ARCADIS Design & Consultancy for natural and built assets

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Subject:
Summary Report for Site GP-13
McElmo Dome Unit, Southwestern Colorado

ENVIRONMENT

Date:
February 8, 2017

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Our ref:
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Dear Mr. Hale:

Included herein is the Summary Report for site GP-13, which is part of the McElmo Dome Unit in southwestern Colorado. Arcadis U.S., Inc. (Arcadis) completed field work at site GP-13 in support of Kinder Morgan CO2 Company, LP's (KM) efforts to evaluate how the former drill pits were reclaimed and to determine if remediation is warranted, as may be required by the Colorado Oil and Gas Conservation Commission (COGCC).

Objectives

The objective of the work completed at site GP-13 (described in the Form 27 application [**Attachment A**]) was to demonstrate that "*soils beneath the pit meet the acceptable concentration levels for various constituents of concern (COCs), as outlined in COGCC's Table 910-1 of their 900 Series Rules*". Additionally, if groundwater was encountered during site activities, characterization would be conducted.

Methodology

Soil conditions beneath the former pit location were investigated by advancing eight shallow soil borings as illustrated in **Figure 1**. The soil borings were used to evaluate and confirm the thickness of clean soil cover material, evaluate thickness and characterize COC concentrations of any drilling material left in the

former pit, document the presence or absence of any liner material, and determine the depth and characteristics of native soils beneath the former pit extent. Arcadis subcontracted Kyvek Drilling, out of Aztec, New Mexico to complete the borings.

Soil borings were advanced using hollow stem auger methods, with collection of continuous soil cores, to a target depth of 2 feet below the bottom of the former pit excavation, or an approximate depth up to 15 to 20 feet below ground surface (bgs). Detailed boring logs for the shallow soil borings are provided in **Attachment B**. The borings were drilled with a 5-foot section of hollow stem auger and borehole materials were continuously sampled using two-foot long split spoons. An Arcadis geologist recorded sample recovery footages and field screened recovered materials in one-foot intervals using a photo-ionization detector (PID) and a soil conductivity probe. Sample materials were logged in accordance with the unified soil classification system (USCS) and field boring logs were prepared with annotations regarding the disposition and depth of any foreign debris (e.g., liner materials) encountered. All shallow soil borings were backfilled using auger cuttings. The drillers also added hydrated bentonite chips, as necessary, to backfill each location and meet existing grade.

Arcadis collected soil aliquots from each recovered one-foot interval in a labeled Ziplock® baggie to facilitate headspace PID screening. Samples from select intervals were transferred into laboratory prepared sample containers for subsequent laboratory analysis of COCs. All samples were submitted to ALS Environmental Laboratory (ALS) for analysis. Each soil sample was analyzed for the following:

- Metals by USEPA Method SW6020A
- Volatiles by USEPA Method SW8260
- Soluble cations (calcium, magnesium, sodium) by Method La29B-6020
- Hexavalent chromium by USEPA Method SW7196 (trivalent chromium was subsequently calculated)
- Electrical conductivity (EC), saturation point, and sodium absorption ratio (SAR) by LaDNR-29B
- Gasoline range organics (GRO) by USEPA Method SW8015
- Diesel range organics (DRO) by USEPA Method SW8015M
- Mercury by USEPA Method SW7471A
- pH by USEPA Method SW9045B

One deep boring was advanced to 50 feet bgs at site GP-13 to evaluate groundwater conditions beneath the site. Groundwater was encountered in the GP-13 deep boring; therefore, one groundwater sample was collected. The groundwater sample was analyzed for the following:

- Volatiles by USEPA Method SW8260
- Total dissolved solids (TDS) by USEPA Method M2540C

- Soluble anions (chloride and sulfate) by USEPA Method E300.0

Photos were also collected at the site documenting current surface vegetation; reclamation is considered successful by COGCC when vegetative cover reaches 80%. The photos provide an indication of current land use at, and surrounding the site, which can be used as reference for comparison purposes. The photo log for site GP-13 is provided in **Attachment C**.

Detailed notes were kept during the field activities completed at site GP-13 and are provided in **Attachment D**.

Results

Analytical results received from ALS for the soil samples collected at site GP-13 are presented in **Table 1**. Laboratory report(s) are provided in **Attachment E**.

A total of 24 soil samples collected from eight soil borings, were submitted to ALS for site GP-13. For comparison purposes, **Table 1** also includes screening levels (SLs) where applicable, as defined in Table 910-1 of the COGCC's 900 Series Rules. Analytical results that exceed the Table 910-1 SLs are highlighted in yellow. Key findings are summarized as follows:

- Five EC exceedances, two pH exceedances, and one SAR exceedance were observed in soils shallower than 3 feet from five boring locations (boring 1, boring 2, boring 3, boring 5 and boring 6; **Figure 1** and **Table 1**). Per COGCC guidance, provided under their Rules and Regulation frequently asked questions (FAQs) from 2008 (COGCC 2016); EC, pH, and SAR SLs only need to be applied to samples collected from the first 3 feet bgs. Therefore, any SL exceedances observed at a depth greater than 3 feet bgs "should not adversely affect the successful reclamation of the site" and therefore have not been highlighted.
- Arsenic was observed in multiple locations at concentrations greater than SLs, with a maximum observed concentration of 3.50 milligrams per kilogram (mg/kg). It is generally accepted that background concentrations of arsenic may be as high as 11 mg/kg per the Colorado Department of Public Health and Environment (CDPHE 2014, **Attachment F**). All concentrations were below 11 mg/kg.
- DRO was detected at concentrations above the SL of 500 mg/kg at boring 4 from 5 to 6 feet bgs (2,200 mg/kg), and at boring 7 from 10 to 11 feet bgs (3,000 mg/kg).
- Liner material was observed at 6 feet bgs in boring 3, but was otherwise absent from the other borings.

Analytical results received from ALS for the groundwater sample collected at site GP-13 are presented in **Table 2.** Laboratory reports are provided in **Attachment E**. **Table 2** provides all applicable SLs as provided per the COGCC Table 910-1. COGCC Table 910-1 indicates that the TDS SL is 1.25 times background concentrations. According to the United States Geological Survey (USGS 1995), TDS in the region ranges from approximately 1,000 to 3,000 mg/L, which would result in an SL on the order of 1,250

to 3,750 mg/L. KM also located an additional source for evaluating background TDS, chloride, and sulfate concentrations in the area; an analytical report from Green Analytical Laboratories (2015; **Appendix G**). The water sample analyzed in the Green Analytical Laboratories report is from a stock well sample, located approximately 0.85 miles from GP-13 and it suggests background concentrations in the vicinity of site GP-13 are higher than those cited in the USGS report. Assuming the stock well sample is the more appropriate basis for determining background, the calculated SLs for TDS, chloride, and sulfate are 3,625 mg/L, 141 mg/L, and 2,100 mg/L. The concentration of chloride in the groundwater from GP-13 (157 mg/L) exceeds the revised SL; however, all other concentrations are below the revised SLs.

References

Colorado Department of Public Health and Environment (CDPHE). 2014. Arsenic Concentrations in Soil: Risk Management Guidance for Evaluating. July.

Colorado Oil and Gas Conservation Commission (COGCC). Rules & Regulations online FAQ from 2008, accessed July 14, 2016. http://cogcc.state.co.us/documents/reg/Rules/2008/FAQ.cfm#204

Green Analytical Laboratories. 2015. Re: Rule 609 Subsequent Sampling. July 6.

United States Geological Survey (USGS). 1995. Hydrologic Investigations Atlas 730-C, Ground Water Atlas of the United States, Segment 2, Arizona, Colorado, New Mexico, Utah.

Please let us know if you have any questions regarding the content of this summary report.

Sincerely,

Arcadis U.S., Inc.

Kelli Jo Preston
Project Manager

Tables

1 Soil Analytical Results for Samples Collected at McElmo Dome Site GP-13
2 Groundwater Analytical Results for Samples Collected at McElmo Dome Site GP-13

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1 GP-13 Site Features

Attachments

A Form 27 Application

B Boring Logs

C Photo Log

D Field Notes

E Laboratory Analytical Reports

F CDPHE White Paper on Arsenic Concentrations in Soil

G Laboratory Report from Green Analytical Laboratories

TABLES

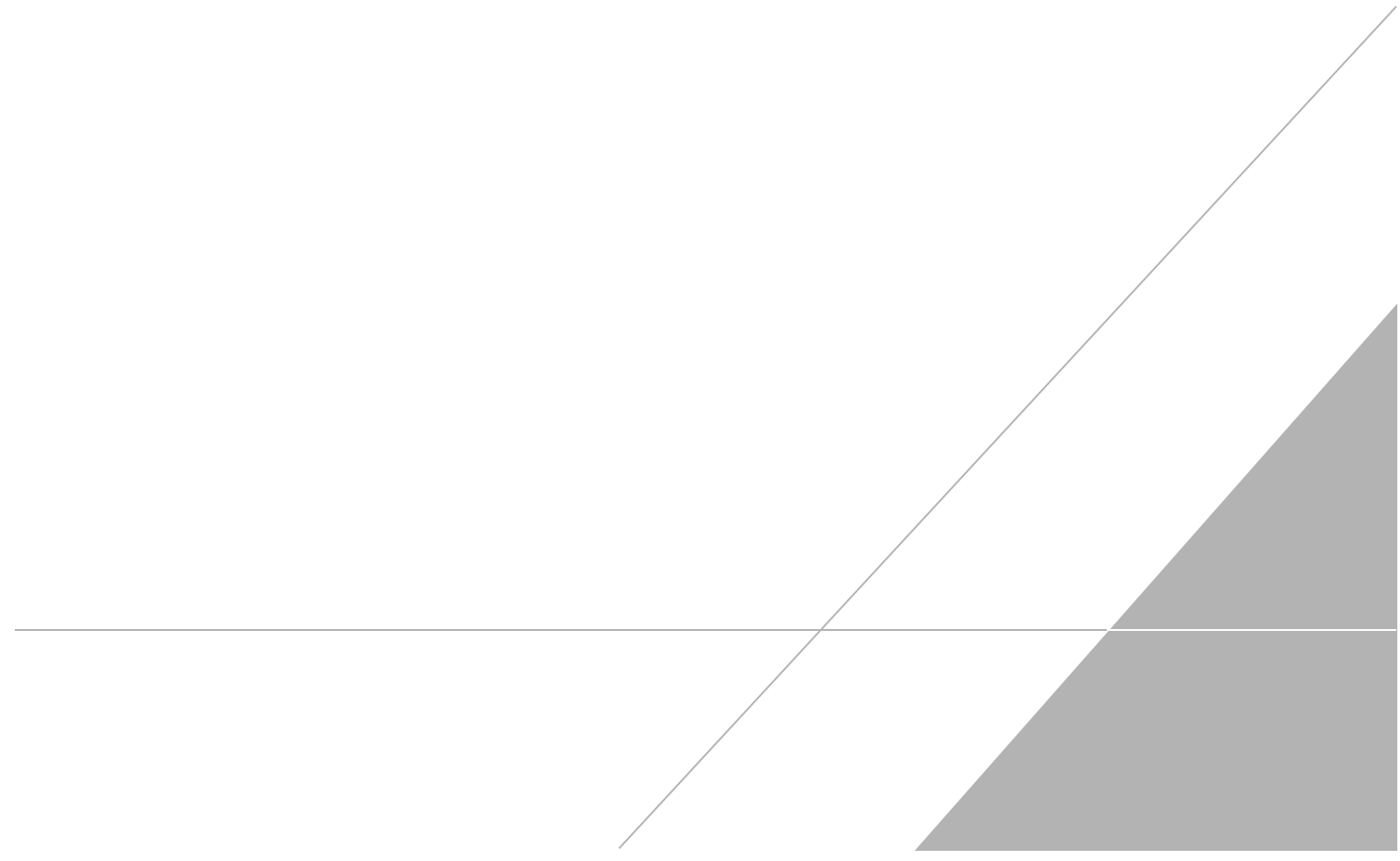

Table 1 - Soil Analytical Results for Samples Collected at McElmo Dome Site GP-13
Kinder Morgan CO2 Company LP

						Metals											Volatiles					
Site	Sample Location	Depth (ft bgs)	Date Collected	Sample ID	Matrix	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Zinc	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Toluene	Total Xylenes
			Table 910-1 Screening Level			0.39	15000	2 mg/L **(results below in mg/kg)**	70	NS	3100	400	1600	390	390	23000	0.17	100	NS	NS	85	175
			Units			mg/kg											mg/kg					
GP-13	Boring 1	2-3	11/19/2016	GP-13-1-2-3-111916	Soil	2.79	112	10.3	< 0.0469	8.81	5.24	5.40	5.58	< 0.169	< 0.0750	24.9	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 1	13-14	11/19/2016	GP-13-1-13-14-111916	Soil	3.20	153	2.72	< 0.0475	7.61	8.46	7.74	8.83	< 0.171	< 0.0759	24.7	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 1	14-15	11/19/2016	GP-13-1-14-15-111916	Soil	2.98	121	2.89	< 0.0462	7.96	8.18	7.68	8.87	< 0.166	< 0.0739	26.2	< 0.00050	< 0.00070	< 0.0016	< 0.0010	< 0.00060	< 0.0010
GP-13	Boring 2	1-2	11/19/2016	GP-13-2-1-2-111916	Soil	2.09	140	2.59	< 0.0479	6.41	6.02	5.85	7.15	< 0.172	< 0.0766	20.3	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 2	3-4	11/19/2016	GP-13-2-3-4-111916	Soil	2.69	83.0	11.8	< 0.0477	8.86	5.14	5.17	5.11	< 0.172	< 0.0764	25.2	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 2	13-14	11/19/2016	GP-13-2-13-14-111916	Soil	3.25	157	3.31	< 0.0464	9.05	7.53	6.97	9.47	< 0.167	< 0.0743	24.4	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 3	0-1	11/19/2016	GP-13-3-0-1-111916	Soil	2.49	150	3.00	< 0.0478	7.49	6.17	6.36	8.38	< 0.172	< 0.0765	22.0	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 3	8-9	11/19/2016	GP-13-3-8-9-111916	Soil	3.36	130	14.9	< 0.0476	8.90	5.86	6.60	6.75	0.483	< 0.0761	639	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 3	14-15	11/19/2016	GP-13-3-14-15-111916	Soil	2.88	183	3.18	< 0.0466	7.38	6.35	6.01	8.49	< 0.168	< 0.0746	36.1	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 4	0-1	11/19/2016	GP-13-4-0-1-111916	Soil	1.92	109	2.50	< 0.0463	5.95	6.18	5.64	6.37	< 0.167	< 0.0741	18.5	< 0.00050	< 0.00070	< 0.0016	< 0.0010	< 0.00060	< 0.0010
GP-13	Boring 4	5-6	11/19/2016	GP-13-4-5-6-111916	Soil	2.92	111	10.6	< 0.0474	8.46	6.66	6.03	6.72	< 0.171	< 0.0759	27.7	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 4	14-15	11/19/2016	GP-13-4-14-15-111916	Soil	2.62	111	4.33	< 0.0464	6.72	5.48	5.97	7.42	< 0.167	< 0.0743	57.2	< 0.00048	< 0.00067	< 0.0015	< 0.00096	< 0.00058	< 0.00096
GP-13	Boring 5	2-3	11/19/2016	GP-13-5-2-3-111916	Soil	2.04	105	6.13	< 0.0475	6.58	4.23	4.74	4.93	< 0.171	< 0.0760	22.3	< 0.00048	< 0.00067	< 0.0015	< 0.00096	< 0.00058	< 0.00096
GP-13	Boring 5	5-6	11/19/2016	GP-13-5-5-6-111916	Soil	3.14	125	7.34	< 0.0470	10.6	7.22	6.55	7.77	0.713	< 0.0752	322	< 0.00048	< 0.00068	< 0.0016	< 0.00097	0.0059	0.011
GP-13	Boring 5	13-14	11/19/2016	GP-13-5-13-14-111916	Soil	2.24	98.1	2.75	< 0.0456	7.33	5.18	5.36	7.51	< 0.164	< 0.0730	18.4	< 0.00050	< 0.00071	< 0.0016	< 0.0010	< 0.00061	< 0.0010
GP-13	Boring 6	1-2	11/19/2016	GP-13-6-1-2-111916	Soil	2.24	134	2.58	< 0.0471	6.75	5.97	6.34	7.42	< 0.169	< 0.0753	20.1	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 6	5-6	11/19/2016	GP-13-6-5-6-111916	Soil	2.47	103	7.33	< 0.0472	9.22	5.12	5.63	5.65	< 0.170	< 0.0756	24.8	< 0.00050	< 0.00069	< 0.0016	< 0.00099	< 0.00059	< 0.00099
GP-13	Boring 6	13-14	11/19/2016	GP-13-6-13-14-111916	Soil	2.59	140	2.52	< 0.0473	7.37	6.44	5.82	8.22	< 0.170	< 0.0756	20.5	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 7	1-2	11/19/2016	GP-13-7-1-2-111916	Soil	2.48	145	2.91	< 0.0461	7.53	6.79	6.71	8.03	< 0.166	< 0.0737	22.5	< 0.00050	< 0.00069	< 0.0016	< 0.00099	< 0.00059	< 0.00099
GP-13	Boring 7	10-11	11/19/2016	GP-13-7-10-11-111916	Soil	3.50	82.5	15.9	< 0.0478	8.39	6.09	5.89	5.77	< 0.172	< 0.0765	28.4	< 0.00050	< 0.00069	< 0.0016	< 0.00099	< 0.00059	< 0.00099
GP-13	Boring 7	13-14	11/19/2016	GP-13-7-13-14-111916	Soil	2.44	80.4	2.32	< 0.0463	8.03	6.86	6.13	8.67	0.479	< 0.0741	20.8	< 0.00048	< 0.00068	< 0.0016	< 0.00097	< 0.00058	< 0.00097
GP-13	Boring 8	2-3	11/19/2016	GP-13-8-2-3-111916	Soil	2.16	110	2.43	< 0.0459	6.82	5.93	5.95	7.26	< 0.165	< 0.0734	20.7	< 0.00049	< 0.00069	< 0.0016	< 0.00098	< 0.00059	< 0.00098
GP-13	Boring 8	13-14	11/19/2016	GP-13-8-13-14-111916	Soil	2.06	88.3	< 1.32	< 0.0472	5.72	7.40	6.01	7.18	< 0.170	< 0.0755	20.3	< 0.00050	< 0.00069	< 0.0016	< 0.00099	< 0.00059	< 0.00099
GP-13	Boring 8	14-15	11/19/2016	GP-13-8-14-15-111916	Soil	1.99	114	2.48	< 0.0464	6.38	4.78	5.16	6.94	< 0.167	< 0.0742	17.1	< 0.00050	< 0.00069	< 0.0016	< 0.00099	< 0.00059	< 0.00099

Notes:
bgs = below ground surface
Cr(III) = Trivalent Chromium
Cr(VI) = Hexavalent Chromium
DRO = Diesel Range Organics
EC = Electrical Conductivity
ft = feet
GRO = Gasoline Range Organics
meq/meq = milliequivalent
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
mmhos/cm = micromho per centimeter
NS = not specified
pH = acidic/basic of water
SAR = Sodium Adsorption Ratio
sat = saturation
TPH= total petroleum hydrocarbons
Exceed the corresponding Table 910-1 concentration screening level.

Table 1 - Soil Analytical Results for Samples Collected at McElmo Dome Site GP-13
Kinder Morgan CO2 Company LP

						Soluble Cations for SAR			Chromium		EC (mmhos/cm@25C)	TPH		Mercury	pH Units	SAR
Site	Sample Location	Depth (ft bgs)	Date Collected	Sample ID	Matrix	Calcium	Magnesium	Sodium	Cr(III)	Cr(VI)	EC@sat	GRO	DRO	Mercury	pH	SAR
			Table 910-1 Screening Level			NS	NS	NS	120000	23	<4 mmhos/cm or 2x background	500		23	6-9	<12
			Units			mg/L			mg/kg		mmhos/cm	mg/kg		mg/kg	SU	meq/meq
GP-13	Boring 1	2-3	11/19/2016	GP-13-1-2-3-111916	Soil	154	< 5.00	33.7	8.81	< 0.299	4.48	0.27	120	0.00615	11.8	1.06
GP-13	Boring 1	13-14	11/19/2016	GP-13-1-13-14-111916	Soil	214	< 5.00	57.9	7.61	< 0.298	2.74	< 0.0099	< 0.50	0.0129	8.11	1.09
GP-13	Boring 1	14-15	11/19/2016	GP-13-1-14-15-111916	Soil	138	43.9	103	7.96	< 0.299	3.96	< 0.010	< 0.50	0.0171	7.58	1.96
GP-13	Boring 2	1-2	11/19/2016	GP-13-2-1-2-111916	Soil	151	21.5	92.5	6.41	< 0.300	6.96	< 0.010	< 0.50	0.0103	7.56	2.64
GP-13	Boring 2	3-4	11/19/2016	GP-13-2-3-4-111916	Soil	562	< 9.99	512	8.86	< 0.299	11.7	0.12	120	0.00490	11.6	5.95
GP-13	Boring 2	13-14	11/19/2016	GP-13-2-13-14-111916	Soil	1280	313	548	9.05	< 0.299	28.0	< 0.010	< 0.50	0.0115	7.25	3.56
GP-13	Boring 3	0-1	11/19/2016	GP-13-3-0-1-111916	Soil	776	12.1	1190	7.49	< 0.300	18.4	< 0.010	< 0.50	0.0123	8.80	11.6
GP-13	Boring 3	8-9	11/19/2016	GP-13-3-8-9-111916	Soil	1780	< 4.99	28500	8.90	< 0.298	240	0.13	< 0.50	0.00835	11.3	186
GP-13	Boring 3	14-15	11/19/2016	GP-13-3-14-15-111916	Soil	1260	125	1590	7.38	< 0.300	32.6	< 0.0099	< 0.50	0.00691	8.04	11.4
GP-13	Boring 4	0-1	11/19/2016	GP-13-4-0-1-111916	Soil	164	< 4.99	40.1	5.95	< 0.299	2.55	< 0.0099	< 0.50	0.0106	8.95	0.862
GP-13	Boring 4	5-6	11/19/2016	GP-13-4-5-6-111916	Soil	297	< 5.00	688	8.46	< 0.301	11.7	0.12	2200	0.00800	12.0	11.0
GP-13	Boring 4	14-15	11/19/2016	GP-13-4-14-15-111916	Soil	3060	< 4.99	3860	6.72	< 0.300	72.4	0.065	< 0.50	0.0128	8.68	19.2
GP-13	Boring 5	2-3	11/19/2016	GP-13-5-2-3-111916	Soil	1720	< 4.97	7560	6.58	< 0.300	87.9	0.063	35	0.00726	10.6	50.2
GP-13	Boring 5	5-6	11/19/2016	GP-13-5-5-6-111916	Soil	2130	< 4.99	43400	10.6	< 0.300	438	< 0.0099	48	0.00890	10.3	259
GP-13	Boring 5	13-14	11/19/2016	GP-13-5-13-14-111916	Soil	64.8	6.94	73.5	7.33	< 0.299	1.50	< 0.0099	< 0.50	0.00891	8.57	2.32
GP-13	Boring 6	1-2	11/19/2016	GP-13-6-1-2-111916	Soil	217	25.5	269	6.75	< 0.300	5.46	< 0.0099	< 0.50	0.0130	8.80	4.60
GP-13	Boring 6	5-6	11/19/2016	GP-13-6-5-6-111916	Soil	111	< 9.97	414	9.22	< 0.299	5.30	0.13	95	0.00926	11.6	10.8
GP-13	Boring 6	13-14	11/19/2016	GP-13-6-13-14-111916	Soil	68.1	7.76	33.2	7.37	< 0.299	1.16	< 0.0099	< 0.50	0.0115	7.80	1.02
GP-13	Boring 7	1-2	11/19/2016	GP-13-7-1-2-111916	Soil	67.9	12.4	18.4	7.53	< 0.298	1.10	< 0.010	< 0.50	0.0115	8.11	0.539
GP-13	Boring 7	10-11	11/19/2016	GP-13-7-10-11-111916	Soil	867	< 10.0	160	8.39	< 0.300	12.9	0.24	3000	0.00850	12.0	1.50
GP-13	Boring 7	13-14	11/19/2016	GP-13-7-13-14-111916	Soil	44.4	5.18	30.5	8.03	< 0.299	0.758	< 0.010	< 0.50	0.0121	8.35	1.15
GP-13	Boring 8	2-3	11/19/2016	GP-13-8-2-3-111916	Soil	202	< 5.00	17.9	6.82	< 0.300	2.20	< 0.0099	< 0.50	0.00867	8.12	0.347
GP-13	Boring 8	13-14	11/19/2016	GP-13-8-13-14-111916	Soil	357	43.2	109	5.72	< 0.298	7.36	< 0.010	< 0.50	0.00814	7.39	1.45
GP-13	Boring 8	14-15	11/19/2016	GP-13-8-14-15-111916	Soil	67.9	8.03	66.4	6.38	< 0.299	1.64	< 0.0099	< 0.50	0.00949	8.06	2.03

Notes:
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Cr(III) = Trivalent Chromium
Cr(VI) = Hexavalent Chromium
DRO = Diesel Range Organics
EC = Electrical Conductivity
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meq/meq = milliequivalent
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mmhos/cm = micromho per centimeter
NS = not specified
pH = acidic/basic of water
SAR = Sodium Adsorption Ratio
sat = saturation
TPH= total petroleum hydrocarbons
Exceed the corresponding Table 910-1 concentration screening level.

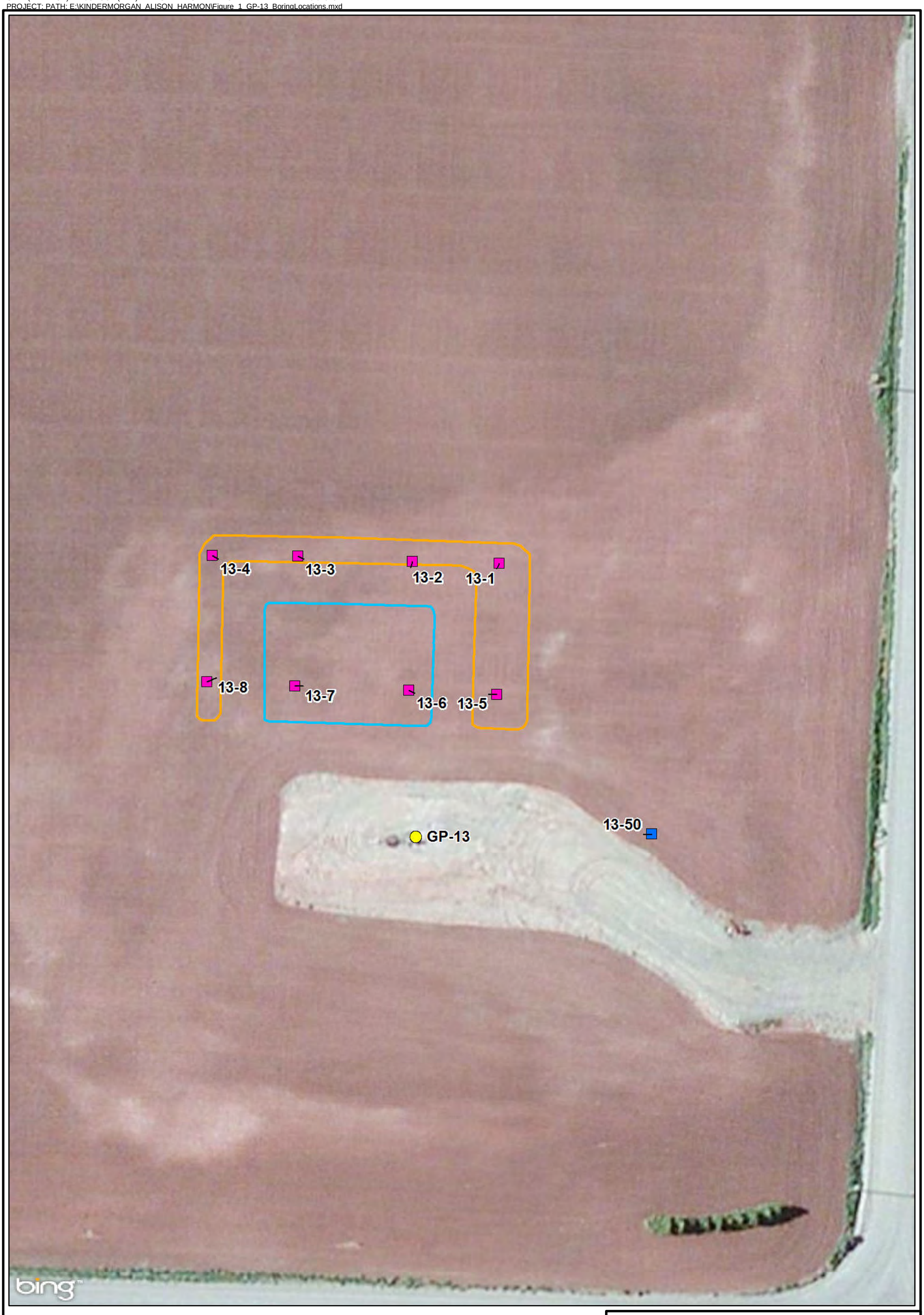
Table 2 - Groundwater Analytical Results for Samples Collected at McElmo Dome Site GP-13
Kinder Morgan CO2 Company LP

						Volatiles						TDS	Anions	
Site	Sample Location	Depth (ft bgs)	Date Collected	Sample ID	Matrix	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Toluene	Total Xylenes	Total Dissolved Solids*	Chloride*	Sulfate*
			Table 910-1 Screening Level			5	700	NS	NS	560 to 1,000	1,400 to 10,000	3,625	141	2,100
			Units			ug/L						mg/L		
GP-13	Boring 50	50	11/14/2016	GP-13-50-111416	GW	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	1090	157	528

Notes:
bgs = below ground surface
ft = feet
GW = groundwater
mg/L = milligrams per liter
NS = not specified
TDS = total dissolved solids
ug/L = micrograms per liter
Exceed the corresponding Table 910-1 concentration screening level.
* Screening level calculated as 1.25 times the background (assuming background level of TDS is at 2,900 mg/L, chloride is at 113 mg/L, and sulfate is at 1,680 mg/L).

FIGURES

CITY: (DENTECH) DIV/GROUP:(ENV) DB:KGPETERS LD: PIC: PM: TM: DATE: 12/7/2016
PROJECT: PATH: E:\KINDERMORGAN_ALISON_HARMON\Figure_1_GP-13_BoringLocations.mxd



LEGEND

- Production Well
- Shallow Boring Location
- Deep Boring Location
- Salt Water Pit 10 Feet Deep
- Fresh Water Reserve Pit 10 Feet Deep

0 60

SCALE IN FEET

KINDER MORGAN
CORTEZ, CO

GP-13 SITE FEATURES

ARCADIS

FIGURE
1

ATTACHMENT A

Form 27 Application

FORM 27 Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

RECEIVED
MAY 05 2016
COGCC

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV
Tracking No:

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☑ Other (describe): Evaluation of Former Drilling Pit Area

OGCC Operator Number: 46685
Name of Operator: Kinder Morgan CO2 Co
Address: 17801 Hwy 491
City: Cortez State: CO Zip: 81321

Contact Name and Telephone:
Andrew Antipas
No: 970-882-5534
Fax: 970-882-5521

API Number: 05-083-06645
Facility Name: N/A
Well Name: Goodman Point (GP-13)
County: Montezuma
Facility Number: N/A
Well Number: 13
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SE 1/4, SE 1/4, Sec 32, T37N, R17W Latitude: 37.41371 N Longitude: 108.73823 W

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Potential for CO2 well drill cuttings exceeding Pre 2008 Table 910-1 concentrations

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☑ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Dry Land Farming, Rangeland, residential

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Submitted on previous Form 2A

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Residence with a water well located approximatly 400 feet east southeast of this location.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):		Extent of Impact:	How Determined:
☑	Soils	Not yet determined	
☐	Vegetation		
☑	Groundwater	Not yet determined	
☐	Surface Water		

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

To date the only initial actions that have taken place is to conduct a water well review to identify water wells winin 1/2 mile of the location and the preparation of the attached scope of work for the assessment of the former drilling pit location.

Describe how source is to be removed:

Upon completion of assessment activities, Kinder Morgan will meet with COGCC and present a Remediation Work plan if subsurface conditions warrant.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Upon the completion of the assessment activities, Kinder Morgan will submit the results to the COGCC along with any remediation plans (as needed) for teh consideration and approval of the COGCC.

Submit Page 2 with Page 1

FORM 27 Rev 6/99

Page 2

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax:(303)894-2109

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

There are no anticipated impacts to groundwater at this location, however, there is a residence within 400 feet of the location with a water well. This water well is approximatly 400 feet East, Southeast of the well location. Residence in this area are connected to a municipal water system. An additional boring will be advanced to a depth of 50 feet below ground surface at the location to evaluate the potential for shallow groundwater in the area. If groundwater is present in this 50 foot boring, a water sample will be collected and submitted for analysis by the pre 2008 COGCC Table 910 constituents.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

If a remediation plan is deemed necessary, Kinder Morgan will address any needed reclamation activities within the remediation plan. This would be completed after Kinder Morgan submits the soil assessment report to the COGCC.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☐ N If yes, describe:

No soil samples are available at this time. Proposed soil boring locations are presented on the figure included within the attached general scope of work.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

If offsite disposal of any material is deemed necessary, a properly licensed disposal facilitiy will be used.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 2Q 2016	Date Site Investigation Completed: _____	Date Remediation Plan Submitted: _____
Remediation Start Date: _____	Anticipated Completion Date: _____	Actual Completion Date: _____

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Andrew Antipas Signed: Andrew Antipas

Title: Project Manager Date: 5-3-2016

OGCC Approved: _____ Title: Environmental Protection Specialist Date: 5/17/16

See COAs

KINDER MORGAN
CO_2 COMPANY, L.P.

General Scope of Work for Goodman Point (GP-13)

Kinder Morgan CO2 – McElmo Dome and Doe Canyon Units
SW Colorado

Applicable COGCC 910 Table
Pre 2008 Table 910

Groundwater Anticipated
A residence approximately 400 feet to the east, southeast of the location contains a water well. Residences in this area are also connected to the local water supply system. Kinder Morgan will advance a soil boring to a depth of up to 50 feet in depth to evaluate the potential for shallow groundwater in the area.

Site Assessment
The site assessment is intended to collect current data from the former drilling pit location including:

- Photographic documentation of current surface vegetation and current land use.
- Soil samples from 8 boring locations within the former pit area to gather the following data:
  - Thickness of the "clean" soil cap and collection of soil samples to determine constituents of the boring.
  - Thickness of any drilling material left in the former drilling pit and soil samples to evaluate current concentrations of applicable constituents.
  - Document the presence or absence of any liner material.
  - Depth to native soils below the former drilling pit.
- One soil boring to a depth of 50 feet below ground surface (or until groundwater is encountered) including soil sampling and water sampling (if encountered).
- GPS coordinates of each soil boring location.
- Summary report

<u>Soil Boring Program:</u>
Eight soil borings will be advanced to native soils below the former drilling pit location to assess the current conditions of the former drilling pits. Borings will not extend more than 2 feet below the bottom of the former drilling pit. Also, an additional soil borings will be advanced outside of the pit area to either 50 feet in depth or until groundwater is encountered. The soil boring program will be conducted as follows:

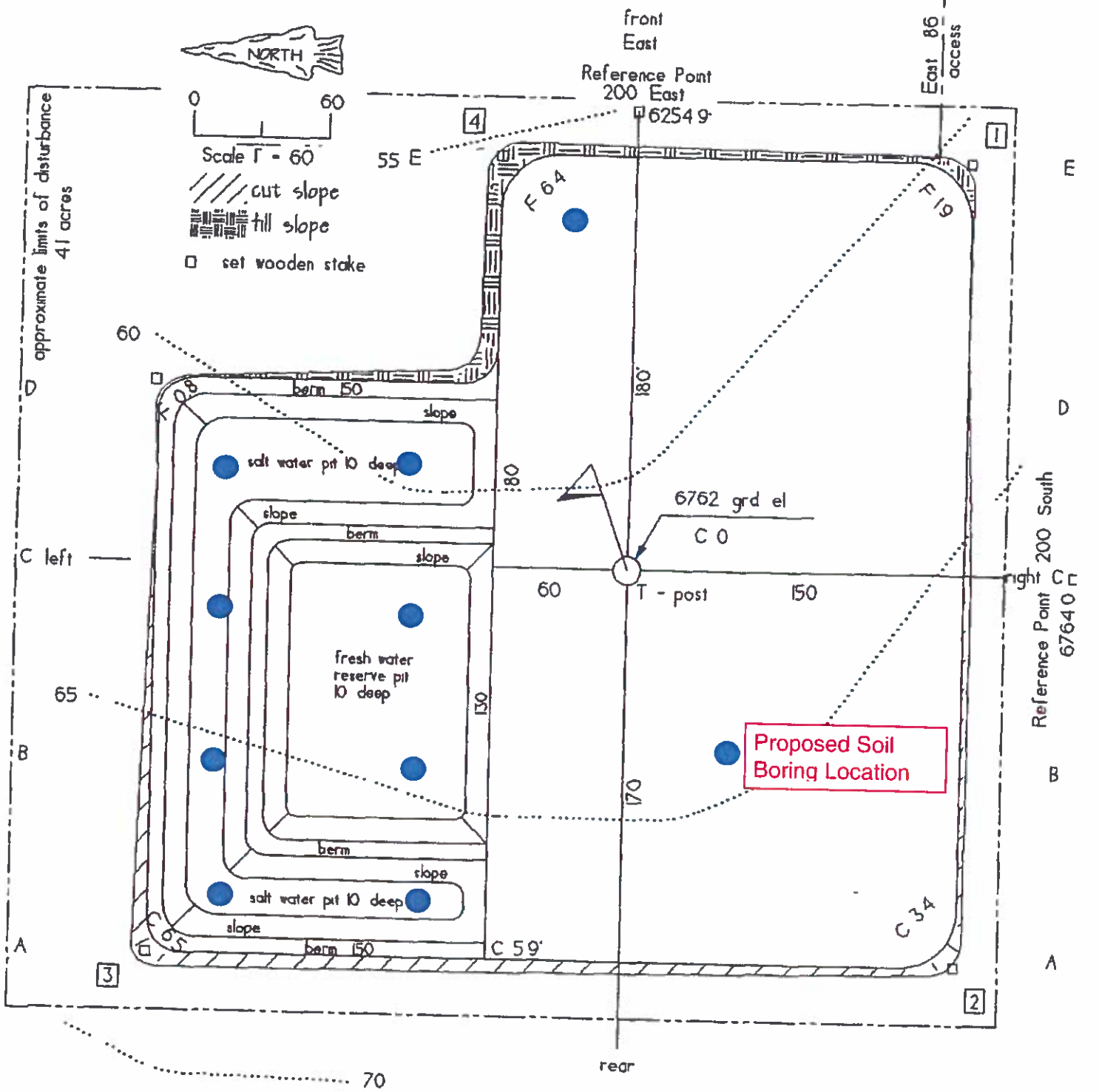
- All necessary utility notifications will be made prior to advancing soil borings.

- A hollow stem auger rig will be utilized to collect a continuous sample of each boring.
- Photograph each full diameter split spoon for inclusion in the assessment report.
- Field screen a sample of each 1 foot interval for total chloride concentration and note on a boring log. Jar the remainder of the sample for potential laboratory analysis for constituents identified on the pre 2008 COGCC Table 910. The typical sample submittal for laboratory analysis for each boring will be as follows:
    - Highest chloride sample interval observed from the surface to 3 feet bgs.
    - Highest chloride concentration of the visually identified drilling waste. If no waste is visible, the highest observed chloride concentration from 3 feet bgs to 20 feet bgs.
    - The bottom boring sample.
    - The deeper soil boring will only have a 1 foot soil sample collected every 5 feet to the total depth of the boring. The highest chloride sample interval and the sample from the bottom of the boring will be submitted for laboratory analysis. In addition, if groundwater is encountered, a water sample will be collected and submitted for analysis by the pre 2008 COGCC Table 910 constituents.
    - Please note that groundwater is not anticipated to be encountered in the shallow borings, however, perched water may be encountered in the bottom of the hole in select locations. If groundwater is encountered, a sample will be submitted for analysis as well by the applicable COGCC Table 910 constituents.
- Collect the GPS coordinate for each boring with an accuracy of less than 1 foot.
- Backfill each boring with removed material. There may be a few locations where placing the drill cuttings on plastic will be required. If so, the cuttings will be moved from the former drilling pit location and placed on the adjacent Kinder Morgan CO2 well pad and stored in a manner acceptable to the COGCC.

Summary Report:

Upon completion of the site assessment activities, a summary report will be completed. This summary report should contain all sampling information, including sampling data from laboratory, and drawings of sampling sites.

GP - 13
pad planview



Remediation Project Number: 9666 (Document #200439556) **Location ID: 313620**

Kinder Morgan CO_2 Co., SESE Section 32, T37N, R17W, N PM, Montezuma County, Colorado, Form 27 Conditions of Approval (COAs)

Conditions of Approval:

Conditionally approved, however, additional information or activities may be required during the course of remediation/reclamation.

COGCC approval is contingent on operator providing notice to SW Environmental Protection Specialist Jim Hughes, jimo.hughes@state.co.us or 970-903-4072 a minimum of 72 hours prior to conducting field operations.

The operator shall collect discrete soil samples to adequately characterize impacted material. Composite samples will NOT be accepted for this purpose. Current COGCC Rules and Regulations regarding pit closures and clean-up standards shall be applied, specifically, but not limited to, the 900 and 1000 series rules. Given that there is no evidence or documentation of pit closure, the current COGCC Rules and Regulations effective May 1, 2009 on federal lands and April 1, 2009 on fee surface shall apply.

Should impacted material be discovered, regardless of size, the operator shall document the source and location, the impacted media and the extent of impact, how and when the operator plans to remediate the impacts, the final disposition of any impacted material removed from the location, as well as analytical results from confirmation samples.

Boreholes shall be abandoned per the Colorado Division of Water Resources Water Well Construction Rules.

If any impacted material generated during investigation is temporarily stored on adjacent well pad per COGCC rules and regulations, a Form 4 Sundry Notice shall be submitted by the Operator stating the reason and estimated timeline proposed for the storage of impacted material.

Surface reclamation must meet the COGCC 1000 series rules. Approval of this Form 27 does not imply approval of the reclamation plan submitted by the operator. The operator shall contact the COGCC regional reclamation specialist (Catherine Roy) regarding compliance with 1000 series Rules.

Kinder Morgan CO_2 Co., SESE Section 32, T37N, R17W, N PM, Montezuma County, Colorado, Form 27 Conditions of Approval (COAs)

ATTACHMENT B

Boring Logs

ARCADIS

EXPLORATORY BORING LOG

project no: COOO2255.0001 | date: 11 - 19 - 16 | boring number: GP-13-1

client: Kinder Morgan

location: Cortez, CO

logged by: B. Draeger

driller/helper: Kyvek

page 1 of 1

field location of boring:
N: 772417.60'
E: -8629325.26'

ground elevation: 6675.86' datum: NAD 1983

drilling method: Hollow Stem Auger
hole diameter:
casing diameter:
well completion data:
0730 - 0800

boring/well construction	headspace: gastech (PID) FID ppm	Conductivity sample number	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	1.0	0.10	6				Top Soil	
			7	1				
	3.4	0.15	7				Clayey Silt w/ some c. Sand, hard, dry, non plastic, poorly graded, reddish brown	
			6	2				
	19.2	0.05	6		①		light reddish brown contaminated soil,	
			15	3			v. hard, dry, cemented f. Sand w/ silt and some	
	10.7	0.34	15				halite pieces, ~~root~~ mod poor grading	
			10	4			Same as 0.5'	
	4.1	0.18	8					
			9	5				
	2.1	0.23	12					
			10	6				
	1.6	0.17	3					
			9	7				
	1.5	0.26	15				Silty Sand, f. Sand, loose/soft, dry, non	
			15	8			plastic, v. poorly graded, tan	
	1.3	0.21	2				Sandy Silt, SAA but cohesive	
			9	9				
	1.2	0.25	16					
			15	10				
	2.3	0.64	3				Becomes damp, slightly sticky, and	
			10	11			darker brown	
	1.3	0.30	14				reddish	
			10	12				
	1.2	0.10	15					
			10	13				
	15.4	0.27	19		②			
			12	14				
	13.0	0.18	5		③			
			9	15			End Boring	
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: COOO2255.0001 | date: 11-19-16 | boring number: GP-13-2

client: Kinder Morgan

location: Cortez, CO

logged by: B. Draeger

driller/helper: Kyvek

page 1 of 1

field location of boring:
N: 772444.26'
E: -8629380.71'

ground elevation: 6697.71' datum: NAD 1983

drilling method: Hollow Stem Auger
hole diameter:
casing diameter:
well completion data: 0810 - 0840

boring/well construction	headspace: gastech (PID) FID ppm	Conductivity sample number	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	5.1	0.13	3					Top Soil
			5	1				Clayey silt, dry to damp, hard, cohesive, non plastic,
	6.1	0.42	5		①			v. poorly graded, reddish brown
			8	2				
	1.9	0.26	5					
			8	3				
	64.3	0.14	10		②			Light reddish contaminated soil
			10	4				Cemented silty sand w/ some baite, f. to c. sand,
	34.8	0.66	6					hard, non plastic, mod poor grading, dry
			15	5				
	35.2	1.34	28					
			28	6				SAA but loose and dark gray
	29.1	2.90	4					
			12	7				
	6.2	3.24	21					Sandy clay, v.f. sand, hard, dry, crumbly,
			20	8				non-plastic, v. poorly graded, mix of tan
	4.8	2.94	4					and reddish brown
			15	9				
	3.1	2.28	25					
			20	10				
	4.3	5.63	6					
			14	11				
	1.7	1.17	16					
			15	12				
	2.1	0.23	4					Same as 0.5'-3'
			12	13				
	2.1	0.93	18		③			
			18	14				
								End Boring
				15				
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG 19

project no: COOD2255.0001
client: Kinder Morgan
location: Cortez, CO
logged by: B. Draeger
driller/helper: Kyvek
date: 11 - ~~18~~ -16
boring number: GP-13-3
page 1 of 1

field location of boring:
N: ~~7724.65~~ 772465.44'
E: -8629439.92'

ground elevation: 6699.13' datum: NAD 1983

drilling method: Hollow Stem Auger
hole diameter:
casing diameter:
well completion data:
0900-0940

boring/well construction	headspace: gastech (PID) FID ppm	~~sample number~~ Conductivity	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	4.1	0.08	3		①			Top Soil
			6	1				Clayey silt, hard, dry, non-plastic, v poorly graded, slightly reddish brown
	2.5	0.09	9					
			8	2				
	2.9	0.15	8					
			10	3				
	2.8	0.22	12					darker brown, slightly sticky
			15	4				
	17.1	0.20	3					Light reddish contamination; cemented silty sand (f. to med) w/ halite, dry, hard, non-plastic, mod poorly graded
			13	5				
	21.8	0.61	15					
			28	6				SAA but loose and dark gray
	29.1	1.81	11					Small piece of liner seen @ 6'
			24	7				
	26.2	1.12	38					Mixed w/ cohesive clay; still dry so still crumbly when broken
			40	8				
	40.7	1.30	6		②			
			28	9				
	6.2	1.26	26					Clayey silt, dry, crumbly but hard, non plastic, v. poorly graded, tan and reddish brown
			25	10				
	18.6	7.41	1					
			9	11				
	3.3	3.63	18					
			16	12				
	3.6	1.85	2					
			8	13				
	2.8	0.72	11					Increase in clay content and stickiness dark reddish brown
			10	14				
	6.9	0.60	4		③			
			10	15				
								End Boring
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: COOO2255.0001 | date: 11 - 19 -16 | boring number: GP-13-4
client: Kinder Morgan
location: Cortez, CO
logged by: B. Draeger
driller/helper: Kyvek
page 1 of 1

field location of boring:
N: 772480.40'
E: -8629484.62'

ground elevation: 6701.05' datum: NAD 1983

drilling method: Hollow Stem Auger
hole diameter:
casing diameter:
well completion data: 0945 1015

water level | | | | |
time | | | | |
date | | | | |

boring/well construction	headspace: gastech (PID) FID ppm	Conductivity sample number	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	
	6.2	0.08	2		①		Top Soil
			8	1			~~Clayey Silt~~ Silty clay, hard, dry, non plastic, v. poorly graded, reddish brown
	4.3	0.19	11				
			10	2			
	3.5	0.06	4				damp, slightly sticky
			8	3			
	4.2	0.15	11				
			11	4			
	4.1	0.15	2				Contaminated Reddish Soil
			8	5			Silty & Sand (f. to med), damp, mod soft, sticky
	35.4	0.41	16		②		w/ non plastic, mod graded
			15	6			Sand increases, moisture decreases (dry; loose)
	15.1	0.78	12				Becomes mixed w/ dark gray, sandy, contaminated
			35	7			Soil
	25.6	1.85	50				
				8			
	11.5	2.44	1				Mixture from above becomes partially wet
			14	9			and sticky
	11.9	9.71	25				Returns to dry and hard
			35	10			
	24.4	2.69	15				
			36	11			
	22.7	1.28	25				
			26	12			
	4.5 ~~6.0~~	0.95	4				Sandy silt, f. sand, damp, mod soft, non plastic,
			4	13			v. poorly graded, light tan
	6.0	1.41	10				
			8	14			
	15.9	0.80	6		③		
			10	15			
							End Boring
				16			
				17			
				18			
				19			
				20			

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: CO002255.0001 | date: 11-18-16 | boring number: GP-13-5

client: Kinder Morgan

location: Cortez, CO

logged by: B. Draeger

filler/helper:

page 1 of 1

field location of boring:

~~drilling method:~~ Coordinates

~~hole diameter:~~ N: 772336.55'

~~casing diameter:~~ E: -8629359.10'

~~well completion data:~~ Elev: 6697.66'

1330-1350

ground elevation: | datum:

boring/well construction	headspace: gastech (PID) FID ppm	~~sample number~~ Conductivity	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	2.7	0.05	3					Top Soil
			5	1				Clayey Silt, hard, dry, v poorly graded, non plastic, reddish brown
	2.5	0.08	5					
			5	2				
	15.9	0.77	3		(1)			Reddish contaminated Soil
			10	3				
	21.3	3.66	15					
			18	4				Black contaminated soil, loose sand (C) and halite mix, V. poorly graded, dry
	44.9	3.42	5					
			13	5				
	60.7	3.23	18		(2)			Layer of clayey Silt seen at 0.5'
			16	6				Black contaminated soil, small pocket of yellow "goo" at base of 5'.
	56.7		3					
			8	7				
	6.1	0.57	18					Returns to clayey Silt
			20	8				
	—	—	5					NO Recovery
	—	—	15	9				
	6.0	0.66	20					Clayey Silt seen above
			22	10				
	2.7	0.95	3					
			9	11				
	2.9	0.39	12					
			11	12				
	3.0	0.72	3					
			9	13	(3)			
	3.2	0.48	11					
			11	14				End Boring
				15				
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: CO002255.0001 date: 11 - 18 -16 boring number: GP-13-6

client: Kinder Morgan

location: Cortez, CO

logged by: B. Draeger

driller/helper:

page 1 of 1

field location of boring:

~~drilling method:~~ Coordinates

~~hole diameter:~~ N: 772358.00'

~~casing diameter:~~ E: -8629401.54'

~~well completion data:~~ ELEV: 6689.69'

1245 – 1305

ground elevation: datum:

boring/well construction	headspace: gastech (PID) FID ppm	~~sample number~~ Conductivity	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	3.0	0.03	2				Top Soil	
			5	1			Sandy Silt w/ clay, f. Sand w/ some c., dry to damp,	
	5.3	0.17	6		①		hard, non-plastic, ~~poorly~~ poorly graded, reddish brown,	
			5	2			~~mod~~ hard	
	3.4	0.22	4					
			6	3				
	1.3	0.11	7					
			5	4				
	55.2	0.04	7				Reddish contaminated soil; cemented sand and	
			13	5			silt (f. to med sand) w/ halite, dry, crumbly,	
	68.9	0.10	22		②		mod graded	
			23	6				
	71.1	0.17	~~11~~ 2					
			~~12~~ 10	7				
	41.8	0.09	20					
			8	8				
	44.9	0.18	2					
			5	9			Becomes v. moist and sticky	
	10.6	0.11	4				Thin layer of f., soft, v. poorly graded gray sand	
			4	10			Silty clay, v. hard and dry, non plastic, v.	
	6.7	0.23	5				poorly graded, reddish brown	
			12	11				
	6.4	0.06	18					
			16	12				
	5.8	0.02	5					
			12	13				
	4.5	0.02	15		③			
			18	14				
							End Boring	
				15				
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: COOO2255.0001 | date: 11 - 18 - 16 | boring number: GP-13-B

client: Kinder Morgan

location: Cortez, CO

logged by: B. Draeger

driller/helper: Kyvek

page 1 of 1

field location of boring:
N: 772384.92'
E: -8629460.86'

ground elevation: 6698.92' datum: NAD 1983

drilling method: Hollow Stem Auger
hole diameter:
casing diameter:
well completion data:
1145 - 1230

boring/well construction	headspace: gastech PID FID ppm	sample number	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	2.3	0.10	3					Top Soil
			6	1				Sandy silt w/ clay, f. sand, v. hard, dry,
	2.8	0.17	7		①			non plastic, v. poorly graded, reddish
			5	2				brown
	1.2	0.23	3					Clay content and cohesiveness increase
			5	3				
	2.7	0.34	8					
			5	4				
	2.0	0.50	2					
			4	5				
	38.8	0.28	10					
			13	6				Light reddish contaminated Soil
	55.0	0.32	5					Silty sand, loose, dry, non plastic, non cohesive,
			8	7				f. to med sand w/ halite pieces, mod grading
	51.1	0.02	16					
			24	8				
	57.7	0.04	8					
			12	9				
	48.6	0.09	10					
			24	10				Becomes cemented and hard
	65.1	0.08	10		②			
			16	11				
	8.5	0.07	13					
			18	12				Sandy silt, v. f. sand, hard, dry, cohesive, non plastic,
	6.9	0.06	8					V. poorly graded, tan and reddish brown
			16	13				
	6.0	0.08	22		③			
			23	14				
								End Boring
				15				
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ARCADIS

EXPLORATORY BORING LOG

project no: CO002255.0001 date: 11-18-16 boring number: GP-13-8
client: Kinder Morgan
location: Cortez, CO
logged by: B. Draeger
driller/helper:
field location of boring:

page 1 of 1

~~drilling method:~~ Coordinates
~~hole diameter:~~ N: 772407.90
~~casing diameter:~~ E: -8629508.12'
~~well completion data:~~ Elev: 6099.69
1030 - 1100

ground elevation: datum:

Conductivity

boring/well construction	headspace: gastech (PID) FID ppm	~~sample number~~	blows per foot or pressure in psi	depth	sample	soil group symbol (USCS)	water level / time / date	
	3.5	0.08	3				Top Soil	
			7	1				
	2.7	0.11	5				Silty clay, hard/sticky/cohesive, mod plasticity, damp, V. poorly graded, dark brown	
			5	2				
	4.2	0.34	4		(1)			
			5	3				
	3.9	0.04	8					
			8	4				
	3.2	0.12	3					
			8	5				
	3.6	0.05	13					
			15	6			Sandy silt, f. sand, loose, dry, non plastic, v. poorly graded, tan	
	2.5	0.15	2					
			5	7				
	3.1	0.14	12					
			10	8				
	2.9	0.17	8					
			14	9				
	1.2	0.33	18				Silt content, moisture, cohesiveness increase, dark brown	
			16	10				
	1.9	0.78	5					
			10	11				
	3.9	0.22	12					
			12	12				
	4.2	0.25	6		2			
			13	13				
	7.5	0.28	18		(2)			
			18	14				
	8.3	0.12	4		(3)			
			8	15			End Boring	
				16				
				17				
				18				
				19				
				20				

USCS lithology; Munsell color; sorting; grain size; lith. %s; modifiers; consistency; moisture.

ATTACHMENT C

Photo Log

Project Photographs

McElmo Dome
Cortez, Colorado

Photo: 1

Date:
11/19/16

Description:
Looking north

Location:
GP-13

Photo: 2

Date:
11/19/16

Description:
Looking east

Location:
GP-13

Project Photographs

McElmo Dome
Cortez, Colorado

Photo: 3

Date:
11/19/16

Description:
Looking south

Location:
GP-13

Photo: 4

Date:
11/19/16

Description:
Looking west

Location:
GP-13

ATTACHMENT D

Field Notes

ARCADIS Design & Consultancy for natural and built assets

DAILY LOG

Project No.: 60022255.0001 Page 1 of

Site Location: Cortez, CO

Prepared By: Beth Draeger

Date	Time	Description of Activities
11/14/16	0645	Arrive at warehouse to ice and prep Friday samples for pick up
	0715	Drillers arrive
		Drillers began breaking down their equipment to move to GP-13
	1145	Set up on GP-13; began advancing.
		Collected GP-13 Coords and photos
	1300	Reached 50'; evidence of water; waited for it to fill in
		TD: 50'
		DTW: 44.1'
		Coords: N: 772241.69' Elev: - 8629303.83'
		E: 6699.03
	1340	Collected Sample
	1630	Clean up Site and demob

ARCADIS Design & Consultancy for natural and built assets

DAILY LOG

Project No.: C0002255.0001 Page 1 of 1

Site Location: Cortez, CO

Prepared By: B Dracger

Date	Time	Description of Activities				
11/19/16	0700	Arrive on site; setup @ GP-13				
	0730	Tailgate				
		Boring #	Start	Finish	~~Notes~~ TD	Notes
		1	0730	0800	15'	Reddish contaminated soil seen from 2'-3.5'
						No liner seen
		2	0810	0840	14'	Reddish and dark gray contaminated soil seen from 3'-7'
						no liner
		3	0900	0940	15'	Reddish and dark gray contaminated soil seen from 4'-9'
						Small piece of liner @ 6'
		4	0945	1015	15'	Reddish and dark gray contaminated soil seen from 4'-12'
						No liner seen
		8	1030	1100	15'	No contaminated soil or liner seen
		7	1145	1230	14'	Reddish contaminated soil seen from 5.5' to 11.5'
						No liner
		6	1245	1305	14'	Reddish contaminated soil seen from 4' to 9.5'
						no liner
		5				
	1200	Drill Rig had mechanical issues				
	1215	Issue resolved				
	1400	Depart to warehouse to clean				

ATTACHMENT E

Laboratory Analytical Reports

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

December 16, 2016

Aaron Hale
Kinder Morgan
1001 Louisiana Street
Suite 740D
Houston, TX 77002

Work Order: **HS16111131**

Laboratory Results for: **McElmo Dome**

Dear Aaron,

ALS Environmental received 27 sample(s) on Nov 23, 2016 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: Jumoke.Lawal
Sonia West
Project Manager

Client: Kinder Morgan
Project: McElmo Dome
Work Order: HS16111131

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16111131-01	GP-13-1-2-3-111916	Soil		19-Nov-2016 07:30	23-Nov-2016 08:51	☐
HS16111131-02	GP-13-1-13-14-111916	Soil		19-Nov-2016 07:50	23-Nov-2016 08:51	☐
HS16111131-03	GP-13-1-14-15-111916	Soil		19-Nov-2016 08:00	23-Nov-2016 08:51	☐
HS16111131-04	GP-13-2-1-2-111916	Soil		19-Nov-2016 08:10	23-Nov-2016 08:51	☐
HS16111131-05	GP-13-2-3-4-111916	Soil		19-Nov-2016 08:20	23-Nov-2016 08:51	☐
HS16111131-06	GP-13-2-13-14-111916	Soil		19-Nov-2016 08:40	23-Nov-2016 08:51	☐
HS16111131-07	GP-13-3-0-1-111916	Soil		19-Nov-2016 09:00	23-Nov-2016 08:51	☐
HS16111131-08	GP-13-3-8-9-111916	Soil		19-Nov-2016 09:20	23-Nov-2016 08:51	☐
HS16111131-09	TRIP BLANK 110316-48	Water		19-Nov-2016 00:00	23-Nov-2016 08:51	☐
HS16111131-10	GP-13-3-14-15-111916	Soil		19-Nov-2016 09:40	23-Nov-2016 08:51	☐
HS16111131-11	GP-13-4-0-1-111916	Soil		19-Nov-2016 09:45	23-Nov-2016 08:51	☐
HS16111131-12	GP-13-4-5-6-111916	Soil		19-Nov-2016 09:55	23-Nov-2016 08:51	☐
HS16111131-13	GP-13-4-14-15-111916	Soil		19-Nov-2016 10:15	23-Nov-2016 08:51	☐
HS16111131-14	GP-13-5-2-3-111916	Soil		19-Nov-2016 13:30	23-Nov-2016 08:51	☐
HS16111131-15	GP-13-5-5-6-111916	Soil		19-Nov-2016 13:40	23-Nov-2016 08:51	☐
HS16111131-16	GP-13-5-13-14-111916	Soil		19-Nov-2016 13:50	23-Nov-2016 08:51	☐
HS16111131-17	GP-13-6-1-2-111916	Soil		19-Nov-2016 12:45	23-Nov-2016 08:51	☐
HS16111131-18	TRIP BLANK 082916-80	Water		19-Nov-2016 00:00	23-Nov-2016 08:51	☐
HS16111131-19	GP-13-6-5-6-111916	Soil		19-Nov-2016 12:55	23-Nov-2016 08:51	☐
HS16111131-20	GP-13-6-13-14-111916	Soil		19-Nov-2016 13:05	23-Nov-2016 08:51	☐
HS16111131-21	GP-13-7-1-2-111916	Soil		19-Nov-2016 11:45	23-Nov-2016 08:51	☐
HS16111131-22	GP-13-7-10-11-111916	Soil		19-Nov-2016 12:15	23-Nov-2016 08:51	☐
HS16111131-23	GP-13-7-13-14-111916	Soil		19-Nov-2016 12:30	23-Nov-2016 08:51	☐
HS16111131-24	GP-13-8-2-3-111916	Soil		19-Nov-2016 10:30	23-Nov-2016 08:51	☐
HS16111131-25	GP-13-8-13-14-111916	Soil		19-Nov-2016 10:45	23-Nov-2016 08:51	☐
HS16111131-26	GP-13-8-14-15-111916	Soil		19-Nov-2016 11:00	23-Nov-2016 08:51	☐
HS16111131-27	TRIP BLANK 082916-88	Water		19-Nov-2016 00:00	23-Nov-2016 08:51	☐

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome
Work Order: HS16111131

Work Order Comments

• Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier.

The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

GC Semivolatiles by Method SW8015M

Batch ID: 110341

Sample ID: **GP-13-7-10-11-111916 (HS16111131-22)**
Sample ID: **GP-13-7-10-11-111916 (HS16111131-22MS)**
Sample ID: **GP-13-7-10-11-111916 (HS16111131-22MSD)**
• The surrogate recoveries could not be determined due to dilution below the calibration range.

Sample ID: **GP-13-7-10-11-111916 (HS16111131-22MS)**
• The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: **GP-13-7-10-11-111916 (HS16111131-22MSD)**
• The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Batch ID: 110283

Sample ID: **GP-13-1-2-3-111916 (HS16111131-01)**
Sample ID: **GP-13-2-3-4-111916 (HS16111131-05)**
• Due to sample matrix interferences, the surrogate recovery was outside of the established control limits.

Sample ID: **GP-13-4-5-6-111916 (HS16111131-12)**
• The surrogate recoveries could not be determined due to dilution below the calibration range.

GC Volatiles by Method SW8015

Batch ID: R285611,R285662,R285693

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R285585

• Surrogates failure for some samples due to sample matrix.

Batch ID: R285561

Sample ID: **GP-13-1-2-3-111916 (HS16111131-01)**
• Surrogate failure for HS16111131-01 due to sample matrix.

Sample ID: **HS16111139-21MS**
• MS and MSD are for an unrelated sample

Batch ID: R285471,R285473,R285613

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method La29B-6020

Batch ID: 110633,110634

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome
Work Order: HS16111131

Metals by Method La29B SAR

Batch ID: R286698

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method Calculation

Batch ID: R286328

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW7471A

Batch ID: 110508,110625

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020

Batch ID: 110396

Sample ID: **HS16111121-08MS**
• MS/MSD and DUPs are for an unrelated sample

Batch ID: 110399

Sample ID: **GP-13-4-0-1-111916 (HS16111131-11MS)**
• The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount. Barium

Sample ID: **GP-13-4-0-1-111916 (HS16111131-11MS)**
• Zinc failed on the MS but passed on the MSD and PDS.

Sample ID: **GP-13-4-0-1-111916 (HS16111131-11MSD)**
• Selenium failed on the MSD but passed on the MS and PDS.

Sample ID: **GP-13-4-0-1-111916 (HS16111131-11PDS)**
• The PDS recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount for Barium.

WetChemistry by Method LaDNR-29B EC

Batch ID: R286706,R286707

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9045B

Batch ID: R286219,R286285,R286307

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method LaDNR-29B SP

Batch ID: R286428,R286433

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW3550

Batch ID: R286008,R286009,R286097

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Kinder Morgan
Project: McElmo Dome
Work Order: HS16111131

CASE NARRATIVE

WetChemistry by Method SW3550

WetChemistry by Method SW7196

Batch ID: 110464,110549

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-2-3-111916
Collection Date: 19-Nov-2016 07:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 05:37
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 05:37
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 05:37
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 05:37
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 05:37
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 05:37
Surr: 1,2-Dichloroethane-d4	*90.9*		*70-128*	*%REC*	*1*	*29-Nov-2016 05:37*
Surr: 4-Bromofluorobenzene	*96.5*		*73-126*	*%REC*	*1*	*29-Nov-2016 05:37*
Surr: Dibromofluoromethane	*8.30*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 05:37*
Surr: Toluene-d8	*98.8*		*73-127*	*%REC*	*1*	*29-Nov-2016 05:37*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.27**		**0.050**	**mg/Kg**	1	29-Nov-2016 05:54
Surr: 4-Bromofluorobenzene	*84.5*		*70-130*	*%REC*	*1*	*29-Nov-2016 05:54*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**120**		**8.5**	**mg/Kg**	5	05-Dec-2016 21:35
Surr: 2-Fluorobiphenyl	*144*	*S*	*60-135*	*%REC*	*5*	*05-Dec-2016 21:35*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.81**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.06**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 08-Dec-2016		Analyst: JCJ
Calcium	**154**		**5.00**	**mg/L**	10	15-Dec-2016 13:51
Magnesium	ND		5.00	mg/L	10	15-Dec-2016 13:51
Sodium	**33.7**		**5.00**	**mg/L**	10	15-Dec-2016 13:51
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JDE
Arsenic	**2.79**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
Barium	**112**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
Boron	**10.3**		**2.34**	**mg/Kg**	1	02-Dec-2016 20:38
Cadmium	ND		0.469	mg/Kg	1	02-Dec-2016 20:38
Chromium	**8.81**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
Copper	**5.24**		**0.188**	**mg/Kg**	1	02-Dec-2016 20:38
Lead	**5.40**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
Nickel	**5.58**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
Selenium	ND		0.469	mg/Kg	1	02-Dec-2016 20:38
Silver	ND		0.469	mg/Kg	1	02-Dec-2016 20:38
Zinc	**24.9**		**0.469**	**mg/Kg**	1	02-Dec-2016 20:38
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**6.15**		**3.53**	**ug/Kg**	1	08-Dec-2016 17:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-2-3-111916
Collection Date: 19-Nov-2016 07:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**4.48**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Electrical Conductivity, 1:1 aqueous	**4.47**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Saturation % as decimal	**0.997**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.997**		**0.100**	**SP as fraction**	1	09-Dec-2016 11:25
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**28.8**		**0.0100**	**wt%**	1	05-Dec-2016 09:52
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**11.8**	H	**0.100**	**pH Units**	1	08-Dec-2016 17:00
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	08-Dec-2016 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-13-14-111916
Collection Date: 19-Nov-2016 07:50

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 06:03
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 06:03
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 06:03
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 06:03
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 06:03
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 06:03
Surr: 1,2-Dichloroethane-d4	*97.7*		*70-128*	*%REC*	*1*	*29-Nov-2016 06:03*
Surr: 4-Bromofluorobenzene	*91.4*		*73-126*	*%REC*	*1*	*29-Nov-2016 06:03*
Surr: Dibromofluoromethane	*107*		*71-128*	*%REC*	*1*	*29-Nov-2016 06:03*
Surr: Toluene-d8	*99.2*		*73-127*	*%REC*	*1*	*29-Nov-2016 06:03*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	29-Nov-2016 06:42
Surr: 4-Bromofluorobenzene	*75.2*		*70-130*	*%REC*	*1*	*29-Nov-2016 06:42*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 15:57
Surr: 2-Fluorobiphenyl	*66.9*		*60-135*	*%REC*	*1*	*02-Dec-2016 15:57*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.61**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.09**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 08-Dec-2016		Analyst: JCJ
Calcium	**214**		**5.00**	**mg/L**	10	15-Dec-2016 13:56
Magnesium	ND		5.00	mg/L	10	15-Dec-2016 13:56
Sodium	**57.9**		**5.00**	**mg/L**	10	15-Dec-2016 13:56
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JDE
Arsenic	**3.20**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
Barium	**153**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
Boron	**2.72**		**2.37**	**mg/Kg**	1	02-Dec-2016 20:42
Cadmium	ND		0.475	mg/Kg	1	02-Dec-2016 20:42
Chromium	**7.61**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
Copper	**8.46**		**0.190**	**mg/Kg**	1	02-Dec-2016 20:42
Lead	**7.74**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
Nickel	**8.83**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
Selenium	ND		0.475	mg/Kg	1	02-Dec-2016 20:42
Silver	ND		0.475	mg/Kg	1	02-Dec-2016 20:42
Zinc	**24.7**		**0.475**	**mg/Kg**	1	02-Dec-2016 20:42
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**12.9**		**3.56**	**ug/Kg**	1	08-Dec-2016 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-13-14-111916
Collection Date: 19-Nov-2016 07:50

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**2.74**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Electrical Conductivity, 1:1 aqueous	**1.38**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Saturation % as decimal	**0.503**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.503**		**0.100**	**SP as fraction**	1	09-Dec-2016 11:25
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**14.1**		**0.0100**	**wt%**	1	05-Dec-2016 09:52
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.11**	H	**0.100**	**pH Units**	1	08-Dec-2016 17:00
Temp Deg C @pH	**20.7**	H	**0**	**°C**	1	08-Dec-2016 17:00

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-14-15-111916
Collection Date: 19-Nov-2016 08:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 09:12
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 09:12
m,p-Xylene	ND		10	ug/Kg	1	29-Nov-2016 09:12
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 09:12
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 09:12
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 09:12
Surr: 1,2-Dichloroethane-d4	*95.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 09:12*
Surr: 4-Bromofluorobenzene	*87.0*		*73-126*	*%REC*	*1*	*29-Nov-2016 09:12*
Surr: Dibromofluoromethane	*107*		*71-128*	*%REC*	*1*	*29-Nov-2016 09:12*
Surr: Toluene-d8	*98.3*		*73-127*	*%REC*	*1*	*29-Nov-2016 09:12*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	29-Nov-2016 06:58
Surr: 4-Bromofluorobenzene	*92.3*		*70-130*	*%REC*	*1*	*29-Nov-2016 06:58*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 16:21
Surr: 2-Fluorobiphenyl	*63.1*		*60-135*	*%REC*	*1*	*02-Dec-2016 16:21*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.96**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.96**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 08-Dec-2016		Analyst: JCJ
Calcium	**138**		**5.00**	**mg/L**	10	15-Dec-2016 14:00
Magnesium	**43.9**		**5.00**	**mg/L**	10	15-Dec-2016 14:00
Sodium	**103**		**5.00**	**mg/L**	10	15-Dec-2016 14:00
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JDE
Arsenic	**2.98**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
Barium	**121**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
Boron	**2.89**		**2.31**	**mg/Kg**	1	02-Dec-2016 20:47
Cadmium	ND		0.462	mg/Kg	1	02-Dec-2016 20:47
Chromium	**7.96**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
Copper	**8.18**		**0.185**	**mg/Kg**	1	02-Dec-2016 20:47
Lead	**7.68**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
Nickel	**8.87**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
Selenium	ND		0.462	mg/Kg	1	02-Dec-2016 20:47
Silver	ND		0.462	mg/Kg	1	02-Dec-2016 20:47
Zinc	**26.2**		**0.462**	**mg/Kg**	1	02-Dec-2016 20:47
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**17.1**		**3.52**	**ug/Kg**	1	08-Dec-2016 17:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-1-14-15-111916
Collection Date: 19-Nov-2016 08:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**3.96**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Electrical Conductivity, 1:1 aqueous	**1.79**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Saturation % as decimal	**0.453**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.453**		**0.100**	**SP as fraction**	1	09-Dec-2016 11:25
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**14.5**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**7.58**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**21.1**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-1-2-111916
Collection Date: 19-Nov-2016 08:10

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 09:39
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 09:39
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 09:39
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 09:39
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 09:39
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 09:39
Surr: 1,2-Dichloroethane-d4	*88.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 09:39*
Surr: 4-Bromofluorobenzene	*84.2*		*73-126*	*%REC*	*1*	*29-Nov-2016 09:39*
Surr: Dibromofluoromethane	*99.5*		*71-128*	*%REC*	*1*	*29-Nov-2016 09:39*
Surr: Toluene-d8	*101*		*73-127*	*%REC*	*1*	*29-Nov-2016 09:39*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	29-Nov-2016 07:15
Surr: 4-Bromofluorobenzene	*83.3*		*70-130*	*%REC*	*1*	*29-Nov-2016 07:15*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 16:45
Surr: 2-Fluorobiphenyl	*61.1*		*60-135*	*%REC*	*1*	*02-Dec-2016 16:45*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.41**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**2.64**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 08-Dec-2016		Analyst: JCJ
Calcium	**151**		**5.00**	**mg/L**	10	15-Dec-2016 14:05
Magnesium	**21.5**		**5.00**	**mg/L**	10	15-Dec-2016 14:05
Sodium	**92.5**		**5.00**	**mg/L**	10	15-Dec-2016 14:05
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JDE
Arsenic	**2.09**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
Barium	**140**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
Boron	**2.59**		**2.39**	**mg/Kg**	1	02-Dec-2016 20:51
Cadmium	ND		0.479	mg/Kg	1	02-Dec-2016 20:51
Chromium	**6.41**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
Copper	**6.02**		**0.191**	**mg/Kg**	1	02-Dec-2016 20:51
Lead	**5.85**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
Nickel	**7.15**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
Selenium	ND		0.479	mg/Kg	1	02-Dec-2016 20:51
Silver	ND		0.479	mg/Kg	1	02-Dec-2016 20:51
Zinc	**20.3**		**0.479**	**mg/Kg**	1	02-Dec-2016 20:51
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**10.3**		**3.57**	**ug/Kg**	1	08-Dec-2016 17:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-1-2-111916
Collection Date: 19-Nov-2016 08:10

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**6.96**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Electrical Conductivity, 1:1 aqueous	**3.14**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
Saturation % as decimal	**0.452**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 09:45
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.452**		**0.100**	**SP as fraction**	1	09-Dec-2016 11:25
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**16.1**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**7.56**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**21.0**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-3-4-111916
Collection Date: 19-Nov-2016 08:20

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 12:22
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 12:22
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 12:22
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 12:22
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 12:22
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 12:22
Surr: 1,2-Dichloroethane-d4	*104*		*70-128*	*%REC*	*1*	*29-Nov-2016 12:22*
Surr: 4-Bromofluorobenzene	*94.6*		*73-126*	*%REC*	*1*	*29-Nov-2016 12:22*
Surr: Dibromofluoromethane	*11.7*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 12:22*
Surr: Toluene-d8	*98.2*		*73-127*	*%REC*	*1*	*29-Nov-2016 12:22*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.12**		**0.050**	**mg/Kg**	1	29-Nov-2016 07:31
Surr: 4-Bromofluorobenzene	*80.1*		*70-130*	*%REC*	*1*	*29-Nov-2016 07:31*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**120**		**8.5**	**mg/Kg**	5	05-Dec-2016 21:11
Surr: 2-Fluorobiphenyl	*148*	*S*	*60-135*	*%REC*	*5*	*05-Dec-2016 21:11*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.86**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**5.95**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JCJ
Calcium	**562**		**9.99**	**mg/L**	10	15-Dec-2016 14:14
Magnesium	ND		9.99	mg/L	10	15-Dec-2016 14:14
Sodium	**512**		**9.99**	**mg/L**	10	15-Dec-2016 14:14
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.69**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
Barium	**83.0**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
Boron	**11.8**		**2.39**	**mg/Kg**	1	05-Dec-2016 23:19
Cadmium	ND		0.477	mg/Kg	1	05-Dec-2016 23:19
Chromium	**8.86**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
Copper	**5.14**		**0.191**	**mg/Kg**	1	05-Dec-2016 23:19
Lead	**5.17**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
Nickel	**5.11**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
Selenium	ND		0.477	mg/Kg	1	05-Dec-2016 23:19
Silver	ND		0.477	mg/Kg	1	05-Dec-2016 23:19
Zinc	**25.2**		**0.477**	**mg/Kg**	1	05-Dec-2016 23:19
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**4.90**		**3.49**	**ug/Kg**	1	08-Dec-2016 17:42

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-3-4-111916
Collection Date: 19-Nov-2016 08:20

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**11.7**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**11.5**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.987**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.987**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**31.6**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**11.6**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.2**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-13-14-111916
Collection Date: 19-Nov-2016 08:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 10:33
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 10:33
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 10:33
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 10:33
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 10:33
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 10:33
Surr: 1,2-Dichloroethane-d4	*98.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 10:33*
Surr: 4-Bromofluorobenzene	*89.2*		*73-126*	*%REC*	*1*	*29-Nov-2016 10:33*
Surr: Dibromofluoromethane	*95.6*		*71-128*	*%REC*	*1*	*29-Nov-2016 10:33*
Surr: Toluene-d8	*97.5*		*73-127*	*%REC*	*1*	*29-Nov-2016 10:33*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 00:41
Surr: 4-Bromofluorobenzene	*85.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 00:41*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 17:34
Surr: 2-Fluorobiphenyl	*74.9*		*60-135*	*%REC*	*1*	*02-Dec-2016 17:34*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**9.05**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**3.56**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JCJ
Calcium	**1,280**		**4.99**	**mg/L**	10	15-Dec-2016 14:18
Magnesium	**313**		**4.99**	**mg/L**	10	15-Dec-2016 14:18
Sodium	**548**		**4.99**	**mg/L**	10	15-Dec-2016 14:18
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**3.25**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
Barium	**157**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
Boron	**3.31**		**2.32**	**mg/Kg**	1	05-Dec-2016 23:24
Cadmium	ND		0.464	mg/Kg	1	05-Dec-2016 23:24
Chromium	**9.05**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
Copper	**7.53**		**0.186**	**mg/Kg**	1	05-Dec-2016 23:24
Lead	**6.97**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
Nickel	**9.47**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
Selenium	ND		0.464	mg/Kg	1	05-Dec-2016 23:24
Silver	ND		0.464	mg/Kg	1	05-Dec-2016 23:24
Zinc	**24.4**		**0.464**	**mg/Kg**	1	05-Dec-2016 23:24
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**11.5**		**3.60**	**ug/Kg**	1	08-Dec-2016 17:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-2-13-14-111916
Collection Date: 19-Nov-2016 08:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**28.0**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**13.1**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.467**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.467**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**12.4**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**7.25**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-0-1-111916
Collection Date: 19-Nov-2016 09:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 12:49
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 12:49
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 12:49
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 12:49
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 12:49
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 12:49
Surr: 1,2-Dichloroethane-d4	*93.7*		*70-128*	*%REC*	*1*	*29-Nov-2016 12:49*
Surr: 4-Bromofluorobenzene	*87.9*		*73-126*	*%REC*	*1*	*29-Nov-2016 12:49*
Surr: Dibromofluoromethane	*105*		*71-128*	*%REC*	*1*	*29-Nov-2016 12:49*
Surr: Toluene-d8	*92.7*		*73-127*	*%REC*	*1*	*29-Nov-2016 12:49*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 01:13
Surr: 4-Bromofluorobenzene	*87.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 01:13*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 17:59
Surr: 2-Fluorobiphenyl	*66.7*		*60-135*	*%REC*	*1*	*02-Dec-2016 17:59*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.49**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**11.6**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JCJ
Calcium	**776**		**4.95**	**mg/L**	10	15-Dec-2016 14:23
Magnesium	**12.1**		**4.95**	**mg/L**	10	15-Dec-2016 14:23
Sodium	**1,190**		**4.95**	**mg/L**	10	15-Dec-2016 14:23
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.49**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
Barium	**150**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
Boron	**3.00**		**2.39**	**mg/Kg**	1	05-Dec-2016 23:29
Cadmium	ND		0.478	mg/Kg	1	05-Dec-2016 23:29
Chromium	**7.49**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
Copper	**6.17**		**0.191**	**mg/Kg**	1	05-Dec-2016 23:29
Lead	**6.36**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
Nickel	**8.38**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
Selenium	ND		0.478	mg/Kg	1	05-Dec-2016 23:29
Silver	ND		0.478	mg/Kg	1	05-Dec-2016 23:29
Zinc	**22.0**		**0.478**	**mg/Kg**	1	05-Dec-2016 23:29
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**12.3**		**3.59**	**ug/Kg**	1	08-Dec-2016 17:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-0-1-111916
Collection Date: 19-Nov-2016 09:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**18.4**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**9.92**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.539**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.539**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.5**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.80**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.7**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-8-9-111916
Collection Date: 19-Nov-2016 09:20

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 13:16
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 13:16
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 13:16
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 13:16
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 13:16
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 13:16
Surr: 1,2-Dichloroethane-d4	*85.5*		*70-128*	*%REC*	*1*	*29-Nov-2016 13:16*
Surr: 4-Bromofluorobenzene	*92.8*		*73-126*	*%REC*	*1*	*29-Nov-2016 13:16*
Surr: Dibromofluoromethane	*67.4*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 13:16*
Surr: Toluene-d8	*98.7*		*73-127*	*%REC*	*1*	*29-Nov-2016 13:16*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.13**		**0.050**	**mg/Kg**	1	29-Nov-2016 08:37
Surr: 4-Bromofluorobenzene	*80.1*		*70-130*	*%REC*	*1*	*29-Nov-2016 08:37*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 18:23
Surr: 2-Fluorobiphenyl	*60.4*		*60-135*	*%REC*	*1*	*02-Dec-2016 18:23*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.90**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**186**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**1,780**		**99.9**	**mg/L**	200	15-Dec-2016 18:43
Magnesium	ND		4.99	mg/L	10	15-Dec-2016 14:27
Sodium	**28,500**		**99.9**	**mg/L**	200	15-Dec-2016 18:43
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**3.36**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Barium	**130**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Boron	**14.9**		**2.38**	**mg/Kg**	1	05-Dec-2016 23:33
Cadmium	ND		0.476	mg/Kg	1	05-Dec-2016 23:33
Chromium	**8.90**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Copper	**5.86**		**0.190**	**mg/Kg**	1	05-Dec-2016 23:33
Lead	**6.60**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Nickel	**6.75**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Selenium	**0.483**		**0.476**	**mg/Kg**	1	05-Dec-2016 23:33
Silver	ND		0.476	mg/Kg	1	05-Dec-2016 23:33
Zinc	**639**		**4.76**	**mg/Kg**	10	06-Dec-2016 15:37
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**8.35**		**3.53**	**ug/Kg**	1	08-Dec-2016 17:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-8-9-111916
Collection Date: 19-Nov-2016 09:20

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**240**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**167**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.696**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.696**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**23.0**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**11.3**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: TRIP BLANK 110316-48
Collection Date: 19-Nov-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-09
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	ND		1.0	ug/L	1	26-Nov-2016 13:14
Ethylbenzene	ND		1.0	ug/L	1	26-Nov-2016 13:14
m,p-Xylene	ND		2.0	ug/L	1	26-Nov-2016 13:14
o-Xylene	ND		1.0	ug/L	1	26-Nov-2016 13:14
Toluene	ND		1.0	ug/L	1	26-Nov-2016 13:14
Xylenes, Total	ND		1.0	ug/L	1	26-Nov-2016 13:14
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*26-Nov-2016 13:14*
Surr: 4-Bromofluorobenzene	*99.2*		*70-125*	*%REC*	*1*	*26-Nov-2016 13:14*
Surr: Dibromofluoromethane	*102*		*74-125*	*%REC*	*1*	*26-Nov-2016 13:14*
Surr: Toluene-d8	*100*		*75-125*	*%REC*	*1*	*26-Nov-2016 13:14*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-14-15-111916
Collection Date: 19-Nov-2016 09:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 13:44
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 13:44
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 13:44
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 13:44
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 13:44
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 13:44
Surr: 1,2-Dichloroethane-d4	*96.7*		*70-128*	*%REC*	*1*	*29-Nov-2016 13:44*
Surr: 4-Bromofluorobenzene	*85.6*		*73-126*	*%REC*	*1*	*29-Nov-2016 13:44*
Surr: Dibromofluoromethane	*105*		*71-128*	*%REC*	*1*	*29-Nov-2016 13:44*
Surr: Toluene-d8	*102*		*73-127*	*%REC*	*1*	*29-Nov-2016 13:44*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	29-Nov-2016 08:53
Surr: 4-Bromofluorobenzene	*85.8*		*70-130*	*%REC*	*1*	*29-Nov-2016 08:53*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 20:49
Surr: 2-Fluorobiphenyl	*74.3*		*60-135*	*%REC*	*1*	*02-Dec-2016 20:49*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.38**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**11.4**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JCJ
Calcium	**1,260**		**5.00**	**mg/L**	10	15-Dec-2016 14:32
Magnesium	**125**		**5.00**	**mg/L**	10	15-Dec-2016 14:32
Sodium	**1,590**		**5.00**	**mg/L**	10	15-Dec-2016 14:32
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.88**		**0.466**	**mg/Kg**	1	05-Dec-2016 23:38
Barium	**183**		**2.33**	**mg/Kg**	5	06-Dec-2016 15:55
Boron	**3.18**		**2.33**	**mg/Kg**	1	05-Dec-2016 23:38
Cadmium	ND		0.466	mg/Kg	1	05-Dec-2016 23:38
Chromium	**7.38**		**0.466**	**mg/Kg**	1	05-Dec-2016 23:38
Copper	**6.35**		**0.187**	**mg/Kg**	1	05-Dec-2016 23:38
Lead	**6.01**		**0.466**	**mg/Kg**	1	05-Dec-2016 23:38
Nickel	**8.49**		**0.466**	**mg/Kg**	1	05-Dec-2016 23:38
Selenium	ND		0.466	mg/Kg	1	05-Dec-2016 23:38
Silver	ND		0.466	mg/Kg	1	05-Dec-2016 23:38
Zinc	**36.1**		**0.466**	**mg/Kg**	1	05-Dec-2016 23:38
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**6.91**		**3.55**	**ug/Kg**	1	08-Dec-2016 17:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-3-14-15-111916
Collection Date: 19-Nov-2016 09:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**32.6**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**15.9**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.488**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.488**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.6**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.04**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-0-1-111916
Collection Date: 19-Nov-2016 09:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 14:11
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 14:11
m,p-Xylene	ND		10	ug/Kg	1	29-Nov-2016 14:11
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 14:11
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 14:11
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 14:11
Surr: 1,2-Dichloroethane-d4	*96.3*		*70-128*	*%REC*	*1*	*29-Nov-2016 14:11*
Surr: 4-Bromofluorobenzene	*89.1*		*73-126*	*%REC*	*1*	*29-Nov-2016 14:11*
Surr: Dibromofluoromethane	*112*		*71-128*	*%REC*	*1*	*29-Nov-2016 14:11*
Surr: Toluene-d8	*92.5*		*73-127*	*%REC*	*1*	*29-Nov-2016 14:11*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	29-Nov-2016 09:09
Surr: 4-Bromofluorobenzene	*81.2*		*70-130*	*%REC*	*1*	*29-Nov-2016 09:09*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 21:14
Surr: 2-Fluorobiphenyl	*64.5*		*60-135*	*%REC*	*1*	*02-Dec-2016 21:14*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.95**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**0.862**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**164**		**4.99**	**mg/L**	10	15-Dec-2016 16:42
Magnesium	ND		4.99	mg/L	10	15-Dec-2016 16:42
Sodium	**40.1**		**4.99**	**mg/L**	10	15-Dec-2016 16:42
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**1.92**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
Barium	**109**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
Boron	**2.50**		**2.32**	**mg/Kg**	1	05-Dec-2016 23:52
Cadmium	ND		0.463	mg/Kg	1	05-Dec-2016 23:52
Chromium	**5.95**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
Copper	**6.18**		**0.185**	**mg/Kg**	1	05-Dec-2016 23:52
Lead	**5.64**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
Nickel	**6.37**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
Selenium	ND		0.463	mg/Kg	1	05-Dec-2016 23:52
Silver	ND		0.463	mg/Kg	1	05-Dec-2016 23:52
Zinc	**18.5**		**0.463**	**mg/Kg**	1	05-Dec-2016 23:52
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**10.6**		**3.48**	**ug/Kg**	1	08-Dec-2016 17:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-0-1-111916
Collection Date: 19-Nov-2016 09:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**2.55**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**1.16**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.454**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.454**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**9.08**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.95**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-5-6-111916
Collection Date: 19-Nov-2016 09:55

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 14:38
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 14:38
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 14:38
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 14:38
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 14:38
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 14:38
Surr: 1,2-Dichloroethane-d4	*106*		*70-128*	*%REC*	*1*	*29-Nov-2016 14:38*
Surr: 4-Bromofluorobenzene	*93.9*		*73-126*	*%REC*	*1*	*29-Nov-2016 14:38*
Surr: Dibromofluoromethane	*14.6*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 14:38*
Surr: Toluene-d8	*99.1*		*73-127*	*%REC*	*1*	*29-Nov-2016 14:38*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.12**		**0.050**	**mg/Kg**	1	29-Nov-2016 09:26
Surr: 4-Bromofluorobenzene	*76.4*		*70-130*	*%REC*	*1*	*29-Nov-2016 09:26*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**2,200**		**85**	**mg/Kg**	50	06-Dec-2016 11:27
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-135*	*%REC*	*50*	*06-Dec-2016 11:27*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.46**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**11.0**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**297**		**5.00**	**mg/L**	10	15-Dec-2016 16:45
Magnesium	ND		5.00	mg/L	10	15-Dec-2016 16:45
Sodium	**688**		**5.00**	**mg/L**	10	15-Dec-2016 16:45
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.92**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
Barium	**111**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
Boron	**10.6**		**2.37**	**mg/Kg**	1	06-Dec-2016 00:15
Cadmium	ND		0.474	mg/Kg	1	06-Dec-2016 00:15
Chromium	**8.46**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
Copper	**6.66**		**0.190**	**mg/Kg**	1	06-Dec-2016 00:15
Lead	**6.03**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
Nickel	**6.72**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
Selenium	ND		0.474	mg/Kg	1	06-Dec-2016 00:15
Silver	ND		0.474	mg/Kg	1	06-Dec-2016 00:15
Zinc	**27.7**		**0.474**	**mg/Kg**	1	06-Dec-2016 00:15
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**8.00**		**3.47**	**ug/Kg**	1	08-Dec-2016 17:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-5-6-111916
Collection Date: 19-Nov-2016 09:55

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**11.7**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**7.45**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.639**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.639**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**22.4**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**12.0**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-14-15-111916
Collection Date: 19-Nov-2016 10:15

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:05
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:05
m,p-Xylene	ND		9.6	ug/Kg	1	29-Nov-2016 15:05
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 15:05
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 15:05
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 15:05
Surr: 1,2-Dichloroethane-d4	*101*		*70-128*	*%REC*	*1*	*29-Nov-2016 15:05*
Surr: 4-Bromofluorobenzene	*93.4*		*73-126*	*%REC*	*1*	*29-Nov-2016 15:05*
Surr: Dibromofluoromethane	*92.4*		*71-128*	*%REC*	*1*	*29-Nov-2016 15:05*
Surr: Toluene-d8	*96.4*		*73-127*	*%REC*	*1*	*29-Nov-2016 15:05*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.065**		**0.050**	**mg/Kg**	1	29-Nov-2016 09:42
Surr: 4-Bromofluorobenzene	*89.0*		*70-130*	*%REC*	*1*	*29-Nov-2016 09:42*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 22:51
Surr: 2-Fluorobiphenyl	*63.3*		*60-135*	*%REC*	*1*	*02-Dec-2016 22:51*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.72**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**19.2**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**3,060**		**49.9**	**mg/L**	100	15-Dec-2016 18:46
Magnesium	ND		4.99	mg/L	10	15-Dec-2016 16:48
Sodium	**3,860**		**49.9**	**mg/L**	100	15-Dec-2016 18:46
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.62**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
Barium	**111**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
Boron	**4.33**		**2.32**	**mg/Kg**	1	06-Dec-2016 00:20
Cadmium	ND		0.464	mg/Kg	1	06-Dec-2016 00:20
Chromium	**6.72**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
Copper	**5.48**		**0.186**	**mg/Kg**	1	06-Dec-2016 00:20
Lead	**5.97**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
Nickel	**7.42**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
Selenium	ND		0.464	mg/Kg	1	06-Dec-2016 00:20
Silver	ND		0.464	mg/Kg	1	06-Dec-2016 00:20
Zinc	**57.2**		**0.464**	**mg/Kg**	1	06-Dec-2016 00:20
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**12.8**		**3.52**	**ug/Kg**	1	08-Dec-2016 17:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-4-14-15-111916
Collection Date: 19-Nov-2016 10:15

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**72.4**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**36.2**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.499**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.499**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**15.9**		**0.0100**	**wt%**	1	06-Dec-2016 10:17
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.68**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.6**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-2-3-111916
Collection Date: 19-Nov-2016 13:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:32
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:32
m,p-Xylene	ND		9.6	ug/Kg	1	29-Nov-2016 15:32
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 15:32
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 15:32
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 15:32
Surr: 1,2-Dichloroethane-d4	*93.9*		*70-128*	*%REC*	*1*	*29-Nov-2016 15:32*
Surr: 4-Bromofluorobenzene	*92.3*		*73-126*	*%REC*	*1*	*29-Nov-2016 15:32*
Surr: Dibromofluoromethane	*85.4*		*71-128*	*%REC*	*1*	*29-Nov-2016 15:32*
Surr: Toluene-d8	*100*		*73-127*	*%REC*	*1*	*29-Nov-2016 15:32*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.063**		**0.050**	**mg/Kg**	1	30-Nov-2016 01:29
Surr: 4-Bromofluorobenzene	*82.6*		*70-130*	*%REC*	*1*	*30-Nov-2016 01:29*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**35**		**1.7**	**mg/Kg**	1	02-Dec-2016 23:15
Surr: 2-Fluorobiphenyl	*75.9*		*60-135*	*%REC*	*1*	*02-Dec-2016 23:15*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.58**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**50.2**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**1,720**		**4.97**	**mg/L**	10	15-Dec-2016 16:51
Magnesium	ND		4.97	mg/L	10	15-Dec-2016 16:51
Sodium	**7,560**		**49.7**	**mg/L**	100	15-Dec-2016 18:49
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.04**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
Barium	**105**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
Boron	**6.13**		**2.38**	**mg/Kg**	1	06-Dec-2016 00:25
Cadmium	ND		0.475	mg/Kg	1	06-Dec-2016 00:25
Chromium	**6.58**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
Copper	**4.23**		**0.190**	**mg/Kg**	1	06-Dec-2016 00:25
Lead	**4.74**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
Nickel	**4.93**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
Selenium	ND		0.475	mg/Kg	1	06-Dec-2016 00:25
Silver	ND		0.475	mg/Kg	1	06-Dec-2016 00:25
Zinc	**22.3**		**0.475**	**mg/Kg**	1	06-Dec-2016 00:25
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**7.26**		**3.51**	**ug/Kg**	1	08-Dec-2016 17:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-2-3-111916
Collection Date: 19-Nov-2016 13:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**87.9**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**46.4**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.528**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.528**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**21.1**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**10.6**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-5-6-111916
Collection Date: 19-Nov-2016 13:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:59
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 15:59
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 15:59
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 15:59
Toluene	**5.9**		**4.8**	**ug/Kg**	1	29-Nov-2016 15:59
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 15:59
Surr: 1,2-Dichloroethane-d4	*97.2*		*70-128*	*%REC*	*1*	*29-Nov-2016 15:59*
Surr: 4-Bromofluorobenzene	*93.9*		*73-126*	*%REC*	*1*	*29-Nov-2016 15:59*
Surr: Dibromofluoromethane	*100.0*		*71-128*	*%REC*	*1*	*29-Nov-2016 15:59*
Surr: Toluene-d8	*98.3*		*73-127*	*%REC*	*1*	*29-Nov-2016 15:59*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 01:46
Surr: 4-Bromofluorobenzene	*89.0*		*70-130*	*%REC*	*1*	*30-Nov-2016 01:46*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**48**		**1.7**	**mg/Kg**	1	02-Dec-2016 23:40
Surr: 2-Fluorobiphenyl	*90.0*		*60-135*	*%REC*	*1*	*02-Dec-2016 23:40*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**10.6**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**259**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**2,130**		**99.8**	**mg/L**	200	15-Dec-2016 18:58
Magnesium	ND		4.99	mg/L	10	15-Dec-2016 19:04
Sodium	**43,400**		**998**	**mg/L**	2000	15-Dec-2016 19:49
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**3.14**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Barium	**125**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Boron	**7.34**		**2.35**	**mg/Kg**	1	06-Dec-2016 00:29
Cadmium	ND		0.470	mg/Kg	1	06-Dec-2016 00:29
Chromium	**10.6**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Copper	**7.22**		**0.188**	**mg/Kg**	1	06-Dec-2016 00:29
Lead	**6.55**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Nickel	**7.77**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Selenium	**0.713**		**0.470**	**mg/Kg**	1	06-Dec-2016 00:29
Silver	ND		0.470	mg/Kg	1	06-Dec-2016 00:29
Zinc	**322**		**2.35**	**mg/Kg**	5	06-Dec-2016 15:59
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**8.90**		**3.47**	**ug/Kg**	1	08-Dec-2016 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-5-6-111916
Collection Date: 19-Nov-2016 13:40

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**438**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**232**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.531**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.531**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**16.3**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**10.3**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.8**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-13-14-111916
Collection Date: 19-Nov-2016 13:50

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 16:26
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 16:26
m,p-Xylene	ND		10	ug/Kg	1	29-Nov-2016 16:26
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 16:26
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 16:26
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 16:26
Surr: 1,2-Dichloroethane-d4	*92.7*		*70-128*	*%REC*	*1*	*29-Nov-2016 16:26*
Surr: 4-Bromofluorobenzene	*90.1*		*73-126*	*%REC*	*1*	*29-Nov-2016 16:26*
Surr: Dibromofluoromethane	*109*		*71-128*	*%REC*	*1*	*29-Nov-2016 16:26*
Surr: Toluene-d8	*98.2*		*73-127*	*%REC*	*1*	*29-Nov-2016 16:26*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 02:02
Surr: 4-Bromofluorobenzene	*86.0*		*70-130*	*%REC*	*1*	*30-Nov-2016 02:02*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	03-Dec-2016 00:04
Surr: 2-Fluorobiphenyl	*84.0*		*60-135*	*%REC*	*1*	*03-Dec-2016 00:04*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.33**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**2.32**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**64.8**		**4.98**	**mg/L**	10	15-Dec-2016 19:14
Magnesium	**6.94**		**4.98**	**mg/L**	10	15-Dec-2016 19:14
Sodium	**73.5**		**4.98**	**mg/L**	10	15-Dec-2016 19:14
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.24**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
Barium	**98.1**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
Boron	**2.75**		**2.28**	**mg/Kg**	1	06-Dec-2016 00:44
Cadmium	ND		0.456	mg/Kg	1	06-Dec-2016 00:44
Chromium	**7.33**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
Copper	**5.18**		**0.183**	**mg/Kg**	1	06-Dec-2016 00:44
Lead	**5.36**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
Nickel	**7.51**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
Selenium	ND		0.456	mg/Kg	1	06-Dec-2016 00:44
Silver	ND		0.456	mg/Kg	1	06-Dec-2016 00:44
Zinc	**18.4**		**0.456**	**mg/Kg**	1	06-Dec-2016 00:44
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**8.91**		**3.50**	**ug/Kg**	1	08-Dec-2016 18:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-5-13-14-111916
Collection Date: 19-Nov-2016 13:50

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**1.50**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**0.742**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.494**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.494**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.6**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.57**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-1-2-111916
Collection Date: 19-Nov-2016 12:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-17
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 16:53
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 16:53
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 16:53
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 16:53
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 16:53
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 16:53
Surr: 1,2-Dichloroethane-d4	*93.0*		*70-128*	*%REC*	*1*	*29-Nov-2016 16:53*
Surr: 4-Bromofluorobenzene	*87.1*		*73-126*	*%REC*	*1*	*29-Nov-2016 16:53*
Surr: Dibromofluoromethane	*104*		*71-128*	*%REC*	*1*	*29-Nov-2016 16:53*
Surr: Toluene-d8	*97.0*		*73-127*	*%REC*	*1*	*29-Nov-2016 16:53*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 02:18
Surr: 4-Bromofluorobenzene	*84.5*		*70-130*	*%REC*	*1*	*30-Nov-2016 02:18*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	03-Dec-2016 00:29
Surr: 2-Fluorobiphenyl	*67.1*		*60-135*	*%REC*	*1*	*03-Dec-2016 00:29*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.75**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**4.60**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**217**		**5.00**	**mg/L**	10	15-Dec-2016 19:17
Magnesium	**25.5**		**5.00**	**mg/L**	10	15-Dec-2016 19:17
Sodium	**269**		**5.00**	**mg/L**	10	15-Dec-2016 19:17
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.24**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
Barium	**134**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
Boron	**2.58**		**2.35**	**mg/Kg**	1	06-Dec-2016 00:48
Cadmium	ND		0.471	mg/Kg	1	06-Dec-2016 00:48
Chromium	**6.75**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
Copper	**5.97**		**0.188**	**mg/Kg**	1	06-Dec-2016 00:48
Lead	**6.34**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
Nickel	**7.42**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
Selenium	ND		0.471	mg/Kg	1	06-Dec-2016 00:48
Silver	ND		0.471	mg/Kg	1	06-Dec-2016 00:48
Zinc	**20.1**		**0.471**	**mg/Kg**	1	06-Dec-2016 00:48
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 07-Dec-2016		Analyst: JCJ
Mercury	**13.0**		**3.55**	**ug/Kg**	1	08-Dec-2016 18:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-1-2-111916
Collection Date: 19-Nov-2016 12:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-17
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**5.46**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**2.87**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.527**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.527**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**11.3**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 08-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	08-Dec-2016 17:00
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.80**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: TRIP BLANK 082916-80
Collection Date: 19-Nov-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-18
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	ND		1.0	ug/L	1	27-Nov-2016 08:20
Ethylbenzene	ND		1.0	ug/L	1	27-Nov-2016 08:20
m,p-Xylene	ND		2.0	ug/L	1	27-Nov-2016 08:20
o-Xylene	ND		1.0	ug/L	1	27-Nov-2016 08:20
Toluene	ND		1.0	ug/L	1	27-Nov-2016 08:20
Xylenes, Total	ND		1.0	ug/L	1	27-Nov-2016 08:20
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*27-Nov-2016 08:20*
Surr: 4-Bromofluorobenzene	*98.0*		*70-125*	*%REC*	*1*	*27-Nov-2016 08:20*
Surr: Dibromofluoromethane	*103*		*74-125*	*%REC*	*1*	*27-Nov-2016 08:20*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*27-Nov-2016 08:20*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-5-6-111916
Collection Date: 19-Nov-2016 12:55

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 17:20
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 17:20
m,p-Xylene	ND		9.9	ug/Kg	1	29-Nov-2016 17:20
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 17:20
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 17:20
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 17:20
Surr: 1,2-Dichloroethane-d4	*86.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 17:20*
Surr: 4-Bromofluorobenzene	*89.7*		*73-126*	*%REC*	*1*	*29-Nov-2016 17:20*
Surr: Dibromofluoromethane	*40.6*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 17:20*
Surr: Toluene-d8	*97.6*		*73-127*	*%REC*	*1*	*29-Nov-2016 17:20*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.13**		**0.050**	**mg/Kg**	1	30-Nov-2016 02:34
Surr: 4-Bromofluorobenzene	*85.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 02:34*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	**95**		**8.5**	**mg/Kg**	5	05-Dec-2016 22:23
Surr: 2-Fluorobiphenyl	*102*		*60-135*	*%REC*	*5*	*05-Dec-2016 22:23*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**9.22**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**10.8**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**111**		**9.97**	**mg/L**	10	15-Dec-2016 19:20
Magnesium	ND		9.97	mg/L	10	15-Dec-2016 19:20
Sodium	**414**		**9.97**	**mg/L**	10	15-Dec-2016 19:20
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.47**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
Barium	**103**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
Boron	**7.33**		**2.36**	**mg/Kg**	1	06-Dec-2016 00:53
Cadmium	ND		0.472	mg/Kg	1	06-Dec-2016 00:53
Chromium	**9.22**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
Copper	**5.12**		**0.189**	**mg/Kg**	1	06-Dec-2016 00:53
Lead	**5.63**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
Nickel	**5.65**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
Selenium	ND		0.472	mg/Kg	1	06-Dec-2016 00:53
Silver	ND		0.472	mg/Kg	1	06-Dec-2016 00:53
Zinc	**24.8**		**0.472**	**mg/Kg**	1	06-Dec-2016 00:53
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**9.26**		**3.61**	**ug/Kg**	1	10-Dec-2016 19:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-5-6-111916
Collection Date: 19-Nov-2016 12:55

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**5.30**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**3.61**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.681**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.681**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**30.0**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**11.6**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**21.0**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-13-14-111916
Collection Date: 19-Nov-2016 13:05

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 17:47
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 17:47
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 17:47
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 17:47
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 17:47
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 17:47
Surr: 1,2-Dichloroethane-d4	*98.4*		*70-128*	*%REC*	*1*	*29-Nov-2016 17:47*
Surr: 4-Bromofluorobenzene	*87.4*		*73-126*	*%REC*	*1*	*29-Nov-2016 17:47*
Surr: Dibromofluoromethane	*110*		*71-128*	*%REC*	*1*	*29-Nov-2016 17:47*
Surr: Toluene-d8	*98.2*		*73-127*	*%REC*	*1*	*29-Nov-2016 17:47*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 02:50
Surr: 4-Bromofluorobenzene	*80.8*		*70-130*	*%REC*	*1*	*30-Nov-2016 02:50*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	03-Dec-2016 01:17
Surr: 2-Fluorobiphenyl	*65.6*		*60-135*	*%REC*	*1*	*03-Dec-2016 01:17*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.37**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.02**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**68.1**		**4.99**	**mg/L**	10	15-Dec-2016 19:23
Magnesium	**7.76**		**4.99**	**mg/L**	10	15-Dec-2016 19:23
Sodium	**33.2**		**4.99**	**mg/L**	10	15-Dec-2016 19:23
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.59**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
Barium	**140**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
Boron	**2.52**		**2.36**	**mg/Kg**	1	06-Dec-2016 00:58
Cadmium	ND		0.473	mg/Kg	1	06-Dec-2016 00:58
Chromium	**7.37**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
Copper	**6.44**		**0.189**	**mg/Kg**	1	06-Dec-2016 00:58
Lead	**5.82**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
Nickel	**8.22**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
Selenium	ND		0.473	mg/Kg	1	06-Dec-2016 00:58
Silver	ND		0.473	mg/Kg	1	06-Dec-2016 00:58
Zinc	**20.5**		**0.473**	**mg/Kg**	1	06-Dec-2016 00:58
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**11.5**		**3.35**	**ug/Kg**	1	10-Dec-2016 19:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-6-13-14-111916
Collection Date: 19-Nov-2016 13:05

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**1.16**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**0.589**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.509**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.509**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.5**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**7.80**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**21.0**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-1-2-111916
Collection Date: 19-Nov-2016 11:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-21
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 18:14
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 18:14
m,p-Xylene	ND		9.9	ug/Kg	1	29-Nov-2016 18:14
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 18:14
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 18:14
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 18:14
Surr: 1,2-Dichloroethane-d4	*99.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 18:14*
Surr: 4-Bromofluorobenzene	*87.6*		*73-126*	*%REC*	*1*	*29-Nov-2016 18:14*
Surr: Dibromofluoromethane	*111*		*71-128*	*%REC*	*1*	*29-Nov-2016 18:14*
Surr: Toluene-d8	*100*		*73-127*	*%REC*	*1*	*29-Nov-2016 18:14*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 03:06
Surr: 4-Bromofluorobenzene	*87.1*		*70-130*	*%REC*	*1*	*30-Nov-2016 03:06*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 30-Nov-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	03-Dec-2016 01:42
Surr: 2-Fluorobiphenyl	*76.1*		*60-135*	*%REC*	*1*	*03-Dec-2016 01:42*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.53**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**0.539**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**67.9**		**4.99**	**mg/L**	10	15-Dec-2016 19:26
Magnesium	**12.4**		**4.99**	**mg/L**	10	15-Dec-2016 19:26
Sodium	**18.4**		**4.99**	**mg/L**	10	15-Dec-2016 19:26
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.48**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
Barium	**145**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
Boron	**2.91**		**2.30**	**mg/Kg**	1	06-Dec-2016 01:02
Cadmium	ND		0.461	mg/Kg	1	06-Dec-2016 01:02
Chromium	**7.53**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
Copper	**6.79**		**0.184**	**mg/Kg**	1	06-Dec-2016 01:02
Lead	**6.71**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
Nickel	**8.03**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
Selenium	ND		0.461	mg/Kg	1	06-Dec-2016 01:02
Silver	ND		0.461	mg/Kg	1	06-Dec-2016 01:02
Zinc	**22.5**		**0.461**	**mg/Kg**	1	06-Dec-2016 01:02
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**11.5**		**3.44**	**ug/Kg**	1	10-Dec-2016 19:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-1-2-111916
Collection Date: 19-Nov-2016 11:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-21
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**1.10**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**0.535**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.485**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.485**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**11.7**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.11**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-10-11-111916
Collection Date: 19-Nov-2016 12:15

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-22
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 18:41
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 18:41
m,p-Xylene	ND		9.9	ug/Kg	1	29-Nov-2016 18:41
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 18:41
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 18:41
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 18:41
Surr: 1,2-Dichloroethane-d4	*84.3*		*70-128*	*%REC*	*1*	*29-Nov-2016 18:41*
Surr: 4-Bromofluorobenzene	*91.9*		*73-126*	*%REC*	*1*	*29-Nov-2016 18:41*
Surr: Dibromofluoromethane	*5.89*	*S*	*71-128*	*%REC*	*1*	*29-Nov-2016 18:41*
Surr: Toluene-d8	*101*		*73-127*	*%REC*	*1*	*29-Nov-2016 18:41*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.24**		**0.050**	**mg/Kg**	1	30-Nov-2016 03:22
Surr: 4-Bromofluorobenzene	*81.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 03:22*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 01-Dec-2016		Analyst: AAP
TPH (Diesel Range)	**3,000**		**85**	**mg/Kg**	50	02-Dec-2016 13:35
Surr: 2-Fluorobiphenyl	*0*	*JS*	*60-135*	*%REC*	*50*	*02-Dec-2016 13:35*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.39**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.50**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**867**		**10.0**	**mg/L**	10	15-Dec-2016 19:34
Magnesium	ND		10.0	mg/L	10	15-Dec-2016 19:34
Sodium	**160**		**10.0**	**mg/L**	10	15-Dec-2016 19:34
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**3.50**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
Barium	**82.5**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
Boron	**15.9**		**2.39**	**mg/Kg**	1	06-Dec-2016 01:07
Cadmium	ND		0.478	mg/Kg	1	06-Dec-2016 01:07
Chromium	**8.39**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
Copper	**6.09**		**0.191**	**mg/Kg**	1	06-Dec-2016 01:07
Lead	**5.89**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
Nickel	**5.77**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
Selenium	ND		0.478	mg/Kg	1	06-Dec-2016 01:07
Silver	ND		0.478	mg/Kg	1	06-Dec-2016 01:07
Zinc	**28.4**		**0.478**	**mg/Kg**	1	06-Dec-2016 01:07
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**8.50**		**3.62**	**ug/Kg**	1	10-Dec-2016 19:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-10-11-111916
Collection Date: 19-Nov-2016 12:15

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-22
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**12.9**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**12.2**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.943**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.943**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**28.0**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**12.0**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**21.0**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-13-14-111916
Collection Date: 19-Nov-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-23
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.8	ug/Kg	1	29-Nov-2016 22:16
Ethylbenzene	ND		4.8	ug/Kg	1	29-Nov-2016 22:16
m,p-Xylene	ND		9.7	ug/Kg	1	29-Nov-2016 22:16
o-Xylene	ND		4.8	ug/Kg	1	29-Nov-2016 22:16
Toluene	ND		4.8	ug/Kg	1	29-Nov-2016 22:16
Xylenes, Total	ND		4.8	ug/Kg	1	29-Nov-2016 22:16
Surr: 1,2-Dichloroethane-d4	*94.1*		*70-128*	*%REC*	*1*	*29-Nov-2016 22:16*
Surr: 4-Bromofluorobenzene	*89.7*		*73-126*	*%REC*	*1*	*29-Nov-2016 22:16*
Surr: Dibromofluoromethane	*111*		*71-128*	*%REC*	*1*	*29-Nov-2016 22:16*
Surr: Toluene-d8	*95.5*		*73-127*	*%REC*	*1*	*29-Nov-2016 22:16*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 03:38
Surr: 4-Bromofluorobenzene	*71.0*		*70-130*	*%REC*	*1*	*30-Nov-2016 03:38*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 01-Dec-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 05:04
Surr: 2-Fluorobiphenyl	*97.9*		*60-135*	*%REC*	*1*	*02-Dec-2016 05:04*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.03**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.15**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**44.4**		**5.00**	**mg/L**	10	15-Dec-2016 19:37
Magnesium	**5.18**		**5.00**	**mg/L**	10	15-Dec-2016 19:37
Sodium	**30.5**		**5.00**	**mg/L**	10	15-Dec-2016 19:37
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.44**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Barium	**80.4**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Boron	**2.32**		**2.32**	**mg/Kg**	1	06-Dec-2016 01:12
Cadmium	ND		0.463	mg/Kg	1	06-Dec-2016 01:12
Chromium	**8.03**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Copper	**6.86**		**0.185**	**mg/Kg**	1	06-Dec-2016 01:12
Lead	**6.13**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Nickel	**8.67**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Selenium	**0.479**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
Silver	ND		0.463	mg/Kg	1	06-Dec-2016 01:12
Zinc	**20.8**		**0.463**	**mg/Kg**	1	06-Dec-2016 01:12
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**12.1**		**3.50**	**ug/Kg**	1	10-Dec-2016 19:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-7-13-14-111916
Collection Date: 19-Nov-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-23
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**0.758**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**0.394**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.520**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.520**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.7**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.35**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-2-3-111916
Collection Date: 19-Nov-2016 10:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-24
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		4.9	ug/Kg	1	29-Nov-2016 22:42
Ethylbenzene	ND		4.9	ug/Kg	1	29-Nov-2016 22:42
m,p-Xylene	ND		9.8	ug/Kg	1	29-Nov-2016 22:42
o-Xylene	ND		4.9	ug/Kg	1	29-Nov-2016 22:42
Toluene	ND		4.9	ug/Kg	1	29-Nov-2016 22:42
Xylenes, Total	ND		4.9	ug/Kg	1	29-Nov-2016 22:42
Surr: 1,2-Dichloroethane-d4	*89.8*		*70-128*	*%REC*	*1*	*29-Nov-2016 22:42*
Surr: 4-Bromofluorobenzene	*85.1*		*73-126*	*%REC*	*1*	*29-Nov-2016 22:42*
Surr: Dibromofluoromethane	*101*		*71-128*	*%REC*	*1*	*29-Nov-2016 22:42*
Surr: Toluene-d8	*97.5*		*73-127*	*%REC*	*1*	*29-Nov-2016 22:42*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 04:11
Surr: 4-Bromofluorobenzene	*80.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 04:11*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 01-Dec-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 05:28
Surr: 2-Fluorobiphenyl	*98.1*		*60-135*	*%REC*	*1*	*02-Dec-2016 05:28*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.82**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**0.347**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**202**		**5.00**	**mg/L**	10	15-Dec-2016 19:40
Magnesium	ND		5.00	mg/L	10	15-Dec-2016 19:40
Sodium	**17.9**		**5.00**	**mg/L**	10	15-Dec-2016 19:40
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.16**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
Barium	**110**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
Boron	**2.43**		**2.29**	**mg/Kg**	1	06-Dec-2016 01:17
Cadmium	ND		0.459	mg/Kg	1	06-Dec-2016 01:17
Chromium	**6.82**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
Copper	**5.93**		**0.184**	**mg/Kg**	1	06-Dec-2016 01:17
Lead	**5.95**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
Nickel	**7.26**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
Selenium	ND		0.459	mg/Kg	1	06-Dec-2016 01:17
Silver	ND		0.459	mg/Kg	1	06-Dec-2016 01:17
Zinc	**20.7**		**0.459**	**mg/Kg**	1	06-Dec-2016 01:17
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**8.67**		**3.43**	**ug/Kg**	1	10-Dec-2016 19:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-2-3-111916
Collection Date: 19-Nov-2016 10:30

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-24
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**2.20**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**1.08**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.491**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.491**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**12.6**		**0.0100**	**wt%**	1	05-Dec-2016 09:58
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		2.00	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.12**	H	**0.100**	**pH Units**	1	09-Dec-2016 15:15
Temp Deg C @pH	**20.7**	H	**0**	**°C**	1	09-Dec-2016 15:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-13-14-111916
Collection Date: 19-Nov-2016 10:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-25
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 23:09
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 23:09
m,p-Xylene	ND		9.9	ug/Kg	1	29-Nov-2016 23:09
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 23:09
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 23:09
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 23:09
Surr: 1,2-Dichloroethane-d4	*95.5*		*70-128*	*%REC*	*1*	*29-Nov-2016 23:09*
Surr: 4-Bromofluorobenzene	*89.2*		*73-126*	*%REC*	*1*	*29-Nov-2016 23:09*
Surr: Dibromofluoromethane	*108*		*71-128*	*%REC*	*1*	*29-Nov-2016 23:09*
Surr: Toluene-d8	*94.0*		*73-127*	*%REC*	*1*	*29-Nov-2016 23:09*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 04:27
Surr: 4-Bromofluorobenzene	*80.8*		*70-130*	*%REC*	*1*	*30-Nov-2016 04:27*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 01-Dec-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 05:52
Surr: 2-Fluorobiphenyl	*101*		*60-135*	*%REC*	*1*	*02-Dec-2016 05:52*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.72**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**1.45**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**357**		**4.96**	**mg/L**	10	15-Dec-2016 19:43
Magnesium	**43.2**		**4.96**	**mg/L**	10	15-Dec-2016 19:43
Sodium	**109**		**4.96**	**mg/L**	10	15-Dec-2016 19:43
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**2.06**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
Barium	**88.3**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
Boron	ND		2.36	mg/Kg	1	06-Dec-2016 01:50
Cadmium	ND		0.472	mg/Kg	1	06-Dec-2016 01:50
Chromium	**5.72**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
Copper	**7.40**		**0.189**	**mg/Kg**	1	06-Dec-2016 01:50
Lead	**6.01**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
Nickel	**7.18**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
Selenium	ND		0.472	mg/Kg	1	06-Dec-2016 01:50
Silver	ND		0.472	mg/Kg	1	06-Dec-2016 01:50
Zinc	**20.3**		**0.472**	**mg/Kg**	1	06-Dec-2016 01:50
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**8.14**		**3.53**	**ug/Kg**	1	10-Dec-2016 19:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-13-14-111916
Collection Date: 19-Nov-2016 10:45

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-25
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**7.36**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**3.15**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.428**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.428**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.2**		**0.0100**	**wt%**	1	06-Dec-2016 10:17
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.98	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**7.39**	H	**0.100**	**pH Units**	1	09-Dec-2016 17:13
Temp Deg C @pH	**20.9**	H	**0**	**°C**	1	09-Dec-2016 17:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-14-15-111916
Collection Date: 19-Nov-2016 11:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-26
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		5.0	ug/Kg	1	29-Nov-2016 23:35
Ethylbenzene	ND		5.0	ug/Kg	1	29-Nov-2016 23:35
m,p-Xylene	ND		9.9	ug/Kg	1	29-Nov-2016 23:35
o-Xylene	ND		5.0	ug/Kg	1	29-Nov-2016 23:35
Toluene	ND		5.0	ug/Kg	1	29-Nov-2016 23:35
Xylenes, Total	ND		5.0	ug/Kg	1	29-Nov-2016 23:35
Surr: 1,2-Dichloroethane-d4	*101*		*70-128*	*%REC*	*1*	*29-Nov-2016 23:35*
Surr: 4-Bromofluorobenzene	*84.4*		*73-126*	*%REC*	*1*	*29-Nov-2016 23:35*
Surr: Dibromofluoromethane	*111*		*71-128*	*%REC*	*1*	*29-Nov-2016 23:35*
Surr: Toluene-d8	*99.9*		*73-127*	*%REC*	*1*	*29-Nov-2016 23:35*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	30-Nov-2016 07:25
Surr: 4-Bromofluorobenzene	*82.3*		*70-130*	*%REC*	*1*	*30-Nov-2016 07:25*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 01-Dec-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	02-Dec-2016 06:17
Surr: 2-Fluorobiphenyl	*111*		*60-135*	*%REC*	*1*	*02-Dec-2016 06:17*
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.38**		**5.00**	**mg/Kg**	1	10-Dec-2016 15:05
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**				Analyst: DQ
Sodium Adsorption Ratio	**2.03**		**0.0100**	**meq/meq**	1	16-Dec-2016 10:36
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 09-Dec-2016		Analyst: JDE
Calcium	**67.9**		**4.96**	**mg/L**	10	15-Dec-2016 19:46
Magnesium	**8.03**		**4.96**	**mg/L**	10	15-Dec-2016 19:46
Sodium	**66.4**		**4.96**	**mg/L**	10	15-Dec-2016 19:46
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 02-Dec-2016		Analyst: JCJ
Arsenic	**1.99**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
Barium	**114**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
Boron	**2.48**		**2.32**	**mg/Kg**	1	06-Dec-2016 01:55
Cadmium	ND		0.464	mg/Kg	1	06-Dec-2016 01:55
Chromium	**6.38**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
Copper	**4.78**		**0.185**	**mg/Kg**	1	06-Dec-2016 01:55
Lead	**5.16**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
Nickel	**6.94**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
Selenium	ND		0.464	mg/Kg	1	06-Dec-2016 01:55
Silver	ND		0.464	mg/Kg	1	06-Dec-2016 01:55
Zinc	**17.1**		**0.464**	**mg/Kg**	1	06-Dec-2016 01:55
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 10-Dec-2016		Analyst: JCJ
Mercury	**9.49**		**3.51**	**ug/Kg**	1	10-Dec-2016 19:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: GP-13-8-14-15-111916
Collection Date: 19-Nov-2016 11:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-26
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LA29B ELECTRICAL CONDUCTIVITY	**Method:LaDNR-29B EC**					Analyst: KMU
Electrical Conductivity @ saturation	**1.64**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Electrical Conductivity, 1:1 aqueous	**0.786**		**0.0100**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
Saturation % as decimal	**0.480**		**0**	**mmhos/cm @25°C**	1	16-Dec-2016 10:21
LA29B SATURATION POINT (AS FRACTION)	**Method:LaDNR-29B SP**					Analyst: KAH
Saturation Point	**0.480**		**0.100**	**SP as fraction**	1	12-Dec-2016 10:00
MOISTURE	**Method:SW3550**					Analyst: DFF
Percent Moisture	**13.4**		**0.0100**	**wt%**	1	06-Dec-2016 10:17
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**			Prep:SW3060A / 06-Dec-2016		Analyst: KVL
Chromium, Hexavalent	ND		1.99	mg/kg	1	07-Dec-2016 16:45
PH SOIL BY SW9045D	**Method:SW9045B**					Analyst: SAP
pH	**8.06**	H	**0.100**	**pH Units**	1	09-Dec-2016 17:13
Temp Deg C @pH	**21.1**	H	**0**	**°C**	1	09-Dec-2016 17:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
Sample ID: TRIP BLANK 082916-88
Collection Date: 19-Nov-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16111131
Lab ID:HS16111131-27
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	ND		1.0	ug/L	1	26-Nov-2016 14:06
Ethylbenzene	ND		1.0	ug/L	1	26-Nov-2016 14:06
m,p-Xylene	ND		2.0	ug/L	1	26-Nov-2016 14:06
o-Xylene	ND		1.0	ug/L	1	26-Nov-2016 14:06
Toluene	ND		1.0	ug/L	1	26-Nov-2016 14:06
Xylenes, Total	ND		1.0	ug/L	1	26-Nov-2016 14:06
Surr: 1,2-Dichloroethane-d4	*99.5*		*71-125*	*%REC*	*1*	*26-Nov-2016 14:06*
Surr: 4-Bromofluorobenzene	*97.2*		*70-125*	*%REC*	*1*	*26-Nov-2016 14:06*
Surr: Dibromofluoromethane	*103*		*74-125*	*%REC*	*1*	*26-Nov-2016 14:06*
Surr: Toluene-d8	*100*		*75-125*	*%REC*	*1*	*26-Nov-2016 14:06*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

Batch ID: 1402 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS16111131-01	1	5.12 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-02	1	5.152 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-03	1	5.002 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-04	1	5.083 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-05	1	5.174 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-06	1	5.172 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-07	1	5.108 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-08	1	5.12 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-10	1	5.099 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-11	1	4.998 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-12	1	5.17 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-13	1	5.198 (g)	5 (mL)	0.96	Bulk (5030B)
HS16111131-14	1	5.183 (g)	5 (mL)	0.96	Bulk (5030B)
HS16111131-15	1	5.135 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-16	1	4.972 (g)	5 (mL)	1.01	Bulk (5030B)
HS16111131-17	1	5.172 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-19	1	5.032 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-20	1	5.124 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-21	1	5.058 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-22	1	5.061 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-23	1	5.164 (g)	5 (mL)	0.97	Bulk (5030B)
HS16111131-24	1	5.079 (g)	5 (mL)	0.98	Bulk (5030B)
HS16111131-25	1	5.069 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-26	1	5.073 (g)	5 (mL)	0.99	Bulk (5030B)

Batch ID: 1408 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS16111131-01	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-02	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-03	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-04	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-05	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-06	1	5.04 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-07	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-08	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-10	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-11	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-12	1	5 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-13	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-14	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-15	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-16	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-17	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-19	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-20	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-21	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-22	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-23	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-24	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS16111131-25	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS16111131-26	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

Batch ID: 110283 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-01	1	30.01	1 (mL)	0.03332
HS16111131-02	1	30.05	1 (mL)	0.03328
HS16111131-03	1	30.08	1 (mL)	0.03324
HS16111131-04	1	30.03	1 (mL)	0.0333
HS16111131-05	1	30.07	1 (mL)	0.03326
HS16111131-06	1	30.09	1 (mL)	0.03323
HS16111131-07	1	30.08	1 (mL)	0.03324
HS16111131-08	1	30.03	1 (mL)	0.0333
HS16111131-10	1	30.05	1 (mL)	0.03328
HS16111131-11	1	30.02	1 (mL)	0.03331
HS16111131-12	1	30.05	1 (mL)	0.03328
HS16111131-13	1	30.02	1 (mL)	0.03331
HS16111131-14	1	30.08	1 (mL)	0.03324
HS16111131-15	1	30.07	1 (mL)	0.03326
HS16111131-16	1	30.03	1 (mL)	0.0333
HS16111131-17	1	30.06	1 (mL)	0.03327
HS16111131-19	1	30.05	1 (mL)	0.03328
HS16111131-20	1	30.07	1 (mL)	0.03326
HS16111131-21	1	30.09	1 (mL)	0.03323

Batch ID: 110341 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-22	1	30.02	1 (mL)	0.03331
HS16111131-23	1	30.06	1 (mL)	0.03327
HS16111131-24	1	30.04	1 (mL)	0.03329
HS16111131-25	1	30.08	1 (mL)	0.03324
HS16111131-26	1	30.02	1 (mL)	0.03331

Batch ID: 110396 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-01	1	0.5333	50 (mL)	93.76
HS16111131-02	1	0.5267	50 (mL)	94.93
HS16111131-03	1	0.5411	50 (mL)	92.4
HS16111131-04	1	0.5222	50 (mL)	95.75

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

Batch ID: 110399 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-05	1	0.5237	50 (mL)	95.47
HS16111131-06	1	0.5385	50 (mL)	92.85
HS16111131-07	1	0.5229	50 (mL)	95.62
HS16111131-08	1	0.5257	50 (mL)	95.11
HS16111131-10	1	0.5361	50 (mL)	93.27
HS16111131-11	1	0.5397	50 (mL)	92.64
HS16111131-12	1	0.5269	50 (mL)	94.89
HS16111131-13	1	0.5385	50 (mL)	92.85
HS16111131-14	1	0.5261	50 (mL)	95.04
HS16111131-15	1	0.5321	50 (mL)	93.97
HS16111131-16	1	0.5477	50 (mL)	91.29
HS16111131-17	1	0.5313	50 (mL)	94.11
HS16111131-19	1	0.5294	50 (mL)	94.45
HS16111131-20	1	0.5289	50 (mL)	94.54
HS16111131-21	1	0.5428	50 (mL)	92.11
HS16111131-22	1	0.5228	50 (mL)	95.64
HS16111131-23	1	0.5395	50 (mL)	92.68
HS16111131-24	1	0.5449	50 (mL)	91.76
HS16111131-25	1	0.5295	50 (mL)	94.43
HS16111131-26	1	0.5392	50 (mL)	92.73

Batch ID: 110464 **Method:** HEXAVALENT CHROMIUM BY SW7196A **Prep:** CR6_S_PR3060A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-19	1	2.5119	100 (mL)	39.81
HS16111131-20	1	2.5104	100 (mL)	39.83
HS16111131-21	1	2.517	100 (mL)	39.73
HS16111131-22	1	2.5006	100 (mL)	39.99
HS16111131-23	1	2.5125	100 (mL)	39.8
HS16111131-24	1	2.4996	100 (mL)	40.01
HS16111131-25	1	2.519	100 (mL)	39.7
HS16111131-26	1	2.5122	100 (mL)	39.81

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

Batch ID: 110508 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-01	1	0.5655	40 (mL)	70.73
HS16111131-02	1	0.5604	40 (mL)	71.38
HS16111131-03	1	0.5668	40 (mL)	70.57
HS16111131-04	1	0.5591	40 (mL)	71.54
HS16111131-05	1	0.5716	40 (mL)	69.98
HS16111131-06	1	0.5548	40 (mL)	72.1
HS16111131-07	1	0.5552	40 (mL)	72.05
HS16111131-08	1	0.5651	40 (mL)	70.78
HS16111131-10	1	0.5619	40 (mL)	71.19
HS16111131-11	1	0.5733	40 (mL)	69.77
HS16111131-12	1	0.5749	40 (mL)	69.58
HS16111131-13	1	0.5664	40 (mL)	70.62
HS16111131-14	1	0.5678	40 (mL)	70.45
HS16111131-15	1	0.5753	40 (mL)	69.53
HS16111131-16	1	0.5699	40 (mL)	70.19
HS16111131-17	1	0.5619	40 (mL)	71.19

Batch ID: 110549 **Method:** HEXAVALENT CHROMIUM BY SW7196A **Prep:** CR6_S_PR3060A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-01	1	2.5063	100 (mL)	39.9
HS16111131-02	1	2.5151	100 (mL)	39.76
HS16111131-03	1	2.5084	100 (mL)	39.87
HS16111131-04	1	2.4982	100 (mL)	40.03
HS16111131-05	1	2.5069	100 (mL)	39.89
HS16111131-06	1	2.5066	100 (mL)	39.89
HS16111131-07	1	2.5021	100 (mL)	39.97
HS16111131-08	1	2.517	100 (mL)	39.73
HS16111131-10	1	2.4978	100 (mL)	40.04
HS16111131-11	1	2.5094	100 (mL)	39.85
HS16111131-12	1	2.4957	100 (mL)	40.07
HS16111131-13	1	2.4993	100 (mL)	40.01
HS16111131-14	1	2.4993	100 (mL)	40.01
HS16111131-15	1	2.4993	100 (mL)	40.01
HS16111131-16	1	2.5112	100 (mL)	39.82
HS16111131-17	1	2.501	100 (mL)	39.98

Batch ID: 110625 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-19	1	0.5532	40 (mL)	72.31
HS16111131-20	1	0.5955	40 (mL)	67.17
HS16111131-21	1	0.5796	40 (mL)	69.01
HS16111131-22	1	0.5508	40 (mL)	72.62
HS16111131-23	1	0.5702	40 (mL)	70.15
HS16111131-24	1	0.5814	40 (mL)	68.8
HS16111131-25	1	0.5648	40 (mL)	70.82
HS16111131-26	1	0.5689	40 (mL)	70.31

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

Batch ID: 110633 **Method:** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR **Prep:** LA29B SAR CATPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-01	1	75.0263	150 (mL)	1
HS16111131-02	1	75.8411	75 (mL)	1
HS16111131-03	1	75.3219	75 (mL)	1
HS16111131-04	1	75.1162	150 (mL)	1

Batch ID: 110634 **Method:** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR **Prep:** LA29B SAR CATPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16111131-05	1	75.0911	150 (mL)	1.998
HS16111131-06	1	75.1071	75 (mL)	0.9986
HS16111131-07	1	75.7715	75 (mL)	0.9898
HS16111131-08	1	75.0957	75 (mL)	0.9987
HS16111131-10	1	75.0661	75 (mL)	0.9991
HS16111131-11	1	75.1366	75 (mL)	0.9982
HS16111131-12	1	75.011	75 (mL)	0.9999
HS16111131-13	1	75.1598	75 (mL)	0.9979
HS16111131-14	1	75.4506	75 (mL)	0.994
HS16111131-15	1	75.1401	75 (mL)	0.9981
HS16111131-16	1	75.3042	75 (mL)	0.996
HS16111131-17	1	75.0578	75 (mL)	0.9992
HS16111131-19	1	75.2115	150 (mL)	1.994
HS16111131-20	1	75.0926	75 (mL)	0.9988
HS16111131-21	1	75.0909	75 (mL)	0.9988
HS16111131-22	1	75.0294	150 (mL)	1.999
HS16111131-23	1	75.0381	75 (mL)	0.9995
HS16111131-24	1	75.0284	75 (mL)	0.9996
HS16111131-25	1	75.5982	75 (mL)	0.9921
HS16111131-26	1	75.5296	75 (mL)	0.993

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 110283	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30		30 Nov 2016 09:44	05 Dec 2016 21:35	5
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50		30 Nov 2016 09:44	02 Dec 2016 15:57	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00		30 Nov 2016 09:44	02 Dec 2016 16:21	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10		30 Nov 2016 09:44	02 Dec 2016 16:45	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20		30 Nov 2016 09:44	05 Dec 2016 21:11	5
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40		30 Nov 2016 09:44	02 Dec 2016 17:34	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00		30 Nov 2016 09:44	02 Dec 2016 17:59	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		30 Nov 2016 09:44	02 Dec 2016 18:23	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		30 Nov 2016 09:44	02 Dec 2016 20:49	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45		30 Nov 2016 09:44	02 Dec 2016 21:14	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55		30 Nov 2016 09:44	06 Dec 2016 11:27	50
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		30 Nov 2016 09:44	02 Dec 2016 22:51	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		30 Nov 2016 09:44	02 Dec 2016 23:15	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		30 Nov 2016 09:44	02 Dec 2016 23:40	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50		30 Nov 2016 09:44	03 Dec 2016 00:04	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45		30 Nov 2016 09:44	03 Dec 2016 00:29	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55		30 Nov 2016 09:44	05 Dec 2016 22:23	5
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05		30 Nov 2016 09:44	03 Dec 2016 01:17	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45		30 Nov 2016 09:44	03 Dec 2016 01:42	1
Batch ID 110341	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15		01 Dec 2016 12:13	02 Dec 2016 13:35	50
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30		01 Dec 2016 12:13	02 Dec 2016 05:04	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30		01 Dec 2016 12:13	02 Dec 2016 05:28	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45		01 Dec 2016 12:13	02 Dec 2016 05:52	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00		01 Dec 2016 12:13	02 Dec 2016 06:17	1
Batch ID 110396	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30		02 Dec 2016 14:38	02 Dec 2016 20:38	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50		02 Dec 2016 14:38	02 Dec 2016 20:42	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00		02 Dec 2016 14:38	02 Dec 2016 20:47	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10		02 Dec 2016 14:38	02 Dec 2016 20:51	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 110399	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20		02 Dec 2016 16:15	05 Dec 2016 23:19	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40		02 Dec 2016 16:15	05 Dec 2016 23:24	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00		02 Dec 2016 16:15	05 Dec 2016 23:29	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		02 Dec 2016 16:15	06 Dec 2016 15:37	10
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		02 Dec 2016 16:15	05 Dec 2016 23:33	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		02 Dec 2016 16:15	06 Dec 2016 15:55	5
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		02 Dec 2016 16:15	05 Dec 2016 23:38	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45		02 Dec 2016 16:15	05 Dec 2016 23:52	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55		02 Dec 2016 16:15	06 Dec 2016 00:15	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		02 Dec 2016 16:15	06 Dec 2016 00:20	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		02 Dec 2016 16:15	06 Dec 2016 00:25	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		02 Dec 2016 16:15	06 Dec 2016 15:59	5
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		02 Dec 2016 16:15	06 Dec 2016 00:29	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50		02 Dec 2016 16:15	06 Dec 2016 00:44	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45		02 Dec 2016 16:15	06 Dec 2016 00:48	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55		02 Dec 2016 16:15	06 Dec 2016 00:53	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05		02 Dec 2016 16:15	06 Dec 2016 00:58	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45		02 Dec 2016 16:15	06 Dec 2016 01:02	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15		02 Dec 2016 16:15	06 Dec 2016 01:07	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30		02 Dec 2016 16:15	06 Dec 2016 01:12	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30		02 Dec 2016 16:15	06 Dec 2016 01:17	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45		02 Dec 2016 16:15	06 Dec 2016 01:50	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00		02 Dec 2016 16:15	06 Dec 2016 01:55	1
Batch ID 110464	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A			**Matrix:** Soil		
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45		06 Dec 2016 11:43	07 Dec 2016 16:45	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00		06 Dec 2016 11:43	07 Dec 2016 16:45	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 110508	**Test Name :** MERCURY BY SW7471B			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30		07 Dec 2016 12:32	08 Dec 2016 17:35	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50		07 Dec 2016 12:32	08 Dec 2016 17:37	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00		07 Dec 2016 12:32	08 Dec 2016 17:39	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10		07 Dec 2016 12:32	08 Dec 2016 17:40	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20		07 Dec 2016 12:32	08 Dec 2016 17:42	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40		07 Dec 2016 12:32	08 Dec 2016 17:44	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00		07 Dec 2016 12:32	08 Dec 2016 17:46	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		07 Dec 2016 12:32	08 Dec 2016 17:47	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		07 Dec 2016 12:32	08 Dec 2016 17:49	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45		07 Dec 2016 12:32	08 Dec 2016 17:51	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55		07 Dec 2016 12:32	08 Dec 2016 17:56	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		07 Dec 2016 12:32	08 Dec 2016 17:58	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		07 Dec 2016 12:32	08 Dec 2016 17:59	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		07 Dec 2016 12:32	08 Dec 2016 18:01	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50		07 Dec 2016 12:32	08 Dec 2016 18:03	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45		07 Dec 2016 12:32	08 Dec 2016 18:04	1
Batch ID 110549	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50		08 Dec 2016 12:19	08 Dec 2016 17:00	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45		08 Dec 2016 12:19	08 Dec 2016 17:00	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 110625	**Test Name :** MERCURY BY SW7471B			**Matrix:** Soil		
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55		10 Dec 2016 15:44	10 Dec 2016 19:11	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05		10 Dec 2016 15:44	10 Dec 2016 19:16	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45		10 Dec 2016 15:44	10 Dec 2016 19:18	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15		10 Dec 2016 15:44	10 Dec 2016 19:19	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30		10 Dec 2016 15:44	10 Dec 2016 19:21	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30		10 Dec 2016 15:44	10 Dec 2016 19:23	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45		10 Dec 2016 15:44	10 Dec 2016 19:28	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00		10 Dec 2016 15:44	10 Dec 2016 19:30	1
Batch ID 110633	**Test Name :** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30		08 Dec 2016 16:00	15 Dec 2016 13:51	10
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50		08 Dec 2016 16:00	15 Dec 2016 13:56	10
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00		08 Dec 2016 16:00	15 Dec 2016 14:00	10
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10		08 Dec 2016 16:00	15 Dec 2016 14:05	10
Batch ID 110634	**Test Name :** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**Matrix:** Soil		
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20		09 Dec 2016 14:00	15 Dec 2016 14:14	10
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40		09 Dec 2016 14:00	15 Dec 2016 14:18	10
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00		09 Dec 2016 14:00	15 Dec 2016 14:23	10
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		09 Dec 2016 14:00	15 Dec 2016 18:43	200
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20		09 Dec 2016 14:00	15 Dec 2016 14:27	10
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40		09 Dec 2016 14:00	15 Dec 2016 14:32	10
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45		09 Dec 2016 14:00	15 Dec 2016 16:42	10
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55		09 Dec 2016 14:00	15 Dec 2016 16:45	10
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		09 Dec 2016 14:00	15 Dec 2016 18:46	100
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15		09 Dec 2016 14:00	15 Dec 2016 16:48	10
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		09 Dec 2016 14:00	15 Dec 2016 18:49	100
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30		09 Dec 2016 14:00	15 Dec 2016 16:51	10
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		09 Dec 2016 14:00	15 Dec 2016 19:49	2000
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		09 Dec 2016 14:00	15 Dec 2016 19:04	10
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40		09 Dec 2016 14:00	15 Dec 2016 18:58	200
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50		09 Dec 2016 14:00	15 Dec 2016 19:14	10
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45		09 Dec 2016 14:00	15 Dec 2016 19:17	10
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55		09 Dec 2016 14:00	15 Dec 2016 19:20	10
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05		09 Dec 2016 14:00	15 Dec 2016 19:23	10
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45		09 Dec 2016 14:00	15 Dec 2016 19:26	10
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15		09 Dec 2016 14:00	15 Dec 2016 19:34	10
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30		09 Dec 2016 14:00	15 Dec 2016 19:37	10
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30		09 Dec 2016 14:00	15 Dec 2016 19:40	10
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45		09 Dec 2016 14:00	15 Dec 2016 19:43	10
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00		09 Dec 2016 14:00	15 Dec 2016 19:46	10

Client: Kinder Morgan
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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R285471	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16111131-09	TRIP BLANK 110316-48	19 Nov 2016 00:00			26 Nov 2016 13:14	1
HS16111131-27	TRIP BLANK 082916-88	19 Nov 2016 00:00			26 Nov 2016 14:06	1
Batch ID R285473	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16111131-18	TRIP BLANK 082916-80	19 Nov 2016 00:00			27 Nov 2016 08:20	1
Batch ID R285561	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			29 Nov 2016 05:37	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			29 Nov 2016 06:03	1
Batch ID R285585	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			29 Nov 2016 09:12	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			29 Nov 2016 09:39	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			29 Nov 2016 12:22	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			29 Nov 2016 10:33	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			29 Nov 2016 12:49	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			29 Nov 2016 13:16	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			29 Nov 2016 13:44	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			29 Nov 2016 14:11	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			29 Nov 2016 14:38	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			29 Nov 2016 15:05	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			29 Nov 2016 15:32	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			29 Nov 2016 15:59	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			29 Nov 2016 16:26	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			29 Nov 2016 16:53	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			29 Nov 2016 17:20	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			29 Nov 2016 17:47	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			29 Nov 2016 18:14	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			29 Nov 2016 18:41	1
Batch ID R285611	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			29 Nov 2016 05:54	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			29 Nov 2016 06:42	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			29 Nov 2016 06:58	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			29 Nov 2016 07:15	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			29 Nov 2016 07:31	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			29 Nov 2016 08:37	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			29 Nov 2016 08:53	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			29 Nov 2016 09:09	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			29 Nov 2016 09:26	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			29 Nov 2016 09:42	1

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R285613	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			29 Nov 2016 22:16	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			29 Nov 2016 22:42	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			29 Nov 2016 23:09	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			29 Nov 2016 23:35	1
Batch ID R285662	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			30 Nov 2016 00:41	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			30 Nov 2016 01:13	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			30 Nov 2016 01:29	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			30 Nov 2016 01:46	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			30 Nov 2016 02:02	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			30 Nov 2016 02:18	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			30 Nov 2016 02:34	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			30 Nov 2016 02:50	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			30 Nov 2016 03:06	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			30 Nov 2016 03:22	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			30 Nov 2016 03:38	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			30 Nov 2016 04:11	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			30 Nov 2016 04:27	1
Batch ID R285693	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			30 Nov 2016 07:25	1
Batch ID R286008	**Test Name :** MOISTURE			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			05 Dec 2016 09:52	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			05 Dec 2016 09:52	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286009	**Test Name :** MOISTURE			**Matrix:** Soil		
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			05 Dec 2016 09:58	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			05 Dec 2016 09:58	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			05 Dec 2016 09:58	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			05 Dec 2016 09:58	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			05 Dec 2016 09:58	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			05 Dec 2016 09:58	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			05 Dec 2016 09:58	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			05 Dec 2016 09:58	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			05 Dec 2016 09:58	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			05 Dec 2016 09:58	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			05 Dec 2016 09:58	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			05 Dec 2016 09:58	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			05 Dec 2016 09:58	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			05 Dec 2016 09:58	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			05 Dec 2016 09:58	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			05 Dec 2016 09:58	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			05 Dec 2016 09:58	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			05 Dec 2016 09:58	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			05 Dec 2016 09:58	1
Batch ID R286097	**Test Name :** MOISTURE			**Matrix:** Soil		
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			06 Dec 2016 10:17	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			06 Dec 2016 10:17	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			06 Dec 2016 10:17	1
Batch ID R286219	**Test Name :** PH SOIL BY SW9045D			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			08 Dec 2016 17:00	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			08 Dec 2016 17:00	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

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Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286285	**Test Name :** PH SOIL BY SW9045D			**Matrix:** Soil		
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			09 Dec 2016 15:15	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			09 Dec 2016 15:15	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			09 Dec 2016 15:15	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			09 Dec 2016 15:15	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			09 Dec 2016 15:15	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			09 Dec 2016 15:15	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			09 Dec 2016 15:15	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			09 Dec 2016 15:15	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			09 Dec 2016 15:15	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			09 Dec 2016 15:15	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			09 Dec 2016 15:15	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			09 Dec 2016 15:15	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			09 Dec 2016 15:15	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			09 Dec 2016 15:15	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			09 Dec 2016 15:15	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			09 Dec 2016 15:15	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			09 Dec 2016 15:15	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			09 Dec 2016 15:15	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			09 Dec 2016 15:15	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			09 Dec 2016 15:15	1
Batch ID R286307	**Test Name :** PH SOIL BY SW9045D			**Matrix:** Soil		
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			09 Dec 2016 17:13	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			09 Dec 2016 17:13	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286328	**Test Name :** TRIVALENT CHROMIUM			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			10 Dec 2016 15:05	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			10 Dec 2016 15:05	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			10 Dec 2016 15:05	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			10 Dec 2016 15:05	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			10 Dec 2016 15:05	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			10 Dec 2016 15:05	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			10 Dec 2016 15:05	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			10 Dec 2016 15:05	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			10 Dec 2016 15:05	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			10 Dec 2016 15:05	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			10 Dec 2016 15:05	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			10 Dec 2016 15:05	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			10 Dec 2016 15:05	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			10 Dec 2016 15:05	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			10 Dec 2016 15:05	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			10 Dec 2016 15:05	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			10 Dec 2016 15:05	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			10 Dec 2016 15:05	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			10 Dec 2016 15:05	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			10 Dec 2016 15:05	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			10 Dec 2016 15:05	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			10 Dec 2016 15:05	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			10 Dec 2016 15:05	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			10 Dec 2016 15:05	1
Batch ID R286428	**Test Name :** LA29B SATURATION POINT (AS FRACTION)			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			09 Dec 2016 11:25	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			09 Dec 2016 11:25	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			09 Dec 2016 11:25	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			09 Dec 2016 11:25	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286433	**Test Name :** LA29B SATURATION POINT (AS FRACTION)			**Matrix:** Soil		
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			12 Dec 2016 10:00	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			12 Dec 2016 10:00	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			12 Dec 2016 10:00	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			12 Dec 2016 10:00	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			12 Dec 2016 10:00	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			12 Dec 2016 10:00	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			12 Dec 2016 10:00	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			12 Dec 2016 10:00	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			12 Dec 2016 10:00	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			12 Dec 2016 10:00	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			12 Dec 2016 10:00	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			12 Dec 2016 10:00	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			12 Dec 2016 10:00	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			12 Dec 2016 10:00	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			12 Dec 2016 10:00	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			12 Dec 2016 10:00	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			12 Dec 2016 10:00	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			12 Dec 2016 10:00	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			12 Dec 2016 10:00	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			12 Dec 2016 10:00	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286698	**Test Name :** LA29B SODIUM ADSORPTION RATIO			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			16 Dec 2016 10:36	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			16 Dec 2016 10:36	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			16 Dec 2016 10:36	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			16 Dec 2016 10:36	1
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			16 Dec 2016 10:36	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			16 Dec 2016 10:36	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			16 Dec 2016 10:36	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			16 Dec 2016 10:36	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			16 Dec 2016 10:36	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			16 Dec 2016 10:36	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			16 Dec 2016 10:36	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			16 Dec 2016 10:36	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			16 Dec 2016 10:36	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			16 Dec 2016 10:36	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			16 Dec 2016 10:36	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			16 Dec 2016 10:36	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			16 Dec 2016 10:36	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			16 Dec 2016 10:36	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			16 Dec 2016 10:36	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			16 Dec 2016 10:36	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			16 Dec 2016 10:36	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			16 Dec 2016 10:36	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			16 Dec 2016 10:36	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			16 Dec 2016 10:36	1
Batch ID R286706	**Test Name :** LA29B ELECTRICAL CONDUCTIVITY			**Matrix:** Soil		
HS16111131-01	GP-13-1-2-3-111916	19 Nov 2016 07:30			16 Dec 2016 09:45	1
HS16111131-02	GP-13-1-13-14-111916	19 Nov 2016 07:50			16 Dec 2016 09:45	1
HS16111131-03	GP-13-1-14-15-111916	19 Nov 2016 08:00			16 Dec 2016 09:45	1
HS16111131-04	GP-13-2-1-2-111916	19 Nov 2016 08:10			16 Dec 2016 09:45	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R286707	**Test Name :** LA29B ELECTRICAL CONDUCTIVITY			**Matrix:** Soil		
HS16111131-05	GP-13-2-3-4-111916	19 Nov 2016 08:20			16 Dec 2016 10:21	1
HS16111131-06	GP-13-2-13-14-111916	19 Nov 2016 08:40			16 Dec 2016 10:21	1
HS16111131-07	GP-13-3-0-1-111916	19 Nov 2016 09:00			16 Dec 2016 10:21	1
HS16111131-08	GP-13-3-8-9-111916	19 Nov 2016 09:20			16 Dec 2016 10:21	1
HS16111131-10	GP-13-3-14-15-111916	19 Nov 2016 09:40			16 Dec 2016 10:21	1
HS16111131-11	GP-13-4-0-1-111916	19 Nov 2016 09:45			16 Dec 2016 10:21	1
HS16111131-12	GP-13-4-5-6-111916	19 Nov 2016 09:55			16 Dec 2016 10:21	1
HS16111131-13	GP-13-4-14-15-111916	19 Nov 2016 10:15			16 Dec 2016 10:21	1
HS16111131-14	GP-13-5-2-3-111916	19 Nov 2016 13:30			16 Dec 2016 10:21	1
HS16111131-15	GP-13-5-5-6-111916	19 Nov 2016 13:40			16 Dec 2016 10:21	1
HS16111131-16	GP-13-5-13-14-111916	19 Nov 2016 13:50			16 Dec 2016 10:21	1
HS16111131-17	GP-13-6-1-2-111916	19 Nov 2016 12:45			16 Dec 2016 10:21	1
HS16111131-19	GP-13-6-5-6-111916	19 Nov 2016 12:55			16 Dec 2016 10:21	1
HS16111131-20	GP-13-6-13-14-111916	19 Nov 2016 13:05			16 Dec 2016 10:21	1
HS16111131-21	GP-13-7-1-2-111916	19 Nov 2016 11:45			16 Dec 2016 10:21	1
HS16111131-22	GP-13-7-10-11-111916	19 Nov 2016 12:15			16 Dec 2016 10:21	1
HS16111131-23	GP-13-7-13-14-111916	19 Nov 2016 12:30			16 Dec 2016 10:21	1
HS16111131-24	GP-13-8-2-3-111916	19 Nov 2016 10:30			16 Dec 2016 10:21	1
HS16111131-25	GP-13-8-13-14-111916	19 Nov 2016 10:45			16 Dec 2016 10:21	1
HS16111131-26	GP-13-8-14-15-111916	19 Nov 2016 11:00			16 Dec 2016 10:21	1

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110283 **Instrument: FID-8** **Method: SW8015M**

MBLK Sample ID: **MBLK-110283** Units: **mg/Kg** Analysis Date: **05-Dec-2016 20:22**
Client ID: Run ID: **FID-8_286095** SeqNo: **3919629** PrepDate: **30-Nov-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
Surr: 2-Fluorobiphenyl	*2.451*	*0.10*	*3.33*	*0*	*73.6*	*60 - 135*				

LCS Sample ID: **LCS-110283** Units: **mg/Kg** Analysis Date: **05-Dec-2016 20:46**
Client ID: Run ID: **FID-8_286095** SeqNo: **3919630** PrepDate: **30-Nov-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	32.86	1.7	33.33	0	98.6	70 - 130				
Surr: 2-Fluorobiphenyl	*2.27*	*0.10*	*3.33*	*0*	*68.2*	*60 - 135*				

MS Sample ID: **HS16111131-11MS** Units: **mg/Kg** Analysis Date: **02-Dec-2016 21:38**
Client ID: **GP-13-4-0-1-111916** Run ID: **FID-8_286095** SeqNo: **3919596** PrepDate: **30-Nov-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	30.44	1.7	33.29	0	91.5	70 - 130				
Surr: 2-Fluorobiphenyl	*2.14*	*0.10*	*3.326*	*0*	*64.3*	*60 - 135*				

MSD Sample ID: **HS16111131-11MSD** Units: **mg/Kg** Analysis Date: **02-Dec-2016 22:02**
Client ID: **GP-13-4-0-1-111916** Run ID: **FID-8_286095** SeqNo: **3919597** PrepDate: **30-Nov-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	36.15	1.7	33.26	0	109	70 - 130	30.44	17.1	30	
Surr: 2-Fluorobiphenyl	*2.316*	*0.10*	*3.323*	*0*	*69.7*	*60 - 135*	*2.14*	*7.92*	*30*	

The following samples were analyzed in this batch:

HS16111131-01	HS16111131-02	HS16111131-03	HS16111131-04
HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17
HS16111131-19	HS16111131-20	HS16111131-21	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110341 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-110341** Units: **mg/Kg** Analysis Date: **02-Dec-2016 03:02**
Client ID: Run ID: **FID-7_285874** SeqNo: **3914585** PrepDate: **01-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
Surr: 2-Fluorobiphenyl	*2.51*	*0.10*	*3.33*	*0*	*75.4*	*60 - 135*				

LCS Sample ID: **LCS-110341** Units: **mg/Kg** Analysis Date: **02-Dec-2016 03:26**
Client ID: Run ID: **FID-7_285874** SeqNo: **3914586** PrepDate: **01-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	37.26	1.7	33.33	0	112	70 - 130				
Surr: 2-Fluorobiphenyl	*2.449*	*0.10*	*3.33*	*0*	*73.5*	*60 - 135*				

MS Sample ID: **HS16111131-22MS** Units: **mg/Kg** Analysis Date: **02-Dec-2016 13:59**
Client ID: **GP-13-7-10-11-111916** Run ID: **FID-7_285874** SeqNo: **3915149** PrepDate: **01-Dec-2016** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	3327	85	33.27	2956	1120	70 - 130				SO
Surr: 2-Fluorobiphenyl	*ND*	*5.0*	*3.324*	*0*	*0*	*60 - 135*				JS

MSD Sample ID: **HS16111131-22MSD** Units: **mg/Kg** Analysis Date: **02-Dec-2016 14:24**
Client ID: **GP-13-7-10-11-111916** Run ID: **FID-7_285874** SeqNo: **3915150** PrepDate: **01-Dec-2016** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	3378	85	33.25	2956	1270	70 - 130	3327	1.51	30	SEO
Surr: 2-Fluorobiphenyl	*ND*	*5.0*	*3.322*	*0*	*0*	*60 - 135*	*0*	*0*	*30*	JS

The following samples were analyzed in this batch: HS16111131-22 HS16111131-23 HS16111131-24 HS16111131-25 HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285611 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLK-161128** Units: **mg/Kg** Analysis Date: **29-Nov-2016 05:38**
Client ID: Run ID: **FID-14_285611** SeqNo: **3908755** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.07962*	*0.0050*	*0.1*	*0*	*79.6*	*70 - 130*				

LCS Sample ID: **GLCS-161128** Units: **mg/Kg** Analysis Date: **29-Nov-2016 05:05**
Client ID: Run ID: **FID-14_285611** SeqNo: **3908754** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.92	0.050	1	0	92.0	70 - 130				
Surr: 4-Bromofluorobenzene	*0.09379*	*0.0050*	*0.1*	*0*	*93.8*	*70 - 130*				

MS Sample ID: **HS16111131-02MS** Units: **mg/Kg** Analysis Date: **29-Nov-2016 12:23**
Client ID: **GP-13-1-13-14-111916** Run ID: **FID-14_285611** SeqNo: **3908776** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.009	0.050	1	0	101	70 - 130				
Surr: 4-Bromofluorobenzene	*0.09588*	*0.0050*	*0.1*	*0*	*95.9*	*70 - 130*				

MSD Sample ID: **HS16111131-02MSD** Units: **mg/Kg** Analysis Date: **29-Nov-2016 12:39**
Client ID: **GP-13-1-13-14-111916** Run ID: **FID-14_285611** SeqNo: **3908777** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9205	0.050	1	0	92.1	70 - 130	1.009	9.13	30	
Surr: 4-Bromofluorobenzene	*0.08742*	*0.0050*	*0.1*	*0*	*87.4*	*70 - 130*	*0.09588*	*9.22*	*30*	

The following samples were analyzed in this batch:

HS16111131-01	HS16111131-02	HS16111131-03	HS16111131-04
HS16111131-05	HS16111131-08	HS16111131-10	HS16111131-11
HS16111131-12	HS16111131-13		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285662 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLK-161129** Units: **mg/Kg** Analysis Date: **29-Nov-2016 22:48**
Client ID: Run ID: **FID-14_285662** SeqNo: **3910010** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.08121*	*0.0050*	*0.1*	*0*	*81.2*	*70 - 130*				

LCS Sample ID: **GLCS-161129** Units: **mg/Kg** Analysis Date: **29-Nov-2016 22:16**
Client ID: Run ID: **FID-14_285662** SeqNo: **3910009** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8933	0.050	1	0	89.3	70 - 130				
Surr: 4-Bromofluorobenzene	*0.0911*	*0.0050*	*0.1*	*0*	*91.1*	*70 - 130*				

MS Sample ID: **HS16111139-25MS** Units: **mg/Kg** Analysis Date: **29-Nov-2016 23:21**
Client ID: Run ID: **FID-14_285662** SeqNo: **3910012** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.7493	0.050	0.99	0	75.7	70 - 130				
Surr: 4-Bromofluorobenzene	*0.07802*	*0.0050*	*0.099*	*0*	*78.8*	*70 - 130*				

MSD Sample ID: **HS16111139-25MSD** Units: **mg/Kg** Analysis Date: **29-Nov-2016 23:37**
Client ID: Run ID: **FID-14_285662** SeqNo: **3910013** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.7651	0.050	1	0	76.5	70 - 130	0.7493	2.08	30	
Surr: 4-Bromofluorobenzene	*0.07452*	*0.0050*	*0.1*	*0*	*74.5*	*70 - 130*	*0.07802*	*4.59*	*30*	

The following samples were analyzed in this batch:

HS16111131-06	HS16111131-07	HS16111131-14	HS16111131-15
HS16111131-16	HS16111131-17	HS16111131-19	HS16111131-20
HS16111131-21	HS16111131-22	HS16111131-23	HS16111131-24
HS16111131-25			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285693 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLK-161129** Units: **mg/Kg** Analysis Date: **30-Nov-2016 07:09**
Client ID: Run ID: **FID-14_285693** SeqNo: **3910559** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.07541*	*0.0050*	*0.1*	*0*	*75.4*	*70 - 130*				

LCS Sample ID: **GLCS-161129** Units: **mg/Kg** Analysis Date: **30-Nov-2016 06:37**
Client ID: Run ID: **FID-14_285693** SeqNo: **3910558** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9112	0.050	1	0	91.1	70 - 130				
Surr: 4-Bromofluorobenzene	*0.0911*	*0.0050*	*0.1*	*0*	*91.1*	*70 - 130*				

MS Sample ID: **HS16111131-26MS** Units: **mg/Kg** Analysis Date: **30-Nov-2016 07:41**
Client ID: **GP-13-8-14-15-111916** Run ID: **FID-14_285693** SeqNo: **3910561** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8441	0.050	1	0	84.4	70 - 130				
Surr: 4-Bromofluorobenzene	*0.07341*	*0.0050*	*0.1*	*0*	*73.4*	*70 - 130*				

MSD Sample ID: **HS16111131-26MSD** Units: **mg/Kg** Analysis Date: **30-Nov-2016 07:57**
Client ID: **GP-13-8-14-15-111916** Run ID: **FID-14_285693** SeqNo: **3910562** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8115	0.050	1	0	81.1	70 - 130	0.8441	3.95	30	
Surr: 4-Bromofluorobenzene	*0.073*	*0.0050*	*0.1*	*0*	*73.0*	*70 - 130*	*0.07341*	*0.559*	*30*	

The following samples were analyzed in this batch: HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110396 **Instrument: ICPMS04** **Method: SW6020**

MBLK Sample ID: **MBLK-110396** Units: **mg/Kg** Analysis Date: **02-Dec-2016 18:38**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915233** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.500								
Barium	ND	0.500								
Boron	ND	2.50								
Cadmium	ND	0.500								
Chromium	ND	0.500								
Copper	ND	0.200								
Lead	ND	0.500								
Nickel	ND	0.500								
Selenium	ND	0.500								
Silver	ND	0.500								
Zinc	ND	0.500								

LCS Sample ID: **LCS-110396** Units: **mg/Kg** Analysis Date: **02-Dec-2016 18:43**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915234** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.396	0.500	10	0	94.0	80 - 120				
Barium	9.498	0.500	10	0	95.0	80 - 120				
Boron	44.52	2.50	50	0	89.0	80 - 120				
Cadmium	9.542	0.500	10	0	95.4	80 - 120				
Chromium	9.265	0.500	10	0	92.6	80 - 120				
Copper	9	0.200	10	0	90.0	80 - 120				
Lead	9.263	0.500	10	0	92.6	80 - 120				
Nickel	9.598	0.500	10	0	96.0	80 - 120				
Selenium	9.315	0.500	10	0	93.1	80 - 120				
Silver	9.29	0.500	10	0	92.9	80 - 120				
Zinc	9.616	0.500	10	0	96.2	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110396 **Instrument: ICPMS04** **Method: SW6020**

MS Sample ID: **HS16111121-08MS** Units: **mg/Kg** Analysis Date: **02-Dec-2016 19:35**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915542** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.44	0.471	9.429	2.479	84.4	75 - 125				
Barium	173.7	0.471	9.429	148.7	265	75 - 125				SEO
Boron	43.27	2.36	47.14	2.482	86.5	75 - 125				
Cadmium	8.033	0.471	9.429	0.05376	84.6	75 - 125				
Chromium	17.22	0.471	9.429	7.141	107	75 - 125				
Copper	13.51	0.189	9.429	5.954	80.1	75 - 125				
Lead	14.36	0.471	9.429	6.24	86.1	75 - 125				
Nickel	15.76	0.471	9.429	7.382	88.9	75 - 125				
Selenium	7.737	0.471	9.429	0.3864	78.0	75 - 125				
Silver	7.129	0.471	9.429	0.02141	75.4	75 - 125				
Zinc	31.87	0.471	9.429	21.36	111	75 - 125				

MSD Sample ID: **HS16111121-08MSD** Units: **mg/Kg** Analysis Date: **02-Dec-2016 19:39**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915543** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.947	0.472	9.441	2.479	79.1	75 - 125	10.44	4.8	20	
Barium	156.1	0.472	9.441	148.7	78.9	75 - 125	173.7	10.7	20	O
Boron	40.97	2.36	47.21	2.482	81.5	75 - 125	43.27	5.46	20	
Cadmium	7.696	0.472	9.441	0.05376	81.0	75 - 125	8.033	4.28	20	
Chromium	16.54	0.472	9.441	7.141	99.5	75 - 125	17.22	4.03	20	
Copper	12.87	0.189	9.441	5.954	73.3	75 - 125	13.51	4.83	20	S
Lead	13.66	0.472	9.441	6.24	78.6	75 - 125	14.36	4.97	20	
Nickel	15.03	0.472	9.441	7.382	81.0	75 - 125	15.76	4.79	20	
Selenium	7.483	0.472	9.441	0.3864	75.2	75 - 125	7.737	3.34	20	
Silver	6.662	0.472	9.441	0.02141	70.3	75 - 125	7.129	6.77	20	S
Zinc	30.99	0.472	9.441	21.36	102	75 - 125	31.87	2.8	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110396 **Instrument: ICPMS04** **Method: SW6020**

PDS Sample ID: **HS16111121-08PDS** Units: **mg/Kg** Analysis Date: **02-Dec-2016 19:44**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915544** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.51	0.472	9.432	2.479	95.7	75 - 125				
Barium	168.4	0.472	9.432	148.7	209	75 - 125				SO
Boron	43.44	2.36	47.16	2.482	86.9	75 - 125				
Cadmium	8.952	0.472	9.432	0.05376	94.3	75 - 125				
Chromium	16.9	0.472	9.432	7.141	104	75 - 125				
Copper	14.3	0.189	9.432	5.954	88.5	75 - 125				
Lead	15.47	0.472	9.432	6.24	97.8	75 - 125				
Nickel	16.37	0.472	9.432	7.382	95.3	75 - 125				
Selenium	9.226	0.472	9.432	0.3864	93.7	75 - 125				
Silver	7.533	0.472	9.432	0	79.9	75 - 125				
Zinc	31.25	0.472	9.432	21.36	105	75 - 125				

SD Sample ID: **HS16111121-08SD** Units: **mg/Kg** Analysis Date: **02-Dec-2016 19:31**
Client ID: Run ID: **ICPMS04_285849** SeqNo: **3915541** PrepDate: **02-Dec-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	2.71	2.36					2.479	9.31	10	
Barium	158.1	2.36					148.7	6.32	10	
Boron	ND	11.8					2.482	0	10	
Cadmium	ND	2.36					0.05376	0	10	
Chromium	7.637	2.36					7.141	6.95	10	
Copper	6.483	0.943					5.954	8.88	10	
Nickel	8.105	2.36					7.382	9.79	10	
Selenium	ND	2.36					0.3864	0	10	
Silver	ND	2.36					0.02141	0	10	
Zinc	23.06	2.36					21.36	7.95	10	

SD Sample ID: **HS16111121-08SD** Units: **mg/Kg** Analysis Date: **05-Dec-2016 14:34**
Client ID: Run ID: **ICPMS04_285952** SeqNo: **3916812** PrepDate: **02-Dec-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Lead	7.13	2.36					6.24	14.3	10	R

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02 HS16111131-03 HS16111131-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110399 **Instrument: ICPMS04** **Method: SW6020**

MBLK Sample ID: **MBLK-110399** Units: **mg/Kg** Analysis Date: **05-Dec-2016 23:10**
Client ID: Run ID: **ICPMS04_285952** SeqNo: **3917626** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.500								
Barium	ND	0.500								
Boron	ND	2.50								
Cadmium	ND	0.500								
Chromium	ND	0.500								
Copper	ND	0.200								
Lead	ND	0.500								
Nickel	ND	0.500								
Selenium	ND	0.500								
Silver	ND	0.500								
Zinc	ND	0.500								

LCS Sample ID: **LCS-110399** Units: **mg/Kg** Analysis Date: **05-Dec-2016 23:15**
Client ID: Run ID: **ICPMS04_285952** SeqNo: **3917628** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.853	0.500	10	0	98.5	80 - 120				
Barium	9.594	0.500	10	0	95.9	80 - 120				
Boron	51.87	2.50	50	0	104	80 - 120				
Cadmium	9.514	0.500	10	0	95.1	80 - 120				
Chromium	9.915	0.500	10	0	99.2	80 - 120				
Copper	9.975	0.200	10	0	99.8	80 - 120				
Lead	9.39	0.500	10	0	93.9	80 - 120				
Nickel	10.07	0.500	10	0	101	80 - 120				
Selenium	9.57	0.500	10	0	95.7	80 - 120				
Silver	9.738	0.500	10	0	97.4	80 - 120				
Zinc	10.11	0.500	10	0	101	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110399 **Instrument: ICPMS04** **Method: SW6020**

MS Sample ID: **HS16111131-11MS** Units: **mg/Kg** Analysis Date: **06-Dec-2016 00:02**
Client ID: **GP-13-4-0-1-111916** Run ID: **ICPMS04_285952** SeqNo: **3917640** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.572	0.462	9.24	1.918	82.8	75 - 125				
Barium	144.5	0.462	9.24	108.9	385	75 - 125				SO
Boron	46.73	2.31	46.2	2.502	95.7	75 - 125				
Cadmium	7.69	0.462	9.24	0.06772	82.5	75 - 125				
Chromium	16.01	0.462	9.24	5.954	109	75 - 125				
Copper	14.38	0.185	9.24	6.177	88.8	75 - 125				
Lead	14.04	0.462	9.24	5.645	90.9	75 - 125				
Nickel	15.46	0.462	9.24	6.365	98.4	75 - 125				
Selenium	7.225	0.462	9.24	0.2941	75.0	75 - 125				
Silver	7.839	0.462	9.24	0.03669	84.4	75 - 125				
Zinc	32.71	0.462	9.24	18.54	153	75 - 125				S

MSD Sample ID: **HS16111131-11MSD** Units: **mg/Kg** Analysis Date: **06-Dec-2016 00:06**
Client ID: **GP-13-4-0-1-111916** Run ID: **ICPMS04_285952** SeqNo: **3917641** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.983	0.462	9.244	1.918	76.4	75 - 125	9.572	6.34	20	
Barium	146	0.462	9.244	108.9	401	75 - 125	144.5	1.05	20	SO
Boron	47.37	2.31	46.22	2.502	97.1	75 - 125	46.73	1.38	20	
Cadmium	7.76	0.462	9.244	0.06772	83.2	75 - 125	7.69	0.906	20	
Chromium	14.74	0.462	9.244	5.954	95.1	75 - 125	16.01	8.22	20	
Copper	13.29	0.185	9.244	6.177	77.0	75 - 125	14.38	7.85	20	
Lead	14.24	0.462	9.244	5.645	93.0	75 - 125	14.04	1.4	20	
Nickel	14.24	0.462	9.244	6.365	85.1	75 - 125	15.46	8.22	20	
Selenium	6.771	0.462	9.244	0.2941	70.1	75 - 125	7.225	6.48	20	S
Silver	8.204	0.462	9.244	0.03669	88.3	75 - 125	7.839	4.54	20	
Zinc	29.91	0.462	9.244	18.54	123	75 - 125	32.71	8.96	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110399 **Instrument: ICPMS04** **Method: SW6020**

PDS Sample ID: **HS16111131-11PDS** Units: **mg/Kg** Analysis Date: **06-Dec-2016 00:11**
Client ID: **GP-13-4-0-1-111916** Run ID: **ICPMS04_285952** SeqNo: **3917642** PrepDate: **02-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.89	0.463	9.264	1.918	96.8	75 - 125				
Barium	126.8	0.463	9.264	108.9	193	75 - 125				SO
Boron	46.61	2.32	46.32	2.502	95.2	75 - 125				
Cadmium	8.799	0.463	9.264	0.06772	94.2	75 - 125				
Chromium	14.96	0.463	9.264	5.954	97.2	75 - 125				
Copper	15.07	0.185	9.264	6.177	96.0	75 - 125				
Lead	15.09	0.463	9.264	5.645	102	75 - 125				
Nickel	15.37	0.463	9.264	6.365	97.2	75 - 125				
Selenium	8.943	0.463	9.264	0.2941	93.4	75 - 125				
Silver	8.126	0.463	9.264	0	87.7	75 - 125				
Zinc	28.11	0.463	9.264	18.54	103	75 - 125				

SD Sample ID: **HS16111131-11SD** Units: **mg/Kg** Analysis Date: **05-Dec-2016 23:57**
Client ID: **GP-13-4-0-1-111916** Run ID: **ICPMS04_285952** SeqNo: **3917639** PrepDate: **02-Dec-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	1.88	2.32					1.918	0	10	J
Barium	110.7	2.32					108.9	1.59	10	
Boron	ND	11.6					2.502	0	10	
Cadmium	ND	2.32					0.06772	0	10	
Chromium	5.961	2.32					5.954	0.118	10	
Copper	6.352	0.926					6.177	2.84	10	
Lead	5.865	2.32					5.645	3.91	10	
Nickel	6.467	2.32					6.365	1.59	10	
Selenium	ND	2.32					0.2941	0	10	
Silver	ND	2.32					0.03669	0	10	
Zinc	18.85	2.32					18.54	1.67	10	

The following samples were analyzed in this batch:

HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17
HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110508 **Instrument: HG03** **Method: SW7471A**

MBLK Sample ID: **MBLK-110508** Units: **ug/Kg** Analysis Date: **08-Dec-2016 17:15**
Client ID: Run ID: **HG03_286199** SeqNo: **3921836** PrepDate: **07-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	3.33								

LCS Sample ID: **LCS-110508** Units: **ug/Kg** Analysis Date: **08-Dec-2016 17:16**
Client ID: Run ID: **HG03_286199** SeqNo: **3921837** PrepDate: **07-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	335.8	3.38	339.2	0	99.0	85 - 115				

MS Sample ID: **HS16111121-16MS** Units: **ug/Kg** Analysis Date: **08-Dec-2016 17:21**
Client ID: Run ID: **HG03_286199** SeqNo: **3921840** PrepDate: **07-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	372.3	3.56	357.3	11.83	101	85 - 115				

MSD Sample ID: **HS16111121-16MSD** Units: **ug/Kg** Analysis Date: **08-Dec-2016 17:23**
Client ID: Run ID: **HG03_286199** SeqNo: **3921841** PrepDate: **07-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	368.1	3.54	355.3	11.83	100	85 - 115	372.3	1.15	20	

The following samples were analyzed in this batch:

HS16111131-01	HS16111131-02	HS16111131-03	HS16111131-04
HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110625 **Instrument: HG03** **Method: SW7471A**

MBLK Sample ID: **MBLK-110625** Units: **ug/Kg** Analysis Date: **10-Dec-2016 18:51**
Client ID: Run ID: **HG03_286403** SeqNo: **3926045** PrepDate: **10-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	3.40								

LCS Sample ID: **LCS-110625** Units: **ug/Kg** Analysis Date: **10-Dec-2016 18:53**
Client ID: Run ID: **HG03_286403** SeqNo: **3926046** PrepDate: **10-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	326.4	3.38	339.3	0	96.2	85 - 115				

MS Sample ID: **HS16111131-19MS** Units: **ug/Kg** Analysis Date: **10-Dec-2016 19:12**
Client ID: **GP-13-6-5-6-111916** Run ID: **HG03_286403** SeqNo: **3926048** PrepDate: **10-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	347.8	3.61	361.5	9.255	93.6	85 - 115				

MSD Sample ID: **HS16111131-19MSD** Units: **ug/Kg** Analysis Date: **10-Dec-2016 19:14**
Client ID: **GP-13-6-5-6-111916** Run ID: **HG03_286403** SeqNo: **3926049** PrepDate: **10-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	350.2	3.59	359.6	9.255	94.8	85 - 115	347.8	0.699	20	

The following samples were analyzed in this batch:

HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110633 **Instrument: ICPMS04** **Method: La29B-6020**

MBLK Sample ID: **MBLK-110633** Units: **mg/L** Analysis Date: **15-Dec-2016 00:49**
Client ID: Run ID: **ICPMS04_286546** SeqNo: **3930473** PrepDate: **08-Dec-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	5.00								
Magnesium	ND	5.00								
Sodium	ND	5.00								

DUP Sample ID: **HS16111121-09DUP** Units: **mg/L** Analysis Date: **15-Dec-2016 01:42**
Client ID: Run ID: **ICPMS04_286546** SeqNo: **3930496** PrepDate: **08-Dec-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	76.11	5.00					76.62	0.664	30	
Magnesium	11.39	5.00					11.55	1.42	30	
Sodium	8.566	5.00					8.93	4.15	30	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02 HS16111131-03 HS16111131-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110634 **Instrument: ICPMS04** **Method: La29B-6020**

MBLK Sample ID: **MBLK-110634** Units: **mg/L** Analysis Date: **15-Dec-2016 14:09**
Client ID: Run ID: **ICPMS04_286615** SeqNo: **3931516** PrepDate: **09-Dec-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	5.00								
Magnesium	ND	5.00								
Sodium	ND	5.00								

DUP Sample ID: **HS16111131-15DUP** Units: **mg/L** Analysis Date: **15-Dec-2016 19:01**
Client ID: **GP-13-5-5-6-111916** Run ID: **ICPMS05_286613** SeqNo: **3932110** PrepDate: **09-Dec-2016** DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	2133	99.8					2132	0.0318	30	

DUP Sample ID: **HS16111131-15DUP** Units: **mg/L** Analysis Date: **15-Dec-2016 19:07**
Client ID: **GP-13-5-5-6-111916** Run ID: **ICPMS05_286613** SeqNo: **3932112** PrepDate: **09-Dec-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	ND	4.99					0.1178	0	30	

DUP Sample ID: **HS16111131-15DUP** Units: **mg/L** Analysis Date: **15-Dec-2016 19:52**
Client ID: **GP-13-5-5-6-111916** Run ID: **ICPMS05_286613** SeqNo: **3932127** PrepDate: **09-Dec-2016** DF: **2000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	43970	998					43360	1.41	30	

The following samples were analyzed in this batch:

HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17
HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285471 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-161123** Units: **ug/L** Analysis Date: **26-Nov-2016 11:08**
Client ID: Run ID: **VOA2_285471** SeqNo: **3905983** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*50.1*	*1.0*	*50*	*0*	*100*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.83*	*1.0*	*50*	*0*	*99.7*	*70 - 125*				
Surr: Dibromofluoromethane	*49.96*	*1.0*	*50*	*0*	*99.9*	*74 - 125*				
Surr: Toluene-d8	*50.76*	*1.0*	*50*	*0*	*102*	*75 - 125*				

LCS Sample ID: **VLCSW-161123** Units: **ug/L** Analysis Date: **26-Nov-2016 10:18**
Client ID: Run ID: **VOA2_285471** SeqNo: **3905982** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.62	1.0	50	0	93.2	75 - 122				
Ethylbenzene	43.98	1.0	50	0	88.0	80 - 120				
m,p-Xylene	88.36	2.0	100	0	88.4	80 - 120				
o-Xylene	45.77	1.0	50	0	91.5	80 - 120				
Toluene	45.08	1.0	50	0	90.2	75 - 121				
Xylenes, Total	134.1	1.0	150	0	89.4	79 - 124				
Surr: 1,2-Dichloroethane-d4	*51.52*	*1.0*	*50*	*0*	*103*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.98*	*1.0*	*50*	*0*	*102*	*70 - 125*				
Surr: Dibromofluoromethane	*50.74*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*48.68*	*1.0*	*50*	*0*	*97.4*	*75 - 125*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285471 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS16111097-01MS** Units: **ug/L** Analysis Date: **26-Nov-2016 14:56**
Client ID: Run ID: **VOA2_285471** SeqNo: **3905992** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.39	1.0	50	0	92.8	75 - 122				
Ethylbenzene	45.6	1.0	50	0	91.2	80 - 120				
m,p-Xylene	89.15	2.0	100	0	89.2	80 - 120				
o-Xylene	45.66	1.0	50	0	91.3	80 - 120				
Toluene	46.31	1.0	50	0	92.6	75 - 121				
Xylenes, Total	134.8	1.0	150	0	89.9	80 - 124				
Surr: 1,2-Dichloroethane-d4	*52.32*	*1.0*	*50*	*0*	*105*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.56*	*1.0*	*50*	*0*	*99.1*	*70 - 125*				
Surr: Dibromofluoromethane	*49.03*	*1.0*	*50*	*0*	*98.1*	*74 - 125*				
Surr: Toluene-d8	*49.38*	*1.0*	*50*	*0*	*98.8*	*75 - 125*				

MSD Sample ID: **HS16111097-01MSD** Units: **ug/L** Analysis Date: **26-Nov-2016 15:20**
Client ID: Run ID: **VOA2_285471** SeqNo: **3905993** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	47.82	1.0	50	0	95.6	75 - 122	46.39	3.04	20	
Ethylbenzene	45.15	1.0	50	0	90.3	80 - 120	45.6	0.995	20	
m,p-Xylene	89.47	2.0	100	0	89.5	80 - 120	89.15	0.358	20	
o-Xylene	45.74	1.0	50	0	91.5	80 - 120	45.66	0.164	20	
Toluene	45.41	1.0	50	0	90.8	75 - 121	46.31	1.97	20	
Xylenes, Total	135.2	1.0	150	0	90.1	80 - 124	134.8	0.292	20	
Surr: 1,2-Dichloroethane-d4	*51.94*	*1.0*	*50*	*0*	*104*	*71 - 125*	*52.32*	*0.725*	*20*	
Surr: 4-Bromofluorobenzene	*50.44*	*1.0*	*50*	*0*	*101*	*70 - 125*	*49.56*	*1.75*	*20*	
Surr: Dibromofluoromethane	*50.2*	*1.0*	*50*	*0*	*100*	*74 - 125*	*49.03*	*2.36*	*20*	
Surr: Toluene-d8	*49.02*	*1.0*	*50*	*0*	*98.0*	*75 - 125*	*49.38*	*0.735*	*20*	

The following samples were analyzed in this batch: HS16111131-09 HS16111131-27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285473 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-161126** Units: **ug/L** Analysis Date: **26-Nov-2016 22:48**
Client ID: Run ID: **VOA2_285473** SeqNo: **3906164** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*48.77*	*1.0*	*50*	*0*	*97.5*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.2*	*1.0*	*50*	*0*	*98.4*	*70 - 125*				
Surr: Dibromofluoromethane	*50.27*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*50.33*	*1.0*	*50*	*0*	*101*	*75 - 125*				

LCS Sample ID: **VLCSW-161126** Units: **ug/L** Analysis Date: **26-Nov-2016 21:58**
Client ID: Run ID: **VOA2_285473** SeqNo: **3906163** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.12	1.0	50	0	98.2	75 - 122				
Ethylbenzene	46.98	1.0	50	0	94.0	80 - 120				
m,p-Xylene	93.6	2.0	100	0	93.6	80 - 120				
o-Xylene	47.7	1.0	50	0	95.4	80 - 120				
Toluene	47.2	1.0	50	0	94.4	75 - 121				
Xylenes, Total	141.3	1.0	150	0	94.2	79 - 124				
Surr: 1,2-Dichloroethane-d4	*52.85*	*1.0*	*50*	*0*	*106*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.86*	*1.0*	*50*	*0*	*102*	*70 - 125*				
Surr: Dibromofluoromethane	*51.04*	*1.0*	*50*	*0*	*102*	*74 - 125*				
Surr: Toluene-d8	*48.75*	*1.0*	*50*	*0*	*97.5*	*75 - 125*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285473 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS16111103-01MS** Units: **ug/L** Analysis Date: **26-Nov-2016 23:37**
Client ID: Run ID: **VOA2_285473** SeqNo: **3906166** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.77	1.0	50	0	93.5	75 - 122				
Ethylbenzene	45.37	1.0	50	0	90.7	80 - 120				
m,p-Xylene	88.77	2.0	100	0	88.8	80 - 120				
o-Xylene	45.79	1.0	50	0	91.6	80 - 120				
Toluene	45.86	1.0	50	0	91.7	75 - 121				
Xylenes, Total	134.6	1.0	150	0	89.7	80 - 124				
Surr: 1,2-Dichloroethane-d4	*51.92*	*1.0*	*50*	*0*	*104*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.25*	*1.0*	*50*	*0*	*100*	*70 - 125*				
Surr: Dibromofluoromethane	*50.38*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*49.03*	*1.0*	*50*	*0*	*98.1*	*75 - 125*				

MSD Sample ID: **HS16111103-01MSD** Units: **ug/L** Analysis Date: **27-Nov-2016 00:02**
Client ID: Run ID: **VOA2_285473** SeqNo: **3906167** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.55	1.0	50	0	93.1	75 - 122	46.77	0.48	20	
Ethylbenzene	44.15	1.0	50	0	88.3	80 - 120	45.37	2.71	20	
m,p-Xylene	88.74	2.0	100	0	88.7	80 - 120	88.77	0.0435	20	
o-Xylene	45.17	1.0	50	0	90.3	80 - 120	45.79	1.38	20	
Toluene	45.23	1.0	50	0	90.5	75 - 121	45.86	1.4	20	
Xylenes, Total	133.9	1.0	150	0	89.3	80 - 124	134.6	0.498	20	
Surr: 1,2-Dichloroethane-d4	*51.77*	*1.0*	*50*	*0*	*104*	*71 - 125*	*51.92*	*0.291*	*20*	
Surr: 4-Bromofluorobenzene	*50.65*	*1.0*	*50*	*0*	*101*	*70 - 125*	*50.25*	*0.794*	*20*	
Surr: Dibromofluoromethane	*49.12*	*1.0*	*50*	*0*	*98.2*	*74 - 125*	*50.38*	*2.53*	*20*	
Surr: Toluene-d8	*49.13*	*1.0*	*50*	*0*	*98.3*	*75 - 125*	*49.03*	*0.197*	*20*	

The following samples were analyzed in this batch: HS16111131-18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285561 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS1-112816** Units: **ug/Kg** Analysis Date: **28-Nov-2016 20:38**
Client ID: Run ID: **VOA8_285561** SeqNo: **3907654** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*51.35*	*0*	*50*	*0*	*103*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*46.62*	*0*	*50*	*0*	*93.2*	*73 - 126*				
Surr: Dibromofluoromethane	*55.47*	*0*	*50*	*0*	*111*	*71 - 128*				
Surr: Toluene-d8	*49.86*	*0*	*50*	*0*	*99.7*	*73 - 127*				

LCS Sample ID: **VLCSS1-112816** Units: **ug/Kg** Analysis Date: **28-Nov-2016 19:44**
Client ID: Run ID: **VOA8_285561** SeqNo: **3907653** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.65	5.0	50	0	95.3	79 - 122				
Ethylbenzene	51.43	5.0	50	0	103	80 - 122				
m,p-Xylene	100.7	10	100	0	101	79 - 122				
o-Xylene	49.47	5.0	50	0	98.9	80 - 123				
Toluene	47.85	5.0	50	0	95.7	79 - 120				
Xylenes, Total	150.2	5.0	150	0	100	79 - 123				
Surr: 1,2-Dichloroethane-d4	*48.84*	*0*	*50*	*0*	*97.7*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*49.63*	*0*	*50*	*0*	*99.3*	*73 - 126*				
Surr: Dibromofluoromethane	*48.94*	*0*	*50*	*0*	*97.9*	*71 - 128*				
Surr: Toluene-d8	*48.31*	*0*	*50*	*0*	*96.6*	*73 - 127*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285561 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16111139-21MS** Units: **ug/Kg** Analysis Date: **28-Nov-2016 22:25**
Client ID: Run ID: **VOA8_285561** SeqNo: **3907658** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	35.46	5.1	51	0	69.5	79 - 122				S
Ethylbenzene	33.81	5.1	51	0	66.3	80 - 122				S
m,p-Xylene	65.8	10	102	0	64.5	79 - 122				S
o-Xylene	32.12	5.1	51	0	63.0	80 - 123				S
Toluene	33.33	5.1	51	0	65.3	79 - 120				S
Xylenes, Total	97.92	5.1	153	0	64.0	79 - 123				S
Surr: 1,2-Dichloroethane-d4	*54.79*	*0*	*51*	*0*	*107*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*50.64*	*0*	*51*	*0*	*99.3*	*73 - 126*				
Surr: Dibromofluoromethane	*56.78*	*0*	*51*	*0*	*111*	*71 - 128*				
Surr: Toluene-d8	*47.37*	*0*	*51*	*0*	*92.9*	*73 - 127*				

MSD Sample ID: **HS16111139-21MSD** Units: **ug/Kg** Analysis Date: **28-Nov-2016 22:52**
Client ID: Run ID: **VOA8_285561** SeqNo: **3907659** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	35.9	5.0	50	0	71.8	79 - 122	35.46	1.25	30	S
Ethylbenzene	33.72	5.0	50	0	67.4	80 - 122	33.81	0.277	30	S
m,p-Xylene	66.85	10	100	0	66.8	79 - 122	65.8	1.59	30	S
o-Xylene	32.28	5.0	50	0	64.6	80 - 123	32.12	0.48	30	S
Toluene	33.01	5.0	50	0	66.0	79 - 120	33.33	0.946	30	S
Xylenes, Total	99.13	5.0	150	0	66.1	79 - 123	97.92	1.23	30	S
Surr: 1,2-Dichloroethane-d4	*50.39*	*0*	*50*	*0*	*101*	*70 - 128*	*54.79*	*8.37*	*30*	
Surr: 4-Bromofluorobenzene	*49.87*	*0*	*50*	*0*	*99.7*	*73 - 126*	*50.64*	*1.54*	*30*	
Surr: Dibromofluoromethane	*52.68*	*0*	*50*	*0*	*105*	*71 - 128*	*56.78*	*7.5*	*30*	
Surr: Toluene-d8	*48.31*	*0*	*50*	*0*	*96.6*	*73 - 127*	*47.37*	*1.97*	*30*	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285585 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS1-112916** Units: **ug/Kg** Analysis Date: **29-Nov-2016 08:45**
Client ID: Run ID: **VOA8_285585** SeqNo: **3908344** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*44.16*	*0*	*50*	*0*	*88.3*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*43.31*	*0*	*50*	*0*	*86.6*	*73 - 126*				
Surr: Dibromofluoromethane	*52.14*	*0*	*50*	*0*	*104*	*71 - 128*				
Surr: Toluene-d8	*51*	*0*	*50*	*0*	*102*	*73 - 127*				

LCS Sample ID: **VLCSS1-112916** Units: **ug/Kg** Analysis Date: **29-Nov-2016 08:18**
Client ID: Run ID: **VOA8_285585** SeqNo: **3908343** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.84	5.0	50	0	95.7	79 - 122				
Ethylbenzene	50.39	5.0	50	0	101	80 - 122				
m,p-Xylene	100.7	10	100	0	101	79 - 122				
o-Xylene	49.99	5.0	50	0	100.0	80 - 123				
Toluene	46.68	5.0	50	0	93.4	79 - 120				
Xylenes, Total	150.7	5.0	150	0	100	79 - 123				
Surr: 1,2-Dichloroethane-d4	*46.28*	*0*	*50*	*0*	*92.6*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*48.77*	*0*	*50*	*0*	*97.5*	*73 - 126*				
Surr: Dibromofluoromethane	*48.46*	*0*	*50*	*0*	*96.9*	*71 - 128*				
Surr: Toluene-d8	*47.16*	*0*	*50*	*0*	*94.3*	*73 - 127*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285585 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16111131-06MS** Units: **ug/Kg** Analysis Date: **29-Nov-2016 11:27**
Client ID: **GP-13-2-13-14-111916** Run ID: **VOA8_285585** SeqNo: **3908551** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.01	4.9	49	0	91.9	79 - 122				
Ethylbenzene	47.32	4.9	49	0	96.6	80 - 122				
m,p-Xylene	93.7	9.8	98	0	95.6	79 - 122				
o-Xylene	46.24	4.9	49	0	94.4	80 - 123				
Toluene	44.29	4.9	49	0	90.4	79 - 120				
Xylenes, Total	139.9	4.9	147	0	95.2	79 - 123				
Surr: 1,2-Dichloroethane-d4	*49.89*	*0*	*49*	*0*	*102*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*45.95*	*0*	*49*	*0*	*93.8*	*73 - 126*				
Surr: Dibromofluoromethane	*55.41*	*0*	*49*	*0*	*113*	*71 - 128*				
Surr: Toluene-d8	*47.11*	*0*	*49*	*0*	*96.1*	*73 - 127*				

MSD Sample ID: **HS16111131-06MSD** Units: **ug/Kg** Analysis Date: **29-Nov-2016 11:54**
Client ID: **GP-13-2-13-14-111916** Run ID: **VOA8_285585** SeqNo: **3908552** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	42.28	4.9	49	0	86.3	79 - 122	45.01	6.26	30	
Ethylbenzene	44.44	4.9	49	0	90.7	80 - 122	47.32	6.27	30	
m,p-Xylene	88.58	9.8	98	0	90.4	79 - 122	93.7	5.62	30	
o-Xylene	43.58	4.9	49	0	88.9	80 - 123	46.24	5.92	30	
Toluene	41.17	4.9	49	0	84.0	79 - 120	44.29	7.32	30	
Xylenes, Total	132.2	4.9	147	0	89.9	79 - 123	139.9	5.72	30	
Surr: 1,2-Dichloroethane-d4	*54.06*	*0*	*49*	*0*	*110*	*70 - 128*	*49.89*	*8.03*	*30*	
Surr: 4-Bromofluorobenzene	*46.66*	*0*	*49*	*0*	*95.2*	*73 - 126*	*45.95*	*1.53*	*30*	
Surr: Dibromofluoromethane	*55.51*	*0*	*49*	*0*	*113*	*71 - 128*	*55.41*	*0.175*	*30*	
Surr: Toluene-d8	*46.19*	*0*	*49*	*0*	*94.3*	*73 - 127*	*47.11*	*1.99*	*30*	

The following samples were analyzed in this batch:

HS16111131-03	HS16111131-04	HS16111131-05	HS16111131-06
HS16111131-07	HS16111131-08	HS16111131-10	HS16111131-11
HS16111131-12	HS16111131-13	HS16111131-14	HS16111131-15
HS16111131-16	HS16111131-17	HS16111131-19	HS16111131-20
HS16111131-21	HS16111131-22		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285613 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS2-112916** Units: **ug/Kg** Analysis Date: **29-Nov-2016 21:49**
Client ID: Run ID: **VOA8_285613** SeqNo: **3909607** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*46.92*	*0*	*50*	*0*	*93.8*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*43.46*	*0*	*50*	*0*	*86.9*	*73 - 126*				
Surr: Dibromofluoromethane	*56.27*	*0*	*50*	*0*	*113*	*71 - 128*				
Surr: Toluene-d8	*48.49*	*0*	*50*	*0*	*97.0*	*73 - 127*				

LCS Sample ID: **VLCSS2-112916** Units: **ug/Kg** Analysis Date: **29-Nov-2016 20:55**
Client ID: Run ID: **VOA8_285613** SeqNo: **3909606** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.72	5.0	50	0	97.4	79 - 122				
Ethylbenzene	49.23	5.0	50	0	98.5	80 - 122				
m,p-Xylene	97.41	10	100	0	97.4	79 - 122				
o-Xylene	49.21	5.0	50	0	98.4	80 - 123				
Toluene	45.85	5.0	50	0	91.7	79 - 120				
Xylenes, Total	146.6	5.0	150	0	97.7	79 - 123				
Surr: 1,2-Dichloroethane-d4	*45.77*	*0*	*50*	*0*	*91.5*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*47.63*	*0*	*50*	*0*	*95.3*	*73 - 126*				
Surr: Dibromofluoromethane	*48.69*	*0*	*50*	*0*	*97.4*	*71 - 128*				
Surr: Toluene-d8	*48.07*	*0*	*50*	*0*	*96.1*	*73 - 127*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R285613 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16111131-24MS** Units: **ug/Kg** Analysis Date: **30-Nov-2016 00:29**
Client ID: **GP-13-8-2-3-111916** Run ID: **VOA8_285613** SeqNo: **3909613** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.07	5.0	50	0	90.1	79 - 122				
Ethylbenzene	48.01	5.0	50	0	96.0	80 - 122				
m,p-Xylene	93.74	10	100	0	93.7	79 - 122				
o-Xylene	46.61	5.0	50	0	93.2	80 - 123				
Toluene	46.85	5.0	50	0	93.7	79 - 120				
Xylenes, Total	140.4	5.0	150	0	93.6	79 - 123				
Surr: 1,2-Dichloroethane-d4	*57.63*	*0*	*50*	*0*	*115*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*48.08*	*0*	*50*	*0*	*96.2*	*73 - 126*				
Surr: Dibromofluoromethane	*55.84*	*0*	*50*	*0*	*112*	*71 - 128*				
Surr: Toluene-d8	*47.97*	*0*	*50*	*0*	*95.9*	*73 - 127*				

MSD Sample ID: **HS16111131-24MSD** Units: **ug/Kg** Analysis Date: **30-Nov-2016 00:56**
Client ID: **GP-13-8-2-3-111916** Run ID: **VOA8_285613** SeqNo: **3909614** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.29	5.0	50	0	92.6	79 - 122	45.07	2.67	30	
Ethylbenzene	44.6	5.0	50	0	89.2	80 - 122	48.01	7.36	30	
m,p-Xylene	87.63	10	100	0	87.6	79 - 122	93.74	6.74	30	
o-Xylene	43.03	5.0	50	0	86.1	80 - 123	46.61	7.99	30	
Toluene	42.76	5.0	50	0	85.5	79 - 120	46.85	9.13	30	
Xylenes, Total	130.7	5.0	150	0	87.1	79 - 123	140.4	7.16	30	
Surr: 1,2-Dichloroethane-d4	*51.86*	*0*	*50*	*0*	*104*	*70 - 128*	*57.63*	*10.5*	*30*	
Surr: 4-Bromofluorobenzene	*47.82*	*0*	*50*	*0*	*95.6*	*73 - 126*	*48.08*	*0.533*	*30*	
Surr: Dibromofluoromethane	*55.86*	*0*	*50*	*0*	*112*	*71 - 128*	*55.84*	*0.0426*	*30*	
Surr: Toluene-d8	*48.44*	*0*	*50*	*0*	*96.9*	*73 - 127*	*47.97*	*0.969*	*30*	

The following samples were analyzed in this batch: HS16111131-23 HS16111131-24 HS16111131-25 HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110464 **Instrument: UV-2450** **Method: SW7196**

MBLK Sample ID: **MBLK-110464** Units: **mg/kg** Analysis Date: **07-Dec-2016 16:45**
Client ID: Run ID: **UV-2450_286226** SeqNo: **3921797** PrepDate: **06-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	2.00								

LCS Sample ID: **LCS-110464** Units: **mg/kg** Analysis Date: **07-Dec-2016 16:45**
Client ID: Run ID: **UV-2450_286226** SeqNo: **3921796** PrepDate: **06-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	9.72	2.00	10	0	97.2	80 - 120				

MS Sample ID: **HS16111139-23MS** Units: **mg/kg** Analysis Date: **07-Dec-2016 16:45**
Client ID: Run ID: **UV-2450_286226** SeqNo: **3921794** PrepDate: **06-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.843	1.99	9.958	-0.04001	89.2	75 - 125				

MSD Sample ID: **HS16111139-23MSD** Units: **mg/kg** Analysis Date: **07-Dec-2016 16:45**
Client ID: Run ID: **UV-2450_286226** SeqNo: **3921795** PrepDate: **06-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	10.68	1.99	9.929	-0.04001	108	75 - 125	8.843	18.9	20	

The following samples were analyzed in this batch:

HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: 110549 **Instrument: UV-2450** **Method: SW7196**

MBLK Sample ID: **MBLK-110549** Units: **mg/kg** Analysis Date: **08-Dec-2016 17:00**
Client ID: Run ID: **UV-2450_286282** SeqNo: **3923144** PrepDate: **08-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	2.00								

LCS Sample ID: **LCS-110549** Units: **mg/kg** Analysis Date: **08-Dec-2016 17:00**
Client ID: Run ID: **UV-2450_286282** SeqNo: **3923143** PrepDate: **08-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.52	2.00	10	0	85.2	80 - 120				

MS Sample ID: **HS16111131-17MS** Units: **mg/kg** Analysis Date: **08-Dec-2016 17:00**
Client ID: **GP-13-6-1-2-111916** Run ID: **UV-2450_286282** SeqNo: **3923141** PrepDate: **08-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8	2.00	10	0	80.0	75 - 125				

MSD Sample ID: **HS16111131-17MSD** Units: **mg/kg** Analysis Date: **08-Dec-2016 17:00**
Client ID: **GP-13-6-1-2-111916** Run ID: **UV-2450_286282** SeqNo: **3923142** PrepDate: **08-Dec-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.047	2.00	10.01	0	80.4	75 - 125	8	0.587	20	

The following samples were analyzed in this batch:

HS16111131-01	HS16111131-02	HS16111131-03	HS16111131-04
HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R286008 **Instrument: Balance1** **Method: SW3550**

DUP Sample ID: **HS16120092-02DUP** Units: **wt%** Analysis Date: **05-Dec-2016 09:52**
Client ID: Run ID: **Balance1_286008** SeqNo: **3917462** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	14.8	0.0100					15.6	5.26	20	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286009** **Instrument:** **Balance1** **Method:** **SW3550**

DUP Sample ID: **HS16111131-24DUP** Units: **wt%** Analysis Date: **05-Dec-2016 09:58**
Client ID: **GP-13-8-2-3-111916** Run ID: **Balance1_286009** SeqNo: **3917495** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	13	0.0100					12.6	3.12	20	

The following samples were analyzed in this batch:

HS16111131-03	HS16111131-04	HS16111131-05	HS16111131-06
HS16111131-07	HS16111131-08	HS16111131-10	HS16111131-11
HS16111131-12	HS16111131-14	HS16111131-15	HS16111131-16
HS16111131-17	HS16111131-19	HS16111131-20	HS16111131-21
HS16111131-22	HS16111131-23	HS16111131-24	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286097** **Instrument:** **Balance1** **Method:** **SW3550**

DUP Sample ID: **HS16111131-26DUP** Units: **wt%** Analysis Date: **06-Dec-2016 10:17**
Client ID: **GP-13-8-14-15-111916** Run ID: **Balance1_286097** SeqNo: **3919504** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Percent Moisture	13.1	0.0100					13.4	2.26	20	

The following samples were analyzed in this batch: HS16111131-13 HS16111131-25 HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286219** **Instrument:** **WetChem_HS** **Method:** **SW9045B**

DUP Sample ID: **HS16111131-02DUP** Units: **pH Units** Analysis Date: **08-Dec-2016 17:00**
Client ID: **GP-13-1-13-14-111916** Run ID: **WetChem_HS_286219** SeqNo: **3921688** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.09	0.100					8.11	0.247	10	
Temp Deg C @pH	20.2	0					20.7	2.44	10	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286285** **Instrument:** **WetChem_HS** **Method:** **SW9045B**

DUP Sample ID: **HS16111131-17DUP** Units: **pH Units** Analysis Date: **09-Dec-2016 15:15**
Client ID: **GP-13-6-1-2-111916** Run ID: **WetChem_HS_286285** SeqNo: **3923649** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.78	0.100					8.8	0.228	10	
Temp Deg C @pH	20.9	0					20.9	0	10	

The following samples were analyzed in this batch:

HS16111131-03	HS16111131-04	HS16111131-05	HS16111131-06
HS16111131-07	HS16111131-08	HS16111131-10	HS16111131-11
HS16111131-12	HS16111131-13	HS16111131-14	HS16111131-15
HS16111131-16	HS16111131-17	HS16111131-19	HS16111131-20
HS16111131-21	HS16111131-22	HS16111131-23	HS16111131-24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R286307 **Instrument: WetChem_HS** **Method: SW9045B**

DUP Sample ID: **HS16111139-13DUP** Units: **pH Units** Analysis Date: **09-Dec-2016 17:13**
Client ID: Run ID: **WetChem_HS_286307** SeqNo: **3923727** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.48	0.100					8.44	0.473	10	
Temp Deg C @pH	20.7	0					20	3.44	10	

The following samples were analyzed in this batch: HS16111131-25 HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R286428 **Instrument: Balance1** **Method: LaDNR-29B SP**

DUP Sample ID: **HS16111121-09DUP** Units: **SP as fraction** Analysis Date: **09-Dec-2016 11:25**
Client ID: Run ID: **Balance1_286428** SeqNo: **3926796** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	0.417	0.100					0.426	2.14	30	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02 HS16111131-03 HS16111131-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286433** **Instrument:** **Balance1** **Method:** **LaDNR-29B SP**

DUP Sample ID: **HS16111131-15DUP** Units: **SP as fraction** Analysis Date: **12-Dec-2016 10:00**
Client ID: **GP-13-5-5-6-111916** Run ID: **Balance1_286433** SeqNo: **3926881** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	0.514	0.100					0.531	3.25	30	

The following samples were analyzed in this batch:

HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17
HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: R286706 **Instrument: WetChem_HS** **Method: LaDNR-29B EC**

DUP Sample ID: **HS16111121-09DUP** Units: **mmhos/cm @25° C** Analysis Date: **16-Dec-2016 09:45**
Client ID: Run ID: **WetChem_HS_286706** SeqNo: **3933018** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	1.189	0.0100					1.186	0.253	20	
Electrical Conductivity, 1:1 aqueous	0.496	0.0100					0.505	1.8	20	
Saturation % as decimal	0.417	0					0.426	2.14	20	

The following samples were analyzed in this batch: HS16111131-01 HS16111131-02 HS16111131-03 HS16111131-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome
WorkOrder: HS16111131

QC BATCH REPORT

Batch ID: **R286707** **Instrument:** **WetChem_HS** **Method:** **LaDNR-29B EC**

DUP Sample ID: **HS16111131-15DUP** Units: **mmhos/cm @25° C** Analysis Date: **16-Dec-2016 10:21**

Client ID: **GP-13-5-5-6-111916** Run ID: **WetChem_HS_286707** SeqNo: **3933075** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	453.1	0.0100					437.9	3.41	20	
Electrical Conductivity, 1:1 aqueous	233	0.0100					232.5	0.215	20	
Saturation % as decimal	0.514	0					0.531	3.25	20	

The following samples were analyzed in this batch:

HS16111131-05	HS16111131-06	HS16111131-07	HS16111131-08
HS16111131-10	HS16111131-11	HS16111131-12	HS16111131-13
HS16111131-14	HS16111131-15	HS16111131-16	HS16111131-17
HS16111131-19	HS16111131-20	HS16111131-21	HS16111131-22
HS16111131-23	HS16111131-24	HS16111131-25	HS16111131-26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

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QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

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SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16111131-01	GP-13-1-2-3-111916	Login	11/23/2016 5:04:15 PM	KRM	7D
HS16111131-01	GP-13-1-2-3-111916	Login	11/23/2016 5:04:15 PM	KRM	VW-2
HS16111131-01	GP-13-1-2-3-111916	Login	11/23/2016 5:04:15 PM	KRM	BTEX B1
HS16111131-01	GP-13-1-2-3-111916	Login	11/23/2016 5:04:15 PM	KRM	7D
HS16111131-02	GP-13-1-13-14-111916	Login	11/23/2016 5:27:16 PM	KRM	7D
HS16111131-02	GP-13-1-13-14-111916	Login	11/23/2016 5:27:16 PM	KRM	VW-2
HS16111131-02	GP-13-1-13-14-111916	Login	11/23/2016 5:27:16 PM	KRM	BTEX B1
HS16111131-02	GP-13-1-13-14-111916	Login	11/23/2016 5:27:16 PM	KRM	7D
HS16111131-03	GP-13-1-14-15-111916	Login	11/23/2016 5:27:19 PM	KRM	7D
HS16111131-03	GP-13-1-14-15-111916	Login	11/23/2016 5:27:19 PM	KRM	VW-2
HS16111131-03	GP-13-1-14-15-111916	Login	11/23/2016 5:27:19 PM	KRM	BTEX B1
HS16111131-03	GP-13-1-14-15-111916	Login	11/23/2016 5:27:19 PM	KRM	7D
HS16111131-04	GP-13-2-1-2-111916	Login	11/23/2016 5:27:21 PM	KRM	7D
HS16111131-04	GP-13-2-1-2-111916	Login	11/23/2016 5:27:21 PM	KRM	VW-2
HS16111131-04	GP-13-2-1-2-111916	Login	11/23/2016 5:27:21 PM	KRM	BTEX B1
HS16111131-04	GP-13-2-1-2-111916	Login	11/23/2016 5:27:21 PM	KRM	7D
HS16111131-05	GP-13-2-3-4-111916	Login	11/23/2016 5:27:22 PM	KRM	7D
HS16111131-05	GP-13-2-3-4-111916	Login	11/23/2016 5:27:22 PM	KRM	VW-2
HS16111131-05	GP-13-2-3-4-111916	Login	11/23/2016 5:27:22 PM	KRM	BTEX B1
HS16111131-05	GP-13-2-3-4-111916	Login	11/23/2016 5:27:22 PM	KRM	7D
HS16111131-06	GP-13-2-13-14-111916	Login	11/23/2016 5:27:25 PM	KRM	7D
HS16111131-06	GP-13-2-13-14-111916	Login	11/23/2016 5:27:25 PM	KRM	VW-2
HS16111131-06	GP-13-2-13-14-111916	Login	11/23/2016 5:27:25 PM	KRM	BTEX B1
HS16111131-06	GP-13-2-13-14-111916	Login	11/23/2016 5:27:25 PM	KRM	7D
HS16111131-07	GP-13-3-0-1-111916	Login	11/23/2016 5:27:27 PM	KRM	7D
HS16111131-07	GP-13-3-0-1-111916	Login	11/23/2016 5:27:27 PM	KRM	VW-2
HS16111131-07	GP-13-3-0-1-111916	Login	11/23/2016 5:27:27 PM	KRM	BTEX B1
HS16111131-07	GP-13-3-0-1-111916	Login	11/23/2016 5:27:27 PM	KRM	7D
HS16111131-08	GP-13-3-8-9-111916	Login	11/23/2016 5:27:29 PM	KRM	7D
HS16111131-08	GP-13-3-8-9-111916	Login	11/23/2016 5:27:29 PM	KRM	VW-2
HS16111131-08	GP-13-3-8-9-111916	Login	11/23/2016 5:27:29 PM	KRM	BTEX B1
HS16111131-08	GP-13-3-8-9-111916	Login	11/23/2016 5:27:29 PM	KRM	7D
HS16111131-09	TRIP BLANK 110316-48	Login	11/23/2016 5:27:31 PM	KRM	7D
HS16111131-09	TRIP BLANK 110316-48	Login	11/23/2016 5:27:31 PM	KRM	VW-2
HS16111131-09	TRIP BLANK 110316-48	Login	11/23/2016 5:27:31 PM	KRM	BTEX B1
HS16111131-09	TRIP BLANK 110316-48	Login	11/23/2016 5:27:31 PM	KRM	7D
HS16111131-10	GP-13-3-14-15-111916	Login	11/23/2016 5:27:35 PM	KRM	7D
HS16111131-10	GP-13-3-14-15-111916	Login	11/23/2016 5:27:35 PM	KRM	VW-2
HS16111131-10	GP-13-3-14-15-111916	Login	11/23/2016 5:27:35 PM	KRM	BTEX B1
HS16111131-10	GP-13-3-14-15-111916	Login	11/23/2016 5:27:35 PM	KRM	7D

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SAMPLE TRACKING

HS16111131-11	GP-13-4-0-1-111916	Login	11/23/2016 5:27:38 PM	KRM	7D
HS16111131-11	GP-13-4-0-1-111916	Login	11/23/2016 5:27:38 PM	KRM	VW-2
HS16111131-11	GP-13-4-0-1-111916	Login	11/23/2016 5:27:38 PM	KRM	BTEX B1
HS16111131-11	GP-13-4-0-1-111916	Login	11/23/2016 5:27:38 PM	KRM	7D
HS16111131-12	GP-13-4-5-6-111916	Login	11/23/2016 5:27:40 PM	KRM	7D
HS16111131-12	GP-13-4-5-6-111916	Login	11/23/2016 5:27:40 PM	KRM	VW-2
HS16111131-12	GP-13-4-5-6-111916	Login	11/23/2016 5:27:40 PM	KRM	BTEX B1
HS16111131-12	GP-13-4-5-6-111916	Login	11/23/2016 5:27:40 PM	KRM	7D
HS16111131-13	GP-13-4-14-15-111916	Login	11/23/2016 5:27:43 PM	KRM	7D
HS16111131-13	GP-13-4-14-15-111916	Login	11/23/2016 5:27:43 PM	KRM	VW-2
HS16111131-13	GP-13-4-14-15-111916	Login	11/23/2016 5:27:43 PM	KRM	BTEX B1
HS16111131-13	GP-13-4-14-15-111916	Login	11/23/2016 5:27:43 PM	KRM	7D
HS16111131-14	GP-13-5-2-3-111916	Login	11/23/2016 5:27:46 PM	KRM	7D
HS16111131-14	GP-13-5-2-3-111916	Login	11/23/2016 5:27:46 PM	KRM	VW-2
HS16111131-14	GP-13-5-2-3-111916	Login	11/23/2016 5:27:46 PM	KRM	BTEX B1
HS16111131-14	GP-13-5-2-3-111916	Login	11/23/2016 5:27:46 PM	KRM	7D
HS16111131-15	GP-13-5-5-6-111916	Login	11/23/2016 5:27:50 PM	KRM	7D
HS16111131-15	GP-13-5-5-6-111916	Login	11/23/2016 5:27:50 PM	KRM	VW-2
HS16111131-15	GP-13-5-5-6-111916	Login	11/23/2016 5:27:50 PM	KRM	BTEX B1
HS16111131-15	GP-13-5-5-6-111916	Login	11/23/2016 5:27:50 PM	KRM	7D
HS16111131-16	GP-13-5-13-14-111916	Login	11/23/2016 5:27:54 PM	KRM	7D
HS16111131-16	GP-13-5-13-14-111916	Login	11/23/2016 5:27:54 PM	KRM	VW-2
HS16111131-16	GP-13-5-13-14-111916	Login	11/23/2016 5:27:54 PM	KRM	BTEX B1
HS16111131-16	GP-13-5-13-14-111916	Login	11/23/2016 5:27:54 PM	KRM	7D
HS16111131-17	GP-13-6-1-2-111916	Login	11/23/2016 5:27:56 PM	KRM	7D
HS16111131-17	GP-13-6-1-2-111916	Login	11/23/2016 5:27:56 PM	KRM	VW-2
HS16111131-17	GP-13-6-1-2-111916	Login	11/23/2016 5:27:56 PM	KRM	BTEX B1
HS16111131-17	GP-13-6-1-2-111916	Login	11/23/2016 5:27:56 PM	KRM	7D
HS16111131-18	TRIP BLANK 082916-80	Login	11/23/2016 5:27:59 PM	KRM	7D
HS16111131-18	TRIP BLANK 082916-80	Login	11/23/2016 5:27:59 PM	KRM	VW-2
HS16111131-18	TRIP BLANK 082916-80	Login	11/23/2016 5:27:59 PM	KRM	BTEX B1
HS16111131-18	TRIP BLANK 082916-80	Login	11/23/2016 5:27:59 PM	KRM	7D
HS16111131-19	GP-13-6-5-6-111916	Login	11/23/2016 5:28:02 PM	KRM	7D
HS16111131-19	GP-13-6-5-6-111916	Login	11/23/2016 5:28:02 PM	KRM	VW-2
HS16111131-19	GP-13-6-5-6-111916	Login	11/23/2016 5:28:02 PM	KRM	BTEX B1
HS16111131-19	GP-13-6-5-6-111916	Login	11/23/2016 5:28:02 PM	KRM	7D
HS16111131-20	GP-13-6-13-14-111916	Login	11/23/2016 5:28:06 PM	KRM	7D
HS16111131-20	GP-13-6-13-14-111916	Login	11/23/2016 5:28:06 PM	KRM	VW-2
HS16111131-20	GP-13-6-13-14-111916	Login	11/23/2016 5:28:06 PM	KRM	BTEX B1
HS16111131-20	GP-13-6-13-14-111916	Login	11/23/2016 5:28:06 PM	KRM	7D
HS16111131-21	GP-13-7-1-2-111916	Login	11/23/2016 5:28:08 PM	KRM	7D
HS16111131-21	GP-13-7-1-2-111916	Login	11/23/2016 5:28:08 PM	KRM	VW-2

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HS16111131-21	GP-13-7-1-2-111916	Login	11/23/2016 5:28:08 PM	KRM	BTEX B1
HS16111131-21	GP-13-7-1-2-111916	Login	11/23/2016 5:28:08 PM	KRM	7D
HS16111131-22	GP-13-7-10-11-111916	Login	11/23/2016 5:28:11 PM	KRM	7D
HS16111131-22	GP-13-7-10-11-111916	Login	11/23/2016 5:28:11 PM	KRM	VW-2
HS16111131-22	GP-13-7-10-11-111916	Login	11/23/2016 5:28:11 PM	KRM	BTEX B1
HS16111131-22	GP-13-7-10-11-111916	Login	11/23/2016 5:28:11 PM	KRM	7D
HS16111131-23	GP-13-7-13-14-111916	Login	11/23/2016 5:28:14 PM	KRM	7D
HS16111131-23	GP-13-7-13-14-111916	Login	11/23/2016 5:28:14 PM	KRM	VW-2
HS16111131-23	GP-13-7-13-14-111916	Login	11/23/2016 5:28:14 PM	KRM	BTEX B1
HS16111131-23	GP-13-7-13-14-111916	Login	11/23/2016 5:28:14 PM	KRM	7D
HS16111131-24	GP-13-8-2-3-111916	Login	11/23/2016 5:28:17 PM	KRM	7D
HS16111131-24	GP-13-8-2-3-111916	Login	11/23/2016 5:28:17 PM	KRM	VW-2
HS16111131-24	GP-13-8-2-3-111916	Login	11/23/2016 5:28:17 PM	KRM	BTEX B1
HS16111131-24	GP-13-8-2-3-111916	Login	11/23/2016 5:28:17 PM	KRM	7D
HS16111131-25	GP-13-8-13-14-111916	Login	11/23/2016 5:28:19 PM	KRM	7D
HS16111131-25	GP-13-8-13-14-111916	Login	11/23/2016 5:28:19 PM	KRM	VW-2
HS16111131-25	GP-13-8-13-14-111916	Login	11/23/2016 5:28:19 PM	KRM	BTEX B1
HS16111131-25	GP-13-8-13-14-111916	Login	11/23/2016 5:28:19 PM	KRM	7D
HS16111131-26	GP-13-8-14-15-111916	Login	11/23/2016 5:28:21 PM	KRM	7D
HS16111131-26	GP-13-8-14-15-111916	Login	11/23/2016 5:28:21 PM	KRM	VW-2
HS16111131-26	GP-13-8-14-15-111916	Login	11/23/2016 5:28:21 PM	KRM	BTEX B1
HS16111131-26	GP-13-8-14-15-111916	Login	11/23/2016 5:28:21 PM	KRM	7D
HS16111131-27	TRIP BLANK 082916-88	Login	11/23/2016 5:28:23 PM	KRM	7D
HS16111131-27	TRIP BLANK 082916-88	Login	11/23/2016 5:28:23 PM	KRM	VW-2
HS16111131-27	TRIP BLANK 082916-88	Login	11/23/2016 5:28:23 PM	KRM	BTEX B1
HS16111131-27	TRIP BLANK 082916-88	Login	11/23/2016 5:28:23 PM	KRM	7D
HS16111131-01	GP-13-1-2-3-111916	Out	12/2/2016 1:43:36 PM	PVL	METPREP
HS16111131-02	GP-13-1-13-14-111916	Out	12/2/2016 1:43:36 PM	PVL	METPREP
HS16111131-03	GP-13-1-14-15-111916	Out	12/2/2016 1:43:36 PM	PVL	METPREP
HS16111131-04	GP-13-2-1-2-111916	Out	12/2/2016 1:43:36 PM	PVL	METPREP
HS16111131-01	GP-13-1-2-3-111916	Return	12/2/2016 1:43:55 PM	PVL	7D
HS16111131-02	GP-13-1-13-14-111916	Return	12/2/2016 1:43:55 PM	PVL	7D
HS16111131-03	GP-13-1-14-15-111916	Return	12/2/2016 1:43:55 PM	PVL	7D
HS16111131-04	GP-13-2-1-2-111916	Return	12/2/2016 1:43:55 PM	PVL	7D
HS16111131-05	GP-13-2-3-4-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-06	GP-13-2-13-14-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-07	GP-13-3-0-1-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-08	GP-13-3-8-9-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-10	GP-13-3-14-15-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-11	GP-13-4-0-1-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-12	GP-13-4-5-6-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-13	GP-13-4-14-15-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP

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HS16111131-14	GP-13-5-2-3-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-15	GP-13-5-5-6-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-16	GP-13-5-13-14-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-17	GP-13-6-1-2-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-19	GP-13-6-5-6-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-20	GP-13-6-13-14-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-21	GP-13-7-1-2-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-22	GP-13-7-10-11-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-23	GP-13-7-13-14-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-24	GP-13-8-2-3-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-25	GP-13-8-13-14-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-26	GP-13-8-14-15-111916	Out	12/2/2016 3:37:05 PM	PVL	METPREP
HS16111131-05	GP-13-2-3-4-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-06	GP-13-2-13-14-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-07	GP-13-3-0-1-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-08	GP-13-3-8-9-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-10	GP-13-3-14-15-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-11	GP-13-4-0-1-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-12	GP-13-4-5-6-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-13	GP-13-4-14-15-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-14	GP-13-5-2-3-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-15	GP-13-5-5-6-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-16	GP-13-5-13-14-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-17	GP-13-6-1-2-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-19	GP-13-6-5-6-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-20	GP-13-6-13-14-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-21	GP-13-7-1-2-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-22	GP-13-7-10-11-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-23	GP-13-7-13-14-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-24	GP-13-8-2-3-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-25	GP-13-8-13-14-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-26	GP-13-8-14-15-111916	Return	12/2/2016 3:37:39 PM	PVL	7D
HS16111131-01	GP-13-1-2-3-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-02	GP-13-1-13-14-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-03	GP-13-1-14-15-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-04	GP-13-2-1-2-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-05	GP-13-2-3-4-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-06	GP-13-2-13-14-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-07	GP-13-3-0-1-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-08	GP-13-3-8-9-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-10	GP-13-3-14-15-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-11	GP-13-4-0-1-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP

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HS16111131-12	GP-13-4-5-6-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-13	GP-13-4-14-15-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-14	GP-13-5-2-3-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-15	GP-13-5-5-6-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-16	GP-13-5-13-14-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-17	GP-13-6-1-2-111916	Out	12/7/2016 12:54:22 PM	JCJ	METPREP
HS16111131-01	GP-13-1-2-3-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-02	GP-13-1-13-14-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-03	GP-13-1-14-15-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-04	GP-13-2-1-2-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-05	GP-13-2-3-4-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-06	GP-13-2-13-14-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-07	GP-13-3-0-1-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-08	GP-13-3-8-9-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-10	GP-13-3-14-15-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-11	GP-13-4-0-1-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-12	GP-13-4-5-6-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-13	GP-13-4-14-15-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-14	GP-13-5-2-3-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-15	GP-13-5-5-6-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-16	GP-13-5-13-14-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-17	GP-13-6-1-2-111916	Return	12/7/2016 12:54:40 PM	JCJ	7D
HS16111131-19	GP-13-6-5-6-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-20	GP-13-6-13-14-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-21	GP-13-7-1-2-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-22	GP-13-7-10-11-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-23	GP-13-7-13-14-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-24	GP-13-8-2-3-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-25	GP-13-8-13-14-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-26	GP-13-8-14-15-111916	Out	12/10/2016 3:45:39 PM	JCJ	METPREP
HS16111131-19	GP-13-6-5-6-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-20	GP-13-6-13-14-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-21	GP-13-7-1-2-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-22	GP-13-7-10-11-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-23	GP-13-7-13-14-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-24	GP-13-8-2-3-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-25	GP-13-8-13-14-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D
HS16111131-26	GP-13-8-14-15-111916	Return	12/10/2016 3:45:58 PM	JCJ	7D

Sample Receipt Checklist

Client Name: Kinder Morgan
Work Order: HS16111131
Date/Time Received: **23-Nov-2016 08:51**
Received by: **NDR**

Checklist completed by: *Krysta Mathis* eSignature 23-Nov-2016 Date
Reviewed by: *Corey Grandits* eSignature 28-Nov-2016 Date

Matrices: **Soil/Water**
Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☑	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.0/2.3, 1.1/1.4, 0.881.1 U/C	11	
Cooler(s)/Kit(s):	EHS0042742, 25462, EHS0042765		
Date/Time sample(s) sent to storage:	11/23/2016 19:00		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS Environmental

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Chain of Custod

Page 1 of 1

COC ID: 148

HS16111131

Kinder Morgan
McElmo Dome

h Charleston, WV
04 356 3168
, PA
17 505 5280

ALS Project Man

Customer Information		Project Information	
Purchase Order	Workorder Dir. 47971	Project Name	McElmo Dome
Work Order		Project Number	CO002255.0001
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan CO2 Company, L.P.
Send Report To	Aaron Hale	Invoice Attn	Mike Hannigan
Address	1001 Louisiana Street Suite 740D	Address	17801 Highway 491
City/State/Zip	Houston, TX 77002	City/State/Zip	Cortez, CO 81321
Phone	(713) 369-9193	Phone	(970) 882-5532
Fax	(713) 495-2835	Fax	
e-Mail Address		e-Mail Address	

A	8260_S (BTEX 8260)
B	8015_GRO_S (GRO 8015)
C	8015M_S_LL (DRO 8015)
D	LA29B SAR (SAR & EC)
E	PH_S (pH)
F	ICP_S_Low (As,Ba,B,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn)
G	HG_S_Low (Mercury)
H	Cr3_S (Trivalent Chromium)
I	Cr6_S (Hexavalent Chromium)
J	MOIST_SW3550 (Moisture)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-13-1-2-3-111916	11/19/16	0730	Soil	—	4	X	X	X	X	X	X	X	X	X	X	
2	GP-13-1-13-14-111916		0750														
3	GP-13-1-14-15-111916		0800														
4	GP-13-2-1-2-111916		0810														
5	GP-13-2-3-4-111916		0820														
6	GP-13-2-13-14-111916		0840														
7	GP-13-3-0-1-111916		0900														
8	GP-13-3-8-9-111916	"	0920	"	"	"											
9	Trip Blank	—	—	—	—	2	"	"	"	"	"	"	"	"	"	"	
0																	

Sampler(s) Please Print & Sign: Bethany Draeger

Shipment Method: FedEx

Required Turnaround Time: (Check Box) TAT 10 days Other

Results Due Date:

Relinquished by: Bethany Draeger — Date: 11/20/16 — Time: 1600 — Received by:

Relinquished by: — Date: — Time: — Received by (Laboratory): NR 11/23/16 0851

Logged by (Laboratory): — Date: — Time: — Checked by (Laboratory):

Notes: [KM CO2 RFP 16MDLRFP077]

Cooler ID	Cooler Temp.
L2742	4C 2.0

QC Package: (Check One Box Below)
QC Level STD
Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms

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uth Charleston, WV 304 356 3168
rk, PA 717 505 5280

Chain of Custo

Page ___ of ___

COC ID: 148

HS16111131

Kinder Morgan
McElmo Dome

ALS Project Ma

Customer Information

Purchase Order	Workorder Dir. 47971
Work Order	
Company Name	Kinder Morgan
Send Report To	Aaron Hale
Address	1001 Louisiana Street Suite 740D
City/State/Zip	Houston, TX 77002
Phone	(713) 369-9193
Fax	(713) 495-2835
e-Mail Address	

Project Information

Project Name	McElmo Dome
Project Number	CO002255.0001
Bill To Company	Kinder Morgan CO2 Company, L.P.
Invoice Attn	Mike Hannigan
Address	17801 Highway 491
City/State/Zip	Cortez, CO 81321
Phone	(970) 882-5532
Fax	
e-Mail Address	

Analysis

A	8260_S (BTEX 8260)
B	8015_GRO_S (GRO 8015)
C	8015M_S_LL (DRO 8015)
D	LA29B SAR (SAR & EC)
E	PH_S (pH)
F	ICP_S_Low (As,Ba,B,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn)
G	HG_S_Low (Mercury)
H	Cr3_S (Trivalent Chromium)
I	Cr6_S (Hexavalent Chromium)
J	MOIST_SW3550 (Moisture)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-13-3-14-15-111916	11/19/16	0940	Soil	—	4	X	X	X	X	X	X	X	X	X	X	
2	GP-13-4-0-1-111916		0945														
3	GP-13-4-5-6-111916		0955														
4	GP-13-4-14-15-111916		1015														
5	GP-13-5-2-3-111916		1330														
6	GP-13-5-5-6-111916		1340														
7	GP-13-5-13-14-111916		1350														
8	GP-13-6-1-2-111916		1245														
9	Trip Blank	—	—	—	—	2											
0																	

Sampler(s) Please Print & Sign: Bethany Draeger

Shipment Method: FedEx

Required Turnaround Time: (Check Box) TAT: 10 days Other:

Results Due Date:

Relinquished by: Bethany Draeger — Date: 11/20/16 — Time: 1600 — Received by:

Relinquished by: — Date: — Time: — Received by (Laboratory): NK 11/23/16 0815

Logged by (Laboratory): — Date: — Time: — Checked by (Laboratory):

Notes: [KM CO2 RFP 16MDLRFP077]

Cooler ID	Cooler Temp.
25462	1.1

QC Package: (Check One Box Below)
QC Level: STD
Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated
3. The Chain of Custody is a legal document

IK NM

ALS Environmental

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Chain of Custody F

Page _____ of _____

COC ID: 148149

HS16111131

leston, WV 3168

Kinder Morgan

McElmo Dome

5280

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	Workorder Dir. 47971	Project Name	McElmo Dome
Work Order		Project Number	CO002255.0001
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan CO2 Company, L.P.
Send Report To	Aaron Hale	Invoice Attn	Mike Hannigan
Address	1001 Louisiana Street Suite 740D	Address	17801 Highway 491
City/State/Zip	Houston, TX 77002	City/State/Zip	Cortez, CO 81321
Phone	(713) 369-9193	Phone	(970) 882-5532
Fax	(713) 495-2835	Fax	
e-Mail Address		e-Mail Address	

A	8260_S (BTEX 8260)
B	8015_GRO_S (GRO 8015)
C	8015M_S_LL (DRO 8015)
D	LA29B SAR (SAR & EC)
E	PH_S (pH)
F	ICP_S_Low (As,Ba,B,Cd,Cr,Cu,Pb,Ni,Se,Ag,Zn)
G	HG_S_Low (Mercury)
H	Cr3_S (Trivalent Chromium)
I	Cr6_S (Hexavalent Chromium)
J	MOIST_SW3550 (Moisture)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-13-6-5-6-111916	11/19/16	1255	Soil	—	4	X	X	X	X	X	X	X	X	X	X	
2	GP-13-6-13-14-111916		1305														
3	GP-13-7-1-2-111916		1145														
4	GP-13-7-10-11-111916		1215														
5	GP-13-7-13-14-111916		1230														
6	GP-13-8-2-3-111916		1030														
7	GP-13-8-13-14-111916		1045														
8	GP-13-8-14-15-111916	"	1100	"	"	"											
9	Trip Blank	—	—	—	—	2	"	"	"	"	"	"	"	"	"	"	
0																	

Sampler(s) Please Print & Sign: Bethany Draeger

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) TAT: 10 days Other:

Results Due Date:

Relinquished by: Bethany Draeger — Date: 11/20/16 — Time: 1600 — Received by:

Relinquished by: — Date: — Time: — Received by (Laboratory): NM 11/23/16 0857

Logged by (Laboratory): — Date: — Time: — Checked by (Laboratory):

Notes: [KM CO2 RFP 16MDLRFP077]

Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
42765	0.8 °C	QC Level STD
		Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
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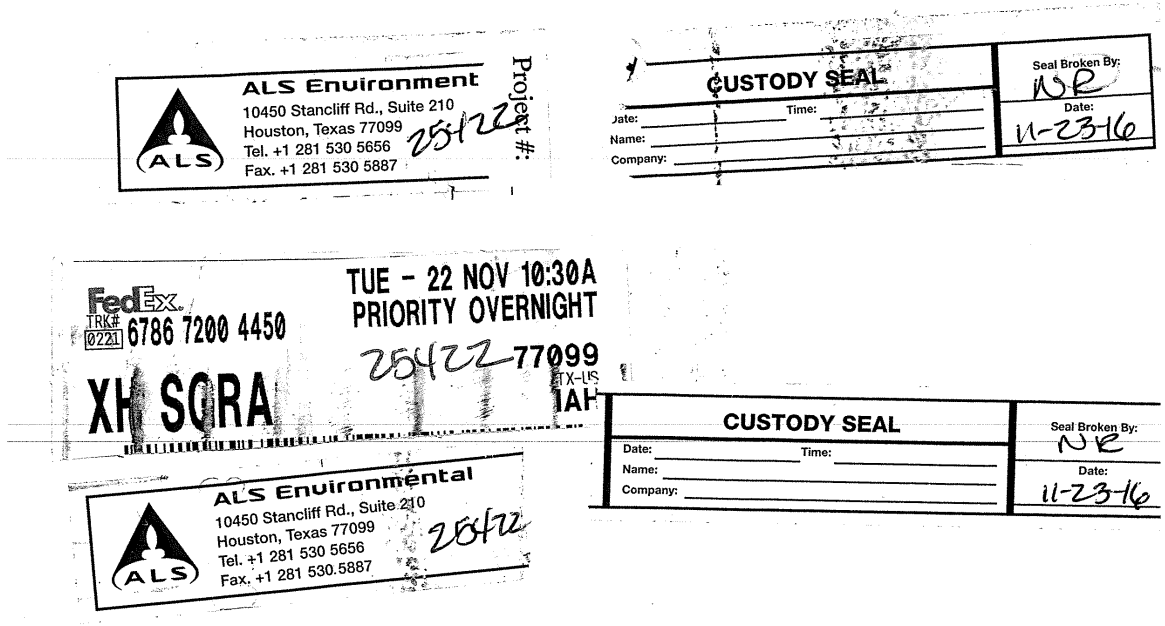
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the



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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

December 01, 2016

Aaron Hale
Kinder Morgan
1001 Louisiana Street
Suite 740D
Houston, TX 77002

Work Order: **HS16110938**

Laboratory Results for: **McElmo Dome & Doe Canyon**

Dear Aaron,

ALS Environmental received 4 sample(s) on Nov 18, 2016 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Sonia West

Generated By: Jumoke.Lawal
Sonia West
Project Manager

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Work Order: HS16110938

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16110938-01	DC-5-50-111016	Water		10-Nov-2016 11:10	18-Nov-2016 08:30	☐
HS16110938-02	GP-12-50-111416	Water		14-Nov-2016 11:10	18-Nov-2016 08:30	☐
HS16110938-03	GP-13-50-111416	Water		14-Nov-2016 13:40	18-Nov-2016 08:30	☐
HS16110938-04	Trip Blank	Water	090816-03	14-Nov-2016 00:00	18-Nov-2016 08:30	☐

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome & Doe Canyon
Work Order: HS16110938

Work Order Comments

- Sample DC-5-50-111016 received out of hold time for TDS analysis. Client contacted on November 18 at 10:41AM, laboratory to run sample out of hold.

GCMS Volatiles by Method SW8260

Batch ID: R285450,R285451

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: R285766

Sample ID: **HS16111304-01MS**
- MS and MSD are for an unrelated sample

WetChemistry by Method M2540C

Batch ID: R285246

Sample ID: **DC-5-50-111016 (HS16110938-01)**
- Sample holding time expired prior to sample receipt. It was analyzed at the request of the client. Results should be considered estimated.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: DC-5-50-111016
Collection Date: 10-Nov-2016 11:10

ANALYTICAL REPORT
WorkOrder:HS16110938
Lab ID:HS16110938-01
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
Benzene	ND		1.0	ug/L	1	23-Nov-2016 10:26
Ethylbenzene	ND		1.0	ug/L	1	23-Nov-2016 10:26
m,p-Xylene	ND		2.0	ug/L	1	23-Nov-2016 10:26
o-Xylene	ND		1.0	ug/L	1	23-Nov-2016 10:26
Toluene	ND		1.0	ug/L	1	23-Nov-2016 10:26
Xylenes, Total	ND		1.0	ug/L	1	23-Nov-2016 10:26
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*23-Nov-2016 10:26*
Surr: 4-Bromofluorobenzene	*99.5*		*70-125*	*%REC*	*1*	*23-Nov-2016 10:26*
Surr: Dibromofluoromethane	*99.5*		*74-125*	*%REC*	*1*	*23-Nov-2016 10:26*
Surr: Toluene-d8	*102*		*75-125*	*%REC*	*1*	*23-Nov-2016 10:26*
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Chloride	**5,040**		**100**	**mg/L**	200	30-Nov-2016 23:06
Sulfate	**5,240**		**100**	**mg/L**	200	30-Nov-2016 23:06
TOTAL DISSOLVED SOLIDS BY SM2540C		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**12,500**	H	**10.0**	**mg/L**	1	21-Nov-2016 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: GP-12-50-111416
Collection Date: 14-Nov-2016 11:10

ANALYTICAL REPORT
WorkOrder:HS16110938
Lab ID:HS16110938-02
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
Benzene	ND		1.0	ug/L	1	24-Nov-2016 00:39
Ethylbenzene	ND		1.0	ug/L	1	24-Nov-2016 00:39
m,p-Xylene	ND		2.0	ug/L	1	24-Nov-2016 00:39
o-Xylene	ND		1.0	ug/L	1	24-Nov-2016 00:39
Toluene	ND		1.0	ug/L	1	24-Nov-2016 00:39
Xylenes, Total	ND		1.0	ug/L	1	24-Nov-2016 00:39
Surr: 1,2-Dichloroethane-d4	*103*		*71-125*	*%REC*	*1*	*24-Nov-2016 00:39*
Surr: 4-Bromofluorobenzene	*100*		*70-125*	*%REC*	*1*	*24-Nov-2016 00:39*
Surr: Dibromofluoromethane	*105*		*74-125*	*%REC*	*1*	*24-Nov-2016 00:39*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Nov-2016 00:39*
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Chloride	**104**		**5.00**	**mg/L**	10	01-Dec-2016 00:04
Sulfate	**125**		**5.00**	**mg/L**	10	01-Dec-2016 00:04
TOTAL DISSOLVED SOLIDS BY SM2540C		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**846**		**10.0**	**mg/L**	1	21-Nov-2016 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: GP-13-50-111416
Collection Date: 14-Nov-2016 13:40

ANALYTICAL REPORT
WorkOrder:HS16110938
Lab ID:HS16110938-03
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**				Analyst: AKP
Benzene	ND		1.0	ug/L	1	24-Nov-2016 01:03
Ethylbenzene	ND		1.0	ug/L	1	24-Nov-2016 01:03
m,p-Xylene	ND		2.0	ug/L	1	24-Nov-2016 01:03
o-Xylene	ND		1.0	ug/L	1	24-Nov-2016 01:03
Toluene	ND		1.0	ug/L	1	24-Nov-2016 01:03
Xylenes, Total	ND		1.0	ug/L	1	24-Nov-2016 01:03
Surr: 1,2-Dichloroethane-d4	*102*		*71-125*	*%REC*	*1*	*24-Nov-2016 01:03*
Surr: 4-Bromofluorobenzene	*99.7*		*70-125*	*%REC*	*1*	*24-Nov-2016 01:03*
Surr: Dibromofluoromethane	*104*		*74-125*	*%REC*	*1*	*24-Nov-2016 01:03*
Surr: Toluene-d8	*100*		*75-125*	*%REC*	*1*	*24-Nov-2016 01:03*
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Chloride	**157**		**5.00**	**mg/L**	10	01-Dec-2016 00:18
Sulfate	**528**		**5.00**	**mg/L**	10	01-Dec-2016 00:18
TOTAL DISSOLVED SOLIDS BY SM2540C		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,090**		**10.0**	**mg/L**	1	21-Nov-2016 17:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: Trip Blank
Collection Date: 14-Nov-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16110938
Lab ID:HS16110938-04
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	ND		1.0	ug/L	1	24-Nov-2016 01:28
Ethylbenzene	ND		1.0	ug/L	1	24-Nov-2016 01:28
m,p-Xylene	ND		2.0	ug/L	1	24-Nov-2016 01:28
o-Xylene	ND		1.0	ug/L	1	24-Nov-2016 01:28
Toluene	ND		1.0	ug/L	1	24-Nov-2016 01:28
Xylenes, Total	ND		1.0	ug/L	1	24-Nov-2016 01:28
Surr: 1,2-Dichloroethane-d4	*101*		*71-125*	*%REC*	*1*	*24-Nov-2016 01:28*
Surr: 4-Bromofluorobenzene	*99.4*		*70-125*	*%REC*	*1*	*24-Nov-2016 01:28*
Surr: Dibromofluoromethane	*103*		*74-125*	*%REC*	*1*	*24-Nov-2016 01:28*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Nov-2016 01:28*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R285246	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C			**Matrix:** Water		
HS16110938-01	DC-5-50-111016	10 Nov 2016 11:10			21 Nov 2016 17:37	1
HS16110938-02	GP-12-50-111416	14 Nov 2016 11:10			21 Nov 2016 17:37	1
HS16110938-03	GP-13-50-111416	14 Nov 2016 13:40			21 Nov 2016 17:37	1
Batch ID R285450	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16110938-01	DC-5-50-111016	10 Nov 2016 11:10			23 Nov 2016 10:26	1
Batch ID R285451	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16110938-02	GP-12-50-111416	14 Nov 2016 11:10			24 Nov 2016 00:39	1
HS16110938-03	GP-13-50-111416	14 Nov 2016 13:40			24 Nov 2016 01:03	1
HS16110938-04	Trip Blank	14 Nov 2016 00:00			24 Nov 2016 01:28	1
Batch ID R285766	**Test Name :** ANIONS BY E300.0			**Matrix:** Water		
HS16110938-01	DC-5-50-111016	10 Nov 2016 11:10			30 Nov 2016 23:06	200
HS16110938-02	GP-12-50-111416	14 Nov 2016 11:10			01 Dec 2016 00:04	10
HS16110938-03	GP-13-50-111416	14 Nov 2016 13:40			01 Dec 2016 00:18	10

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285450 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-161123** Units: **ug/L** Analysis Date: **23-Nov-2016 10:02**
Client ID: Run ID: **VOA2_285450** SeqNo: **3905395** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*49.16*	*1.0*	*50*	*0*	*98.3*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.61*	*1.0*	*50*	*0*	*99.2*	*70 - 125*				
Surr: Dibromofluoromethane	*50.29*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*50.23*	*1.0*	*50*	*0*	*100*	*75 - 125*				

LCS Sample ID: **VLCSW-161123** Units: **ug/L** Analysis Date: **23-Nov-2016 09:12**
Client ID: Run ID: **VOA2_285450** SeqNo: **3905394** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.66	1.0	50	0	91.3	75 - 122				
Ethylbenzene	44.77	1.0	50	0	89.5	80 - 120				
m,p-Xylene	88.98	2.0	100	0	89.0	80 - 120				
o-Xylene	44.7	1.0	50	0	89.4	80 - 120				
Toluene	44.84	1.0	50	0	89.7	75 - 121				
Xylenes, Total	133.7	1.0	150	0	89.1	79 - 124				
Surr: 1,2-Dichloroethane-d4	*51.57*	*1.0*	*50*	*0*	*103*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.65*	*1.0*	*50*	*0*	*99.3*	*70 - 125*				
Surr: Dibromofluoromethane	*49.84*	*1.0*	*50*	*0*	*99.7*	*74 - 125*				
Surr: Toluene-d8	*48.68*	*1.0*	*50*	*0*	*97.4*	*75 - 125*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285450 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS16111088-01MS** Units: **ug/L** Analysis Date: **23-Nov-2016 11:16**
Client ID: Run ID: **VOA2_285450** SeqNo: **3905398** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.17	1.0	50	0	92.3	75 - 122				
Ethylbenzene	45.96	1.0	50	0	91.9	80 - 120				
m,p-Xylene	89.73	2.0	100	0	89.7	80 - 120				
o-Xylene	45.66	1.0	50	0	91.3	80 - 120				
Toluene	45.72	1.0	50	0	91.4	75 - 121				
Xylenes, Total	135.4	1.0	150	0	90.3	80 - 124				
Surr: 1,2-Dichloroethane-d4	*51.59*	*1.0*	*50*	*0*	*103*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.62*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*48.98*	*1.0*	*50*	*0*	*98.0*	*74 - 125*				
Surr: Toluene-d8	*49.66*	*1.0*	*50*	*0*	*99.3*	*75 - 125*				

MSD Sample ID: **HS16111088-01MSD** Units: **ug/L** Analysis Date: **23-Nov-2016 11:40**
Client ID: Run ID: **VOA2_285450** SeqNo: **3905399** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.09	1.0	50	0	92.2	75 - 122	46.17	0.184	20	
Ethylbenzene	46.01	1.0	50	0	92.0	80 - 120	45.96	0.123	20	
m,p-Xylene	90.12	2.0	100	0	90.1	80 - 120	89.73	0.433	20	
o-Xylene	45.63	1.0	50	0	91.3	80 - 120	45.66	0.0601	20	
Toluene	45.67	1.0	50	0	91.3	75 - 121	45.72	0.103	20	
Xylenes, Total	135.8	1.0	150	0	90.5	80 - 124	135.4	0.267	20	
Surr: 1,2-Dichloroethane-d4	*52.15*	*1.0*	*50*	*0*	*104*	*71 - 125*	*51.59*	*1.08*	*20*	
Surr: 4-Bromofluorobenzene	*51.31*	*1.0*	*50*	*0*	*103*	*70 - 125*	*50.62*	*1.34*	*20*	
Surr: Dibromofluoromethane	*49.93*	*1.0*	*50*	*0*	*99.9*	*74 - 125*	*48.98*	*1.92*	*20*	
Surr: Toluene-d8	*49.4*	*1.0*	*50*	*0*	*98.8*	*75 - 125*	*49.66*	*0.528*	*20*	

The following samples were analyzed in this batch: HS16110938-01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285451 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-161123** Units: **ug/L** Analysis Date: **23-Nov-2016 21:43**
Client ID: Run ID: **VOA2_285451** SeqNo: **3905445** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*49.93*	*1.0*	*50*	*0*	*99.9*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.04*	*1.0*	*50*	*0*	*100*	*70 - 125*				
Surr: Dibromofluoromethane	*50.67*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*50.53*	*1.0*	*50*	*0*	*101*	*75 - 125*				

LCS Sample ID: **VLCSW-161123** Units: **ug/L** Analysis Date: **23-Nov-2016 20:53**
Client ID: Run ID: **VOA2_285451** SeqNo: **3905444** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.85	1.0	50	0	93.7	75 - 122				
Ethylbenzene	45.88	1.0	50	0	91.8	80 - 120				
m,p-Xylene	90.25	2.0	100	0	90.3	80 - 120				
o-Xylene	46.71	1.0	50	0	93.4	80 - 120				
Toluene	45.8	1.0	50	0	91.6	75 - 121				
Xylenes, Total	137	1.0	150	0	91.3	79 - 124				
Surr: 1,2-Dichloroethane-d4	*50.89*	*1.0*	*50*	*0*	*102*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.33*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*49.26*	*1.0*	*50*	*0*	*98.5*	*74 - 125*				
Surr: Toluene-d8	*48.46*	*1.0*	*50*	*0*	*96.9*	*75 - 125*				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285451 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS16110987-27MS** Units: **ug/L** Analysis Date: **23-Nov-2016 23:22**
Client ID: Run ID: **VOA2_285451** SeqNo: **3905449** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	48.45	1.0	50	0	96.9	75 - 122				
Ethylbenzene	47.43	1.0	50	0	94.9	80 - 120				
m,p-Xylene	90.97	2.0	100	0	91.0	80 - 120				
o-Xylene	46.61	1.0	50	0	93.2	80 - 120				
Toluene	47.4	1.0	50	0	94.8	75 - 121				
Xylenes, Total	137.6	1.0	150	0	91.7	80 - 124				
Surr: 1,2-Dichloroethane-d4	*52.37*	*1.0*	*50*	*0*	*105*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*50.4*	*1.0*	*50*	*0*	*101*	*70 - 125*				
Surr: Dibromofluoromethane	*50.64*	*1.0*	*50*	*0*	*101*	*74 - 125*				
Surr: Toluene-d8	*49.48*	*1.0*	*50*	*0*	*99.0*	*75 - 125*				

MSD Sample ID: **HS16110987-27MSD** Units: **ug/L** Analysis Date: **23-Nov-2016 23:46**
Client ID: Run ID: **VOA2_285451** SeqNo: **3905450** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.64	1.0	50	0	93.3	75 - 122	48.45	3.81	20	
Ethylbenzene	44.57	1.0	50	0	89.1	80 - 120	47.43	6.2	20	
m,p-Xylene	88.03	2.0	100	0	88.0	80 - 120	90.97	3.28	20	
o-Xylene	44.79	1.0	50	0	89.6	80 - 120	46.61	4	20	
Toluene	44.75	1.0	50	0	89.5	75 - 121	47.4	5.75	20	
Xylenes, Total	132.8	1.0	150	0	88.5	80 - 124	137.6	3.53	20	
Surr: 1,2-Dichloroethane-d4	*53.04*	*1.0*	*50*	*0*	*106*	*71 - 125*	*52.37*	*1.27*	*20*	
Surr: 4-Bromofluorobenzene	*50.22*	*1.0*	*50*	*0*	*100*	*70 - 125*	*50.4*	*0.371*	*20*	
Surr: Dibromofluoromethane	*50.9*	*1.0*	*50*	*0*	*102*	*74 - 125*	*50.64*	*0.515*	*20*	
Surr: Toluene-d8	*48.11*	*1.0*	*50*	*0*	*96.2*	*75 - 125*	*49.48*	*2.81*	*20*	

The following samples were analyzed in this batch: HS16110938-02 HS16110938-03 HS16110938-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285246 **Instrument: Balance1** **Method: M2540C**

MBLK Sample ID: **WBLK-112116** Units: **mg/L** Analysis Date: **21-Nov-2016 17:37**
Client ID: Run ID: **Balance1_285246** SeqNo: **3901213** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	ND	10.0								

LCS Sample ID: **WLCS-112116** Units: **mg/L** Analysis Date: **21-Nov-2016 17:37**
Client ID: Run ID: **Balance1_285246** SeqNo: **3901214** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	976	10.0	1000	0	97.6	85 - 115				

DUP Sample ID: **HS16110938-03DUP** Units: **mg/L** Analysis Date: **21-Nov-2016 17:37**
Client ID: **GP-13-50-111416** Run ID: **Balance1_285246** SeqNo: **3902992** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1078	10.0					1094	1.47	5	

DUP Sample ID: **HS16110724-01DUP** Units: **mg/L** Analysis Date: **21-Nov-2016 17:37**
Client ID: Run ID: **Balance1_285246** SeqNo: **3901212** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	ND	10.0					0	0	5	

The following samples were analyzed in this batch: HS16110938-01 HS16110938-02 HS16110938-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285766 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **WBLKW1-113016** Units: **mg/L** Analysis Date: **30-Nov-2016 10:24**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912094** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW1-113016** Units: **mg/L** Analysis Date: **30-Nov-2016 10:38**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912095** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.43	0.500	20	0	97.1	90 - 110				
Sulfate	19.72	0.500	20	0	98.6	90 - 110				

LCSD Sample ID: **WLCSDW1-113016** Units: **mg/L** Analysis Date: **30-Nov-2016 10:53**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912096** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.47	0.500	20	0	102	90 - 110	19.43	5.23	20	
Sulfate	20.76	0.500	20	0	104	90 - 110	19.72	5.16	20	

MS Sample ID: **HS16111304-01MS** Units: **mg/L** Analysis Date: **30-Nov-2016 17:08**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912102** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	88.5	0.500	10	78.9	95.9	80 - 120				O
Sulfate	94.64	0.500	10	85.52	91.2	80 - 120				O

MS Sample ID: **HS16111290-01MS** Units: **mg/L** Analysis Date: **30-Nov-2016 16:10**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912098** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.45	0.500	10	1.567	98.8	80 - 120				
Sulfate	12.53	0.500	10	2.859	96.7	80 - 120				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16110938

QC BATCH REPORT

Batch ID: R285766 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS16111304-01MSD** Units: **mg/L** Analysis Date: **30-Nov-2016 18:07**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912106** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	85.55	0.500	10	78.9	66.4	80 - 120	88.5	3.39	20	SO
Sulfate	92.65	0.500	10	85.52	71.4	80 - 120	94.64	2.12	20	SO

MSD Sample ID: **HS16111290-01MSD** Units: **mg/L** Analysis Date: **30-Nov-2016 16:25**
Client ID: Run ID: **ICS2100_285766** SeqNo: **3912099** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11.87	0.500	10	1.567	103	80 - 120	11.45	3.64	20	
Sulfate	12.96	0.500	10	2.859	101	80 - 120	12.53	3.37	20	

The following samples were analyzed in this batch: HS16110938-01 HS16110938-02 HS16110938-03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: **HS16110938**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Work Order: HS16110938

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16110938-01	DC-5-50-111016	Login	11/19/2016 12:00:54 PM	RPG	5B
HS16110938-01	DC-5-50-111016	Login	11/19/2016 12:00:54 PM	RPG	VW-3
HS16110938-02	GP-12-50-111416	Login	11/19/2016 12:00:54 PM	RPG	5B
HS16110938-02	GP-12-50-111416	Login	11/19/2016 12:00:54 PM	RPG	VW-3
HS16110938-03	GP-13-50-111416	Login	11/19/2016 12:00:54 PM	RPG	5B
HS16110938-03	GP-13-50-111416	Login	11/19/2016 12:00:54 PM	RPG	VW-3
HS16110938-04	Trip Blank	Login	11/19/2016 12:00:54 PM	RPG	VW-3

Sample Receipt Checklist

Client Name: Kinder Morgan
Work Order: HS16110938
Date/Time Received: **18-Nov-2016 08:30**
Received by: **JRM**

Checklist completed by: *Raegen Giga* eSignature 19-Nov-2016 Date
Reviewed by: *Corey Grandits* eSignature 21-Nov-2016 Date

Matrices: **water**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☐	No ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.1c/1.6c - 1.4c/1.9c - 1.6c/2.1c UC/C	IR 5	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/19/2016 11:31		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: Sample DC-5-50-111016 received out of hold time for TDS analysis.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS Environmental

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Middletown, PA +1 717 944 5541
Spring City, PA +1 610 948 4903
Salt Lake City, UT +1 801 266 7700
South Charleston, WV +1 304 356 3168
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 142420

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name		A	BTEX 8260
Work Order		Project Number		B	TDS
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan	C	Chloride, Sulfate 300
Send Report To	Aaron Hale	Invoice Attn		D	
Address	1001 Louisiana Street Suite 740D	Address	1001 Louisiana Street Suite 740D	E	
City/State/Zip	Houston	City/State/Zip	Houston	F	
Phone		Phone	(713) 369-9193	G	
Fax		Fax	(713) 495-2835	H	
e-Mail Address	aaron_hale@kindermorgan.com	e-Mail Address		I	
				J	

HS16110938

Kinder Morgan

McElmo Dome & Doe Canyon

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	DC-5-50-111016	11/10/16	1110	W	—	4	X	X	X	}	Seperate Report From Soil Samples						
2	~~DC-GP-12-50-111416~~	—	—	—	—	—											
3	GP-12-50-111416	11/14/16	1110	W	—	4											
4	GP-13-50-111416	11/14/16	1340	W	—	4											
5	Trip Blank	—	—	—	—	2	X	X	X								
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Bethany Draeger

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by: Bethany Draeger	Date: 11/16/16	Time: 1600	Received by:	Notes: Water Samples	
Relinquished by:	Date:	Time:	Received by (Laboratory): JM 11/18/16 08:30	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	25242	1.1 IR5 CF0.5

QC Package: (Check One Box Below)
[X] Level 2 Std QC [ ] TRRP ChkList
[ ] Level 3 Std QC/Row da [ ] TRRP Level 4
[ ] Level 4 SW846/CLP
[ ] Other/EDD

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ATTACHMENT F

CDPHE White Paper on Arsenic Concentrations in Soil

Colorado Department of Public Health and Environment

Arsenic Concentrations in Soil

Risk management guidance for evaluating reviewed/revised July 2014

Regulatory Limitation

This guidance does not modify, replace, or pre-empt any existing statutory or regulatory requirements, enforcement actions, agreements, policies or other legal mechanisms that may govern actions within the Hazardous Materials and Waste Management Division's (the "division's") various remedial programs. In the event of a conflict between this guidance and existing risk assessment guidance and other programmatic requirements, this guidance defers to the various legal and operating mechanisms of those remedial programs.

This guidance was developed with the division's remedial programs in mind. Other state and federal agencies are not obligated to use the process outlined herein, although the same analysis could apply to other sites undergoing investigation and cleanup where testing for arsenic is required and it may be present in sampled environmental media. Parties wanting to use this guidance at their site must seek approval to do so from the regulatory agency responsible for overseeing their remedial activities.

Purpose

The division has prepared this guidance for the purpose of making preliminary determinations when screening data collected from sites that don't necessarily have a reason to believe arsenic contamination may be present, such as a routine Phase II investigation conducted prior to a property transaction. This guidance is simply meant to inform the regulated community of their responsibilities in managing arsenic risks: it is not regulation, nor does it constitute an enforceable standard that must be complied with.

Background

Arsenic is naturally occurring in some geologic environments in Colorado due to weathering and erosion of bedrock and soil, including highly mineralized areas that are mined for metal ores. It is present in more than 200 different minerals, the most common of which is called arsenopyrite. It may also be present in the environment due to a number of anthropogenic activities including: military operations and firing ranges; mining, especially sulfide ores; smelting copper, gold and lead ores; preservation of wood (CCA); chicken feed operations and associated manures (CAFO) due to arsenic-containing growth promoters; tanning and taxidermy operations; coal-burning emissions and ash-derived residues from power plants; and may be present in landfills and landfill-derived leachate. Arsenic may also be found due to the manufacture, use and disposal of: ammunition; fireworks; pigments (paint, paper, ceramics, etc.); older herbicides, insecticides, and pesticides (examples: monosodium methanearsonate (MSMA), disodium methanearsonate (DSMA) and lead-arsonate); electronics containing Gallium-Arsenide-Selenium (GAS) semi-conductors; lead acid battery plates; glass; and some pharmaceuticals. Other anthropogenic arsenic sources may likely exist. Arsenic contamination in soil is of public health concern due to its toxic effects as a carcinogen and a non-carcinogen. Making risk management decisions about arsenic can be difficult because natural occurring concentrations in soil often exceed carcinogenic risk based exposure values.

This guidance was prepared by the division using a data set of background arsenic concentrations developed by the U.S. EPA Region 8. The data set includes over 2,700 samples from 44 counties in Colorado. The areas sampled included: native grasslands; agricultural areas; urban mixed land use; and mining. A summary of the data set is presented in the table below. The complete data set may be found on the U.S. EPA Region 8's website at http://www2.epa.gov/region8/hh-exposure-assessment.

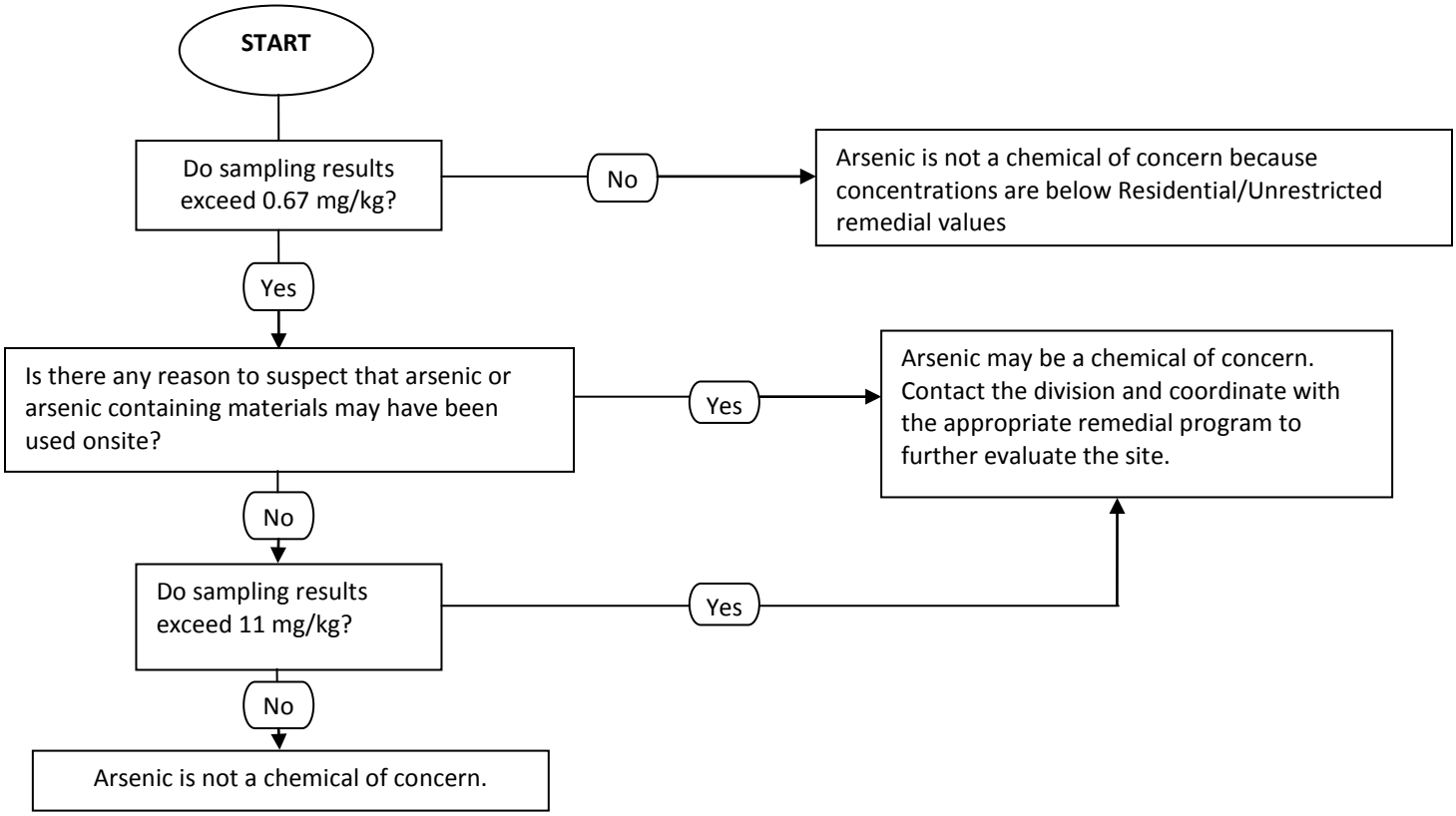
Region 8 U.S. EPA 95% UCLM Background Soil Arsenic Concentrations in Colorado

Land Use	Concentration (mg/kg)
Native Grassland, Rangeland, or Agriculture	3-14
Urban Mixed Use	6-19
Mining	10
Average of all land uses	11

Division Guidance Regarding Background Arsenic Concentration

The division's approach to evaluating arsenic in soil is depicted in the following flowchart. This guidance assumes that, based upon the size, history and environmental concerns associated with a particular site, an adequate amount of arsenic data has been obtained to make a determination regarding arsenic concentrations in soil. It isn't meant to be a guide on how to conduct a background study for risk assessment and/or site closure purposes. Guidance on the subject of data collection and analysis needs for conducting a background study should be sought from other published sources. Soil samples should be collected and analyzed for arsenic if the site history suggests it may be present as a result of anthropogenic activities. However, since arsenic is one of the chemicals included as part of a standard "metals" analysis package from a laboratory, you may already have obtained arsenic data for your site.

The current residential/unrestricted land use remedial objective for inorganic arsenic is 0.67 mg/kg (U.S. EPA regional screening level). If arsenic concentrations at your site are lower than 0.67 mg/kg, the division will require no further action to address arsenic in soil. If arsenic concentrations are lower than 11 mg/kg (the average of the 95% UCLM of background concentrations found by the U.S. EPA in Colorado), and releases of arsenic could not have occurred at the site, based on historical data or process knowledge, the division will require no further action to address arsenic in soil. If arsenic concentrations are greater than 0.67 mg/kg, and the available information suggests that a release of arsenic could have occurred at the site, the division will require additional evaluation of the data and possibly additional sampling to determine whether corrective measures for arsenic are required. This evaluation may include a site specific background study with sampling from offsite locations, and/or additional sampling in areas of the site where activities that could have contributed to environmental contamination never occurred. Please consult with the division prior to performing any background study. If it can be demonstrated that arsenic concentrations in soil are unrelated to site activities, the division will require no further action regarding arsenic. It should be noted that material such as arsenic-bearing mine tailings or oil and gas drill cuttings, although derived from a naturally occurring source material, are not considered to be naturally occurring background once they have been generated through human activity. Therefore, mine tailings and drill cuttings may be subject to remediation if ecological or health-based concentrations are exceeded.



For more information please contact:
Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Customer Technical Assistance Line:
(303) 692-3320
(888) 569-1831 ext. 3320 toll-free
E-mail: comments.hmwmd@state.co.us
Website: **www.colorado.gov/cdphe/hm**

ATTACHMENT G

Laboratory Report from Green Analytical Laboratories

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Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

06 July 2015

Ryan Unterreiner
Ecosphere Environmental Services
776. E. 2nd Avenue
Durango, CO 81301

RE: Rule 609 Subsequent Sampling

Enclosed are the results of analyses for samples received by the laboratory on 06/17/15 13:28. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

If you any any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at http://greenanalytical.com/certifications/

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GP-16 Stock	1506163-01	Water	06/17/15 09:45	06/17/15 13:28

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

GP-16 Stock

1506163-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate*	**520**	10.0		mg/L	5	06/23/15	2320 B		LLG
Alkalinity, Carbonate*	<10.0	10.0		mg/L	1	06/23/15	2320 B		LLG
Alkalinity, Hydroxide*	<10.0	10.0		mg/L	1	06/23/15	2320 B		LLG
Alkalinity, Total*	**520**	10.0		mg/L	5	06/23/15	2320 B		LLG
Bromide	<0.100	0.100	0.0730	mg/L	1	06/24/15	4500-Br- B		ABP
Chloride*	**113**	10.0	5.00	mg/L	1	06/26/15	4500-Cl- C		LLG
Fluoride*	**0.413**	0.250	0.0550	mg/L	1	06/26/15	4500-F- C		ABP
TDS*	**2900**	10.0		mg/L	1	06/22/15	EPA160.1		ABP
Sulfate	**1680**	500	84.0	mg/L	50	07/01/15	4500-SO42- E		ABP
Total Recoverable Metals by ICP (E200.7)									
Calcium*	**366**	0.200	0.028	mg/L	10	06/19/15	EPA200.7		JGS
Magnesium*	**229**	1.00	0.324	mg/L	10	06/19/15	EPA200.7		JGS
Potassium*	**15.7**	10.0	3.35	mg/L	10	06/19/15	EPA200.7		JGS
Sodium*	**215**	10.0	3.05	mg/L	10	06/19/15	EPA200.7		JGS

Subcontracted -- **Cardinal Laboratories**

Volatile Organic Compounds by EPA Method 8021									
Benzene*	<0.001	0.001	0.0001	mg/L	1	06/23/15	8021B		MS
Toluene*	<0.001	0.001	0.0002	mg/L	1	06/23/15	8021B		MS
Ethylbenzene*	<0.001	0.001	0.0002	mg/L	1	06/23/15	8021B		MS
Total Xylenes*	<0.003	0.003	0.0005	mg/L	1	06/23/15	8021B		MS
Total BTEX	<0.006	0.006		mg/L	1	06/23/15	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			*120 %*	*66.2-142*		*06/23/15*	*8021B*		MS
Petroleum Hydrocarbons by GC FID									
GRO C6-C10	<1.00	1.00	0.136	mg/L	0.1	06/23/15	8015B		MS
DRO >C10-C28	<1.00	1.00	0.295	mg/L	0.1	06/23/15	8015B		MS
EXT DRO >C28-C35	<1.00	1.00	0.295	mg/L	0.1	06/23/15	8015B		MS
Surrogate: 1-Chlorooctane			*93.4 %*	*36.1-161*		*06/23/15*	*8015B*		MS
Surrogate: 1-Chlorooctadecane			*122 %*	*36-171*		*06/23/15*	*8015B*		MS
Cation/Anion Balance	**.16**								

Green Analytical Laboratories

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www.GreenAnalytical.com

Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506227 - General Prep - Wet Chem										
Blank (B506227-BLK1)				Prepared & Analyzed: 06/23/15						
Alkalinity, Total	ND	10.0	mg/L							
LCS (B506227-BS1)				Prepared & Analyzed: 06/23/15						
Alkalinity, Total	98.0	10.0	mg/L	100		98.0	85-115			
LCS Dup (B506227-BSD1)				Prepared & Analyzed: 06/23/15						
Alkalinity, Total	105	10.0	mg/L	100		105	85-115	6.90	20	
Batch B506245 - General Prep - Wet Chem										
Blank (B506245-BLK1)				Prepared & Analyzed: 06/24/15						
Bromide	ND	0.100	mg/L							
LCS (B506245-BS1)				Prepared & Analyzed: 06/24/15						
Bromide	0.584	0.100	mg/L	0.600		97.4	85-115			
LCS Dup (B506245-BSD1)				Prepared & Analyzed: 06/24/15						
Bromide	0.656	0.100	mg/L	0.600		109	85-115	11.5	20	
Batch B506248 - General Prep - Wet Chem										
Blank (B506248-BLK1)				Prepared & Analyzed: 06/26/15						
Chloride	ND	10.0	mg/L							
LCS (B506248-BS1)				Prepared & Analyzed: 06/26/15						
Chloride	99.0	10.0	mg/L	100		99.0	85-115			

Green Analytical Laboratories

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Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506248 - General Prep - Wet Chem										
LCS Dup (B506248-BSD1)				Prepared & Analyzed: 06/26/15						
Chloride	98.0	10.0	mg/L	100		98.0	85-115	1.02	20	
Batch B506269 - General Prep - Wet Chem										
Blank (B506269-BLK1)				Prepared & Analyzed: 06/26/15						
Fluoride	ND	0.250	mg/L							
LCS (B506269-BS1)				Prepared & Analyzed: 06/26/15						
Fluoride	0.987	0.250	mg/L	1.00		98.7	85-115			
LCS Dup (B506269-BSD1)				Prepared & Analyzed: 06/26/15						
Fluoride	0.996	0.250	mg/L	1.00		99.6	85-115	0.908	20	
Batch B506271 - General Prep - Wet Chem										
Blank (B506271-BLK1)				Prepared & Analyzed: 06/22/15						
TDS	ND	10.0	mg/L							
Duplicate (B506271-DUP2)		**Source: 1506146-01**		Prepared & Analyzed: 06/22/15						
TDS	7170	10.0	mg/L		7160			0.140	20	
Reference (B506271-SRM1)				Prepared & Analyzed: 06/22/15						
TDS	570	10.0	mg/L	590		96.6	85-115			
Batch B507007 - General Prep - Wet Chem										
Blank (B507007-BLK1)				Prepared & Analyzed: 07/01/15						
Sulfate	ND	10.0	mg/L							

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Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B507007 - General Prep - Wet Chem										
LCS (B507007-BS1)				Prepared & Analyzed: 07/01/15						
Sulfate	46.0	10.0	mg/L	50.0		92.0	85-115			
LCS Dup (B507007-BSD1)				Prepared & Analyzed: 07/01/15						
Sulfate	53.9	10.0	mg/L	50.0		108	85-115	15.8	20	

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Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B506190 - EPA 200.2										
Blank (B506190-BLK1)				Prepared: 06/18/15 Analyzed: 06/19/15						
Calcium	ND	0.020	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B506190-BS1)				Prepared: 06/18/15 Analyzed: 06/19/15						
Calcium	3.85	0.020	mg/L	4.00		96.2	85-115			
Magnesium	20.4	0.100	mg/L	20.0		102	85-115			
Potassium	7.85	1.00	mg/L	8.00		98.1	85-115			
Sodium	6.35	1.00	mg/L	6.48		98.0	85-115			
LCS Dup (B506190-BSD1)				Prepared: 06/18/15 Analyzed: 06/19/15						
Calcium	3.80	0.020	mg/L	4.00		94.9	85-115	1.36	20	
Magnesium	20.1	0.100	mg/L	20.0		101	85-115	1.56	20	
Potassium	7.96	1.00	mg/L	8.00		99.5	85-115	1.43	20	
Sodium	6.27	1.00	mg/L	6.48		96.8	85-115	1.18	20	

Green Analytical Laboratories

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Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5062211 - Volatiles										
Blank (5062211-BLK1)				Prepared: 06/22/15 Analyzed: 06/23/15						
Benzene	ND	0.001	mg/L							
Ethylbenzene	ND	0.001	mg/L							
Toluene	ND	0.001	mg/L							
Total BTEX	ND	0.006	mg/L							
Total Xylenes	ND	0.003	mg/L							
Surrogate: 4-Bromofluorobenzene (PID)	*0.0606*		mg/L	*0.0500*		*121*	*66.2-142*			
LCS (5062211-BS1)				Prepared: 06/22/15 Analyzed: 06/23/15						
Benzene	0.020	0.001	mg/L	0.0200		98.7	82.6-128			
Ethylbenzene	0.021	0.001	mg/L	0.0200		103	80.2-131			
Toluene	0.020	0.001	mg/L	0.0200		101	84.2-128			
Total Xylenes	0.053	0.003	mg/L	0.0600		88.9	81.8-128			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0580*		mg/L	*0.0500*		*116*	*66.2-142*			
LCS Dup (5062211-BSD1)				Prepared: 06/22/15 Analyzed: 06/23/15						
Benzene	0.019	0.001	mg/L	0.0200		96.1	82.6-128	2.68	18.6	
Ethylbenzene	0.020	0.001	mg/L	0.0200		97.6	80.2-131	5.41	12.6	
Toluene	0.019	0.001	mg/L	0.0200		96.3	84.2-128	4.77	12.3	
Total Xylenes	0.050	0.003	mg/L	0.0600		83.4	81.8-128	6.41	12.8	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0572*		mg/L	*0.0500*		*114*	*66.2-142*			

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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www.GreenAnalytical.com

Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

Petroleum Hydrocarbons by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5062212 - General Prep - Organics										
Blank (5062212-BLK1)				Prepared & Analyzed: 06/23/15						
DRO >C10-C28	ND	1.00	mg/L							
EXT DRO >C28-C35	ND	1.00	mg/L							
GRO C6-C10	ND	1.00	mg/L							
Surrogate: 1-Chlorooctadecane	*6.16*		mg/L	*5.00*		*123*	*36-171*			
Surrogate: 1-Chlorooctane	*5.07*		mg/L	*5.00*		*101*	*36.1-161*			
LCS (5062212-BS1)				Prepared & Analyzed: 06/23/15						
DRO >C10-C28	49.2	1.00	mg/L	50.0		98.4	74.9-129			
EXT DRO >C28-C35	ND	1.00	mg/L	0.00			0-0			
GRO C6-C10	45.9	1.00	mg/L	50.0		91.9	75.5-112			
Surrogate: 1-Chlorooctadecane	*6.52*		mg/L	*5.00*		*130*	*36-171*			
Surrogate: 1-Chlorooctane	*5.48*		mg/L	*5.00*		*110*	*36.1-161*			
LCS Dup (5062212-BSD1)				Prepared & Analyzed: 06/23/15						
DRO >C10-C28	47.5	1.00	mg/L	50.0		95.1	74.9-129	3.39	22.6	
EXT DRO >C28-C35	ND	1.00	mg/L	0.00			0-0		0	
GRO C6-C10	44.4	1.00	mg/L	50.0		88.7	75.5-112	3.46	17.3	
Surrogate: 1-Chlorooctadecane	*6.46*		mg/L	*5.00*		*129*	*36-171*			
Surrogate: 1-Chlorooctane	*5.29*		mg/L	*5.00*		*106*	*36.1-161*			

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Ecosphere Environmental Services	Project: Rule 609 Subsequent Sampling	
776. E. 2nd Avenue	Project Name / Number: [none]	**Reported:**
Durango CO, 81301	Project Manager: Ryan Unterreiner	07/06/15 13:08

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
	*Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Green Analytical Laboratories
(970) 247-4220
Fax: (970) 247-4227
service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

Company Name: Ecosphere Environmental Services	Bill to (if different):
Project Manager: Ryan Unterreiner	P.O. #: GP-16
Address: 776 E. 2nd Ave	Company:
City: Durango, CO State: CO Zip: 81301	Attn:
Phone #: 970-382-7256 Email: ryan@ecosphere-services.com	Address:
Additional Report To:	City:
Project Name:	State: Zip:
Project Number:	Phone #:
Sampler Name (Print):	Fax or Email:

FOR LAB USE ONLY Lab I.D.	Sample Name or Location	Collected Date	Collected Time	Matrix (check one) GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	OTHER :	# of containers No preservation (general)	HNO_3	HCl	H_2SO_4	Other:	Other:	Other:	ANALYSIS REQUEST COGCC Rule 609 Subsequent Sample
~~GP-16 Stock~~																	
1506-163-01	GP-16 Stock	6/17/15	09:45	X													X
-02	TB																

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 6/17/15 Time: 15:28	Received By: Debbie Zufelt
Relinquished By:	Date: Time:	Received By:
Relinquished By:	Date: Time:	Received By:

ADDITIONAL REMARKS: Report to State? (Circle) Yes No

COGCC edd

Delivered By: (Circle One)
Sampler - UPS - FedEx - Kangaroo - Other:

#9 Temperature at reciept: 8.7°C on ice

CHECKED BY: WZ

† GAL cannot always accept verbal changes. Please fax or email written change requests.
* Chain of Custody must be signed in "Reliquished By:" as an acceptance of services and all applicable charges.

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

25 June 2015

Debbie Zufelt
Green Analytical
75 Suttle Street
Durango, CO 81303

RE: Ecosphere Enviro.

Enclosed are the results of analyses for samples received by the laboratory on 06/19/15 11:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Katherine RunningCrane
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Green Analytical	Project: Ecosphere Enviro.	
75 Suttle Street	Project Number: GA15-228	**Reported:**
Durango CO, 81303	Project Manager: Debbie Zufelt	06/25/15 16:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GP-16-Stock	T151451-01	Water	06/17/15 09:45	06/19/15 11:15

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Green Analytical	Project: Ecosphere Enviro.	
75 Suttle Street	Project Number: GA15-228	**Reported:**
Durango CO, 81303	Project Manager: Debbie Zufelt	06/25/15 16:58

DETECTIONS SUMMARY

Sample ID: GP-16-Stock **Laboratory ID:** T151451-01

No Results Detected

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

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Lake Forest, California 92630
949.297.5020 Phone
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Green Analytical	Project: Ecosphere Enviro.	
75 Suttle Street	Project Number: GA15-228	**Reported:**
Durango CO, 81303	Project Manager: Debbie Zufelt	06/25/15 16:58

GP-16-Stock

T151451-01 (Water)

SunStar Laboratories, Inc.

RSK-175

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Methane	ND	1.00	ug/l	1	5061915	06/19/15	06/20/15	RSK-175	
Ethane	ND	1.00	"	"	"	"	"	"	
Propane	ND	10.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Green Analytical	Project: Ecosphere Enviro.	
75 Suttle Street	Project Number: GA15-228	**Reported:**
Durango CO, 81303	Project Manager: Debbie Zufelt	06/25/15 16:58

RSK-175 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5061915 - EPA 3810m Headspace										
Blank (5061915-BLK1)				Prepared: 06/19/15 Analyzed: 06/20/15						
Methane	ND	1.00	ug/l							
Ethane	ND	1.00	"							
Propane	ND	10.0	"							
Duplicate (5061915-DUP1)	**Source: T151451-01**			Prepared: 06/19/15 Analyzed: 06/20/15						
Methane	ND	1.00	ug/l		ND				20	
Ethane	ND	1.00	"		ND				20	
Propane	ND	10.0	"		0.00				200	

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

Green Analytical	Project: Ecosphere Enviro.	
75 Suttle Street	Project Number: GA15-228	**Reported:**
Durango CO, 81303	Project Manager: Debbie Zufelt	06/25/15 16:58

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Green Analytical Laboratories

SunStar

5.4

CHAIN OF CUSTODY RECORD

Page____ of____

Client: GREEN ANALYTICAL
Contact: DEBBIE ZUFELT
Address: 75 SUTTLE ST
DURANGO, CO 81303
Phone Number: 970-247-4220
FAX Number: 970-247-4227

NOTES:
1) Ensure proper container packaging.
2) Ship samples promptly following collection.
3) Designate Sample Reject Disposition.

PO# GA15-228
Project Name: Ecosphere Enviro.

Table 1. – Matrix Type
1 = Surface Water, 2 = Ground Water
3 = Soil/Sediment, 4 = Rinsate, 5 = Oil
6 = Waste, 7 = Other (Specify) _____

FOR GAL USE ONLY
GAL JOB #
_____

Samplers Signature:

PLEASE CALL WITH ANY QUESTIONS

Lab Name: Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227
Address: 75 Suttle Street, Durango, CO 81303

Sample ID	Collection: Date	Collection: Time	Misc: Collected by: (Init.)	Misc: Matrix Type From Table 1	Misc: No. of Containers	Misc: Sample Filtered ? Y/N	Preservative(s): Unpreserved (Ice Only)	Preservative(s): HNO3	Preservative(s): HCL	Preservative(s): H2SO4	Preservative(s): NAOH	Preservative(s): Other (Specify)	Analyses Required: RSK175: Methane	Ethane	Propane	Comments
1. GP-16 Stock	6-17-15	09:45		2	3		X						X	X	X	1506-163-01
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																

Relinquished by:	Michael Valentine	Date: 6-18-15	Time: 1600	Received by:	FedEx	Date: 6-18-15	Time: 1600
Relinquished by:	FedEx	Date: 6.19.15	Time: 11:15	Received by:		Date: 6.19.15	Time: 11:15

* Sample Reject: [ ] Return [ ] Dispose [ ] Store (30 Days)

FORM-024

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303
Phone: 970-247-4220
FAX: 970-247-4227

PURCHASE REQUEST

Supplier: Sun Star

Phone: _____
FAX: _____
Account# _____
Reference: _____
Contact: _____

PO Number: GA 15-228
Date Ordered: 6-18-15
Ordered By: _____
Date Required: _____

Part Number / Analysis	Description	Quantity	Unit Price	Per	Date Rec'd	Insp By	Comments
	RSK175: Methane, Ethane, Propane	1					1506-163-01

Requested By: Michael Valentine Date: 6/18/15 Total: $_____

Dept. Approval: _____ Date: _____

Page _____ of _____

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

SAMPLE RECEIVING REVIEW SHEET

BATCH # T151451

Client Name: GREEN ANALYTICAL Project: ESOSPHERE ENVIRO

Received by: BRIAN Date/Time Received: 6.19.15 11:15

Delivered by : ☐ Client ☐ SunStar Courier ☐ GSO ☒ FedEx ☐ Other _____

Total number of coolers received 1 **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 5.6 °C +/- the CF (- 0.2°C) = 5.4 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.	☒Yes	☐No*	☐N/A
Custody Seals Intact on Cooler/Sample	☐Yes	☐No*	☒N/A
Sample Containers Intact	☒Yes	☐No*	
Sample labels match COC ID's	☒Yes	☐No*	
Total number of containers received match COC	☒Yes	☐No*	
Proper containers received for analyses requested on COC	☒Yes	☐No*	
Proper preservative indicated on COC/containers for analyses requested	☐Yes	☐No*	☒N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒ **Yes** ☐ **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date BC 6.19.15

Comments:

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T151451

Client:	**Green Analytical**	**Project Manager:**	**Katherine RunningCrane**
Project:	**Ecosphere Enviro.**	**Project Number:**	**GA15-228**

Report To:

Green Analytical
Debbie Zufelt
75 Suttle Street
Durango, CO 81303

Date Due:	06/26/15 15:00 (5 day TAT)		
Received By:	Brian Charon	Date Received:	06/19/15 11:15
Logged In By:	Brian Charon	Date Logged In:	06/19/15 11:33

Samples Received at: **5.4°C**

Custody Seals	No	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confirme	No		

Analysis	Due	TAT	Expires	Comments
T151451-01 GP-16-Stock [Water] Sampled 06/17/15 09:45 (GMT-08:00) Pacific Time (US &				
RSK-175	06/26/15 15:00	5	07/15/15 09:45	Methane, Ethane & Propane only

Reviewed By

Date