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January 30, 2017

Delivered via FedEx

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 – 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, CH2M is submitting the attached Monthly Status Update covering activities conducted in December 2016 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.
Senior Project Manager

Enclosures

- Monthly Status Update including:
  - Figure 1 – Groundwater and Surface Water Elevation Map
  - Figure 2 – Product Thickness Map
  - Figure 3 – Groundwater Analytical Results in Residuum Aquifer
  - Figure 4 – Groundwater Analytical Results in Bedrock Aquifer
  - Table 1 – Well Construction Information
  - Table 2 – Stream Gauge Construction Information
  - Table 3 – Analytical Results for Surface Water
  - Table 4 – Groundwater Elevation and Product Thickness Data
  - Table 5 – Analytical Results for Groundwater
  - Surface Water Analytical Laboratory Report

- Groundwater Analytical Laboratory Reports

Cc (via e-mail):

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File

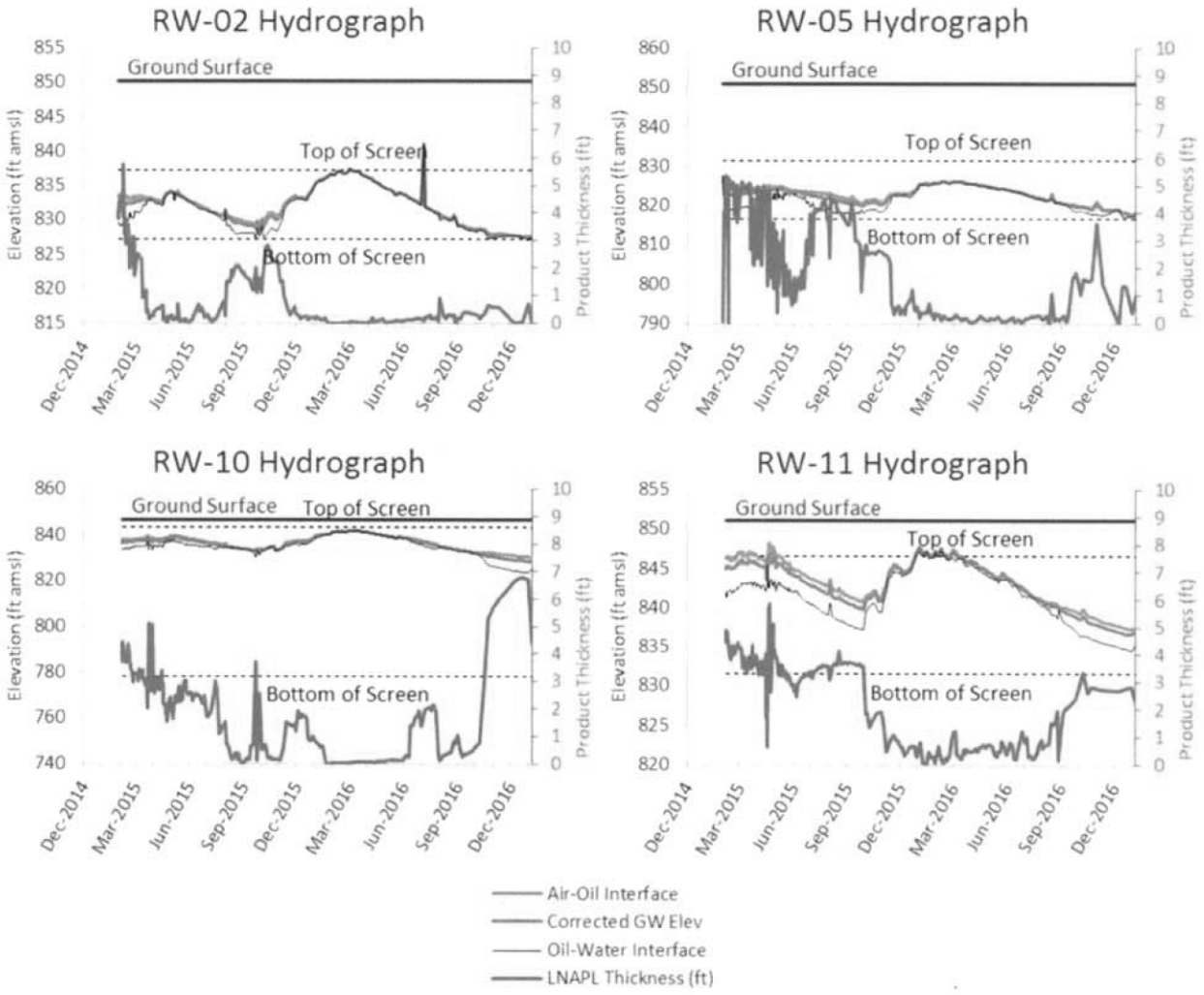
Monthly Status Update
Plantation Pipe Line Company
Lewis Drive Remediation
Site ID #18693 "Kinder Morgan Belton Pipeline Release"
December 2016

Surface Water

- Routinely inspected Brown's Creek and the wetland area south of West Calhoun Rd. and adjacent to Cupboard Creek for hydrocarbon sheen, odor, or distressed vegetation. No new signs of distressed vegetation, hydrocarbon sheen, or odor have been noted. Wide spread biological sheens were noted on both water bodies. The locations of two previously identified seeps are presented on Figures 1 and 2. The route of inspection is indicated on Figure 1.
- No other biota or surface water abnormalities were observed.
- To date, 29 rounds of surface water samples have been analyzed for benzene, toluene, ethylbenzene, xylenes, and naphthalene (see Table 3).
- Collected 13 surface water samples in December at locations SW-01, SW-02, SW-03, SW-04, SW-08, SW-09, SW-10, SW-11, SW-12, SW-13, FP-01, FP-02, and FP-03 (locations SW-05 and SW-06 in Cupboard Creek and SW-07 off Brown's Creek were dry).
    - The following concentrations were detected at the surface water sampling location SW-12. This point is located just downgradient of a seep on the hillside above Brown's Creek. The seep location is plotted on Figures 1 and 2.
        - 707 micrograms per liter (µg/L) benzene
        - 97.3 µg/L ethylbenzene
        - 1,790 µg/L toluene
        - 621 µg/L total xylenes
        - 16.8 µg/L naphthalene
    - Benzene was also detected at the nearest downgradient surface water location, SW-01, at 12.6 µg/L in December.
    - Apart from SW-01 and SW-12, no dissolved hydrocarbons were detected above their respective surface water standards in the remaining surface water samples upstream of SW-12 or downstream of SW-01, where the impacted groundwater extends to Brown's Creek. Analytical lab report is attached.
- Stream elevations from staff gauges are tabulated along with groundwater elevations in Table 2 and are depicted on Figure 1.

Product Recovery

- Gauged depth to product and depth to water in recovery sumps, trenches, piezometers, recovery wells, and stream gauges on a routine basis. During the site-wide gauging event on December 21, 2016, 30 wells and sumps had product thicknesses of 0.5 foot or greater. The greatest product thickness was 6.79 feet in RW-10. These locations are all away from surface water bodies at the site. Groundwater elevation and product thickness data are presented in Table 4 and on Figures 1 and 2.
- Collected 213,951 gallons (5,094 barrels) of product through the end of December 2016. A total of approximately 4,091 gallons of product were collected in December, for a total of 5,020 gallons of product collected in 2016. Evacuated product/water from Trench RT-2 installed adjacent to Brown's Creek from the recovery trench extraction points. See Table 5 for wells and sumps that were used for product recovery.
- Standing water was observed in Recovery Trench 2. Standing water is retained by a downgradient berm and an absorbent boom that is swapped out as needed (approximately monthly).
- Hydrographs of select wells generally representative of light non-aqueous phase liquid (LNAPL) thickness trends are presented below:



Groundwater

- Between November 29 and December 7, 2016 the initial pre-startup, baseline groundwater sampling event was conducted, as described in the Corrective Action Plan submitted September 1, 2016. Of the 53 wells identified for sampling, 6 were not sampled due to the presence of free product, 11 were not collected due to an insufficient volume of water in the well to sample, and 1 was not collected due to silting of the well (MW-02B).
- Analytical results are presented in Table 6.
- The analytical results for the residuum and bedrock aquifers are presented on Figures 3 and 4, respectively.

Remedial Design and Construction

- The equipment fabricator completed the third-party inspection process required by the South Carolina Department of Labor, Licensing and Regulation to demonstrate that the modular building meets state specifications.
- Connected conveyance piping to the horizontal air sparging wellheads.
- Began excavating a separate trench for conveyance lines for the bedrock sparge wells (to be drilled in 2017).
- Completed installing the equipment canopy.
- Framed and placed concrete for the building footers and piers.
- Framed and placed concrete for the compressor equipment pad.
- Performed earthwork in the building area to remove saturated (but unimpacted) soil, backfill with dry soil, and compact as needed in preparation for the building delivery.
- Installed carbon dioxide flux traps on December 20 to quantify natural source zone depletion (NSZD) parameters.

Regulatory Interaction

- Issued monthly status update to SCDHEC.
- Conducted internal storm water pollution prevention plan (SWPPP) inspections on December 1, 7, 14, 21, and 28.

Future Activities

- Install 3 additional monitoring well pairs as proposed in a letter to SCDHEC dated December 22, 2016, entitled "Request for Well Permit to Install Additional Monitoring Wells and Pilot Bedrock Sparging Wells." These locations may be adjusted based on field conditions.
- Install 3 pilot bedrock sparging wells in the Shallow Bedrock Zone south of Lewis Drive.
- Increase product collection frequency to twice a week.
- Complete constructing equipment compound.
- Perform equipment commissioning and initial start-up per the Corrective Action Plan.
- Gauge recovery wells, recovery sumps, and recovery trenches monthly for depth to groundwater and free product thickness.
- Evacuate product from product recovery sumps, trenches, and recovery wells.
- Continue to dispose collected liquids offsite.
- Continue routine visual inspections of Brown's Creek and Wetland #1 (Cupboard Creek).
- Conduct monthly surface water sampling at 16 pre-determined locations along Brown's Creek and Cupboard Creek.
- Continue monthly status updates to SCDHEC.
- Continue coordination with landowners and legal counsel on an as-needed basis.

Wildlife Issues

- None.

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
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
12/9/2016	A&D	743
12/14/2016	A&D	1,198
12/22/2016	A&D	1,722
12/30/2016	A&D	429
	Total (gallons)	**213,951**
	Total (barrels)	**5,094**

Notes:

1. Gasoline and water were field-segregated using a 21,000 gallon frac tank from December 2014 through September 2016. Beginning October 2016, the frac tank was removed from the site and LNAPL was recovered directly into a vacuum truck.

Access Agreements

- Mr. Scott Lewis gave verbal approval to conduct needed response activities on his property.
- A formal access agreement was executed with Mr. Patrick O'Dell to install wells on his property.

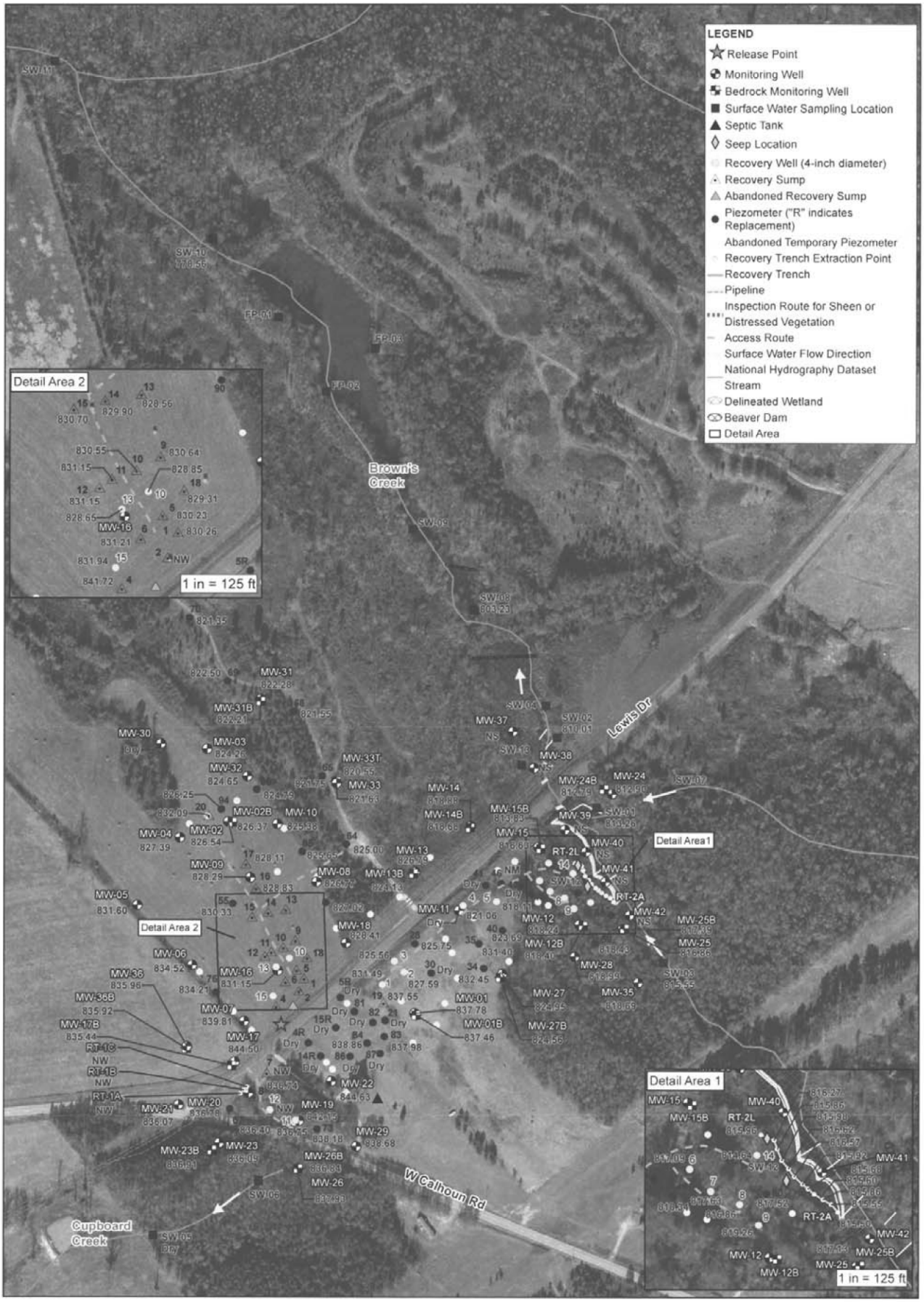
Local Authorities On-Site

- Ms. Bobbi Coleman from SCDHEC was on site December 6, 2016 to discuss the disposition of the surface water booms in Brown's Creek and to inspect the locations of 4 new monitoring wells installed adjacent to Brown's Creek.

Photographs

12/22/2016: Canopy frame is constructed and compressor pad is being framed for concrete pour.

DRAFT



818.34 Corrected Groundwater Elevation as of 12/21/2016 in feet above mean sea level
NM Not measured
NS Not surveyed at the time of this update
NW No water was measured in the well, only product

Base Map Source:
*Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2015
*United States Geological Survey (USGS) National Hydrography Dataset (NHD)

0 250 500
Scale in Feet

Figure 1. Groundwater and Surface Water Elevation Map
Lewis Drive Release, Belton, South Carolina
Site ID #18693
"Kinder Morgan Belton Pipeline Release"

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LEGEND

- Release Point
- Monitoring Well
- Bedrock Monitoring Well
- Seep Location
- Recovery Sump
- Abandoned Recovery Sump
- Piezometer ("R" indicates Replacement)
- Abandoned Temporary Piezometer
- Recovery Well (4-inch diameter)
- Vertical Sparging Well (not yet surveyed)
- Surface Water Sampling Location
- Septic Tank
- Recovery Trench Extraction Point
- Recovery Trench
- Surface Water Flow Direction
- Pipeline
- Access Route
- Soft Boom
- Hard Boom
- Topographic Contour - 5' Interval
- Stream (NHD)
- Delineated Wetland
- Beaver Dam
- Detail Area

2.02 Product thickness in feet as of 12/21/2016

NP No product detected

NM Not measured

Source Data:
*Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2015
*United States Geological Survey (USGS) National Hydrography Dataset (NHD)

0 175 350

Scale in Feet

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

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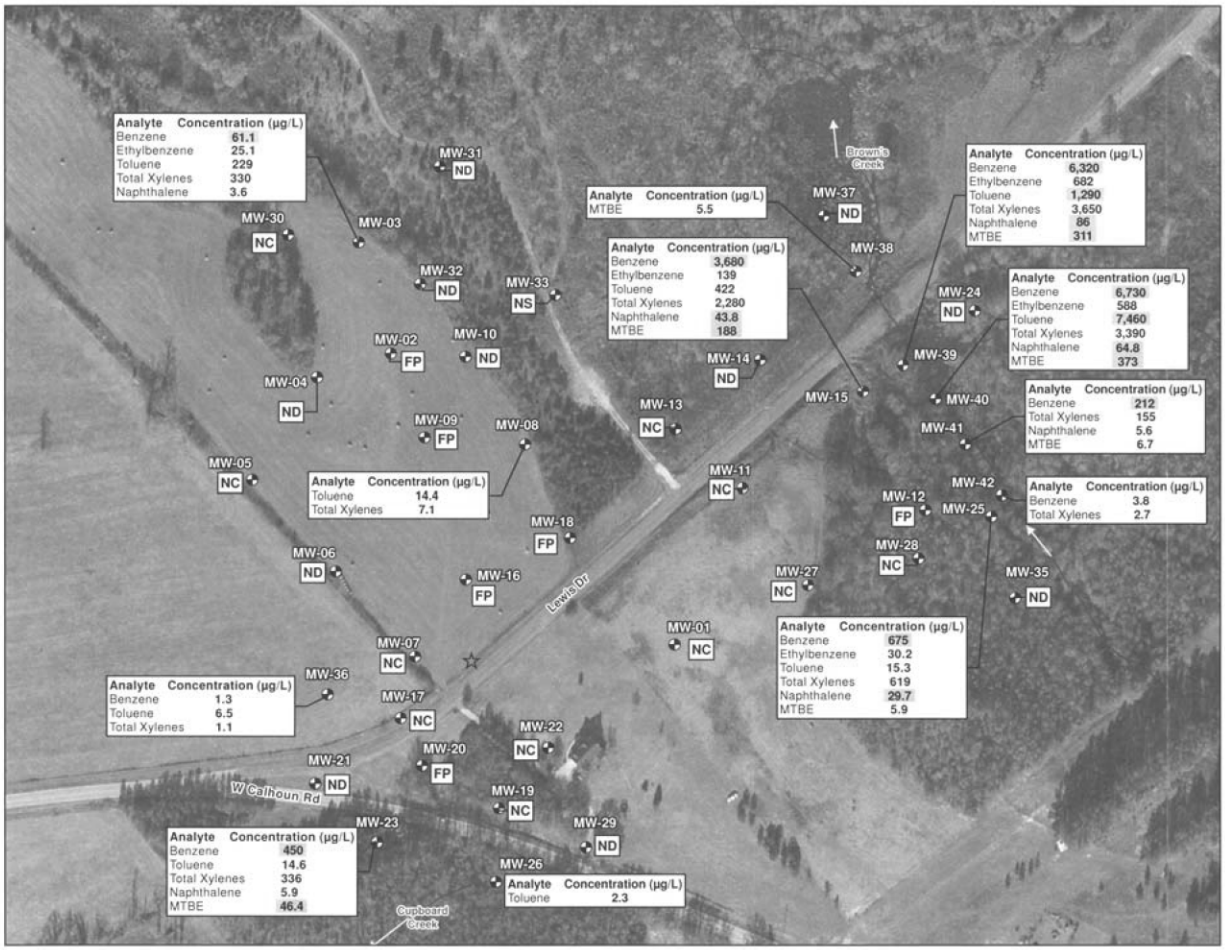

LEGEND

- Release Point
- Monitoring Well
- Access Route
- Surface Water Flow Direction
- Stream (NHD)
- Delineated Wetland

NOTES:

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

Gray shading indicates the analyte exceeded risk-based screening levels (RBSLs) identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan Revision 3, Table D1 "RBSLs for Groundwater", May 2015.

Source Data:
*Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2015. Basemap features are approximate.
*United States Geological Survey (USGS) National Hydrography Dataset (NHD)

0 175 350
Approximate scale in feet

FIGURE 3. Groundwater Analytical Results in Residuum Aquifer, December 2016
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

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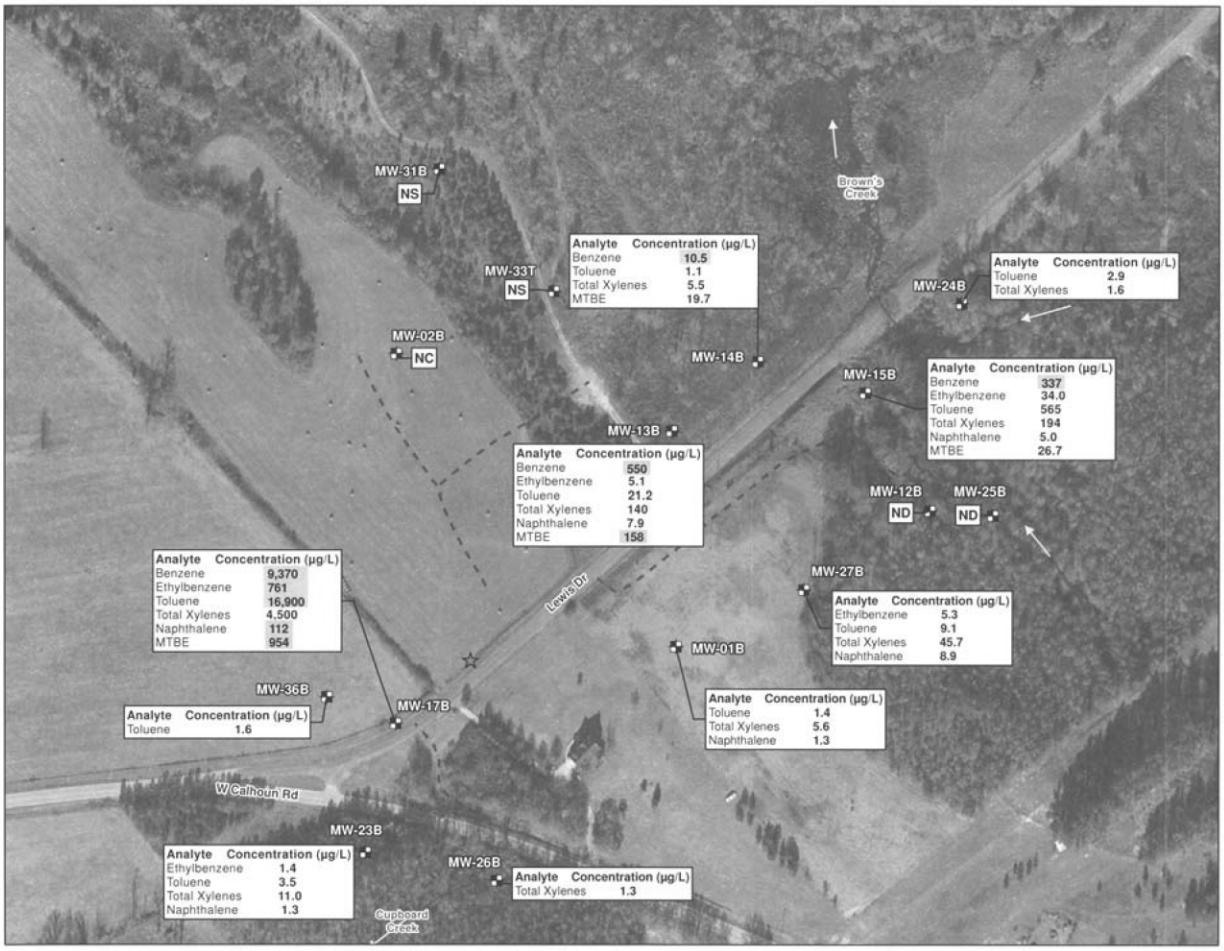

LEGEND

- Release Point
- Bedrock Monitoring Well
- Access Route
- Surface Water Flow Direction
- Stream (NHD)
- Delineated Wetland

NOTES:

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

Gray shading indicates the analyte exceeded risk-based screening levels (RBSLs) identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan Revision 3, Table D1 "RBSLs for Groundwater", May 2015.

Source Data:
*Environmental Systems Research Institute (ESRI) ArcMap World Imagery, 2015. Basemap features are approximate.
*United States Geological Survey (USGS) National Hydrography Dataset (NHD)

0 175 350
Approximate scale in feet

FIGURE 4. Groundwater Analytical Results in Bedrock Aquifer, December 2016
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

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Table 1. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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)
Monitoring Wells																			
MW-01	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	850.25	853.07	15.65	8	2	13.00	837.2	5.82	15.82	3.0	13.0	847.2	837.2	10.00
MW-01B	Schramm Air Rig	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	850.45	852.99	44.50	10	6	38.50	812.0	21.03	41.03	18.5	38.5	832.0	812.0	20.00
MW-02	CME 750 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	841.24	841.04	23.14	8	2	20.00	821.2	4.80	19.80	5.0	20.0	836.2	821.2	15.00
MW-02B	Schramm Air Rig	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	841.40	841.18	87.15	10	6	81.00	760.4	69.78	80.78	70.0	81.0	771.4	760.4	11.00
MW-03	CME 550 HSA	MW-10136	6/23/2015	Still in use	Monitoring Well/Gauging	838.38	838.36	22.19	8	2	20.00	818.4	4.98	19.98	5.0	20.0	833.4	818.4	15.00
MW-04	CME 550 HSA	MW-10136	6/23/2015	Still in use	Monitoring Well/Gauging	844.51	844.42	22.13	8	2	20.00	824.5	4.91	19.91	5.0	20.0	839.5	824.5	15.00
MW-05	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	851.15	851.11	21.78	8	2	20.00	831.1	4.96	19.96	5.0	20.0	846.1	831.1	15.00
MW-06	CME 550 HSA	MW-10136	6/24/2015	Still in use	Monitoring Well/Gauging	852.98	852.92	21.84	8	2	19.60	833.4	4.54	19.54	5.0	19.6	848.0	833.4	15.00
MW-07	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	853.02	853.02	15.35	8	2	13.50	839.5	-1.50	13.50	3.5	13.5	849.5	839.5	15.00
MW-08	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	844.75	844.72	21.81	8	2	19.70	825.1	4.67	19.67	4.7	19.7	840.1	825.1	15.00
MW-09	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	843.72	843.63	22.63	8	2	19.50	824.2	4.41	19.41	4.5	19.5	839.2	824.2	15.00
MW-10	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	842.33	845.41	22.41	8	2	20.00	822.3	8.08	23.08	5.0	20.0	837.3	822.3	15.00
MW-11	CME 550 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	852.36	855.63	32.00	8	2	25.20	827.2	13.27	28.27	14.2	25.0	838.2	827.4	15.00
MW-12	CME 550 HSA	MW-10136	6/25/2015	Still in use	Monitoring Well/Gauging	832.20	834.53	22.05	8	2	19.30	812.9	6.63	21.63	4.3	19.3	827.9	812.9	15.00
MW-12B	Geoprobe 3230 DT HSA	MW-10460	12/22/2015	Still in use	Monitoring Well/Gauging	832.26	834.98	45.31	10	6	43.00	789.3	35.72	45.72	33.0	43.0	799.3	789.3	10.00
MW-13	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	845.93	848.84	22.18	8	2	19.00	826.9	6.92	21.92	4.0	19.0	841.9	826.9	15.00
MW-13B	Geoprobe 3230 DT HSA	MW-10461	12/21/2015	Still in use	Monitoring Well/Gauging	847.19	849.82	55.41	10	6	58.00	789.2	50.64	60.64	48.0	58.0	799.2	789.2	10.00
MW-14	CME 550 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	836.47	838.70	22.18	8	2	19.30	817.2	6.53	21.53	4.3	19.3	832.2	817.2	15.00
MW-14B	Mobile ST Schramm	MW-10578	5/3/2016	Still in use	Monitoring Well/Gauging	837.12	840.20	80.20	10	6	76.90	760.2	69.30	79.30	66.0	76.0	771.1	761.1	10.00
MW-15	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	828.68	831.03	18.85	8	2	19.00	809.7	6.35	21.35	4.0	19.0	824.7	809.7	15.00
MW-15B	CME 550 HSA	MW-10136	7/28/2015	Still in use	Monitoring Well/Gauging	828.66	831.29	77.85	10	6	77.85	750.8	70.48	80.48	67.9	77.9	760.8	750.8	10.00
MW-16	CME 750 HSA	MW-10136	6/26/2015	Still in use	Monitoring Well/Gauging	847.63	847.67	25.30	8	2	20.00	827.6	5.03	20.03	5.0	20.0	842.6	827.6	15.00
MW-17	CME 750 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	855.32	855.35	15.30	8	2	11.00	844.3	6.03	11.03	6.0	11.0	849.3	844.3	5.00
MW-17B	Geoprobe 3230 DT HSA	MW-10462	1/7/2016	Still in use	Monitoring Well/Gauging	855.37	855.37	27.40	10	6	27.00	828.4	17.00	27.00	17.0	27.0	838.4	828.4	10.00
MW-18	CME 550 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	846.82	846.89	21.85	8	2	20.00	826.8	5.06	20.06	5.0	20.0	841.8	826.8	15.00
MW-19	CME 750 HSA	MW-10136	6/29/2015	Still in use	Monitoring Well/Gauging	851.23	853.94	12.13	8	2	9.50	841.7	7.20	12.20	4.5	9.5	846.7	841.7	5.00
MW-20	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	853.07	852.89	22.25	8	2	19.00	834.1	3.81	18.81	4.0	19.0	849.1	834.1	15.00
MW-21	CME 750 HSA	MW-10136	6/30/2015	Still in use	Monitoring Well/Gauging	855.68	855.77	23.23	8	2	20.00	835.7	5.09	20.09	5.0	20.0	850.7	835.7	15.00
MW-22	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	854.62	854.60	13.41	8	2	11.00	843.6	5.98	10.98	6.0	11.0	848.6	843.6	5.00
MW-23	CME 750 HSA	MW-10136	7/1/2015	Still in use	Monitoring Well/Gauging	846.66	849.57	23.24	8	2	20.00	826.7	7.91	22.91	5.0	20.0	841.7	826.7	15.00
MW-23B	CME 550 HSA	MW-10136	7/22/2015	Still in use	Monitoring Well/Gauging	846.81	849.69	55.75	10	6	50.50	796.3	30.88	53.38	28.0	50.5	818.8	796.3	22.50
MW-24	CME 550 HSA	MW-10136	7/15/2015	Still in use	Monitoring Well/Gauging	815.72	817.92	12.50	8	2	13.00	802.7	10.20	15.20	8.0	13.0	807.7	802.7	5.00
MW-24B	CME 550 HSA	MW-10136	7/20/2015	Still in use	Monitoring Well/Gauging	815.83	818.72	41.35	10	6	39.50	776.3	22.39	42.39	19.5	39.5	796.3	776.3	20.00
MW-25	Geoprobe 3230 DT HSA	MW-10463	1/5/2016	Still in use	Monitoring Well/Gauging	823.46	826.18	18.04	8	2	15.00	808.5	8.04	18.04	5.0	15.0	818.5	808.5	10.00
MW-25B	Geoprobe 3230 DT HSA	MW-10464	1/5/2016	Still in use	Monitoring Well/Gauging	822.59	823.81	56.43	10	6	58.00	764.6	49.22	59.22	48.0	58.0	774.6	764.6	10.00
MW-26	Geoprobe 3230 DT HSA	MW-10465	1/4/2016	Still in use	Monitoring Well/Gauging	844.76	847.56	17.27	8	2	15.25	829.5	7.27	17.27	5.0	15.0	839.8	829.8	10.00
MW-26B	Geoprobe 3230 DT HSA	MW-10466	1/4/2016	Still in use	Monitoring Well/Gauging	844.81	847.81	42.81	10	6	38.00	806.8	29.00	41.00	26.0	38.0	818.8	806.8	12.00
MW-27	Geoprobe 3230 DT HSA	MW-10467	1/5/2016	Still in use	Monitoring Well/Gauging	854.22	854.11	30.11	8	2	30.25	824.0	15.11	30.11	15.0	30.0	839.2	824.2	15.00
MW-27B	CME 550 HSA / Schramm	MW-10578	4/26/2016	Still in use	Monitoring Well/Gauging	854.27	857.14	50.25	10	6	46.00	808.3	40.25	50.25	36.0	46.0	818.3	808.3	10.00
MW-28	Geoprobe 3230 DT HSA	MW-10468	1/5/2016	Still in use	Monitoring Well/Gauging	841.49	844.31	25.91	8	2	23.50	818.0	8.50	23.50	10.0	25.0	831.5	816.5	15.00
MW-29	Geoprobe 3230 DT HSA	MW-10469	1/4/2016	Still in use	Monitoring Well/Gauging	852.07	852.20	15.02	8	2	15.25	836.8	5.00	15.00	5.0	15.0	847.1	837.1	10.00
MW-30	Geoprobe 3230 DT HSA	MW-10470	1/6/2016	Still in use	Monitoring Well/Gauging	841.21	841.28	14.51	8	2	15.25	826.0	5.00	15.00	5.0	15.0	836.2	826.2	10.00
MW-31	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	842.26	845.04	28.05	8	2	25.00	817.3	13.05	28.05	10.0	25.0	832.3	817.3	15.00
MW-31B	CME 550 HSA / Schramm	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	842.01	844.94	80.76	10	6	76.00	766.0	69.76	80.76	65.0	76.0	777.0	766.0	11.00
MW-32	CME 550 HSA	MW-10578	4/19/2016	Still in use	Monitoring Well/Gauging	839.81	842.93	28.96	8	2	26.00	813.8	12.96	27.96	10.0	25.0	829.8	814.8	15.00
MW-33	CME 550 HSA	MW-10578	4/15/2016	Still in use	Monitoring Well/Gauging	846.20	849.20	28.25	8	2	27.00	819.2	11.25	26.25	10.0	25.0	836.2	821.2	15.00
MW-33T	CME 550 HSA/Air Rotary	MW-10578	4/14/2016	Still in use	Monitoring Well/Gauging	846.15	849.11	98.15	8	2	96.50	749.7	85.65	95.65	84.0	94.0	762.2	752.2	10.00

Table 1. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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)
MW-35	CME 550 HSA	MW-10578	4/20/2016	Still in use	Monitoring Well/Gauging	826.22	829.40	28.50	8	2	26.00	800.2	12.50	27.50	10.0	25.0	816.2	801.2	15.00
MW-36	CME 550 HSA	MW-10578	4/22/2016	Still in use	Monitoring Well/Gauging	858.66	858.47	23.62	8	2	24.50	834.2	8.62	23.62	9.5	24.5	849.2	834.2	15.00
MW-36B	CME 550 HSA / Schramm	MW-10578	4/28/2016	Still in use	Monitoring Well/Gauging	858.49	858.15	47.89	10	6	54.90	803.6	36.99	46.99	44.0	54.0	814.5	804.5	10.00
MW-37	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	NS	NS	18.11	6.25	2	16.00	NS	7.11	17.11	5.0	15.0	NS	NS	10.00
MW-38	Geoprobe 8040 HSA	MW-10759	8/9/2016	Still in use	Monitoring Well/Gauging	NS	NS	11.44	6.25	2	9.10	NS	6.24	11.24	3.9	8.9	NS	NS	5.00
MW-39	Geoprobe 8040 HSA	MW-10759	11/29/2016	Still in use	Monitoring Well/Gauging	NS	NS	13.03	6.25	2	11.00	NS	7.03	12.03	5.0	10.0	NS	NS	5.00
MW-40	Geoprobe 8040 HSA	MW-10759	11/30/2016	Still in use	Monitoring Well/Gauging	NS	NS	13.15	6.25	2	11.00	NS	7.15	12.15	5.0	10.0	NS	NS	5.00
MW-41	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	NS	NS	13.19	6.25	2	11.00	NS	7.19	12.19	5.0	10.0	NS	NS	5.00
MW-42	Geoprobe 8040 HSA	MW-10759	11/28/2016	Still in use	Monitoring Well/Gauging	NS	NS	13.37	6.25	2	11.00	NS	7.37	12.37	5.0	10.0	NS	NS	5.00
Recovery Wells																			
RW-01	HSA	MW-09978	1/28/2015	Still in use	Gauging/LNAPL Recovery	849.49	851.92	20.80	6.25	4	17	832.5	4.44	19.44	2.0	17.0	847.5	832.5	15
RW-02	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.22	852.69	25.25	6.25	4	23	827.2	15.47	25.47	13.0	23.0	837.2	827.2	10
RW-03	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	850.03	852.34	33.39	6.25	4	31.2	818.8	18.51	33.51	16.2	31.2	833.8	818.8	15
RW-04	HSA	MW-09978	1/29/2015	Still in use	Gauging/LNAPL Recovery	852.15	853.93	35.04	6.25	4	33	819.2	14.78	34.78	13.0	33.0	839.2	819.2	20
RW-05	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	850.99	853.53	38.25	6.25	4	34.5	816.5	22.04	37.04	19.5	34.5	831.5	816.5	15
RW-06	HSA	MW-09978	1/30/2015	Still in use	Gauging/LNAPL Recovery	844.21	846.21	38.50	6.25	4	38.5	805.7	20.49	40.49	18.5	38.5	825.7	805.7	20
RW-07	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	841.01	843.19	38.00	6.25	4	38	803.0	15.18	40.18	13.0	38.0	828.0	803.0	25
RW-08	HSA	MW-09978	2/2/2015	Still in use	Gauging/LNAPL Recovery	833.46	835.48	33.50	6.25	4	33.5	800.0	10.52	35.52	8.5	33.5	825.0	800.0	25
RW-09	HSA	MW-09978	2/3/2015	Still in use	Gauging/LNAPL Recovery	831.13	835.12	42.13	6.25	4	41.5	789.6	15.49	45.49	11.5	41.5	819.6	789.6	30
RW-10	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	846.76	848.53	66.51	6.25	4	68.5	778.3	5.27	70.27	3.5	68.5	843.3	778.3	65
RW-11	HSA	MW-10006	2/4/2015	Still in use	Gauging/LNAPL Recovery	851.03	852.97	21.40	6.25	4	19.5	831.5	6.44	21.44	4.5	19.5	846.5	831.5	15
RW-12	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	851.48	852.75	16.90	6.25	4	14	837.5	6.90	16.90	4.0	14.0	847.5	837.5	10
RW-13	HSA	MW-10006	2/5/2015	Still in use	Gauging/LNAPL Recovery	847.57	847.97	45.53	6.25	4	50	797.6	0.53	45.53	5.0	50.0	842.6	797.6	45
RW-14	HSA	MW-10006	2/6/2015	Still in use	Gauging/LNAPL Recovery	826.25	827.54	55.00	6.25	4	55	771.2	5.00	55.00	5.0	55.0	821.2	771.2	50
RW-15	HSA	MW-10006	2/10/2015	Still in use	Gauging/LNAPL Recovery	849.48	851.64	36.50	6.25	4	36.5	813.0	1.50	36.50	1.5	36.5	848.0	813.0	35
Recovery Sumps																			
RS-01	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	847.95	850.33	23.60	NA	4	21.21	826.7	4.39	23.60	2.0	21.2	845.9	826.7	19.21
RS-02	Trackhoe	MW-09978	12/29/2014	Still in use	Gauging/LNAPL Recovery	848.54	850.10	20.00	NA	4	18.44	830.1	3.56	20.00	2.0	18.4	846.5	830.1	16.44
RS-04	Trackhoe	MW-09978	12/30/2014	Still in use	Gauging/LNAPL Recovery	850.36	851.44	10.25	NA	4	9.17	841.2	3.08	10.25	2.0	9.2	848.4	841.2	7.17
RS-05	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	847.14	848.55	25.20	NA	4	23.79	823.3	3.41	25.20	2.0	23.8	845.1	823.3	21.79
RS-06	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	848.25	850.73	25.18	NA	4	22.70	825.5	4.48	25.18	2.0	22.7	846.2	825.5	20.70
RS-07	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	854.06	856.04	16.65	NA	4	14.67	839.4	3.98	16.65	2.0	14.7	852.1	839.4	12.67
RS-08	Trackhoe	MW-09978	12/31/2014	Still in use	Gauging/LNAPL Recovery	852.59	854.91	20.22	NA	4	17.91	834.7	4.31	20.22	2.0	17.9	850.6	834.7	15.91
RS-09	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.75	849.12	18.69	NA	4	16.33	830.4	4.37	18.69	2.0	16.3	844.8	830.4	14.33
RS-10	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.28	847.52	20.06	NA	4	18.82	827.5	3.24	20.06	2.0	18.8	844.3	827.5	16.82
RS-11	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.35	848.41	22.06	NA	4	19.99	826.4	4.07	22.06	2.0	20.0	844.3	826.4	17.99
RS-12	Trackhoe	MW-09978	1/7/2015	Still in use	Gauging/LNAPL Recovery	846.58	848.87	21.29	NA	4	19.00	827.6	4.29	21.29	2.0	19.0	844.6	827.6	17.00
RS-13	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.51	848.28	19.92	NA	4	17.14	828.4	4.15	19.92	1.4	17.1	844.1	828.4	15.77
RS-14	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.66	846.92	19.93	NA	4	17.68	827.0	4.26	19.93	2.0	17.7	842.7	827.0	15.68
RS-15	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	845.36	848.97	19.93	NA	4	16.31	829.0	5.62	19.93	2.0	16.3	843.4	829.0	14.31
RS-16	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	844.56	846.77	19.98	NA	4	17.77	826.8	4.21	19.98	2.0	17.8	842.6	826.8	15.77
RS-17	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	843.29	845.15	19.91	NA	4	18.05	825.2	3.86	19.91	2.0	18.0	841.3	825.2	16.05
RS-18	Trackhoe	MW-09978	1/8/2015	Still in use	Gauging/LNAPL Recovery	846.82	848.59	19.98	NA	4	18.21	828.6	3.77	19.98	2.0	18.2	844.8	828.6	16.21
RS-19	Trackhoe	MW-09978	1/21/2015	Still in use	Gauging/LNAPL Recovery	849.27	852.37	15.10	NA	4	12.00	837.3	5.10	15.10	2.0	12.0	847.3	837.3	10.00
RS-20	Trackhoe	MW-09978	3/19/2015	Still in use	Gauging/LNAPL Recovery	841.73	843.49	11.84	NA	4	9.91	831.8	3.93	11.84	2.0	9.9	839.7	831.8	7.91

Table 1. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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)
Recovery Trench Sumps																			
RT-1A	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	852.86	856.21	20.89	NA	4	20.00	832.9	5.35	23.35	2.0	20.0	850.9	832.9	18
RT-1B	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.29	857.30	21.00	NA	4	20.00	833.3	6.00	24.00	2.0	20.0	851.3	833.3	18
RT-1C	Trackhoe	MW-09978	1/6/2015	Still in use	Gauging/LNAPL Recovery	853.55	857.02	21.27	NA	4	20.00	833.5	5.47	23.47	2.0	20.0	851.5	833.5	18
RT-2A	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	815.66	818.31	10.81	NA	4	10.00	805.7	4.66	12.66	2.0	10.0	813.7	805.7	8
RT-2B	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.72	818.92	10.82	NA	4	10.00	806.7	4.20	12.20	2.0	10.0	814.7	806.7	8
RT-2C	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	816.86	819.02	10.23	NA	4	10.00	806.9	4.15	12.15	2.0	10.0	814.9	806.9	8
RT-2D	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.11	819.57	10.21	NA	4	10.00	807.1	4.46	12.46	2.0	10.0	815.1	807.1	8
RT-2E	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.32	819.40	10.24	NA	4	10.00	807.3	4.08	12.08	2.0	10.0	815.3	807.3	8
RT-2F	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.74	819.52	10.23	NA	4	10.00	807.7	3.78	11.78	2.0	10.0	815.7	807.7	8
RT-2G	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.27	820.31	10.24	NA	4	10.00	809.3	3.04	11.04	2.0	10.0	817.3	809.3	8
RT-2H	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.91	822.17	8.35	NA	4	10.00	809.9	3.90	12.25	1.7	10.0	818.3	809.9	8
RT-2I	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	819.23	819.51	10.20	NA	4	10.00	809.2	2.28	10.28	2.0	10.0	817.2	809.2	8
RT-2J	Trackhoe	MW-09978	1/22/2015	Still in use	Gauging/LNAPL Recovery	817.47	818.38	10.22	NA	4	10.00	807.5	2.91	10.91	2.0	10.0	815.5	807.5	8
RT-2K	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	816.11	817.46	4.14	NA	4	2.50	813.6	2.64	4.14	1.0	2.5	815.1	813.6	2
RT-2L	Trackhoe	MW-09978	3/20/2015	Still in use	Gauging/LNAPL Recovery	817.95	820.38	6.60	NA	4	3.71	814.2	3.89	6.60	1.0	3.7	816.9	814.2	3
Piezometers																			
TW-04R	DPT	MW-10006	2/4/2015	Still in use	Gauging	852.68	852.64	5.46	2.2	1	5.5	847.2	2.46	5.46	2.5	5.5	850.2	847.2	3
TW-05R	DPT	MW-10006	2/4/2015	Still in use	Gauging	849.96	849.93	8.87	2.2	1	8.8	841.2	2.87	8.87	2.8	8.9	847.2	841.1	6
TW-14R	DPT	MW-10006	2/4/2015	Still in use	Gauging	853.47	853.37	6.20	2.2	1	6.5	847.0	2.20	6.20	2.5	6.3	851.0	847.2	4
TW-15R	DPT	MW-10006	2/4/2015	Still in use	Gauging	850.70	850.62	4.85	2.2	1	5	845.7	1.85	4.85	2.0	4.9	848.7	845.8	3
TW-21	DPT	MW-09978	1/22/2015	Still in use	Gauging	849.72	849.70	9.41	2.2	1	14	835.7	-0.59	9.41	4.0	9.4	845.7	840.3	10
TW-28	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.57	851.42	31.84	2.2	1	30	821.6	11.84	31.84	10.0	32.0	841.6	819.6	20
TW-30	DPT	MW-09978	1/23/2015	Still in use	Gauging	851.86	851.81	23.15	2.2	1	24	827.9	8.15	23.15	9.0	23.2	842.9	828.7	15
TW-34	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.92	854.79	25.04	2.2	1	23	831.9	10.04	25.04	8.0	25.2	846.9	829.7	15
TW-35	DPT	MW-09978	1/24/2015	Still in use	Gauging	854.22	854.10	25.12	2.2	1	23	831.2	10.12	25.12	8.0	25.2	846.2	829.0	15
TW-40	DPT	MW-09978	1/24/2015	Still in use	Gauging	853.45	853.35	34.05	2.2	1	33	820.5	14.05	34.05	13.0	34.2	840.5	819.3	20
TW-41	DPT	MW-09978	1/25/2015	Still in use	Gauging	849.38	849.38	32.15	2.2	1	34	815.4	7.15	32.15	9.0	32.1	840.4	817.2	25
TW-42	DPT	MW-09978	1/25/2015	Still in use	Gauging	847.02	846.84	27.50	2.2	1	29.5	817.5	7.50	27.50	9.5	27.7	837.5	819.3	20
TW-45	DPT	MW-09978	1/25/2015	Still in use	Gauging	848.26	848.31	36.86	2.2	1	37.5	810.8	11.86	36.86	12.5	36.8	835.8	811.4	25
TW-46	DPT	MW-09978	1/26/2015	Still in use	Gauging	846.89	846.88	33.44	2.2	1	32	814.9	13.44	33.44	12.0	33.4	834.9	813.4	20
TW-55	DPT	MW-10006	2/5/2015	Still in use	Gauging	846.00	845.93	43.00	2.7	1	43	803.0	13.00	43.00	13.0	43.1	833.0	802.9	30
TW-59	DPT	MW-09978	1/30/2015	Still in use	Gauging	834.84	834.78	22.00	2.7	1	22	812.8	7.00	22.00	7.0	22.1	827.8	812.8	15
TW-60	DPT	MW-09978	1/30/2015	Still in use	Gauging	828.00	828.03	40.40	2.7	1	41.5	786.5	5.40	40.40	6.5	40.4	821.5	787.6	35
TW-64	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.89	845.88	56.43	2.2	1	55	790.9	6.43	56.43	5.0	56.4	840.9	789.5	50
TW-65	DPT	MW-09978	2/2/2015	Still in use	Gauging	845.66	845.62	44.81	2.2	1	44.5	801.2	9.81	44.81	9.5	44.8	836.2	800.8	35
TW-66	DPT	MW-09978	2/2/2015	Still in use	Gauging	820.18	820.31	29.70	2.7	1	24	796.2	9.70	29.70	4.0	29.6	816.2	790.6	20
TW-67	DPT	MW-09978	2/3/2015	Still in use	Gauging	852.88	852.71	26.31	2.7	1	27	825.9	6.31	26.31	7.0	26.5	845.9	826.4	20
TW-68	DPT	MW-09978	2/3/2015	Still in use	Gauging	846.59	846.45	29.96	2.2	1	27	819.6	9.96	29.96	7.0	30.1	839.6	816.5	20
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

Table 1. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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)
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	30.00	2.7	1	30	810.5	5.00	30.00	5.0	30.1	835.5	810.4	25
Vertical Air Sparge Wells																			
VAS-01	Mobile B57 HSA	SCHE03020469	7/28/2016	Still in use	Cupboard Creek Protection	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	NS	NA	8.50	2.00	52.90	NA	NA	NA	49.40	51.90	NA	NA	2.50
VAS-31	Mobile B57 HSA	SCHE03020469	6/21/2016	Still in use	Brown's Creek Protection	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	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	NS	NS	NA	8.50	2.00	39.30	NA	NA	NA	35.80	38.30	NA	NA	2.50

Table 1. Well Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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-43A	Mobile B57 HSA	SCHE03020469	7/15/2016	Still in use	Brown's Creek Protection	NS	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	NS	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	NS	NS	NA	8.50	2.00	20.80	NA	NA	NA	18.00	20.50	NA	NA	2.50

Notes:

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

bgs = below ground surface

BTOC = below top of casing

DPT = direct push

ft = feet

HSA = hollow-stem auger

in = inches

NA = not applicable

NS = location not surveyed

RNE = Refusal not encountered

TOC = top of casing

Table 2. Stream Gauge Construction Information

Plantation Pipe Line Company

Lewis Drive Release, 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

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. Analytical Results for Surface Water
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Analyte: Units	Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
SW-SEEP	SW-RELEASE	1/20/2015	µg/L	**330**	**490**	**2,400**	**2,100**	**940**	**140**	**5.7 J**
	SW01-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U[1]	1 U
	SW01-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-033115	3/31/2015	µg/L	5 U[1]	5 U	**17.6**	10 U	5 U	5 U[1]	NA
	SW01-042215	4/22/2015	µg/L	5 U[1]	5 U	**14.9**	10 U	5 U	5 U[1]	NA
	SW01-050715	5/7/2015	µg/L	5 U[1]	5 U	**7.0**	10 U	5 U	5 U[1]	NA
	SW01-051915	5/19/2015	µg/L	5 U[1]	5 U	**8.8**	**10.6**	**6.4**	5 U[1]	NA
	SW01-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW01-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-01	SW01-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW01-112415	11/24/2015	µg/L	**7.8**	**1.5**	**13.0**	**9.3**	**4.6**	1 U[1]	NA
	SW01-122215	12/22/2015	µg/L	**4.6**	1 U	**8.8**	**5.5**	**3.1**	1 U[1]	NA
	SW01-012516	1/25/2016	µg/L	**17.6**	**2.3**	**36.0**	**11.3**	**6.3**	1 U[1]	NA
	SW01-021816	2/18/2016	µg/L	**23.4**	**3.0**	**55.6**	**15.0**	**9.1**	1 U[1]	NA
	SW01-031616	3/16/2016	µg/L	**20.1**	**2.4**	**42.3**	**13.3**	**7.6**	1 U[1]	NA
	SW01-042716	4/27/2016	µg/L	**20.8**	1 U	**30.6**	**2.9**	**2.0**	1 U[1]	NA
	SW01-050916	5/9/2016	µg/L	**16.5**	**1.4**	**16.3**	**7.0**	**4.8**	1 U[1]	NA
	SW01-062716	6/27/2016	µg/L	**9**	1 U	**3.3**	2 U	1 U	1 U[1]	NA
	SW01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW01-112816	11/28/2016	µg/L	**5.0**	1 U	**10.4**	**4.9**	**8.3**	1 U[1]	NA
	SW01-122916	12/29/2016	µg/L	**12.6**	1 U	**22.1**	**11.2**	**13.5**	1 U[1]	NA
	SW02-121114	12/11/2014	µg/L	0.5 U	1 U	1 U	2 U	1 U	1 U[1]	1 U
	SW02-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-033115	3/31/2015	µg/L	5 U[1]	5 U	**6.0**	10 U	5 U	5 U[1]	NA
	SW02-042215	4/22/2015	µg/L	5 U[1]	5 U	**13.0**	10 U	5 U	5 U[1]	NA
	SW02-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW02-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-02	SW02-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-112415	11/24/2015	µg/L	**6**	**1.3**	**10.0**	**7.8**	**4.0**	1 U[1]	NA
	SW02-122215	12/22/2015	µg/L	**4.1**	1 U	**7.6**	**5.1**	**3.1**	1 U[1]	NA
	SW02-012516	1/25/2016	µg/L	**12**	**1.5**	**25.0**	**8.4**	**4.6**	1 U[1]	NA
	SW02-021816	2/18/2016	µg/L	**15.5**	**1.8**	**35.3**	**10.1**	**5.9**	1 U[1]	NA
	SW02-031616	3/16/2016	µg/L	**8**	**1.0**	**17.5**	**5.8**	**3.9**	1 U[1]	NA
	SW02-042716	4/27/2016	µg/L	**5.6**	1 U	**7.1**	2 U	1 U	1 U[1]	NA
	SW02-050916	5/9/2016	µg/L	**7.1**	1 U	**4.5**	**2.2**	**1.6**	1 U[1]	NA
	SW02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW02-112816	11/28/2016	µg/L	**5.4**	1 U	**1.6**	**2.6**	**4.8**	1 U[1]	NA
	SW02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	**1.4**	1 U[1]	NA

Table 3. Analytical Results for Surface Water
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Analyte: Units	Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
	SW-UPGRADIENT	1/20/2015	µg/L	0.5 U	1 U	**0.23 J**	2 U	1 U	1 U[1]	1 U
	SW03-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW03-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-03	SW03-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW-DOWNGRADIENT	1/20/2015	µg/L	**95**	**27**	**310**	**110**	**63**	**94**	**2.7**
	SW04-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW04-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-04	SW04-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-112415	11/24/2015	µg/L	**1.7**	1 U	**2.7**	**2.9**	**1.6**	1 U[1]	NA
	SW04-122215	12/22/2015	µg/L	**3.3**	1 U	**7.3**	**5.2**	**2.7**	1 U[1]	NA
	SW04-012516	1/25/2016	µg/L	**6.9**	1 U	**14.0**	**4.9**	**2.8**	1 U[1]	NA
	SW04-021816	2/18/2016	µg/L	**10.9**	**1.1**	**25.4**	**7.0**	**4.3**	1 U[1]	NA
	SW04-031616	3/16/2016	µg/L	1 U	1 U	**2.0**	2 U	**1.8**	1 U[1]	NA
	SW04-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-062716	6/27/2016	µg/L	1 U	1 U	**1.1**	2 U	1 U	1 U[1]	NA
	SW04-072816	7/28/2016	µg/L	1 U	1 U	**23.5**	2 U	1 U	1 U[1]	NA
	SW04-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW04-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW05-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-05	SW05-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW05-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW05-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW05-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW05-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW05-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW06-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW06-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW06-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
SW-06	SW06-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW06-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW06-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW06-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW06-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA

Table 3. Analytical Results for Surface Water
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Analyte: Units	Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
SW-07	SW07-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW07-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW07-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
SW-08	SW08-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW08-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-122215	12/22/2015	µg/L	**1.6**	1 U	**3.8**	**2.5**	**1.6**	1 U[1]	NA
	SW08-012516	1/25/2016	µg/L	**2.4**	1 U	**5.6**	**2**	**1.3**	1 U[1]	NA
	SW08-021816	2/18/2016	µg/L	**2.9**	1 U	**7.6**	**2.3**	**1.5**	1 U[1]	NA
	SW08-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW08-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
SW-09	SW09-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW09-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-122215	12/22/2015	µg/L	**2.1**	1 U	**4.8**	**3.3**	**2.1**	1 U[1]	NA
	SW09-012516	1/25/2016	µg/L	**3.3**	1 U	**7.1**	**2.4**	**1.5**	1 U[1]	NA
	SW09-021816	2/18/2016	µg/L	**2.2**	1 U	**5.9**	2 U	**1.2**	1 U[1]	NA
	SW09-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW09-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA

Table 3. Analytical Results for Surface Water
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Analyte: Units	Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
SW-10	SW10-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW10-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW10-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
SW-11	SW11-022515	2/25/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-030215	3/2/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-031115	3/11/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-031815	3/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-033115	3/31/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-042215	4/22/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-050715	5/7/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-051915	5/19/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-060315	6/3/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-061815	6/18/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-071515	7/15/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-081315	8/13/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-092415	9/24/2015	µg/L	5 U[1]	5 U	5 U	10 U	5 U	5 U[1]	NA
	SW11-102215	10/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-112415	11/24/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-122215	12/22/2015	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-012516	1/25/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-021816	2/18/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW11-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
SW-12	SW12-081916	8/19/2016	µg/L	**6,430**	**764**	**15,400**	**3,360**	**1,730**	**128**	NA
	SW12-092916	9/29/2016	µg/L	**7,850**	**1,030**	**19,000**	**3,910**	**1,940**	**143**	NA
	SW12-103116	10/31/2016	µg/L	**165**	**17.7**	**302**	**103**	**58.2**	**4.7**	NA
	SW12-112816	11/28/2016	µg/L	**486**	**59.6**	**976**	**351**	**181**	**14.2**	NA
	SW12-122916	12/29/2016	µg/L	**707**	**97.3**	**1,790**	**408**	**213**	**16.8**	NA
SW-13	SW13-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW13-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW13-103116	10/31/2016	µg/L	1 U	1 U	**2.0**	2 U	1 U	1 U[1]	NA
	SW13-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	SW13-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
FP-01	FP01-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP01-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA

Table 3. Analytical Results for Surface Water
Lewis Drive Release, Belton, South Carolina
Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Location	Sample ID	Date Collected	Analyte: Units	Benzene	Ethylbenzene	Toluene	m&p-Xylene	o-Xylene	Naphthalene	MTBE
FP-02	FP02-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-081916	8/19/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP02-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
FP-03	FP03-031616	3/16/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-042716	4/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-050916	5/9/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-062716	6/27/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-072816	7/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-092916	9/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-103116	10/31/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-112816	11/28/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
	FP03-122916	12/29/2016	µg/L	1 U	1 U	1 U	2 U	1 U	1 U[1]	NA
		Screening Value:	µg/L	2.2[a]	530[a]	1,000[a]	190[b,c]	190[b]	0.17[b]	14[b]

Notes:

[a] South Carolina Department of Health and Environmental Control (SC DHEC) R.61-68, Water Classifications and Standards, Human Health for consumption of water and organism, June 22, 2012

[b] U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs). Tapwater. June 2015. RSLs based on hazard quotient (HQ) = 1 and cancer risk = 1×10^{-6}

[c] RSL value for total xylenes used for m&p-Xylene

[1] 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 for volatile organic compounds by EPA method SW 8260B
ID = identification
J = estimated value between method detection limit and the reporting limit
MTBE = methyl tertiary butyl ether
NA = not analyzed
U = analyte was not detected above the reported sample quantitation limit
µg/L = microgram(s) per liter
Bold indicates the analyte was detected above the laboratory reporting/quantitation limit.
Gray shading indicates the analyte exceeded screening criteria.

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
MW-01					853.07		
	12/21/2016	-	15.29	-		837.78	-
	12/7/2016	-	15.23	-		837.84	-
MW-01B					852.99		
	12/21/2016	-	15.53	-		837.46	-
	12/7/2016	-	15.62	-		837.37	-
MW-02					841.04		
	12/21/2016	14.24	15.20	0.96		825.84	826.54
MW-02B					841.18		
	12/21/2016	-	14.81	-		826.37	-
MW-03					838.36		
	12/21/2016	-	14.10	-		824.26	-
MW-04					844.42		
	12/21/2016	-	17.03	-		827.39	-
MW-05					851.11		
	12/21/2016	-	19.51	-		831.60	-
	12/7/2016	-	19.46	-		831.65	-
MW-06					852.92		
	12/21/2016	-	18.40	-		834.52	-
MW-07					853.02		
	12/21/2016	-	13.21	-		839.81	-
	12/7/2016	-	13.08	-		839.94	-
MW-08					844.72		
	12/21/2016	-	17.95	-		826.77	-
MW-09					843.63		
	12/21/2016	14.80	16.79	1.99		826.84	828.29
	12/7/2016	14.25	16.07	1.82		827.56	828.89
MW-10					845.41		
	12/21/2016	-	20.03	-		825.38	-
MW-11					855.63		
	12/21/2016	-	DRY	-		-	-
	12/7/2016	-	31.32	-		824.31	-
MW-12					834.53		
	12/21/2016	15.88	17.41	1.53		817.12	818.24
	12/7/2016	15.76	17.16	1.40		817.37	818.39
MW-12B					834.98		
	12/21/2016	-	16.58	-		818.40	-
	12/7/2016	-	16.42	-		818.56	-
MW-13					848.84		
	12/21/2016	-	22.05	-		826.79	-
	12/7/2016	-	21.15	-		827.69	-
MW-13B					849.82		
	12/21/2016	-	25.69	-		824.13	-
MW-14					838.70		
	12/21/2016	-	19.82	-		818.88	-
MW-14B					840.20		
	12/21/2016	-	21.52	-		818.68	-
MW-15					831.03		
	12/21/2016	-	14.40	-		816.63	-
	12/7/2016	-	14.21	-		816.82	-

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
MW-15B					831.29		
	12/21/2016	-	17.46	-		813.83	-
	12/7/2016	-	17.34	-		813.95	-
MW-16					847.67		
	12/21/2016	15.22	20.02	4.80		827.65	831.15
	12/7/2016	14.91	19.98	5.07		827.69	831.39
MW-17					855.35		
	12/21/2016	-	10.85	-		844.50	-
	12/7/2016	-	10.80	-		844.55	-
MW-17B					855.37		
	12/21/2016	-	19.93	-		835.44	-
	12/7/2016	-	19.51	-		835.86	-
MW-18					846.89		
	12/21/2016	18.05	19.62	1.57		827.27	828.41
	12/7/2016	17.69	19.59	1.90		827.30	828.68
MW-19					853.94		
	12/21/2016	-	11.79	-		842.15	-
	12/7/2016	-	11.75	-		842.19	-
MW-20					852.89		
	12/21/2016	15.57	17.56	1.99		835.33	836.78
	12/7/2016	-	15.28	-		837.61	-
MW-21					855.77		
	12/21/2016	-	19.70	-		836.07	-
	12/7/2016	-	19.45	-		836.32	-
MW-22					854.60		
	12/21/2016	-	9.97	-		844.63	-
MW-23					849.57		
	12/21/2016	-	13.48	-		836.09	-
	12/7/2016	-	13.27	-		836.30	-
MW-23B					849.69		
	12/21/2016	-	12.78	-		836.91	-
	12/7/2016	-	12.64	-		837.05	-
MW-24					817.92		
	12/21/2016	-	5.02	-		812.90	-
	12/7/2016	-	4.85	-		813.07	-
MW-24B					818.72		
	12/21/2016	-	5.93	-		812.79	-
	12/7/2016	-	5.76	-		812.96	-
MW-25					826.18		
	12/21/2016	-	9.32	-		816.86	-
	12/7/2016	-	9.13	-		817.05	-
MW-25B					823.81		
	12/21/2016	-	6.42	-		817.39	-
	12/7/2016	-	8.06	-		815.75	-
MW-26					847.56		
	12/21/2016	-	9.63	-		837.93	-
	12/7/2016	-	9.43	-		838.13	-
MW-26B					847.81		
	12/21/2016	-	10.97	-		836.84	-
	12/7/2016	-	10.69	-		837.12	-

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
MW-27					854.11		
	12/21/2016	-	29.16	-		824.95	-
	12/7/2016	-	29.07	-		825.04	-
MW-27B					857.14		
	12/21/2016	-	32.58	-		824.56	-
	12/7/2016	-	32.61	-		824.53	-
MW-28					844.31		
	12/21/2016	-	25.32	-		818.99	-
	12/7/2016	-	25.21	-		819.10	-
MW-29					852.20		
	12/21/2016	-	13.52	-		838.68	-
	12/7/2016	-	13.26	-		838.94	-
MW-30					841.28		
	12/21/2016	-	DRY	-		-	-
	12/7/2016	-	14.56	-		826.72	-
MW-31					845.04		
	12/21/2016	-	22.76	-		822.28	-
MW-31B					844.94		
	12/21/2016	-	22.73	-		822.21	-
MW-32					842.93		
	12/21/2016	-	18.28	-		824.65	-
MW-33					849.20		
	12/21/2016	-	27.57	-		821.63	-
MW-33T					849.11		
	12/21/2016	-	28.56	-		820.55	-
MW-35					829.40		
	12/21/2016	-	10.71	-		818.69	-
	12/7/2016	-	10.69	-		818.71	-
MW-36					858.47		
	12/21/2016	-	22.51	-		835.96	-
MW-36B					858.15		
	12/21/2016	-	22.23	-		835.92	-
MW-37					NS		
	12/21/2016	-	3.72	-		NS	-
	12/7/2016	-	3.67	-		NS	-
MW-38					NS		
	12/21/2016	-	2.25	-		NS	-
	12/7/2016	-	2.11	-		NS	-
MW-39					NS		
	12/21/2016	-	5.35	-		NS	-
	12/7/2016	-	6.31	-		NS	-
MW-40					NS		
	12/21/2016	-	3.14	-		NS	-
	12/7/2016	-	4.39	-		NS	-
MW-41					NS		
	12/21/2016	-	4.73	-		NS	-
	12/7/2016	-	4.71	-		NS	-
MW-42					NS		
	12/21/2016	-	5.31	-		NS	-
	12/7/2016	-	5.61	-		NS	-

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
RS-01					850.33		
	12/21/2016	18.93	23.15	4.22		827.18	830.26
	12/14/2016	18.96	22.40	3.44		827.93	830.44
	12/7/2016	18.95	21.71	2.76		828.62	830.64
RS-02					850.10		
	12/21/2016	17.98	NO WATER	2.02		-	-
	12/14/2016	17.78	19.68	1.90		830.42	831.81
	12/7/2016	17.71	19.62	1.91		830.48	831.88
RS-04					851.44		
	12/21/2016	9.72	9.73	0.01		841.71	841.72
	12/14/2016	9.71	9.73	0.02		841.71	841.73
	12/7/2016	9.68	NO WATER	0.57		-	-
RS-05					848.55		
	12/21/2016	17.43	20.70	3.27		827.85	830.23
	12/14/2016	17.44	20.43	2.99		828.12	830.30
	12/7/2016	17.24	19.88	2.64		828.67	830.59
RS-06					850.73		
	12/21/2016	19.10	20.65	1.55		830.08	831.21
	12/14/2016	18.97	20.39	1.42		830.34	831.37
	12/7/2016	18.83	20.08	1.25		830.65	831.56
RS-07					856.04		
	12/21/2016	16.38	NO WATER	0.27		-	-
	12/14/2016	16.32	16.78	0.46		839.26	839.60
	12/7/2016	16.36	16.78	0.42		839.26	839.57
RS-08					854.91		
	12/21/2016	17.61	19.68	2.07		835.23	836.74
	12/14/2016	17.55	19.65	2.10		835.26	836.79
	12/7/2016	17.35	19.69	2.34		835.22	836.92
RS-09					849.12		
	12/21/2016	-	18.48	-		830.64	-
	12/14/2016	18.49	18.50	0.01		830.62	830.63
	12/7/2016	-	18.43	-		830.69	-
RS-10					847.52		
	12/21/2016	16.20	19.08	2.88		828.44	830.55
	12/14/2016	16.07	18.79	2.72		828.73	830.72
	12/7/2016	15.92	18.13	2.21		829.39	831.01
RS-11					848.41		
	12/21/2016	17.04	17.87	0.83		830.54	831.15
	12/14/2016	16.82	17.60	0.78		830.81	831.38
	12/7/2016	16.64	17.31	0.67		831.10	831.59
RS-12					848.87		
	12/21/2016	17.50	18.32	0.82		830.55	831.15
	12/14/2016	17.26	18.04	0.78		830.83	831.40
	12/7/2016	17.11	17.80	0.69		831.07	831.57
RS-13					848.28		
	12/21/2016	19.72	19.73	0.01		828.55	828.56
	12/14/2016	19.64	19.72	0.08		828.56	828.62
	12/7/2016	19.45	19.65	0.20		828.63	828.78
RS-14					846.92		
	12/21/2016	16.90	17.35	0.45		829.57	829.90

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
RS-14 (cont'd)	12/14/2016	16.64	17.04	0.40		829.88	830.17
	12/7/2016	16.47	16.75	0.28		830.17	830.37
RS-15					848.97		
	12/21/2016	18.18	18.53	0.35		830.44	830.70
	12/14/2016	17.87	18.18	0.31		830.79	831.02
	12/7/2016	17.66	17.88	0.22		831.09	831.25
RS-16					846.77		
	12/21/2016	17.80	18.32	0.52		828.45	828.83
	12/14/2016	17.60	18.08	0.48		828.69	829.04
	12/7/2016	-	17.32	-		829.45	-
RS-17					845.15		
	12/21/2016	16.97	17.22	0.25		827.93	828.11
	12/14/2016	16.75	17.00	0.25		828.15	828.33
	12/7/2016	16.44	16.65	0.21		828.50	828.66
RS-18					848.59		
	12/21/2016	19.15	19.65	0.50		828.94	829.31
	12/14/2016	18.77	19.74	0.97		828.85	829.56
	12/7/2016	18.71	19.47	0.76		829.12	829.68
RS-19					852.37		
	12/21/2016	14.81	14.82	0.01		837.55	837.55
	12/14/2016	15.83	15.85	0.02		836.52	836.53
	12/7/2016	14.80	14.82	0.02		837.55	837.56
RS-20					843.49		
	12/21/2016	-	11.40	-		832.09	-
	12/14/2016	-	11.40	-		832.09	-
	12/7/2016	-	11.36	-		832.13	-
RT-1A					856.21		
	12/21/2016	19.15	NO WATER	1.74		-	-
	12/14/2016	19.10	20.85	1.75		835.36	836.64
	12/7/2016	18.83	20.57	1.74		835.64	836.91
RT-1B					857.30		
	12/21/2016	20.09	NO WATER	0.91		-	-
	12/14/2016	20.04	20.83	0.79		836.47	837.04
	12/7/2016	19.79	20.69	0.90		836.61	837.26
RT-1C					857.02		
	12/21/2016	20.26	NO WATER	1.01		-	-
	12/14/2016	-	20.20	-		836.82	-
	12/7/2016	19.95	20.20	0.25		836.82	837.00
RT-2A					818.31		
	12/21/2016	-	2.81	-		815.50	-
	12/14/2016	-	2.73	-		815.58	-
	12/7/2016	-	2.11	-		816.20	-
RT-2B					818.92		
	12/21/2016	3.37	3.38	0.01		815.54	815.55
	12/14/2016	3.30	3.33	0.03		815.59	815.61
	12/7/2016	2.76	2.78	0.02		816.14	816.15
RT-2C					819.02		
	12/21/2016	3.15	3.17	0.02		815.85	815.86
	12/14/2016	3.03	3.05	0.02		815.97	815.98
	12/7/2016	-	2.50	-		816.52	-

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
RT-2D					819.57		
	12/21/2016	3.96	3.99	0.03		815.58	815.60
	12/14/2016	3.89	3.93	0.04		815.64	815.67
	12/7/2016	3.31	3.34	0.03		816.23	816.25
RT-2E					819.40		
	12/21/2016	3.72	3.73	0.01		815.67	815.68
	12/14/2016	3.65	3.66	0.01		815.74	815.75
	12/7/2016	-	3.16	-		816.24	-
RT-2F					819.52		
	12/21/2016	3.59	3.60	0.01		815.92	815.92
	12/14/2016	3.52	3.53	0.01		815.99	815.99
	12/7/2016	-	2.98	-		816.54	-
RT-2G					820.31		
	12/21/2016	3.74	3.75	0.01		816.56	816.57
	12/14/2016	3.63	3.64	0.01		816.67	816.68
	12/7/2016	-	3.45	-		816.86	-
RT-2H					822.17		
	12/21/2016	5.54	5.55	0.01		816.62	816.62
	12/14/2016	5.44	5.45	0.01		816.72	816.72
	12/7/2016	-	4.47	-		817.70	-
RT-2I					819.51		
	12/21/2016	3.53	3.54	0.01		815.97	815.98
	12/14/2016	3.46	3.47	0.01		816.04	816.05
	12/7/2016	-	NM	-		-	-
RT-2J					818.38		
	12/21/2016	2.49	2.60	0.11		815.78	815.86
	12/14/2016	2.35	2.49	0.14		815.89	816.00
	12/7/2016	-	2.17	-		816.21	-
RT-2K					817.46		
	12/21/2016	1.19	1.20	0.01		816.26	816.27
	12/14/2016	1.11	1.12	0.01		816.34	816.35
	12/7/2016	-	1.01	-		816.45	-
RT-2L					820.38		
	12/21/2016	4.35	4.59	0.24		815.79	815.96
	12/14/2016	4.30	4.50	0.20		815.88	816.02
	12/7/2016	3.95	4.11	0.16		816.27	816.38
RW-01					851.92		
	12/21/2016	-	20.43	-		831.49	-
	12/14/2016	19.41	19.42	0.01		832.50	832.51
	12/7/2016	-	19.75	-		832.17	-
RW-02					852.69		
	12/21/2016	25.10	25.11	0.01		827.58	827.59
	12/14/2016	25.09	25.10	0.01		827.59	827.60
	12/7/2016	-	25.06	-		827.63	-
RW-03					852.34		
	12/21/2016	26.68	27.05	0.37		825.29	825.56
	12/14/2016	26.53	26.90	0.37		825.44	825.71
	12/7/2016	26.32	26.68	0.36		825.66	825.92
RW-04					853.93		
	12/21/2016	32.46	33.98	1.52		819.95	821.06

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
RW-04 (cont'd)	12/14/2016	32.32	33.80	1.48		820.13	821.21
	12/7/2016	32.09	33.58	1.49		820.35	821.44
RW-05					853.53		
	12/21/2016	35.06	36.40	1.34		817.13	818.11
	12/14/2016	35.00	36.34	1.34		817.19	818.17
	12/7/2016	-	34.50	-		819.03	-
RW-06					846.21		
	12/21/2016	28.99	29.45	0.46		816.76	817.09
	12/14/2016	28.92	29.35	0.43		816.86	817.17
	12/7/2016	28.84	29.92	1.08		816.29	817.08
RW-07					843.19		
	12/21/2016	24.74	27.80	3.06		815.39	817.63
	12/14/2016	24.68	27.79	3.11		815.40	817.67
	12/7/2016	24.57	27.61	3.04		815.58	817.80
RW-08					835.48		
	12/21/2016	17.99	20.33	2.34		815.15	816.86
	12/14/2016	17.95	20.15	2.20		815.33	816.93
	12/7/2016	17.95	19.73	1.78		815.75	817.05
RW-09					835.12		
	12/21/2016	15.26	17.48	2.22		817.64	819.26
	12/14/2016	15.22	17.43	2.21		817.69	819.31
	12/7/2016	15.10	17.20	2.10		817.92	819.46
RW-10					848.53		
	12/21/2016	17.85	24.64	6.79		823.89	828.85
	12/14/2016	17.73	24.50	6.77		824.03	828.97
	12/7/2016	17.59	24.26	6.67		824.27	829.14
RW-11					852.97		
	12/21/2016	15.48	18.23	2.75		834.74	836.75
	12/14/2016	15.38	18.12	2.74		834.85	836.85
	12/7/2016	15.23	17.92	2.69		835.05	837.01
RW-12					852.75		
	12/21/2016	16.70	NO WATER	0.20		-	-
	12/14/2016	16.71	NO WATER	0.19		-	-
	12/7/2016	-	14.00	-		838.75	-
RW-13					847.97		
	12/21/2016	18.23	22.27	4.04		825.70	828.65
	12/14/2016	18.10	22.09	3.99		825.88	828.79
	12/7/2016	17.97	21.80	3.83		826.17	828.96
RW-14					827.54		
	12/21/2016	12.83	13.10	0.27		814.44	814.64
	12/14/2016	12.75	12.98	0.23		814.56	814.73
	12/7/2016	12.61	12.72	0.11		814.82	814.90
RW-15					851.64		
	12/21/2016	19.40	20.50	1.10		831.14	831.94
	12/14/2016	19.02	20.95	1.93		830.69	832.10
	12/7/2016	18.88	20.58	1.70		831.06	832.30
SW-01					812.82		
	12/21/2016	-	(0.44)	-		813.26	-
SW-02					808.65		
	12/21/2016	-	(1.36)	-		810.01	-

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
SW-03					815.09		
	12/21/2016	-	(0.46)	-		815.55	-
SW-05					838.75		
	12/21/2016	-	DRY	-		-	-
SW-08					802.04		
	12/21/2016	-	(1.19)	-		803.23	-
SW-10					778.09		
	12/21/2016	-	(0.47)	-		778.56	-
TW-04R					852.64		
	12/21/2016	-	DRY	-		-	-
TW-05R					849.93		
	12/21/2016	-	DRY	-		-	-
TW-14R					853.37		
	12/21/2016	-	DRY	-		-	-
TW-15R					850.62		
	12/21/2016	-	DRY	-		-	-
TW-21					849.70		
	12/21/2016	-	DRY	-		-	-
TW-28					851.42		
	12/21/2016	25.55	26.00	0.45		825.42	825.75
TW-30					851.81		
	12/21/2016	-	DRY	-		-	-
TW-34					854.79		
	12/21/2016	-	22.34	-		832.45	-
	12/7/2016	-	22.21	-		832.58	-
TW-35					854.10		
	12/21/2016	-	22.70	-		831.40	-
TW-40					853.35		
	12/21/2016	-	29.66	-		823.69	-
	12/7/2016	-	29.61	-		823.74	-
TW-41					849.38		
	12/21/2016	-	DRY	-		-	-
	12/7/2016	-	29.86	-		819.52	-
TW-42					846.84		
	12/21/2016	-	DRY	-		-	-
TW-45					848.31		
	12/21/2016	29.40	31.50	2.10		816.81	818.34
	12/7/2016	-	27.45	-		820.86	-
TW-46					846.88		
	12/21/2016	-	NM	-		-	-
	12/7/2016	29.28	31.41	2.13		815.47	817.03
TW-55					845.93		
	12/21/2016	-	15.60	-		830.33	-
TW-59					834.78		
	12/21/2016	-	16.35	-		818.43	-
	12/7/2016	-	15.56	-		819.22	-
TW-60					828.03		
	12/21/2016	-	10.51	-		817.52	-
	12/7/2016	-	10.33	-		817.70	-
TW-64					845.88		

Table 4. Groundwater Elevation and Product Thickness Data

Plantation Pipe Line Company

Lewis Drive Release, 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[1] (ft amsl)	Groundwater Elevation (ft amsl)	Corrected[2] Groundwater Elevation (ft amsl)
TW-64 (cont'd)	12/21/2016	-	20.88	-		825.00	-
TW-65					845.62		
	12/21/2016	-	23.87	-		821.75	-
TW-66					820.31		
	12/21/2016	-	3.18	-		817.13	-
	12/7/2016	-	3.01	-		817.30	-
TW-67					852.71		
	12/21/2016	-	16.31	-		836.40	-
TW-68					846.45		
	12/21/2016	-	24.90	-		821.55	-
TW-69					840.27		
	12/21/2016	-	17.77	-		822.50	-
TW-70					841.95		
	12/21/2016	-	20.60	-		821.35	-
TW-73					850.53		
	12/21/2016	-	12.35	-		838.18	-
TW-76					852.44		
	12/21/2016	-	18.23	-		834.21	-
TW-81					849.43		
	12/21/2016	-	DRY	-		-	-
TW-82					849.64		
	12/21/2016	-	DRY	-		-	-
TW-83					850.44		
	12/21/2016	-	12.46	-		837.98	-
TW-84					851.22		
	12/21/2016	-	12.36	-		838.86	-
TW-85					843.49		
	12/21/2016	-	17.84	-		825.65	-
TW-86					853.10		
	12/21/2016	-	DRY	-		-	-
TW-87					852.25		
	12/21/2016	-	DRY	-		-	-
TW-90					845.43		
	12/21/2016	-	18.41	-		827.02	-
TW-94					840.58		
	12/21/2016	14.15	14.85	0.70		825.73	826.25
TW-96					840.40		
	12/21/2016	-	15.61	-		824.79	-

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

[2] Calculated based on an oil:water density ratio of 0.73

amsl = above mean sea level

BTOC = below top of casing

ft = feet

NM = not measured

NS = elevation not yet surveyed

Table 5. Product Evacuation Times and Product Thicknesses

Lewis Drive Release, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Well ID	Date	Start Time	Finish Time	Time Spent (mins)	Product Thickness before Vacuuming (ft)
RS-01	11/10/2016	10:56	11:09	13	0.84
RS-02	11/10/2016	10:44	10:55	11	1.26
RS-05	11/10/2016	11:12	11:14	2	0.93
RS-08	11/10/2016	10:30	10:40	10	2.03
RS-18	11/10/2016	11:20	11:37	17	0.46
RS-20	11/10/2016	11:34	11:44	10	0.00
RT-1A	11/10/2016	10:18	10:30	12	1.03
RT-1B	11/10/2016	10:05	10:18	13	0.85
RT-1C	11/10/2016	9:50	10:05	15	1.00
RT-2C	11/10/2016	12:30	12:37	7	0.00
RW-04	11/10/2016	11:19	11:29	10	1.80
RW-05	11/10/2016	11:30	11:46	16	1.40
RW-07	11/10/2016	11:49	12:03	14	2.58
RW-08	11/10/2016	12:05	12:17	12	0.34
RW-09	11/10/2016	12:17	12:29	12	1.94
RW-10	11/10/2016	10:45	10:53	8	5.99
RW-11	11/10/2016	9:37	9:45	8	2.71
RW-13	11/10/2016	11:03	11:07	4	2.95
RS-08	12/9/2016	14:45	15:20	35	2.34
RS-12	12/9/2016	15:20	15:40	20	0.69
RT-1A	12/9/2016	14:00	14:45	45	1.74
RT-1B	12/9/2016	13:30	14:00	30	0.90
RT-1C	12/9/2016	11:44	12:30	46	0.25
RS-02	12/14/2016	15:29	15:39	10	1.90
RS-05	12/14/2016	14:39	14:49	10	2.99
RS-06	12/14/2016	15:04	15:14	10	1.42
RS-10	12/14/2016	14:03	14:13	10	2.72
RS-11	12/14/2016	14:14	14:24	10	0.78
RS-12	12/14/2016	14:24	14:34	10	0.78
RS-18	12/14/2016	14:53	15:03	10	0.97
RT-1A	12/14/2016	10:16	10:31	15	1.75
RT-1B	12/14/2016	10:32	10:46	14	0.79
RT-1C	12/14/2016	10:46	11:00	14	0.00
RW-10	12/14/2016	15:46	15:56	10	6.77
RW-13	12/14/2016	15:59	16:09	10	3.99
RW-15	12/14/2016	16:16	16:26	10	1.93
MW-09	12/22/2016	14:30	14:40	10	1.99
MW-12	12/22/2016	13:30	13:40	10	1.53
MW-16	12/22/2016	15:36	15:46	10	4.80
MW-20	12/22/2016	17:35	17:45	10	1.99
RS-01	12/22/2016	16:28	16:38	10	4.22
RS-02	12/22/2016	15:58	16:07	9	2.02
RS-05	12/22/2016	16:08	16:16	8	3.27
RS-06	12/22/2016	15:47	15:57	10	1.55
RS-08	12/22/2016	17:46	17:55	9	2.07
RS-10	12/22/2016	15:02	15:12	10	2.88
RS-11	12/22/2016	14:51	15:00	9	0.83
RS-12	12/22/2016	14:41	14:50	9	0.82
RS-16	12/22/2016	14:20	14:29	9	0.52
RS-18	12/22/2016	16:17	16:27	10	0.50
RT-1A	12/22/2016	17:21	17:30	9	1.74
RT-1B	12/22/2016	17:10	17:20	10	0.91

Table 5. Product Evacuation Times and Product Thicknesses

Lewis Drive Release, Belton, South Carolina

Site ID #18693 "Kinder Morgan Belton Pipeline Release"

Well ID	Date	Start Time	Finish Time	Time Spent (mins)	Product Thickness before Vacuuming (ft)
RT-1C	12/22/2016	16:55	17:05	10	1.01
RW-04	12/22/2016	14:07	14:17	10	1.52
RW-05	12/22/2016	13:56	14:06	10	1.34
RW-06	12/22/2016	12:50	13:00	10	0.46
RW-07	12/22/2016	13:00	13:10	10	3.06
RW-09	12/22/2016	13:20	13:29	9	2.22
RW-11	12/22/2016	15:14	15:23	9	2.75
RW-13	12/22/2016	15:25	15:34	9	4.04
RW-15	12/22/2016	16:40	16:50	10	1.10
MW-09	12/30/2016	15:14	15:24	10	1.99
MW-16	12/30/2016	11:27	11:33	6	4.80
MW-20	12/30/2016	11:05	11:10	5	1.99
RS-01	12/30/2016	12:19	12:55	36	4.30
RS-02	12/30/2016	13:53	14:03	10	1.80
RS-05	12/30/2016	12:36	12:45	9	3.60
RS-06	12/30/2016	12:08	12:16	8	1.80
RS-08	12/30/2016	10:55	11:05	10	2.20
RS-10	12/30/2016	14:44	14:54	10	4.30
RS-11	12/30/2016	11:55	12:05	10	0.90
RS-16	12/30/2016	15:00	15:10	10	0.30
RS-18	12/30/2016	14:34	14:42	8	0.40
RT-1A	12/30/2016	10:10	10:20	10	1.50
RT-1B	12/30/2016	10:40	10:50	10	0.80
RT-1C	12/30/2016	10:26	10:36	10	0.87
RW-03	12/30/2016	8:50	8:59	9	0.30
RW-04	12/30/2016	9:00	9:10	10	1.80
RW-05	12/30/2016	9:12	9:22	10	0.40
RW-06	12/30/2016	9:30	9:41	11	1.00
RW-10	12/30/2016	9:50	10:01	11	6.70
RW-11	12/30/2016	11:14	11:19	5	2.80
RW-12	12/30/2016	11:44	11:54	10	0.10
RW-13	12/30/2016	11:34	11:44	10	4.00
RW-15	12/30/2016	14:05	14:15	10	1.10

Table 6. Analytical Results for Groundwater

Lewis Drive Release, 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
MW-01	NC									
MW-01B	MW-01B-120116	12/1/2016	µg/L	1 U	1 U	**1.4**	**5.6**	1 U	1 U	**1.3**
MW-02	FP									
MW-02B	Not collected - well silted									
MW-03	MW-03-120616	12/6/2016	µg/L	**61.1**	**25.1**	**229**	**330**	2 U	2 U	**3.6**
MW-04	MW-04-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-05	NC									
MW-06	MW-06-120216	12/2/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-07	NC									
MW-08	MW-08-120616	12/6/2016	µg/L	1 U	1 U	**14.4**	**7.1**	1 U	1 U	1 U
MW-09	FP									
MW-10	MW-10-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-11	NC									
MW-12	FP									
MW-12B	MW-12B-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-13	NC									
MW-13B	MW-13B-113016	11/30/2016	µg/L	**550**	**5.1**	**21.2**	**140**	5 U	**158**	**7.9**
MW-14	MW-14-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-14B	MW-14B-113016	11/30/2016	µg/L	**10.5**	1 U	**1.1**	**5.5**	1 U	**19.7**	1 U
MW-15	MW-15-120716	12/7/2016	µg/L	**3680**	**139**	**422**	**2280**	25 U	**188**	**43.8**
MW-15B	MW-15B-113016	11/30/2016	µg/L	**337**	**34**	**565**	**194**	5 U	**26.7**	**5**
MW-16	FP									
MW-17	NC									
MW-17B	MW-17B-120116	12/1/2016	µg/L	**9370**	**761**	**16900**	**4500**	100 U	**954**	**112**
MW-18	FP									
MW-19	NC									
MW-20	FP									
MW-21	MW-21-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-22	NC									
MW-23	MW-23-120216	12/2/2016	µg/L	**450**	5 U	**14.6**	**336**	5 U	**46.4**	**5.9**
MW-23B	MW-23B-120216	12/2/2016	µg/L	1 U	**1.4**	**3.5**	**11.0**	1 U	1 U	**1.3**
MW-24	MW-24-120716	12/7/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-24B	MW-24B-120716	12/7/2016	µg/L	1 U	1 U	**2.9**	**1.6**	1 U	1 U	1 U
MW-25	MW-25-012716	12/1/2016	µg/L	**675**	**30.2**	**15.3**	**619**	5 U	**5.9**	**29.7**
MW-25B	MW-25B-120116	12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-26	MW-26-120116	12/1/2016	µg/L	1 U	1 U	**2.3**	1 U	1 U	1 U	1 U
MW-26B	MW-26B-120116	12/1/2016	µg/L	1 U	1 U	1 U	**1.3**	1 U	1 U	1 U
MW-27	NC									

Table 6. Analytical Results for Groundwater

Lewis Drive Release, 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
MW-27B	MW-27B-120216	12/2/2016	µg/L	1 U	**5.3**	**9.1**	**45.7**	1 U	1 U	**8.9**
MW-28	NC									
MW-29	MW-29-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-30	NC									
MW-31	MW-31-112916	11/29/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-32	MW-32-120616	12/6/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-35	MW-35-120116	12/1/2016	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MW-36	MW-36-112916	11/29/2016	µg/L	**1.3**	1 U	**6.5**	**1.1**	1 U	1 U	1 U
MW-36	MW-36-D-112916	11/29/2016	µg/L	1 U	1 U	**5.4**	1 U	1 U	1 U	1 U
MW-36B	MW-36B-112916	11/29/2016	µg/L	1 U	1 U	**1.6**	1 U	1 U	1 U	1 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-38	MW-38-113016	11/30/2016	µg/L	1 U	1 U	1 U	1 U	1 U	**5.5**	1 U
MW-39	MW-39-120716	12/7/2016	µg/L	**6320**	**682**	**1290**	**3650**	50 U	**311**	**86**
MW-40	MW-40-120716	12/7/2016	µg/L	**6730**	**588**	**7460**	**3390**	50 U	**373**	**64.8**
MW-41	MW-41-120716	12/7/2016	µg/L	**212**	2 U	2 U	**155**	2 U	**6.7**	**5.6**
MW-42	MW-42-120716	12/7/2016	µg/L	**3.8**	1 U	1 U	**2.7**	1 U	1 U	1 U
RBSL[a]:			**µg/L**	5.0	700	1,000	10,000	5.0	40	25

Notes:

[a] RBSL = Risk-based screening levels identified in South Carolina Underground Storage Tank Management Division Programmatic Quality Assurance Program Plan, Revision 3, Table D1 "RBSLs for Groundwater", May 2015

Samples analyzed by EPA Methods SW 8260B and 8011

µg/L = microgram(s) per liter

1,2-DCA = 1,2-dichloroethane

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

ID = identification

MTBE = methyl tertiary butyl ether

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

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

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

Gray shading indicates the analyte exceeded RBSLs.

Pace Analytical Services, LLC
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(704)875-9092

January 05, 2017

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on December 30, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92324932001	SW11-122916	EPA 8260	GAW	10	PASI-C
92324932002	SW10-122916	EPA 8260	GAW	10	PASI-C
92324932003	FP01-122916	EPA 8260	GAW	10	PASI-C
92324932004	FP02-122916	EPA 8260	GAW	10	PASI-C
92324932005	FP03-122916	EPA 8260	GAW	10	PASI-C
92324932006	SW09-122916	EPA 8260	GAW	10	PASI-C
92324932007	SW08-122916	EPA 8260	GAW	10	PASI-C
92324932008	SW13-122916	EPA 8260	GAW	10	PASI-C
92324932009	SW02-122916	EPA 8260	GAW	10	PASI-C
92324932010	SW04-122916	EPA 8260	GAW	10	PASI-C
92324932011	SW01-122916	EPA 8260	GAW	10	PASI-C
92324932012	SW12-122916	EPA 8260	GAW	10	PASI-C
92324932014	SW03-122916	EPA 8260	GAW	10	PASI-C
92324932015	TB-122916	EPA 8260	GAW	10	PASI-C

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW11-122916 **Lab ID: 92324932001** Collected: 12/29/16 10:20 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 15:25	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 15:25	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 15:25	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 15:25	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 15:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 15:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 15:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 15:25	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		12/31/16 15:25	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/31/16 15:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW10-122916 **Lab ID: 92324932002** Collected: 12/29/16 10:30 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 15:42	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 15:42	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 15:42	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 15:42	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 15:42	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 15:42	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 15:42	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		12/31/16 15:42	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		12/31/16 15:42	17060-07-0	
Toluene-d8 (S)	113	%	70-130	1		12/31/16 15:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: FP01-122916 **Lab ID: 92324932003** Collected: 12/29/16 11:00 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 16:00	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 16:00	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 16:00	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 16:00	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 16:00	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 16:00	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 16:00	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 16:00	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		12/31/16 16:00	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/31/16 16:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: FP02-122916 **Lab ID: 92324932004** Collected: 12/29/16 11:10 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 16:17	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 16:17	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 16:17	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 16:17	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 16:17	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 16:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 16:17	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		12/31/16 16:17	17060-07-0	
Toluene-d8 (S)	111	%	70-130	1		12/31/16 16:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: FP03-122916 **Lab ID: 92324932005** Collected: 12/29/16 10:50 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 16:35	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 16:35	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 16:35	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 16:35	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 16:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 16:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 16:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 16:35	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		12/31/16 16:35	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/31/16 16:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW09-122916 **Lab ID: 92324932006** Collected: 12/29/16 11:20 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 16:52	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 16:52	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 16:52	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 16:52	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 16:52	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 16:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 16:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		12/31/16 16:52	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		12/31/16 16:52	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/31/16 16:52	2037-26-5	

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW08-122916 **Lab ID: 92324932007** Collected: 12/29/16 11:25 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 17:09	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 17:09	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 17:09	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 17:09	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 17:09	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 17:09	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 17:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		12/31/16 17:09	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		12/31/16 17:09	17060-07-0	
Toluene-d8 (S)	116	%	70-130	1		12/31/16 17:09	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW13-122916 **Lab ID: 92324932008** Collected: 12/29/16 11:40 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 17:27	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 17:27	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 17:27	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 17:27	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 17:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 17:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 17:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	1		12/31/16 17:27	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		12/31/16 17:27	17060-07-0	
Toluene-d8 (S)	115	%	70-130	1		12/31/16 17:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW02-122916 **Lab ID: 92324932009** Collected: 12/29/16 11:55 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 17:44	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 17:44	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 17:44	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 17:44	108-88-3	
Xylene (Total)	**1.4**	ug/L	1.0	1		12/31/16 17:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 17:44	179601-23-1	
o-Xylene	**1.4**	ug/L	1.0	1		12/31/16 17:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		12/31/16 17:44	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		12/31/16 17:44	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		12/31/16 17:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW04-122916 **Lab ID: 92324932010** Collected: 12/29/16 11:50 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 18:01	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 18:01	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 18:01	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 18:01	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 18:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 18:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 18:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		12/31/16 18:01	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/31/16 18:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW01-122916 **Lab ID: 92324932011** Collected: 12/29/16 12:10 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**12.6**	ug/L	1.0	1		12/31/16 18:19	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 18:19	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 18:19	91-20-3	
Toluene	**22.1**	ug/L	1.0	1		12/31/16 18:19	108-88-3	
Xylene (Total)	**24.7**	ug/L	1.0	1		12/31/16 18:19	1330-20-7	
m&p-Xylene	**11.2**	ug/L	2.0	1		12/31/16 18:19	179601-23-1	
o-Xylene	**13.5**	ug/L	1.0	1		12/31/16 18:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		12/31/16 18:19	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130	1		12/31/16 18:19	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/31/16 18:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW12-122916 **Lab ID: 92324932012** Collected: 12/29/16 12:25 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**707**	ug/L	10.0	10		01/04/17 19:49	71-43-2	
Ethylbenzene	**97.3**	ug/L	10.0	10		01/04/17 19:49	100-41-4	
Naphthalene	**16.8**	ug/L	10.0	10		01/04/17 19:49	91-20-3	
Toluene	**1790**	ug/L	10.0	10		01/04/17 19:49	108-88-3	
Xylene (Total)	**621**	ug/L	10.0	10		01/04/17 19:49	1330-20-7	
m&p-Xylene	**408**	ug/L	20.0	10		01/04/17 19:49	179601-23-1	
o-Xylene	**213**	ug/L	10.0	10		01/04/17 19:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	10		01/04/17 19:49	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	10		01/04/17 19:49	17060-07-0	
Toluene-d8 (S)	99	%	70-130	10		01/04/17 19:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: SW03-122916 **Lab ID: 92324932014** Collected: 12/29/16 12:30 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 18:36	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 18:36	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 18:36	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 18:36	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 18:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 18:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 18:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 18:36	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		12/31/16 18:36	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/31/16 18:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Sample: TB-122916 **Lab ID: 92324932015** Collected: 12/29/16 00:00 Received: 12/30/16 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/31/16 13:05	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/31/16 13:05	100-41-4	
Naphthalene	ND	ug/L	1.0	1		12/31/16 13:05	91-20-3	
Toluene	ND	ug/L	1.0	1		12/31/16 13:05	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/31/16 13:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/31/16 13:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/31/16 13:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/31/16 13:05	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		12/31/16 13:05	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/31/16 13:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

QC Batch: 343105 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92324932001, 92324932002, 92324932003, 92324932004, 92324932005, 92324932006, 92324932007, 92324932008, 92324932009, 92324932010, 92324932011, 92324932014, 92324932015

METHOD BLANK: 1903173 Matrix: Water
Associated Lab Samples: 92324932001, 92324932002, 92324932003, 92324932004, 92324932005, 92324932006, 92324932007, 92324932008, 92324932009, 92324932010, 92324932011, 92324932014, 92324932015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/31/16 12:30	
Ethylbenzene	ug/L	ND	1.0	12/31/16 12:30	
m&p-Xylene	ug/L	ND	2.0	12/31/16 12:30	
Naphthalene	ug/L	ND	1.0	12/31/16 12:30	
o-Xylene	ug/L	ND	1.0	12/31/16 12:30	
Toluene	ug/L	ND	1.0	12/31/16 12:30	
Xylene (Total)	ug/L	ND	1.0	12/31/16 12:30	
1,2-Dichloroethane-d4 (S)	%	105	70-130	12/31/16 12:30	
4-Bromofluorobenzene (S)	%	105	70-130	12/31/16 12:30	
Toluene-d8 (S)	%	112	70-130	12/31/16 12:30	

LABORATORY CONTROL SAMPLE: 1903174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	58.7	117	70-130	
Ethylbenzene	ug/L	50	51.4	103	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Naphthalene	ug/L	50	49.9	100	70-130	
o-Xylene	ug/L	50	52.3	105	70-130	
Toluene	ug/L	50	55.0	110	70-130	
Xylene (Total)	ug/L	150	157	105	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1903176

Parameter	Units	92324811004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	25.0	125	70-130	
Ethylbenzene	ug/L	ND	20	21.2	106	70-130	
m&p-Xylene	ug/L	ND	40	42.5	106	70-130	
Naphthalene	ug/L	ND	20	17.4	87	70-130	
o-Xylene	ug/L	ND	20	21.1	106	70-130	
Toluene	ug/L	ND	20	23.9	119	70-130	
1,2-Dichloroethane-d4 (S)	%				108	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				103	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

SAMPLE DUPLICATE: 1903175

Parameter	Units	92324811003 Result	Dup Result	RPD	Qualifiers
Benzene	ug/L	3.9	5.4	34	D6
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	0.88J	1.1J		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	.25J		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	107	107	0	
4-Bromofluorobenzene (S)	%	106	106	0	
Toluene-d8 (S)	%	113	107	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

QC Batch: 343337
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92324932012

METHOD BLANK: 1904341
Matrix: Water
Associated Lab Samples: 92324932012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	01/04/17 14:47	
Ethylbenzene	ug/L	ND	1.0	01/04/17 14:47	
m&p-Xylene	ug/L	ND	2.0	01/04/17 14:47	
Naphthalene	ug/L	ND	1.0	01/04/17 14:47	
o-Xylene	ug/L	ND	1.0	01/04/17 14:47	
Toluene	ug/L	ND	1.0	01/04/17 14:47	
Xylene (Total)	ug/L	ND	1.0	01/04/17 14:47	
1,2-Dichloroethane-d4 (S)	%	90	70-130	01/04/17 14:47	
4-Bromofluorobenzene (S)	%	101	70-130	01/04/17 14:47	
Toluene-d8 (S)	%	109	70-130	01/04/17 14:47	

LABORATORY CONTROL SAMPLE: 1904342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	51.9	104	70-130	
Ethylbenzene	ug/L	50	48.8	98	70-130	
m&p-Xylene	ug/L	100	97.4	97	70-130	
Naphthalene	ug/L	50	49.7	99	70-130	
o-Xylene	ug/L	50	48.8	98	70-130	
Toluene	ug/L	50	49.3	99	70-130	
Xylene (Total)	ug/L	150	146	97	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1904345

Parameter	Units	92325002001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	669	4000	5120	111	70-130	
Ethylbenzene	ug/L	ND	4000	4320	105	70-130	
m&p-Xylene	ug/L	775	8000	9280	106	70-130	
Naphthalene	ug/L	358	4000	4200	96	70-130	
o-Xylene	ug/L	234	4000	4430	105	70-130	
Toluene	ug/L	907	4000	5130	106	70-130	
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				98	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

SAMPLE DUPLICATE: 1904344

Parameter	Units	92325002004 Result	Dup Result	RPD	Qualifiers
Benzene	ug/L	ND	8.2J		
Ethylbenzene	ug/L	41.0	40.7	1	
m&p-Xylene	ug/L	ND	17.3J		
Naphthalene	ug/L	97.5	101	3	
o-Xylene	ug/L	42.2	42.6	1	
Toluene	ug/L	ND	4J		
Xylene (Total)	ug/L	42.2	42.6	1	
1,2-Dichloroethane-d4 (S)	%	97	95	3	
4-Bromofluorobenzene (S)	%	101	100	0	
Toluene-d8 (S)	%	106	106	0	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kinder Morgan- Lewis Drive
Pace Project No.: 92324932

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92324932001	**SW11-122916**	EPA 8260	343105		
92324932002	**SW10-122916**	EPA 8260	343105		
92324932003	**FP01-122916**	EPA 8260	343105		
92324932004	**FP02-122916**	EPA 8260	343105		
92324932005	**FP03-122916**	EPA 8260	343105		
92324932006	**SW09-122916**	EPA 8260	343105		
92324932007	**SW08-122916**	EPA 8260	343105		
92324932008	**SW13-122916**	EPA 8260	343105		
92324932009	**SW02-122916**	EPA 8260	343105		
92324932010	**SW04-122916**	EPA 8260	343105		
92324932011	**SW01-122916**	EPA 8260	343105		
92324932012	**SW12-122916**	EPA 8260	343337		
92324932014	**SW03-122916**	EPA 8260	343105		
92324932015	**TB-122916**	EPA 8260	343105		

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: ICHZM

Project # WO# : 92324932

92324932

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: 12-30-16 JM

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other:____

Thermometer: ☐ IR Gun ID: T1603 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Correction Factor: **Cooler Temp Corrected (°C):** 3.6 **Biological Tissue Frozen?** ☐ Yes ☑ No ☐ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC? 12-30-16	☑ Yes	☑ No	☐ N/A	9. Sample 2 is actually labeled as SW-12 instead of SW-10.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: JH **Date:** 1/3/17

Project Manager SRF Review: JH **Date:** 1/3/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

10:27

Pace Analytical®

Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 2 of 2
Document No.: F-CAR-CS-033-Rev.01	Issuing Authority:

WO# : 92324932

Project #

PM: KRG Due Date: 01/09/17

CLIENT: 92-KinderCH2

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

pg 1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN
1																3												
2																3												
3																3												
4																3												
5																3												
6																3												
7																3												
8																3												
9																3												
10																3												
11																3												
12																3												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

10:27

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

****Bottom half of box is to list number of bottles**

PB2

Project # 92324932

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN
1																3													
2																2													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 2

Section A
Required Client Information:

Company	CH2M
Address	6600 Peachtree Dunwoody Rd
	400 Embassy Row Ste 600, Atlanta, GA 30328
Email	W.Walton@ch2m.com
Phone	919-460-1771 Fax
Requested Due Date	2 weeks

Section B
Required Project Information:

Report To	Wiley, Tom
Copy To	t.wiley@CH2M.com
	B.Grady@ch2m.com
Purchase Order #	
Project Name	Kinder Morgan - Lewis Drive
Project #	669220

Section C
Invoice Information:

Attention	Jerry Aycock
Company Name	Plantation Pipeline
Address	1000 Windward Concourse
Pace Quote	Alpharetta, GA
Pace Project Manager	kevin.godwin@pacelabs.com,
Pace Profile #	7463-1

Regulatory Agency
State / Location
SC

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

92324932

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Trip BLANK	8260 (BTEXN only)	Residual Chlorine (Y/N)	
1	SW11-122916	WT	G	12/29	1020				3											X		001
2	SW10-122916				1030															X		002
3	FP01-122916				1100															X		003
4	FP02-122916				1110															X		004
5	FP03-122916				1050															X		005
6	SW09-122916				1120															X		006
7	SW08-122916				1125															X		007
8	SW13-122916				1140															X		008
9	SW02-122916				1155															X		009
10	SW04-122916				1150															X		010
11	SW01-122916				1210															X		011
12	SW12-122916				1225															X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Terry Warren	12-29-16	1415	Billy Pace ALL	12-30-16	940	3.6	Y	N	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Terry Warren

SIGNATURE of SAMPLER: Terry W [signature]

DATE Signed: 12-29-16

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: CH2M	Report To: Wiley, Tom	Attention: Jerry Aycock
Address: 6600 Peachtree Dunwoody Rd 400 Embassy Row Ste 600, Atlanta, GA 30328	Copy To: b.garvey@CH2M.com t.wiley@CH2M.com	Company Name: Plantation Pipeline
Email: kevin.godwin@CH2M.com	Purchase Order #:	Address: 1000 Windward Concourse
Phone: 919-960-1071 Fax:	Project Name: Kinder Morgan - Lewis Drive	Pace Quote: Alpharetta, GA
Requested Due Date: 2 weeks	Project #: 667200	Pace Project Manager: kevin.godwin@pacelabs.com
		Pace Profile #: 7483-1

Regulatory Agency	State / Location
	SC

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Analyses Test: Trip BLANK	8260 (BTEXN only)	Residual Chlorine (Y/N)	92324932
1	SW03-122916	WT	G	12/29	1230				3										X		03
2	TB-122916			Lab	Prepared																04
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Terry Warren/CH2M	12-29-16	1415	Billy Pace HCL	12-30-16	940	5.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Terry Warren

SIGNATURE of SAMPLER: Terry Warren DATE Signed: 12-29-16

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 02, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92321249001	MW-29-112916	EPA 8260	GAW	12	PASI-C
92321249002	MW-21-112916	EPA 8260	GAW	12	PASI-C
92321249003	MW-36B-112916	EPA 8260	GAW	12	PASI-C
92321249004	MW-36-112916	EPA 8260	GAW	12	PASI-C
92321249005	MW-36-D-112916	EPA 8260	GAW	12	PASI-C
92321249006	MW-31-112916	EPA 8260	GAW	12	PASI-C
92321249007	TB-01-112916	EPA 8260	GAW	12	PASI-C
92321249008	FB-01-112916	EPA 8260	GAW	12	PASI-C

Pace Analytical
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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-29-112916 **Lab ID: 92321249001** Collected: 11/29/16 14:20 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 19:20	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 19:20	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 19:20	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 19:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 19:20	91-20-3	
Toluene	ND	ug/L	1.0	1		12/01/16 19:20	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 19:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 19:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 19:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/01/16 19:20	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		12/01/16 19:20	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/01/16 19:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-21-112916 **Lab ID: 92321249002** Collected: 11/29/16 15:25 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 19:36	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 19:36	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 19:36	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 19:36	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 19:36	91-20-3	
Toluene	ND	ug/L	1.0	1		12/01/16 19:36	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 19:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 19:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 19:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		12/01/16 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/01/16 19:36	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/01/16 19:36	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-36B-112916 **Lab ID: 92321249003** Collected: 11/29/16 15:15 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 19:52	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 19:52	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 19:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 19:52	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 19:52	91-20-3	
Toluene	**1.6**	ug/L	1.0	1		12/01/16 19:52	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 19:52	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 19:52	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 19:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		12/01/16 19:52	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		12/01/16 19:52	17060-07-0	
Toluene-d8 (S)	111	%	70-130	1		12/01/16 19:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-36-112916 **Lab ID: 92321249004** Collected: 11/29/16 16:00 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**1.3**	ug/L	1.0	1		12/01/16 20:08	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 20:08	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 20:08	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 20:08	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 20:08	91-20-3	
Toluene	**6.5**	ug/L	1.0	1		12/01/16 20:08	108-88-3	
Xylene (Total)	**1.1**	ug/L	1.0	1		12/01/16 20:08	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 20:08	179601-23-1	
o-Xylene	**1.1**	ug/L	1.0	1		12/01/16 20:08	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/01/16 20:08	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/01/16 20:08	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/01/16 20:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-36-D-112916 **Lab ID: 92321249005** Collected: 11/29/16 16:05 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 20:25	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 20:25	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 20:25	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 20:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 20:25	91-20-3	
Toluene	**5.4**	ug/L	1.0	1		12/01/16 20:25	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 20:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 20:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 20:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/01/16 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/01/16 20:25	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		12/01/16 20:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: MW-31-112916 **Lab ID: 92321249006** Collected: 11/29/16 16:45 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 20:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 20:57	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 20:57	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 20:57	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 20:57	91-20-3	
Toluene	ND	ug/L	1.0	1		12/01/16 20:57	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 20:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 20:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 20:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/01/16 20:57	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		12/01/16 20:57	17060-07-0	
Toluene-d8 (S)	114	%	70-130	1		12/01/16 20:57	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: TB-01-112916 **Lab ID: 92321249007** Collected: 11/29/16 00:00 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 13:24	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 13:24	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 13:24	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 13:24	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 13:24	91-20-3	
Toluene	ND	ug/L	1.0	1		12/01/16 13:24	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 13:24	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 13:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 13:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/01/16 13:24	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		12/01/16 13:24	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		12/01/16 13:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Sample: FB-01-112916 **Lab ID: 92321249008** Collected: 11/29/16 17:20 Received: 11/30/16 10:27 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/01/16 13:40	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/01/16 13:40	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/01/16 13:40	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/01/16 13:40	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/01/16 13:40	91-20-3	
Toluene	ND	ug/L	1.0	1		12/01/16 13:40	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/01/16 13:40	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/01/16 13:40	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/01/16 13:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/01/16 13:40	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		12/01/16 13:40	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		12/01/16 13:40	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

QC Batch: 338970 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321249007, 92321249008

METHOD BLANK: 1879590 Matrix: Water
Associated Lab Samples: 92321249007, 92321249008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/01/16 12:19	
Benzene	ug/L	ND	1.0	12/01/16 12:19	
Ethylbenzene	ug/L	ND	1.0	12/01/16 12:19	
m&p-Xylene	ug/L	ND	2.0	12/01/16 12:19	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/01/16 12:19	
Naphthalene	ug/L	ND	1.0	12/01/16 12:19	
o-Xylene	ug/L	ND	1.0	12/01/16 12:19	
Toluene	ug/L	ND	1.0	12/01/16 12:19	
Xylene (Total)	ug/L	ND	1.0	12/01/16 12:19	
1,2-Dichloroethane-d4 (S)	%	92	70-130	12/01/16 12:19	
4-Bromofluorobenzene (S)	%	104	70-130	12/01/16 12:19	
Toluene-d8 (S)	%	113	70-130	12/01/16 12:19	

LABORATORY CONTROL SAMPLE: 1879591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.7	103	70-130	
Benzene	ug/L	50	55.7	111	70-130	
Ethylbenzene	ug/L	50	52.4	105	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	46.6	93	70-130	
Naphthalene	ug/L	50	51.3	103	70-130	
o-Xylene	ug/L	50	52.4	105	70-130	
Toluene	ug/L	50	49.5	99	70-130	
Xylene (Total)	ug/L	150	156	104	70-130	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE SAMPLE: 1879593

Parameter	Units	92321243011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.3	106	70-130	
Benzene	ug/L	ND	20	21.8	109	70-130	
Ethylbenzene	ug/L	ND	20	22.5	112	70-130	
m&p-Xylene	ug/L	ND	40	44.8	112	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	15.9	79	70-130	
Naphthalene	ug/L	ND	20	18.9	95	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

MATRIX SPIKE SAMPLE: 1879593

Parameter	Units	92321243011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	21.8	109	70-130	
Toluene	ug/L	ND	20	22.0	110	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1879592

Parameter	Units	92321243010 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	92	95	2	
4-Bromofluorobenzene (S)	%	102	101	0	
Toluene-d8 (S)	%	111	112	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

QC Batch: 339001 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321249001, 92321249002, 92321249003, 92321249004, 92321249005, 92321249006

METHOD BLANK: 1879782 Matrix: Water
Associated Lab Samples: 92321249001, 92321249002, 92321249003, 92321249004, 92321249005, 92321249006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/01/16 12:36	
Benzene	ug/L	ND	1.0	12/01/16 12:36	
Ethylbenzene	ug/L	ND	1.0	12/01/16 12:36	
m&p-Xylene	ug/L	ND	2.0	12/01/16 12:36	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/01/16 12:36	
Naphthalene	ug/L	ND	1.0	12/01/16 12:36	
o-Xylene	ug/L	ND	1.0	12/01/16 12:36	
Toluene	ug/L	ND	1.0	12/01/16 12:36	
Xylene (Total)	ug/L	ND	1.0	12/01/16 12:36	
1,2-Dichloroethane-d4 (S)	%	93	70-130	12/01/16 12:36	
4-Bromofluorobenzene (S)	%	104	70-130	12/01/16 12:36	
Toluene-d8 (S)	%	109	70-130	12/01/16 12:36	

LABORATORY CONTROL SAMPLE: 1879783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48.8	98	70-130	
Benzene	ug/L	50	54.6	109	70-130	
Ethylbenzene	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	46.5	93	70-130	
Naphthalene	ug/L	50	50.8	102	70-130	
o-Xylene	ug/L	50	51.5	103	70-130	
Toluene	ug/L	50	49.0	98	70-130	
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1879785

Parameter	Units	92321249006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	23.7	119	70-130	
Benzene	ug/L	ND	20	24.2	121	70-130	
Ethylbenzene	ug/L	ND	20	24.5	122	70-130	
m&p-Xylene	ug/L	ND	40	49.8	125	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.0	90	70-130	
Naphthalene	ug/L	ND	20	20.4	102	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

MATRIX SPIKE SAMPLE: 1879785

Parameter	Units	92321249006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	24.5	122	70-130	
Toluene	ug/L	ND	20	24.4	121	70-130	
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1879784

Parameter	Units	92321249005 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	.88J		
Ethylbenzene	ug/L	ND	.35J		
m&p-Xylene	ug/L	ND	1.2J		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	.77J		
Toluene	ug/L	5.4	5.4	0	
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	94	98	4	
4-Bromofluorobenzene (S)	%	101	100	1	
Toluene-d8 (S)	%	112	112	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321249

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92321249001	MW-29-112916	EPA 8260	339001		
92321249002	MW-21-112916	EPA 8260	339001		
92321249003	MW-36B-112916	EPA 8260	339001		
92321249004	MW-36-112916	EPA 8260	339001		
92321249005	MW-36-D-112916	EPA 8260	339001		
92321249006	MW-31-112916	EPA 8260	339001		
92321249007	TB-01-112916	EPA 8260	338970		
92321249008	FB-01-112916	EPA 8260	338970		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville [✓] Eden [ ] Greenwood [ ] Huntersville [ ] Raleigh [ ] Mechanicsville [ ]

Sample Condition Upon Receipt Client Name: CH2M Proje WO# : 92321249

92321249

Courier: [✓] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace [ ] Other:____

Custody Seal Present? [ ] Yes [ ] No Seals Intact? [ ] Yes [ ] No

Date/Initials Person Examining Contents: OER 11/30/16

Packing Material: [ ] Bubble Wrap [✓] Bubble Bags [ ] None [ ] Other:____

Thermometer: [✓] IR Gun ID: 5 Type of Ice: [✓] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Correction Factor: Cooler Temp Corrected (°C): 5.5 Biological Tissue Frozen? [ ] Yes [ ] No [ ] N/A

Temp should be above freezing to 6°C

USDA Regulated Soil ([✓] N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? [ ] Yes [✓] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [✓] No

	Yes	No	N/A	Comments/Discrepancy:
Chain of Custody Present?	[✓]	[ ]	[ ]	1.
Samples Arrived within Hold Time?	[✓]	[ ]	[ ]	2.
Short Hold Time Analysis (<72 hr.)?	[ ]	[✓]	[ ]	3.
Rush Turn Around Time Requested?	[ ]	[✓]	[ ]	4.
Sufficient Volume?	[✓]	[ ]	[ ]	5.
Correct Containers Used?	[✓]	[ ]	[ ]	6.
-Pace Containers Used?	[✓]	[ ]	[ ]	
Containers Intact?	[✓]	[ ]	[ ]	7.
Samples Field Filtered?	[ ]	[✓]	[ ]	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	[✓]	[ ]	[ ]	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	[ ]	[✓]	[ ]	10.
Trip Blank Present?	[✓]	[ ]	[ ]	11.
Trip Blank Custody Seals Present?	[✓]	[ ]	[ ]	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? [ ] Yes [ ] No

Person Contacted: ____________ Date/Time: ____________

Comments/Sample Discrepancy: ____________

Project Manager SCURF Review: JD Date: 11/30/16

Project Manager SRF Review: JD Date: 12/1/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Project # **WO# : 92321249**

PM: KRG Due Date: 12/20/16

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
1																3													
2																3													
3																3													
4																3													
5																3													
6																3													
7																2													
8																3													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: CH2M	Report To: Wiley, Tom	Attention: Jerry Ayock
Address: 6600 Peachtree Dunwoody Rd	Copy To: Bethany Garvey	Company Name: Plantation Pipe Line
400 Embassy Row Ste 600, Atlanta, GA 30328	Bill Waldron	Address: 1000 Windward Concourse Ste 450
Email: bgarvey4@ch2m.com	Purchase Order #:	Pace Quote:
Phone: 678-530-4124 Fax	Project Name: Kindermorgan-Lewis Dr	Pace Project Manager: kevin.godwin@pacelabs.com,
Requested Due Date: 2 weeks	Project #: 669238.LD.PR.LA	Pace Profile #: 7463-3

Regulatory Agency	State / Location
	SC

Requested Analysis Filtered (Y/N): 8260: N, Nitrate: N

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test	Trip BLANK	8260 (BTEXMN+12DCA)	Nitrate	Alkalinity, Sulfate	Carbon Dioxide AM20GAX	Methane by RSK-175	DI Water	Residual Chlorine (Y/N)	92321249
1	MW-29-112916	WT	G	11/29/16	1420				3				X							X							001
2	MW-21-112916	↓	↓	↓	1525				↓				↓							↓							002
3	MW-36B-112916	↓	↓	↓	1515				↓				↓							↓							003
4	MW-36-112916	↓	↓	↓	1600				↓				↓							↓							004
5	MW-36-D-112916	↓	↓	↓	1605				↓				↓							↓							005
6	MW-31-112916	↓	↓	↓	1645				↓				↓							↓							006
7	TB-01-112916	WT	G	11/29/16					2				X						X	[illegible]							007
8	FB-01-112916	WT	G	↓					3				↓							X							008
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Justine McCann / CH2M	11/29/16	1800	[signature]	11/30/16	10:27	5.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Justine McCann

SIGNATURE of SAMPLER: Justine McCann

DATE Signed:

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 92321249 **Workorder Name:** Kindermorgan-Lewis Dr **Owner Received Date:** 11/30/2016 **Due Date:** 12/20/2016

Pace Analytical Asheville
2225 Riverside Dr.
Asheville, NC 28804
Phone (828)254-7176

Pace Analytical Charlotte
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone (704)875-9092

Report To:
Kevin Godwin

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCl	EPA 8260	LAB USE ONLY
1	MW-29-112916	PS	11/29/2016 14:20	92321249001	Water	3	X	
2	MW-21-112916	PS	11/29/2016 15:25	92321249002	Water	3	X	
3	MW-36B-112916	PS	11/29/2016 15:15	92321249003	Water	3	X	
4	MW-36-112916	PS	11/29/2016 16:00	92321249004	Water	3	X	
5	MW-36-D-112916	PS	11/29/2016 16:05	92321249005	Water	3	X	
6	MW-31-112916	PS	11/29/2016 16:45	92321249006	Water	3	X	
7	TB-01-112916	PS	11/29/2016 00:00	92321249007	Water	2	X	
8	FB-01-112916	PS	11/29/2016 00:00	92321249008	Water	3	X	

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	11/30/16 [illegible]	[signature] / Ar	11/30/16 2:205	
2	[signature] / Ar	12/1/16 [illegible]	[signature]	12/1 [illegible]	
3					
4					

Cooler Temperature on Receipt 2 °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

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December 07, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on December 01, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

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CERTIFICATIONS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92321540001	**FB-01-113016**	EPA 8260	GAW	12	PASI-C
92321540002	**MW-13B-113016**	EPA 8260	GAW	12	PASI-C
92321540003	**MW-15B-113016**	EPA 8260	GAW	12	PASI-C
92321540004	**MW-14B-113016**	EPA 8260	GAW	12	PASI-C
92321540006	**MW-14-113016**	EPA 8260	GAW	12	PASI-C
92321540007	**MW-38-113016**	EPA 8260	GAW	12	PASI-C
92321540008	**MW-37-113016**	EPA 8260	GAW	12	PASI-C
92321540009	**MW-12B-113016**	EPA 8260	GAW	12	PASI-C
92321540010	**TB-01-113016**	EPA 8260	GAW	12	PASI-C

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: FB-01-113016 **Lab ID: 92321540001** Collected: 11/30/16 08:50 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/02/16 12:23	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/02/16 12:23	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/02/16 12:23	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/02/16 12:23	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/02/16 12:23	91-20-3	
Toluene	ND	ug/L	1.0	1		12/02/16 12:23	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/02/16 12:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/02/16 12:23	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/02/16 12:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/02/16 12:23	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		12/02/16 12:23	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/02/16 12:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-13B-113016 **Lab ID: 92321540002** Collected: 11/30/16 10:10 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**550**	ug/L	5.0	5		12/06/16 23:32	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	5		12/06/16 23:32	107-06-2	
Ethylbenzene	**5.1**	ug/L	5.0	5		12/06/16 23:32	100-41-4	
Methyl-tert-butyl ether	**158**	ug/L	5.0	5		12/06/16 23:32	1634-04-4	
Naphthalene	**7.9**	ug/L	5.0	5		12/06/16 23:32	91-20-3	
Toluene	**21.2**	ug/L	5.0	5		12/06/16 23:32	108-88-3	
Xylene (Total)	**140**	ug/L	5.0	5		12/06/16 23:32	1330-20-7	
m&p-Xylene	**47.3**	ug/L	10.0	5		12/06/16 23:32	179601-23-1	
o-Xylene	**92.8**	ug/L	5.0	5		12/06/16 23:32	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	5		12/06/16 23:32	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	5		12/06/16 23:32	17060-07-0	
Toluene-d8 (S)	97	%	70-130	5		12/06/16 23:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-15B-113016 **Lab ID: 92321540003** Collected: 11/30/16 10:20 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**337**	ug/L	5.0	5		12/06/16 23:49	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	5		12/06/16 23:49	107-06-2	
Ethylbenzene	**34.0**	ug/L	5.0	5		12/06/16 23:49	100-41-4	
Methyl-tert-butyl ether	**26.7**	ug/L	5.0	5		12/06/16 23:49	1634-04-4	
Naphthalene	**5.0**	ug/L	5.0	5		12/06/16 23:49	91-20-3	
Toluene	**565**	ug/L	5.0	5		12/06/16 23:49	108-88-3	
Xylene (Total)	**194**	ug/L	5.0	5		12/06/16 23:49	1330-20-7	
m&p-Xylene	**124**	ug/L	10.0	5		12/06/16 23:49	179601-23-1	
o-Xylene	**70.4**	ug/L	5.0	5		12/06/16 23:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	5		12/06/16 23:49	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	5		12/06/16 23:49	17060-07-0	
Toluene-d8 (S)	96	%	70-130	5		12/06/16 23:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-14B-113016 **Lab ID: 92321540004** Collected: 11/30/16 11:25 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**10.5**	ug/L	1.0	1		12/02/16 15:21	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/02/16 15:21	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/02/16 15:21	100-41-4	
Methyl-tert-butyl ether	**19.7**	ug/L	1.0	1		12/02/16 15:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/02/16 15:21	91-20-3	
Toluene	**1.1**	ug/L	1.0	1		12/02/16 15:21	108-88-3	
Xylene (Total)	**5.5**	ug/L	1.0	1		12/02/16 15:21	1330-20-7	
m&p-Xylene	**2.9**	ug/L	2.0	1		12/02/16 15:21	179601-23-1	
o-Xylene	**2.6**	ug/L	1.0	1		12/02/16 15:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		12/02/16 15:21	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		12/02/16 15:21	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		12/02/16 15:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-14-113016 **Lab ID: 92321540006** Collected: 11/30/16 12:25 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 23:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 23:10	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 23:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 23:10	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 23:10	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 23:10	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 23:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 23:10	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 23:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/05/16 23:10	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		12/05/16 23:10	17060-07-0	
Toluene-d8 (S)	96	%	70-130	1		12/05/16 23:10	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-38-113016 **Lab ID: 92321540007** Collected: 11/30/16 14:50 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/02/16 15:37	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/02/16 15:37	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/02/16 15:37	100-41-4	
Methyl-tert-butyl ether	**5.5**	ug/L	1.0	1		12/02/16 15:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/02/16 15:37	91-20-3	
Toluene	ND	ug/L	1.0	1		12/02/16 15:37	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/02/16 15:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/02/16 15:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/02/16 15:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		12/02/16 15:37	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/02/16 15:37	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		12/02/16 15:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-37-113016 **Lab ID: 92321540008** Collected: 11/30/16 15:40 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/02/16 15:53	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/02/16 15:53	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/02/16 15:53	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/02/16 15:53	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/02/16 15:53	91-20-3	
Toluene	ND	ug/L	1.0	1		12/02/16 15:53	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/02/16 15:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/02/16 15:53	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/02/16 15:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/02/16 15:53	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/02/16 15:53	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/02/16 15:53	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: MW-12B-113016 **Lab ID: 92321540009** Collected: 11/30/16 15:35 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 19:21	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 19:21	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 19:21	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 19:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 19:21	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 19:21	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 19:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 19:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 19:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		12/05/16 19:21	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		12/05/16 19:21	17060-07-0	
Toluene-d8 (S)	112	%	70-130	1		12/05/16 19:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Sample: TB-01-113016 **Lab ID: 92321540010** Collected: 11/30/16 16:20 Received: 12/01/16 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/02/16 12:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/02/16 12:39	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/02/16 12:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/02/16 12:39	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/02/16 12:39	91-20-3	
Toluene	ND	ug/L	1.0	1		12/02/16 12:39	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/02/16 12:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/02/16 12:39	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/02/16 12:39	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/02/16 12:39	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/02/16 12:39	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		12/02/16 12:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

QC Batch: 339139 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321540001, 92321540004, 92321540007, 92321540008, 92321540010

METHOD BLANK: 1880503 Matrix: Water
Associated Lab Samples: 92321540001, 92321540004, 92321540007, 92321540008, 92321540010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/02/16 11:02	
Benzene	ug/L	ND	1.0	12/02/16 11:02	
Ethylbenzene	ug/L	ND	1.0	12/02/16 11:02	
m&p-Xylene	ug/L	ND	2.0	12/02/16 11:02	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/02/16 11:02	
Naphthalene	ug/L	ND	1.0	12/02/16 11:02	
o-Xylene	ug/L	ND	1.0	12/02/16 11:02	
Toluene	ug/L	ND	1.0	12/02/16 11:02	
Xylene (Total)	ug/L	ND	1.0	12/02/16 11:02	
1,2-Dichloroethane-d4 (S)	%	95	70-130	12/02/16 11:02	
4-Bromofluorobenzene (S)	%	102	70-130	12/02/16 11:02	
Toluene-d8 (S)	%	109	70-130	12/02/16 11:02	

LABORATORY CONTROL SAMPLE: 1880504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.7	103	70-130	
Benzene	ug/L	50	56.0	112	70-130	
Ethylbenzene	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	48.2	96	70-130	
Naphthalene	ug/L	50	49.7	99	70-130	
o-Xylene	ug/L	50	52.9	106	70-130	
Toluene	ug/L	50	49.9	100	70-130	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			110	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			93	70-130	

MATRIX SPIKE SAMPLE: 1881871

Parameter	Units	92321540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	23.1	116	70-130	
Benzene	ug/L	ND	20	22.5	113	70-130	
Ethylbenzene	ug/L	ND	20	22.9	115	70-130	
m&p-Xylene	ug/L	ND	40	45.4	113	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.0	90	70-130	
Naphthalene	ug/L	ND	20	19.4	97	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

MATRIX SPIKE SAMPLE: 1881871

Parameter	Units	92321540008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	22.6	113	70-130	
Toluene	ug/L	ND	20	22.4	111	70-130	
1,2-Dichloroethane-d4 (S)	%				108	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1881870

Parameter	Units	92321540007 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	5.5	5.6	1	
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	95	101	6	
4-Bromofluorobenzene (S)	%	100	101	1	
Toluene-d8 (S)	%	108	109	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

QC Batch: 339353
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321540009

METHOD BLANK: 1881853
Matrix: Water
Associated Lab Samples: 92321540009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/05/16 12:21	
Benzene	ug/L	ND	1.0	12/05/16 12:21	
Ethylbenzene	ug/L	ND	1.0	12/05/16 12:21	
m&p-Xylene	ug/L	ND	2.0	12/05/16 12:21	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/05/16 12:21	
Naphthalene	ug/L	ND	1.0	12/05/16 12:21	
o-Xylene	ug/L	ND	1.0	12/05/16 12:21	
Toluene	ug/L	ND	1.0	12/05/16 12:21	
Xylene (Total)	ug/L	ND	1.0	12/05/16 12:21	
1,2-Dichloroethane-d4 (S)	%	97	70-130	12/05/16 12:21	
4-Bromofluorobenzene (S)	%	104	70-130	12/05/16 12:21	
Toluene-d8 (S)	%	114	70-130	12/05/16 12:21	

LABORATORY CONTROL SAMPLE: 1881854

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.2	104	70-130	
Benzene	ug/L	50	53.7	107	70-130	
Ethylbenzene	ug/L	50	51.2	102	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	46.2	92	70-130	
Naphthalene	ug/L	50	49.3	99	70-130	
o-Xylene	ug/L	50	50.2	100	70-130	
Toluene	ug/L	50	48.3	97	70-130	
Xylene (Total)	ug/L	150	151	101	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE SAMPLE: 1881856

Parameter	Units	92321587009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.9	115	70-130	
Benzene	ug/L	ND	20	24.0	120	70-130	
Ethylbenzene	ug/L	ND	20	23.4	117	70-130	
m&p-Xylene	ug/L	ND	40	46.2	116	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	19.4	97	70-130	
Naphthalene	ug/L	ND	20	20.7	104	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

MATRIX SPIKE SAMPLE: 1881856

Parameter	Units	92321587009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	23.5	117	70-130	
Toluene	ug/L	ND	20	23.0	115	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1881855

Parameter	Units	92321587008 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	0.52J	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	105	95	10	
4-Bromofluorobenzene (S)	%	102	100	1	
Toluene-d8 (S)	%	114	107	6	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

QC Batch: 339399
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321540006

METHOD BLANK: 1882244
Matrix: Water
Associated Lab Samples: 92321540006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/05/16 16:39	
Benzene	ug/L	ND	1.0	12/05/16 16:39	
Ethylbenzene	ug/L	ND	1.0	12/05/16 16:39	
m&p-Xylene	ug/L	ND	2.0	12/05/16 16:39	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/05/16 16:39	
Naphthalene	ug/L	ND	1.0	12/05/16 16:39	
o-Xylene	ug/L	ND	1.0	12/05/16 16:39	
Toluene	ug/L	ND	1.0	12/05/16 16:39	
Xylene (Total)	ug/L	ND	1.0	12/05/16 16:39	
1,2-Dichloroethane-d4 (S)	%	96	70-130	12/05/16 16:39	
4-Bromofluorobenzene (S)	%	97	70-130	12/05/16 16:39	
Toluene-d8 (S)	%	99	70-130	12/05/16 16:39	

LABORATORY CONTROL SAMPLE: 1882245

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.5	93	70-130	
Benzene	ug/L	50	52.0	104	70-130	
Ethylbenzene	ug/L	50	53.2	106	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	49.1	98	70-130	
Naphthalene	ug/L	50	49.5	99	70-130	
o-Xylene	ug/L	50	52.6	105	70-130	
Toluene	ug/L	50	50.4	101	70-130	
Xylene (Total)	ug/L	150	160	106	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1882707

Parameter	Units	92321624016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.5	92	70-130	
Benzene	ug/L	ND	20	22.0	110	70-130	
Ethylbenzene	ug/L	ND	20	21.8	109	70-130	
m&p-Xylene	ug/L	ND	40	43.4	108	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.0	100	70-130	
Naphthalene	ug/L	ND	20	20.4	102	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

MATRIX SPIKE SAMPLE: 1882707

Parameter	Units	92321624016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	21.3	107	70-130	
Toluene	ug/L	ND	20	21.5	107	70-130	
1,2-Dichloroethane-d4 (S)	%				91	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1882706

Parameter	Units	92321624015 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	87	90	3	
4-Bromofluorobenzene (S)	%	97	96	1	
Toluene-d8 (S)	%	98	97	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

QC Batch: 339621 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321540002, 92321540003

METHOD BLANK: 1883716 Matrix: Water
Associated Lab Samples: 92321540002, 92321540003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/06/16 22:24	
Benzene	ug/L	ND	1.0	12/06/16 22:24	
Ethylbenzene	ug/L	ND	1.0	12/06/16 22:24	
m&p-Xylene	ug/L	ND	2.0	12/06/16 22:24	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/06/16 22:24	
Naphthalene	ug/L	ND	1.0	12/06/16 22:24	
o-Xylene	ug/L	ND	1.0	12/06/16 22:24	
Toluene	ug/L	ND	1.0	12/06/16 22:24	
Xylene (Total)	ug/L	ND	1.0	12/06/16 22:24	
1,2-Dichloroethane-d4 (S)	%	89	70-130	12/06/16 22:24	
4-Bromofluorobenzene (S)	%	96	70-130	12/06/16 22:24	
Toluene-d8 (S)	%	98	70-130	12/06/16 22:24	

LABORATORY CONTROL SAMPLE: 1883717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.3	93	70-130	
Benzene	ug/L	50	53.9	108	70-130	
Ethylbenzene	ug/L	50	53.1	106	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	50.6	101	70-130	
Naphthalene	ug/L	50	52.5	105	70-130	
o-Xylene	ug/L	50	52.2	104	70-130	
Toluene	ug/L	50	52.2	104	70-130	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1883719

Parameter	Units	92321791039 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.5	92	70-130	
Benzene	ug/L	ND	20	22.4	110	70-130	
Ethylbenzene	ug/L	37.0	20	54.3	87	70-130	
m&p-Xylene	ug/L	121	40	153	81	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.8	104	70-130	
Naphthalene	ug/L	28.2	20	45.6	87	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

MATRIX SPIKE SAMPLE: 1883719

Parameter	Units	92321791039 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	61.1	20	76.5	77	70-130	
Toluene	ug/L	3.8	20	24.6	104	70-130	
1,2-Dichloroethane-d4 (S)	%				90	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1883718

Parameter	Units	92321793001 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	89	89	0	
4-Bromofluorobenzene (S)	%	98	96	2	
Toluene-d8 (S)	%	99	99	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kindermorgan-Lewis Dr
Pace Project No.: 92321540

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92321540001	FB-01-113016	EPA 8260	339139		
92321540002	MW-13B-113016	EPA 8260	339621		
92321540003	MW-15B-113016	EPA 8260	339621		
92321540004	MW-14B-113016	EPA 8260	339139		
92321540006	MW-14-113016	EPA 8260	339399		
92321540007	MW-38-113016	EPA 8260	339139		
92321540008	MW-37-113016	EPA 8260	339139		
92321540009	MW-12B-113016	EPA 8260	339353		
92321540010	TB-01-113016	EPA 8260	339139		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville [V] Eden [ ] Greenwood [ ] Huntersville [ ] Raleigh [ ] Mechanicsville [ ]

Sample Condition Upon Receipt

Client Name: CH2M Project

WO# : 92321540

92321540

Courier: [ ] Commercial [V] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] Other:

Custody Seal Present? [V] Yes [ ] No Seals Intact? [ ] Yes [ ] No

Date/Initials Person Examining Contents: 12/1/16

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other:

Thermometer: [V] IR Gun ID: 5

Type of Ice: [V] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Correction Factor: 0 Cooler Temp Corrected (°C): 5.8

Biological Tissue Frozen? [ ] Yes [ ] No [ ] N/A

Temp should be above freezing to 6°C

USDA Regulated Soil ([ ] N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? [ ] Yes [ ] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [V] No

				Comments/Discrepancy:
Chain of Custody Present?	[V] Yes	[ ] No	[ ] N/A	1.
Samples Arrived within Hold Time?	[V] Yes	[ ] No	[ ] N/A	2.
Short Hold Time Analysis (<72 hr.)?	[ ] Yes	[V] No	[ ] N/A	3.
Rush Turn Around Time Requested?	[ ] Yes	[V] No	[ ] N/A	4.
Sufficient Volume?	[V] Yes	[ ] No	[ ] N/A	5.
Correct Containers Used?	[V] Yes	[ ] No	[ ] N/A	6.
-Pace Containers Used?	[V] Yes	[ ] No	[ ] N/A	
Containers Intact?	[V] Yes	[ ] No	[ ] N/A	7.
Samples Field Filtered?	[ ] Yes	[ ] No	[V] N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	[V] Yes	[ ] No	[ ] N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	[ ] Yes	[V] No	[ ] N/A	10.
Trip Blank Present?	[V] Yes	[ ] No	[ ] N/A	11.
Trip Blank Custody Seals Present?	[V] Yes	[ ] No	[ ] N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? [ ] Yes [ ] No

Person Contacted: Bethany Gurley Date/Time: 12/1/16

Comments/Sample Discrepancy: client instructed to cancel MW-15 K6.

Project Manager SCURF Review: JD Date: 12/1/16

Project Manager SRF Review: JD Date: 12/1/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Project **WO# : 92321540**

PM: KRG **Due Date: 12/08/16**

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
1																3													
2																3													
3																3													
4																3													
5																3													
6																3													
7																3													
8																3													
9																3													
10																2													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: CH2M	Report To: Wiley, Tom	Attention: Jerry Aycock
Address: 6600 Peachtree Dunwoody Rd	Copy To: Bethany Garvey	Company Name: Plantation Pipe Line
400 Embassy Row Ste 600, Atlanta, GA 30328	Bill Waldron	Address: 1000 Windward Concourse ste 450
Email: bgarvey@ch2m.com	Purchase Order #:	Pace Quote:
Phone: 678-530-4126 Fax	Project Name: Kindermorgan-Lewis Dr	Pace Project Manager: kevin.godwin@pacelabs.com,
Requested Due Date: 7 day 2/16	Project #: 669228.ID.PS.LA	Pace Profile #: 7463-3

Regulatory Agency:

State / Location: SC

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Trip BLANK	8260 (BTEXMN+12DCA)	Nitrate	Alkalinity, Sulfate	Carbon Dioxide AM20GAX	Methane by RSK-175	DI Water	Residual Chlorine (Y/N)	92321540
1	FB-01-113016	WT	G	11/30/16	0850				3				X							X							001
2	MW-13B-113016				1010																						002
3	MW-15B-113016				1020																						003
4	MW-14B-113016				1125																						004
5	MW-15-113016				1155																						005
6	MW-14-113016				1225																						006
7	MW-38-113016				1450																						007
8	MW-37-113016				1540																						008
9	MW-12B-113016				1535																						009
10	TB-01-113016				1020				2										X								010
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Justine McCamm / CH2M	11/30/16	1800	[signature]	12/1/16	10:30	3.8	Y	Y	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Justine McCamm

SIGNATURE of SAMPLER: Justine McCamm DATE Signed: 11/30/16

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 13, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on December 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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SAMPLE ANALYTE COUNT

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92321665001	**FB-01-120116**	EPA 8260	GAW	12	PASI-C
92321665002	**TB-01-120116**	EPA 8260	GAW	12	PASI-C
92321665003	**MW-01B-120116**	EPA 8260	GAW	12	PASI-C
92321665004	**MW-35-120116**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92321665005	**MW-25-120116**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92321665006	**MW-17B-120116**	EPA 8260	GAW	12	PASI-C
92321665007	**MW-26B-120116**	EPA 8260	GAW	12	PASI-C
92321665008	**MW-26-120116**	EPA 8260	GAW	12	PASI-C
92321665009	**MW-25B-120116**	EPA 8260	GAW	12	PASI-C

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: FB-01-120116 **Lab ID: 92321665001** Collected: 12/01/16 08:40 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 16:56	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 16:56	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 16:56	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 16:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 16:56	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 16:56	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 16:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 16:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 16:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/05/16 16:56	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/05/16 16:56	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		12/05/16 16:56	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: TB-01-120116 **Lab ID: 92321665002** Collected: 12/01/16 09:00 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 17:13	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 17:13	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 17:13	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 17:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 17:13	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 17:13	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 17:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 17:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 17:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		12/05/16 17:13	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/05/16 17:13	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		12/05/16 17:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-01B-120116 **Lab ID: 92321665003** Collected: 12/01/16 09:45 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 17:47	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 17:47	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 17:47	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 17:47	1634-04-4	
Naphthalene	**1.3**	ug/L	1.0	1		12/05/16 17:47	91-20-3	
Toluene	**1.4**	ug/L	1.0	1		12/05/16 17:47	108-88-3	
Xylene (Total)	**5.6**	ug/L	1.0	1		12/05/16 17:47	1330-20-7	
m&p-Xylene	**3.0**	ug/L	2.0	1		12/05/16 17:47	179601-23-1	
o-Xylene	**2.6**	ug/L	1.0	1		12/05/16 17:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		12/05/16 17:47	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/05/16 17:47	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		12/05/16 17:47	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-35-120116 **Lab ID: 92321665004** Collected: 12/01/16 10:50 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	ND	ug/L	10.0	1		12/07/16 14:27	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 22:02	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 22:02	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 22:02	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 22:02	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 22:02	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 22:02	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 22:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 22:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 22:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/05/16 22:02	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		12/05/16 22:02	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		12/05/16 22:02	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/05/16 22:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/06/16 17:25	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.58**	mg/L	0.020	1		12/02/16 18:19		

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-25-120116 **Lab ID: 92321665005** Collected: 12/01/16 12:40 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	**3980**	ug/L	100	10		12/07/16 14:42	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**675**	ug/L	5.0	5		12/07/16 00:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	5		12/07/16 00:57	107-06-2	
Ethylbenzene	**30.2**	ug/L	5.0	5		12/07/16 00:57	100-41-4	
Methyl-tert-butyl ether	**5.9**	ug/L	5.0	5		12/07/16 00:57	1634-04-4	
Naphthalene	**29.7**	ug/L	5.0	5		12/07/16 00:57	91-20-3	
Toluene	**15.3**	ug/L	5.0	5		12/07/16 00:57	108-88-3	
Xylene (Total)	**619**	ug/L	5.0	5		12/07/16 00:57	1330-20-7	
m&p-Xylene	**273**	ug/L	10.0	5		12/07/16 00:57	179601-23-1	
o-Xylene	**346**	ug/L	5.0	5		12/07/16 00:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	5		12/07/16 00:57	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	5		12/07/16 00:57	17060-07-0	
Toluene-d8 (S)	99	%	70-130	5		12/07/16 00:57	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**8.3**	mg/L	5.0	1		12/05/16 23:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/06/16 17:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.028**	mg/L	0.020	1		12/02/16 18:19		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-17B-120116 **Lab ID: 92321665006** Collected: 12/01/16 11:30 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**9370**	ug/L	100	100		12/07/16 01:14	71-43-2	
1,2-Dichloroethane	ND	ug/L	100	100		12/07/16 01:14	107-06-2	
Ethylbenzene	**761**	ug/L	100	100		12/07/16 01:14	100-41-4	
Methyl-tert-butyl ether	**954**	ug/L	100	100		12/07/16 01:14	1634-04-4	
Naphthalene	**112**	ug/L	100	100		12/07/16 01:14	91-20-3	
Toluene	**16900**	ug/L	100	100		12/07/16 01:14	108-88-3	
Xylene (Total)	**4500**	ug/L	100	100		12/07/16 01:14	1330-20-7	
m&p-Xylene	**2960**	ug/L	200	100		12/07/16 01:14	179601-23-1	
o-Xylene	**1540**	ug/L	100	100		12/07/16 01:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	100		12/07/16 01:14	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	100		12/07/16 01:14	17060-07-0	
Toluene-d8 (S)	99	%	70-130	100		12/07/16 01:14	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-26B-120116 **Lab ID: 92321665007** Collected: 12/01/16 15:15 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 18:04	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 18:04	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 18:04	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 18:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 18:04	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 18:04	108-88-3	
Xylene (Total)	**1.3**	ug/L	1.0	1		12/05/16 18:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 18:04	179601-23-1	
o-Xylene	**1.3**	ug/L	1.0	1		12/05/16 18:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/05/16 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		12/05/16 18:04	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		12/05/16 18:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-26-120116 **Lab ID: 92321665008** Collected: 12/01/16 14:00 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 18:21	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 18:21	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 18:21	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 18:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 18:21	91-20-3	
Toluene	**2.3**	ug/L	1.0	1		12/05/16 18:21	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 18:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 18:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 18:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		12/05/16 18:21	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/05/16 18:21	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		12/05/16 18:21	2037-26-5	

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ANALYTICAL RESULTS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Sample: MW-25B-120116 **Lab ID: 92321665009** Collected: 12/01/16 15:35 Received: 12/02/16 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/05/16 18:38	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/05/16 18:38	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/05/16 18:38	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/05/16 18:38	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/05/16 18:38	91-20-3	
Toluene	ND	ug/L	1.0	1		12/05/16 18:38	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/05/16 18:38	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/05/16 18:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/05/16 18:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/05/16 18:38	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		12/05/16 18:38	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		12/05/16 18:38	2037-26-5	

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339721
QC Batch Method: RSK 175 Modified
Analysis Method: RSK 175 Modified
Analysis Description: RSK 175 HEADSPACE
Associated Lab Samples: 92321665004, 92321665005

METHOD BLANK: 1884054 Matrix: Water
Associated Lab Samples: 92321665004, 92321665005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/07/16 14:11	N2

LABORATORY CONTROL SAMPLE: 1884055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	396	333	84	70-130	N2

MATRIX SPIKE SAMPLE: 1884056

Parameter	Units	92321771001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	ND	396	365	92	70-130	N2

SAMPLE DUPLICATE: 1884057

Parameter	Units	92321771002 Result	Dup Result	RPD	Qualifiers
Methane	ug/L	ND	ND		N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339382 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321665001, 92321665002, 92321665003, 92321665004, 92321665007, 92321665008, 92321665009

METHOD BLANK: 1882024 Matrix: Water
Associated Lab Samples: 92321665001, 92321665002, 92321665003, 92321665004, 92321665007, 92321665008, 92321665009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/05/16 16:21	
Benzene	ug/L	ND	1.0	12/05/16 16:21	
Ethylbenzene	ug/L	ND	1.0	12/05/16 16:21	
m&p-Xylene	ug/L	ND	2.0	12/05/16 16:21	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/05/16 16:21	
Naphthalene	ug/L	ND	1.0	12/05/16 16:21	
o-Xylene	ug/L	ND	1.0	12/05/16 16:21	
Toluene	ug/L	ND	1.0	12/05/16 16:21	
Xylene (Total)	ug/L	ND	1.0	12/05/16 16:21	
1,2-Dichloroethane-d4 (S)	%	93	70-130	12/05/16 16:21	
4-Bromofluorobenzene (S)	%	98	70-130	12/05/16 16:21	
Toluene-d8 (S)	%	98	70-130	12/05/16 16:21	

LABORATORY CONTROL SAMPLE: 1882025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.6	89	70-130	
Benzene	ug/L	50	50.9	102	70-130	
Ethylbenzene	ug/L	50	52.3	105	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	47.3	95	70-130	
Naphthalene	ug/L	50	49.5	99	70-130	
o-Xylene	ug/L	50	51.6	103	70-130	
Toluene	ug/L	50	49.4	99	70-130	
Xylene (Total)	ug/L	150	156	104	70-130	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE SAMPLE: 1882027

Parameter	Units	92321702011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.0	99	70-130	
Benzene	ug/L	ND	20	23.6	118	70-130	
Ethylbenzene	ug/L	ND	20	22.8	114	70-130	
m&p-Xylene	ug/L	ND	40	44.8	112	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	21.3	106	70-130	
Naphthalene	ug/L	ND	20	20.4	102	70-130	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

MATRIX SPIKE SAMPLE: 1882027

Parameter	Units	92321702011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	22.3	112	70-130	
Toluene	ug/L	ND	20	22.2	111	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				95	70-130	

SAMPLE DUPLICATE: 1882026

Parameter	Units	92321702010 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	97	96	2	
4-Bromofluorobenzene (S)	%	97	97	0	
Toluene-d8 (S)	%	97	99	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339621 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321665005, 92321665006

METHOD BLANK: 1883716 Matrix: Water
Associated Lab Samples: 92321665005, 92321665006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/06/16 22:24	
Benzene	ug/L	ND	1.0	12/06/16 22:24	
Ethylbenzene	ug/L	ND	1.0	12/06/16 22:24	
m&p-Xylene	ug/L	ND	2.0	12/06/16 22:24	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/06/16 22:24	
Naphthalene	ug/L	ND	1.0	12/06/16 22:24	
o-Xylene	ug/L	ND	1.0	12/06/16 22:24	
Toluene	ug/L	ND	1.0	12/06/16 22:24	
Xylene (Total)	ug/L	ND	1.0	12/06/16 22:24	
1,2-Dichloroethane-d4 (S)	%	89	70-130	12/06/16 22:24	
4-Bromofluorobenzene (S)	%	96	70-130	12/06/16 22:24	
Toluene-d8 (S)	%	98	70-130	12/06/16 22:24	

LABORATORY CONTROL SAMPLE: 1883717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.3	93	70-130	
Benzene	ug/L	50	53.9	108	70-130	
Ethylbenzene	ug/L	50	53.1	106	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	50.6	101	70-130	
Naphthalene	ug/L	50	52.5	105	70-130	
o-Xylene	ug/L	50	52.2	104	70-130	
Toluene	ug/L	50	52.2	104	70-130	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1883719

Parameter	Units	92321791039 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.5	92	70-130	
Benzene	ug/L	ND	20	22.4	110	70-130	
Ethylbenzene	ug/L	37.0	20	54.3	87	70-130	
m&p-Xylene	ug/L	121	40	153	81	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	20.8	104	70-130	
Naphthalene	ug/L	28.2	20	45.6	87	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

MATRIX SPIKE SAMPLE: 1883719

Parameter	Units	92321791039 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	61.1	20	76.5	77	70-130	
Toluene	ug/L	3.8	20	24.6	104	70-130	
1,2-Dichloroethane-d4 (S)	%				90	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1883718

Parameter	Units	92321793001 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	89	89	0	
4-Bromofluorobenzene (S)	%	98	96	2	
Toluene-d8 (S)	%	99	99	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339291 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92321665004, 92321665005

METHOD BLANK: 1881486 Matrix: Water
Associated Lab Samples: 92321665004, 92321665005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	12/05/16 21:56	

LABORATORY CONTROL SAMPLE: 1881487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	47.5	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1881488 1881489

Parameter	Units	92321642041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	49.3	49.2	99	98	80-120	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1881490 1881491

Parameter	Units	92321730005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	410	50	50	463	454	106	88	80-120	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339189
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92321665004, 92321665005

METHOD BLANK: 1880836 Matrix: Water
Associated Lab Samples: 92321665004, 92321665005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	12/06/16 16:39	

LABORATORY CONTROL SAMPLE: 1880837

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.9	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1880838 1880839

Parameter	Units	92320770001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	3.7	20	20	22.1	22.1	92	92	90-110	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1880840 1880841

Parameter	Units	92321623012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	35.5	20	20	52.5	52.5	85	85	90-110	0	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

QC Batch: 339214
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92321665004, 92321665005

METHOD BLANK: 1881212 Matrix: Water
Associated Lab Samples: 92321665004, 92321665005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	12/02/16 18:19	

LABORATORY CONTROL SAMPLE: 1881213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.5	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1881214 1881215

Parameter	Units	92321665004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	0.58	2.5	2.5	2.9	3.0	94	95	90-110	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter.

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kindermorgan-Lewis Dr.
Pace Project No.: 92321665

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92321665004	**MW-35-120116**	RSK 175 Modified	339721		
92321665005	**MW-25-120116**	RSK 175 Modified	339721		
92321665001	**FB-01-120116**	EPA 8260	339382		
92321665002	**TB-01-120116**	EPA 8260	339382		
92321665003	**MW-01B-120116**	EPA 8260	339382		
92321665004	**MW-35-120116**	EPA 8260	339382		
92321665005	**MW-25-120116**	EPA 8260	339621		
92321665006	**MW-17B-120116**	EPA 8260	339621		
92321665007	**MW-26B-120116**	EPA 8260	339382		
92321665008	**MW-26-120116**	EPA 8260	339382		
92321665009	**MW-25B-120116**	EPA 8260	339382		
92321665004	**MW-35-120116**	SM 2320B	339291		
92321665005	**MW-25-120116**	SM 2320B	339291		
92321665004	**MW-35-120116**	EPA 300.0	339189		
92321665005	**MW-25-120116**	EPA 300.0	339189		
92321665004	**MW-35-120116**	EPA 353.2	339214		
92321665005	**MW-25-120116**	EPA 353.2	339214		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville ☑ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: CH2M Proje

WO# : 92321665

92321665

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Date/Initials Person Examining Contents: RDT 12/2/16

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other:____

Thermometer: ☑ IR Gun ID: 5 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Correction Factor: 0 Cooler Temp Corrected (°C): 4.3 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☑ Yes	☐ No	☐ N/A	3. Nitrate PD: 12/2/16
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: ____ Date/Time: ____

Comments/Sample Discrepancy: ____

Project Manager SCURF Review: [signature] Date: 12/5/16

Project Manager SRF Review: [signature] Date: 12/5/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Project # WO#: 92321665

PM: KRG Due Date: 12/09/16

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
1																3													
2																2													
3																3													
4	1	1														5		2											
5																3		3											
6	1	1														6													
7																3		3											
8																3													
9																3													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 Of 1

Section A — Required Client Information:

- Company: CH2M
- Address: 6600 Peachtree Dunwoody Rd
- 400 Embassy Row Ste 600, Atlanta, GA 30328
- Email: bgarvey@ch2m.com
- Phone: (678) 530-4124 Fax:
- Requested Due Date: 2 weeks

Section B — Required Project Information:

- Report To: Wiley, Tom
- Copy To: Bethany Garvey, Bill Waldron
- Purchase Order #:
- Project Name: Kindermorgan-Lewis Dr
- Project #: i.i.A228.LD.FS.LA

Section C — Invoice Information:

- Attention: Terry Aycock
- Company Name: Plantation Pipeline
- Address: 1000 Windward Concourse
- Pace Quote:
- Pace Project Manager: kevin.godwin@pacelabs.com,
- Pace Profile #: 7463-3

Regulatory Agency:

State / Location: SC

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other Benzalkonium Chloride	Analyses Test Y/N	Trip BLANK	8260 (BTEXMN+12DCA)	Nitrate	Alkalinity, Sulfate	Carbon Dioxide AM20GAX	Methane by RSK-175	DI Water	Residual Chlorine (Y/N)	92321665
1	FB-01-120116	WT	G	12/1/16	0840				2				X							X							001
2	TB-01-120116				0900				2										X								002
3	MW-01B-120116				0945				3 JM											X							003
4	MW-35-120116				1050				10	X							X			X	X	X	X	X			004
5	MW-17R-120116				1130				3											X							006
6	MW-25-120116				1240				10	X							X			X	X	X	X	X			005
7	MW-26B-120116				1515				3											X							007
8	MW-26-120116				1400				3											X							008
9	MW-25R-120116				1535				3											X							009
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Justin McCann CH2M	12/1/16	1800	Rob Davis TestAm	12/2/16	10:37	4.3	Y	Y	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Justin McCann

SIGNATURE of SAMPLER: Justin McCann DATE Signed: 12/1/16

Intra-Regional Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 92321665 **Workorder Name:** Kindermorgan-Lewis Dr. **Owner Received Date:** 12/2/2016 **Due Date:** 12/9/2016

Received at:	Send To Lab:
Pace Analytical Asheville 2225 Riverside Dr. Asheville, NC 28804 Phone (828)254-7176	Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092

Report To:
Kevin Godwin

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCL	Preserved Containers: Unpreserved	Requested Analysis: HSK 176 Modified	Requested Analysis: EPA 8260	Requested Analysis: (additional)	LAB USE ONLY
1	FB-01-120116	PS	12/1/2016 08:40	92321665001	Water	3	X*		X		
2	TB-01-120116	PS	12/1/2016 09:00	92321665002	Water	3			X		
3	MW-01B-120116	PS	12/1/2016 09:45	92321665003	Water	3			X		
4	MW-35-120116	PS	12/1/2016 10:50	92321665004	Water	3	3	X	X	X*	
5	MW-25-120116	PS	12/1/2016 12:40	92321665005	Water	3	3	X	X	X	
6	MW-17R-120116	PS	12/1/2016 11:30	92321665006	Water	3			X		
7	MW-26B-120116	PS	12/1/2016 15:15	92321665007	Water	3			X		
8	MW-26-120116	PS	12/1/2016 14:00	92321665008	Water	3			X		
9	MW-25B-120116	PS	12/1/2016 15:35	92321665009	Water	3			X		

Comments

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	12/2/16 0900	[illegible]	12/2/16 1223
2	[illegible]	12/2/16 09:45	[illegible]	1223 900
3				
4				

Cooler Temperature on Receipt 2.3 °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

December 12, 2016

Kevin Godwin
Pace Analytical Services, Inc.
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078

RE: **KINDERMORGAN-LEWIS DR.**
Pace Workorder: *21177*

Dear Kevin Godwin:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, December 06, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 12/12/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 11

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 21177 KINDERMORGAN-LEWIS DR.

Lab ID	Sample ID	Matrix	Date Collected	Date Received
211770001	MW-35-120116	Water	12/1/2016 10:50	12/6/2016 11:30
211770002	MW-25-120116	Water	12/1/2016 12:40	12/6/2016 11:30

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 21177 KINDERMORGAN-LEWIS DR.

Lab ID: **211770001** Date Received: 12/6/2016 11:30 Matrix: Water
Sample ID: **MW-35-120116** Date Collected: 12/1/2016 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**61**	mg/l	5.0	0.45	1	12/8/2016 11:49	BW	n

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 21177 KINDERMORGAN-LEWIS DR.

Lab ID: **211770002** Date Received: 12/6/2016 11:30 Matrix: Water
Sample ID: **MW-25-120116** Date Collected: 12/1/2016 12:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**60**	mg/l	5.0	0.45	1	12/8/2016 11:58	BW	n

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS QUALIFIERS

Workorder: 21177 KINDERMORGAN-LEWIS DR.

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 21177 KINDERMORGAN-LEWIS DR.

QC Batch: DISG/5792 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 211770001, 211770002

METHOD BLANK: 45885

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	0.45U	0.45	n

LABORATORY CONTROL SAMPLE & LCSD: 45887 45889

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	120	120	110	99	97	80-120	2	20	n

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA QUALIFIERS

Workorder: 21177 KINDERMORGAN-LEWIS DR.

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 21177 KINDERMORGAN-LEWIS DR.

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
211770001	MW-35-120116			AM20GAX	DISG/5792
211770002	MW-25-120116			AM20GAX	DISG/5792

Chain of Custody

21177

Pace Analytical
www.pacelabs.com

Workorder: 92321665 **Workorder Name:** Kindermorgan-Lewis Dr. **Results Requested By:** 12/9/2016

Report / Invoice To	Subcontract To	Requested Analysis
Kevin Godwin Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: kevin.godwin@pacelabs.com	Pace Energy P.O. KRG 16130 220 William Pit Way Pittsburgh, PA 15238	

State of Sample Origin: SC

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	AM20GAX carbon Dioxide	LAB USE ONLY
1	MW-35-120116	12/1/2016 10:50	92321665004	Water	2	X	
2	MW-25-120116	12/1/2016 12:40	92321665005	Water	2	X	
3							
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1			[illegible] PACE	12.6.16 1130
2				
3				

Comments

Cooler Temperature on Receipt 2.4 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

Cooler Receipt Form

Client Name: Pace H Project: Kinder Morgan - Lewis Dr Lab Work Order: 21177

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7778 6628 9186

Custody Seal on Cooler/Box Present: Yes (No) Seals Intact: Yes No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 2.4°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: CY Date: 12.6.16

Project Manager Review: RW Date: 12-7-16

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 08, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory between December 03, 2016 and December 05, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92321772001	**FB-01-120216**	EPA 8260	GAW	12	PASI-C
92321772002	**MW-06-120216**	EPA 8260	GAW	12	PASI-C
92321772003	**MW-23-120216**	EPA 8260	GAW	12	PASI-C
92321772004	**MW-23B-120216**	EPA 8260	GAW	12	PASI-C
92321772005	**MW-27B-120216**	EPA 8260	GAW	12	PASI-C
92321772006	**TB-01-120216**	EPA 8260	GAW	12	PASI-C

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: FB-01-120216 **Lab ID: 92321772001** Collected: 12/02/16 08:00 Received: 12/05/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/06/16 16:29	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/06/16 16:29	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/06/16 16:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/06/16 16:29	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/06/16 16:29	91-20-3	
Toluene	ND	ug/L	1.0	1		12/06/16 16:29	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/06/16 16:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/06/16 16:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/06/16 16:29	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		12/06/16 16:29	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/06/16 16:29	17060-07-0	
Toluene-d8 (S)	111	%	70-130	1		12/06/16 16:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: MW-06-120216 **Lab ID: 92321772002** Collected: 12/02/16 10:00 Received: 12/05/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/06/16 18:54	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/06/16 18:54	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/06/16 18:54	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/06/16 18:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/06/16 18:54	91-20-3	
Toluene	ND	ug/L	1.0	1		12/06/16 18:54	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/06/16 18:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/06/16 18:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/06/16 18:54	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/06/16 18:54	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		12/06/16 18:54	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/06/16 18:54	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: MW-23-120216 **Lab ID: 92321772003** Collected: 12/02/16 10:45 Received: 12/03/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**450**	ug/L	5.0	5		12/07/16 21:38	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	5		12/07/16 21:38	107-06-2	
Ethylbenzene	ND	ug/L	5.0	5		12/07/16 21:38	100-41-4	
Methyl-tert-butyl ether	**46.4**	ug/L	5.0	5		12/07/16 21:38	1634-04-4	
Naphthalene	**5.9**	ug/L	5.0	5		12/07/16 21:38	91-20-3	
Toluene	**14.6**	ug/L	5.0	5		12/07/16 21:38	108-88-3	
Xylene (Total)	**336**	ug/L	5.0	5		12/07/16 21:38	1330-20-7	
m&p-Xylene	**226**	ug/L	10.0	5		12/07/16 21:38	179601-23-1	
o-Xylene	**110**	ug/L	5.0	5		12/07/16 21:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	5		12/07/16 21:38	460-00-4	D3
1,2-Dichloroethane-d4 (S)	95	%	70-130	5		12/07/16 21:38	17060-07-0	
Toluene-d8 (S)	105	%	70-130	5		12/07/16 21:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: MW-23B-120216 **Lab ID: 92321772004** Collected: 12/02/16 09:40 Received: 12/03/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/06/16 19:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/06/16 19:27	107-06-2	
Ethylbenzene	**1.4**	ug/L	1.0	1		12/06/16 19:27	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/06/16 19:27	1634-04-4	
Naphthalene	**1.3**	ug/L	1.0	1		12/06/16 19:27	91-20-3	
Toluene	**3.5**	ug/L	1.0	1		12/06/16 19:27	108-88-3	
Xylene (Total)	**11.0**	ug/L	1.0	1		12/06/16 19:27	1330-20-7	
m&p-Xylene	**6.6**	ug/L	2.0	1		12/06/16 19:27	179601-23-1	
o-Xylene	**4.4**	ug/L	1.0	1		12/06/16 19:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		12/06/16 19:27	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/06/16 19:27	17060-07-0	
Toluene-d8 (S)	108	%	70-130	1		12/06/16 19:27	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: MW-27B-120216 **Lab ID: 92321772005** Collected: 12/02/16 11:45 Received: 12/03/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/06/16 19:43	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/06/16 19:43	107-06-2	
Ethylbenzene	**5.3**	ug/L	1.0	1		12/06/16 19:43	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/06/16 19:43	1634-04-4	
Naphthalene	**8.9**	ug/L	1.0	1		12/06/16 19:43	91-20-3	
Toluene	**9.1**	ug/L	1.0	1		12/06/16 19:43	108-88-3	
Xylene (Total)	**45.7**	ug/L	1.0	1		12/06/16 19:43	1330-20-7	
m&p-Xylene	**27.1**	ug/L	2.0	1		12/06/16 19:43	179601-23-1	
o-Xylene	**18.6**	ug/L	1.0	1		12/06/16 19:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		12/06/16 19:43	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/06/16 19:43	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/06/16 19:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Sample: TB-01-120216 **Lab ID: 92321772006** Collected: 12/02/16 12:10 Received: 12/03/16 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/06/16 16:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/06/16 16:45	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/06/16 16:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/06/16 16:45	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/06/16 16:45	91-20-3	
Toluene	ND	ug/L	1.0	1		12/06/16 16:45	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/06/16 16:45	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/06/16 16:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/06/16 16:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		12/06/16 16:45	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/06/16 16:45	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/06/16 16:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

QC Batch: 339571 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321772001, 92321772002, 92321772004, 92321772005, 92321772006

METHOD BLANK: 1883063 Matrix: Water
Associated Lab Samples: 92321772001, 92321772002, 92321772004, 92321772005, 92321772006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/06/16 16:12	
Benzene	ug/L	ND	1.0	12/06/16 16:12	
Ethylbenzene	ug/L	ND	1.0	12/06/16 16:12	
m&p-Xylene	ug/L	ND	2.0	12/06/16 16:12	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/06/16 16:12	
Naphthalene	ug/L	ND	1.0	12/06/16 16:12	
o-Xylene	ug/L	ND	1.0	12/06/16 16:12	
Toluene	ug/L	ND	1.0	12/06/16 16:12	
Xylene (Total)	ug/L	ND	1.0	12/06/16 16:12	
1,2-Dichloroethane-d4 (S)	%	92	70-130	12/06/16 16:12	
4-Bromofluorobenzene (S)	%	101	70-130	12/06/16 16:12	
Toluene-d8 (S)	%	108	70-130	12/06/16 16:12	

LABORATORY CONTROL SAMPLE: 1883064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.8	102	70-130	
Benzene	ug/L	50	52.4	105	70-130	
Ethylbenzene	ug/L	50	50.3	101	70-130	
m&p-Xylene	ug/L	100	99.1	99	70-130	
Methyl-tert-butyl ether	ug/L	50	48.9	98	70-130	
Naphthalene	ug/L	50	49.6	99	70-130	
o-Xylene	ug/L	50	49.9	100	70-130	
Toluene	ug/L	50	48.3	97	70-130	
Xylene (Total)	ug/L	150	149	99	70-130	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1883066

Parameter	Units	92321737004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.6	112	70-130	
Benzene	ug/L	ND	20	23.3	117	70-130	
Ethylbenzene	ug/L	ND	20	22.8	114	70-130	
m&p-Xylene	ug/L	ND	40	45.9	115	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.3	86	70-130	
Naphthalene	ug/L	ND	20	19.3	96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

MATRIX SPIKE SAMPLE: 1883066

Parameter	Units	92321737004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	22.7	113	70-130	
Toluene	ug/L	ND	20	22.5	112	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1883065

Parameter	Units	92321737003 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	2.8	3.1	8	
Benzene	ug/L	2.0	2.2	8	
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	91	96	5	
4-Bromofluorobenzene (S)	%	103	104	1	
Toluene-d8 (S)	%	109	108	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

QC Batch: 339789
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92321772003

METHOD BLANK: 1884447
Matrix: Water
Associated Lab Samples: 92321772003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/07/16 14:54	
Benzene	ug/L	ND	1.0	12/07/16 14:54	
Ethylbenzene	ug/L	ND	1.0	12/07/16 14:54	
m&p-Xylene	ug/L	ND	2.0	12/07/16 14:54	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/07/16 14:54	
Naphthalene	ug/L	ND	1.0	12/07/16 14:54	
o-Xylene	ug/L	ND	1.0	12/07/16 14:54	
Toluene	ug/L	ND	1.0	12/07/16 14:54	
Xylene (Total)	ug/L	ND	1.0	12/07/16 14:54	
1,2-Dichloroethane-d4 (S)	%	91	70-130	12/07/16 14:54	
4-Bromofluorobenzene (S)	%	100	70-130	12/07/16 14:54	
Toluene-d8 (S)	%	108	70-130	12/07/16 14:54	

LABORATORY CONTROL SAMPLE: 1884448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.7	99	70-130	
Benzene	ug/L	50	52.8	106	70-130	
Ethylbenzene	ug/L	50	50.1	100	70-130	
m&p-Xylene	ug/L	100	100	100	70-130	
Methyl-tert-butyl ether	ug/L	50	47.0	94	70-130	
Naphthalene	ug/L	50	50.2	100	70-130	
o-Xylene	ug/L	50	50.9	102	70-130	
Toluene	ug/L	50	47.6	95	70-130	
Xylene (Total)	ug/L	150	151	101	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE SAMPLE: 1884449

Parameter	Units	92321791054 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	400	428	107	70-130	
Benzene	ug/L	134	400	615	120	70-130	
Ethylbenzene	ug/L	1470	400	1820	87	70-130	
m&p-Xylene	ug/L	2970	800	3590	77	70-130	
Methyl-tert-butyl ether	ug/L	ND	400	374	93	70-130	
Naphthalene	ug/L	841	400	1230	97	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

MATRIX SPIKE SAMPLE: 1884449

Parameter	Units	92321791054 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	2230	400	2480	63	70-130	M1
Toluene	ug/L	1290	400	1510	55	70-130	M1
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				96	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1884450

Parameter	Units	92321746002 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	3.9J	ND		
m&p-Xylene	ug/L	8.7J	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	5.5J	ND		
o-Xylene	ug/L	2.9J	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	95	94	1	
4-Bromofluorobenzene (S)	%	101	98	4	
Toluene-d8 (S)	%	109	108	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KINDERMORGAN-LEWIS 669228.I
Pace Project No.: 92321772

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92321772001	**FB-01-120216**	EPA 8260	339571		
92321772002	**MW-06-120216**	EPA 8260	339571		
92321772003	**MW-23-120216**	EPA 8260	339789		
92321772004	**MW-23B-120216**	EPA 8260	339571		
92321772005	**MW-27B-120216**	EPA 8260	339571		
92321772006	**TB-01-120216**	EPA 8260	339571		

Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: CH2M

Project #: WO# : 92321772

92321772

Courier: ☐ Commercial ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other:____

Date/Initials Person Examining Contents: TM 12/3

Thermometer: ☐ IR Gun ID: T1603

Type of Ice: ☑ Wet ☐ Blue ☐ None ☑ Samples on ice, cooling process has begun

Correction Factor: Cooler Temp Corrected (°C): 3.0

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Project Manager SCURF Review: JJ Date: 12/5/16

Project Manager SRF Review: JJ Date: 12/5/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Project # WO#: 92321772

PM: KRG Due Date: 12/12/16

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN
1																3													
2																3													
3																3													
4																3													
5																3													
6																2													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company: CH2M
Address: 6600 Peachtree Dunwoody Rd
400 Embassy Row Ste.600, Atlanta, GA 30328
Email: bgarvey@ch2m.com
Phone: 678-530-4124 Fax
Requested Due Date: 2 weeks

Section B
Required Project Information:

Report To: Wiley, Tom
Copy To: Bethany Garvey
Bill Waldron
Purchase Order #:
Project Name: Kindermorgan-Lewis Dr
Project #: 669228.LD.CR.CA

Section C
Invoice Information:

Attention: Jerry Aycock
Company Name: Plantation Pipeline
Address: 1000 Windward Concourse Ste 450
Pace Quote:
Pace Project Manager: kevin.godwin@pacelabs.com,
Pace Profile #: 7463-3

Regulatory Agency:
State / Location: SC

Requested Analysis Filtered (Y/N)

Matrix codes: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Trip BLANK	8260 (BTEXMN+12DCA)	Nitrate	Alkalinity, Sulfate	Carbon Dioxide AM20GAX	Methane by RSK-175	DI Water	Residual Chlorine (Y/N)	4232 1772
1	FB-01-120216	WT	G	12/2/16	0800				3				X							X							001
2	MW-06-120216	↓	↓		1000				↓				↓							↓							002
3	MW-23-120216	↓	↓		1045				↓				↓							↓							003
4	MW-23B-120216	↓	↓		0940				↓				↓							↓							004
5	MW-27B-120216	↓	↓		1145				↓				↓							↓							005
6	TB-01-120216	↓	↓		1210				2				↓						X								006
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Justine McCann / CH2M	12/2/16	1400				30	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Justine McCann

SIGNATURE of SAMPLER: Justine McCann DATE Signed: 12/2/16

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 20, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92322318001	**MW-08-120616**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322318002	**MW-03-120616**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322318003	**MW-10-120616**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322318004	**MW-32-120616**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322318005	**MW-04-120616**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322318006	**TRIP BLANK-120616**	EPA 8260	GAW	12	PASI-C

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: MW-08-120616 **Lab ID: 92322318001** Collected: 12/06/16 15:40 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	**18.6**	ug/L	10.0	1		12/19/16 12:48	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/08/16 21:38	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/08/16 21:38	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/08/16 21:38	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/08/16 21:38	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/08/16 21:38	91-20-3	
Toluene	**14.4**	ug/L	1.0	1		12/08/16 21:38	108-88-3	
Xylene (Total)	**7.1**	ug/L	1.0	1		12/08/16 21:38	1330-20-7	
m&p-Xylene	**4.8**	ug/L	2.0	1		12/08/16 21:38	179601-23-1	
o-Xylene	**2.3**	ug/L	1.0	1		12/08/16 21:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		12/08/16 21:38	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		12/08/16 21:38	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/08/16 21:38	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/08/16 19:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 16:19	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.020	1		12/07/16 19:26		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: MW-03-120616 **Lab ID: 92322318002** Collected: 12/06/16 14:00 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	**14.5**	ug/L	10.0	1		12/19/16 13:03	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**61.1**	ug/L	2.0	2		12/11/16 18:45	71-43-2	
1,2-Dichloroethane	ND	ug/L	2.0	2		12/11/16 18:45	107-06-2	
Ethylbenzene	**25.1**	ug/L	2.0	2		12/11/16 18:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		12/11/16 18:45	1634-04-4	
Naphthalene	**3.6**	ug/L	2.0	2		12/11/16 18:45	91-20-3	
Toluene	**229**	ug/L	2.0	2		12/11/16 18:45	108-88-3	
Xylene (Total)	**330**	ug/L	2.0	2		12/11/16 18:45	1330-20-7	
m&p-Xylene	**212**	ug/L	4.0	2		12/11/16 18:45	179601-23-1	
o-Xylene	**119**	ug/L	2.0	2		12/11/16 18:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	2		12/11/16 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	2		12/11/16 18:45	17060-07-0	
Toluene-d8 (S)	106	%	70-130	2		12/11/16 18:45	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**13.6**	mg/L	5.0	1		12/08/16 19:11		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 16:28	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.037**	mg/L	0.020	1		12/07/16 19:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: MW-10-120616 **Lab ID: 92322318003** Collected: 12/06/16 10:55 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	ND	ug/L	10.0	1		12/19/16 13:18	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/08/16 21:55	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/08/16 21:55	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/08/16 21:55	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/08/16 21:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/08/16 21:55	91-20-3	
Toluene	ND	ug/L	1.0	1		12/08/16 21:55	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/08/16 21:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/08/16 21:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/08/16 21:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		12/08/16 21:55	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/08/16 21:55	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/08/16 21:55	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/08/16 19:22		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 16:55	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**3.3**	mg/L	0.020	1		12/07/16 19:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: MW-32-120616 **Lab ID: 92322318004** Collected: 12/06/16 14:30 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	ND	ug/L	10.0	1		12/19/16 13:33	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/08/16 22:11	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/08/16 22:11	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/08/16 22:11	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/08/16 22:11	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/08/16 22:11	91-20-3	
Toluene	ND	ug/L	1.0	1		12/08/16 22:11	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/08/16 22:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/08/16 22:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/08/16 22:11	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/08/16 22:11	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/08/16 22:11	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		12/08/16 22:11	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/08/16 19:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 17:05	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**3.3**	mg/L	0.020	1		12/07/16 19:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: MW-04-120616 **Lab ID: 92322318005** Collected: 12/06/16 15:35 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	ND	ug/L	10.0	1		12/19/16 13:49	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/08/16 22:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/08/16 22:27	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/08/16 22:27	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/08/16 22:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/08/16 22:27	91-20-3	
Toluene	ND	ug/L	1.0	1		12/08/16 22:27	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/08/16 22:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/08/16 22:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/08/16 22:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/08/16 22:27	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		12/08/16 22:27	17060-07-0	
Toluene-d8 (S)	107	%	70-130	1		12/08/16 22:27	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/08/16 19:38		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 17:14	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.34**	mg/L	0.020	1		12/07/16 19:25		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Sample: TRIP BLANK-120616 **Lab ID: 92322318006** Collected: 12/06/16 16:50 Received: 12/07/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/08/16 15:32	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/08/16 15:32	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/08/16 15:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/08/16 15:32	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/08/16 15:32	91-20-3	
Toluene	ND	ug/L	1.0	1		12/08/16 15:32	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/08/16 15:32	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/08/16 15:32	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/08/16 15:32	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		12/08/16 15:32	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		12/08/16 15:32	17060-07-0	
Toluene-d8 (S)	109	%	70-130	1		12/08/16 15:32	2037-26-5	

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 340608 Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified Analysis Description: RSK 175 HEADSPACE
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

METHOD BLANK: 1889025 Matrix: Water
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/19/16 10:15	N2

LABORATORY CONTROL SAMPLE: 1889026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	396	468	118	70-130	N2

MATRIX SPIKE SAMPLE: 1895780

Parameter	Units	92322244007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	ND	396	475	120	70-130	N2

SAMPLE DUPLICATE: 1895781

Parameter	Units	92322244008 Result	Dup Result	RPD	Qualifiers
Methane	ug/L	ND	ND		N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 340011
QC Batch Method: EPA 8260
Associated Lab Samples: 92322318006

Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC

METHOD BLANK: 1885830
Associated Lab Samples: 92322318006

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/08/16 11:23	
Benzene	ug/L	ND	1.0	12/08/16 11:23	
Ethylbenzene	ug/L	ND	1.0	12/08/16 11:23	
m&p-Xylene	ug/L	ND	2.0	12/08/16 11:23	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/08/16 11:23	
Naphthalene	ug/L	ND	1.0	12/08/16 11:23	
o-Xylene	ug/L	ND	1.0	12/08/16 11:23	
Toluene	ug/L	ND	1.0	12/08/16 11:23	
Xylene (Total)	ug/L	ND	1.0	12/08/16 11:23	
1,2-Dichloroethane-d4 (S)	%	96	70-130	12/08/16 11:23	
4-Bromofluorobenzene (S)	%	98	70-130	12/08/16 11:23	
Toluene-d8 (S)	%	106	70-130	12/08/16 11:23	

LABORATORY CONTROL SAMPLE: 1885831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.5	93	70-130	
Benzene	ug/L	50	50.5	101	70-130	
Ethylbenzene	ug/L	50	48.2	96	70-130	
m&p-Xylene	ug/L	100	96.0	96	70-130	
Methyl-tert-butyl ether	ug/L	50	55.5	111	70-130	
Naphthalene	ug/L	50	50.8	102	70-130	
o-Xylene	ug/L	50	48.0	96	70-130	
Toluene	ug/L	50	47.7	95	70-130	
Xylene (Total)	ug/L	150	144	96	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1885833

Parameter	Units	92322078005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.2	106	70-130	
Benzene	ug/L	ND	20	23.1	116	70-130	
Ethylbenzene	ug/L	ND	20	22.4	112	70-130	
m&p-Xylene	ug/L	ND	40	45.2	113	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	21.5	107	70-130	
Naphthalene	ug/L	ND	20	19.3	94	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

MATRIX SPIKE SAMPLE: 1885833

Parameter	Units	92322078005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	22.6	113	70-130	
Toluene	ug/L	ND	20	22.0	110	70-130	
1,2-Dichloroethane-d4 (S)	%				107	70-130	
4-Bromofluorobenzene (S)	%				103	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1885832

Parameter	Units	92322078004 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	99	95	4	
4-Bromofluorobenzene (S)	%	100	99	1	
Toluene-d8 (S)	%	105	104	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 340069 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92322318001, 92322318003, 92322318004, 92322318005

METHOD BLANK: 1886320 Matrix: Water
Associated Lab Samples: 92322318001, 92322318003, 92322318004, 92322318005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/08/16 21:06	
Benzene	ug/L	ND	1.0	12/08/16 21:06	
Ethylbenzene	ug/L	ND	1.0	12/08/16 21:06	
m&p-Xylene	ug/L	ND	2.0	12/08/16 21:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/08/16 21:06	
Naphthalene	ug/L	ND	1.0	12/08/16 21:06	
o-Xylene	ug/L	ND	1.0	12/08/16 21:06	
Toluene	ug/L	ND	1.0	12/08/16 21:06	
Xylene (Total)	ug/L	ND	1.0	12/08/16 21:06	
1,2-Dichloroethane-d4 (S)	%	92	70-130	12/08/16 21:06	
4-Bromofluorobenzene (S)	%	98	70-130	12/08/16 21:06	
Toluene-d8 (S)	%	106	70-130	12/08/16 21:06	

LABORATORY CONTROL SAMPLE: 1886321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.6	101	70-130	
Benzene	ug/L	50	56.1	112	70-130	
Ethylbenzene	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	48.1	96	70-130	
Naphthalene	ug/L	50	50.7	101	70-130	
o-Xylene	ug/L	50	51.4	103	70-130	
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			94	70-130	

MATRIX SPIKE SAMPLE: 1886790

Parameter	Units	92322499013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.8	104	70-130	
Benzene	ug/L	ND	20	22.5	112	70-130	
Ethylbenzene	ug/L	ND	20	22.4	112	70-130	
m&p-Xylene	ug/L	ND	40	46.0	115	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.2	86	70-130	
Naphthalene	ug/L	ND	20	19.5	98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

MATRIX SPIKE SAMPLE: 1886790

Parameter	Units	92322499013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	22.4	112	70-130	
Toluene	ug/L	ND	20	21.8	108	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1886322

Parameter	Units	92322078008 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	2J		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	97	95	2	
4-Bromofluorobenzene (S)	%	98	100	1	
Toluene-d8 (S)	%	108	108	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 340342
QC Batch Method: EPA 8260
Associated Lab Samples: 92322318002

Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC

METHOD BLANK: 1887770
Associated Lab Samples: 92322318002

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/11/16 14:10	
Benzene	ug/L	ND	1.0	12/11/16 14:10	
Ethylbenzene	ug/L	ND	1.0	12/11/16 14:10	
m&p-Xylene	ug/L	ND	2.0	12/11/16 14:10	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/11/16 14:10	
Naphthalene	ug/L	ND	1.0	12/11/16 14:10	
o-Xylene	ug/L	ND	1.0	12/11/16 14:10	
Toluene	ug/L	ND	1.0	12/11/16 14:10	
Xylene (Total)	ug/L	ND	1.0	12/11/16 14:10	
1,2-Dichloroethane-d4 (S)	%	91	70-130	12/11/16 14:10	
4-Bromofluorobenzene (S)	%	101	70-130	12/11/16 14:10	
Toluene-d8 (S)	%	109	70-130	12/11/16 14:10	

LABORATORY CONTROL SAMPLE: 1887771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.2	110	70-130	
Benzene	ug/L	50	58.8	118	70-130	
Ethylbenzene	ug/L	50	54.4	109	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	50.7	101	70-130	
Naphthalene	ug/L	50	54.3	109	70-130	
o-Xylene	ug/L	50	52.9	106	70-130	
Toluene	ug/L	50	52.8	106	70-130	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1887773

Parameter	Units	92322541007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	1000	1080	108	70-130	
Benzene	ug/L	6320	1000	7900	158	70-130	M1
Ethylbenzene	ug/L	682	1000	1860	118	70-130	
m&p-Xylene	ug/L	2330	2000	4620	115	70-130	
Methyl-tert-butyl ether	ug/L	311	1000	1210	89	70-130	
Naphthalene	ug/L	86.0	1000	1040	95	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

MATRIX SPIKE SAMPLE: 1887773

Parameter	Units	92322541007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	1320	1000	2490	117	70-130	
Toluene	ug/L	1290	1000	2340	104	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1887772

Parameter	Units	92322541003 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	6730	6510	3	
Ethylbenzene	ug/L	588	556	6	
m&p-Xylene	ug/L	2280	2160	5	
Methyl-tert-butyl ether	ug/L	373	347	7	
Naphthalene	ug/L	64.8	64.3	1	
o-Xylene	ug/L	1110	1080	3	
Toluene	ug/L	7460	7290	2	
Xylene (Total)	ug/L	3390	3240	4	
1,2-Dichloroethane-d4 (S)	%	97	94	4	
4-Bromofluorobenzene (S)	%	100	99	1	
Toluene-d8 (S)	%	101	103	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 339922 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

METHOD BLANK: 1885386 Matrix: Water
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	12/08/16 15:33	

LABORATORY CONTROL SAMPLE: 1885387

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.4	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1885388 1885389

Parameter	Units	92322244001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	11.9	50	50	59.5	62.8	95	102	80-120	6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1885390 1885391

Parameter	Units	92322244011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	22.5	50	50	73.1	70.7	101	96	80-120	3	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 340189 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

METHOD BLANK: 1886795 Matrix: Water
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	12/09/16 15:06	

LABORATORY CONTROL SAMPLE: 1886796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.9	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886797 1886798

Parameter	Units	92321623024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	398	20	20	417	409	98	58	90-110	2	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886799 1886800

Parameter	Units	92321900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	10000 ug/L	20	20	29.8	30.2	99	101	90-110	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

QC Batch: 339852 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

METHOD BLANK: 1885173 Matrix: Water
Associated Lab Samples: 92322318001, 92322318002, 92322318003, 92322318004, 92322318005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	12/07/16 19:10	

LABORATORY CONTROL SAMPLE: 1885174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1885175 1885176

Parameter	Units	92322318003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	3.3	2.5	2.5	5.7	5.6	94	91	90-110	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALIFIERS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
N2	The lab does not hold NELAC/TNI accreditation for this parameter.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322318

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92322318001	MW-08-120616	RSK 175 Modified	340608		
92322318002	MW-03-120616	RSK 175 Modified	340608		
92322318003	MW-10-120616	RSK 175 Modified	340608		
92322318004	MW-32-120616	RSK 175 Modified	340608		
92322318005	MW-04-120616	RSK 175 Modified	340608		
92322318001	MW-08-120616	EPA 8260	340069		
92322318002	MW-03-120616	EPA 8260	340342		
92322318003	MW-10-120616	EPA 8260	340069		
92322318004	MW-32-120616	EPA 8260	340069		
92322318005	MW-04-120616	EPA 8260	340069		
92322318006	TRIP BLANK-120616	EPA 8260	340011		
92322318001	MW-08-120616	SM 2320B	339922		
92322318002	MW-03-120616	SM 2320B	339922		
92322318003	MW-10-120616	SM 2320B	339922		
92322318004	MW-32-120616	SM 2320B	339922		
92322318005	MW-04-120616	SM 2320B	339922		
92322318001	MW-08-120616	EPA 300.0	340189		
92322318002	MW-03-120616	EPA 300.0	340189		
92322318003	MW-10-120616	EPA 300.0	340189		
92322318004	MW-32-120616	EPA 300.0	340189		
92322318005	MW-04-120616	EPA 300.0	340189		
92322318001	MW-08-120616	EPA 353.2	339852		
92322318002	MW-03-120616	EPA 353.2	339852		
92322318003	MW-10-120616	EPA 353.2	339852		
92322318004	MW-32-120616	EPA 353.2	339852		
92322318005	MW-04-120616	EPA 353.2	339852		

Laboratory receiving samples:
Asheville [x] Eden [ ] Greenwood [ ] Huntersville [ ] Raleigh [ ] Mechanicsville [ ]

Sample Condition Upon Receipt

Client Name: CH2MHill

Project #:

WO#: 92322318

92322318

Courier: [x] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace [ ] Other: ____

Custody Seal Present? [x] Yes [ ] No Seals Intact? [x] Yes [ ] No

Date/Initials Person Examining Contents: RDF 12/7/16

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [x] None [ ] Other: ____

Thermometer: [ ] IR Gun ID: 5

Type of Ice: [x] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Correction Factor: 0 Cooler Temp Corrected (°C): 5.9

Biological Tissue Frozen? [ ] Yes [ ] No [x] N/A

Temp should be above freezing to 6°C

USDA Regulated Soil ([x] N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? [ ] Yes [ ] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [x] No

				Comments/Discrepancy:
Chain of Custody Present?	[x] Yes	[ ] No	[ ] N/A	1.
Samples Arrived within Hold Time?	[x] Yes	[ ] No	[ ] N/A	2.
Short Hold Time Analysis (<72 hr.)?	[x] Yes	[ ] No	[ ] N/A	3. nitrates
Rush Turn Around Time Requested?	[ ] Yes	[x] No	[ ] N/A	4.
Sufficient Volume?	[x] Yes	[ ] No	[ ] N/A	5.
Correct Containers Used?	[x] Yes	[ ] No	[ ] N/A	6.
-Pace Containers Used?	[x] Yes	[ ] No	[ ] N/A	
Containers Intact?	[x] Yes	[ ] No	[ ] N/A	7.
Samples Field Filtered?	[ ] Yes	[ ] No	[x] N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	[x] Yes	[ ] No	[ ] N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT/GW				
Headspace in VOA Vials (>5-6mm)?	[ ] Yes	[x] No	[ ] N/A	10.
Trip Blank Present?	[x] Yes	[ ] No	[ ] N/A	11.
Trip Blank Custody Seals Present?	[ ] Yes	[ ] No	[ ] N/A	

Field Data Required? [ ] Yes [ ] No

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: ____ Date/Time: ____

Comments/Sample Discrepancy:

Project Manager SCURF Review: [signature] Date: 12/7/16

Project Manager SRF Review: [signature] Date: 12/7/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Projec

WO# : 92322318

PM: KRG Due Date: 12/14/16

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
1	1	1														6		2											
2	1	1														6		2											
3	1	1														6		2											
4	1	1														6		2											
5	1	1														6		2											
6																2													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

CH2MHILL
6600 Peachtree-Dunwoody Rd, 400
Embassy Row, Suite 600
Atlanta, GA 30328
Tel No. (770) 604-9182
Fax No. (770) 604-9183

CHAIN-OF-CUSTODY RECORD

COC NUMBER: 669228-120616-01

PROJECT NAME: Lewis Drive - Belton, SC	PROJECT NUMBER: 669228.LD.PR.LA	LAB NAME AND CONTACT: Pace Analytical, Kevin Godwin	FAX AND MAIL REPORTS/EDD TO RECIPIENT 1 (Name and Company): Bill Waldron wwaldron@ch2m.com	RECIPIENT 1 (Address, Tel No., and Fax No.): 3120 Highwoods Blvd, Suite 214, Raleigh, NC 27604
PROJECT PHASE/SITE/TASK: Baseline Groundwater Sampling	CTO OR DO NUMBER:	LAB PO NUMBER: Kinder Morgan	FAX AND MAIL REPORTS/EDD TO RECIPIENT 2 (Name and Company): Bethany Garvey bgarvey@ch2m.com	RECIPIENT 2 (Address, Tel No., and Fax No.): 6600 Peachtree-Dunwoody Rd, 400 Embassy Row, Suite 600, Atlanta, GA 30328 tel. 770.604.9182, fax.
PROJECT CONTACT: Bill Waldron	PROJECT TEL NO AND FAX NO: 919-760-1777	LAB TEL NO AND FAX NO: 704-875-9092 ext 928273 phone	FAX AND MAIL REPORTS/EDD TO RECIPIENT 3 (Name and Company):	RECIPIENT 3 (Address, Tel No., and Fax No.):

ANALYSES REQUIRED (Include Method Numbers)

ITEM	SAMPLE IDENTIFIER	SAMPLE DESCRIPTION/LOCATION	MATRIX (see codes on SOP)	DATE COLLECTED	TIME COLLECTED	DATA PKG LEVEL (see codes on SOP)	TAT (calendar days)	Bottle Type / Number of Bottles	G: BTEX + MTBE, Naph, 1,2-DCA (8260B)	P: Nitrate (353.2)	P: Sulfate (9056)	P: Alkalinity (SM 2320B)	G: Methane (RSK-175)	G: Carbon Dioxide (AM20GAX)					SAMPLE TYPE (see codes on SOP)	COMMENTS/ SCREENING READINGS	LAB ID (for lab's use)
1	MW-08-120616		GW	12/06/16	15:40	3	14	10	X	X	X	X	X	X					N	92322318	001
2	MW-03-120616		GW	12/06/16	14:00	3	14	10	X	X	X	X	X	X					N		002
3	MW-10-120616		GW	12/06/16	10:55	3	14	10	X	X	X	X	X	X					N		003
4	MW-32-120616		GW	12/06/16	14:30	3	14	10	X	X	X	X	X	X					N		004
5	MW-04-120616		GW	12/06/16	15:35	3	14	10	X	X	X	X	X	X					N		005
6	Trip Blank-120616		TB	12/06/16	16:50	2			X										N		006
7																					
8																					
9																					
10																					

SAMPLER(S) AND COMPANY (please print): Michael Tekle/CH2M HILL

COURIER AND SHIPPING NUMBER: FedEx Number:

SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

RELINQUISHED BY (Printed Name and Signature)	DATE	TIME	RECEIVED BY (Printed Name and Signature)	DATE	TIME
Michael Tekle	12/06/16	1900	Ruth Denise Tantham PACE 12/7/16 11:10	12/[illegible]/16	11:10

5.8

fedex.com 1.800.GoFedEx 1.800.463.3339

FedEx Express Package US Airbill

FedEx Tracking Number 8101 1494 4771

Form ID No. 0200 — Recipient's Copy

1 From [redacted]

Date 12/6/16

Sender's Name [illegible] Phone [illegible] 415-7224

Company [illegible]

Address [illegible] place suite [illegible] — Dept./Floor/Suite/Room

City [illegible] State [illegible] ZIP 22277

2 Your Internal Billing Reference 660228. LD. PR. LA

3 To

Recipient's Name Kevin Goodwin Phone 704 [illegible]

Company Pace Analytical Services LLC

Address
We cannot deliver to P.O. boxes or P.O. ZIP codes. — Dept./Floor/Suite/Room

Address 628 Patton Ave.
Use this line for the HOLD location address or for continuation of your shipping address.

City Asheville State NC ZIP 28806

- ☐ Hold Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.
- ☐ Hold Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8101 1494 4771

4 Express Package Service * To most locations. — ***Packages up to 150 lbs.*** *For packages over 150 lbs., use the FedEx Express Freight US Airbill.*

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☐ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

- ☒ No Signature Required — Package may be left without obtaining a signature for delivery.
- ☐ Direct Signature — Someone at recipient's address may sign for delivery.
- ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg ☐ Cargo Aircraft Only

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

[redacted]

Total Packages 1 — Total Weight 20 lbs. [redacted] Credit Card Auth.

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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Intra-Regional Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: 92322318 **Workorder Name:** LEWIS DRIVE-BELTON, SC **Owner Received Date:** 12/7/2016 **Due Date:** 12/14/2016

Received at:	Send To Lab:
Pace Analytical Asheville 2225 Riverside Dr. Asheville, NC 28804 Phone (828)254-7176	Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092

Report To:
Kevin Godwin

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCL	Preserved Containers: Unpreserved	Requested Analysis: RSK 175 Modified	Requested Analysis: EPA 8260	LAB USE ONLY
1	MW-08-120616	PS	12/6/2016 15:40	92322318001	Water	6		X	X X	
2	MW-03-120616	PS	12/6/2016 14:00	92322318002	Water	6		X	X X	
3	MW-10-120616	PS	12/6/2016 10:55	92322318003	Water	6		X	X X	
4	MW-32-120616	PS	12/6/2016 14:30	92322318004	Water	6		X	X X	
5	MW-04-120616	PS	12/6/2016 15:35	92322318005	Water	6		X	X X	
6	TRIP BLANK-120616	PS	12/6/2016 16:50	92322318006	Water	6			X	

Transfers	Released By	Date/Time	Received By	Date/Time
1		12/7/16 0700		12/7/16 0700
2		12/06/16 20:5		12-7-16
3				
4				

Comments

Cooler Temperature on Receipt 3 °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

December 14, 2016

Kevin Godwin
Pace Analytical Services, Inc.
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078

RE: **LEWIS DRIVE-BELTON, SC**
Pace Workorder: 21209

Dear Kevin Godwin:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, December 08, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 12/14/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 14

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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SAMPLE SUMMARY

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
212090001	MW-08-120616	Water	12/6/2016 15:40	12/8/2016 11:45
212090002	MW-03-120616	Water	12/6/2016 14:00	12/8/2016 11:45
212090003	MW-10-120616	Water	12/6/2016 10:55	12/8/2016 11:45
212090004	MW-32-120616	Water	12/6/2016 14:30	12/8/2016 11:45
212090005	MW-04-120616	Water	12/6/2016 15:35	12/8/2016 11:45

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID: **212090001** Date Received: 12/8/2016 11:45 Matrix: Water
Sample ID: **MW-08-120616** Date Collected: 12/6/2016 15:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**37**	mg/l	5.0	0.24	1	12/10/2016 12:14	TD	n

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Phone: (412) 826-5245
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ANALYTICAL RESULTS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID: **212090002** Date Received: 12/8/2016 11:45 Matrix: Water
Sample ID: **MW-03-120616** Date Collected: 12/6/2016 14:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**34**	mg/l	5.0	0.24	1	12/10/2016 12:28	TD	n

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ANALYTICAL RESULTS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID: **212090003** Date Received: 12/8/2016 11:45 Matrix: Water
Sample ID: **MW-10-120616** Date Collected: 12/6/2016 10:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**38**	mg/l	5.0	0.24	1	12/10/2016 12:41	TD	n

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID: **212090004** Date Received: 12/8/2016 11:45 Matrix: Water
Sample ID: **MW-32-120616** Date Collected: 12/6/2016 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**23**	mg/l	5.0	0.24	1	12/10/2016 12:54	TD	n

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Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID: **212090005** Date Received: 12/8/2016 11:45 Matrix: Water
Sample ID: **MW-04-120616** Date Collected: 12/6/2016 15:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**38**	mg/l	5.0	0.24	1	12/10/2016 13:06	TD	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA

Workorder: 21209 LEWIS DRIVE-BELTON, SC

QC Batch: DISG/5802 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 212090001, 212090002, 212090003, 212090004, 212090005

METHOD BLANK: 45980

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	0.24U	0.24	n

LABORATORY CONTROL SAMPLE & LCSD: 45981 45982

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	120	130	130	114	109	80-120	4.5	20	n

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA QUALIFIERS

Workorder: 21209 LEWIS DRIVE-BELTON, SC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 21209 LEWIS DRIVE-BELTON, SC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
212090001	MW-08-120616			AM20GAX	DISG/5802
212090002	MW-03-120616			AM20GAX	DISG/5802
212090003	MW-10-120616			AM20GAX	DISG/5802
212090004	MW-32-120616			AM20GAX	DISG/5802
212090005	MW-04-120616			AM20GAX	DISG/5802

Chain of Custody

Pace Analytical®
www.pacelabs.com

9/209

Workorder: 92322318 **Workorder Name:** LEWIS DRIVE-BELTON, SC **Results Requested By:** 12/14/2016

Report / Invoice To	Subcontract To
Kevin Godwin Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: kevin.godwin@pacelabs.com	Pace Energy 220 William Pitt Way Pittsburgh, PA 15238 P.O. KRG 16143

State of Sample Origin:

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	# Preserved Containers: Unpreserved						Requested Analysis: CO_2	AM20 GAX												LAB USE ONLY
1	MW-08-120616	12/6/2016 15:40	92322318001	Water	N						X													
2	MW-03-120616	12/6/2016 14:00	92322318002	Water	N						X													
3	MW-10-120616	12/6/2016 10:55	92322318003	Water	N						X													
4	MW-32-120616	12/6/2016 14:30	92322318004	Water	N						X													
5	MW-04-120616	12/6/2016 15:35	92322318005	Water	N						X													

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	12/7/16 17:00		
2			[signature] PACE	12.8.16 1145
3				

Comments

Cooler Temperature on Receipt 4 °C **Custody Seal** Y or (N) **Received on Ice** (Y) or N **Samples Intact** (Y) or N

Cooler Receipt Form

Client Name: Pace - H Project: Lewis Drive Lab Work Order: 21209

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7778 9227 7098

Custody Seal on Cooler/Box Present: Yes (No) Seals Intact: Yes No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 4°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags		✓		
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: LY Date: 12.8.16

Project Manager Review: RW Date: 12-9-16

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 21, 2016

Bill Waldron
CH2M HILL
1717 Arch St
Suite 4400
Glenside, PA 19038

RE: Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Dear Bill Waldron:
Enclosed are the analytical results for sample(s) received by the laboratory on December 08, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

cc: Bethany Garvey, CH2M HILL
Scott Powell, CH2M
Tom Wiley, CH2M

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92322541001	**MW-15-120716**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322541002	**MW-42-120716**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322541003	**MW-40-120716**	RSK 175 Modified	WDV	1	PASI-C
		EPA 8260	GAW	12	PASI-C
		SM 2320B	KDF	1	PASI-A
		EPA 300.0	AES2	1	PASI-A
		EPA 353.2	WRC	1	PASI-A
92322541004	**MW-24B-120716**	EPA 8260	GAW	12	PASI-C
92322541005	**MW-24-120716**	EPA 8260	GAW	12	PASI-C
92322541006	**MW-41-120716**	EPA 8260	GAW	12	PASI-C
92322541007	**MW-39-120716**	EPA 8260	GAW	12	PASI-C
92322541008	**FB-120716**	EPA 8260	GAW	12	PASI-C

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-15-120716 **Lab ID: 92322541001** Collected: 12/07/16 11:30 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	**110**	ug/L	100	10		12/21/16 13:49	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**3680**	ug/L	25.0	25		12/10/16 16:40	71-43-2	
1,2-Dichloroethane	ND	ug/L	25.0	25		12/10/16 16:40	107-06-2	
Ethylbenzene	**139**	ug/L	25.0	25		12/10/16 16:40	100-41-4	
Methyl-tert-butyl ether	**188**	ug/L	25.0	25		12/10/16 16:40	1634-04-4	
Naphthalene	**43.8**	ug/L	25.0	25		12/10/16 16:40	91-20-3	
Toluene	**422**	ug/L	25.0	25		12/10/16 16:40	108-88-3	
Xylene (Total)	**2280**	ug/L	25.0	25		12/10/16 16:40	1330-20-7	
m&p-Xylene	**1480**	ug/L	50.0	25		12/10/16 16:40	179601-23-1	
o-Xylene	**797**	ug/L	25.0	25		12/10/16 16:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	25		12/10/16 16:40	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	25		12/10/16 16:40	17060-07-0	
Toluene-d8 (S)	105	%	70-130	25		12/10/16 16:40	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	ND	mg/L	5.0	1		12/09/16 11:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 15:52	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**2.0**	mg/L	0.020	1		12/09/16 00:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-42-120716 **Lab ID: 92322541002** Collected: 12/07/16 14:40 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	ND	ug/L	10.0	1		12/14/16 12:41	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**3.8**	ug/L	1.0	1		12/10/16 14:14	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/10/16 14:14	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/10/16 14:14	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/10/16 14:14	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/10/16 14:14	91-20-3	
Toluene	ND	ug/L	1.0	1		12/10/16 14:14	108-88-3	
Xylene (Total)	**2.7**	ug/L	1.0	1		12/10/16 14:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/10/16 14:14	179601-23-1	
o-Xylene	**2.7**	ug/L	1.0	1		12/10/16 14:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		12/10/16 14:14	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		12/10/16 14:14	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/10/16 14:14	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**11.4**	mg/L	5.0	1		12/09/16 11:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 16:01	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.96**	mg/L	0.020	1		12/09/16 00:18		

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-40-120716 **Lab ID: 92322541003** Collected: 12/07/16 14:55 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 Headspace	Analytical Method: RSK 175 Modified							
Methane	**268**	ug/L	200	20		12/21/16 13:33	74-82-8	N2
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**6730**	ug/L	50.0	50		12/11/16 19:01	71-43-2	
1,2-Dichloroethane	ND	ug/L	50.0	50		12/11/16 19:01	107-06-2	
Ethylbenzene	**588**	ug/L	50.0	50		12/11/16 19:01	100-41-4	
Methyl-tert-butyl ether	**373**	ug/L	50.0	50		12/11/16 19:01	1634-04-4	
Naphthalene	**64.8**	ug/L	50.0	50		12/11/16 19:01	91-20-3	
Toluene	**7460**	ug/L	50.0	50		12/11/16 19:01	108-88-3	
Xylene (Total)	**3390**	ug/L	50.0	50		12/11/16 19:01	1330-20-7	
m&p-Xylene	**2280**	ug/L	100	50		12/11/16 19:01	179601-23-1	
o-Xylene	**1110**	ug/L	50.0	50		12/11/16 19:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	50		12/11/16 19:01	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	50		12/11/16 19:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	50		12/11/16 19:01	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3	**7.4**	mg/L	5.0	1		12/09/16 11:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	2.0	1		12/09/16 16:10	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.40**	mg/L	0.020	1		12/09/16 00:27		

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-24B-120716 **Lab ID: 92322541004** Collected: 12/07/16 10:22 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/10/16 14:30	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/10/16 14:30	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/10/16 14:30	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/10/16 14:30	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/10/16 14:30	91-20-3	
Toluene	**2.9**	ug/L	1.0	1		12/10/16 14:30	108-88-3	
Xylene (Total)	**1.6**	ug/L	1.0	1		12/10/16 14:30	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/10/16 14:30	179601-23-1	
o-Xylene	**1.6**	ug/L	1.0	1		12/10/16 14:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		12/10/16 14:30	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		12/10/16 14:30	17060-07-0	
Toluene-d8 (S)	113	%	70-130	1		12/10/16 14:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-24-120716 **Lab ID: 92322541005** Collected: 12/07/16 11:47 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/10/16 14:46	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/10/16 14:46	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/10/16 14:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/10/16 14:46	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/10/16 14:46	91-20-3	
Toluene	ND	ug/L	1.0	1		12/10/16 14:46	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/10/16 14:46	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/10/16 14:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/10/16 14:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		12/10/16 14:46	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		12/10/16 14:46	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		12/10/16 14:46	2037-26-5	

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-41-120716 **Lab ID: 92322541006** Collected: 12/07/16 16:05 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**212**	ug/L	2.0	2		12/11/16 19:33	71-43-2	
1,2-Dichloroethane	ND	ug/L	2.0	2		12/11/16 19:33	107-06-2	
Ethylbenzene	ND	ug/L	2.0	2		12/11/16 19:33	100-41-4	
Methyl-tert-butyl ether	**6.7**	ug/L	2.0	2		12/11/16 19:33	1634-04-4	
Naphthalene	**5.6**	ug/L	2.0	2		12/11/16 19:33	91-20-3	
Toluene	ND	ug/L	2.0	2		12/11/16 19:33	108-88-3	
Xylene (Total)	**155**	ug/L	2.0	2		12/11/16 19:33	1330-20-7	
m&p-Xylene	**50.1**	ug/L	4.0	2		12/11/16 19:33	179601-23-1	
o-Xylene	**105**	ug/L	2.0	2		12/11/16 19:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	2		12/11/16 19:33	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	2		12/11/16 19:33	17060-07-0	
Toluene-d8 (S)	105	%	70-130	2		12/11/16 19:33	2037-26-5	

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: MW-39-120716 **Lab ID: 92322541007** Collected: 12/07/16 16:30 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	**6320**	ug/L	50.0	50		12/11/16 19:49	71-43-2	M1
1,2-Dichloroethane	ND	ug/L	50.0	50		12/11/16 19:49	107-06-2	
Ethylbenzene	**682**	ug/L	50.0	50		12/11/16 19:49	100-41-4	
Methyl-tert-butyl ether	**311**	ug/L	50.0	50		12/11/16 19:49	1634-04-4	
Naphthalene	**86.0**	ug/L	50.0	50		12/11/16 19:49	91-20-3	
Toluene	**1290**	ug/L	50.0	50		12/11/16 19:49	108-88-3	
Xylene (Total)	**3650**	ug/L	50.0	50		12/11/16 19:49	1330-20-7	
m&p-Xylene	**2330**	ug/L	100	50		12/11/16 19:49	179601-23-1	
o-Xylene	**1320**	ug/L	50.0	50		12/11/16 19:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	50		12/11/16 19:49	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	50		12/11/16 19:49	17060-07-0	
Toluene-d8 (S)	103	%	70-130	50		12/11/16 19:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Sample: FB-120716 **Lab ID: 92322541008** Collected: 12/07/16 17:15 Received: 12/08/16 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/10/16 13:26	71-43-2	
1,2-Dichloroethane	ND	ug/L	1.0	1		12/10/16 13:26	107-06-2	
Ethylbenzene	ND	ug/L	1.0	1		12/10/16 13:26	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		12/10/16 13:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		12/10/16 13:26	91-20-3	
Toluene	ND	ug/L	1.0	1		12/10/16 13:26	108-88-3	
Xylene (Total)	ND	ug/L	1.0	1		12/10/16 13:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		12/10/16 13:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		12/10/16 13:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		12/10/16 13:26	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		12/10/16 13:26	17060-07-0	
Toluene-d8 (S)	114	%	70-130	1		12/10/16 13:26	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340336
QC Batch Method: RSK 175 Modified
Analysis Method: RSK 175 Modified
Analysis Description: RSK 175 HEADSPACE
Associated Lab Samples: 92322541002

METHOD BLANK: 1887747 Matrix: Water
Associated Lab Samples: 92322541002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/14/16 12:11	N2

LABORATORY CONTROL SAMPLE: 1887748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	396	486	123	70-130	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1887749 1887750

Parameter	Units	92321623043 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Methane	ug/L	ND	396	396	340	347	86	88	70-130	2	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 341828
QC Batch Method: RSK 175 Modified
Analysis Method: RSK 175 Modified
Analysis Description: RSK 175 HEADSPACE
Associated Lab Samples: 92322541001, 92322541003

METHOD BLANK: 1896615
Matrix: Water
Associated Lab Samples: 92322541001, 92322541003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	12/21/16 12:01	N2

LABORATORY CONTROL SAMPLE & LCSD: 1896616 1896617

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	396	370	369	94	93	70-130	0	20	N2

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340308 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92322541001, 92322541002, 92322541004, 92322541005, 92322541008

METHOD BLANK: 1887648 Matrix: Water
Associated Lab Samples: 92322541001, 92322541002, 92322541004, 92322541005, 92322541008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/10/16 12:53	
Benzene	ug/L	ND	1.0	12/10/16 12:53	
Ethylbenzene	ug/L	ND	1.0	12/10/16 12:53	
m&p-Xylene	ug/L	ND	2.0	12/10/16 12:53	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/10/16 12:53	
Naphthalene	ug/L	ND	1.0	12/10/16 12:53	
o-Xylene	ug/L	ND	1.0	12/10/16 12:53	
Toluene	ug/L	ND	1.0	12/10/16 12:53	
Xylene (Total)	ug/L	ND	1.0	12/10/16 12:53	
1,2-Dichloroethane-d4 (S)	%	93	70-130	12/10/16 12:53	
4-Bromofluorobenzene (S)	%	103	70-130	12/10/16 12:53	
Toluene-d8 (S)	%	108	70-130	12/10/16 12:53	

LABORATORY CONTROL SAMPLE: 1887649

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.7	101	70-130	
Benzene	ug/L	50	54.7	109	70-130	
Ethylbenzene	ug/L	50	51.0	102	70-130	
m&p-Xylene	ug/L	100	99.4	99	70-130	
Methyl-tert-butyl ether	ug/L	50	49.1	98	70-130	
Naphthalene	ug/L	50	51.6	103	70-130	
o-Xylene	ug/L	50	50.2	100	70-130	
Toluene	ug/L	50	49.1	98	70-130	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			94	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1887651

Parameter	Units	92322866032 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	22.7	113	70-130	
Benzene	ug/L	ND	20	23.2	116	70-130	
Ethylbenzene	ug/L	ND	20	23.1	115	70-130	
m&p-Xylene	ug/L	ND	40	45.0	113	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.9	90	70-130	
Naphthalene	ug/L	ND	20	19.5	97	70-130	

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

MATRIX SPIKE SAMPLE: 1887651

Parameter	Units	92322866032 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	23.0	115	70-130	
Toluene	ug/L	ND	20	23.0	115	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1887650

Parameter	Units	92322866031 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	0.24J	ND		
Toluene	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	95	93	2	
4-Bromofluorobenzene (S)	%	101	104	3	
Toluene-d8 (S)	%	110	111	0	

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QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340342 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92322541003, 92322541006, 92322541007

METHOD BLANK: 1887770 Matrix: Water
Associated Lab Samples: 92322541003, 92322541006, 92322541007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	12/11/16 14:10	
Benzene	ug/L	ND	1.0	12/11/16 14:10	
Ethylbenzene	ug/L	ND	1.0	12/11/16 14:10	
m&p-Xylene	ug/L	ND	2.0	12/11/16 14:10	
Methyl-tert-butyl ether	ug/L	ND	1.0	12/11/16 14:10	
Naphthalene	ug/L	ND	1.0	12/11/16 14:10	
o-Xylene	ug/L	ND	1.0	12/11/16 14:10	
Toluene	ug/L	ND	1.0	12/11/16 14:10	
Xylene (Total)	ug/L	ND	1.0	12/11/16 14:10	
1,2-Dichloroethane-d4 (S)	%	91	70-130	12/11/16 14:10	
4-Bromofluorobenzene (S)	%	101	70-130	12/11/16 14:10	
Toluene-d8 (S)	%	109	70-130	12/11/16 14:10	

LABORATORY CONTROL SAMPLE: 1887771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.2	110	70-130	
Benzene	ug/L	50	58.8	118	70-130	
Ethylbenzene	ug/L	50	54.4	109	70-130	
m&p-Xylene	ug/L	100	105	105	70-130	
Methyl-tert-butyl ether	ug/L	50	50.7	101	70-130	
Naphthalene	ug/L	50	54.3	109	70-130	
o-Xylene	ug/L	50	52.9	106	70-130	
Toluene	ug/L	50	52.8	106	70-130	
Xylene (Total)	ug/L	150	158	105	70-130	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1887773

Parameter	Units	92322541007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	1000	1080	108	70-130	
Benzene	ug/L	6320	1000	7900	158	70-130	M1
Ethylbenzene	ug/L	682	1000	1860	118	70-130	
m&p-Xylene	ug/L	2330	2000	4620	115	70-130	
Methyl-tert-butyl ether	ug/L	311	1000	1210	89	70-130	
Naphthalene	ug/L	86.0	1000	1040	95	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

MATRIX SPIKE SAMPLE: 1887773

Parameter	Units	92322541007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	1320	1000	2490	117	70-130	
Toluene	ug/L	1290	1000	2340	104	70-130	
1,2-Dichloroethane-d4 (S)	%				105	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1887772

Parameter	Units	92322541003 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
Benzene	ug/L	6730	6510	3	
Ethylbenzene	ug/L	588	556	6	
m&p-Xylene	ug/L	2280	2160	5	
Methyl-tert-butyl ether	ug/L	373	347	7	
Naphthalene	ug/L	64.8	64.3	1	
o-Xylene	ug/L	1110	1080	3	
Toluene	ug/L	7460	7290	2	
Xylene (Total)	ug/L	3390	3240	4	
1,2-Dichloroethane-d4 (S)	%	97	94	4	
4-Bromofluorobenzene (S)	%	100	99	1	
Toluene-d8 (S)	%	101	103	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340127 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92322541001, 92322541002, 92322541003

METHOD BLANK: 1886500 Matrix: Water
Associated Lab Samples: 92322541001, 92322541002, 92322541003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	12/09/16 10:26	

LABORATORY CONTROL SAMPLE: 1886501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.1	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886502 1886503

Parameter	Units	92322493001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	26.3	50	50	76.1	74.6	100	97	80-120	2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886504 1886505

Parameter	Units	92322498002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Alkalinity, Total as CaCO3	mg/L	51.5	50	50	105	103	107	103	80-120	2	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340189 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92322541001, 92322541002, 92322541003

METHOD BLANK: 1886795 Matrix: Water
Associated Lab Samples: 92322541001, 92322541002, 92322541003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	12/09/16 15:06	

LABORATORY CONTROL SAMPLE: 1886796

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.9	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886797 1886798

Parameter	Units	92321623024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	398	20	20	417	409	98	58	90-110	2	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886799 1886800

Parameter	Units	92321900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	10000 ug/L	20	20	29.8	30.2	99	101	90-110	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical
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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

QC Batch: 340077 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92322541001, 92322541002, 92322541003

METHOD BLANK: 1886355 Matrix: Water
Associated Lab Samples: 92322541001, 92322541002, 92322541003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	12/08/16 23:56	

LABORATORY CONTROL SAMPLE: 1886356

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886357 1886358

Parameter	Units	92322296002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	0.68	2.5	2.5	3.2	3.2	100	100	90-110	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1886359 1886360

Parameter	Units	92322541002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	0.96	2.5	2.5	3.4	3.4	97	96	90-110	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
N2	The lab does not hold NELAC/TNI accreditation for this parameter.

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEWIS DRIVE-BELTON, SC
Pace Project No.: 92322541

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92322541001	MW-15-120716	RSK 175 Modified	341828		
92322541002	MW-42-120716	RSK 175 Modified	340336		
92322541003	MW-40-120716	RSK 175 Modified	341828		
92322541001	MW-15-120716	EPA 8260	340308		
92322541002	MW-42-120716	EPA 8260	340308		
92322541003	MW-40-120716	EPA 8260	340342		
92322541004	MW-24B-120716	EPA 8260	340308		
92322541005	MW-24-120716	EPA 8260	340308		
92322541006	MW-41-120716	EPA 8260	340342		
92322541007	MW-39-120716	EPA 8260	340342		
92322541008	FB-120716	EPA 8260	340308		
92322541001	MW-15-120716	SM 2320B	340127		
92322541002	MW-42-120716	SM 2320B	340127		
92322541003	MW-40-120716	SM 2320B	340127		
92322541001	MW-15-120716	EPA 300.0	340189		
92322541002	MW-42-120716	EPA 300.0	340189		
92322541003	MW-40-120716	EPA 300.0	340189		
92322541001	MW-15-120716	EPA 353.2	340077		
92322541002	MW-42-120716	EPA 353.2	340077		
92322541003	MW-40-120716	EPA 353.2	340077		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: Sept. 21, 2016 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.01	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville ☑ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: CH2M HILL

Project #: WO#: 92322541

92322541

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☑ Yes ☐ No

Date/Initials Person Examining Contents: DOT 12/6/16

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other:

Thermometer: ☐ IR Gun ID: 5 Type of Ice: ☐ Wet ☐ Blue ☐ None

☐ Samples on ice, cooling process has begun

Correction Factor: 0 Cooler Temp Corrected (°C): 5.0

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Temp should be above freezing to 6°C

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☑ Yes	☐ No	☐ N/A	3. Nitrate/nitrite
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☐ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT / GW				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Bethany Gurley Date/Time: 12/5/16

Comments/Sample Discrepancy: client requested 48 hr TAT on MW-39, MW-40, MW-41, and MW-42.

Project Manager SCURF Review: JJ Date: 12/9/16

Project Manager SRF Review: JJ Date: 12/9/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Project WO# : 92322541

PM: KRG Due Date: 12/15/16

CLIENT: 92-KinderCH2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP3S-250 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3Z-250 mL Plastic ZN Acetate & NaOH (>9)	BP3C-250 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN	
1																3													
2	1 ✓	2														6		2											
3	X no															3													
4	1 ✓	2														6		2											
5	1 ✓	2														6		2											
6																3													
7																3													
8																3													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

CHAIN-OF-CUSTODY RECORD

669228-120716-01

Lewis Drive - Belton, SC	669228.LD.PR.LA	Pace Analytical Kevin Godwin	Bill Waldron wwaldron@ch2m.com	3120 Highwoods Blvd. Suite 214, Raleigh, NC 27604
Baseline Groundwater Sampling		Kinder Morgan	Bethany Garvey bgarvey@ch2m.com	6600 Peachtree-Dunwoody Rd. 400 Embassy Row, Suite 600, Atlanta, GA 30328 tel. 770.604.9182, fax.
Bill Waldron	919-760-1777	704-875-9092 ext 928273 phone		

Sample Identification		Matrix	Date	Time				G	P	P	P	G	G	Sample Type	Comments	Lab ID
MW-24B-120716	—	GW	12/7	1022	—	—		X						G	↑	004
MW-05-120716		↓	↓	1130				↓	X	X	X	X	X	G	92322541	001
MW-24-120716				1147										G	↓	005
MW-42-120716				1410					X	X	X	X	X	G	92322541	002
MW-40-120716	—			1455					X	X	X	X	X	G	92322541	003
MW-41-120716				1605										G	↓	006
MW-39-120716	—			1630										G		007
FB-120716	—	FB		1715										Field	Blank	008

Michael Teale CH2M HILL
Paula Kramer / CH2M

FedEx Number:

Relinquished By		Date	Time	Received By		Date	Time
Paula Kramer	Paula Kramer	12/7/16	1915	Bull Dake TP	AL	12/8/16	11:10

5.2°C

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

December 19, 2016

Kevin Godwin
Pace Analytical Services, Inc.
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078

RE: **LEWIS DRIVE-BELTON, SC**
Pace Workorder: *21272*

Dear Kevin Godwin:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, December 13, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh

Ruth Welsh 12/19/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 10

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 21272 LEWIS DRIVE-BELTON, SC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
212720001	MW-15-120716	Water	12/7/2016 11:30	12/13/2016 10:45
212720002	MW-42-120716	Water	12/7/2016 14:40	12/13/2016 10:45
212720003	MW-40-120716	Water	12/7/2016 14:55	12/13/2016 10:45

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 21272 LEWIS DRIVE-BELTON, SC

Lab ID: **212720001** Date Received: 12/13/2016 10:45 Matrix: Water

Sample ID: **MW-15-120716** Date Collected: 12/7/2016 11:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Carbon Dioxide	**110**	mg/l	5.0	0.45	1	12/16/2016 08:34	BW	n

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 21272 LEWIS DRIVE-BELTON, SC

Lab ID: **212720002** Date Received: 12/13/2016 10:45 Matrix: Water

Sample ID: **MW-42-120716** Date Collected: 12/7/2016 14:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Carbon Dioxide	**57**	mg/l	5.0	0.45	1	12/16/2016 08:44	BW	n

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ANALYTICAL RESULTS

Workorder: 21272 LEWIS DRIVE-BELTON, SC

Lab ID: **212720003** Date Received: 12/13/2016 10:45 Matrix: Water
Sample ID: **MW-40-120716** Date Collected: 12/7/2016 14:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Carbon Dioxide	**60**	mg/l	5.0	0.45	1	12/16/2016 08:56	BW	n

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS QUALIFIERS

Workorder: 21272 LEWIS DRIVE-BELTON, SC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA

Workorder: 21272 LEWIS DRIVE-BELTON, SC

QC Batch: DISG/5815 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 212720001, 212720002, 212720003

METHOD BLANK: 46068

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	0.45U	0.45	n

LABORATORY CONTROL SAMPLE & LCSD: 46070 46072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	120	120	110	99	94	80-120	5.2	20	n

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA QUALIFIERS

Workorder: 21272 LEWIS DRIVE-BELTON, SC

QUALITY CONTROL PARAMETER QUALIFIERS

n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 21272 LEWIS DRIVE-BELTON, SC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
212720001	MW-15-120716			AM20GAX	DISG/5815
212720002	MW-42-120716			AM20GAX	DISG/5815
212720003	MW-40-120716			AM20GAX	DISG/5815

Chain of Custody

Pace Analytical®
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21272

Workorder: 92322541 **Workorder Name:** LEWIS DRIVE-BELTON, SC **Results Requested By:** ~~12/12/2016~~ KG 12/9/16 Standard TAT

Report / Invoice To	Subcontract To	Requested Analysis
Kevin Godwin Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: kevin.godwin@pacelabs.com	Pace Energy 220 William Pitt Way Pittsburgh, PA 15238	P.O. KRG 16152

State of Sample Origin: SC

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved						Requested Analysis: CO2, AM20 GAX														LAB USE ONLY
1	MW-15-120716	12/7/2016 11:30	92322541001	Water	2						X														
2	MW-42-120716	12/7/2016 14:40	92322541002	Water	2						X														
3	MW-40-120716	12/7/2016 14:55	92322541003	Water	2						X														
4																									
5																									

Comments

Transfers	Released By	Date/Time	Received By	Date/Time
1		12/7/16 1700		12.13.16 1045
2				
3				

Cooler Temperature on Receipt 2.1 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

Cooler Receipt Form

Client Name: Pace Project: Lewis Drive 92322571 Lab Work Order: 21272

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7779295997376

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 2.1°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: LG Date: 12.13.16

Project Manager Review: RD Date: 12-14-16