11/10/2017 04:55	WG1041205
Toluene	ND		1.00	1	11/10/2017 04:55	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 04:55	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 04:55	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 04:55	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 04:55	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 04:55	WG1041205
(S) Toluene-d8	99.9		80.0-120		11/10/2017 04:55	WG1041205
(S) Dibromofluoromethane	106		76.0-123		11/10/2017 04:55	WG1041205
(S) 4-Bromofluorobenzene	97.5		80.0-120		11/10/2017 04:55	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-03-110817

Collected date/time: 11/08/17 10:55

SAMPLE RESULTS - 16

L949634

ONE LAB. NATIONWIDE.



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	11/10/2017 05:17	WG1041205
Toluene	ND		1.00	1	11/10/2017 05:17	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 05:17	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 05:17	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 05:17	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 05:17	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 05:17	WG1041205
(S) Toluene-d8	98.8		80.0-120		11/10/2017 05:17	WG1041205
(S) Dibromofluoromethane	108		76.0-123		11/10/2017 05:17	WG1041205
(S) 4-Bromofluorobenzene	99.3		80.0-120		11/10/2017 05:17	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-10-110817

Collected date/time: 11/08/17 11:05

SAMPLE RESULTS - 17

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/10/2017 05:38	WG1041205
Toluene	ND		1.00	1	11/10/2017 05:38	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 05:38	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 05:38	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 05:38	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 05:38	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 05:38	WG1041205
(S) Toluene-d8	101		80.0-120		11/10/2017 05:38	WG1041205
(S) Dibromofluoromethane	109		76.0-123		11/10/2017 05:38	WG1041205
(S) 4-Bromofluorobenzene	101		80.0-120		11/10/2017 05:38	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-02-110817

Collected date/time: 11/08/17 11:15

SAMPLE RESULTS - 18

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	850		100	100	11/13/2017 21:16	WG1041205
Toluene	1370		100	100	11/13/2017 21:16	WG1041205
Ethylbenzene	ND		100	100	11/13/2017 21:16	WG1041205
Total Xylenes	3520		300	100	11/13/2017 21:16	WG1041205
Methyl tert-butyl ether	ND		100	100	11/13/2017 21:16	WG1041205
Naphthalene	ND		500	100	11/13/2017 21:16	WG1041205
1,2-Dichloroethane	ND		100	100	11/13/2017 21:16	WG1041205
(S) Toluene-d8	102		80.0-120		11/13/2017 21:16	WG1041205
(S) Dibromofluoromethane	99.1		76.0-123		11/13/2017 21:16	WG1041205
(S) 4-Bromofluorobenzene	104		80.0-120		11/13/2017 21:16	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

TB01-110817

Collected date/time: 11/08/17 11:48

SAMPLE RESULTS - 19

L949634

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/13/2017 21:54	WG1041205
Toluene	ND		1.00	1	11/13/2017 21:54	WG1041205
Ethylbenzene	ND		1.00	1	11/13/2017 21:54	WG1041205
Total Xylenes	ND		3.00	1	11/13/2017 21:54	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/13/2017 21:54	WG1041205
Naphthalene	ND		5.00	1	11/13/2017 21:54	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/13/2017 21:54	WG1041205
(S) Toluene-d8	104		80.0-120		11/13/2017 21:54	WG1041205
(S) Dibromofluoromethane	101		76.0-123		11/13/2017 21:54	WG1041205
(S) 4-Bromofluorobenzene	104		80.0-120		11/13/2017 21:54	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

FB01-110817

Collected date/time: 11/08/17 11:50

SAMPLE RESULTS - 20

L949634

ONE LAB. NATIONWIDE.



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	11/10/2017 06:21	WG1041205
Toluene	ND		1.00	1	11/10/2017 06:21	WG1041205
Ethylbenzene	ND		1.00	1	11/10/2017 06:21	WG1041205
Total Xylenes	ND		3.00	1	11/10/2017 06:21	WG1041205
Methyl tert-butyl ether	ND		1.00	1	11/10/2017 06:21	WG1041205
Naphthalene	ND		5.00	1	11/10/2017 06:21	WG1041205
1,2-Dichloroethane	ND		1.00	1	11/10/2017 06:21	WG1041205
(S) Toluene-d8	99.1		80.0-120		11/10/2017 06:21	WG1041205
(S) Dibromofluoromethane	107		76.0-123		11/10/2017 06:21	WG1041205
(S) 4-Bromofluorobenzene	102		80.0-120		11/10/2017 06:21	WG1041205

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



**WG1041205**

Volatile Organic Compounds (GC/MS) by Method 8260B

**QUALITY CONTROL SUMMARY**

L949634-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3265108-2 11/09/17 22:30

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	99.6			80.0-120
(S) Dibromofluoromethane	105			76.0-123
(S) 4-Bromofluorobenzene	93.1			80.0-120

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Laboratory Control Sample (LCS)

(LCS) R3265108-1 11/09/17 19:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	25.0	24.3	97.1	70.0-130	
1,2-Dichloroethane	25.0	26.7	107	70.0-130	
Ethylbenzene	25.0	23.3	93.2	70.0-130	
Methyl tert-butyl ether	25.0	28.1	112	70.0-130	
Naphthalene	25.0	18.5	73.9	70.0-130	
Toluene	25.0	22.7	90.9	70.0-130	
Xylenes, Total	75.0	70.7	94.3	70.0-130	
(S) Toluene-d8			98.4	80.0-120	
(S) Dibromofluoromethane			108	76.0-123	
(S) 4-Bromofluorobenzene			101	80.0-120	

ACCOUNT:

CH2M Hill- Kinder Morgan- Atlanta, GA

PROJECT:

684910.LD.MR.GW

SDG:

L949634

DATE/TIME:

11/16/17 16:30

PAGE:

27 of 31



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.

- Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 GI
- 8 AI
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

# ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



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 <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	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 <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	615758588
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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>14</sup> 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**

Phone: **770-604-9182**  
Fax:

Client Project #

**684910.LD.MRGW**

City/State Collected: **BELTON, SC**

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				Chain of Custody Page 1 of 2
<input checked="" type="checkbox"/>	V8260B	TEXMNSC 40ml	Amb-HCI		 <p>LAB SCIENCES A DIVISION OF</p> <p>13065 Estabrook Rd Miami Lakes, FL 33122 Phone: 515-758-5858 Phone: 800-767-5859 Fax: 615-758-5859</p> <p>L# <b>L949634</b> <b>D074</b></p> <p>Acctnum: <b>KINCH2MGA</b> Template: <b>T121318</b> Prelogin: <b>P624845</b> TSR: <b>526 - Chris McCord</b> PB: <b>10-31-17</b> Shipped Via: <b>FedEX Ground</b></p>
<input checked="" type="checkbox"/>	V8260B	TEXMNSC 40ml	Amb-HCI-BIK		
<input checked="" type="checkbox"/>			BTEX		
<input checked="" type="checkbox"/>			MTBE		
<input checked="" type="checkbox"/>			NAPHTHALENE		
<input checked="" type="checkbox"/>			1,2-DCA		

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260B	V8260B	BTEX	MTBE	NAPHTHALENE	1,2-DCA
MW-29-110817	GRAB	GW	NA	11/08/17	0755	3	X	X	X	X	X	X
MW-26-110817		GW			0805	3	X					
MW-23-110817		GW			0815	3	X					
MW-43-110817		GW			0838	3	X					
MW-38-110817		GW			0848	3	X					
MW-34-110817		GW			0858	3	X					
MW-39-110817		GW			0905	3	X					
MW-40-110817		GW			0915	3	X					
MW-35-110817		GW			0938	3	X					
MW-25-110817		GW			0945	3	X					

\* Matrix  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Biossay  
WW - Waste Water  
DW - Drinking Water  
OT - Other

Remarks: pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_  
Samples returned via: \_\_\_\_\_  
Tracking # **4142 5216 2137**

Sample Receipt Checklist  
 Seal Present/Intact:  MF  
 Signed/Accurate:  N  
 Bottles arrive intact:  N  
 Correct bottles used:  N  
 Sufficient volume sent:  N  
 VOA Zero Headspace:  N  
 Preservation Correct/Checked:  N

Relinquished by: (Signature) <i>Melissa Warren</i>	Date: 11/08/17	Time: 1500	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> No <input type="checkbox"/> MeOH TBR	Bottles Received: 57	if preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 11.5°C	Date: 11/6/17	Time: 08:45
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Kevin S. ...</i>	Date: 11/6/17	Time: 08:45	Hold: Condition: NCF / <input checked="" type="checkbox"/>

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 WARRREN  
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	V8260BTEXMNSC 40miAmb-HCI
X	V8260BTEXMNSC 40miAmb-HCI-Bik
X	BTEX
X	MTBE
X	NAPHTHALENE
X	1,2 - DCA

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# 914634  
Table #  
Acctnum: KINCH2MGA  
Template: T121318  
Prelogin: P624845  
TSR: 526 - Chris McCord  
PB: 10-31-17  
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	V8260BTEXMNSC 40miAmb-HCI	V8260BTEXMNSC 40miAmb-HCI-Bik	BTEX	MTBE	NAPHTHALENE	1,2 - DCA
MW-41-110817	GRAB	GW	NA	11/08/17	0955	3	X		X	X	X	X
MW-13B-110817		GW			1007	3	X					
MW-13B-D-110817		GW			1010	3	X					
MW-31-110817		GW			1020	3	X					
MW-05-110817		GW			1035	3	X					
MW-03-110817		GW			1055	3	X					
MW-10-110817		GW			1105	3	X					
MW-02-110817		GW			1115	3	X					
TB01-110817		GW			1148	1	X	X				
FB01-110817		GW			1150	3	X	X				

\* 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 5216 2137

Sample Receipt Checklist	
CDC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
CDC 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: 11/08/17	Time: 1500	Received by (Signature):	Trip Blank Received: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No HQ / MeOH TBR
Relinquished by (Signature):	Date:	Time:	Received by (Signature):	Temp: 1.5 min @ 50 57 Bottles Received:
Relinquished by (Signature):	Date:	Time:	Received for lab by (Signature): <i>Nov 12 861</i>	Date: 11/9/17 Time: 08:45 Hold: Condition: NCF 1 OK



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# WELL NUMBER MW-02B

PAGE 1 OF 4

<b>CLIENT</b> <u>Plantation Pipe Line Company</u>	<b>PROJECT NAME</b> <u>Lewis Drive Remediation</u>
<b>PROJECT NUMBER</b> <u>684910</u>	<b>PROJECT LOCATION</b> <u>Belton, South Carolina</u>
<b>DATE STARTED</b> <u>6/7/15</u> <b>COMPLETED</b> <u>10/5/17</u>	<b>GROUND ELEVATION</b> <u>841.18 ft</u> <b>HOLE SIZE</b> <u>13/4 inches</u>
<b>DRILLING CONTRACTOR</b> <u>AE Drilling, Piedmont, SC</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Hollow Stem Auger/Wire Line/Air Rotary</u>	<b>AT TIME OF DRILLING</b> <u>---</u>
<b>LOGGED BY</b> <u>M. Karafa/ATL</u> <b>CHECKED BY</b> _____	<b>▼ AT END OF DRILLING</b> <u>4.59 ft / Elev 836.59 ft btoc</u>
<b>NOTES</b> <u>Well installed 6/7/15 - open hole, 10/5/17 2-inch PVC well</u>	<b>▼ AFTER DRILLING</b> <u>81.70 ft / Elev 759.48 ft btoc/dry</u>

GENERAL\_BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFP001\PROJ\KINDERMORGAN\654558\LEWISDRR\GINT\9-26-17\DATA\BASE\LEWIS DRIVE\_ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0								Casing Top Elev: 841.2 (ft)
0 - 3.0	SPT	15	5-3-4-4 (7)	SM		(SM) SILTY SAND; brownish yellow (10YR 6/6), dry, loose, very fine to fine sand, organics.	PID = 3.9	
3.0 - 5.0	SPT	79	1-4-5-6 (9)	CL		(CL) SANDY CLAY; brownish yellow (10YR 6/6), dry, stiff, very fine to fine sand, trace fine quartz gravel.	PID = 1394	
5.0 - 9.0	SPT	46	1-2-2-5 (4)	SC		(SC) SAPROLITE, CLAYEY SAND; dark red (10R 3/6), moist, loose, very fine to medium sand, micaceous, yellowish brown (10YR 5/8) and very pale brown (10YR 8/4) banding.	PID = 1220	
9.0 - 20.0	SPT	71	2-3-6-8 (9)	SC		Dark red (2.5Y 3/6) with dark reddish brown (5YR 3/4) and pinkish white (2.5YR 8/2) banding.	PID = 28.9	
20.0 - 25.0	SPT	71	2-4-6-8 (10)				PID = 32.8	
25.0								

(Continued Next Page)



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**WELL NUMBER MW-02B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL\_BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:38 - \\ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRR\GINT19-28-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25	SPT	83	1-4-7-7 (11)			(SC) SAPROLITE, CLAYEY SAND; dark red (10R 3/6), moist, loose, very fine to medium sand, micaceous, yellowish brown (10YR 5/8) and very pale brown (10YR 8/4) banding. (continued)	PID = 22.6	
30	SPT	79	4-5-6-8 (11)				PID = 15.8	
35	SPT	71	2-4-6-11 (10)				PID = 17.9	
40	SPT	79	4-7-12-14 (19)	SC		Yellowish brown (5YR 4/6) with black (5YR 2.5/1) and white (2.5YR 8/1) banding. Fine quartz gravel lens.	PID = 15.2	Portland I/II with 3-5% Bentonite
45	SPT	71	2-3-7-8 (10)				PID = 7.3	
50	SPT	71	5-24-14-18 (38)			Dense, grey (10YR 5/1) and white (2.5YR 8/1) banding.	PID = 6.2	

(Continued Next Page)



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**WELL NUMBER MW-02B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \ATL\FPP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT\19-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
55	SPT	21	50-50	SC		(SC) SAPROLITE, CLAYEY SAND; dark red (10R 3/6), moist, loose, very fine to medium sand, micaceous, yellowish brown (10YR 5/8) and very pale brown (10YR 8/4) banding. (continued) Very dense.	PID = 6.5	
60	SPT	33	24-50	SW		(SW) PARTIALLY WEATHERED BEDROCK; gneissic structure.	PID = 13.2	
65	RC	91 (72)				Trace gneiss rock fragments.	PID = 0	
70	RC	94 (72)				FRACTURE; 64.85', foliation plane joint, smooth to rough, very narrow, no infilling, moist, oxidation staining. FRACTURE; 65.25', foliation plane joint, smooth to rough, very narrow, no infilling, moist, oxidation staining. FRACTURE; 67.95', foliation plane joint, rough, narrow, no infilling, moist, oxidation staining. FRACTURE; 70', foliation plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. FRACTURE; 70.4', foliation plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. Trace garnets. FRACTURE; 71.53', foliation plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. FRACTURE; 73', foliation bedding plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. FRACTURE; 73.65', foliation plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. FRACTURE; 74.05', foliation plane joint, horizontal, rough, narrow, no infilling, moist, oxidation staining. Less competent, weathered and pitted.		
75	RC	100 (90)				FRACTURE; 77.8', foliation plane joint, horizontal, smooth, narrow, no infilling, moist to dry. FRACTURE; 79.05', foliation plane joint, horizontal, smooth, narrow, no infilling, moist to dry.		
80						Less foliation, trace quartz crystals.	PID = 0	
100								

(Continued Next Page)





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**WELL NUMBER MW-02B**

PAGE 4 OF 4

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
85	RC	(72)				BEDROCK; biotite gneiss, very strong, light grey (N8), gneissic, medium foliation, fresh to pitted, slightly fractured. (continued) FRACTURE; 83', foliation plane joint, horizontal, smooth, narrow, no infilling, moist to dry. FRACTURE; 83.65', foliation plane joint, smooth, very narrow, non-cohesive, saprolitic infilling, moist. FRACTURE; 84.8', foliation plane joint, horizontal, smooth, narrow, no infilling, moist to dry. Foliated, abundant large quartz crystals. FRACTURE; 86.5', foliation plane joint, horizontal, rough, very narrow, pyrite mineralization, moist.	PID = 0	
	RC	97 (97)						

89.5

751.7

Refusal at 66.5 feet.  
Bottom of borehole at 89.5 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFP01\PROJECTS\PROJECTS\MORGAN\654568\LEWISDRIVE\GINT\19-26-17\DATA\BASE\LEWIS DRIVE (ISA BORING LOGS).GPJ



### Water Well Record

#### Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

**1. WELL OWNER INFORMATION:**  
 Name: **Plantation Pipeline**  
(last) (first)  
 Address: **1000 Windward Concourse, Suite 450**  
 City: **Alpharetta** State: **SC** Zip: **30005-0000**  
 Telephone: Work: \_\_\_\_\_ Home: \_\_\_\_\_

**2. LOCATION OF WELL: COUNTY: Anderson**  
 Name: \_\_\_\_\_  
 Street Address: **Lewis Drive**  
 City: **Anderson** Zip: **29627-0000**  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

**3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:**

**4. ABANDONMENT:**  Yes  No  
 Grouted Depth: from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum

\*Indicate Water Bearing Zones  
 (Use a 2nd sheet if needed)

**5. REMARKS:**  
**MW-02B**  
**Well was converted from open hole to a screened well.**  
**Bentonite seal 62.7-67.7' bgs**

**6. TYPE:**  Mud Rotary  Jetted  Bored  
 Dug  Air Rotary  Driven  
 Cable tool  Other

**7. PERMIT NUMBER:** **MW-10136**

**8. USE:**  
 Residential  Public Supply  Process  
 Irrigation  Air Conditioning  Emergency  
 Test Well  Monitor Well  Replacement

**9. WELL DEPTH (completed)** **Date Started: 10-5-17**  
**81.7** ft. **Date Completed: 10-5-17**

**10. CASING:**  Threaded  Welded  
 Diam.: **4-inch/2-inch**  
 Type:  PVC  Galvanized  
 Steel  Other  
**4 (steel)** in. to **70** ft. depth  
**2 (PVC)** in. to **69** ft. depth

Height: Above  Below  \_\_\_\_\_ ft.  
 Surface \_\_\_\_\_ lb./ft.  
 Weight \_\_\_\_\_ lb./ft.  
 Drive Shoe?  Yes  No

**11. SCREEN:**  
 Type: **PVC** Diam.: **2-inch**  
 Slot/Gauge: **0.010-inch** Length: **12.7 feet**  
 Set Between: **69** ft. and **81.7** ft. **NOTE: MULTIPLE SCREENS**  
 \_\_\_\_\_ ft. and \_\_\_\_\_ ft. **USE SECOND SHEET**  
 Sieve Analysis  Yes (please enclose)  No

**12. STATIC WATER LEVEL** \_\_\_\_\_ ft. below land surface after 24 hours

**13. PUMPING LEVEL Below Land Surface.**  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. Pumping \_\_\_\_\_ G.P.M.  
 Pumping Test:  Yes (please enclose)  No  
 Yield: \_\_\_\_\_

**14. WATER QUALITY**  
 Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
 Please enclose lab results.

**15. ARTIFICIAL FILTER (filter pack)**  Yes  No  
 Installed from **67.7** ft. to **81.7** ft.  
 Effective size **#1** Uniformity Coefficient **sand**

**16. WELL GROUTED?**  Yes  No  
 Neat Cement  Bentonite  Bentonite/Cement  Other \_\_\_\_\_  
 Depth: From **ground surface** ft. to **62.7** ft.

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** \_\_\_\_\_ ft. \_\_\_\_\_ direction  
 Type: \_\_\_\_\_  
 Well Disinfected  Yes  No Type: \_\_\_\_\_ Amount: \_\_\_\_\_

**18. PUMP:** Date installed: \_\_\_\_\_ Not installed   
 Mfr. Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
 H.P. \_\_\_\_\_ Volts \_\_\_\_\_ Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ gpm  
 TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

**19. WELL DRILLER: Terry R. Creasman Jr. CERT. NO.: 2116**  
 Address: (Print) **30 Grant Park Place** Level: **A** **B** **C** **D** (circle one)  
**Piedmont, SC 29673**      
 Telephone No.: **664-266-1966** Fax No.: **864-288-2272**

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: *Terry R. Creasman Jr.* Date: **11/9/17**  
 Well Driller

If D Level Driller, provide supervising driller's name:  
**William Barnes, #562-A**



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# WELL NUMBER MW-06B

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 9/5/17 COMPLETED 10/17/17 GROUND ELEVATION 852.42 ft HOLE SIZE 10/3.75 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Hollow Stem Auger/Wire Line/Air Rotary AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa/ATL CHECKED BY --- AT END OF DRILLING ---  
 NOTES 54 ft bgs switched from HSA to rotary/mobile drill B57 AFTER DRILLING 77.80 ft / Elev 774.62 ft btoc

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0							Casing Type: steel
5	SPT 1	100	2-3-4-5 (7)		SILTY SAND (SM)-brown, moist, dense, very fine sand with silt and few mica 5.0 847.4 6.0 846.4	PID = 0 PID = 0	
10	SPT 2	100	4-3-2-4 (5)		SILTY SAND (SM)- saprolite, silty sand, brown with yellow mottling, moist, loose, very fine to medium grained sand with silt, clay, and mica. @ 9.5'- manganese black mottling 10.0 842.4	PID = 0 PID = 0	
15	SPT 3	100	3-2-5-5 (7)		SILTY SAND (SM)- saprolite, silty sand, brown with mica and lense, moist, loose, very fine to medium grain sand with silt and mica 16.0 836.4	PID = 0 PID = 0	
20	SPT 4	100	1-2-3-5 (5)		SILTY SAND (SM)- saprolite, silty sand, brown, wet, very loose, very fine to medium grain sand with silt and mica 21.0 831.4	PID = 0 PID = 0	
25	SPT		4-4-8-11			PID = 0	

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GENERAL: BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 08:39 - \ATL\FPP01\PROJ\KINDERMORGAN\654586\LEWISDRIVE\ISA BORING LOGS.GPJ



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**WELL NUMBER MW-06B**

PAGE 2 OF 4

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL\_BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFP01\PROJ\KINDERMORGAN\654568\LEWISDRR\GINT\9-26-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25	5	100	(12)		26.0 SILTY SAND (SM)- saprolite, silty sand, brown with yellow and black mottling, wet, loose, very fine to medium grain sand with mica and silt (continued) 826.4	PID = 0	
30	SPT 6	100	4-8-10-11 (18)		31.0 SILTY SAND (SM)- same as above, more mica (micaceous) 821.4	PID = 0 PID = 0	
35	SPT 7	100	6-6-8-8 (14)		36.0 SAND (SP)- poorly graded saprolite, light brown, wet, medium dense, micaceous, fine to medium grain sand with black manganese stain 816.4	PID = 0 PID = 0	
40	SPT 8	100	1-2-5-8 (7)		41.0 SAND (SP)- same as above 811.4	PID = 0 PID = 0	
45	SPT 9	100	2-5-7-8 (12)		46.0 SAND (SP)- saprolite, poorly graded sand, brown, wet, very loose, fine sand with mica SAND (SP)- saprolite, poorly graded sand, greenish gray, wet, loose, completely weathered rock with foliation, mica and black manganese stain 806.4	PID = 0 PID = 0	
50	SPT 10	100	3-3-5-7 (8)		51.0 WELL GRADED SAND (SW)- saprolite, well graded sand, greenish gray with black, yellow, and white mottling, loose, completely weathered rock with foliation, mica, fine to coarse grain sand, calcite, biotite, wet 801.4	PID = 0 PID = 0	

(Continued Next Page)



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**WELL NUMBER MW-06B**

PAGE 3 OF 4

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \\ATLFP01\PROJ\KINDERMORGAN\6545581\EMISDR\RC\GINT\19-26-17\DATA\BASE\LEWIS DRIVE USA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
55	RC 1	100 (84)			BED ROCK- biotite gneiss, black with white and gray, quartz, plagioclase, biotite, mica, medium to fine grain, slightly weathered, strong rock, foliated	PID = 0	
					56.1 796.3		
	RC 2	97 (0)			BED ROCK - biotite gneiss, black with gray, plagioclase, quartz, biotite mica, medium to fine grain, partially weather, highly fractured, oxidized mottling, foliated, strong	PID = 0	
					58.6 793.8		
60	RC 3	100 (89)			BED ROCK- biotite gneiss, black, quartz, biotite mica, plagioclase, amphibolite, medium to fine grain, slightly weathered, very strong, highly foliated	PID = 0	
					60.4 792.0		
					BED ROCK- same as above	PID = 0	
	RC 4	100 (94)					
65					BED ROCK- biotite gneiss, fresh, powder and dust, dry	PID = 0	
					65.5 786.9		
	AU 1						
70					BED ROCK- same as above	PID = 0	
					70.5 781.9		
	AU 2						
75					BED ROCK- same as above	PID = 0	
					75.5 776.9		
	AU 3						
80					BED ROCK - white and gray granite chips, fresh, quartz, biotite, feldspar	PID = 0	
					80.5 771.9		

← Open Borehole



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**WELL NUMBER MW-06B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
85	AU 4				BED ROCK - white and gray granite chips, fresh, quartz, biotite, fiedspar (continued)		
				85.5			
							766.9

Refusal at 54.0 feet.  
 Bottom of borehole at 85.5 feet.

GENERAL: BH / TP / WELL - GINT STD US LAB: GDT - 12/20/17 09:39 - \NATL\FPP07\PROJ\KINDERMORGAN\654558\LEWISDRER\GINT19-28-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ





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**WELL NUMBER MW-09B**

CLIENT <u>Plantation Pipe Line Company</u>	PROJECT NAME <u>Lewis Drive Remediation</u>
PROJECT NUMBER <u>684910</u>	PROJECT LOCATION <u>Belton, South Carolina</u>
DATE STARTED <u>10/3/17</u> COMPLETED <u>10/17/17</u>	GROUND ELEVATION <u>843.71 ft</u> HOLE SIZE <u>10/3.75 inches</u>
DRILLING CONTRACTOR <u>AE Drilling, Piedmont, SC</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Hollow Stem Auger/Wire Line/Air Rotary</u>	AT TIME OF DRILLING <u>---</u>
LOGGED BY <u>M. Karafa/ATL</u> CHECKED BY <u>---</u>	AT END OF DRILLING <u>---</u>
NOTES <u>86 ft bgs switched from HSA to rotary/mobile drill B57</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0							
5	SPT 1		2-5-3-7 (8)		SILTY SAND (SM) - brown, moist, loose, very fine sand with silt and clay, odor. 5-6' - saprolite, silty sand, dark brown, very loose. wet, fine to medium grain sand with silt and mica, odr.	PID = 933 PID = 960	
				6.0	837.7		
10	SPT 2		3-4-5-6 (9)		CLAYEY SAND (SC)- saprolite, clayey sand, light brown, moist, loose, very fine sand with clay and mica	PID = 66.6	
				9.5	834.2		
				10.0	833.7	PID = 100	
15	SPT 3		2-3-3-5 (6)		POORLY GRADED SAND (SP)- same as above	PID = 146.3 PID = 50.1	
				16.0	827.7		
20	SPT 4		2-3-4-4 (7)		POORLY GRADED SAND (SP)- same as above, small micaceous lenses. @ 20.5' - very saturated.	PID = 62.3 PID = 913	
				21.0	822.7		
25	SPT		3-4-5-8			PID = 62.2	

GENERAL BH / TP / WELL - GINT STD US LAB.GDT. - 12/20/17 09:39 - \\ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT19-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ





CH2M  
6600 Peachtree Dunwoody Rd  
400 Embassy Row, Suite 600  
Atlanta, GA

Telephone: 770-604-9095  
Fax: 770-604-9183

**WELL NUMBER MW-09B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL\_BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \\ATL\FPP01\PROJ\KINDERMORGAN\645581\LEWISDRIVE\GINT\9-26-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25	5		(9)		26.0 POORLY GRADED SAND (SP)- saprolite, very highly weathered rock structures, reddish brown with white and yellow mottling, wet, very loose, fine sand with mica <i>(continued)</i>	817.7 PID = 36	
30	SPT 6		4-7-7-11 (14)		31.0 POORLY GRADED SAND (SP)- same as above, small micaceous lenses, medium dense	812.7 PID = 20.1 PID = 7.5	
35	SPT 7		2-4-6-6 (10)		36.0 POORLY GRADED SAND (SP)- saprolite, gray, wet, very loose, very micaceous with fine sand, highly weathered rock structure	807.7 PID = 5.6 PID = 0.7	
40	SPT 8		3-9-6-11 (15)		41.0 POORLY GRADED SAND (SP)- saprolite, greenish-gray, wet, very loose, micaceous with fine sand and layers of highly weathered rock in 3" bands	802.7 PID = 2.7 PID = 0.7	
45	SPT 9		3-4-6-7 (10)		46.0 POORLY GRADED SAND (SP)- same as above, very micaceous	797.7 PID = 0.7 PID = 0.5	
50	SPT 10		3-5-6-9 (11)		51.0 POORLY GRADED SAND (SP)- same as above, lenses of weathered rock structures and yellow mottling at 50.5'	792.7 PID = 0.4 PID = 0.3	

(Continued Next Page)



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**WELL NUMBER MW-09B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFFP01\PROJ\KINDERMORGAN\6545581\LEWISDRIVE\GINT\19-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
55	SPT 11		5-6-9-12 (15)		SILTY SAND (SM)- saprolite, greenish-gray, wet, very loose, micaceous, fine sand with silt and mica, yellow mottling at 54.5'	PID = 0.3 PID = 0.5	
56.0					787.7		
60	SPT 12		5-6-10-14 (16)		SILTY SAND (SM)- same as above, pieces of weathered rock	PID = 0.2 PID = 0	
61.0					782.7		
65	SPT 13		4-6-8-11 (14)		SILTY SAND (SM)- saprolite, greenish-gray with yellow mottling, loose, micaceous silty sand with lenses, very highly weathered rock	PID = 0 PID = 0	
66.0					777.7		
70	SPT 14		9-12-13-21 (25)		SILTY SAND (SM)- same as above	PID = 0 PID = 0	
70.0					773.7		
71.0					772.7		
75	SPT 15		6-7-15-17 (22)		WELL GRADED SAND (SW)- same as above, more micaceous, highly foliated	PID = 0 PID = 0	
76.0					767.7		
80	SPT 16		13-20-40-50 (60)		POORLY GRADED SAND (SP)- saprolite, greenish-gray with yellow mottling, very dense, wet, very highly weathered micaceous bed rock with mica, highly foliated	PID = 0 PID = 0	
81.0					762.7		

(Continued Next Page)



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**WELL NUMBER MW-09B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
85	SPT 17		33-50		POORLY GRADED SAND (SP)- same as above	PID = 0 PID = 0	
90	SS 1				NO SAMPLING DONE		
95	SS 2						
100	SS 3						
105	SS 4						
110	SS 5						

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \ATLFP001\PROJ\KINDERMORGAN\654558\LEWISDRIVE\ISA BORING LOGS.GPJ



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**WELL NUMBER MW-09B**

PAGE 5 OF 6

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFP001\PROJ\KINDERMORGAN\65458\LEWISDR\RC\INT\19-28-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
	SS 6				NO SAMPLING DONE (continued)		
115	SS 7						
116.5	AU 1	111 (78)			BED ROCK- biotite gneiss black with white and gray, quartz and quartz veins, biotite in plagioclase, fine to medium grained, slightly weathered, foliated, blotched to mottled in 116.5-117.5 ft bgs, hard rock, same iron staining on joint surfaces, moderately fractured, quartz blotched	PID = 0	
120	AU 2	100 (88)			BED ROCK- biotite gneiss, black with white and gray, quartz plagioclase, biotite mica, fine to medium grained, moderately fractured, mottling, some iron staining/oxidation, foliations, hard rock, slight weathering, 124.5-125 ft bgs quartz blotching	PID = 0	
125	AU 3	100 (95)			BED ROCK- biotite gneiss, black and white with gray, quartz, plagioclase, and biotite mica, fine to medium grained, medium fracturing, mottled, some iron staining/oxidation on fractures, strong rock, foliated	PID = 0	
126.0							
130					BED ROCK- biotite gneiss, biotite quartz, powder, dust, dry		
131.5							
135					BED ROCK- same as above		
136.0							

(Continued Next Page)



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**WELL NUMBER MW-09B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM	
140					BED ROCK- same as above <i>(continued)</i>		← Open Borehole	
					141.0	702.7		
						BED ROCK- same as above		
145					146.0	697.7		
					BED ROCK- same as above			
150					151.0	692.7		

Refusal at 116.5 feet.  
Bottom of borehole at 151.5 feet.

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \\ATLFP01\PROJECTS\KINDERMORGAN\654581\EMSDR\GINT\9-28-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ





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# WELL NUMBER MW-43

PAGE 1 OF 1

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 10/20/17 COMPLETED 10/20/17 GROUND ELEVATION 815.92 ft HOLE SIZE 8.5/2 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Hollow Stem Auger/Wire Line/Air Rotary AT TIME OF DRILLING --  
 LOGGED BY M. Karafa CHECKED BY \_\_\_\_\_ AT END OF DRILLING --  
 NOTES \_\_\_\_\_ AFTER DRILLING --

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:38 - \ATL\FPP01\PROJ\KINDERMORGAN\654558\LEWISDRR\GINT\19-28-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
5	SPT 1	100	2-3-7-6 (10)		SILTY SAND- silty sand (SM), 5Y 8/1 white, 5Y 4/1 dark grey, 2.5Y 7/8 yellow, damp, fine grain, banded, soft	
6.0						809.9

Bottom of borehole at 8.0 feet.



## Water Well Record

### Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

**1. WELL OWNER INFORMATION:**  
Name: Plantation Pipeline  
(last) (first)  
Address: 1000 Windward Concourse, Suite 450  
City: Alpharetta State: SC Zip: 30005-0000  
Telephone: Work: \_\_\_\_\_ Home: \_\_\_\_\_

**2. LOCATION OF WELL:** COUNTY: Anderson  
Name: \_\_\_\_\_  
Street Address: Lewis Drive  
City: Anderson Zip: 29627-0000  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

**3. PUBLIC SYSTEM NAME:** \_\_\_\_\_ **PUBLIC SYSTEM NUMBER:** \_\_\_\_\_

**4. ABANDONMENT:**  Yes  No  
Grouted Depth: from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum

\*Indicate Water Bearing Zones  
(Use a 2nd sheet if needed)

**5. REMARKS:**  
MW-43  
Bentonite seal 1-2' bgs

**6. TYPE:**  Mud Rotary  Jetted  Bored  
 Dug  Air Rotary  Driven  
 Cable tool  Other

**7. PERMIT NUMBER:** MW-10964

**8. USE:**  
 Residential  Public Supply  Process  
 Irrigation  Air Conditioning  Emergency  
 Test Well  Monitor Well  Replacement

**9. WELL DEPTH (completed)** \_\_\_\_\_ ft. Date Started: 10-20-17  
7.5 ft. Date Completed: 10-20-17

**10. CASING:**  Threaded  Welded  
Diam.: 2-inch  
Type:  PVC  Galvanized  
 Steel  Other  
2 in. to 2.5 ft. depth  
\_\_\_\_\_ in. to \_\_\_\_\_ ft. depth  
Height: Above  Below   
Surface \_\_\_\_\_ ft.  
Weight \_\_\_\_\_ lb./ft.  
Drive Shoe?  Yes  No

**11. SCREEN:**  
Type: PVC Diam.: 2-inch  
Slot/Gauge: 0.010-inch Length: 5 feet  
Set Between: 2.5 ft. and 7.5 ft.  
\_\_\_\_\_  
\_\_\_\_\_  
**NOTE: MULTIPLE SCREENS USE SECOND SHEET**  
Sieve Analysis  Yes (please enclose)  No

**12. STATIC WATER LEVEL** \_\_\_\_\_ ft. below land surface after 24 hours

**13. PUMPING LEVEL Below Land Surface.**  
\_\_\_\_\_ ft. after \_\_\_\_\_ hrs. Pumping \_\_\_\_\_ G.P.M.  
Pumping Test:  Yes (please enclose)  No  
Yield: \_\_\_\_\_

**14. WATER QUALITY**  
Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
Please enclose lab results.

**15. ARTIFICIAL FILTER (filter pack)**  Yes  No  
Installed from 2 ft. to 8 ft.  
Effective size #1 Uniformity Coefficient sand

**16. WELL GROUTED?**  Yes  No  
 Neat Cement  Bentonite  Bentonite/Cement  Other \_\_\_\_\_  
Depth: From ground surface ft. to 1 ft.

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** \_\_\_\_\_ ft. \_\_\_\_\_ direction  
Type \_\_\_\_\_  
Well Disinfected  Yes  No Type: \_\_\_\_\_ Amount: \_\_\_\_\_

**18. PUMP:** Date installed: \_\_\_\_\_ Not installed   
Mfr. Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
H.P. \_\_\_\_\_ Volts \_\_\_\_\_ Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ gpm  
TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

**19. WELL DRILLER:** Terry R. Creasman Jr. CERT. NO.: 2116  
Address: (Print) 30 Grant Park Place Level: A  B  C  D  (circle one)  
Piedmont, SC 29673  
Telephone No.: 864-286-1986 Fax No.: 864-288-2272

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed:  Date: 11/9/17  
Well Driller

If D Level Driller, provide supervising driller's name:  
William Barnes, #562-A





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400 Embassy Row, Suite 600  
Atlanta, GA

Telephone: 770-604-9095  
Fax: 770-604-9183

# WELL NUMBER MW-43B

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 10/18/17 COMPLETED 10/19/17 GROUND ELEVATION 816.08 ft HOLE SIZE 10/3.75 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Hollow Stem Auger/Wire Line/Air Rotary AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa CHECKED BY --- AT END OF DRILLING ---  
 NOTES 23.5 ft bgs switched from HSA to rotary/mobile drill B57 AFTER DRILLING 44.35 ft / Elev 771.73 ft btoc

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \ATL\FPP01\PROJ\KINDERMORGAN\654598\LEWISDRR\GINT19-28-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0								
2.0	SPT 1	100	1-2-1-2 (3)	MW-43B-01-02 at 1-2', for BTEX and NAPH		SILTY SAND- silty sand (SM), 10YR 5/3 brown, dry, soft, fine grain, some micas	PID = 0.2	<p>4" Steel Casing</p> <p>Portland I/II with 3-5% Bentonite</p>
6.0	SPT 2	83	2-5-10-6 (15)			SILTY SAND- silty sand (SM), 5Y 8/1 white, 5Y 4/1 dark grey, 2.5Y 7/8 yellow, damp, fine grain, soft, banded, micaceous, saprolite	PID = 13.9	
11.0	SPT 3	67	1-1-2-1 (3)			SILTY SAND- same as above, wet	PID = 9.3	
16.0	SPT 4	63	16-9-7-13 (16)			SILTY SAND- same as above, 2.5YR 4/4 brown, 5YR 3/1 dark grey, 7.5YR 5/3 brown, 7.5YR 6/8 reddish yellow	PID = 9.1	
21.0	SPT 5	50	5-5-7-9 (12)			SILTY SAND- same as 14'-16', with weathered rock	PID = 0	
25						BEDROCK- biotite gneiss, very strong, white with dark grey, fresh, competent, slightly fractured		



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# WELL NUMBER MW-43B


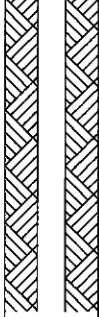

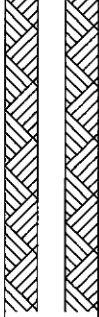


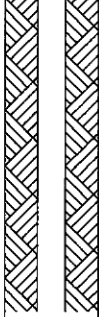


PAGE 2 OF 2

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	TESTS	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25								
26.1						790.0 BEDROCK- same as above, no natural fractures		
30								
31.5						784.6 BEDROCK- granitic chips, quartz, feldspar, dry, powder dust		
35								
36.5						779.6 BEDROCK- same as above		
40								
41.5						774.6 BEDROCK- same as above		
45								
46.0						770.1 BEDROCK- same as above		
50								
51.5						764.6		

← Open Borehole

Refusal at 23.0 feet.  
Bottom of borehole at 51.5 feet.

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - 1\ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRER\GINT19-26-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ





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# WELL NUMBER MW-46

PAGE 1 OF 1

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 9/13/17 COMPLETED 9/13/17 GROUND ELEVATION 842.43 ft HOLE SIZE 8.5 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Geoprobe 8040DT with 4.25-in ID HSA AT TIME OF DRILLING ---  
 LOGGED BY J. McCann CHECKED BY --- AT END OF DRILLING ---  
 NOTES \_\_\_\_\_ AFTER DRILLING ---

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 11/09/17 12:48 - \\ATLFP001\PROJ\KINDERMORGAN\654568\LEWISDRIVE\GINT\9-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0								
5	SPT 1	100	10-9-9-8 (18)	SM		(SM) SILTY SAND: yellowish brown, dry, medium dense, non-plastic	PID = 0.7	<p>Portland I/II with 3-5% Bentonite</p>
10	SPT 2	63	2-2-3-3 (5)	SP		(SP) SAND WITH SILT: white and black with some yellowish brown weathering, wet, loose non-plastic	PID = 0.4 PID = 0.2	<p>3/8" Bentonite Chips</p>
							PID = 0.2	<p>GP#1 Sand</p>
								<p>0.010 Slot Sch40 PVC</p>
								<p>Flat bottom cap</p>

Bottom of borehole at 14.5 feet.



Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Plantation Pipeline
Address: 1000 Windward Concourse, Suite 450
City: Alpharetta State: SC Zip: 30005-0000

7. PERMIT NUMBER: MW-11117

8. USE:
Residential, Irrigation, Test Well, Public Supply, Air Conditioning, Monitor Well, Process, Emergency, Replacement

2. LOCATION OF WELL:
Name: COUNTY: Anderson
Street Address: Lewis Drive
City: Anderson Zip: 29627-0000

9. WELL DEPTH (completed) 14 ft.
Date Started: 9-13-17
Date Completed: 9-13-17

10. CASING: 2-inch
Type: PVC, Steel, Galvanized, Other
Height: Above/Below
Weight: lb./ft.
Drive Shoe? Yes/No

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

11. SCREEN:
Type: PVC Diam.: 2-inch
Slot/Gauge: 0.010-inch Length: 5 feet
Set Between: 9 ft. and 14 ft.
Sieve Analysis: Yes/No

4. ABANDONMENT: Yes/No
Grouted Depth: from ft. to ft.

12. STATIC WATER LEVEL ft. below land surface after 24 hours

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum

13. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: Yes/No
Yield:

14. WATER QUALITY
Chemical Analysis: Yes/No
Bacterial Analysis: Yes/No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) Yes/No
Installed from 7 ft. to 14 ft.
Effective size #1 Uniformity Coefficient sand

16. WELL GROUTED? Yes/No
Neat Cement, Bentonite, Bentonite/Cement, Other
Depth: From ground surface ft. to 5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type
Well Disinfected: Yes/No Type: Amount:

18. PUMP: Date installed: Not installed
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: Submersible, Jet (shallow), Turbine, Jet (deep), Reciprocating, Centrifugal

\*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

19. WELL DRILLER: Terry R. Creasman Jr. CERT. NO.: 2116
Address: 30 Grant Park Place Piedmont, SC 29673
Level: A B C D (circle one)
Telephone No.: 864-288-1966 Fax No.: 864-288-2272

5. REMARKS:
MW-46
Bentonite seal 5-7' bgs

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: [Signature] Date: 11/9/17
Well Driller

6. TYPE: Mud Rotary, Dug, Cable tool, Jetted, Air Rotary, Other, Bored, Driven

If D Level Driller, provide supervising driller's name:
William Barnes, #562-A



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# WELL NUMBER MW-47

PAGE 1 OF 1

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 9/14/17 COMPLETED 9/14/17 GROUND ELEVATION 839.89 ft HOLE SIZE 8.5 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Geoprobe 8040DT with 4.25-in ID HSA AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa CHECKED BY --- AT END OF DRILLING ---  
 NOTES --- AFTER DRILLING ---

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 11/9/17 12:48 - \\ATLFP001\PROJ\KINDERMORGAN\65458LEWISDRIVE\19-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0									
5	SPT 1	100	4-6-7-9 (13)		ML		(ML) SILTY CLAY: 2.5Y 4/6 red, dry, fine grained, dense, micaceous, low plasticity	PID = 0.8	Portland I/II with 3-5% Bentonite 3/8" Bentonite Chips
10	SPT 2	75	2-2-3-4 (5)	Collected sample MW-47-09-11 for BTEX and Naphthalene	ML		(ML) CLAYEY SILT: 7.5YR 7/8 reddish yellow, 2.5YR 4/6 red, white and black bands, dry, fine grained, moderate dense, banded saprolite	PID = 0.7	
15	SPT 3	100	1-1-2-4 (3)		ML		(ML) SILTY CLAY: 7.5 Y 7/8 reddish yellow, wet, fine grained, soft, slightly banded, low plasticity	PID = 1.2	GP#1 Sand 0.010 Slot Sch40 PVC
20	SPT 4	71	3-4-3-5 (7)		SM		(ML) CLAYEY SILT: 2.5 YR 4/6 red, 7.5 YR 5/4 brown, black bands, wet, fine grained, soft, micaceous saprolite		
21.2					ML		(SM) SILTY SAND: white, grey and black bands, wet, fine grained, loose, some weathered rock, fray, micaceous saprolite	PID = 1	Flat bottom cap
21.5					ML		(ML) SILTY CLAY: 7.5 YR 6/6 reddish yellow, wet, fine grained, soft		
Bottom of borehole at 21.5 feet.									





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# WELL NUMBER MW-48B

PAGE 1 OF 4

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 10/12/17 COMPLETED 10/18/17 GROUND ELEVATION 829.53 ft HOLE SIZE 10/3.75 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Hollow Stem Auger/Wire Line/Air Rotary AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa CHECKED BY --- AT END OF DRILLING ---  
 NOTES 63 ft bgs switched from HSA to rotary/mobile drill B57 AFTER DRILLING 23.95 ft / Elev 805.58 ft btoc

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0							
5	SPT 1	100	3-5-7-11 (12)		SILTY SAND- silty sand (SM), 2.5YR 5/8 red, 2.5Y 7/6 yellow, mottled dry, fine grained, dense 6.0 823.5	PID = 0	
10	SPT 2	100	2-5-5-6 (10)		SILTY SAND- silty sand (SM), 2.5YR 5/8 red, 2.5Y 7/6 yellow, 2.5Y 7/1 light grey, mottled, dry, fine grain, dense 11.0 818.5	PID = 0	
15	SPT 3	100	2-2-3-6 (5)		SILTY SAND- silty sand (SM), 10YR 7/8 yellow, 10YR 5/6 yellowish brown, 10YR 7/4 pale brown, black, damp, fine grain, soft, banded, micaceous, saprolite 16.0 813.5	PID = 0	
20	SPT 4	100	3-3-4-7 (7)		SILTY SAND- same as above, weathered rock, 20.5'-21' has quartz and feldspar 21.0 808.5	PID = 0	
25	SPT		2-3-4-7		SILTY SAND- same as above		

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GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - NATLFP01\PROJECT\KINDERMORGAN\654586\LEWISDRIVE\ISA BORING LOGS.GPJ





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# WELL NUMBER MW-48B

PAGE 2 OF 4

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \\ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT\9-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25	5	100	(7)		SILTY SAND- same as above (continued) 26.0 803.5	PID = 0	
30	SPT 6	67	3-5-8-8 (13)		SILTY SAND- same as above, wet, at 30'10"-31' subangular quartz fragments up to .25" diameter 31.0 798.5	PID = 0.2	
35	SPT 7	100	3-1-2-3 (3)		CLAYEY SAND- clayey sand (SC) with some gravel, 10YR 7/8, black and white, 7.5YR 6/6 reddish yellow, wet, fine grain, soft, strong, banded saprolite 36.0 793.5	PID = 1	
40	SPT 8	33	4-5-8-11 (13)		CLAYEY SAND- clayey sand (SC), 7.5YR 6/6 reddish yellow, light grey, 2.5Y 7/6 reddish yellow, black, wet, fine grain, dense, micaceous banding, saprolite last 3" with pea green tint in color 41.0 788.5	PID = 1.7	
45	SPT 9	71	4-7-7-9 (14)		CLAYEY SAND- same as above, no green tint 46.0 783.5	PID = 0	
50	SPT 10	83	2-10-12 (12)		SILTY SAND- silty sand (SM), 2.5Y 5/3 light olive brown, wet, fine grain, soft, banded, micaceous, saprolite, some weathered quartz in top of spoon 51.0 778.5	PID = 2.2	

(Continued Next Page)



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**WELL NUMBER MW-48B**

PAGE 3 OF 4

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
55	SPT 11	100	8-10-16-22 (26)		SILTY SAND- silty sand (SM), 2.5Y 5/3 light olive brown, from 54'-55'4" 10YR 5/4 yellowish brown, white, 10YR 6/4 light yellowish brown, iron staining at 55'4" to 56', wet, fine grain, dense, banded micaceous, saprolite	PID = 2.5	
60	SPT 12	46	31-32-50 (82)		SILTY SAND- same as 55'4"-56'	PID = 2.2	
65	RC 1	100 (89)			BEDROCK- biotite gneiss, very strong, dark grey, light grey foliation, fresh, competent, slightly fractured, 63'2" to 63'5" moderately decomposed, slight disintegrated, iron staining	PID = 0	
70	RC 2	100 (85)			BEDROCK- same as above, begin air rotary at 71.5'	PID = 0	
75	AU 1				BEDROCK- biotite gneiss, quartz, biotite, dry, dust, powder	PID = 0	
80	AU 2				BEDROCK- same as above	PID = 0	
					BEDROCK- same as above	PID = 0	

← Open Borehole

(Continued Next Page)

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT19-28-17\DATA\BASE\LEWIS DRIVE USA BORING LOGS.GPJ



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**WELL NUMBER MW-48B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
85	AU 3				BEDROCK- same as above (continued)		
					86.5	743.0	
90	AU 4				BEDROCK- same as above	PID = 0	
					91.5	738.0	

Refusal at 63.0 feet.  
Bottom of borehole at 91.5 feet.

PID = 0

GENERAL\_BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 08:38 - \\ATLFP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT\9-26-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ





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# WELL NUMBER MW-49

PAGE 1 OF 1

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 9/14/17 COMPLETED 9/14/17 GROUND ELEVATION 843.65 ft HOLE SIZE 8.5 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Geoprobe 8040DT with 4.25-in ID HSA AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa CHECKED BY --- AT END OF DRILLING ---  
 NOTES --- AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	REMARKS	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0									
5	SPT 1	83	4-4-4-4 (8)	Collected sample MW-49-4-6 and MW-49-4-6-FD for BTEX and Naphthalene	SM		(SM) SILTY SAND (SM), 10YR 8/8 brownish yellow, dry, fine grained, loose, micaceous	PID = 130.5 837.7	
10	SPT 2	75	2-2-3-5 (5)		SM		(SM) SAME AS ABOVE	PID = 13.1 832.7	
15	SPT 3	100	1-3-5-6 (8)		SM		(SM) SAME AS ABOVE: moist to very moist	PID = 4.5 827.7	
20	SPT 4	100	3-4-5-6 (9)		SM		(SM) SAME AS ABOVE: wet	PID = 184 822.7	
Bottom of borehole at 21.0 feet.									

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 11/9/17 12:48 - \\ATLFP01\PROJ\KINDERMORGAN\654568LEWSDR\RGINT\9-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ





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# WELL NUMBER MW-50B

PAGE 1 OF 4

CLIENT Plantation Pipe Line Company PROJECT NAME Lewis Drive Remediation  
 PROJECT NUMBER 684910 PROJECT LOCATION Belton, South Carolina  
 DATE STARTED 10/5/17 COMPLETED 10/17/17 GROUND ELEVATION 847.11 ft HOLE SIZE 10/3.75 inches  
 DRILLING CONTRACTOR AE Drilling, Piedmont, SC GROUND WATER LEVELS:  
 DRILLING METHOD Hollow Stem Auger/Wire Line/Air Rotary AT TIME OF DRILLING ---  
 LOGGED BY M. Karafa CHECKED BY --- AT END OF DRILLING ---  
 NOTES 82 ft bgs switched from HSA to rotary/mobile drill B57 AFTER DRILLING ---

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \\ATLFFP01\PROJ\KINDERMORGAN\65458\LEWISDRIVE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0							
5	SPT 1	100	4-5-7-8 (12)		CLAYEY SAND- (SC), 2.5YR 5/6 red with 10YR8/4 very pale brown, mottled, dry, fine grain, dense, micas	PID = 0	
6.0					841.1		
10	SPT 2	100	2-4-5-6 (9)		CLAYEY SAND- same as above, silty sand	PID = 0	
11.0					836.1		
15	SPT 3	100	3-2-5-5 (7)		SILTY SAND- (SM), 2.5Y 6/6 light red, olive yellow, dry, medium density, fine grain, large banding, micaceous, saprolite	PID = 0	
16.0					831.1		
20	SPT 4	88	2-3-3-5 (6)		SILTY SAND- (SM), 2.5Y 6/4 light yellow, light brown, damp, fine grain, medium dense, banded, micaceous	PID = 0	
21.0					826.1		
25	SPT		1-1-2-3		SILTY CLAY- (CL), 2.5Y 7/8 yellow, 2.5YR 5/6 red, wet, fine grain, soft, banded	PID = 0	

(Continued Next Page)



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**WELL NUMBER MW-50B**

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CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 09:39 - \NATL\FPP01\PROJ\KINDERMORGAN\65458\LEWISDRR\GINT19-28-17\DATABASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
25	5	100	(3)		SILTY CLAY- (CL), 2.5Y 7/8 yellow, 2.5YR 5/6 red, wet, fine grain, soft, banded (continued)	821.1	
30	SPT 6	100	2-2-3-6 (5)		SILTY SAND- (SM), white, 10YR 5/3 brown, wet, fine grain, soft, banded micaceous, weathered quartz grains	PID = 0 816.1	
35	SPT 7	100	2-3-5-8 (8)		SILTY SAND- same as above with 34'7"-35' same as 24'-26' and 35'3"-35'9" same as 19'-21'	PID = 0 811.1	
40	SPT 8	100	2-2-2-5 (4)		SANDY CLAY- (CL), 10YR 6/8 brownish yellow, white, wet, fine grain, mod dense, banded	PID = 0 806.1	
45	SPT 9	88	2-3-6-7 (9)		SANDY CLAY- same as above, some weathered quartz with white bands	PID = 0.2 801.1	
50	SPT 10	100	3-6-6-7 (12)		SANDY CLAY- same as above	PID = 0.3 796.1	

Portland I/II with 3-5% Bentonite

(Continued Next Page)





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**WELL NUMBER MW-50B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
55	SPT 11	100	3-5-6-7 (11)		SANDY CLAY- same as above, no white bands 56.0 791.1	PID = 0.2	
60	SPT 12	88	6-7-10-13 (17)		CLAYEY SAND- (SC), 10YR 6/8 brownish yellow, wet, fine grain, dense, trace gravel 61.0 786.1	PID = 0	
65	SPT 13	88	3-6-8-9 (14)		CLAYEY SAND- same as above 66.0 781.1	PID = 0	
70	SPT 14	100	5-8-7-8 (15)		CLAYEY SAND- same as above from 69'-70'6". Silty sand (SM) from 70'6"-70'9" with 10YR 6/6, wet, fine to coarse grain quartz gravel. 70'9"-71' is silty sand (SM), 10YR 4/3 brown, wet, fine grain, thin bands, micaceous, saprolite 71.0 776.1	PID = 0	
75	SPT 15	75	4-4-7-11 (11)		SILTY SAND- (SM), 10YR 4/3 brown, 10YR 5/3 yellowish red, wet, fine grain, dense, banded 76.0 771.1	PID = 0	
80	SPT 16	100	8-11-50-50 (61)		SILTY SAND- (SM), 5Y 6/4 pale olive with 2.5Y 5/6 olive brown, damp, fine grain, banded, weathered rock at bottom of spoon 81.0 766.1	PID = 0.2	
						PID = 0	

GENERAL BH / TP / WELL - GINT STD US LAB.GDT - 12/20/17 09:39 - \ATLFFP01\PROJ\KINDERMORGAN\654558\LEWISDRR\GINT19-28-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ



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**WELL NUMBER MW-50B**

CLIENT Plantation Pipe Line Company

PROJECT NAME Lewis Drive Remediation

PROJECT NUMBER 684910

PROJECT LOCATION Belton, South Carolina

GENERAL\_BH / TP / WELL - GINT STD US LAB GDT - 12/20/17 06:39 - \ATL\FPP01\PROJ\KINDERMORGAN\654558\LEWISDRIVE\GINT9-26-17\DATA\BASE\LEWIS DRIVE ISA BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
85	RC 1	67 (17)			BEDROCK- biotite gneiss, strong, fresh, medium dark, grey and white, some iron straining, foliated, slightly decomposed, fractured intently (continued)		
86.4						760.7	
90	RC 2	100 (100)			BEDROCK- biotite gneiss, strong, very dark grey and white, biotite, quartz, intensely foliated, fresh, unfractured, quartz pegmatite at 88'9"-89'	PID = 0	
91.4						755.7	
95	RC 3	100			BEDROCK- same as above	PID = 0	
96.4						750.7	
100	AU 4				BEDROCK- biotite gneiss, biotite, quartz, powder, dry to 102'5", wet 100.5' to 101'	PID = 0	
101.4						745.7	
105	AU 5				BEDROCK- biotite gneiss, biotite quartz, wet	PID = 0	
106.4						740.7	

Refusal at 82.0 feet.  
Bottom of borehole at 106.4 feet.

← Open Borehole

