ARCADIS Design & Consultancy for natural and built assets

Mr. Aaron M. Hale, P.G.
Environmental Manager
Kinder Morgan CO_2 Company, LP
500 W Illinois Ave., Suite 500
Midland, Texas 79701

Arcadis U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720 344 3500
Fax 720 344 3535
www.arcadis.com

Subject:
Draft Summary Report for Site GP-17
McElmo Dome Unit, Southwestern Colorado

ENVIRONMENT

Date:
August 16, 2016

Contact:
Kelli Jo Preston

Phone:
303.471.3403

Email:
kellijo.preston@arcadis.com

Our ref:
CO002055

Dear Mr. Hale:

Included herein is the Draft Summary Report for site GP-17, which is part of the McElmo Dome Unit in southwestern Colorado. Arcadis U.S., Inc. (Arcadis) completed field work at site GP-17 in support of Kinder Morgan CO2 Company, LP's (KM) efforts to evaluate how the former drill pits were reclaimed and 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-17 (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 evaluated 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 depth of 2 feet below the bottom of the former pit excavation, or an approximate depth of 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 a CME core barrel sampler. 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 will be 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 for analysis. Each soil sample was analyzed for the following:

- Polycyclic aromatic hyrdocarbons (PAHs) by United States Environmental Protection Agency (USEPA) Method SW8270
- 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 groundwater boring was advanced to 50 feet bgs at site GP-17 to evaluate groundwater conditions beneath the site. Boring material was logged in the deep groundwater boring, however, no soil

samples were collected. Groundwater was encountered in the GP-17 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-17 is provided in **Attachment C**.

Detailed notes were kept during the field activities completed at site GP-17 and are provided in **Attachment D**.

Results

Analytical results received from ALS for the soil samples collected at site GP-17 are presented in **Table 1**. Laboratory reports are provided in **Attachment E**.

A total of 24 soil samples collected from eight soil borings, were submitted to ALS for site GP-17. **Table 1** provides all applicable screening levels (SLs) as provided per the COGCC Table 910-1. Analytical results that exceed the Table 910-1 SLs are highlighted in yellow. Key findings are summarized as follows:

- 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 identified as a SL exceedance in **Table 1**.
    - The Table 910-1 SL for EC is the greater of 4 mmhos/cm or twice the background level. Site specific background is not known for this site. Notably, vegetation in the immediate vicinity of this location appeared healthy.
- Arsenic was observed in multiple locations greater than SLs, with a maximum observed concentration of 5.02 milligrams per kilogram (mg/kg). However, 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**). No arsenic detection observed at site GP-17 exceeded 11 mg/kg; therefore, the concentrations likely fall within an acceptable background range.
- Liner material was observed at 7 feet bgs in boring 8, but was otherwise absent from the other borings.

Analytical results received from ALS for the groundwater sample collected at site GP-17 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 a 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 1.25 miles from GP-17 and it suggests background concentrations in the vicinity of site GP-17 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 (3,625 mg/L), chloride (141 mg/L), and sulfate (2,100 mg/L) are all higher than observed concentrations on site and therefore, no exceedances were above COGCC 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-17
2 Groundwater Analytical Results for Samples Collected at McElmo Dome Site GP-17

Figures

1 GP-17 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

Table 1 - Soil Analytical Results for Samples Collected at McElmo Dome Site GP-17
Kinder Morgan CO2 Company LP

						PAHs														
Site	Sample Location	Depth (ft bgs)	Date Collected	Sample ID	Matrix	Acenaphthene	Acena-phthylene	Anthracene	Benzo(a) anthracene	Benzo(a)pyrene	Benzo(b) fluoran-thene	Benzo(g,h,I) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
			Table 910-1 Screening Level			1,000	NS	1,000	0.22	0.022	0.22	NS	2.2	22	0.022	1,000	1,000	0.22	23	NS	1,000
			Units			mg/kg															
GP-17	Boring 1	3-4	6/9/2016	GP-17-1-3-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 1	4-5	6/9/2016	GP-17-1-4-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 1	14-15	6/9/2016	GP-17-1-14-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 2	3-4	6/9/2016	GP-17-2-3-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 2	7-8	6/9/2016	GP-17-2-7-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 2	14-15	6/9/2016	GP-17-2-14-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 3	3-4	6/9/2016	GP-17-3-3-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 3	10-11	6/9/2016	GP-17-3-10-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 3	14-15	6/9/2016	GP-17-3-14-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 4	1-2	6/9/2016	GP-17-4-1-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 4	6-7	6/9/2016	GP-17-4-6-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 4	14-15	6/9/2016	GP-17-4-14-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 5	1-2	6/9/2016	GP-17-5-1-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 5	8-9	6/9/2016	GP-17-5-8-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 5	15-16	6/9/2016	GP-17-5-15-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 6	2-3	6/9/2016	GP-17-6-2-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 6	8-9	6/9/2016	GP-17-6-8-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 6	15-16	6/9/2016	GP-17-6-15-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 7	3-4	6/9/2016	GP-17-7-3-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	1.2E-02	<3.3E-3	<3E-03
GP-17	Boring 7	5-6	6/9/2016	GP-17-7-5-060916	Soil	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<4.9E-3	<5E-03
GP-17	Boring 7	12-13	6/9/2016	GP-17-7-12-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 8	3-4	6/9/2016	GP-17-8-3-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03
GP-17	Boring 8	9-10	6/9/2016	GP-17-8-9-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	5.0E-03	<3.3E-3	<3E-03
GP-17	Boring 8	14-15	6/9/2016	GP-17-8-14-060916	Soil	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3.3E-3	<3E-03

Notes:
* concentrations in ug/kg
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
PAH = polycyclic aromatic hydrocarbon
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-17
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	Ethyl benzene	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-17	Boring 1	3-4	6/9/2016	GP-17-1-3-060916	Soil	2.65	146	< 2.38	< 0.476	7.20	5.00	6.82	9.80	< 0.476	< 0.476	20.7	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 1	4-5	6/9/2016	GP-17-1-4-060916	Soil	2.39	149	< 2.39	< 0.479	7.40	5.60	6.59	9.98	< 0.479	< 0.479	22.5	0.0048	<4.8E-03	<9.7E-03	<4.8E-03	<4.8E-03	<9.7E-03
GP-17	Boring 1	14-15	6/9/2016	GP-17-1-14-060916	Soil	5.02	86	< 2.34	< 0.469	2.17	3.46	4.65	4.31	< 0.469	< 0.469	14.9	0.0049	<4.9E-03	<9.8E-03	<4.9E-03	<4.9E-03	<9.8E-03
GP-17	Boring 2	3-4	6/9/2016	GP-17-2-3-060916	Soil	2.71	158	3.02	< 0.455	8.36	5.50	7.01	9.17	< 0.455	< 0.455	22.4	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 2	7-8	6/9/2016	GP-17-2-7-060916	Soil	1.89	303	3.40	< 0.455	5.34	3.57	3.53	5.89	< 0.455	< 0.455	12.5	0.0048	<4.8E-03	<9.7E-03	<4.8E-03	<4.8E-03	<9.7E-03
GP-17	Boring 2	14-15	6/9/2016	GP-17-2-14-060916	Soil	2.48	281	3.24	< 0.458	5.88	4.85	5.66	6.92	< 0.458	< 0.458	17.6	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 3	3-4	6/9/2016	GP-17-3-3-060916	Soil	2.57	162	3.29	< 0.473	7.96	6.45	7.33	8.50	< 0.473	< 0.473	25.1	0.0050	<5.0E-03	<9.9E-03	<5.0E-03	<5.0E-03	<9.9E-03
GP-17	Boring 3	10-11	6/9/2016	GP-17-3-10-060916	Soil	2.43	129	2.75	< 0.455	7.02	4.47	6.35	7.73	< 0.455	< 0.455	20.0	0.0049	<4.9E-03	<9.8E-03	<4.9E-03	<4.9E-03	<9.8E-03
GP-17	Boring 3	14-15	6/9/2016	GP-17-3-14-060916	Soil	2.36	81.0	2.60	< 0.474	7.05	5.66	5.93	7.55	< 0.474	< 0.474	21.2	0.0049	<4.9E-03	<9.8E-03	<4.9E-03	<4.9E-03	<9.8E-03
GP-17	Boring 4	1-2	6/9/2016	GP-17-4-1-060916	Soil	2.65	152	4.53	< 0.455	7.92	7.06	7.65	8.50	< 0.455	< 0.455	23.2	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 4	6-7	6/9/2016	GP-17-4-6-060916	Soil	2.27	121	3.96	< 0.492	6.72	5.30	5.95	8.26	< 0.492	< 0.492	21.2	0.0050	<5.0E-03	<9.9E-03	<5.0E-03	<5.0E-03	<9.9E-03
GP-17	Boring 4	14-15	6/9/2016	GP-17-4-14-060916	Soil	2.76	172	5.60	< 0.477	7.02	5.85	6.38	8.51	< 0.477	< 0.477	20.6	0.0049	<4.9E-03	<9.8E-03	<4.9E-03	<4.9E-03	<9.8E-03
GP-17	Boring 5	1-2	6/9/2016	GP-17-5-1-060916	Soil	2.94	162	4.20	< 0.481	8.45	7.60	7.50	8.84	< 0.481	< 0.481	22.8	0.0048	<4.8E-03	<9.6E-03	<4.8E-03	<4.8E-03	<9.6E-03
GP-17	Boring 5	8-9	6/9/2016	GP-17-5-8-060916	Soil	2.41	112	4.34	< 0.461	5.99	5.22	5.70	7.91	< 0.461	< 0.461	17.9	0.0048	<4.8E-03	<9.6E-03	<4.8E-03	<4.8E-03	<9.6E-03
GP-17	Boring 5	15-16	6/9/2016	GP-17-5-15-060916	Soil	3.48	230	5.22	< 0.459	3.55	3.94	3.75	4.88	< 0.459	< 0.459	11.7	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 6	2-3	6/9/2016	GP-17-6-2-060916	Soil	2.37	146	< 2.25	< 0.451	7.00	6.43	6.50	7.55	< 0.451	< 0.451	20.5	0.0048	<4.8E-03	<9.7E-03	<4.8E-03	<4.8E-03	<9.7E-03
GP-17	Boring 6	8-9	6/9/2016	GP-17-6-8-060916	Soil	3.38	111	14.4	< 0.481	32.0	83.2	8.80	6.64	< 0.481	< 0.481	49.1	0.0048	<4.8E-03	<9.5E-03	<4.8E-03	<4.8E-03	<9.5E-03
GP-17	Boring 6	15-16	6/9/2016	GP-17-6-15-060916	Soil	3.70	370	7.97	< 0.499	5.16	5.12	4.32	6.78	< 0.499	< 0.499	12.4	0.0048	<4.8E-03	<9.6E-03	<4.8E-03	<4.8E-03	<9.6E-03
GP-17	Boring 7	3-4	6/9/2016	GP-17-7-3-060916	Soil	3.26	194	8.34	< 0.487	8.39	8.65	7.75	9.12	< 0.487	< 0.487	20.9	0.0050	<5.0E-03	<1.0E-02	<5.0E-03	<5.0E-03	<1.0E-02
GP-17	Boring 7	5-6	6/9/2016	GP-17-7-5-060916	Soil	3.55	153	13.5	< 0.483	47.1	8.23	9.64	5.84	< 0.483	< 0.483	28.0	0.0049	<4.9E-03	<9.8E-03	<4.9E-03	<4.9E-03	<9.8E-03
GP-17	Boring 7	12-13	6/9/2016	GP-17-7-12-060916	Soil	2.80	170	6.16	< 0.482	7.58	7.61	7.04	10.2	< 0.482	< 0.482	22.6	0.0048	<4.8E-03	<9.6E-03	<4.8E-03	<4.8E-03	<9.6E-03
GP-17	Boring 8	3-4	6/9/2016	GP-17-8-3-060916	Soil	3.27	149	< 11.8	< 0.471	11.3	7.23	6.58	6.73	< 0.471	< 0.471	20.7	0.0048	<4.8E-03	<9.5E-03	<4.8E-03	<4.8E-03	<9.5E-03
GP-17	Boring 8	9-10	6/9/2016	GP-17-8-9-060916	Soil	3.31	102	16.7	< 0.490	12.7	6.50	7.45	6.24	1.10	< 0.490	18.3	0.0048	<4.8E-03	2.2E-02	5.4E-03	1.8E-02	2.8E-02
GP-17	Boring 8	14-15	6/9/2016	GP-17-8-14-060916	Soil	4.31	92.8	< 12.4	< 0.496	6.69	6.85	7.01	7.93	< 0.496	< 0.496	19.8	0.0048	<4.8E-03	<9.7E-03	<4.8E-03	<4.8E-03	<9.7E-03

Notes:
* concentrations in ug/kg
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 = millieqivalent
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
mmhos/cm = micromho per centimeter
NS = not specified
PAH = polycyclic aromatic hydrocarbon
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-17
Kinder Morgan CO2 Company LP

						Soluble Cations for SAR			Chromium		EC (mmhos/cm@25C)	TPH		Mercury	pH	Sodium Adsorption Ratio
Site	Sample Location	Depth (ft bgs)	Date Collected	Sample ID	Matrix	Calcium	Magnesium	Sodium	Chromium III	Chromium VI	EC@sat	GRO	DRO			
			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-17	Boring 1	3-4	6/9/2016	GP-17-1-3-060916	Soil	29.1	5.41	5.24	7.20	< 2.00	0.433	< 0.050	< 1.7	1.4E-02	8.50	0.234
GP-17	Boring 1	4-5	6/9/2016	GP-17-1-4-060916	Soil	33.5	6.39	11.1	7.40	< 2.00	0.578	< 0.050	< 1.7	2.9E-02	8.41	0.461
GP-17	Boring 1	14-15	6/9/2016	GP-17-1-14-060916	Soil	15.5	< 5.00	27.6	< 5.00	< 1.99	0.628	< 0.050	< 1.7	2.3E-02	9.03	1.93
GP-17	Boring 2	3-4	6/9/2016	GP-17-2-3-060916	Soil	30.0	7.04	5.50	8.36	< 1.99	0.486	< 0.050	< 1.7	1.4E-02	8.42	0.235
GP-17	Boring 2	7-8	6/9/2016	GP-17-2-7-060916	Soil	45.8	9.19	11.8	5.34	< 1.99	0.619	< 0.050	< 1.7	1.6E-02	8.65	0.416
GP-17	Boring 2	14-15	6/9/2016	GP-17-2-14-060916	Soil	17.7	< 4.99	25.5	5.88	< 1.99	0.523	< 0.050	< 1.7	1.1E-02	8.85	1.67
GP-17	Boring 3	3-4	6/9/2016	GP-17-3-3-060916	Soil	29.3	< 5.00	20.4	7.96	< 1.99	0.58	< 0.050	< 1.7	1.2E-02	8.21	1.04
GP-17	Boring 3	10-11	6/9/2016	GP-17-3-10-060916	Soil	30.7	6.55	11.8	7.02	< 1.99	0.567	< 0.050	< 3.4	1.3E-02	8.33	0.504
GP-17	Boring 3	14-15	6/9/2016	GP-17-3-14-060916	Soil	23.6	< 4.99	22.3	7.05	< 2.00	0.534	< 0.050	< 1.7	1.5E-02	8.47	1.26
GP-17	Boring 4	1-2	6/9/2016	GP-17-4-1-060916	Soil	34.6	5.88	5.62	7.92	< 1.99	0.486	< 0.050	< 1.7	1.1E-02	8.54	0.233
GP-17	Boring 4	6-7	6/9/2016	GP-17-4-6-060916	Soil	26.8	6.97	9.81	6.72	< 1.98	0.463	< 0.050	< 1.7	1.7E-02	8.83	0.437
GP-17	Boring 4	14-15	6/9/2016	GP-17-4-14-060916	Soil	26.4	6.47	20.5	7.02	< 1.99	0.621	< 0.050	< 1.7	1.1E-02	8.55	0.927
GP-17	Boring 5	1-2	6/9/2016	GP-17-5-1-060916	Soil	29.2	6.28	23.1	8.45	< 1.98	0.667	< 0.050	< 1.7	1.1E-02	8.43	1.01
GP-17	Boring 5	8-9	6/9/2016	GP-17-5-8-060916	Soil	23.4	7.08	14.5	5.99	< 2.00	0.489	< 0.050	< 1.7	1.4E-02	8.78	0.674
GP-17	Boring 5	15-16	6/9/2016	GP-17-5-15-060916	Soil	21.0	5.29	42.9	< 5.00	< 1.99	1.02	< 0.050	< 1.7	2.2E-02	8.69	2.17
GP-17	Boring 6	2-3	6/9/2016	GP-17-6-2-060916	Soil	45.3	8.82	7.50	7.00	< 2.00	0.727	< 0.050	< 1.7	1.1E-02	8.52	0.267
GP-17	Boring 6	8-9	6/9/2016	GP-17-6-8-060916	Soil	143	< 4.99	291	32.0	< 1.99	6.00	0.37	170	5.5E-03	12.30	6.70
GP-17	Boring 6	15-16	6/9/2016	GP-17-6-15-060916	Soil	17.8	< 4.99	35.8	5.16	< 2.00	0.567	< 0.050	< 1.7	5.4E-03	8.94	2.34
GP-17	Boring 7	3-4	6/9/2016	GP-17-7-3-060916	Soil	24.6	5.85	85.8	8.39	< 2.00	1.02	< 0.050	1.8	1.0E-02	8.69	4.04
GP-17	Boring 7	5-6	6/9/2016	GP-17-7-5-060916	Soil	387	< 4.99	444	47.1	< 1.99	7.52	0.097	120	8.2E-03	10.80	6.22
GP-17	Boring 7	12-13	6/9/2016	GP-17-7-12-060916	Soil	35.3	6.14	14.4	47.1	< 2.00	0.67	< 0.050	< 1.7	1.0E-02	8.31	0.588
GP-17	Boring 8	3-4	6/9/2016	GP-17-8-3-060916	Soil	1480	< 5.00	7670	7.58	< 2.01	113	< 0.050	6.8	1.2E-02	8.75	54.9
GP-17	Boring 8	9-10	6/9/2016	GP-17-8-9-060916	Soil	1460	< 49.9	66900	11.3	< 2.02	4210	< 0.050	13	5.1E-03	11.90	482
GP-17	Boring 8	14-15	6/9/2016	GP-17-8-14-060916	Soil	97.0	26.00	104	12.7	< 2.01	3.17	< 0.050	< 2.5	9.1E-03	8.25	2.42

Notes:
* concentrations in ug/kg
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
PAH = polycyclic aromatic hydrocarbon
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-17
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-17	Boring 50	50	6/16/2016	GP-17-50-061616	GW	<1.0	<1.0	<2.0	<1.0	<1.0	<3.0	1270	31.8	418

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).

CITY: (DENTECH) DIV/GROUP:(ENV) DB:KKELLEY LD: PIC: PM: TM: DATE: 7/28/2016
PROJECT: PATH: Z:\GISPROJECTS_ENV\KinderMorgan\GIS\ArcMap_MXD\2016\Cortez_CO\Figure_1_GP-17_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 70 140

SCALE IN FEET

KINDER MORGAN
CORTEZ, CO

GP-17 SITE FEATURES

ARCADIS

FIGURE
1

ATTACHMENT A

Form 27 Application

General Scope of Work for Goodman Point (GP-17)

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

Applicable COGCC 910 Table
Current Table 910

Groundwater Anticipated
There is a water well located approximately 2,100 feet to the south of the location. 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 current 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 current 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.

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

FOR OGCC USE ONLY

OGCC Employee:
☐ 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: 05-083-06640
County: Montezuma
Facility Name: N/A
Facility Number: N/A
Well Name: Goodman Point (GP-17)
Well Number: 17
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NE 1/4, SE 1/4, Sec 31, T37N, R17W Latitude: 37.418999 N Longitude: 108.756248 W

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Potential for CO2 well drill cuttings exceeding Current 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

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.): Water well located approximatly 2,100 feet south 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 the 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 water well located with 1/2 mile of this location. This water well is approximatly 2,100 feet South 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 current 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.

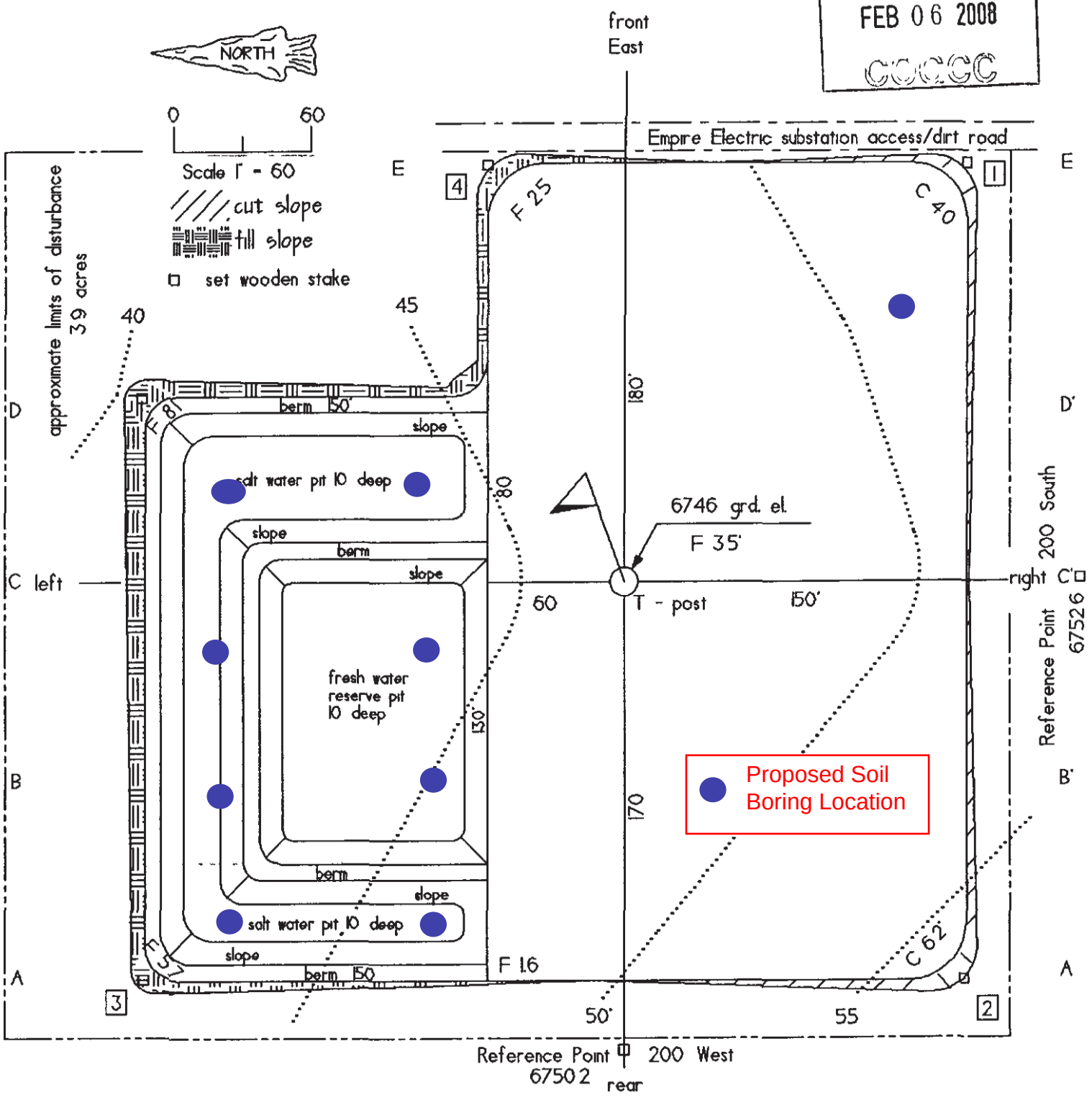
Print Name: Andrew Antipas Signed: _____

Title: Project Manager Date: 5-19-2016

OGCC Approved: _____ Title: _____ Date: _____

GP - 17

pad planview



ATTACHMENT B

Boring Logs

GP-17

ID	Latitude	Longitude
Production Well		
17-1	37.4189990	-108.7562480
17-2	37.419482	-108.756786
17-3	37.419493	-108.756579
17-4	37.419496	-108.756372
17-5	37.419482	-108.756120
17-6	37.419234	-108.756782
17-7	37.419231	-108.756553
17-8	37.419232	-108.756372
17-50	37.419244	-108.756093
	~~37.418655~~ 37.41887	~~-108.755831~~ -108.75598

ARCADIS

Borehole/ Well Log Pg 1 of 1

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Gabe, Carlos
LOGGED BY: H. Stolle
BORING ID: GP-17-1

Location of Boring: GP-17-1
Lat: 37.419482
Long: -108.756786

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	1.9	0.36			very fine red brown <20% clay s.s med. Moisture - low plasticity		
2	1.0	0.23					
3	0.9	0.64	X		<10% clay - no moisture or plasticity fine grained silty sand.		
4	1.2	0.54	X				
5	1.3	0.45			Light brown silty sand fading to a		
6	2.8	0.36			red brown sand - no moisture present		
7	1.3	0.28			<10% clay - very fine silty sand.		
8	1.4	0.26			no plasticity - or moisture		
9	1.5	0.24			low plasticity (no) red brown silty		
10	1.1	0.16			contact layer to light brown/tan crumbly		
11	1.8	0.39			dry silty s.s <10% clay		
12	26	0.08			no plasticity red brown color		
13	22	0.10			transition to gray/(yellow) White very		
14	1.2	1.3	X		silty - ashy - s.s. no moisture or plasticity		
15					ht hard drilling with buff sandstone		

ARCADIS

Borehole/ Well Log Pg 1 of 1

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Carlos, Gabe
LOGGED BY: H. Stoller

BORING ID: GP-17-2

Location of Boring: GP-17-2
Lat. 37.419493
Long. -108.756579

Depth in Feet	PID (ppm)	Gp Cond. USCS Symbol	sample collected (Blows per six inches)	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	0.4	0.49			very dry red brown silty sand - very fine - no plasticity		
2	0.5	0.44			low to med. moisture		
3	1.2	0.58	X				
4	1.2	0.20			moisture on core hard - no plasticity silty S.S		
5	1.5	0.52					
6	0.5	0.36			very silty sand - no moisture - red brown		
7	0.5	0.57	X		lighter brown - <10% clay no plasticity no moisture		
8	0.2	0.36			slightly more moisture		
9	1.7	0.31			light brown - very fine grained crumbly S.S		
10	0.5	0.19			very silty dry <10% clay S.S		
11	—	—			no sample - missed it		
12	—	—					
13	1.1	0.35			very fine silty S.S - no moisture		
14	0.7	0.33	X		no plasticity <10% clay buff to orange colored sandstone		
15							

ARCADIS

Borehole/ Well Log Pg 1 of 1

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Carlos, Gabe
LOGGED BY: H. Stoller
BORING ID: GP-17-3
Location of Boring: GP-17-3

Depth in Feet	PID (ppm)	USCS Symbol / Sp. Cond.	Sample: Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	1.2	0.26			soil crops - wheat plants - very fine grain		
2	1.5	0.58			>20% clay s.s silty - no moisture c		
3	0.8	0.72	X		med. plasticity - med. moisture		
4	1.6	6.55			20% clay s.s		
5	2.6	0.19			low plasticity <20% clay - no moisture s.s red brown		
6	1.8	0.25			crops still present med plasticity		
7	2.1	6.38		6	30-20% clay		
8	2.5	0.62			lower moisture + plasticity <20% clay		
9	2.8	0.62			red brown silty sand <20% clay with		
10	1.6	0.72	X		low moisture / plasticity		
11	4.0	0.57			smooth all red brown <20% clay s.s		
12	1.2	0.37			low to med moisture - no plasticity		
13	2.7	0.70		12	med moisture w/ med to high		
14	0.5	0.45	X		plasticity >30% clay - wet + smooth		
15					dry + crumbly - <30% clay silty sand		
					silty s.s light brown <15% clay		
					hard texture		

ARCADIS

Borehole/ Well Log Pg 1 of 1

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Carlos, Gabe
LOGGED BY: H. Stoller
BORING ID: GP-17-4
Location of Boring: GP-17-4

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	0.9	0.67	X		red/brown SS. >20% clay silty - med plasticity, med. moisture		
2	0.2	0.61					
3	1.0	0.62			lower plasticity >20% clay S.S. low to med moisture		
4	1.0	0.41					
5	0.6	0.54			med plasticity - med. moisture ~15-20% clay		
6	0.6	0.75	X		crumbly - less moisture - <10% clay silty sand		
7	2.1	0.61			Contact of moisture - dry to more moist		
8	1.6	0.45			<10% clay		
9	0.6	0.48			silty clay S.S		
10	1.1	0.57			red brown >10% clay silty S.S. - low plasticity low moisture - more crumbly		
11	1.6	0.42			low plasticity + moisture <10% clay		
12	1.7	0.53			silty S.S. fine grained		
13	0.4	0.28			buff to white colored fine grained		
14	1.2	0.45	X		Sandstone. very hard.		
15							
16							
17							
18							
19							
20							

ARCADIS

Borehole/ Well Log Pg _____ of _____

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Gabe, Carlos
LOGGED BY: H. Stoller
BORING ID: GP-17-5
Location of Boring: GP-17-5

Depth in Feet	PID (ppm)	Sp. cond. USGS Symbol	sample Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	6.8	0.71	X		red brown <20% clay silty sandstone fine grained.		
2	0.3	0.53					
3	1.0	0.58			light brown fine grained <10% clay with no moisture or plasticity.		
4	0.6	0.31					
5	1.5	0.50			Light brown silty sand continues with		
6	0.5	0.53			<10% clay - low moisture. silty sand		
7	0.9	0.27			begins to become more loose sand.		
8	2.2	0.69	X		transitioning to a dark red, crumbly <10% clay - dark red silty sand		
9	1.0	0.58			low moisture low plasticity		
10	1.3	0.42			<10% clay silty sand - no moisture		
11	1.4	0.35			more moisture - low to med plasticity		
12	1.2	0.30			~20% more clay		
13	0.9	0.29			flaker fine grained sand <20% clay		
14	0.8	0.22			transition to finer white, yellow sandstone		
15	0.5	0.10	X		<10% clay silty s.s no moisture		

ARCADIS

Borehole/ Well Log Pg _____ of _____

PROJECT NAME/NUMBER:

DATE/WEATHER: 6/9/16

DRILLING FIRM/METHOD:

ELEVATION:

DRILLER & HELPERS:

LOGGED BY:

BORING ID:

Location of Boring: GP-17-6

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	1.7	0.25			red brown fg very fine <10% clay silty 5.5 - no moisture or plasticity		
2	4.3	0.92	X		>20% clay - med moisture + plasticity		
3	4.8	0.79			red brown silty sand, no moisture		
4	23.9	0.21			flaky <10% clay fine to med grained		
5	23.3	0.26					
6	17.7	0.72			contaminated soil visible <10% clay silty sandstone, no moisture		
7	13.3	0.18			fly ash visible,		
8	22.4	0.71	X		dry - ashy sandstone silty - no moisture - contamination clears out		
9	12.2	0.27			transition to white/light very fine silty sand		
10	1.4	0.14					
11	2.1	0.20			back to red brown, <10% clay silty sand, low moisture + plasticity		
12	1.2	0.29					
13	2.3	0.23			<10% clay, crumbly silty sand, buff to white colored.		
14	0.4	0.36					
15	1.6	0.10	X				

ARCADIS

Borehole/ Well Log Pg _____ of _____

PROJECT NAME/NUMBER:

DATE/WEATHER: 6/9/16

DRILLING FIRM/METHOD:

ELEVATION:

DRILLER & HELPERS:

LOGGED BY: H. Stoller

BORING ID: GP-17-7

Location of Boring:

GP-17-7

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	2.2	0.62			red brown sandy clay <30% med moisture + plasticity		
2	1.6	0.56			red brown silty sand w/ <10% clay		
3	1.2	0.85	X				
4	40.3	0.46			Contamination present. black smelly soil mixed w/ red/orange ss.		
5	13.7	0.54	X				
6	7.1	0.44			red brown mixed w/ gray black coaly sandstone silty. low moisture		
7	6.0	0.43			no more contamination visible.		
8	2.6	0.54			- clean red brown silty sand with		
9	2.5	0.42			<5% clay, no moisture		
10	2.3	0.53					
11	2.6	0.23			buff colored / red silty sand		
12	1.3	0.31	X		with low moisture, hard.		

pic

ARCADIS

Borehole/ Well Log Pg 1 of

PROJECT NAME/NUMBER: McElmo Dome
DATE/WEATHER: 6/9/16
DRILLING FIRM/METHOD: HSA
ELEVATION:
DRILLER & HELPERS: Kelly, Carlos, Gabe
LOGGED BY: H. Stelle

BORING ID: GP-17-8

Location of Boring: GP-17-8

Depth in Feet	PID (ppm)	SP, cond, USCS Symbol	sample (Blows per six inches)	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
1	2.2	0.70			Med. plasticity - med. moisture red brown sandston <20% clay		
2	3.7	0.74			red brown becomes siltier with		
3	1.8	1.15	X		less moisture.		
4	125	0.34			possible contamination - black streak +		
5	183	0.55			chunks in orange red s.s		pic
6	2.9	1.46			Zoned from brown red to gray black		
7	3.2	1.86			fly ash mixed with black sections		
8	13.8	1.40			several chunks of liner hit liner		
9	6.6	3.64	X		liner found folder/several layers in		
10	1.5	2.98			boring transitions back to orange red fine s.s		
11	3.1	3.49			red, brown ss - med moisture - plasticity		
12	1.7	2.13			red - clay ~20-30% - med		
13	5.0	1.26			moisture plasticity silty sand		
14	2.5	0.57	X		light colored silty sandstone <10% clay		
15					no moisture		

ARCADIS

Borehole/ Well Log Pg 1 of 2

PROJECT NAME/NUMBER:	DATE/WEATHER:
DRILLING FIRM/METHOD:	ELEVATION:
DRILLER & HELPERS:	LOGGED BY:

BORING ID: GP-17-50

Location of Boring: GP-17-50

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
5					Red brown silty sand with about 30% clay with very little moisture		
10					Red brown silty sand begins to have more clay present ~40-50%. some moisture present becomes very clumpy.		
15					Light brown/tan silty sand very fine grained making cuttings return difficult.		
20					switched over to air rotary method. light brown silty sand		
25					continues to be fine grained with very little moisture present.		
30					silty sand with ~20% clay transitions to a more light gray color, still no moisture.		

ARCADIS

Borehole/ Well Log Pg 1 of 2

PROJECT NAME/NUMBER:	DATE/WEATHER:
DRILLING FIRM/METHOD:	ELEVATION:
DRILLER & HELPERS:	LOGGED BY:

BORING ID: GP-17-50

Location of Boring: GP-17-50

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
5					Red brown silty sand with about 30% clay with very little moisture		
10					Red brown silty sand begins to have more clay present ~40-50%. some moisture present becomes very clumpy.		
15					Light brown/tan silty sand very fine grained making cuttings return difficult.		
20					switched over to air rotary method. light brown silty sand		
25					continues to be fine grained with very little moisture present.		
30					silty sand with ~20% clay transitions to a more light gray color, still no moisture.		

ARCADIS

Borehole/ Well Log Pg 2 of 2

PROJECT NAME/NUMBER:	DATE/WEATHER:
DRILLING FIRM/METHOD:	ELEVATION:
DRILLER & HELPERS:	LOGGED BY:

BORING ID: GP-17-50

Location of Boring: GP-17-50

Depth in Feet	PID (ppm)	USCS Symbol	Blows per six inches	Recovery (in.)	Description: (Group Name, Color, Density, Moisture, Plasticity, Soil Sampling Method, Hourly Air Monitoring Readings, Water Levels, TD	Well Diagram	Depth in Feet
35					silty sand begins to harden to a light brown sandstone with hard chips coming to surface,		
40					Color continues to flucuate from light gray to brown. fine grained silty sand, Buff colored silty sand fine grained.		
43'					Water encountered - drilling stopped sample collected @ 1030		
45							

ATTACHMENT C

Photo Log

Project Photographs

McElmo Dome and Doe Canyon
Cortez, Colorado

Photo: 1

Date:
6/9/16

Description:
Looking east

Location:
GP-17

Photo: 2

Date:
6/9/16

Description:
Looking west

Location:
GP-17

Project Photographs

McElmo Dome and Doe Canyon
Cortez, Colorado

Photo: 3

Date:
6/9/16

Description:
Looking north

Location:
GP-17

Photo: 4

Date:
6/9/16

Description:
Boring 6, depth 6-7 feet

Location:
GP-17

ATTACHMENT D

Field Notes

6/9/16

GP-17-4 all clean 3 sample

began drilling @ 0815

0-3 sample @ 0825

finished 0850 ✓ 17-4-1 @825
✓ 17-4-6 @835
✓ 17-4-14 @845

GP-17-3

began @ 0855 ✓ GP-17-3-3 @0900
0-30 sample @ 0905 ✓ GP-17-3-10 @ 0910
✓ GP-173-14 @0920

finish @ 0930

GP-17-2

began @ 0950 3 samples
finish @ 1030

✓ GP-17-2-3 @ 0955
✓ GP-17-2-7 @ 1010
✓ GP-17-2-14 @ 1020

GP-17-1 ✓ GP-17-1-3 @1040
start @1035 ✓ GP-17-1-4 @1050
finish @ 1115 ✓ GP-17-1-14 @1110

3 samples

GP-17-5 ✓ GP-17-5-1 @1215
start @1210 ✓ GP-17-5-8 @1225
end 1240 ✓ GP-17-5-15 @1230

GP-17-6

start 1245

hit some contamination from 5-9'
PID was minimal
instead of doing a full decon
a dry decon with a wire brush
was done on the augers
end @ 1325 ✓ GP-6-5 @1300

✓ GP-17-6-2 @ 1250
✓ GP-17-6-8 @ 1310
✓ GP-17-6-15 @ 1325

change coordinates @ GP-19

1950 - 37.40633
-108.75391

GP-17-7

Start @ 1355 3 samples

contamination @ 4' ✓ GP-17-7-3 @ 1400
end @ 1425 ✓ GP-17-7-5 @ 1410
✓ GP-17-7-12 @ 1420

GP-17-8

start @ 1435 ✓ GP-17-8-3 @ 1445
✓ GP-17-8-9 @ 1455
✓ GP-17-8-14 @ 1510

6/10/16

GP-19-4
start @ 0800
end @ 0830

slight visible contamination but no PID hits

0820: Jimmy left GP-19 to go to a few other KM sites + check on charger.

3 samples ✓ GP-19-4-1 @ 0805
✓ GP-19-4-6 @ 0815
✓ GP-19-4-12 @ 0825

GP-19-3
start @ 840 ✓ GP-19-3-1 @ 845
end 0915 ✓ GP-19-3-5 @ 855
✓ GP-19-12 @ 0905
4 samples taken ✓ GP-19-14 @ 0910

PID hits into 200.0's ppm

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

June 28, 2016

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

Work Order: **HS16060751**

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

Dear Aaron,

ALS Environmental received 27 sample(s) on Jun 14, 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: HS16060751

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16060751-01	GP-17-4-1-060916	Soil		09-Jun-2016 08:25	14-Jun-2016 09:00	☐
HS16060751-02	GP-17-4-6-060916	Soil		09-Jun-2016 08:35	14-Jun-2016 09:00	☐
HS16060751-03	GP-17-4-14-060916	Soil		09-Jun-2016 08:45	14-Jun-2016 09:00	☐
HS16060751-04	GP-17-5-1-060916	Soil		09-Jun-2016 12:15	14-Jun-2016 09:00	☐
HS16060751-05	GP-17-5-8-060916	Soil		09-Jun-2016 12:25	14-Jun-2016 09:00	☐
HS16060751-06	GP-17-5-15-060916	Soil		09-Jun-2016 12:30	14-Jun-2016 09:00	☐
HS16060751-07	GP-17-3-3-060916	Soil		09-Jun-2016 09:00	14-Jun-2016 09:00	☐
HS16060751-08	GP-17-3-10-060916	Soil		09-Jun-2016 09:10	14-Jun-2016 09:00	☐
HS16060751-09	GP-17-3-14-060916	Soil		09-Jun-2016 09:20	14-Jun-2016 09:00	☐
HS16060751-10	GP-17-2-3-060916	Soil		09-Jun-2016 09:55	14-Jun-2016 09:00	☐
HS16060751-11	GP-17-2-7-060916	Soil		09-Jun-2016 10:10	14-Jun-2016 09:00	☐
HS16060751-12	GP-17-2-14-060916	Soil		09-Jun-2016 10:20	14-Jun-2016 09:00	☐
HS16060751-13	GP-17-1-3-060916	Soil		09-Jun-2016 10:40	14-Jun-2016 09:00	☐
HS16060751-14	GP-17-1-4-060916	Soil		09-Jun-2016 10:50	14-Jun-2016 09:00	☐
HS16060751-15	GP-17-1-14-060916	Soil		09-Jun-2016 11:10	14-Jun-2016 09:00	☐
HS16060751-16	GP-17-6-2-060916	Soil		09-Jun-2016 12:50	14-Jun-2016 09:00	☐
HS16060751-17	GP-17-6-8-060916	Soil		09-Jun-2016 13:10	14-Jun-2016 09:00	☐
HS16060751-18	GP-17-6-15-060916	Soil		09-Jun-2016 13:25	14-Jun-2016 09:00	☐
HS16060751-19	GP-17-7-3-060916	Soil		09-Jun-2016 14:00	14-Jun-2016 09:00	☐
HS16060751-20	GP-17-7-5-060916	Soil		09-Jun-2016 14:10	14-Jun-2016 09:00	☐
HS16060751-21	GP-17-7-12-060916	Soil		09-Jun-2016 14:20	14-Jun-2016 09:00	☐
HS16060751-22	GP-17-8-3-060916	Soil		09-Jun-2016 14:45	14-Jun-2016 09:00	☐
HS16060751-23	GP-17-8-9-060916	Soil		09-Jun-2016 14:55	14-Jun-2016 09:00	☐
HS16060751-24	GP-17-8-14-060916	Soil		09-Jun-2016 15:10	14-Jun-2016 09:00	☐
HS16060751-25	Trip Blank - VBLKW-053116-15	Water		09-Jun-2016 00:00	14-Jun-2016 09:00	☑
HS16060751-26	Trip Blank - VBLKW-053116-11	Water		09-Jun-2016 00:00	14-Jun-2016 09:00	☑
HS16060751-27	Trip Blank - VBLKW-053116-05	Water		09-Jun-2016 00:00	14-Jun-2016 09:00	☑

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

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: 105482

Sample ID: **GP-17-6-8-060916 (HS16060751-17)**
• Due to sample matrix interferences, the surrogate recovery was outside of the established control limits.

Batch ID: 105535

Sample ID: **GP-17-7-5-060916 (HS16060751-20)**
• Due to sample matrix interferences, the surrogate recovery was outside of the established control limits.

Sample ID: **HS16060958-09MS**
• MS and MSD are for an unrelated sample

Batch ID: 105424

Sample ID: **HS16060646-07MSD**
• MSD is for an unrelated sample

GC Volatiles by Method SW8015

Batch ID: R276422,R276423,R276511

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

GCMS Semivolatiles by Method SW8270

Batch ID: 105384

Sample ID: **GP-17-3-10-060916 (HS16060751-08MSD)**
• The RPD between the MS and MSD was outside of the control limit.

Batch ID: 105385

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

GCMS Volatiles by Method SW8260

Batch ID: R276350,R276407

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

Batch ID: R276435

Sample ID: **GP-17-2-7-060916 (HS16060751-11MS)**
• MS/MSD failed QC limits for few compounds.

Sample ID: **GP-17-6-8-060916 (HS16060751-17)**
• Surrogate failure confirmed by reanalysis.

Batch ID: R276485

Sample ID: **HS16060846-04MS**
• MS and MSD are for an unrelated sample

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

Metals by Method SW7471A

Batch ID: 105642,105645

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

Metals by Method Calculation

Batch ID: R277063,R277146

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

Metals by Method La29B SAR

Batch ID: 105433A,105507A

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

Metals by Method La29B-6020

Batch ID: 105433,105507

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

Metals by Method SW6020

Batch ID: 105401

Sample ID: **GP-17-6-15-060916 (HS16060751-18 DIL SX)**
- The percent difference between the results of the sample and the serial dilution were greater than 10%. for Barium

Sample ID: **GP-17-6-15-060916 (HS16060751-18BS)**
- The Bench Spike recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount for Barium.

Sample ID: **GP-17-6-15-060916 (HS16060751-18MS)**
- 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 for Barium.

Sample ID: **GP-17-8-14-060916 (HS16060751-24)**
Sample ID: **GP-17-8-3-060916 (HS16060751-22)**
- Sample ran at a 5x due to internal standard 6 (Boron) failure at a 1x.

Batch ID: 105483

Sample ID: **HS16060642-07MS**
- MS/MSD and DUPs are for an unrelated sample

Batch ID: 105557

Sample ID: **GP-17-4-6-060916 (HS16060751-02MS)**
- 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 for Barium.

Sample ID: **GP-17-4-6-060916 (HS16060751-02MS)**
- Zinc failed in the MS/MSD but passed in the PDS.

WetChemistry by Method LaDNR-29B SP

Batch ID: R276612,R276755

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

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

WetChemistry by Method LaDNR-29B EC

Batch ID: R276732,R276823

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

WetChemistry by Method SW9045B

Batch ID: R276342,R276343

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

WetChemistry by Method SW7196

Batch ID: 105664,105704

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-1-060916
Collection Date: 09-Jun-2016 08:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:19
Surr: 2-Fluorobiphenyl	*78.5*		*43-125*	*%REC*	*1*	*22-Jun-2016 14:19*
Surr: 4-Terphenyl-d14	*83.9*		*32-125*	*%REC*	*1*	*22-Jun-2016 14:19*
Surr: Nitrobenzene-d5	*85.3*		*37-125*	*%REC*	*1*	*22-Jun-2016 14:19*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.65**		**0.455**	**mg/Kg**	1	23-Jun-2016 13:54
Barium	**152**		**2.28**	**mg/Kg**	5	24-Jun-2016 12:15
Boron	**4.53**		**2.28**	**mg/Kg**	1	23-Jun-2016 13:54
Cadmium	ND		0.455	mg/Kg	1	23-Jun-2016 13:54
Chromium	**7.92**		**0.455**	**mg/Kg**	1	23-Jun-2016 13:54
Copper	**7.06**		**0.182**	**mg/Kg**	1	23-Jun-2016 13:54
Lead	**7.65**		**0.455**	**mg/Kg**	1	23-Jun-2016 13:54
Nickel	**8.50**		**0.455**	**mg/Kg**	1	23-Jun-2016 13:54
Selenium	ND		0.455	mg/Kg	1	23-Jun-2016 13:54
Silver	ND		0.455	mg/Kg	1	23-Jun-2016 13:54
Zinc	**23.2**		**0.455**	**mg/Kg**	1	23-Jun-2016 13:54

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-1-060916
Collection Date: 09-Jun-2016 08:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-01
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	15-Jun-2016 15:17
Ethylbenzene	ND		5.0	ug/Kg	1	15-Jun-2016 15:17
m,p-Xylene	ND		10	ug/Kg	1	15-Jun-2016 15:17
o-Xylene	ND		5.0	ug/Kg	1	15-Jun-2016 15:17
Toluene	ND		5.0	ug/Kg	1	15-Jun-2016 15:17
Xylenes, Total	ND		10	ug/Kg	1	15-Jun-2016 15:17
Surr: 1,2-Dichloroethane-d4	*79.7*		*70-128*	*%REC*	*1*	*15-Jun-2016 15:17*
Surr: 4-Bromofluorobenzene	*87.4*		*73-126*	*%REC*	*1*	*15-Jun-2016 15:17*
Surr: Dibromofluoromethane	*90.0*		*71-128*	*%REC*	*1*	*15-Jun-2016 15:17*
Surr: Toluene-d8	*97.4*		*73-127*	*%REC*	*1*	*15-Jun-2016 15:17*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**34.6**		**4.99**	**mg/L**	10	22-Jun-2016 13:39
Magnesium	**5.88**		**4.99**	**mg/L**	10	22-Jun-2016 13:39
Sodium	**5.62**		**4.99**	**mg/L**	10	22-Jun-2016 13:39
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.92**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.486**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.235**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.484**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 17:17
Surr: 4-Bromofluorobenzene	*76.3*		*70-130*	*%REC*	*1*	*15-Jun-2016 17:17*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**10.7**		**3.60**	**ug/Kg**	1	24-Jun-2016 13:59
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.54**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.484**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.233**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-1-060916
Collection Date: 09-Jun-2016 08:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 06:47
Surr: 2-Fluorobiphenyl	*66.6*		*60-135*	*%REC*	*1*	*17-Jun-2016 06:47*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-6-060916
Collection Date: 09-Jun-2016 08:35

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 20:32
Surr: 2-Fluorobiphenyl	*73.8*		*43-125*	*%REC*	*1*	*22-Jun-2016 20:32*
Surr: 4-Terphenyl-d14	*94.3*		*32-125*	*%REC*	*1*	*22-Jun-2016 20:32*
Surr: Nitrobenzene-d5	*64.8*		*37-125*	*%REC*	*1*	*22-Jun-2016 20:32*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.27**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58
Barium	**121**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58
Boron	**3.96**		**2.46**	**mg/Kg**	1	23-Jun-2016 13:58
Cadmium	ND		0.492	mg/Kg	1	23-Jun-2016 13:58
Chromium	**6.72**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58
Copper	**5.30**		**0.197**	**mg/Kg**	1	23-Jun-2016 13:58
Lead	**5.95**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58
Nickel	**8.26**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58
Selenium	ND		0.492	mg/Kg	1	23-Jun-2016 13:58
Silver	ND		0.492	mg/Kg	1	23-Jun-2016 13:58
Zinc	**21.2**		**0.492**	**mg/Kg**	1	23-Jun-2016 13:58

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-6-060916
Collection Date: 09-Jun-2016 08:35

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-02
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	16-Jun-2016 04:55
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 04:55
m,p-Xylene	ND		9.9	ug/Kg	1	16-Jun-2016 04:55
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 04:55
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 04:55
Xylenes, Total	ND		9.9	ug/Kg	1	16-Jun-2016 04:55
Surr: 1,2-Dichloroethane-d4	*80.3*		*70-128*	*%REC*	*1*	*16-Jun-2016 04:55*
Surr: 4-Bromofluorobenzene	*85.2*		*73-126*	*%REC*	*1*	*16-Jun-2016 04:55*
Surr: Dibromofluoromethane	*96.7*		*71-128*	*%REC*	*1*	*16-Jun-2016 04:55*
Surr: Toluene-d8	*96.2*		*73-127*	*%REC*	*1*	*16-Jun-2016 04:55*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**26.8**		**4.99**	**mg/L**	10	22-Jun-2016 13:47
Magnesium	**6.97**		**4.99**	**mg/L**	10	22-Jun-2016 13:47
Sodium	**9.81**		**4.99**	**mg/L**	10	22-Jun-2016 13:47
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.98	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**6.72**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.463**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.235**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.508**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 18:05
Surr: 4-Bromofluorobenzene	*74.9*		*70-130*	*%REC*	*1*	*15-Jun-2016 18:05*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**16.7**		**3.59**	**ug/Kg**	1	24-Jun-2016 14:01
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.83**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.508**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.437**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-6-060916
Collection Date: 09-Jun-2016 08:35

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 07:11
Surr: 2-Fluorobiphenyl	*62.6*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:11*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-14-060916
Collection Date: 09-Jun-2016 08:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 14:58
Surr: 2-Fluorobiphenyl	*69.0*		*43-125*	*%REC*	*1*	*22-Jun-2016 14:58*
Surr: 4-Terphenyl-d14	*95.3*		*32-125*	*%REC*	*1*	*22-Jun-2016 14:58*
Surr: Nitrobenzene-d5	*67.3*		*37-125*	*%REC*	*1*	*22-Jun-2016 14:58*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.76**		**0.477**	**mg/Kg**	1	23-Jun-2016 14:29
Barium	**172**		**2.39**	**mg/Kg**	5	24-Jun-2016 12:19
Boron	**5.60**		**2.39**	**mg/Kg**	1	23-Jun-2016 14:29
Cadmium	ND		0.477	mg/Kg	1	23-Jun-2016 14:29
Chromium	**7.02**		**0.477**	**mg/Kg**	1	23-Jun-2016 14:29
Copper	**5.85**		**0.191**	**mg/Kg**	1	23-Jun-2016 14:29
Lead	**6.38**		**0.477**	**mg/Kg**	1	23-Jun-2016 14:29
Nickel	**8.51**		**0.477**	**mg/Kg**	1	23-Jun-2016 14:29
Selenium	ND		0.477	mg/Kg	1	23-Jun-2016 14:29
Silver	ND		0.477	mg/Kg	1	23-Jun-2016 14:29
Zinc	**20.6**		**0.477**	**mg/Kg**	1	23-Jun-2016 14:29

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-14-060916
Collection Date: 09-Jun-2016 08:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-03
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	16-Jun-2016 05:24
Ethylbenzene	ND		4.9	ug/Kg	1	16-Jun-2016 05:24
m,p-Xylene	ND		9.8	ug/Kg	1	16-Jun-2016 05:24
o-Xylene	ND		4.9	ug/Kg	1	16-Jun-2016 05:24
Toluene	ND		4.9	ug/Kg	1	16-Jun-2016 05:24
Xylenes, Total	ND		9.8	ug/Kg	1	16-Jun-2016 05:24
Surr: 1,2-Dichloroethane-d4	*77.1*		*70-128*	*%REC*	*1*	*16-Jun-2016 05:24*
Surr: 4-Bromofluorobenzene	*79.9*		*73-126*	*%REC*	*1*	*16-Jun-2016 05:24*
Surr: Dibromofluoromethane	*90.9*		*71-128*	*%REC*	*1*	*16-Jun-2016 05:24*
Surr: Toluene-d8	*98.7*		*73-127*	*%REC*	*1*	*16-Jun-2016 05:24*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**26.4**		**4.99**	**mg/L**	10	22-Jun-2016 13:50
Magnesium	**6.47**		**4.99**	**mg/L**	10	22-Jun-2016 13:50
Sodium	**20.5**		**4.99**	**mg/L**	10	22-Jun-2016 13:50
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.02**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.621**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.301**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.485**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 18:21
Surr: 4-Bromofluorobenzene	*84.1*		*70-130*	*%REC*	*1*	*15-Jun-2016 18:21*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**11.4**		**3.58**	**ug/Kg**	1	24-Jun-2016 14:02
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.55**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.485**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.927**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-4-14-060916
Collection Date: 09-Jun-2016 08:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 07:35
Surr: 2-Fluorobiphenyl	*66.8*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:35*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-1-060916
Collection Date: 09-Jun-2016 12:15

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS	**Method:SW8270**			Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:18
Surr: 2-Fluorobiphenyl	*76.2*		*43-125*	*%REC*	*1*	*22-Jun-2016 15:18*
Surr: 4-Terphenyl-d14	*105*		*32-125*	*%REC*	*1*	*22-Jun-2016 15:18*
Surr: Nitrobenzene-d5	*71.7*		*37-125*	*%REC*	*1*	*22-Jun-2016 15:18*
METALS BY SW6020A	**Method:SW6020**			Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.94**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33
Barium	**162**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33
Boron	**4.20**		**2.41**	**mg/Kg**	1	23-Jun-2016 14:33
Cadmium	ND		0.481	mg/Kg	1	23-Jun-2016 14:33
Chromium	**8.45**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33
Copper	**7.60**		**0.192**	**mg/Kg**	1	23-Jun-2016 14:33
Lead	**7.50**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33
Nickel	**8.84**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33
Selenium	ND		0.481	mg/Kg	1	23-Jun-2016 14:33
Silver	ND		0.481	mg/Kg	1	23-Jun-2016 14:33
Zinc	**22.8**		**0.481**	**mg/Kg**	1	23-Jun-2016 14:33

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-1-060916
Collection Date: 09-Jun-2016 12:15

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-04
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	16-Jun-2016 05:52
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 05:52
m,p-Xylene	ND		9.6	ug/Kg	1	16-Jun-2016 05:52
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 05:52
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 05:52
Xylenes, Total	ND		9.6	ug/Kg	1	16-Jun-2016 05:52
Surr: 1,2-Dichloroethane-d4	*84.1*		*70-128*	*%REC*	*1*	*16-Jun-2016 05:52*
Surr: 4-Bromofluorobenzene	*82.7*		*73-126*	*%REC*	*1*	*16-Jun-2016 05:52*
Surr: Dibromofluoromethane	*94.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 05:52*
Surr: Toluene-d8	*97.6*		*73-127*	*%REC*	*1*	*16-Jun-2016 05:52*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**29.2**		**4.99**	**mg/L**	10	22-Jun-2016 13:53
Magnesium	**6.28**		**4.99**	**mg/L**	10	22-Jun-2016 13:53
Sodium	**23.1**		**4.99**	**mg/L**	10	22-Jun-2016 13:53
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.98	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.45**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.667**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.319**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.478**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 18:37
Surr: 4-Bromofluorobenzene	*80.7*		*70-130*	*%REC*	*1*	*15-Jun-2016 18:37*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**11.2**		**3.56**	**ug/Kg**	1	24-Jun-2016 14:11
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.43**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.478**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**1.01**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-1-060916
Collection Date: 09-Jun-2016 12:15

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 07:59
Surr: 2-Fluorobiphenyl	*63.0*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:59*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-8-060916
Collection Date: 09-Jun-2016 12:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Acenaphthylene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Benz(a)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Benzo(a)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Chrysene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Fluorene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Naphthalene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Phenanthrene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 18:13
Surr: 2-Fluorobiphenyl	*87.6*		*43-125*	*%REC*	*1*	*23-Jun-2016 18:13*
Surr: 4-Terphenyl-d14	*95.8*		*32-125*	*%REC*	*1*	*23-Jun-2016 18:13*
Surr: Nitrobenzene-d5	*89.3*		*37-125*	*%REC*	*1*	*23-Jun-2016 18:13*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.41**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38
Barium	**112**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38
Boron	**4.34**		**2.30**	**mg/Kg**	1	23-Jun-2016 14:38
Cadmium	ND		0.461	mg/Kg	1	23-Jun-2016 14:38
Chromium	**5.99**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38
Copper	**5.22**		**0.184**	**mg/Kg**	1	23-Jun-2016 14:38
Lead	**5.70**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38
Nickel	**7.91**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38
Selenium	ND		0.461	mg/Kg	1	23-Jun-2016 14:38
Silver	ND		0.461	mg/Kg	1	23-Jun-2016 14:38
Zinc	**17.9**		**0.461**	**mg/Kg**	1	23-Jun-2016 14:38

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-8-060916
Collection Date: 09-Jun-2016 12:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-05
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	15-Jun-2016 23:48
Ethylbenzene	ND		4.8	ug/Kg	1	15-Jun-2016 23:48
m,p-Xylene	ND		9.6	ug/Kg	1	15-Jun-2016 23:48
o-Xylene	ND		4.8	ug/Kg	1	15-Jun-2016 23:48
Toluene	ND		4.8	ug/Kg	1	15-Jun-2016 23:48
Xylenes, Total	ND		9.6	ug/Kg	1	15-Jun-2016 23:48
Surr: 1,2-Dichloroethane-d4	*82.1*		*70-128*	*%REC*	*1*	*15-Jun-2016 23:48*
Surr: 4-Bromofluorobenzene	*87.8*		*73-126*	*%REC*	*1*	*15-Jun-2016 23:48*
Surr: Dibromofluoromethane	*91.1*		*71-128*	*%REC*	*1*	*15-Jun-2016 23:48*
Surr: Toluene-d8	*96.7*		*73-127*	*%REC*	*1*	*15-Jun-2016 23:48*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**23.4**		**5.00**	**mg/L**	10	22-Jun-2016 13:56
Magnesium	**7.08**		**5.00**	**mg/L**	10	22-Jun-2016 13:56
Sodium	**14.5**		**5.00**	**mg/L**	10	22-Jun-2016 13:56
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.99**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.489**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.248**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.506**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 18:53
Surr: 4-Bromofluorobenzene	*83.5*		*70-130*	*%REC*	*1*	*15-Jun-2016 18:53*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**13.6**		**3.38**	**ug/Kg**	1	24-Jun-2016 14:13
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.78**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.506**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.674**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-8-060916
Collection Date: 09-Jun-2016 12:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 08:23
Surr: 2-Fluorobiphenyl	*71.3*		*60-135*	*%REC*	*1*	*17-Jun-2016 08:23*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-15-060916
Collection Date: 09-Jun-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 15:59
Surr: 2-Fluorobiphenyl	*72.1*		*43-125*	*%REC*	*1*	*22-Jun-2016 15:59*
Surr: 4-Terphenyl-d14	*101*		*32-125*	*%REC*	*1*	*22-Jun-2016 15:59*
Surr: Nitrobenzene-d5	*57.1*		*37-125*	*%REC*	*1*	*22-Jun-2016 15:59*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**3.48**		**0.459**	**mg/Kg**	1	23-Jun-2016 14:42
Barium	**230**		**2.29**	**mg/Kg**	5	24-Jun-2016 12:24
Boron	**5.22**		**2.29**	**mg/Kg**	1	23-Jun-2016 14:42
Cadmium	ND		0.459	mg/Kg	1	23-Jun-2016 14:42
Chromium	**3.55**		**0.459**	**mg/Kg**	1	23-Jun-2016 14:42
Copper	**3.94**		**0.183**	**mg/Kg**	1	23-Jun-2016 14:42
Lead	**3.75**		**0.459**	**mg/Kg**	1	23-Jun-2016 14:42
Nickel	**4.88**		**0.459**	**mg/Kg**	1	23-Jun-2016 14:42
Selenium	ND		0.459	mg/Kg	1	23-Jun-2016 14:42
Silver	ND		0.459	mg/Kg	1	23-Jun-2016 14:42
Zinc	**11.7**		**0.459**	**mg/Kg**	1	23-Jun-2016 14:42

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-15-060916
Collection Date: 09-Jun-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-06
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	16-Jun-2016 06:19
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 06:19
m,p-Xylene	ND		10	ug/Kg	1	16-Jun-2016 06:19
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 06:19
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 06:19
Xylenes, Total	ND		10	ug/Kg	1	16-Jun-2016 06:19
Surr: 1,2-Dichloroethane-d4	*76.7*		*70-128*	*%REC*	*1*	*16-Jun-2016 06:19*
Surr: 4-Bromofluorobenzene	*85.2*		*73-126*	*%REC*	*1*	*16-Jun-2016 06:19*
Surr: Dibromofluoromethane	*93.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 06:19*
Surr: Toluene-d8	*98.1*		*73-127*	*%REC*	*1*	*16-Jun-2016 06:19*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**21.0**		**4.98**	**mg/L**	10	22-Jun-2016 13:59
Magnesium	**5.29**		**4.98**	**mg/L**	10	22-Jun-2016 13:59
Sodium	**42.9**		**4.98**	**mg/L**	10	22-Jun-2016 13:59
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	ND		5.00	mg/Kg	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**1.02**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.398**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.390**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 19:41
Surr: 4-Bromofluorobenzene	*76.4*		*70-130*	*%REC*	*1*	*15-Jun-2016 19:41*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**21.6**		**3.60**	**ug/Kg**	1	24-Jun-2016 14:14
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.69**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.390**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**2.17**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-5-15-060916
Collection Date: 09-Jun-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 08:47
Surr: 2-Fluorobiphenyl	*74.4*		*60-135*	*%REC*	*1*	*17-Jun-2016 08:47*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-3-060916
Collection Date: 09-Jun-2016 09:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:11
Surr: 2-Fluorobiphenyl	*77.3*		*43-125*	*%REC*	*1*	*22-Jun-2016 21:11*
Surr: 4-Terphenyl-d14	*95.5*		*32-125*	*%REC*	*1*	*22-Jun-2016 21:11*
Surr: Nitrobenzene-d5	*65.1*		*37-125*	*%REC*	*1*	*22-Jun-2016 21:11*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.57**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46
Barium	**162**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46
Boron	**3.29**		**2.37**	**mg/Kg**	1	23-Jun-2016 14:46
Cadmium	ND		0.473	mg/Kg	1	23-Jun-2016 14:46
Chromium	**7.96**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46
Copper	**6.45**		**0.189**	**mg/Kg**	1	23-Jun-2016 14:46
Lead	**7.33**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46
Nickel	**8.50**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46
Selenium	ND		0.473	mg/Kg	1	23-Jun-2016 14:46
Silver	ND		0.473	mg/Kg	1	23-Jun-2016 14:46
Zinc	**25.1**		**0.473**	**mg/Kg**	1	23-Jun-2016 14:46

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-3-060916
Collection Date: 09-Jun-2016 09:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-07
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	16-Jun-2016 06:47
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 06:47
m,p-Xylene	ND		9.9	ug/Kg	1	16-Jun-2016 06:47
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 06:47
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 06:47
Xylenes, Total	ND		9.9	ug/Kg	1	16-Jun-2016 06:47
Surr: 1,2-Dichloroethane-d4	*78.3*		*70-128*	*%REC*	*1*	*16-Jun-2016 06:47*
Surr: 4-Bromofluorobenzene	*81.0*		*73-126*	*%REC*	*1*	*16-Jun-2016 06:47*
Surr: Dibromofluoromethane	*94.7*		*71-128*	*%REC*	*1*	*16-Jun-2016 06:47*
Surr: Toluene-d8	*98.2*		*73-127*	*%REC*	*1*	*16-Jun-2016 06:47*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**29.3**		**5.00**	**mg/L**	10	22-Jun-2016 14:01
Magnesium	ND		5.00	mg/L	10	22-Jun-2016 14:01
Sodium	**20.4**		**5.00**	**mg/L**	10	22-Jun-2016 14:01
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.96**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.580**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.267**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.460**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 19:57
Surr: 4-Bromofluorobenzene	*83.0*		*70-130*	*%REC*	*1*	*15-Jun-2016 19:57*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**11.5**		**3.60**	**ug/Kg**	1	24-Jun-2016 14:16
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.21**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.460**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**1.04**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-3-060916
Collection Date: 09-Jun-2016 09:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 07:11
Surr: 2-Fluorobiphenyl	*68.2*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:11*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-10-060916
Collection Date: 09-Jun-2016 09:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Acenaphthylene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Anthracene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Benz(a)anthracene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Benzo(a)pyrene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Chrysene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Fluoranthene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Fluorene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Naphthalene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Phenanthrene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Pyrene	ND		3.3	ug/Kg	1	21-Jun-2016 16:31
Surr: 2-Fluorobiphenyl	*77.6*		*43-125*	*%REC*	*1*	*21-Jun-2016 16:31*
Surr: 4-Terphenyl-d14	*121*		*32-125*	*%REC*	*1*	*21-Jun-2016 16:31*
Surr: Nitrobenzene-d5	*101*		*37-125*	*%REC*	*1*	*21-Jun-2016 16:31*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.43**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51
Barium	**129**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51
Boron	**2.75**		**2.28**	**mg/Kg**	1	23-Jun-2016 14:51
Cadmium	ND		0.455	mg/Kg	1	23-Jun-2016 14:51
Chromium	**7.02**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51
Copper	**4.47**		**0.182**	**mg/Kg**	1	23-Jun-2016 14:51
Lead	**6.35**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51
Nickel	**7.73**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51
Selenium	ND		0.455	mg/Kg	1	23-Jun-2016 14:51
Silver	ND		0.455	mg/Kg	1	23-Jun-2016 14:51
Zinc	**20.0**		**0.455**	**mg/Kg**	1	23-Jun-2016 14:51

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-10-060916
Collection Date: 09-Jun-2016 09:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-08
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	16-Jun-2016 07:15
Ethylbenzene	ND		4.9	ug/Kg	1	16-Jun-2016 07:15
m,p-Xylene	ND		9.8	ug/Kg	1	16-Jun-2016 07:15
o-Xylene	ND		4.9	ug/Kg	1	16-Jun-2016 07:15
Toluene	ND		4.9	ug/Kg	1	16-Jun-2016 07:15
Xylenes, Total	ND		9.8	ug/Kg	1	16-Jun-2016 07:15
Surr: 1,2-Dichloroethane-d4	*77.4*		*70-128*	*%REC*	*1*	*16-Jun-2016 07:15*
Surr: 4-Bromofluorobenzene	*81.2*		*73-126*	*%REC*	*1*	*16-Jun-2016 07:15*
Surr: Dibromofluoromethane	*91.6*		*71-128*	*%REC*	*1*	*16-Jun-2016 07:15*
Surr: Toluene-d8	*100*		*73-127*	*%REC*	*1*	*16-Jun-2016 07:15*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**30.7**		**5.00**	**mg/L**	10	22-Jun-2016 14:04
Magnesium	**6.55**		**5.00**	**mg/L**	10	22-Jun-2016 14:04
Sodium	**11.8**		**5.00**	**mg/L**	10	22-Jun-2016 14:04
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.02**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.567**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.275**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.484**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 20:13
Surr: 4-Bromofluorobenzene	*83.8*		*70-130*	*%REC*	*1*	*15-Jun-2016 20:13*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**13.4**		**3.41**	**ug/Kg**	1	24-Jun-2016 14:18
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.33**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.484**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.504**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-10-060916
Collection Date: 09-Jun-2016 09:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		3.4	mg/Kg	1	17-Jun-2016 07:35
Surr: 2-Fluorobiphenyl	*71.1*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:35*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-14-060916
Collection Date: 09-Jun-2016 09:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:38
Surr: 2-Fluorobiphenyl	*77.1*		*43-125*	*%REC*	*1*	*22-Jun-2016 16:38*
Surr: 4-Terphenyl-d14	*90.4*		*32-125*	*%REC*	*1*	*22-Jun-2016 16:38*
Surr: Nitrobenzene-d5	*73.2*		*37-125*	*%REC*	*1*	*22-Jun-2016 16:38*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.36**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55
Barium	**81.0**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55
Boron	**2.60**		**2.37**	**mg/Kg**	1	23-Jun-2016 14:55
Cadmium	ND		0.474	mg/Kg	1	23-Jun-2016 14:55
Chromium	**7.05**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55
Copper	**5.66**		**0.190**	**mg/Kg**	1	23-Jun-2016 14:55
Lead	**5.93**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55
Nickel	**7.55**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55
Selenium	ND		0.474	mg/Kg	1	23-Jun-2016 14:55
Silver	ND		0.474	mg/Kg	1	23-Jun-2016 14:55
Zinc	**21.2**		**0.474**	**mg/Kg**	1	23-Jun-2016 14:55

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-14-060916
Collection Date: 09-Jun-2016 09:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-09
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	16-Jun-2016 07:43
Ethylbenzene	ND		4.9	ug/Kg	1	16-Jun-2016 07:43
m,p-Xylene	ND		9.8	ug/Kg	1	16-Jun-2016 07:43
o-Xylene	ND		4.9	ug/Kg	1	16-Jun-2016 07:43
Toluene	ND		4.9	ug/Kg	1	16-Jun-2016 07:43
Xylenes, Total	ND		9.8	ug/Kg	1	16-Jun-2016 07:43
Surr: 1,2-Dichloroethane-d4	*81.0*		*70-128*	*%REC*	*1*	*16-Jun-2016 07:43*
Surr: 4-Bromofluorobenzene	*84.4*		*73-126*	*%REC*	*1*	*16-Jun-2016 07:43*
Surr: Dibromofluoromethane	*95.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 07:43*
Surr: Toluene-d8	*96.9*		*73-127*	*%REC*	*1*	*16-Jun-2016 07:43*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**23.6**		**4.99**	**mg/L**	10	22-Jun-2016 14:07
Magnesium	ND		4.99	mg/L	10	22-Jun-2016 14:07
Sodium	**22.3**		**4.99**	**mg/L**	10	22-Jun-2016 14:07
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.05**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.534**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.257**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.482**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 20:29
Surr: 4-Bromofluorobenzene	*83.3*		*70-130*	*%REC*	*1*	*15-Jun-2016 20:29*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**14.9**		**3.43**	**ug/Kg**	1	24-Jun-2016 14:19
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.47**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.482**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**1.26**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-3-14-060916
Collection Date: 09-Jun-2016 09:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 07:59
Surr: 2-Fluorobiphenyl	*73.2*		*60-135*	*%REC*	*1*	*17-Jun-2016 07:59*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-3-060916
Collection Date: 09-Jun-2016 09:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS	**Method:SW8270**			Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 16:58
Surr: 2-Fluorobiphenyl	*78.4*		*43-125*	*%REC*	*1*	*22-Jun-2016 16:58*
Surr: 4-Terphenyl-d14	*99.6*		*32-125*	*%REC*	*1*	*22-Jun-2016 16:58*
Surr: Nitrobenzene-d5	*68.7*		*37-125*	*%REC*	*1*	*22-Jun-2016 16:58*
METALS BY SW6020A	**Method:SW6020**			Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.71**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09
Barium	**158**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09
Boron	**3.02**		**2.27**	**mg/Kg**	1	23-Jun-2016 15:09
Cadmium	ND		0.455	mg/Kg	1	23-Jun-2016 15:09
Chromium	**8.36**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09
Copper	**5.50**		**0.182**	**mg/Kg**	1	23-Jun-2016 15:09
Lead	**7.01**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09
Nickel	**9.17**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09
Selenium	ND		0.455	mg/Kg	1	23-Jun-2016 15:09
Silver	ND		0.455	mg/Kg	1	23-Jun-2016 15:09
Zinc	**22.4**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:09

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-3-060916
Collection Date: 09-Jun-2016 09:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-10
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	16-Jun-2016 08:11
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 08:11
m,p-Xylene	ND		10	ug/Kg	1	16-Jun-2016 08:11
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 08:11
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 08:11
Xylenes, Total	ND		10	ug/Kg	1	16-Jun-2016 08:11
Surr: 1,2-Dichloroethane-d4	*82.2*		*70-128*	*%REC*	*1*	*16-Jun-2016 08:11*
Surr: 4-Bromofluorobenzene	*84.3*		*73-126*	*%REC*	*1*	*16-Jun-2016 08:11*
Surr: Dibromofluoromethane	*93.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 08:11*
Surr: Toluene-d8	*93.1*		*73-127*	*%REC*	*1*	*16-Jun-2016 08:11*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**30.0**		**4.99**	**mg/L**	10	22-Jun-2016 14:10
Magnesium	**7.04**		**4.99**	**mg/L**	10	22-Jun-2016 14:10
Sodium	**5.50**		**4.99**	**mg/L**	10	22-Jun-2016 14:10
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.36**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.486**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.238**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.489**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 20:45
Surr: 4-Bromofluorobenzene	*84.4*		*70-130*	*%REC*	*1*	*15-Jun-2016 20:45*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**14.4**		**3.39**	**ug/Kg**	1	24-Jun-2016 14:21
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.42**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.489**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.235**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-3-060916
Collection Date: 09-Jun-2016 09:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 08:23
Surr: 2-Fluorobiphenyl	*81.5*		*60-135*	*%REC*	*1*	*17-Jun-2016 08:23*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-7-060916
Collection Date: 09-Jun-2016 10:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:17
Surr: 2-Fluorobiphenyl	*69.0*		*43-125*	*%REC*	*1*	*22-Jun-2016 17:17*
Surr: 4-Terphenyl-d14	*109*		*32-125*	*%REC*	*1*	*22-Jun-2016 17:17*
Surr: Nitrobenzene-d5	*54.5*		*37-125*	*%REC*	*1*	*22-Jun-2016 17:17*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**1.89**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:13
Barium	**303**		**4.55**	**mg/Kg**	10	24-Jun-2016 12:28
Boron	**3.40**		**2.27**	**mg/Kg**	1	23-Jun-2016 15:13
Cadmium	ND		0.455	mg/Kg	1	23-Jun-2016 15:13
Chromium	**5.34**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:13
Copper	**3.57**		**0.182**	**mg/Kg**	1	23-Jun-2016 15:13
Lead	**3.53**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:13
Nickel	**5.89**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:13
Selenium	ND		0.455	mg/Kg	1	23-Jun-2016 15:13
Silver	ND		0.455	mg/Kg	1	23-Jun-2016 15:13
Zinc	**12.5**		**0.455**	**mg/Kg**	1	23-Jun-2016 15:13

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-7-060916
Collection Date: 09-Jun-2016 10:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-11
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	16-Jun-2016 11:30
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 11:30
m,p-Xylene	ND		9.7	ug/Kg	1	16-Jun-2016 11:30
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 11:30
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 11:30
Xylenes, Total	ND		9.7	ug/Kg	1	16-Jun-2016 11:30
Surr: 1,2-Dichloroethane-d4	*74.8*		*70-128*	*%REC*	*1*	*16-Jun-2016 11:30*
Surr: 4-Bromofluorobenzene	*81.5*		*73-126*	*%REC*	*1*	*16-Jun-2016 11:30*
Surr: Dibromofluoromethane	*87.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 11:30*
Surr: Toluene-d8	*97.6*		*73-127*	*%REC*	*1*	*16-Jun-2016 11:30*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**45.8**		**4.99**	**mg/L**	10	22-Jun-2016 14:13
Magnesium	**9.19**		**4.99**	**mg/L**	10	22-Jun-2016 14:13
Sodium	**11.8**		**4.99**	**mg/L**	10	22-Jun-2016 14:13
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.34**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.619**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.316**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.511**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 21:01
Surr: 4-Bromofluorobenzene	*94.3*		*70-130*	*%REC*	*1*	*15-Jun-2016 21:01*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**15.6**		**3.53**	**ug/Kg**	1	24-Jun-2016 14:23
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.65**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.6**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.511**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.416**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-7-060916
Collection Date: 09-Jun-2016 10:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 08:47
Surr: 2-Fluorobiphenyl	*66.8*		*60-135*	*%REC*	*1*	*17-Jun-2016 08:47*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-14-060916
Collection Date: 09-Jun-2016 10:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:37
Surr: 2-Fluorobiphenyl	*70.1*		*43-125*	*%REC*	*1*	*22-Jun-2016 17:37*
Surr: 4-Terphenyl-d14	*95.0*		*32-125*	*%REC*	*1*	*22-Jun-2016 17:37*
Surr: Nitrobenzene-d5	*76.2*		*37-125*	*%REC*	*1*	*22-Jun-2016 17:37*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.48**		**0.458**	**mg/Kg**	1	23-Jun-2016 15:17
Barium	**281**		**4.58**	**mg/Kg**	10	24-Jun-2016 12:32
Boron	**3.24**		**2.29**	**mg/Kg**	1	23-Jun-2016 15:17
Cadmium	ND		0.458	mg/Kg	1	23-Jun-2016 15:17
Chromium	**5.88**		**0.458**	**mg/Kg**	1	23-Jun-2016 15:17
Copper	**4.85**		**0.183**	**mg/Kg**	1	23-Jun-2016 15:17
Lead	**5.66**		**0.458**	**mg/Kg**	1	23-Jun-2016 15:17
Nickel	**6.92**		**0.458**	**mg/Kg**	1	23-Jun-2016 15:17
Selenium	ND		0.458	mg/Kg	1	23-Jun-2016 15:17
Silver	ND		0.458	mg/Kg	1	23-Jun-2016 15:17
Zinc	**17.6**		**0.458**	**mg/Kg**	1	23-Jun-2016 15:17

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-14-060916
Collection Date: 09-Jun-2016 10:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-12
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	16-Jun-2016 11:59
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 11:59
m,p-Xylene	ND		10	ug/Kg	1	16-Jun-2016 11:59
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 11:59
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 11:59
Xylenes, Total	ND		10	ug/Kg	1	16-Jun-2016 11:59
Surr: 1,2-Dichloroethane-d4	*81.9*		*70-128*	*%REC*	*1*	*16-Jun-2016 11:59*
Surr: 4-Bromofluorobenzene	*83.6*		*73-126*	*%REC*	*1*	*16-Jun-2016 11:59*
Surr: Dibromofluoromethane	*96.2*		*71-128*	*%REC*	*1*	*16-Jun-2016 11:59*
Surr: Toluene-d8	*95.5*		*73-127*	*%REC*	*1*	*16-Jun-2016 11:59*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**17.7**		**4.99**	**mg/L**	10	22-Jun-2016 14:22
Magnesium	ND		4.99	mg/L	10	22-Jun-2016 14:22
Sodium	**25.5**		**4.99**	**mg/L**	10	22-Jun-2016 14:22
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.88**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.523**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.251**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.480**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 21:17
Surr: 4-Bromofluorobenzene	*82.8*		*70-130*	*%REC*	*1*	*15-Jun-2016 21:17*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**10.6**		**3.40**	**ug/Kg**	1	24-Jun-2016 14:25
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.85**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.480**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**1.67**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-2-14-060916
Collection Date: 09-Jun-2016 10:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 09:12
Surr: 2-Fluorobiphenyl	*66.0*		*60-135*	*%REC*	*1*	*17-Jun-2016 09:12*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-3-060916
Collection Date: 09-Jun-2016 10:40

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 17:56
Surr: 2-Fluorobiphenyl	*77.8*		*43-125*	*%REC*	*1*	*22-Jun-2016 17:56*
Surr: 4-Terphenyl-d14	*96.1*		*32-125*	*%REC*	*1*	*22-Jun-2016 17:56*
Surr: Nitrobenzene-d5	*71.2*		*37-125*	*%REC*	*1*	*22-Jun-2016 17:56*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.65**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22
Barium	**146**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22
Boron	ND		2.38	mg/Kg	1	23-Jun-2016 15:22
Cadmium	ND		0.476	mg/Kg	1	23-Jun-2016 15:22
Chromium	**7.20**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22
Copper	**5.00**		**0.190**	**mg/Kg**	1	23-Jun-2016 15:22
Lead	**6.82**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22
Nickel	**9.80**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22
Selenium	ND		0.476	mg/Kg	1	23-Jun-2016 15:22
Silver	ND		0.476	mg/Kg	1	23-Jun-2016 15:22
Zinc	**20.7**		**0.476**	**mg/Kg**	1	23-Jun-2016 15:22

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-3-060916
Collection Date: 09-Jun-2016 10:40

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-13
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	16-Jun-2016 12:27
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 12:27
m,p-Xylene	ND		10	ug/Kg	1	16-Jun-2016 12:27
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 12:27
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 12:27
Xylenes, Total	ND		10	ug/Kg	1	16-Jun-2016 12:27
Surr: 1,2-Dichloroethane-d4	*86.4*		*70-128*	*%REC*	*1*	*16-Jun-2016 12:27*
Surr: 4-Bromofluorobenzene	*84.6*		*73-126*	*%REC*	*1*	*16-Jun-2016 12:27*
Surr: Dibromofluoromethane	*102*		*71-128*	*%REC*	*1*	*16-Jun-2016 12:27*
Surr: Toluene-d8	*95.5*		*73-127*	*%REC*	*1*	*16-Jun-2016 12:27*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**29.1**		**5.00**	**mg/L**	10	22-Jun-2016 14:24
Magnesium	**5.41**		**5.00**	**mg/L**	10	22-Jun-2016 14:24
Sodium	**5.24**		**5.00**	**mg/L**	10	22-Jun-2016 14:24
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.20**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.433**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.219**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.506**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 21:33
Surr: 4-Bromofluorobenzene	*82.8*		*70-130*	*%REC*	*1*	*15-Jun-2016 21:33*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**13.6**		**3.59**	**ug/Kg**	1	24-Jun-2016 14:26
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.50**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.6**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.506**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.234**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-3-060916
Collection Date: 09-Jun-2016 10:40

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 09:36
Surr: 2-Fluorobiphenyl	*83.0*		*60-135*	*%REC*	*1*	*17-Jun-2016 09:36*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-4-060916
Collection Date: 09-Jun-2016 10:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 21:31
Surr: 2-Fluorobiphenyl	*78.1*		*43-125*	*%REC*	*1*	*22-Jun-2016 21:31*
Surr: 4-Terphenyl-d14	*100*		*32-125*	*%REC*	*1*	*22-Jun-2016 21:31*
Surr: Nitrobenzene-d5	*60.4*		*37-125*	*%REC*	*1*	*22-Jun-2016 21:31*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.39**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26
Barium	**149**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26
Boron	ND		2.39	mg/Kg	1	23-Jun-2016 15:26
Cadmium	ND		0.479	mg/Kg	1	23-Jun-2016 15:26
Chromium	**7.40**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26
Copper	**5.60**		**0.192**	**mg/Kg**	1	23-Jun-2016 15:26
Lead	**6.59**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26
Nickel	**9.98**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26
Selenium	ND		0.479	mg/Kg	1	23-Jun-2016 15:26
Silver	ND		0.479	mg/Kg	1	23-Jun-2016 15:26
Zinc	**22.5**		**0.479**	**mg/Kg**	1	23-Jun-2016 15:26

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-4-060916
Collection Date: 09-Jun-2016 10:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-14
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	16-Jun-2016 12:55
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 12:55
m,p-Xylene	ND		9.7	ug/Kg	1	16-Jun-2016 12:55
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 12:55
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 12:55
Xylenes, Total	ND		9.7	ug/Kg	1	16-Jun-2016 12:55
Surr: 1,2-Dichloroethane-d4	*88.7*		*70-128*	*%REC*	*1*	*16-Jun-2016 12:55*
Surr: 4-Bromofluorobenzene	*85.4*		*73-126*	*%REC*	*1*	*16-Jun-2016 12:55*
Surr: Dibromofluoromethane	*101*		*71-128*	*%REC*	*1*	*16-Jun-2016 12:55*
Surr: Toluene-d8	*96.1*		*73-127*	*%REC*	*1*	*16-Jun-2016 12:55*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**33.5**		**4.99**	**mg/L**	10	22-Jun-2016 14:27
Magnesium	**6.39**		**4.99**	**mg/L**	10	22-Jun-2016 14:27
Sodium	**11.1**		**4.99**	**mg/L**	10	22-Jun-2016 14:27
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.40**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.578**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.286**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.495**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 21:49
Surr: 4-Bromofluorobenzene	*95.9*		*70-130*	*%REC*	*1*	*15-Jun-2016 21:49*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**28.9**		**3.61**	**ug/Kg**	1	24-Jun-2016 14:31
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.41**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.6**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.495**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.461**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-4-060916
Collection Date: 09-Jun-2016 10:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 09:12
Surr: 2-Fluorobiphenyl	*74.0*		*60-135*	*%REC*	*1*	*17-Jun-2016 09:12*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-14-060916
Collection Date: 09-Jun-2016 11:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Acenaphthylene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Benz(a)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Benzo(a)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Chrysene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Fluorene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Naphthalene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Phenanthrene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 16:55
Surr: 2-Fluorobiphenyl	*81.6*		*43-125*	*%REC*	*1*	*23-Jun-2016 16:55*
Surr: 4-Terphenyl-d14	*83.8*		*32-125*	*%REC*	*1*	*23-Jun-2016 16:55*
Surr: Nitrobenzene-d5	*80.6*		*37-125*	*%REC*	*1*	*23-Jun-2016 16:55*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**5.02**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31
Barium	**86.0**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31
Boron	ND		2.34	mg/Kg	1	23-Jun-2016 15:31
Cadmium	ND		0.469	mg/Kg	1	23-Jun-2016 15:31
Chromium	**2.17**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31
Copper	**3.46**		**0.188**	**mg/Kg**	1	23-Jun-2016 15:31
Lead	**4.65**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31
Nickel	**4.31**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31
Selenium	ND		0.469	mg/Kg	1	23-Jun-2016 15:31
Silver	ND		0.469	mg/Kg	1	23-Jun-2016 15:31
Zinc	**14.9**		**0.469**	**mg/Kg**	1	23-Jun-2016 15:31

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-14-060916
Collection Date: 09-Jun-2016 11:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-15
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	16-Jun-2016 13:24
Ethylbenzene	ND		4.9	ug/Kg	1	16-Jun-2016 13:24
m,p-Xylene	ND		9.8	ug/Kg	1	16-Jun-2016 13:24
o-Xylene	ND		4.9	ug/Kg	1	16-Jun-2016 13:24
Toluene	ND		4.9	ug/Kg	1	16-Jun-2016 13:24
Xylenes, Total	ND		9.8	ug/Kg	1	16-Jun-2016 13:24
Surr: 1,2-Dichloroethane-d4	*88.6*		*70-128*	*%REC*	*1*	*16-Jun-2016 13:24*
Surr: 4-Bromofluorobenzene	*84.8*		*73-126*	*%REC*	*1*	*16-Jun-2016 13:24*
Surr: Dibromofluoromethane	*101*		*71-128*	*%REC*	*1*	*16-Jun-2016 13:24*
Surr: Toluene-d8	*95.4*		*73-127*	*%REC*	*1*	*16-Jun-2016 13:24*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**15.5**		**5.00**	**mg/L**	10	22-Jun-2016 14:30
Magnesium	ND		5.00	mg/L	10	22-Jun-2016 14:30
Sodium	**27.6**		**5.00**	**mg/L**	10	22-Jun-2016 14:30
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	ND		5.00	mg/Kg	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.628**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.246**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.392**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	17-Jun-2016 09:18
Surr: 4-Bromofluorobenzene	*79.6*		*70-130*	*%REC*	*1*	*17-Jun-2016 09:18*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**22.8**		**3.61**	**ug/Kg**	1	24-Jun-2016 14:33
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**9.03**	H	**0.100**	**pH Units**	1	14-Jun-2016 16:40
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 16:40
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.392**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**1.93**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-1-14-060916
Collection Date: 09-Jun-2016 11:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 16-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 09:36
Surr: 2-Fluorobiphenyl	*70.5*		*60-135*	*%REC*	*1*	*17-Jun-2016 09:36*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-2-060916
Collection Date: 09-Jun-2016 12:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Acenaphthylene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Benz(a)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Benzo(a)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Chrysene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Fluoranthene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Fluorene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Naphthalene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Phenanthrene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Pyrene	ND		3.3	ug/Kg	1	23-Jun-2016 17:15
Surr: 2-Fluorobiphenyl	*72.4*		*43-125*	*%REC*	*1*	*23-Jun-2016 17:15*
Surr: 4-Terphenyl-d14	*84.5*		*32-125*	*%REC*	*1*	*23-Jun-2016 17:15*
Surr: Nitrobenzene-d5	*82.7*		*37-125*	*%REC*	*1*	*23-Jun-2016 17:15*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**2.37**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35
Barium	**146**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35
Boron	ND		2.25	mg/Kg	1	23-Jun-2016 15:35
Cadmium	ND		0.451	mg/Kg	1	23-Jun-2016 15:35
Chromium	**7.00**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35
Copper	**6.43**		**0.180**	**mg/Kg**	1	23-Jun-2016 15:35
Lead	**6.50**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35
Nickel	**7.55**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35
Selenium	ND		0.451	mg/Kg	1	23-Jun-2016 15:35
Silver	ND		0.451	mg/Kg	1	23-Jun-2016 15:35
Zinc	**20.5**		**0.451**	**mg/Kg**	1	23-Jun-2016 15:35

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-2-060916
Collection Date: 09-Jun-2016 12:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-16
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	16-Jun-2016 13:55
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 13:55
m,p-Xylene	ND		9.7	ug/Kg	1	16-Jun-2016 13:55
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 13:55
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 13:55
Xylenes, Total	ND		9.7	ug/Kg	1	16-Jun-2016 13:55
Surr: 1,2-Dichloroethane-d4	*87.2*		*70-128*	*%REC*	*1*	*16-Jun-2016 13:55*
Surr: 4-Bromofluorobenzene	*85.8*		*73-126*	*%REC*	*1*	*16-Jun-2016 13:55*
Surr: Dibromofluoromethane	*99.5*		*71-128*	*%REC*	*1*	*16-Jun-2016 13:55*
Surr: Toluene-d8	*96.1*		*73-127*	*%REC*	*1*	*16-Jun-2016 13:55*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**45.3**		**4.99**	**mg/L**	10	22-Jun-2016 14:33
Magnesium	**8.82**		**4.99**	**mg/L**	10	22-Jun-2016 14:33
Sodium	**7.50**		**4.99**	**mg/L**	10	22-Jun-2016 14:33
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.00**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.727**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.378**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.521**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 22:53
Surr: 4-Bromofluorobenzene	*80.1*		*70-130*	*%REC*	*1*	*15-Jun-2016 22:53*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**11.1**		**3.44**	**ug/Kg**	1	24-Jun-2016 14:35
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.52**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.521**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.267**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-2-060916
Collection Date: 09-Jun-2016 12:50

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 21:22
Surr: 2-Fluorobiphenyl	*76.5*		*60-135*	*%REC*	*1*	*17-Jun-2016 21:22*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-8-060916
Collection Date: 09-Jun-2016 13:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-17
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:15
Surr: 2-Fluorobiphenyl	*84.4*		*43-125*	*%REC*	*1*	*22-Jun-2016 19:15*
Surr: 4-Terphenyl-d14	*112*		*32-125*	*%REC*	*1*	*22-Jun-2016 19:15*
Surr: Nitrobenzene-d5	*90.8*		*37-125*	*%REC*	*1*	*22-Jun-2016 19:15*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 21-Jun-2016		Analyst: JDE
Arsenic	**3.38**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39
Barium	**111**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39
Boron	**14.4**		**2.40**	**mg/Kg**	1	23-Jun-2016 15:39
Cadmium	ND		0.481	mg/Kg	1	23-Jun-2016 15:39
Chromium	**32.0**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39
Copper	**83.2**		**0.192**	**mg/Kg**	1	23-Jun-2016 15:39
Lead	**8.80**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39
Nickel	**6.64**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39
Selenium	ND		0.481	mg/Kg	1	23-Jun-2016 15:39
Silver	ND		0.481	mg/Kg	1	23-Jun-2016 15:39
Zinc	**49.1**		**0.481**	**mg/Kg**	1	23-Jun-2016 15:39

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-8-060916
Collection Date: 09-Jun-2016 13:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-17
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	16-Jun-2016 14:27
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 14:27
m,p-Xylene	ND		9.5	ug/Kg	1	16-Jun-2016 14:27
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 14:27
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 14:27
Xylenes, Total	ND		9.5	ug/Kg	1	16-Jun-2016 14:27
Surr: 1,2-Dichloroethane-d4	*84.3*		*70-128*	*%REC*	*1*	*16-Jun-2016 14:27*
Surr: 4-Bromofluorobenzene	*91.5*		*73-126*	*%REC*	*1*	*16-Jun-2016 14:27*
Surr: Dibromofluoromethane	*4.27*	*S*	*71-128*	*%REC*	*1*	*16-Jun-2016 14:27*
Surr: Toluene-d8	*92.3*		*73-127*	*%REC*	*1*	*16-Jun-2016 14:27*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**143**		**4.99**	**mg/L**	10	22-Jun-2016 14:36
Magnesium	ND		4.99	mg/L	10	22-Jun-2016 14:36
Sodium	**291**		**4.99**	**mg/L**	10	22-Jun-2016 14:36
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**32.0**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**6.00**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**5.54**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.923**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.37**		**0.050**	**mg/Kg**	1	15-Jun-2016 23:09
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*1*	*15-Jun-2016 23:09*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**5.46**		**3.53**	**ug/Kg**	1	24-Jun-2016 14:37
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**12.3**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.923**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**6.70**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-8-060916
Collection Date: 09-Jun-2016 13:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-17
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	**170**		**8.5**	**mg/Kg**	5	24-Jun-2016 04:43
Surr: 2-Fluorobiphenyl	*223*	*S*	*60-135*	*%REC*	*5*	*24-Jun-2016 04:43*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-15-060916
Collection Date: 09-Jun-2016 13:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-18
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Naphthalene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 19:34
Surr: 2-Fluorobiphenyl	*47.2*		*43-125*	*%REC*	*1*	*22-Jun-2016 19:34*
Surr: 4-Terphenyl-d14	*89.5*		*32-125*	*%REC*	*1*	*22-Jun-2016 19:34*
Surr: Nitrobenzene-d5	*54.1*		*37-125*	*%REC*	*1*	*22-Jun-2016 19:34*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**3.70**		**0.999**	**mg/Kg**	1	16-Jun-2016 16:45
Barium	**370**		**4.99**	**mg/Kg**	10	17-Jun-2016 11:47
Boron	**7.97**		**2.50**	**mg/Kg**	1	16-Jun-2016 16:45
Cadmium	ND		0.499	mg/Kg	1	16-Jun-2016 16:45
Chromium	**5.16**		**0.499**	**mg/Kg**	1	16-Jun-2016 16:45
Copper	**5.12**		**0.499**	**mg/Kg**	1	16-Jun-2016 16:45
Lead	**4.32**		**0.499**	**mg/Kg**	1	16-Jun-2016 16:45
Nickel	**6.78**		**0.499**	**mg/Kg**	1	16-Jun-2016 16:45
Selenium	ND		0.499	mg/Kg	1	16-Jun-2016 16:45
Silver	ND		0.499	mg/Kg	1	16-Jun-2016 16:45
Zinc	**12.4**		**0.469**	**mg/Kg**	1	21-Jun-2016 01:09

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-15-060916
Collection Date: 09-Jun-2016 13:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-18
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	16-Jun-2016 15:55
Ethylbenzene	ND		4.8	ug/Kg	1	16-Jun-2016 15:55
m,p-Xylene	ND		9.6	ug/Kg	1	16-Jun-2016 15:55
o-Xylene	ND		4.8	ug/Kg	1	16-Jun-2016 15:55
Toluene	ND		4.8	ug/Kg	1	16-Jun-2016 15:55
Xylenes, Total	ND		9.6	ug/Kg	1	16-Jun-2016 15:55
Surr: 1,2-Dichloroethane-d4	*79.8*		*70-128*	*%REC*	*1*	*16-Jun-2016 15:55*
Surr: 4-Bromofluorobenzene	*85.1*		*73-126*	*%REC*	*1*	*16-Jun-2016 15:55*
Surr: Dibromofluoromethane	*93.3*		*71-128*	*%REC*	*1*	*16-Jun-2016 15:55*
Surr: Toluene-d8	*96.0*		*73-127*	*%REC*	*1*	*16-Jun-2016 15:55*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**17.8**		**4.99**	**mg/L**	10	22-Jun-2016 14:39
Magnesium	ND		4.99	mg/L	10	22-Jun-2016 14:39
Sodium	**35.8**		**4.99**	**mg/L**	10	22-Jun-2016 14:39
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**5.16**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.567**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.284**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.501**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 23:25
Surr: 4-Bromofluorobenzene	*91.5*		*70-130*	*%REC*	*1*	*15-Jun-2016 23:25*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**5.39**		**3.49**	**ug/Kg**	1	24-Jun-2016 14:38
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.94**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.501**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**2.34**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-6-15-060916
Collection Date: 09-Jun-2016 13:25

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-18
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 22:10
Surr: 2-Fluorobiphenyl	*77.3*		*60-135*	*%REC*	*1*	*17-Jun-2016 22:10*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-3-060916
Collection Date: 09-Jun-2016 14:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Acenaphthylene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Benz(a)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Benzo(a)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Chrysene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Fluoranthene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Fluorene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Naphthalene	**12**		**3.3**	**ug/Kg**	1	22-Jun-2016 22:29
Phenanthrene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Pyrene	ND		3.3	ug/Kg	1	22-Jun-2016 22:29
Surr: 2-Fluorobiphenyl	*94.0*		*43-125*	*%REC*	*1*	*22-Jun-2016 22:29*
Surr: 4-Terphenyl-d14	*104*		*32-125*	*%REC*	*1*	*22-Jun-2016 22:29*
Surr: Nitrobenzene-d5	*79.9*		*37-125*	*%REC*	*1*	*22-Jun-2016 22:29*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**3.26**		**0.974**	**mg/Kg**	1	16-Jun-2016 17:24
Barium	**194**		**4.87**	**mg/Kg**	10	17-Jun-2016 12:00
Boron	**8.34**		**2.43**	**mg/Kg**	1	16-Jun-2016 17:24
Cadmium	ND		0.487	mg/Kg	1	16-Jun-2016 17:24
Chromium	**8.39**		**0.487**	**mg/Kg**	1	16-Jun-2016 17:24
Copper	**8.65**		**0.487**	**mg/Kg**	1	16-Jun-2016 17:24
Lead	**7.75**		**0.487**	**mg/Kg**	1	16-Jun-2016 17:24
Nickel	**9.12**		**0.487**	**mg/Kg**	1	16-Jun-2016 17:24
Selenium	ND		0.487	mg/Kg	1	16-Jun-2016 17:24
Silver	ND		0.487	mg/Kg	1	16-Jun-2016 17:24
Zinc	**20.9**		**0.453**	**mg/Kg**	1	21-Jun-2016 01:14

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-3-060916
Collection Date: 09-Jun-2016 14:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-19
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	16-Jun-2016 16:25
Ethylbenzene	ND		5.0	ug/Kg	1	16-Jun-2016 16:25
m,p-Xylene	ND		10	ug/Kg	1	16-Jun-2016 16:25
o-Xylene	ND		5.0	ug/Kg	1	16-Jun-2016 16:25
Toluene	ND		5.0	ug/Kg	1	16-Jun-2016 16:25
Xylenes, Total	ND		10	ug/Kg	1	16-Jun-2016 16:25
Surr: 1,2-Dichloroethane-d4	*82.5*		*70-128*	*%REC*	*1*	*16-Jun-2016 16:25*
Surr: 4-Bromofluorobenzene	*85.4*		*73-126*	*%REC*	*1*	*16-Jun-2016 16:25*
Surr: Dibromofluoromethane	*91.4*		*71-128*	*%REC*	*1*	*16-Jun-2016 16:25*
Surr: Toluene-d8	*96.5*		*73-127*	*%REC*	*1*	*16-Jun-2016 16:25*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**24.6**		**4.99**	**mg/L**	10	22-Jun-2016 14:42
Magnesium	**5.85**		**4.99**	**mg/L**	10	22-Jun-2016 14:42
Sodium	**85.8**		**4.99**	**mg/L**	10	22-Jun-2016 14:42
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**8.39**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**1.02**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**0.506**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.495**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jun-2016 23:41
Surr: 4-Bromofluorobenzene	*94.2*		*70-130*	*%REC*	*1*	*15-Jun-2016 23:41*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**10.3**		**3.58**	**ug/Kg**	1	24-Jun-2016 14:40
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.69**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.495**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**4.04**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-3-060916
Collection Date: 09-Jun-2016 14:00

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	**1.8**		**1.7**	**mg/Kg**	1	17-Jun-2016 22:34
Surr: 2-Fluorobiphenyl	*87.0*		*60-135*	*%REC*	*1*	*17-Jun-2016 22:34*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-5-060916
Collection Date: 09-Jun-2016 14:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Acenaphthylene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Anthracene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Benz(a)anthracene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Benzo(a)pyrene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Benzo(b)fluoranthene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Benzo(g,h,i)perylene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Benzo(k)fluoranthene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Chrysene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Dibenz(a,h)anthracene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Fluoranthene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Fluorene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Indeno(1,2,3-cd)pyrene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Naphthalene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Phenanthrene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Pyrene	ND		4.9	ug/Kg	1	22-Jun-2016 22:49
Surr: 2-Fluorobiphenyl	*93.7*		*43-125*	*%REC*	*1*	*22-Jun-2016 22:49*
Surr: 4-Terphenyl-d14	*98.1*		*32-125*	*%REC*	*1*	*22-Jun-2016 22:49*
Surr: Nitrobenzene-d5	*84.7*		*37-125*	*%REC*	*1*	*22-Jun-2016 22:49*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**3.55**		**0.965**	**mg/Kg**	1	16-Jun-2016 17:28
Barium	**153**		**0.483**	**mg/Kg**	1	16-Jun-2016 17:28
Boron	**13.5**		**2.41**	**mg/Kg**	1	16-Jun-2016 17:28
Cadmium	ND		0.483	mg/Kg	1	16-Jun-2016 17:28
Chromium	**47.1**		**0.483**	**mg/Kg**	1	16-Jun-2016 17:28
Copper	**8.23**		**0.483**	**mg/Kg**	1	16-Jun-2016 17:28
Lead	**9.64**		**0.483**	**mg/Kg**	1	16-Jun-2016 17:28
Nickel	**5.84**		**0.483**	**mg/Kg**	1	16-Jun-2016 17:28
Selenium	ND		0.483	mg/Kg	1	16-Jun-2016 17:28
Silver	ND		0.483	mg/Kg	1	16-Jun-2016 17:28
Zinc	**28.0**		**0.459**	**mg/Kg**	1	21-Jun-2016 01:18

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-5-060916
Collection Date: 09-Jun-2016 14:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-20
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	16-Jun-2016 16:56
Ethylbenzene	ND		4.9	ug/Kg	1	16-Jun-2016 16:56
m,p-Xylene	ND		9.8	ug/Kg	1	16-Jun-2016 16:56
o-Xylene	ND		4.9	ug/Kg	1	16-Jun-2016 16:56
Toluene	ND		4.9	ug/Kg	1	16-Jun-2016 16:56
Xylenes, Total	ND		9.8	ug/Kg	1	16-Jun-2016 16:56
Surr: 1,2-Dichloroethane-d4	*77.0*		*70-128*	*%REC*	*1*	*16-Jun-2016 16:56*
Surr: 4-Bromofluorobenzene	*88.6*		*73-126*	*%REC*	*1*	*16-Jun-2016 16:56*
Surr: Dibromofluoromethane	*72.0*		*71-128*	*%REC*	*1*	*16-Jun-2016 16:56*
Surr: Toluene-d8	*95.7*		*73-127*	*%REC*	*1*	*16-Jun-2016 16:56*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Calcium	**387**		**4.99**	**mg/L**	10	22-Jun-2016 14:48
Magnesium	ND		4.99	mg/L	10	22-Jun-2016 14:48
Sodium	**444**		**4.99**	**mg/L**	10	22-Jun-2016 14:48
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 23-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		1.99	mg/kg	1	24-Jun-2016 13:45
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**47.1**		**5.00**	**mg/Kg**	1	27-Jun-2016 13:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**7.52**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Electrical Conductivity, 1:1 aqueous	**4.19**		**0.0100**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
Saturation % as decimal	**0.557**		**0**	**mmhos/cm @25°C**	1	22-Jun-2016 12:00
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	**0.097**		**0.050**	**mg/Kg**	1	15-Jun-2016 23:57
Surr: 4-Bromofluorobenzene	*99.7*		*70-130*	*%REC*	*1*	*15-Jun-2016 23:57*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**8.18**		**3.55**	**ug/Kg**	1	24-Jun-2016 14:42
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**10.8**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.6**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.557**		**0.100**	**SP as fraction**	1	20-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 20-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**6.22**		**0.0100**	**meq/meq**	1	27-Jun-2016 06:11

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-5-060916
Collection Date: 09-Jun-2016 14:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-20
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 21-Jun-2016		Analyst: AAP
TPH (Diesel Range)	**120**		**8.5**	**mg/Kg**	5	24-Jun-2016 05:31
Surr: 2-Fluorobiphenyl	*166*	*S*	*60-135*	*%REC*	*5*	*24-Jun-2016 05:31*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-12-060916
Collection Date: 09-Jun-2016 14:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-21
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS	**Method:SW8270**			Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Acenaphthylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Benz(a)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Benzo(a)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Chrysene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Fluorene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Naphthalene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Phenanthrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:12
Surr: 2-Fluorobiphenyl	*64.8*		*43-125*	*%REC*	*1*	*24-Jun-2016 23:12*
Surr: 4-Terphenyl-d14	*80.0*		*32-125*	*%REC*	*1*	*24-Jun-2016 23:12*
Surr: Nitrobenzene-d5	*75.2*		*37-125*	*%REC*	*1*	*24-Jun-2016 23:12*
METALS BY SW6020A	**Method:SW6020**			Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**2.80**		**0.964**	**mg/Kg**	1	16-Jun-2016 17:32
Barium	**170**		**0.482**	**mg/Kg**	1	16-Jun-2016 17:32
Boron	**6.16**		**2.41**	**mg/Kg**	1	16-Jun-2016 17:32
Cadmium	ND		0.482	mg/Kg	1	16-Jun-2016 17:32
Chromium	**7.58**		**0.482**	**mg/Kg**	1	16-Jun-2016 17:32
Copper	**7.61**		**0.482**	**mg/Kg**	1	16-Jun-2016 17:32
Lead	**7.04**		**0.482**	**mg/Kg**	1	16-Jun-2016 17:32
Nickel	**10.2**		**0.482**	**mg/Kg**	1	16-Jun-2016 17:32
Selenium	ND		0.482	mg/Kg	1	16-Jun-2016 17:32
Silver	ND		0.482	mg/Kg	1	16-Jun-2016 17:32
Zinc	**22.6**		**0.445**	**mg/Kg**	1	21-Jun-2016 01:23

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-12-060916
Collection Date: 09-Jun-2016 14:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-21
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	17-Jun-2016 03:32
Ethylbenzene	ND		4.8	ug/Kg	1	17-Jun-2016 03:32
m,p-Xylene	ND		9.6	ug/Kg	1	17-Jun-2016 03:32
o-Xylene	ND		4.8	ug/Kg	1	17-Jun-2016 03:32
Toluene	ND		4.8	ug/Kg	1	17-Jun-2016 03:32
Xylenes, Total	ND		9.6	ug/Kg	1	17-Jun-2016 03:32
Surr: 1,2-Dichloroethane-d4	*99.7*		*70-128*	*%REC*	*1*	*17-Jun-2016 03:32*
Surr: 4-Bromofluorobenzene	*100*		*73-126*	*%REC*	*1*	*17-Jun-2016 03:32*
Surr: Dibromofluoromethane	*108*		*71-128*	*%REC*	*1*	*17-Jun-2016 03:32*
Surr: Toluene-d8	*97.8*		*73-127*	*%REC*	*1*	*17-Jun-2016 03:32*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Calcium	**35.3**		**5.00**	**mg/L**	10	20-Jun-2016 17:10
Magnesium	**6.14**		**5.00**	**mg/L**	10	20-Jun-2016 17:10
Sodium	**14.4**		**5.00**	**mg/L**	10	20-Jun-2016 17:10
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 27-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.00	mg/kg	1	27-Jun-2016 16:00
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**47.1**		**5.00**	**mg/Kg**	1	28-Jun-2016 15:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**0.670**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Electrical Conductivity, 1:1 aqueous	**0.342**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Saturation % as decimal	**0.510**		**0**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	16-Jun-2016 01:49
Surr: 4-Bromofluorobenzene	*94.6*		*70-130*	*%REC*	*1*	*16-Jun-2016 01:49*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**10.4**		**3.57**	**ug/Kg**	1	24-Jun-2016 15:01
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.31**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.510**		**0.100**	**SP as fraction**	1	17-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**0.588**		**0.0100**	**meq/meq**	1	23-Jun-2016 11:22

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-7-12-060916
Collection Date: 09-Jun-2016 14:20

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-21
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C	**Method:SW8015M**			Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		1.7	mg/Kg	1	17-Jun-2016 22:59
Surr: 2-Fluorobiphenyl	*75.7*		*60-135*	*%REC*	*1*	*17-Jun-2016 22:59*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-3-060916
Collection Date: 09-Jun-2016 14:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-22
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Acenaphthylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Benz(a)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Benzo(a)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Chrysene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Fluorene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Naphthalene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Phenanthrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:31
Surr: 2-Fluorobiphenyl	*61.5*		*43-125*	*%REC*	*1*	*24-Jun-2016 23:31*
Surr: 4-Terphenyl-d14	*79.7*		*32-125*	*%REC*	*1*	*24-Jun-2016 23:31*
Surr: Nitrobenzene-d5	*69.3*		*37-125*	*%REC*	*1*	*24-Jun-2016 23:31*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**3.27**		**0.943**	**mg/Kg**	1	16-Jun-2016 17:37
Barium	**149**		**2.36**	**mg/Kg**	5	17-Jun-2016 12:05
Boron	ND		11.8	mg/Kg	5	20-Jun-2016 13:15
Cadmium	ND		0.471	mg/Kg	1	16-Jun-2016 17:37
Chromium	**11.3**		**0.471**	**mg/Kg**	1	16-Jun-2016 17:37
Copper	**7.23**		**0.471**	**mg/Kg**	1	16-Jun-2016 17:37
Lead	**6.58**		**0.471**	**mg/Kg**	1	16-Jun-2016 17:37
Nickel	**6.73**		**0.471**	**mg/Kg**	1	16-Jun-2016 17:37
Selenium	ND		0.471	mg/Kg	1	16-Jun-2016 17:37
Silver	ND		0.471	mg/Kg	1	16-Jun-2016 17:37
Zinc	**20.7**		**0.459**	**mg/Kg**	1	21-Jun-2016 01:27

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-3-060916
Collection Date: 09-Jun-2016 14:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-22
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	17-Jun-2016 03:55
Ethylbenzene	ND		4.8	ug/Kg	1	17-Jun-2016 03:55
m,p-Xylene	ND		9.5	ug/Kg	1	17-Jun-2016 03:55
o-Xylene	ND		4.8	ug/Kg	1	17-Jun-2016 03:55
Toluene	ND		4.8	ug/Kg	1	17-Jun-2016 03:55
Xylenes, Total	ND		9.5	ug/Kg	1	17-Jun-2016 03:55
Surr: 1,2-Dichloroethane-d4	*95.4*		*70-128*	*%REC*	*1*	*17-Jun-2016 03:55*
Surr: 4-Bromofluorobenzene	*101*		*73-126*	*%REC*	*1*	*17-Jun-2016 03:55*
Surr: Dibromofluoromethane	*108*		*71-128*	*%REC*	*1*	*17-Jun-2016 03:55*
Surr: Toluene-d8	*97.9*		*73-127*	*%REC*	*1*	*17-Jun-2016 03:55*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Calcium	**1,480**		**5.00**	**mg/L**	10	20-Jun-2016 17:13
Magnesium	ND		5.00	mg/L	10	20-Jun-2016 17:13
Sodium	**7,670**		**50.0**	**mg/L**	100	21-Jun-2016 10:15
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 27-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.01	mg/kg	1	27-Jun-2016 16:00
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**7.58**		**5.00**	**mg/Kg**	1	28-Jun-2016 15:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**113**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Electrical Conductivity, 1:1 aqueous	**56.1**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Saturation % as decimal	**0.498**		**0**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	16-Jun-2016 02:37
Surr: 4-Bromofluorobenzene	*83.3*		*70-130*	*%REC*	*1*	*16-Jun-2016 02:37*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**11.6**		**3.62**	**ug/Kg**	1	24-Jun-2016 15:03
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.75**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.4**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.498**		**0.100**	**SP as fraction**	1	17-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**54.9**		**0.0100**	**meq/meq**	1	23-Jun-2016 11:22

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-3-060916
Collection Date: 09-Jun-2016 14:45

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-22
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	**6.8**		**1.7**	**mg/Kg**	1	17-Jun-2016 23:23
Surr: 2-Fluorobiphenyl	*65.8*		*60-135*	*%REC*	*1*	*17-Jun-2016 23:23*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-9-060916
Collection Date: 09-Jun-2016 14:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-23
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Acenaphthylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Benz(a)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Benzo(a)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Chrysene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Fluoranthene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Fluorene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Naphthalene	**5.0**		**3.3**	**ug/Kg**	1	24-Jun-2016 23:50
Phenanthrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Pyrene	ND		3.3	ug/Kg	1	24-Jun-2016 23:50
Surr: 2-Fluorobiphenyl	*65.8*		*43-125*	*%REC*	*1*	*24-Jun-2016 23:50*
Surr: 4-Terphenyl-d14	*73.9*		*32-125*	*%REC*	*1*	*24-Jun-2016 23:50*
Surr: Nitrobenzene-d5	*69.1*		*37-125*	*%REC*	*1*	*24-Jun-2016 23:50*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**3.31**		**0.980**	**mg/Kg**	1	16-Jun-2016 17:41
Barium	**102**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Boron	**16.7**		**12.2**	**mg/Kg**	5	20-Jun-2016 13:20
Cadmium	ND		0.490	mg/Kg	1	16-Jun-2016 17:41
Chromium	**12.7**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Copper	**6.50**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Lead	**7.45**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Nickel	**6.24**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Selenium	**1.10**		**0.490**	**mg/Kg**	1	16-Jun-2016 17:41
Silver	ND		0.490	mg/Kg	1	16-Jun-2016 17:41
Zinc	**18.3**		**0.470**	**mg/Kg**	1	21-Jun-2016 01:32

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-9-060916
Collection Date: 09-Jun-2016 14:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-23
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	17-Jun-2016 04:19
Ethylbenzene	ND		4.8	ug/Kg	1	17-Jun-2016 04:19
m,p-Xylene	**22**		**9.6**	**ug/Kg**	1	17-Jun-2016 04:19
o-Xylene	**5.4**		**4.8**	**ug/Kg**	1	17-Jun-2016 04:19
Toluene	**18**		**4.8**	**ug/Kg**	1	17-Jun-2016 04:19
Xylenes, Total	**28**		**9.6**	**ug/Kg**	1	17-Jun-2016 04:19
Surr: 1,2-Dichloroethane-d4	*104*		*70-128*	*%REC*	*1*	*17-Jun-2016 04:19*
Surr: 4-Bromofluorobenzene	*99.7*		*73-126*	*%REC*	*1*	*17-Jun-2016 04:19*
Surr: Dibromofluoromethane	*75.3*		*71-128*	*%REC*	*1*	*17-Jun-2016 04:19*
Surr: Toluene-d8	*99.5*		*73-127*	*%REC*	*1*	*17-Jun-2016 04:19*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Calcium	**1,460**		**49.9**	**mg/L**	100	21-Jun-2016 10:23
Magnesium	ND		49.9	mg/L	100	21-Jun-2016 10:23
Sodium	**66,900**		**499**	**mg/L**	1000	21-Jun-2016 11:25
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 27-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.02	mg/kg	1	27-Jun-2016 16:00
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**11.3**		**5.00**	**mg/Kg**	1	28-Jun-2016 15:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**4,210**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Electrical Conductivity, 1:1 aqueous	**424**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Saturation % as decimal	**0.101**		**0**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	16-Jun-2016 02:53
Surr: 4-Bromofluorobenzene	*96.9*		*70-130*	*%REC*	*1*	*16-Jun-2016 02:53*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**5.10**		**3.53**	**ug/Kg**	1	24-Jun-2016 15:04
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**11.9**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.101**		**0.100**	**SP as fraction**	1	17-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**482**		**0.0100**	**meq/meq**	1	23-Jun-2016 11:22

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-9-060916
Collection Date: 09-Jun-2016 14:55

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-23
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	**13**		**3.4**	**mg/Kg**	2	23-Jun-2016 23:53
Surr: 2-Fluorobiphenyl	*94.1*		*60-135*	*%REC*	*2*	*23-Jun-2016 23:53*

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-14-060916
Collection Date: 09-Jun-2016 15:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-24
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS		**Method:SW8270**		Prep:SW3541 / 15-Jun-2016		Analyst: LG
Acenaphthene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Acenaphthylene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Anthracene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Benz(a)anthracene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Benzo(a)pyrene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Benzo(b)fluoranthene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Benzo(g,h,i)perylene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Benzo(k)fluoranthene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Chrysene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Dibenz(a,h)anthracene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Fluoranthene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Fluorene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Indeno(1,2,3-cd)pyrene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Naphthalene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Phenanthrene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Pyrene	ND		3.3	ug/Kg	1	27-Jun-2016 13:14
Surr: 2-Fluorobiphenyl	*64.4*		*43-125*	*%REC*	*1*	*27-Jun-2016 13:14*
Surr: 4-Terphenyl-d14	*77.9*		*32-125*	*%REC*	*1*	*27-Jun-2016 13:14*
Surr: Nitrobenzene-d5	*81.6*		*37-125*	*%REC*	*1*	*27-Jun-2016 13:14*
METALS BY SW6020A		**Method:SW6020**		Prep:SW3050A / 15-Jun-2016		Analyst: JDE
Arsenic	**4.31**		**0.993**	**mg/Kg**	1	16-Jun-2016 17:45
Barium	**92.8**		**0.496**	**mg/Kg**	1	16-Jun-2016 17:45
Boron	ND		12.4	mg/Kg	5	20-Jun-2016 13:24
Cadmium	ND		0.496	mg/Kg	1	16-Jun-2016 17:45
Chromium	**6.69**		**0.496**	**mg/Kg**	1	16-Jun-2016 17:45
Copper	**6.85**		**0.496**	**mg/Kg**	1	16-Jun-2016 17:45
Lead	**7.01**		**0.496**	**mg/Kg**	1	16-Jun-2016 17:45
Nickel	**7.93**		**0.496**	**mg/Kg**	1	16-Jun-2016 17:45
Selenium	ND		0.496	mg/Kg	1	16-Jun-2016 17:45
Silver	ND		0.496	mg/Kg	1	16-Jun-2016 17:45
Zinc	**19.8**		**0.464**	**mg/Kg**	1	21-Jun-2016 01:36

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-14-060916
Collection Date: 09-Jun-2016 15:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-24
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	17-Jun-2016 04:42
Ethylbenzene	ND		4.8	ug/Kg	1	17-Jun-2016 04:42
m,p-Xylene	ND		9.7	ug/Kg	1	17-Jun-2016 04:42
o-Xylene	ND		4.8	ug/Kg	1	17-Jun-2016 04:42
Toluene	ND		4.8	ug/Kg	1	17-Jun-2016 04:42
Xylenes, Total	ND		9.7	ug/Kg	1	17-Jun-2016 04:42
Surr: 1,2-Dichloroethane-d4	*98.4*		*70-128*	*%REC*	*1*	*17-Jun-2016 04:42*
Surr: 4-Bromofluorobenzene	*99.7*		*73-126*	*%REC*	*1*	*17-Jun-2016 04:42*
Surr: Dibromofluoromethane	*108*		*71-128*	*%REC*	*1*	*17-Jun-2016 04:42*
Surr: Toluene-d8	*96.5*		*73-127*	*%REC*	*1*	*17-Jun-2016 04:42*
LA 29B - 1:1 SOLUBLE CATIONS FOR SAR		**Method:La29B-6020**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Calcium	**97.0**		**4.99**	**mg/L**	10	20-Jun-2016 17:19
Magnesium	**26.0**		**4.99**	**mg/L**	10	20-Jun-2016 17:19
Sodium	**104**		**4.99**	**mg/L**	10	20-Jun-2016 17:19
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**		Prep:SW3060A / 27-Jun-2016		Analyst: JHD
Chromium, Hexavalent	ND		2.01	mg/kg	1	27-Jun-2016 16:00
TRIVALENT CHROMIUM		**Method:Calculation**				Analyst: DQ
Chromium, Trivalent	**12.7**		**5.00**	**mg/Kg**	1	28-Jun-2016 15:22
LA29B ELECTRICAL CONDUCTIVITY		**Method:LaDNR-29B EC**				Analyst: KMU
Electrical Conductivity @ saturation	**3.17**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Electrical Conductivity, 1:1 aqueous	**1.40**		**0.0100**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
Saturation % as decimal	**0.444**		**0**	**mmhos/cm @25°C**	1	21-Jun-2016 12:30
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: SFE
Gasoline Range Organics	ND		0.050	mg/Kg	1	16-Jun-2016 03:09
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*16-Jun-2016 03:09*
MERCURY BY SW7471B		**Method:SW7471A**		Prep:SW7471A / 23-Jun-2016		Analyst: JCJ
Mercury	**9.10**		**3.52**	**ug/Kg**	1	24-Jun-2016 15:06
PH SOIL BY SW9045D		**Method:SW9045B**				Analyst: OFO
pH	**8.25**	H	**0.100**	**pH Units**	1	14-Jun-2016 15:30
Temp Deg C @pH	**24.5**	H	**0**	**°C**	1	14-Jun-2016 15:30
LA29B SATURATION POINT (AS FRACTION)		**Method:LaDNR-29B SP**				Analyst: KAH
Saturation Point	**0.444**		**0.100**	**SP as fraction**	1	17-Jun-2016 12:10
LA29B SODIUM ADSORPTION RATIO		**Method:La29B SAR**		Prep:La29B-6020 / 16-Jun-2016		Analyst: RPM
Sodium Adsorption Ratio	**2.42**		**0.0100**	**meq/meq**	1	23-Jun-2016 11:22

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Sample ID: GP-17-8-14-060916
Collection Date: 09-Jun-2016 15:10

ANALYTICAL REPORT
WorkOrder:HS16060751
Lab ID:HS16060751-24
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 17-Jun-2016		Analyst: AAP
TPH (Diesel Range)	ND		2.5	mg/Kg	1	18-Jun-2016 00:11
Surr: 2-Fluorobiphenyl	*79.0*		*60-135*	*%REC*	*1*	*18-Jun-2016 00:11*

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

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

Batch ID: 1050 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS16060751-01	1	4.997 (g)	5 (mL)	1	Bulk (5030B)
HS16060751-02	1	5.041 (g)	5 (mL)	0.99	Bulk (5030B)
HS16060751-03	1	5.083 (g)	5 (mL)	0.98	Bulk (5030B)
HS16060751-04	1	5.191 (g)	5 (mL)	0.96	Bulk (5030B)
HS16060751-05	1	5.198 (g)	5 (mL)	0.96	Bulk (5030B)
HS16060751-06	1	5.016 (g)	5 (mL)	1	Bulk (5030B)
HS16060751-07	1	5.052 (g)	5 (mL)	0.99	Bulk (5030B)
HS16060751-08	1	5.104 (g)	5 (mL)	0.98	Bulk (5030B)
HS16060751-09	1	5.108 (g)	5 (mL)	0.98	Bulk (5030B)
HS16060751-10	1	4.993 (g)	5 (mL)	1	Bulk (5030B)
HS16060751-11	1	5.167 (g)	5 (mL)	0.97	Bulk (5030B)
HS16060751-12	1	4.971 (g)	5 (mL)	1.01	Bulk (5030B)
HS16060751-13	1	4.956 (g)	5 (mL)	1.01	Bulk (5030B)
HS16060751-14	1	5.152 (g)	5 (mL)	0.97	Bulk (5030B)
HS16060751-15	1	5.105 (g)	5 (mL)	0.98	Bulk (5030B)
HS16060751-16	1	5.154 (g)	5 (mL)	0.97	Bulk (5030B)
HS16060751-17	1	5.283 (g)	5 (mL)	0.95	Bulk (5030B)
HS16060751-18	1	5.221 (g)	5 (mL)	0.96	Bulk (5030B)
HS16060751-19	1	4.967 (g)	5 (mL)	1.01	Bulk (5030B)
HS16060751-20	1	5.114 (g)	5 (mL)	0.98	Bulk (5030B)
HS16060751-21	1	5.199 (g)	5 (mL)	0.96	Bulk (5030B)
HS16060751-22	1	5.24 (g)	5 (mL)	0.95	Bulk (5030B)
HS16060751-23	1	5.233 (g)	5 (mL)	0.96	Bulk (5030B)
HS16060751-24	1	5.157 (g)	5 (mL)	0.97	Bulk (5030B)

Batch ID: 105384 **Method:** LOW-LEVEL PAHS **Prep:** 3541_B_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	30.06	1 (mL)	0.03327
HS16060751-02	1	30.07	1 (mL)	0.03326
HS16060751-03	1	30.15	1 (mL)	0.03317
HS16060751-04	1	30.13	1 (mL)	0.03319
HS16060751-05	1	30.14	1 (mL)	0.03318
HS16060751-06	1	30.11	1 (mL)	0.03321
HS16060751-07	1	30.19	1 (mL)	0.03312
HS16060751-08	1	30.09	1 (mL)	0.03323
HS16060751-09	1	30.12	1 (mL)	0.0332
HS16060751-10	1	30.16	1 (mL)	0.03316
HS16060751-11	1	30.08	1 (mL)	0.03324
HS16060751-12	1	30.13	1 (mL)	0.03319
HS16060751-13	1	30.14	1 (mL)	0.03318
HS16060751-14	1	30.11	1 (mL)	0.03321
HS16060751-15	1	30.04	1 (mL)	0.03329
HS16060751-16	1	30.06	1 (mL)	0.03327
HS16060751-17	1	30.03	1 (mL)	0.0333
HS16060751-18	1	30.16	1 (mL)	0.03316
HS16060751-19	1	30.11	1 (mL)	0.03321
HS16060751-20	1	20.13	1 (mL)	0.04968

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

Batch ID: 105385 **Method:** LOW-LEVEL PAHS **Prep:** 3541_B_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-21	1	30.11	1 (mL)	0.03321
HS16060751-22	1	30.06	1 (mL)	0.03327
HS16060751-23	1	30.07	1 (mL)	0.03326
HS16060751-24	1	30.03	1 (mL)	0.0333

Batch ID: 105401 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-18	1	0.5007	50 (mL)	99.86
HS16060751-19	1	0.5134	50 (mL)	97.39
HS16060751-20	1	0.5179	50 (mL)	96.54
HS16060751-21	1	0.5187	50 (mL)	96.39
HS16060751-22	1	0.5305	50 (mL)	94.25
HS16060751-23	1	0.5103	50 (mL)	97.98
HS16060751-24	1	0.5036	50 (mL)	99.29

Batch ID: 105424 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	30.05	1 (mL)	0.03328
HS16060751-02	1	30.06	1 (mL)	0.03327
HS16060751-03	1	30.07	1 (mL)	0.03326
HS16060751-04	1	30.14	1 (mL)	0.03318
HS16060751-05	1	30.16	1 (mL)	0.03316
HS16060751-06	1	30.19	1 (mL)	0.03312
HS16060751-07	1	30.11	1 (mL)	0.03321
HS16060751-08	1	15.13	1 (mL)	0.06609
HS16060751-09	1	30.02	1 (mL)	0.03331
HS16060751-10	1	30.07	1 (mL)	0.03326
HS16060751-11	1	30.06	1 (mL)	0.03327
HS16060751-12	1	30.14	1 (mL)	0.03318
HS16060751-13	1	30.13	1 (mL)	0.03319
HS16060751-14	1	30.09	1 (mL)	0.03323
HS16060751-15	1	30.17	1 (mL)	0.03315

Batch ID: 105433 **Method:** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR **Prep:** LA29B SAR CATPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-21	1	80.0683	80 (mL)	0.9991
HS16060751-22	1	100.0086	100 (mL)	0.9999
HS16060751-23	1	100.1705	100 (mL)	0.9983
HS16060751-24	1	90.1065	90 (mL)	0.9988

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

Batch ID: 105482 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-16	1	30.06	1 (mL)	0.03327
HS16060751-17	1	30.13	1 (mL)	0.03319
HS16060751-18	1	30.06	1 (mL)	0.03327
HS16060751-19	1	30.14	1 (mL)	0.03318
HS16060751-21	1	30.19	1 (mL)	0.03312
HS16060751-22	1	30.11	1 (mL)	0.03321
HS16060751-23	1	30.09	1 (mL)	0.03323
HS16060751-24	1	20.13	1 (mL)	0.04968

Batch ID: 105483 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-18	1	0.5325	50 (mL)	93.9
HS16060751-19	1	0.5513	50 (mL)	90.69
HS16060751-20	1	0.5443	50 (mL)	91.86
HS16060751-21	1	0.5616	50 (mL)	89.03
HS16060751-22	1	0.5447	50 (mL)	91.79
HS16060751-23	1	0.5323	50 (mL)	93.93
HS16060751-24	1	0.5384	50 (mL)	92.87

Batch ID: 105507 **Method:** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR **Prep:** LA29B SAR CATPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	80.1962	80 (mL)	0.9976
HS16060751-02	1	100.1459	100 (mL)	0.9985
HS16060751-03	1	100.1185	100 (mL)	0.9988
HS16060751-04	1	100.1589	100 (mL)	0.9984
HS16060751-05	1	100.0528	100 (mL)	0.9995
HS16060751-06	1	100.3227	100 (mL)	0.9968
HS16060751-07	1	100.0305	100 (mL)	0.9997
HS16060751-08	1	100.0702	100 (mL)	0.9993
HS16060751-09	1	100.1548	100 (mL)	0.9985
HS16060751-10	1	100.2337	100 (mL)	0.9977
HS16060751-11	1	100.2541	100 (mL)	0.9975
HS16060751-12	1	100.2718	100 (mL)	0.9973
HS16060751-13	1	100.0888	100 (mL)	0.9991
HS16060751-14	1	90.1045	90 (mL)	0.9988
HS16060751-15	1	100.0778	100 (mL)	0.9992
HS16060751-16	1	90.1417	90 (mL)	0.9984
HS16060751-17	1	50.0501	50 (mL)	0.999
HS16060751-18	1	100.1386	100 (mL)	0.9986
HS16060751-19	1	100.1678	100 (mL)	0.9983
HS16060751-20	1	70.0724	70 (mL)	0.999

Batch ID: 105535 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-20	1	30.16	1 (mL)	0.03316

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

Batch ID: 105557 **Method:** METALS BY SW6020A **Prep:** 3050_I_LOW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	0.5494	50 (mL)	91.01
HS16060751-02	1	0.5085	50 (mL)	98.33
HS16060751-03	1	0.5239	50 (mL)	95.44
HS16060751-04	1	0.5195	50 (mL)	96.25
HS16060751-05	1	0.5426	50 (mL)	92.15
HS16060751-06	1	0.5452	50 (mL)	91.71
HS16060751-07	1	0.5285	50 (mL)	94.61
HS16060751-08	1	0.5494	50 (mL)	91.01
HS16060751-09	1	0.5272	50 (mL)	94.84
HS16060751-10	1	0.5497	50 (mL)	90.96
HS16060751-11	1	0.5499	50 (mL)	90.93
HS16060751-12	1	0.5455	50 (mL)	91.66
HS16060751-13	1	0.5257	50 (mL)	95.11
HS16060751-14	1	0.522	50 (mL)	95.79
HS16060751-15	1	0.5332	50 (mL)	93.77
HS16060751-16	1	0.5547	50 (mL)	90.14
HS16060751-17	1	0.5202	50 (mL)	96.12

Batch ID: 105642 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	0.5549	40 (mL)	72.09
HS16060751-02	1	0.5552	40 (mL)	72.05
HS16060751-03	1	0.5579	40 (mL)	71.7
HS16060751-04	1	0.5602	40 (mL)	71.4
HS16060751-05	1	0.5911	40 (mL)	67.67
HS16060751-06	1	0.5547	40 (mL)	72.11
HS16060751-07	1	0.5543	40 (mL)	72.16
HS16060751-08	1	0.5842	40 (mL)	68.47
HS16060751-09	1	0.5813	40 (mL)	68.81
HS16060751-10	1	0.5887	40 (mL)	67.95
HS16060751-11	1	0.5646	40 (mL)	70.85
HS16060751-12	1	0.5871	40 (mL)	68.13
HS16060751-13	1	0.5563	40 (mL)	71.9
HS16060751-14	1	0.5527	40 (mL)	72.37
HS16060751-15	1	0.5531	40 (mL)	72.32
HS16060751-16	1	0.5803	40 (mL)	68.93
HS16060751-17	1	0.5646	40 (mL)	70.85
HS16060751-18	1	0.5711	40 (mL)	70.04
HS16060751-19	1	0.5568	40 (mL)	71.84
HS16060751-20	1	0.5624	40 (mL)	71.12

Batch ID: 105645 **Method:** MERCURY BY SW7471B **Prep:** HG_S_LOWPR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-21	1	0.5594	40 (mL)	71.51
HS16060751-22	1	0.5504	40 (mL)	72.67
HS16060751-23	1	0.5645	40 (mL)	70.86
HS16060751-24	1	0.5672	40 (mL)	70.52

WEIGHT LOG

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

Batch ID: 105664 **Method:** HEXAVALENT CHROMIUM BY SW7196A **Prep:** CR6_S_PR3060A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-01	1	2.5162	100 (mL)	39.74
HS16060751-02	1	2.5195	100 (mL)	39.69
HS16060751-03	1	2.5116	100 (mL)	39.82
HS16060751-04	1	2.5189	100 (mL)	39.7
HS16060751-05	1	2.5057	100 (mL)	39.91
HS16060751-06	1	2.5073	100 (mL)	39.88
HS16060751-07	1	2.509	100 (mL)	39.86
HS16060751-08	1	2.5079	100 (mL)	39.87
HS16060751-09	1	2.5062	100 (mL)	39.9
HS16060751-10	1	2.5155	100 (mL)	39.75
HS16060751-11	1	2.5094	100 (mL)	39.85
HS16060751-12	1	2.5155	100 (mL)	39.75
HS16060751-13	1	2.4996	100 (mL)	40.01
HS16060751-14	1	2.5055	100 (mL)	39.91
HS16060751-15	1	2.5115	100 (mL)	39.82
HS16060751-16	1	2.5055	100 (mL)	39.91
HS16060751-17	1	2.5146	100 (mL)	39.77
HS16060751-18	1	2.5028	100 (mL)	39.96
HS16060751-19	1	2.5042	100 (mL)	39.93
HS16060751-20	1	2.5155	100 (mL)	39.75

Batch ID: 105704 **Method:** HEXAVALENT CHROMIUM BY SW7196A **Prep:** CR6_S_PR3060A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS16060751-21	1	2.5012	100 (mL)	39.98
HS16060751-22	1	2.4859	100 (mL)	40.23
HS16060751-23	1	2.4705	100 (mL)	40.48
HS16060751-24	1	2.4857	100 (mL)	40.23

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105384	**Test Name :** LOW-LEVEL PAHS			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		15 Jun 2016 11:36	22 Jun 2016 14:19	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		15 Jun 2016 11:36	22 Jun 2016 20:32	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		15 Jun 2016 11:36	22 Jun 2016 14:58	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		15 Jun 2016 11:36	22 Jun 2016 15:18	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		15 Jun 2016 11:36	23 Jun 2016 18:13	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		15 Jun 2016 11:36	22 Jun 2016 15:59	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		15 Jun 2016 11:36	22 Jun 2016 21:11	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		15 Jun 2016 11:36	21 Jun 2016 16:31	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		15 Jun 2016 11:36	22 Jun 2016 16:38	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		15 Jun 2016 11:36	22 Jun 2016 16:58	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		15 Jun 2016 11:36	22 Jun 2016 17:17	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		15 Jun 2016 11:36	22 Jun 2016 17:37	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		15 Jun 2016 11:36	22 Jun 2016 17:56	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		15 Jun 2016 11:36	22 Jun 2016 21:31	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		15 Jun 2016 11:36	23 Jun 2016 16:55	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		15 Jun 2016 11:36	23 Jun 2016 17:15	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		15 Jun 2016 11:36	22 Jun 2016 19:15	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		15 Jun 2016 11:36	22 Jun 2016 19:34	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		15 Jun 2016 11:36	22 Jun 2016 22:29	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		15 Jun 2016 11:36	22 Jun 2016 22:49	1
Batch ID 105385	**Test Name :** LOW-LEVEL PAHS			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		15 Jun 2016 12:39	24 Jun 2016 23:12	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		15 Jun 2016 12:39	24 Jun 2016 23:31	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		15 Jun 2016 12:39	24 Jun 2016 23:50	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		15 Jun 2016 12:39	27 Jun 2016 13:14	1
Batch ID 105401	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		15 Jun 2016 16:37	17 Jun 2016 11:47	10
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		15 Jun 2016 16:37	16 Jun 2016 16:45	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		15 Jun 2016 16:37	17 Jun 2016 12:00	10
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		15 Jun 2016 16:37	16 Jun 2016 17:24	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		15 Jun 2016 16:37	16 Jun 2016 17:28	1
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		15 Jun 2016 16:37	16 Jun 2016 17:32	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		15 Jun 2016 16:37	20 Jun 2016 13:15	5
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		15 Jun 2016 16:37	17 Jun 2016 12:05	5
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		15 Jun 2016 16:37	16 Jun 2016 17:37	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		15 Jun 2016 16:37	20 Jun 2016 13:20	5
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		15 Jun 2016 16:37	16 Jun 2016 17:41	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		15 Jun 2016 16:37	20 Jun 2016 13:24	5
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		15 Jun 2016 16:37	16 Jun 2016 17:45	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105424	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		16 Jun 2016 10:50	17 Jun 2016 06:47	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		16 Jun 2016 10:50	17 Jun 2016 07:11	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		16 Jun 2016 10:50	17 Jun 2016 07:35	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		16 Jun 2016 10:50	17 Jun 2016 07:59	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		16 Jun 2016 10:50	17 Jun 2016 08:23	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		16 Jun 2016 10:50	17 Jun 2016 08:47	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		16 Jun 2016 10:50	17 Jun 2016 07:11	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		16 Jun 2016 10:50	17 Jun 2016 07:35	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		16 Jun 2016 10:50	17 Jun 2016 07:59	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		16 Jun 2016 10:50	17 Jun 2016 08:23	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		16 Jun 2016 10:50	17 Jun 2016 08:47	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		16 Jun 2016 10:50	17 Jun 2016 09:12	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		16 Jun 2016 10:50	17 Jun 2016 09:36	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		16 Jun 2016 10:50	17 Jun 2016 09:12	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		16 Jun 2016 10:50	17 Jun 2016 09:36	1
Batch ID 105433	**Test Name :** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		16 Jun 2016 12:56	20 Jun 2016 17:10	10
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		16 Jun 2016 12:56	21 Jun 2016 10:15	100
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		16 Jun 2016 12:56	20 Jun 2016 17:13	10
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		16 Jun 2016 12:56	21 Jun 2016 11:25	1000
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		16 Jun 2016 12:56	21 Jun 2016 10:23	100
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		16 Jun 2016 12:56	20 Jun 2016 17:19	10
Batch ID 105433A	**Test Name :** LA29B SODIUM ADSORPTION RATIO			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		16 Jun 2016 12:56	23 Jun 2016 11:22	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		16 Jun 2016 12:56	23 Jun 2016 11:22	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		16 Jun 2016 12:56	23 Jun 2016 11:22	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		16 Jun 2016 12:56	23 Jun 2016 11:22	1
Batch ID 105482	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		17 Jun 2016 12:15	17 Jun 2016 21:22	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		17 Jun 2016 12:15	24 Jun 2016 04:43	5
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		17 Jun 2016 12:15	17 Jun 2016 22:10	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		17 Jun 2016 12:15	17 Jun 2016 22:34	1
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		17 Jun 2016 12:15	17 Jun 2016 22:59	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		17 Jun 2016 12:15	17 Jun 2016 23:23	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		17 Jun 2016 12:15	23 Jun 2016 23:53	2
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		17 Jun 2016 12:15	18 Jun 2016 00:11	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105483	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		17 Jun 2016 15:26	21 Jun 2016 01:09	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		17 Jun 2016 15:26	21 Jun 2016 01:14	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		17 Jun 2016 15:26	21 Jun 2016 01:18	1
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		17 Jun 2016 15:26	21 Jun 2016 01:23	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		17 Jun 2016 15:26	21 Jun 2016 01:27	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		17 Jun 2016 15:26	21 Jun 2016 01:32	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		17 Jun 2016 15:26	21 Jun 2016 01:36	1
Batch ID 105507	**Test Name :** LA 29B - 1:1 SOLUBLE CATIONS FOR SAR			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		20 Jun 2016 13:26	22 Jun 2016 13:39	10
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		20 Jun 2016 13:26	22 Jun 2016 13:47	10
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		20 Jun 2016 13:26	22 Jun 2016 13:50	10
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		20 Jun 2016 13:26	22 Jun 2016 13:53	10
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		20 Jun 2016 13:26	22 Jun 2016 13:56	10
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		20 Jun 2016 13:26	22 Jun 2016 13:59	10
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		20 Jun 2016 13:26	22 Jun 2016 14:01	10
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		20 Jun 2016 13:26	22 Jun 2016 14:04	10
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		20 Jun 2016 13:26	22 Jun 2016 14:07	10
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		20 Jun 2016 13:26	22 Jun 2016 14:10	10
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		20 Jun 2016 13:26	22 Jun 2016 14:13	10
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		20 Jun 2016 13:26	22 Jun 2016 14:22	10
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		20 Jun 2016 13:26	22 Jun 2016 14:24	10
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		20 Jun 2016 13:26	22 Jun 2016 14:27	10
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		20 Jun 2016 13:26	22 Jun 2016 14:30	10
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		20 Jun 2016 13:26	22 Jun 2016 14:33	10
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		20 Jun 2016 13:26	22 Jun 2016 14:36	10
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		20 Jun 2016 13:26	22 Jun 2016 14:39	10
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		20 Jun 2016 13:26	22 Jun 2016 14:42	10
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		20 Jun 2016 13:26	22 Jun 2016 14:48	10

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105507A	**Test Name :** LA29B SODIUM ADSORPTION RATIO			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		20 Jun 2016 13:26	27 Jun 2016 06:11	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		20 Jun 2016 13:26	27 Jun 2016 06:11	1
Batch ID 105535	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		21 Jun 2016 09:01	24 Jun 2016 05:31	5

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105557	**Test Name :** METALS BY SW6020A			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		21 Jun 2016 14:35	24 Jun 2016 12:15	5
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		21 Jun 2016 14:35	23 Jun 2016 13:54	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		21 Jun 2016 14:35	23 Jun 2016 13:58	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		21 Jun 2016 14:35	24 Jun 2016 12:19	5
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		21 Jun 2016 14:35	23 Jun 2016 14:29	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		21 Jun 2016 14:35	23 Jun 2016 14:33	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		21 Jun 2016 14:35	23 Jun 2016 14:38	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		21 Jun 2016 14:35	24 Jun 2016 12:24	5
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		21 Jun 2016 14:35	23 Jun 2016 14:42	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		21 Jun 2016 14:35	23 Jun 2016 14:46	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		21 Jun 2016 14:35	23 Jun 2016 14:51	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		21 Jun 2016 14:35	23 Jun 2016 14:55	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		21 Jun 2016 14:35	23 Jun 2016 15:09	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		21 Jun 2016 14:35	24 Jun 2016 12:28	10
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		21 Jun 2016 14:35	23 Jun 2016 15:13	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		21 Jun 2016 14:35	24 Jun 2016 12:32	10
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		21 Jun 2016 14:35	23 Jun 2016 15:17	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		21 Jun 2016 14:35	23 Jun 2016 15:22	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		21 Jun 2016 14:35	23 Jun 2016 15:26	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		21 Jun 2016 14:35	23 Jun 2016 15:31	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		21 Jun 2016 14:35	23 Jun 2016 15:35	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		21 Jun 2016 14:35	23 Jun 2016 15:39	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105642	**Test Name :** MERCURY BY SW7471B			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		23 Jun 2016 13:23	24 Jun 2016 13:59	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		23 Jun 2016 13:23	24 Jun 2016 14:01	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		23 Jun 2016 13:23	24 Jun 2016 14:02	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		23 Jun 2016 13:23	24 Jun 2016 14:11	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		23 Jun 2016 13:23	24 Jun 2016 14:13	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		23 Jun 2016 13:23	24 Jun 2016 14:14	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		23 Jun 2016 13:23	24 Jun 2016 14:16	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		23 Jun 2016 13:23	24 Jun 2016 14:18	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		23 Jun 2016 13:23	24 Jun 2016 14:19	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		23 Jun 2016 13:23	24 Jun 2016 14:21	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		23 Jun 2016 13:23	24 Jun 2016 14:23	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		23 Jun 2016 13:23	24 Jun 2016 14:25	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		23 Jun 2016 13:23	24 Jun 2016 14:26	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		23 Jun 2016 13:23	24 Jun 2016 14:31	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		23 Jun 2016 13:23	24 Jun 2016 14:33	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		23 Jun 2016 13:23	24 Jun 2016 14:35	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		23 Jun 2016 13:23	24 Jun 2016 14:37	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		23 Jun 2016 13:23	24 Jun 2016 14:38	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		23 Jun 2016 13:23	24 Jun 2016 14:40	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		23 Jun 2016 13:23	24 Jun 2016 14:42	1
Batch ID 105645	**Test Name :** MERCURY BY SW7471B			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		23 Jun 2016 13:28	24 Jun 2016 15:01	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		23 Jun 2016 13:28	24 Jun 2016 15:03	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		23 Jun 2016 13:28	24 Jun 2016 15:04	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		23 Jun 2016 13:28	24 Jun 2016 15:06	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 105664	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00		23 Jun 2016 16:00	24 Jun 2016 13:45	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10		23 Jun 2016 16:00	24 Jun 2016 13:45	1
Batch ID 105704	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20		27 Jun 2016 08:00	27 Jun 2016 16:00	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45		27 Jun 2016 08:00	27 Jun 2016 16:00	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55		27 Jun 2016 08:00	27 Jun 2016 16:00	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10		27 Jun 2016 08:00	27 Jun 2016 16:00	1
Batch ID R276342	**Test Name :** PH SOIL BY SW9045D			**Matrix:** Soil		
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			14 Jun 2016 15:30	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			14 Jun 2016 15:30	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			14 Jun 2016 15:30	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			14 Jun 2016 15:30	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			14 Jun 2016 15:30	1
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			14 Jun 2016 15:30	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			14 Jun 2016 15:30	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			14 Jun 2016 15:30	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			14 Jun 2016 15:30	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R276343	**Test Name :** PH SOIL BY SW9045D			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			14 Jun 2016 16:40	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			14 Jun 2016 16:40	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			14 Jun 2016 16:40	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			14 Jun 2016 16:40	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			14 Jun 2016 16:40	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			14 Jun 2016 16:40	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			14 Jun 2016 16:40	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			14 Jun 2016 16:40	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			14 Jun 2016 16:40	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			14 Jun 2016 16:40	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			14 Jun 2016 16:40	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			14 Jun 2016 16:40	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			14 Jun 2016 16:40	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			14 Jun 2016 16:40	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			14 Jun 2016 16:40	1
Batch ID R276350	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			15 Jun 2016 15:17	1
Batch ID R276407	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			16 Jun 2016 04:55	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			16 Jun 2016 05:24	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			16 Jun 2016 05:52	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			15 Jun 2016 23:48	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			16 Jun 2016 06:19	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			16 Jun 2016 06:47	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			16 Jun 2016 07:15	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			16 Jun 2016 07:43	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			16 Jun 2016 08:11	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R276422	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			15 Jun 2016 17:17	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			15 Jun 2016 18:05	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			15 Jun 2016 18:21	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			15 Jun 2016 18:37	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			15 Jun 2016 18:53	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			15 Jun 2016 19:41	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			15 Jun 2016 19:57	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			15 Jun 2016 20:13	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			15 Jun 2016 20:29	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			15 Jun 2016 20:45	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			15 Jun 2016 21:01	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			15 Jun 2016 21:17	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			15 Jun 2016 21:33	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			15 Jun 2016 21:49	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			15 Jun 2016 22:53	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			15 Jun 2016 23:09	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			15 Jun 2016 23:25	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			15 Jun 2016 23:41	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			15 Jun 2016 23:57	1
Batch ID R276423	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			16 Jun 2016 01:49	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			16 Jun 2016 02:37	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			16 Jun 2016 02:53	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			16 Jun 2016 03:09	1
Batch ID R276435	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			16 Jun 2016 11:30	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			16 Jun 2016 11:59	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			16 Jun 2016 12:27	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			16 Jun 2016 12:55	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			16 Jun 2016 13:24	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			16 Jun 2016 13:55	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			16 Jun 2016 14:27	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			16 Jun 2016 15:55	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			16 Jun 2016 16:25	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			16 Jun 2016 16:56	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R276485	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			17 Jun 2016 03:32	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			17 Jun 2016 03:55	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			17 Jun 2016 04:19	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			17 Jun 2016 04:42	1
Batch ID R276511	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			17 Jun 2016 09:18	1
Batch ID R276612	**Test Name :** LA29B SATURATION POINT (AS FRACTION)			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			17 Jun 2016 12:10	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			17 Jun 2016 12:10	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			17 Jun 2016 12:10	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			17 Jun 2016 12:10	1
Batch ID R276732	**Test Name :** LA29B ELECTRICAL CONDUCTIVITY			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			21 Jun 2016 12:30	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			21 Jun 2016 12:30	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			21 Jun 2016 12:30	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			21 Jun 2016 12:30	1
Batch ID R276755	**Test Name :** LA29B SATURATION POINT (AS FRACTION)			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			20 Jun 2016 12:10	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			20 Jun 2016 12:10	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			20 Jun 2016 12:10	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			20 Jun 2016 12:10	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			20 Jun 2016 12:10	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			20 Jun 2016 12:10	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			20 Jun 2016 12:10	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			20 Jun 2016 12:10	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			20 Jun 2016 12:10	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			20 Jun 2016 12:10	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			20 Jun 2016 12:10	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			20 Jun 2016 12:10	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			20 Jun 2016 12:10	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			20 Jun 2016 12:10	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			20 Jun 2016 12:10	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			20 Jun 2016 12:10	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			20 Jun 2016 12:10	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			20 Jun 2016 12:10	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			20 Jun 2016 12:10	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			20 Jun 2016 12:10	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R276823	**Test Name :** LA29B ELECTRICAL CONDUCTIVITY			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			22 Jun 2016 12:00	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			22 Jun 2016 12:00	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			22 Jun 2016 12:00	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			22 Jun 2016 12:00	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			22 Jun 2016 12:00	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			22 Jun 2016 12:00	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			22 Jun 2016 12:00	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			22 Jun 2016 12:00	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			22 Jun 2016 12:00	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			22 Jun 2016 12:00	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			22 Jun 2016 12:00	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			22 Jun 2016 12:00	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			22 Jun 2016 12:00	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			22 Jun 2016 12:00	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			22 Jun 2016 12:00	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			22 Jun 2016 12:00	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			22 Jun 2016 12:00	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			22 Jun 2016 12:00	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			22 Jun 2016 12:00	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			22 Jun 2016 12:00	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R277063	**Test Name :** TRIVALENT CHROMIUM			**Matrix:** Soil		
HS16060751-01	GP-17-4-1-060916	09 Jun 2016 08:25			27 Jun 2016 13:22	1
HS16060751-02	GP-17-4-6-060916	09 Jun 2016 08:35			27 Jun 2016 13:22	1
HS16060751-03	GP-17-4-14-060916	09 Jun 2016 08:45			27 Jun 2016 13:22	1
HS16060751-04	GP-17-5-1-060916	09 Jun 2016 12:15			27 Jun 2016 13:22	1
HS16060751-05	GP-17-5-8-060916	09 Jun 2016 12:25			27 Jun 2016 13:22	1
HS16060751-06	GP-17-5-15-060916	09 Jun 2016 12:30			27 Jun 2016 13:22	1
HS16060751-07	GP-17-3-3-060916	09 Jun 2016 09:00			27 Jun 2016 13:22	1
HS16060751-08	GP-17-3-10-060916	09 Jun 2016 09:10			27 Jun 2016 13:22	1
HS16060751-09	GP-17-3-14-060916	09 Jun 2016 09:20			27 Jun 2016 13:22	1
HS16060751-10	GP-17-2-3-060916	09 Jun 2016 09:55			27 Jun 2016 13:22	1
HS16060751-11	GP-17-2-7-060916	09 Jun 2016 10:10			27 Jun 2016 13:22	1
HS16060751-12	GP-17-2-14-060916	09 Jun 2016 10:20			27 Jun 2016 13:22	1
HS16060751-13	GP-17-1-3-060916	09 Jun 2016 10:40			27 Jun 2016 13:22	1
HS16060751-14	GP-17-1-4-060916	09 Jun 2016 10:50			27 Jun 2016 13:22	1
HS16060751-15	GP-17-1-14-060916	09 Jun 2016 11:10			27 Jun 2016 13:22	1
HS16060751-16	GP-17-6-2-060916	09 Jun 2016 12:50			27 Jun 2016 13:22	1
HS16060751-17	GP-17-6-8-060916	09 Jun 2016 13:10			27 Jun 2016 13:22	1
HS16060751-18	GP-17-6-15-060916	09 Jun 2016 13:25			27 Jun 2016 13:22	1
HS16060751-19	GP-17-7-3-060916	09 Jun 2016 14:00			27 Jun 2016 13:22	1
HS16060751-20	GP-17-7-5-060916	09 Jun 2016 14:10			27 Jun 2016 13:22	1
Batch ID R277146	**Test Name :** TRIVALENT CHROMIUM			**Matrix:** Soil		
HS16060751-21	GP-17-7-12-060916	09 Jun 2016 14:20			28 Jun 2016 15:22	1
HS16060751-22	GP-17-8-3-060916	09 Jun 2016 14:45			28 Jun 2016 15:22	1
HS16060751-23	GP-17-8-9-060916	09 Jun 2016 14:55			28 Jun 2016 15:22	1
HS16060751-24	GP-17-8-14-060916	09 Jun 2016 15:10			28 Jun 2016 15:22	1

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105424 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-105424** Units: **mg/Kg** Analysis Date: **17-Jun-2016 03:10**
Client ID: Run ID: **FID-7_276861** SeqNo: **3735557** PrepDate: **16-Jun-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	*2.683*	*0.10*	*3.33*	*0*	*80.6*	*60 - 135*				

LCS Sample ID: **LCS-105424** Units: **mg/Kg** Analysis Date: **17-Jun-2016 03:34**
Client ID: Run ID: **FID-7_276861** SeqNo: **3735558** PrepDate: **16-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	26.72	1.7	33.33	0	80.2	70 - 130				
Surr: 2-Fluorobiphenyl	*2.918*	*0.10*	*3.33*	*0*	*87.6*	*60 - 135*				

MS Sample ID: **HS16060646-07MS** Units: **mg/Kg** Analysis Date: **17-Jun-2016 05:59**
Client ID: Run ID: **FID-7_276861** SeqNo: **3735563** PrepDate: **16-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	74.34	5.1	99.29	2.317	72.5	70 - 130				
Surr: 2-Fluorobiphenyl	*7.925*	*0.30*	*9.921*	*0*	*79.9*	*60 - 135*				

MSD Sample ID: **HS16060646-07MSD** Units: **mg/Kg** Analysis Date: **17-Jun-2016 06:23**
Client ID: Run ID: **FID-7_276861** SeqNo: **3735564** PrepDate: **16-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	70.06	5.1	99.39	2.317	68.2	70 - 130	74.34	5.92	30	S
Surr: 2-Fluorobiphenyl	*7.418*	*0.30*	*9.93*	*0*	*74.7*	*60 - 135*	*7.925*	*6.61*	*30*	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105482 **Instrument: FID-8** **Method: SW8015M**

MBLK Sample ID: **MBLK-105482** Units: **mg/Kg** Analysis Date: **17-Jun-2016 20:34**
Client ID: Run ID: **FID-8_276830** SeqNo: **3734989** PrepDate: **17-Jun-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	*2.647*	*0.10*	*3.33*	*0*	*79.5*	*60 - 135*				

LCS Sample ID: **LCS-105482** Units: **mg/Kg** Analysis Date: **17-Jun-2016 20:58**
Client ID: Run ID: **FID-8_276830** SeqNo: **3734990** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	34.25	1.7	33.33	0	103	70 - 130				
Surr: 2-Fluorobiphenyl	*2.83*	*0.10*	*3.33*	*0*	*85.0*	*60 - 135*				

MS Sample ID: **HS16060754-05MS** Units: **mg/Kg** Analysis Date: **18-Jun-2016 01:48**
Client ID: Run ID: **FID-8_276830** SeqNo: **3735001** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	86.16	5.1	99.69	2.83	83.6	70 - 130				
Surr: 2-Fluorobiphenyl	*6.51*	*0.30*	*9.96*	*0*	*65.4*	*60 - 135*				

MSD Sample ID: **HS16060754-05MSD** Units: **mg/Kg** Analysis Date: **18-Jun-2016 02:12**
Client ID: Run ID: **FID-8_276830** SeqNo: **3735002** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	81.58	5.1	99.79	2.83	78.9	70 - 130	86.16	5.46	30	
Surr: 2-Fluorobiphenyl	*6.313*	*0.30*	*9.97*	*0*	*63.3*	*60 - 135*	*6.51*	*3.07*	*30*	

The following samples were analyzed in this batch:

HS16060751-16	HS16060751-17	HS16060751-18	HS16060751-19
HS16060751-21	HS16060751-22	HS16060751-23	HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105535 **Instrument: FID-8** **Method: SW8015M**

MBLK Sample ID: **MBLK-105535** Units: **mg/Kg** Analysis Date: **21-Jun-2016 20:34**
Client ID: Run ID: **FID-8_276948** SeqNo: **3737216** PrepDate: **21-Jun-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	*2.57*	*0.10*	*3.33*	*0*	*77.2*	*60 - 135*				

LCS Sample ID: **LCS-105535** Units: **mg/Kg** Analysis Date: **23-Jun-2016 21:29**
Client ID: Run ID: **FID-8_276948** SeqNo: **3737348** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	28.77	1.7	33.33	0	86.3	70 - 130				
Surr: 2-Fluorobiphenyl	*3.023*	*0.10*	*3.33*	*0*	*90.8*	*60 - 135*				

MS Sample ID: **HS16060958-09MS** Units: **mg/Kg** Analysis Date: **21-Jun-2016 21:46**
Client ID: Run ID: **FID-8_276948** SeqNo: **3737218** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	29.82	1.7	33.25	11.18	56.1	70 - 130				S
Surr: 2-Fluorobiphenyl	*1.881*	*0.10*	*3.322*	*0*	*56.6*	*60 - 135*				S

MSD Sample ID: **HS16060958-09MSD** Units: **mg/Kg** Analysis Date: **21-Jun-2016 22:10**
Client ID: Run ID: **FID-8_276948** SeqNo: **3737219** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	21.17	1.7	33.22	11.18	30.1	70 - 130	29.82	34	30	SR
Surr: 2-Fluorobiphenyl	*1.2*	*0.10*	*3.319*	*0*	*36.2*	*60 - 135*	*1.881*	*44.2*	*30*	SR

The following samples were analyzed in this batch: HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276422 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLK-160615** Units: **mg/Kg** Analysis Date: **15-Jun-2016 16:52**
Client ID: Run ID: **FID-14_276422** SeqNo: **3726098** 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	*0.08505*	*0.0050*	*0.1*	*0*	*85.1*	*70 - 130*				

LCS Sample ID: **GLCS-160615** Units: **mg/Kg** Analysis Date: **15-Jun-2016 16:21**
Client ID: Run ID: **FID-14_276422** SeqNo: **3726097** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9953	0.050	1	0	99.5	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1035*	*0.0050*	*0.1*	*0*	*103*	*70 - 130*				

MS Sample ID: **HS16060751-01MS** Units: **mg/Kg** Analysis Date: **15-Jun-2016 17:33**
Client ID: **GP-17-4-1-060916** Run ID: **FID-14_276422** SeqNo: **3726100** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8914	0.050	1	0	89.1	70 - 130				
Surr: 4-Bromofluorobenzene	*0.09334*	*0.0050*	*0.1*	*0*	*93.3*	*70 - 130*				

MSD Sample ID: **HS16060751-01MSD** Units: **mg/Kg** Analysis Date: **15-Jun-2016 17:49**
Client ID: **GP-17-4-1-060916** Run ID: **FID-14_276422** SeqNo: **3726101** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8413	0.050	1	0	84.1	70 - 130	0.8914	5.79	30	
Surr: 4-Bromofluorobenzene	*0.08534*	*0.0050*	*0.1*	*0*	*85.3*	*70 - 130*	*0.09334*	*8.96*	*30*	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-16	HS16060751-17
HS16060751-18	HS16060751-19	HS16060751-20	

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276423 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLK-160615** Units: **mg/Kg** Analysis Date: **16-Jun-2016 01:33**
Client ID: Run ID: **FID-14_276423** SeqNo: **3726125** 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	*0.08893*	*0.0050*	*0.1*	*0*	*88.9*	*70 - 130*				

LCS Sample ID: **GLCS-160615** Units: **mg/Kg** Analysis Date: **16-Jun-2016 01:01**
Client ID: Run ID: **FID-14_276423** SeqNo: **3726124** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9533	0.050	1	0	95.3	70 - 130				
Surr: 4-Bromofluorobenzene	*0.0978*	*0.0050*	*0.1*	*0*	*97.8*	*70 - 130*				

MS Sample ID: **HS16060754-01MS** Units: **mg/Kg** Analysis Date: **16-Jun-2016 09:47**
Client ID: Run ID: **FID-14_276423** SeqNo: **3726149** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.29	0.050	1	0	129	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1126*	*0.0050*	*0.1*	*0*	*113*	*70 - 130*				

MSD Sample ID: **HS16060754-01MSD** Units: **mg/Kg** Analysis Date: **16-Jun-2016 10:03**
Client ID: Run ID: **FID-14_276423** SeqNo: **3726150** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.236	0.050	1	0	124	70 - 130	1.29	4.26	30	
Surr: 4-Bromofluorobenzene	*0.1085*	*0.0050*	*0.1*	*0*	*109*	*70 - 130*	*0.1126*	*3.69*	*30*	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276511 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLKW-160616** Units: **mg/Kg** Analysis Date: **17-Jun-2016 06:03**
Client ID: Run ID: **FID-14_276511** SeqNo: **3727991** 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	*0.07737*	*0.0050*	*0.1*	*0*	*77.4*	*70 - 130*				

LCS Sample ID: **GLCSW-160616** Units: **mg/Kg** Analysis Date: **17-Jun-2016 05:30**
Client ID: Run ID: **FID-14_276511** SeqNo: **3727990** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.053	0.050	1	0	105	70 - 130				
Surr: 4-Bromofluorobenzene	*0.1038*	*0.0050*	*0.1*	*0*	*104*	*70 - 130*				

MS Sample ID: **HS16060846-21MS** Units: **mg/Kg** Analysis Date: **17-Jun-2016 06:35**
Client ID: Run ID: **FID-14_276511** SeqNo: **3727993** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.923	0.050	1	0	92.3	70 - 130				
Surr: 4-Bromofluorobenzene	*0.0813*	*0.0050*	*0.1*	*0*	*81.3*	*70 - 130*				

MSD Sample ID: **HS16060846-21MSD** Units: **mg/Kg** Analysis Date: **17-Jun-2016 06:51**
Client ID: Run ID: **FID-14_276511** SeqNo: **3727994** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8744	0.050	0.99	0	88.3	70 - 130	0.923	5.4	30	
Surr: 4-Bromofluorobenzene	*0.07729*	*0.0050*	*0.099*	*0*	*78.1*	*70 - 130*	*0.0813*	*5.05*	*30*	

The following samples were analyzed in this batch: HS16060751-15

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105401 **Instrument: ICPMS04** **Method: SW6020**

MBLK Sample ID: **MBLK-105401** Units: **mg/Kg** Analysis Date: **16-Jun-2016 16:36**
Client ID: Run ID: **ICPMS04_276424** SeqNo: **3727545** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	1.00								
Barium	ND	0.500								
Boron	ND	2.50								
Cadmium	ND	0.500								
Chromium	ND	0.500								
Copper	ND	0.500								
Lead	ND	0.500								
Nickel	ND	0.500								
Selenium	ND	0.500								
Silver	ND	0.500								

LCS Sample ID: **LCS-105401** Units: **mg/Kg** Analysis Date: **16-Jun-2016 16:40**
Client ID: Run ID: **ICPMS04_276424** SeqNo: **3727546** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.548	1.00	10	0	95.5	80 - 120				
Barium	9.314	0.500	10	0	93.1	80 - 120				
Boron	50.96	2.50	50	0	102	80 - 120				
Cadmium	9.111	0.500	10	0	91.1	80 - 120				
Chromium	9.121	0.500	10	0	91.2	80 - 120				
Copper	9.885	0.500	10	0	98.9	80 - 120				
Lead	8.693	0.500	10	0	86.9	80 - 120				
Nickel	9.695	0.500	10	0	97.0	80 - 120				
Selenium	8.99	0.500	10	0	89.9	80 - 120				
Silver	8.341	0.500	10	0	83.4	80 - 120				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105401 **Instrument: ICPMS04** **Method: SW6020**

MS Sample ID: **HS16060751-18MS** Units: **mg/Kg** Analysis Date: **16-Jun-2016 16:53**
Client ID: **GP-17-6-15-060916** Run ID: **ICPMS04_276424** SeqNo: **3727549** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.97	0.996	9.962	3.696	103	75 - 125				
Barium	355.4	0.498	9.962	384.6	-292	75 - 125				SEO
Boron	64.45	2.49	49.81	7.968	113	75 - 125				
Cadmium	9.795	0.498	9.962	0.129	97.0	75 - 125				
Chromium	14.29	0.498	9.962	5.155	91.7	75 - 125				
Copper	14.39	0.498	9.962	5.122	93.1	75 - 125				
Lead	14.51	0.498	9.962	4.316	102	75 - 125				
Nickel	15.54	0.498	9.962	6.777	88.0	75 - 125				
Selenium	10.71	0.498	9.962	0.2433	105	75 - 125				
Silver	9.109	0.498	9.962	0.02297	91.2	75 - 125				

MSD Sample ID: **HS16060751-18MSD** Units: **mg/Kg** Analysis Date: **16-Jun-2016 16:58**
Client ID: **GP-17-6-15-060916** Run ID: **ICPMS04_276424** SeqNo: **3727550** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.98	0.995	9.948	3.696	103	75 - 125	13.97	0.0387	20	
Barium	371.4	0.497	9.948	384.6	-133	75 - 125	355.4	4.38	20	SEO
Boron	68.45	2.49	49.74	7.968	122	75 - 125	64.45	6.02	20	
Cadmium	10.19	0.497	9.948	0.129	101	75 - 125	9.795	3.94	20	
Chromium	14.3	0.497	9.948	5.155	91.9	75 - 125	14.29	0.0445	20	
Copper	14.33	0.497	9.948	5.122	92.5	75 - 125	14.39	0.478	20	
Lead	15.2	0.497	9.948	4.316	109	75 - 125	14.51	4.69	20	
Nickel	15.56	0.497	9.948	6.777	88.3	75 - 125	15.54	0.0956	20	
Selenium	10.64	0.497	9.948	0.2433	104	75 - 125	10.71	0.652	20	
Silver	9.408	0.497	9.948	0.02297	94.3	75 - 125	9.109	3.23	20	

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105401 **Instrument: ICPMS04** **Method: SW6020**

PDS Sample ID: **HS16060751-18BS** Units: **mg/Kg** Analysis Date: **16-Jun-2016 17:02**
Client ID: **GP-17-6-15-060916** Run ID: **ICPMS04_276424** SeqNo: **3727551** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.06	0.999	9.986	3.696	93.8	75 - 125				
Boron	105.9	2.50	99.86	7.968	98.0	75 - 125				
Cadmium	8.651	0.499	9.986	0.129	85.3	75 - 125				
Chromium	13.71	0.499	9.986	5.155	85.7	75 - 125				
Copper	13.5	0.499	9.986	5.122	83.9	75 - 125				
Lead	13.71	0.499	9.986	4.316	94.1	75 - 125				
Nickel	15.02	0.499	9.986	6.777	82.6	75 - 125				
Selenium	9.734	0.499	9.986	0.2433	95.0	75 - 125				
Silver	8.143	0.499	9.986	0.02297	81.3	75 - 125				

PDS Sample ID: **HS16060751-18BS** Units: **mg/Kg** Analysis Date: **17-Jun-2016 11:56**
Client ID: **GP-17-6-15-060916** Run ID: **ICPMS04_276513** SeqNo: **3728153** PrepDate: **15-Jun-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	444.9	4.99	99.86	370	75.0	75 - 125				S

SD Sample ID: **HS16060751-18 DIL SX** Units: **mg/Kg** Analysis Date: **16-Jun-2016 16:49**
Client ID: Run ID: **ICPMS04_276424** SeqNo: **3727548** PrepDate: **15-Jun-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	3.211	4.99					3.696	0	10	J
Boron	13.7	12.5					7.968	0	10	
Cadmium	ND	2.50					0.129	0	10	
Chromium	5.523	2.50					5.155	7.13	10	
Lead	4.612	2.50					4.316	6.86	10	
Nickel	7.188	2.50					6.777	6.06	10	
Selenium	ND	2.50					0.2433	0	10	
Silver	ND	2.50					0.02297	0	10	

SD Sample ID: **HS16060751-18 DIL SX** Units: **mg/Kg** Analysis Date: **17-Jun-2016 11:52**
Client ID: Run ID: **ICPMS04_276513** SeqNo: **3728152** PrepDate: **15-Jun-2016** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	312.5	25.0					370	15.5	10	R

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105401 **Instrument: ICPMS04** **Method: SW6020**

SD Sample ID: **HS16060751-18 DIL SX** Units: **mg/Kg** Analysis Date: **17-Jun-2016 12:55**
Client ID: Run ID: **ICPMS04_276513** SeqNo: **3728251** PrepDate: **15-Jun-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Copper	5.485	2.50					5.122	7.09	10	

The following samples were analyzed in this batch: HS16060751-18 HS16060751-19 HS16060751-20 HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105433 **Instrument: ICPMS05** **Method: La29B-6020**

MBLK Sample ID: **MBLK-105433** Units: **mg/L** Analysis Date: **20-Jun-2016 16:09**
Client ID: Run ID: **ICPMS05_276596** SeqNo: **3730870** PrepDate: **16-Jun-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: **HS16060643-05DUP** Units: **mg/L** Analysis Date: **20-Jun-2016 16:32**
Client ID: Run ID: **ICPMS05_276596** SeqNo: **3730878** PrepDate: **16-Jun-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	172.7	4.99					172.1	0.338	30	
Magnesium	ND	4.99					0.01806	0	30	
Sodium	34.63	4.99					36.21	4.47	30	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105433A **Instrument: MISC-Metals** **Method: La29B SAR**

DUP Sample ID: **HS16060643-05DUP** Units: **meq/meq** Analysis Date: **23-Jun-2016 11:22**
Client ID: Run ID: **MISC-Metals_276860** SeqNo: **3735547** PrepDate: **16-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.724	0.0100					0.76	4.85	30	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105483 **Instrument: ICPMS04** **Method: SW6020**

MBLK Sample ID: **MBLK-105483** Units: **mg/Kg** Analysis Date: **20-Jun-2016 23:37**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731169** PrepDate: **17-Jun-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								
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								

MBLK Sample ID: **MBLK-105483** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:26**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731946** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	ND	2.50								

LCS Sample ID: **LCS-105483** Units: **mg/Kg** Analysis Date: **20-Jun-2016 23:42**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731170** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.48	0.500	10	0	84.8	80 - 120				
Barium	8.498	0.500	10	0	85.0	80 - 120				
Cadmium	8.602	0.500	10	0	86.0	80 - 120				
Chromium	8.55	0.500	10	0	85.5	80 - 120				
Copper	8.568	0.200	10	0	85.7	80 - 120				
Lead	8.097	0.500	10	0	81.0	80 - 120				
Nickel	8.589	0.500	10	0	85.9	80 - 120				
Selenium	8.507	0.500	10	0	85.1	80 - 120				
Silver	8.65	0.500	10	0	86.5	80 - 120				
Zinc	8.292	0.500	10	0	82.9	80 - 120				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105483 **Instrument: ICPMS04** **Method: SW6020**

LCS Sample ID: **LCS-105483** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:37**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731947** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	52.56	2.50	50	0	105	80 - 120				

MS Sample ID: **HS16060642-07MS** Units: **mg/Kg** Analysis Date: **20-Jun-2016 23:59**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731174** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.2	0.465	9.292	3.275	85.3	75 - 125				
Barium	63.52	0.465	9.292	51.31	131	75 - 125				SO
Cadmium	7.766	0.465	9.292	0.01923	83.4	75 - 125				
Chromium	11.75	0.465	9.292	1.813	107	75 - 125				
Copper	9.58	0.186	9.292	2.065	80.9	75 - 125				
Lead	11.27	0.465	9.292	2.943	89.6	75 - 125				
Nickel	11.18	0.465	9.292	3.467	83.0	75 - 125				
Selenium	8.289	0.465	9.292	0.2969	86.0	75 - 125				
Silver	7.75	0.465	9.292	0.003793	83.4	75 - 125				
Zinc	22.31	0.465	9.292	13.85	91.1	75 - 125				

MS Sample ID: **HS16060642-07MS** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:50**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731950** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	50.51	2.32	46.46	2.881	103	75 - 125				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105483 **Instrument: ICPMS04** **Method: SW6020**

MSD Sample ID: **HS16060642-07MSD** Units: **mg/Kg** Analysis Date: **21-Jun-2016 00:03**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731175** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.06	0.457	9.142	3.275	85.1	75 - 125	11.2	1.25	20	
Barium	93.19	0.457	9.142	51.31	458	75 - 125	63.52	37.9	20	SRO
Cadmium	7.443	0.457	9.142	0.01923	81.2	75 - 125	7.766	4.24	20	
Chromium	11.57	0.457	9.142	1.813	107	75 - 125	11.75	1.54	20	
Copper	9.539	0.183	9.142	2.065	81.8	75 - 125	9.58	0.426	20	
Lead	10.75	0.457	9.142	2.943	85.4	75 - 125	11.27	4.74	20	
Nickel	11.16	0.457	9.142	3.467	84.1	75 - 125	11.18	0.224	20	
Selenium	7.884	0.457	9.142	0.2969	83.0	75 - 125	8.289	5	20	
Silver	7.449	0.457	9.142	0.003793	81.4	75 - 125	7.75	3.97	20	
Zinc	22.58	0.457	9.142	13.85	95.5	75 - 125	22.31	1.19	20	

MSD Sample ID: **HS16060642-07MSD** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:55**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731951** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	51.17	2.29	45.71	2.881	106	75 - 125	50.51	1.31	20	

PDS Sample ID: **HS16060642-07BS** Units: **mg/Kg** Analysis Date: **21-Jun-2016 00:08**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731176** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.35	0.441	8.82	3.275	80.2	75 - 125				
Barium	59	0.441	8.82	51.31	87.2	75 - 125				O
Boron	74.98	2.20	88.2	2.044	82.7	75 - 125				
Cadmium	6.999	0.441	8.82	0.01923	79.1	75 - 125				
Chromium	8.84	0.441	8.82	1.813	79.7	75 - 125				
Copper	8.804	0.176	8.82	2.065	76.4	75 - 125				
Lead	9.695	0.441	8.82	2.943	76.6	75 - 125				
Nickel	10.31	0.441	8.82	3.467	77.6	75 - 125				
Selenium	7.558	0.441	8.82	0.2969	82.3	75 - 125				
Silver	5.895	0.441	8.82	0.003793	66.8	75 - 125				S
Zinc	20.27	0.441	8.82	13.85	72.8	75 - 125				S

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105483 **Instrument: ICPMS04** **Method: SW6020**

PDS Sample ID: **HS16060642-07BS** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:59**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731952** PrepDate: **17-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	84.39	2.20	88.2	2.881	92.4	75 - 125				

SD Sample ID: **HS16060642-07 DIL SX** Units: **mg/Kg** Analysis Date: **20-Jun-2016 23:55**
Client ID: Run ID: **ICPMS04_276606** SeqNo: **3731173** PrepDate: **17-Jun-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	3.367	2.20					3.275	2.81	10	
Barium	51.44	2.20					51.31	0.252	10	
Cadmium	ND	2.20					0.01923	0	10	
Chromium	1.832	2.20					1.813	0	10	J
Copper	2.189	0.882					2.065	5.98	10	
Lead	3.032	2.20					2.943	3.02	10	
Nickel	3.715	2.20					3.467	7.14	10	
Selenium	ND	2.20					0.2969	0	10	
Silver	ND	2.20					0.003793	0	10	
Zinc	13.71	2.20					13.85	1.01	10	

SD Sample ID: **HS16060642-07 DIL SX** Units: **mg/Kg** Analysis Date: **21-Jun-2016 13:46**
Client ID: Run ID: **ICPMS04_276680** SeqNo: **3731949** PrepDate: **17-Jun-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	ND	11.0					2.881	0	10	

The following samples were analyzed in this batch: HS16060751-18 HS16060751-19 HS16060751-20 HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105507 **Instrument: ICPMS05** **Method: La29B-6020**

MBLK Sample ID: **MBLK-105507** Units: **mg/L** Analysis Date: **22-Jun-2016 14:59**
Client ID: Run ID: **ICPMS05_276749** SeqNo: **3734229** PrepDate: **20-Jun-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: **HS16060751-19DUP** Units: **mg/L** Analysis Date: **22-Jun-2016 14:45**
Client ID: Run ID: **ICPMS05_276749** SeqNo: **3734224** PrepDate: **20-Jun-2016** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	25.51	4.99					24.55	3.81	30	
Magnesium	6.029	4.99					5.854	2.94	30	
Sodium	86.76	4.99					85.76	1.16	30	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105384 **Instrument: SV-6** **Method: SW8270**

MBLK Sample ID: **MBLK-105384** Units: **ug/Kg** Analysis Date: **21-Jun-2016 14:14**
Client ID: Run ID: **SV-6_276975** SeqNo: **3737639** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	3.3								
Acenaphthylene	ND	3.3								
Anthracene	ND	3.3								
Benz(a)anthracene	ND	3.3								
Benzo(a)pyrene	ND	3.3								
Benzo(b)fluoranthene	ND	3.3								
Benzo(g,h,i)perylene	ND	3.3								
Benzo(k)fluoranthene	ND	3.3								
Chrysene	ND	3.3								
Dibenz(a,h)anthracene	ND	3.3								
Fluoranthene	ND	3.3								
Fluorene	ND	3.3								
Indeno(1,2,3-cd)pyrene	ND	3.3								
Naphthalene	ND	3.3								
Phenanthrene	ND	3.3								
Pyrene	ND	3.3								
Surr: 2-Fluorobiphenyl	*111*	*0*	*167*	*0*	*66.5*	*43 - 125*				
Surr: 4-Terphenyl-d14	*139.1*	*0*	*167*	*0*	*83.3*	*32 - 125*				
Surr: Nitrobenzene-d5	*106.6*	*0*	*167*	*0*	*63.8*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105507A **Instrument: MISC-Metals** **Method: La29B SAR**

DUP Sample ID: **HS16060751-19DUP** Units: **meq/meq** Analysis Date: **27-Jun-2016 06:11**
Client ID: Run ID: **MISC-Metals_276995** SeqNo: **3738107** PrepDate: **20-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	4.015	0.0100					4.038	0.571	30	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105557 **Instrument: ICPMS04** **Method: SW6020**

MBLK Sample ID: **MBLK-105557** Units: **mg/Kg** Analysis Date: **23-Jun-2016 13:45**
Client ID: Run ID: **ICPMS04_276814** SeqNo: **3735675** PrepDate: **21-Jun-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-105557** Units: **mg/Kg** Analysis Date: **23-Jun-2016 13:50**
Client ID: Run ID: **ICPMS04_276814** SeqNo: **3735676** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.545	0.500	10	0	95.4	80 - 120				
Barium	9.672	0.500	10	0	96.7	80 - 120				
Boron	49.7	2.50	50	0	99.4	80 - 120				
Cadmium	9.41	0.500	10	0	94.1	80 - 120				
Chromium	9.522	0.500	10	0	95.2	80 - 120				
Copper	9.878	0.200	10	0	98.8	80 - 120				
Lead	9.322	0.500	10	0	93.2	80 - 120				
Nickel	9.749	0.500	10	0	97.5	80 - 120				
Selenium	9.436	0.500	10	0	94.4	80 - 120				
Silver	9.701	0.500	10	0	97.0	80 - 120				
Zinc	10.03	0.500	10	0	100	80 - 120				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105557 **Instrument: ICPMS04** **Method: SW6020**

MS Sample ID: **HS16060751-02MS** Units: **mg/Kg** Analysis Date: **23-Jun-2016 14:07**
Client ID: **GP-17-4-6-060916** Run ID: **ICPMS04_276814** SeqNo: **3735680** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.75	0.460	9.195	2.275	92.2	75 - 125				
Barium	144.4	0.460	9.195	121.4	249	75 - 125				SO
Boron	50.6	2.30	45.97	3.963	101	75 - 125				
Cadmium	8.537	0.460	9.195	0.06057	92.2	75 - 125				
Chromium	17.68	0.460	9.195	6.724	119	75 - 125				
Copper	13.91	0.184	9.195	5.3	93.7	75 - 125				
Lead	15	0.460	9.195	5.954	98.4	75 - 125				
Nickel	17.61	0.460	9.195	8.265	102	75 - 125				
Selenium	7.74	0.460	9.195	0.2494	81.5	75 - 125				
Silver	8.535	0.460	9.195	0.02517	92.6	75 - 125				
Zinc	34.02	0.460	9.195	21.22	139	75 - 125				S

MSD Sample ID: **HS16060751-02MSD** Units: **mg/Kg** Analysis Date: **23-Jun-2016 14:11**
Client ID: **GP-17-4-6-060916** Run ID: **ICPMS04_276814** SeqNo: **3735681** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.84	0.470	9.406	2.275	91.1	75 - 125	10.75	0.783	20	
Barium	144.3	0.470	9.406	121.4	243	75 - 125	144.4	0.0558	20	SO
Boron	52.03	2.35	47.03	3.963	102	75 - 125	50.6	2.79	20	
Cadmium	8.619	0.470	9.406	0.06057	91.0	75 - 125	8.537	0.955	20	
Chromium	17.7	0.470	9.406	6.724	117	75 - 125	17.68	0.115	20	
Copper	14.08	0.188	9.406	5.3	93.4	75 - 125	13.91	1.21	20	
Lead	14.73	0.470	9.406	5.954	93.3	75 - 125	15	1.8	20	
Nickel	17.88	0.470	9.406	8.265	102	75 - 125	17.61	1.54	20	
Selenium	7.913	0.470	9.406	0.2494	81.5	75 - 125	7.74	2.21	20	
Silver	8.633	0.470	9.406	0.02517	91.5	75 - 125	8.535	1.13	20	
Zinc	33.95	0.470	9.406	21.22	135	75 - 125	34.02	0.204	20	S

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105557 **Instrument: ICPMS04** **Method: SW6020**

PDS Sample ID: **HS16060751-02BS** Units: **mg/Kg** Analysis Date: **23-Jun-2016 14:16**
Client ID: **GP-17-4-6-060916** Run ID: **ICPMS04_276814** SeqNo: **3735682** PrepDate: **21-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.78	0.492	9.833	2.275	86.5	75 - 125				
Barium	131.6	0.492	9.833	121.4	103	75 - 125				O
Boron	88.77	2.46	98.33	3.963	86.3	75 - 125				
Cadmium	8.314	0.492	9.833	0.06057	83.9	75 - 125				
Chromium	14.94	0.492	9.833	6.724	83.5	75 - 125				
Copper	13.5	0.197	9.833	5.3	83.4	75 - 125				
Lead	14.29	0.492	9.833	5.954	84.8	75 - 125				
Nickel	16.33	0.492	9.833	8.265	82.0	75 - 125				
Selenium	8.694	0.492	9.833	0.2494	85.9	75 - 125				
Silver	8.522	0.492	9.833	0.02517	86.4	75 - 125				
Zinc	29.14	0.492	9.833	21.22	80.5	75 - 125				

SD Sample ID: **HS16060751-02 DIL SX** Units: **mg/Kg** Analysis Date: **23-Jun-2016 14:03**
Client ID: Run ID: **ICPMS04_276814** SeqNo: **3735679** PrepDate: **21-Jun-2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	2.116	2.46					2.275	0	10	J
Barium	124.7	2.46					121.4	2.72	10	
Boron	7.081	12.3					3.963	0	10	J
Cadmium	ND	2.46					0.06057	0	10	
Chromium	6.712	2.46					6.724	0.189	10	
Copper	5.591	0.983					5.3	5.5	10	
Lead	6.199	2.46					5.954	4.11	10	
Nickel	8.617	2.46					8.265	4.26	10	
Selenium	ND	2.46					0.2494	0	10	
Silver	ND	2.46					0.02517	0	10	
Zinc	22.9	2.46					21.22	7.93	10	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17			

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105642 **Instrument: HG03** **Method: SW7471A**

MBLK Sample ID: **MBLK-105642** Units: **ug/Kg** Analysis Date: **24-Jun-2016 13:56**
Client ID: Run ID: **HG03_276978** SeqNo: **3737710** PrepDate: **23-Jun-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-105642** Units: **ug/Kg** Analysis Date: **24-Jun-2016 13:57**
Client ID: Run ID: **HG03_276978** SeqNo: **3737711** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	333.5	3.42	342.4	0	97.4	85 - 115				

MS Sample ID: **HS16060751-03MS** Units: **ug/Kg** Analysis Date: **24-Jun-2016 14:04**
Client ID: **GP-17-4-14-060916** Run ID: **HG03_276978** SeqNo: **3737715** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	361.3	3.60	360.6	11.4	97.0	85 - 115				

MSD Sample ID: **HS16060751-03MSD** Units: **ug/Kg** Analysis Date: **24-Jun-2016 14:06**
Client ID: **GP-17-4-14-060916** Run ID: **HG03_276978** SeqNo: **3737716** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	361.8	3.55	356.1	11.4	98.4	85 - 115	361.3	0.133	20	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105645 **Instrument: HG03** **Method: SW7471A**

MBLK Sample ID: **MBLK-105645** Units: **ug/Kg** Analysis Date: **24-Jun-2016 14:47**
Client ID: Run ID: **HG03_276978** SeqNo: **3737738** PrepDate: **23-Jun-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-105645** Units: **ug/Kg** Analysis Date: **24-Jun-2016 14:49**
Client ID: Run ID: **HG03_276978** SeqNo: **3737739** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	325	3.41	342.1	0	95.0	85 - 115				

MS Sample ID: **HS16061165-02MS** Units: **ug/Kg** Analysis Date: **24-Jun-2016 15:28**
Client ID: Run ID: **HG03_276978** SeqNo: **3737762** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	352	3.52	352.7	7.665	97.6	85 - 115				

MSD Sample ID: **HS16061165-02MSD** Units: **ug/Kg** Analysis Date: **24-Jun-2016 15:30**
Client ID: Run ID: **HG03_276978** SeqNo: **3737763** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	357.2	3.58	359.3	7.665	97.3	85 - 115	352	1.47	20	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105384 **Instrument: SV-6** **Method: SW8270**

LCS Sample ID: **LCS-105384** Units: **ug/Kg** Analysis Date: **21-Jun-2016 14:33**
Client ID: Run ID: **SV-6_276975** SeqNo: **3737640** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	149.8	3.3	167	0	89.7	50 - 120				
Acenaphthylene	156.6	3.3	167	0	93.7	50 - 120				
Anthracene	145.3	3.3	167	0	87.0	50 - 123				
Benz(a)anthracene	157.9	3.3	167	0	94.5	50 - 131				
Benzo(a)pyrene	176	3.3	167	0	105	50 - 130				
Benzo(b)fluoranthene	170.9	3.3	167	0	102	50 - 137				
Benzo(g,h,i)perylene	168.5	3.3	167	0	101	50 - 130				
Benzo(k)fluoranthene	185.7	3.3	167	0	111	50 - 143				
Chrysene	182.1	3.3	167	0	109	50 - 130				
Dibenz(a,h)anthracene	179.9	3.3	167	0	108	50 - 130				
Fluoranthene	162.1	3.3	167	0	97.1	50 - 131				
Fluorene	94.67	3.3	167	0	56.7	50 - 125				
Indeno(1,2,3-cd)pyrene	154.6	3.3	167	0	92.6	45 - 139				
Naphthalene	153.6	3.3	167	0	91.9	50 - 125				
Phenanthrene	145.4	3.3	167	0	87.1	50 - 125				
Pyrene	150.2	3.3	167	0	89.9	45 - 130				
Surr: 2-Fluorobiphenyl	*137*	*0*	*167*	*0*	*82.0*	*43 - 125*				
Surr: 4-Terphenyl-d14	*149.8*	*0*	*167*	*0*	*89.7*	*32 - 125*				
Surr: Nitrobenzene-d5	*139.1*	*0*	*167*	*0*	*83.3*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105384 **Instrument: SV-6** **Method: SW8270**

MS Sample ID: **HS16060751-08MS** Units: **ug/Kg** Analysis Date: **21-Jun-2016 16:50**
Client ID: **GP-17-3-10-060916** Run ID: **SV-6_276975** SeqNo: **3737641** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	146.3	3.3	166.5	0	87.9	50 - 120				
Acenaphthylene	145.3	3.3	166.5	0	87.3	50 - 120				
Anthracene	142.3	3.3	166.5	0	85.4	50 - 123				
Benz(a)anthracene	153.3	3.3	166.5	0	92.0	50 - 131				
Benzo(a)pyrene	169.1	3.3	166.5	0	102	50 - 130				
Benzo(b)fluoranthene	160.9	3.3	166.5	0	96.6	50 - 137				
Benzo(g,h,i)perylene	167.8	3.3	166.5	0	101	50 - 130				
Benzo(k)fluoranthene	179.7	3.3	166.5	0	108	50 - 143				
Chrysene	153.5	3.3	166.5	0	92.2	50 - 130				
Dibenz(a,h)anthracene	169.5	3.3	166.5	0	102	50 - 130				
Fluoranthene	159.6	3.3	166.5	0	95.8	50 - 131				
Fluorene	144	3.3	166.5	0	86.5	50 - 125				
Indeno(1,2,3-cd)pyrene	165.2	3.3	166.5	0	99.2	45 - 139				
Naphthalene	139.7	3.3	166.5	0	83.9	50 - 125				
Phenanthrene	144.9	3.3	166.5	0	87.1	50 - 125				
Pyrene	144	3.3	166.5	0	86.5	45 - 130				
Surr: 2-Fluorobiphenyl	*132.2*	*0*	*166.5*	*0*	*79.4*	*43 - 125*				
Surr: 4-Terphenyl-d14	*141.7*	*0*	*166.5*	*0*	*85.1*	*32 - 125*				
Surr: Nitrobenzene-d5	*130.5*	*0*	*166.5*	*0*	*78.4*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105384 **Instrument: SV-6** **Method: SW8270**

MSD Sample ID: **HS16060751-08MSD** Units: **ug/Kg** Analysis Date: **21-Jun-2016 17:10**
Client ID: **GP-17-3-10-060916** Run ID: **SV-6_276975** SeqNo: **3737642** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Acenaphthene	139.5	3.3	166.6	0	83.8	50 - 120	146.3	4.77	30	
Acenaphthylene	155.6	3.3	166.6	0	93.4	50 - 120	145.3	6.87	30	
Anthracene	157.6	3.3	166.6	0	94.6	50 - 123	142.3	10.2	30	
Benz(a)anthracene	146	3.3	166.6	0	87.6	50 - 131	153.3	4.87	30	
Benzo(a)pyrene	165.3	3.3	166.6	0	99.3	50 - 130	169.1	2.26	30	
Benzo(b)fluoranthene	176.1	3.3	166.6	0	106	50 - 137	160.9	9	30	
Benzo(g,h,i)perylene	161.5	3.3	166.6	0	97.0	50 - 130	167.8	3.81	30	
Benzo(k)fluoranthene	164.5	3.3	166.6	0	98.8	50 - 143	179.7	8.82	30	
Chrysene	162.4	3.3	166.6	0	97.5	50 - 130	153.5	5.66	30	
Dibenz(a,h)anthracene	166.9	3.3	166.6	0	100	50 - 130	169.5	1.54	30	
Fluoranthene	157.2	3.3	166.6	0	94.4	50 - 131	159.6	1.52	30	
Fluorene	148.4	3.3	166.6	0	89.1	50 - 125	144	3	30	
Indeno(1,2,3-cd)pyrene	167.7	3.3	166.6	0	101	45 - 139	165.2	1.52	30	
Naphthalene	130.9	3.3	166.6	0	78.6	50 - 125	139.7	6.56	30	
Phenanthrene	142	3.3	166.6	0	85.3	50 - 125	144.9	2.06	30	
Pyrene	136.6	3.3	166.6	0	82.0	45 - 130	144	5.27	30	
Surr: 2-Fluorobiphenyl	*196.8*	*0*	*166.6*	*0*	*118*	*43 - 125*	*132.2*	*39.3*	*30*	R
Surr: 4-Terphenyl-d14	*140.3*	*0*	*166.6*	*0*	*84.3*	*32 - 125*	*141.7*	*0.959*	*30*	
Surr: Nitrobenzene-d5	*126.1*	*0*	*166.6*	*0*	*75.7*	*37 - 125*	*130.5*	*3.45*	*30*	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105385 **Instrument: SV-6** **Method: SW8270**

MBLK Sample ID: **MBLK-105385** Units: **ug/Kg** Analysis Date: **24-Jun-2016 22:33**
Client ID: Run ID: **SV-6_277051** SeqNo: **3739079** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	3.3								
Acenaphthylene	ND	3.3								
Anthracene	ND	3.3								
Benz(a)anthracene	ND	3.3								
Benzo(a)pyrene	ND	3.3								
Benzo(b)fluoranthene	ND	3.3								
Benzo(g,h,i)perylene	ND	3.3								
Benzo(k)fluoranthene	ND	3.3								
Chrysene	ND	3.3								
Dibenz(a,h)anthracene	ND	3.3								
Fluoranthene	ND	3.3								
Fluorene	ND	3.3								
Indeno(1,2,3-cd)pyrene	ND	3.3								
Naphthalene	ND	3.3								
Phenanthrene	ND	3.3								
Pyrene	ND	3.3								
Surr: 2-Fluorobiphenyl	*87.03*	*0*	*167*	*0*	*52.1*	*43 - 125*				
Surr: 4-Terphenyl-d14	*118.7*	*0*	*167*	*0*	*71.1*	*32 - 125*				
Surr: Nitrobenzene-d5	*91.18*	*0*	*167*	*0*	*54.6*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105385 **Instrument: SV-6** **Method: SW8270**

LCS Sample ID: **LCS-105385** Units: **ug/Kg** Analysis Date: **27-Jun-2016 12:55**
Client ID: Run ID: **SV-6_277051** SeqNo: **3739151** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	152.6	3.3	167	0	91.4	50 - 120				
Acenaphthylene	149.6	3.3	167	0	89.6	50 - 120				
Anthracene	183.5	3.3	167	0	110	50 - 123				
Benz(a)anthracene	149.5	3.3	167	0	89.5	50 - 131				
Benzo(a)pyrene	173.4	3.3	167	0	104	50 - 130				
Benzo(b)fluoranthene	166.2	3.3	167	0	99.5	50 - 137				
Benzo(g,h,i)perylene	158.7	3.3	167	0	95.1	50 - 130				
Benzo(k)fluoranthene	190.6	3.3	167	0	114	50 - 143				
Chrysene	182.6	3.3	167	0	109	50 - 130				
Dibenz(a,h)anthracene	159.8	3.3	167	0	95.7	50 - 130				
Fluoranthene	169.5	3.3	167	0	101	50 - 131				
Fluorene	153	3.3	167	0	91.6	50 - 125				
Indeno(1,2,3-cd)pyrene	145.1	3.3	167	0	86.9	45 - 139				
Naphthalene	151.8	3.3	167	0	90.9	50 - 125				
Phenanthrene	159.6	3.3	167	0	95.6	50 - 125				
Pyrene	164.4	3.3	167	0	98.4	45 - 130				
Surr: 2-Fluorobiphenyl	*129.7*	*0*	*167*	*0*	*77.7*	*43 - 125*				
Surr: 4-Terphenyl-d14	*146.7*	*0*	*167*	*0*	*87.8*	*32 - 125*				
Surr: Nitrobenzene-d5	*146.6*	*0*	*167*	*0*	*87.8*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105385 **Instrument: SV-6** **Method: SW8270**

MS Sample ID: **HS16060751-24MS** Units: **ug/Kg** Analysis Date: **25-Jun-2016 00:28**
Client ID: **GP-17-8-14-060916** Run ID: **SV-6_277051** SeqNo: **3739083** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	142.4	3.3	166.8	0	85.4	50 - 120				
Acenaphthylene	134.8	3.3	166.8	0	80.8	50 - 120				
Anthracene	162.4	3.3	166.8	0	97.4	50 - 123				
Benz(a)anthracene	127.6	3.3	166.8	0	76.5	50 - 131				
Benzo(a)pyrene	157.8	3.3	166.8	0	94.6	50 - 130				
Benzo(b)fluoranthene	157.7	3.3	166.8	0	94.6	50 - 137				
Benzo(g,h,i)perylene	143.9	3.3	166.8	0	86.3	50 - 130				
Benzo(k)fluoranthene	207	3.3	166.8	0	124	50 - 143				
Chrysene	163	3.3	166.8	0	97.7	50 - 130				
Dibenz(a,h)anthracene	160.2	3.3	166.8	0	96.0	50 - 130				
Fluoranthene	146.1	3.3	166.8	0	87.6	50 - 131				
Fluorene	133.8	3.3	166.8	0	80.2	50 - 125				
Indeno(1,2,3-cd)pyrene	131.7	3.3	166.8	0	79.0	45 - 139				
Naphthalene	141	3.3	166.8	0	84.5	50 - 125				
Phenanthrene	134.7	3.3	166.8	0	80.8	50 - 125				
Pyrene	151.2	3.3	166.8	0	90.7	45 - 130				
Surr: 2-Fluorobiphenyl	*104.5*	*0*	*166.8*	*0*	*62.7*	*43 - 125*				
Surr: 4-Terphenyl-d14	*131.1*	*0*	*166.8*	*0*	*78.6*	*32 - 125*				
Surr: Nitrobenzene-d5	*129.3*	*0*	*166.8*	*0*	*77.5*	*37 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105385 **Instrument: SV-6** **Method: SW8270**

MSD Sample ID: **HS16060751-24MSD** Units: **ug/Kg** Analysis Date: **25-Jun-2016 00:48**
Client ID: **GP-17-8-14-060916** Run ID: **SV-6_277051** SeqNo: **3739084** PrepDate: **15-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Acenaphthene	139.9	3.3	166.9	0	83.8	50 - 120	142.4	1.75	30	
Acenaphthylene	142.4	3.3	166.9	0	85.3	50 - 120	134.8	5.46	30	
Anthracene	167.4	3.3	166.9	0	100	50 - 123	162.4	3.05	30	
Benz(a)anthracene	134.8	3.3	166.9	0	80.8	50 - 131	127.6	5.52	30	
Benzo(a)pyrene	160.1	3.3	166.9	0	95.9	50 - 130	157.8	1.48	30	
Benzo(b)fluoranthene	152.4	3.3	166.9	0	91.3	50 - 137	157.7	3.45	30	
Benzo(g,h,i)perylene	138	3.3	166.9	0	82.7	50 - 130	143.9	4.14	30	
Benzo(k)fluoranthene	196.8	3.3	166.9	0	118	50 - 143	207	5.02	30	
Chrysene	173.7	3.3	166.9	0	104	50 - 130	163	6.34	30	
Dibenz(a,h)anthracene	141.6	3.3	166.9	0	84.8	50 - 130	160.2	12.3	30	
Fluoranthene	158.2	3.3	166.9	0	94.8	50 - 131	146.1	7.99	30	
Fluorene	143.2	3.3	166.9	0	85.8	50 - 125	133.8	6.82	30	
Indeno(1,2,3-cd)pyrene	118.3	3.3	166.9	0	70.9	45 - 139	131.7	10.7	30	
Naphthalene	134.8	3.3	166.9	0	80.7	50 - 125	141	4.49	30	
Phenanthrene	141.3	3.3	166.9	0	84.6	50 - 125	134.7	4.77	30	
Pyrene	151.1	3.3	166.9	0	90.5	45 - 130	151.2	0.0423	30	
Surr: 2-Fluorobiphenyl	*109.8*	*0*	*166.9*	*0*	*65.7*	*43 - 125*	*104.5*	*4.88*	*30*	
Surr: 4-Terphenyl-d14	*128.4*	*0*	*166.9*	*0*	*76.9*	*32 - 125*	*131.1*	*2.07*	*30*	
Surr: Nitrobenzene-d5	*127.2*	*0*	*166.9*	*0*	*76.2*	*37 - 125*	*129.3*	*1.64*	*30*	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276350 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS1-061516** Units: **ug/Kg** Analysis Date: **15-Jun-2016 08:30**
Client ID: Run ID: **VOA8_276350** SeqNo: **3724491** 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	10								
Surr: 1,2-Dichloroethane-d4	*36.42*	*0*	*50*	*0*	*72.8*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*41.45*	*0*	*50*	*0*	*82.9*	*73 - 126*				
Surr: Dibromofluoromethane	*44.02*	*0*	*50*	*0*	*88.0*	*71 - 128*				
Surr: Toluene-d8	*50.48*	*0*	*50*	*0*	*101*	*73 - 127*				

LCS Sample ID: **VLCSS1-061516** Units: **ug/Kg** Analysis Date: **15-Jun-2016 10:23**
Client ID: Run ID: **VOA8_276350** SeqNo: **3724493** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.07	5.0	50	0	98.1	79 - 122				
Ethylbenzene	58.24	5.0	50	0	116	80 - 122				
m,p-Xylene	116.8	10	100	0	117	79 - 122				
o-Xylene	57.09	5.0	50	0	114	80 - 123				
Toluene	51.5	5.0	50	0	103	79 - 120				
Xylenes, Total	173.9	10	150	0	116	80 - 120				
Surr: 1,2-Dichloroethane-d4	*39.03*	*0*	*50*	*0*	*78.1*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*50.43*	*0*	*50*	*0*	*101*	*73 - 126*				
Surr: Dibromofluoromethane	*44.19*	*0*	*50*	*0*	*88.4*	*71 - 128*				
Surr: Toluene-d8	*47.59*	*0*	*50*	*0*	*95.2*	*73 - 127*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276350 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16060642-10MS** Units: **ug/Kg** Analysis Date: **15-Jun-2016 14:20**
Client ID: Run ID: **VOA8_276350** SeqNo: **3724918** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	45.32	5.0	50	0	90.6	79 - 122				
Ethylbenzene	53.05	5.0	50	0	106	80 - 122				
m,p-Xylene	107.1	10	100	0	107	79 - 122				
o-Xylene	53.52	5.0	50	0	107	80 - 123				
Toluene	47.4	5.0	50	0	94.8	79 - 120				
Xylenes, Total	160.6	10	150	0	107	80 - 120				
Surr: 1,2-Dichloroethane-d4	*41.9*	*0*	*50*	*0*	*83.8*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*50*	*0*	*50*	*0*	*100*	*73 - 126*				
Surr: Dibromofluoromethane	*44.39*	*0*	*50*	*0*	*88.8*	*71 - 128*				
Surr: Toluene-d8	*48.26*	*0*	*50*	*0*	*96.5*	*73 - 127*				

MSD Sample ID: **HS16060642-10MSD** Units: **ug/Kg** Analysis Date: **15-Jun-2016 14:48**
Client ID: Run ID: **VOA8_276350** SeqNo: **3724919** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.15	5.0	50	0	92.3	79 - 122	45.32	1.81	30	
Ethylbenzene	52.42	5.0	50	0	105	80 - 122	53.05	1.18	30	
m,p-Xylene	107.2	10	100	0	107	79 - 122	107.1	0.09	30	
o-Xylene	52.96	5.0	50	0	106	80 - 123	53.52	1.05	30	
Toluene	48.04	5.0	50	0	96.1	79 - 120	47.4	1.33	30	
Xylenes, Total	160.1	10	150	0	107	80 - 120	160.6	0.288	30	
Surr: 1,2-Dichloroethane-d4	*42.98*	*0*	*50*	*0*	*86.0*	*70 - 128*	*41.9*	*2.54*	*30*	
Surr: 4-Bromofluorobenzene	*49.6*	*0*	*50*	*0*	*99.2*	*73 - 126*	*50*	*0.812*	*30*	
Surr: Dibromofluoromethane	*45*	*0*	*50*	*0*	*90.0*	*71 - 128*	*44.39*	*1.38*	*30*	
Surr: Toluene-d8	*47.19*	*0*	*50*	*0*	*94.4*	*73 - 127*	*48.26*	*2.25*	*30*	

The following samples were analyzed in this batch: HS16060751-01

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276407 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS2-061516** Units: **ug/Kg** Analysis Date: **15-Jun-2016 23:20**
Client ID: Run ID: **VOA8_276407** SeqNo: **3725659** 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	10								
Surr: 1,2-Dichloroethane-d4	*38.19*	*0*	*50*	*0*	*76.4*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*42.74*	*0*	*50*	*0*	*85.5*	*73 - 126*				
Surr: Dibromofluoromethane	*44.21*	*0*	*50*	*0*	*88.4*	*71 - 128*				
Surr: Toluene-d8	*49.12*	*0*	*50*	*0*	*98.2*	*73 - 127*				

LCS Sample ID: **VLCSS2-061516** Units: **ug/Kg** Analysis Date: **15-Jun-2016 22:52**
Client ID: Run ID: **VOA8_276407** SeqNo: **3725658** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.3	5.0	50	0	98.6	79 - 122				
Ethylbenzene	57.4	5.0	50	0	115	80 - 122				
m,p-Xylene	116.4	10	100	0	116	79 - 122				
o-Xylene	57.63	5.0	50	0	115	80 - 123				
Toluene	51.84	5.0	50	0	104	79 - 120				
Xylenes, Total	174.1	10	150	0	116	80 - 120				
Surr: 1,2-Dichloroethane-d4	*39.98*	*0*	*50*	*0*	*80.0*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*48.95*	*0*	*50*	*0*	*97.9*	*73 - 126*				
Surr: Dibromofluoromethane	*45.22*	*0*	*50*	*0*	*90.4*	*71 - 128*				
Surr: Toluene-d8	*47.67*	*0*	*50*	*0*	*95.3*	*73 - 127*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276407 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16060833-03MS** Units: **ug/Kg** Analysis Date: **16-Jun-2016 02:08**
Client ID: Run ID: **VOA8_276407** SeqNo: **3725665** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.91	5.0	50	0	104	79 - 122				
Ethylbenzene	58.36	5.0	50	0	117	80 - 122				
m,p-Xylene	116.3	10	100	0	116	79 - 122				
o-Xylene	56.57	5.0	50	0	113	80 - 123				
Toluene	54.54	5.0	50	0	109	79 - 120				
Xylenes, Total	172.9	10	150	0	115	80 - 120				
Surr: 1,2-Dichloroethane-d4	*38.98*	*0*	*50*	*0*	*78.0*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*49.04*	*0*	*50*	*0*	*98.1*	*73 - 126*				
Surr: Dibromofluoromethane	*44.4*	*0*	*50*	*0*	*88.8*	*71 - 128*				
Surr: Toluene-d8	*48.46*	*0*	*50*	*0*	*96.9*	*73 - 127*				

MSD Sample ID: **HS16060833-03MSD** Units: **ug/Kg** Analysis Date: **16-Jun-2016 02:36**
Client ID: Run ID: **VOA8_276407** SeqNo: **3725666** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.18	5.0	50	0	100	79 - 122	51.91	3.4	30	
Ethylbenzene	55.98	5.0	50	0	112	80 - 122	58.36	4.16	30	
m,p-Xylene	109.6	10	100	0	110	79 - 122	116.3	5.94	30	
o-Xylene	52.92	5.0	50	0	106	80 - 123	56.57	6.67	30	
Toluene	51.48	5.0	50	0	103	79 - 120	54.54	5.77	30	
Xylenes, Total	162.5	10	150	0	108	80 - 120	172.9	6.18	30	
Surr: 1,2-Dichloroethane-d4	*45.71*	*0*	*50*	*0*	*91.4*	*70 - 128*	*38.98*	*15.9*	*30*	
Surr: 4-Bromofluorobenzene	*47.18*	*0*	*50*	*0*	*94.4*	*73 - 126*	*49.04*	*3.87*	*30*	
Surr: Dibromofluoromethane	*44.34*	*0*	*50*	*0*	*88.7*	*71 - 128*	*44.4*	*0.123*	*30*	
Surr: Toluene-d8	*48.82*	*0*	*50*	*0*	*97.6*	*73 - 127*	*48.46*	*0.742*	*30*	

The following samples were analyzed in this batch: HS16060751-02, HS16060751-03, HS16060751-04, HS16060751-05, HS16060751-06, HS16060751-07, HS16060751-08, HS16060751-09, HS16060751-10

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276435 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS1-061616** Units: **ug/Kg** Analysis Date: **16-Jun-2016 11:01**
Client ID: Run ID: **VOA8_276435** SeqNo: **3726414** 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	10								
Surr: 1,2-Dichloroethane-d4	*42.61*	*0*	*50*	*0*	*85.2*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*42.74*	*0*	*50*	*0*	*85.5*	*73 - 126*				
Surr: Dibromofluoromethane	*45.92*	*0*	*50*	*0*	*91.8*	*71 - 128*				
Surr: Toluene-d8	*49.65*	*0*	*50*	*0*	*99.3*	*73 - 127*				

LCS Sample ID: **VLCSS1-061616** Units: **ug/Kg** Analysis Date: **16-Jun-2016 10:05**
Client ID: Run ID: **VOA8_276435** SeqNo: **3726413** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.43	5.0	50	0	92.9	79 - 122				
Ethylbenzene	54.54	5.0	50	0	109	80 - 122				
m,p-Xylene	110.5	10	100	0	111	79 - 122				
o-Xylene	53.74	5.0	50	0	107	80 - 123				
Toluene	49.54	5.0	50	0	99.1	79 - 120				
Xylenes, Total	164.2	10	150	0	109	80 - 120				
Surr: 1,2-Dichloroethane-d4	*41*	*0*	*50*	*0*	*82.0*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*48.36*	*0*	*50*	*0*	*96.7*	*73 - 126*				
Surr: Dibromofluoromethane	*45.13*	*0*	*50*	*0*	*90.3*	*71 - 128*				
Surr: Toluene-d8	*47.8*	*0*	*50*	*0*	*95.6*	*73 - 127*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276435 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS16060751-11MS** Units: **ug/Kg** Analysis Date: **16-Jun-2016 14:58**
Client ID: **GP-17-2-7-060916** Run ID: **VOA8_276435** SeqNo: **3726994** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.44	5.0	49.5	0	106	79 - 122				
Ethylbenzene	59.75	5.0	49.5	0	121	80 - 122				
m,p-Xylene	121.4	9.9	99	0	123	79 - 122				S
o-Xylene	59.95	5.0	49.5	0	121	80 - 123				
Toluene	53.4	5.0	49.5	0	108	79 - 120				
Xylenes, Total	181.4	9.9	148.5	0	122	80 - 120				S
Surr: 1,2-Dichloroethane-d4	*44.35*	*0*	*49.5*	*0*	*89.6*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*49.32*	*0*	*49.5*	*0*	*99.6*	*73 - 126*				
Surr: Dibromofluoromethane	*45.68*	*0*	*49.5*	*0*	*92.3*	*71 - 128*				
Surr: Toluene-d8	*44.61*	*0*	*49.5*	*0*	*90.1*	*73 - 127*				

MSD Sample ID: **HS16060751-11MSD** Units: **ug/Kg** Analysis Date: **16-Jun-2016 15:26**
Client ID: **GP-17-2-7-060916** Run ID: **VOA8_276435** SeqNo: **3726995** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	60.39	5.0	50	0	121	79 - 122	52.44	14.1	30	
Ethylbenzene	70.87	5.0	50	0	142	80 - 122	59.75	17	30	S
m,p-Xylene	143.4	10	100	0	143	79 - 122	121.4	16.6	30	S
o-Xylene	69.39	5.0	50	0	139	80 - 123	59.95	14.6	30	S
Toluene	62.99	5.0	50	0	126	79 - 120	53.4	16.5	30	S
Xylenes, Total	212.8	10	150	0	142	80 - 120	181.4	16	30	S
Surr: 1,2-Dichloroethane-d4	*40.12*	*0*	*50*	*0*	*80.2*	*70 - 128*	*44.35*	*10*	*30*	
Surr: 4-Bromofluorobenzene	*49.72*	*0*	*50*	*0*	*99.4*	*73 - 126*	*49.32*	*0.809*	*30*	
Surr: Dibromofluoromethane	*44.32*	*0*	*50*	*0*	*88.6*	*71 - 128*	*45.68*	*3.02*	*30*	
Surr: Toluene-d8	*47.09*	*0*	*50*	*0*	*94.2*	*73 - 127*	*44.61*	*5.4*	*30*	

The following samples were analyzed in this batch:

HS16060751-11	HS16060751-12	HS16060751-13	HS16060751-14
HS16060751-15	HS16060751-16	HS16060751-17	HS16060751-18
HS16060751-19	HS16060751-20		

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276485 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS2-061616** Units: **ug/Kg** Analysis Date: **17-Jun-2016 00:02**
Client ID: Run ID: **VOA5_276485** SeqNo: **3727455** 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	10								
Surr: 1,2-Dichloroethane-d4	*47.43*	*0*	*50*	*0*	*94.9*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*49.22*	*0*	*50*	*0*	*98.4*	*73 - 126*				
Surr: Dibromofluoromethane	*51.61*	*0*	*50*	*0*	*103*	*71 - 128*				
Surr: Toluene-d8	*49.44*	*0*	*50*	*0*	*98.9*	*73 - 127*				

LCS Sample ID: **VLCSS2-061616** Units: **ug/Kg** Analysis Date: **17-Jun-2016 07:25**
Client ID: Run ID: **VOA5_276485** SeqNo: **3727474** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	55.41	5.0	50	0	111	79 - 122				
Ethylbenzene	51.32	5.0	50	0	103	80 - 122				
m,p-Xylene	106.5	10	100	0	107	79 - 122				
o-Xylene	52.71	5.0	50	0	105	80 - 123				
Toluene	51.19	5.0	50	0	102	79 - 120				
Xylenes, Total	159.2	10	150	0	106	80 - 120				
Surr: 1,2-Dichloroethane-d4	*51.52*	*0*	*50*	*0*	*103*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*51.28*	*0*	*50*	*0*	*103*	*73 - 126*				
Surr: Dibromofluoromethane	*54.27*	*0*	*50*	*0*	*109*	*71 - 128*				
Surr: Toluene-d8	*49.45*	*0*	*50*	*0*	*98.9*	*73 - 127*				

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276485 **Instrument: VOA5** **Method: SW8260**

MS Sample ID: **HS16060846-04MS** Units: **ug/Kg** Analysis Date: **17-Jun-2016 02:45**
Client ID: Run ID: **VOA5_276485** SeqNo: **3727462** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	39.37	4.9	49	0	80.4	79 - 122				
Ethylbenzene	36.65	4.9	49	0	74.8	80 - 122				S
m,p-Xylene	75.39	9.8	98	0	76.9	79 - 122				S
o-Xylene	37.46	4.9	49	0	76.4	80 - 123				S
Toluene	36.88	4.9	49	0	75.3	79 - 120				S
Xylenes, Total	112.8	9.8	147	0	76.8	80 - 120				S
Surr: 1,2-Dichloroethane-d4	*51.07*	*0*	*49*	*0*	*104*	*70 - 128*				
Surr: 4-Bromofluorobenzene	*51.44*	*0*	*49*	*0*	*105*	*73 - 126*				
Surr: Dibromofluoromethane	*52.83*	*0*	*49*	*0*	*108*	*71 - 128*				
Surr: Toluene-d8	*48.67*	*0*	*49*	*0*	*99.3*	*73 - 127*				

MSD Sample ID: **HS16060846-04MSD** Units: **ug/Kg** Analysis Date: **17-Jun-2016 03:09**
Client ID: Run ID: **VOA5_276485** SeqNo: **3727463** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	38.17	5.0	50.5	0	75.6	79 - 122	39.37	3.11	30	S
Ethylbenzene	35.23	5.0	50.5	0	69.8	80 - 122	36.65	3.96	30	S
m,p-Xylene	71.61	10	101	0	70.9	79 - 122	75.39	5.14	30	S
o-Xylene	35.34	5.0	50.5	0	70.0	80 - 123	37.46	5.8	30	S
Toluene	34.86	5.0	50.5	0	69.0	79 - 120	36.88	5.63	30	S
Xylenes, Total	107	10	151.5	0	70.6	80 - 120	112.8	5.36	30	S
Surr: 1,2-Dichloroethane-d4	*53.87*	*0*	*50.5*	*0*	*107*	*70 - 128*	*51.07*	*5.32*	*30*	
Surr: 4-Bromofluorobenzene	*51.07*	*0*	*50.5*	*0*	*101*	*73 - 126*	*51.44*	*0.72*	*30*	
Surr: Dibromofluoromethane	*55.7*	*0*	*50.5*	*0*	*110*	*71 - 128*	*52.83*	*5.29*	*30*	
Surr: Toluene-d8	*49.15*	*0*	*50.5*	*0*	*97.3*	*73 - 127*	*48.67*	*0.975*	*30*	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105664 **Instrument: UV-2450** **Method: SW7196**

MBLK Sample ID: **MBLK-105664** Units: **mg/kg** Analysis Date: **24-Jun-2016 13:45**
Client ID: Run ID: **UV-2450_276966** SeqNo: **3737563** PrepDate: **23-Jun-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-105664** Units: **mg/kg** Analysis Date: **24-Jun-2016 13:45**
Client ID: Run ID: **UV-2450_276966** SeqNo: **3737562** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	9.64	2.00	10	0	96.4	80 - 120				

MS Sample ID: **HS16060751-02MS** Units: **mg/kg** Analysis Date: **24-Jun-2016 13:45**
Client ID: **GP-17-4-6-060916** Run ID: **UV-2450_276966** SeqNo: **3737560** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.947	1.99	9.941	0.2381	87.6	75 - 125				

MSD Sample ID: **HS16060751-02MSD** Units: **mg/kg** Analysis Date: **24-Jun-2016 13:45**
Client ID: **GP-17-4-6-060916** Run ID: **UV-2450_276966** SeqNo: **3737561** PrepDate: **23-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.18	1.99	9.927	0.2381	80.0	75 - 125	8.947	8.96	20	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: 105704 **Instrument: UV-2450** **Method: SW7196**

MBLK Sample ID: **MBLK-105704** Units: **mg/kg** Analysis Date: **27-Jun-2016 16:00**
Client ID: Run ID: **UV-2450_277099** SeqNo: **3740288** PrepDate: **27-Jun-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-105704** Units: **mg/kg** Analysis Date: **27-Jun-2016 16:00**
Client ID: Run ID: **UV-2450_277099** SeqNo: **3740287** PrepDate: **27-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	9.32	2.00	10	0	93.2	80 - 120				

MS Sample ID: **HS16061160-02MS** Units: **mg/kg** Analysis Date: **27-Jun-2016 16:00**
Client ID: Run ID: **UV-2450_277099** SeqNo: **3740285** PrepDate: **27-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.337	1.98	9.925	0.03969	83.6	75 - 125				

MSD Sample ID: **HS16061160-02MSD** Units: **mg/kg** Analysis Date: **27-Jun-2016 16:00**
Client ID: Run ID: **UV-2450_277099** SeqNo: **3740286** PrepDate: **27-Jun-2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	8.346	2.01	10.03	0.03969	82.8	75 - 125	8.337	0.109	20	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276342 **Instrument: WetChem_HS** **Method: SW9045B**

DUP Sample ID: **HS16060737-01DUP** Units: **pH Units** Analysis Date: **14-Jun-2016 15:30**
Client ID: Run ID: **WetChem_HS_276342** SeqNo: **3724319** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.23	0.100					8.21	0.243	10	
Temp Deg C @pH	24.6	0					24.6	0	10	

The following samples were analyzed in this batch: HS16060751-16 HS16060751-17 HS16060751-18 HS16060751-19 HS16060751-20 HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276343 **Instrument: WetChem_HS** **Method: SW9045B**

DUP Sample ID: **HS16060751-01DUP** Units: **pH Units** Analysis Date: **14-Jun-2016 16:40**
Client ID: Run ID: **WetChem_HS_276343** SeqNo: **3724352** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.53	0.100					8.54	0.117	10	
Temp Deg C @pH	24.5	0					24.5	0	10	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276612 **Instrument: Balance1** **Method: LaDNR-29B SP**

DUP Sample ID: **HS16060643-05DUP** Units: **SP as fraction** Analysis Date: **17-Jun-2016 12:10**
Client ID: Run ID: **Balance1_276612** SeqNo: **3730307** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	0.436	0.100					0.436	0	30	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276732 **Instrument: WetChem_HS** **Method: LaDNR-29B EC**

DUP Sample ID: **HS16060643-05DUP** Units: **mmhos/cm @25° C** Analysis Date: **21-Jun-2016 12:30**
Client ID: Run ID: **WetChem_HS_276732** SeqNo: **3732867** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	4.546	0.0100					4.529	0.375	20	
Electrical Conductivity, 1:1 aqueous	1.98	0.0100					1.974	0.303	20	
Saturation % as decimal	0.436	0					0.436	0	20	

The following samples were analyzed in this batch: HS16060751-21 HS16060751-22 HS16060751-23 HS16060751-24

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276755 **Instrument: Balance1** **Method: LaDNR-29B SP**

DUP Sample ID: **HS16060751-19DUP** Units: **SP as fraction** Analysis Date: **20-Jun-2016 12:10**
Client ID: Run ID: **Balance1_276755** SeqNo: **3733536** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Saturation Point	0.497	0.100					0.495	0.403	30	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: HS16060751

QC BATCH REPORT

Batch ID: R276823 **Instrument: WetChem_HS** **Method: LaDNR-29B EC**

DUP Sample ID: **HS16060751-19DUP** Units: **mmhos/cm @25° C** Analysis Date: **22-Jun-2016 12:00**
Client ID: Run ID: **WetChem_HS_276823** SeqNo: **3734833** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ saturation	1.02	0.0100					1.023	0.294	20	
Electrical Conductivity, 1:1 aqueous	0.507	0.0100					0.506	0.197	20	
Saturation % as decimal	0.497	0					0.495	0.403	20	

The following samples were analyzed in this batch:

HS16060751-01	HS16060751-02	HS16060751-03	HS16060751-04
HS16060751-05	HS16060751-06	HS16060751-07	HS16060751-08
HS16060751-09	HS16060751-10	HS16060751-11	HS16060751-12
HS16060751-13	HS16060751-14	HS16060751-15	HS16060751-16
HS16060751-17	HS16060751-18	HS16060751-19	HS16060751-20

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

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
WorkOrder: **HS16060751**

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	16-022-0	27-Mar-2017
California	2919	31-Jul-2016
Kansas	E-10352 2014-2015	31-Jul-2016
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2015-047	31-Aug-2016
Texas	TX104704231-16-17	30-Apr-2017

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16060751-01	GP-17-4-1-060916	Login	6/14/2016 12:12:50 PM	PMG	2D
HS16060751-01	GP-17-4-1-060916	Login	6/14/2016 12:12:50 PM	PMG	VW-2
HS16060751-01	GP-17-4-1-060916	Login	6/14/2016 12:12:50 PM	PMG	BTEX A1
HS16060751-01	GP-17-4-1-060916	Login	6/14/2016 12:12:50 PM	PMG	2D
HS16060751-02	GP-17-4-6-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-02	GP-17-4-6-060916	Login	6/14/2016 12:20:49 PM	PMG	VW-2
HS16060751-02	GP-17-4-6-060916	Login	6/14/2016 12:20:49 PM	PMG	BTEX A1
HS16060751-02	GP-17-4-6-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-03	GP-17-4-14-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-03	GP-17-4-14-060916	Login	6/14/2016 12:20:49 PM	PMG	VW-2
HS16060751-03	GP-17-4-14-060916	Login	6/14/2016 12:20:49 PM	PMG	BTEX A1
HS16060751-03	GP-17-4-14-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-04	GP-17-5-1-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-04	GP-17-5-1-060916	Login	6/14/2016 12:20:49 PM	PMG	VW-2
HS16060751-04	GP-17-5-1-060916	Login	6/14/2016 12:20:49 PM	PMG	BTEX A1
HS16060751-04	GP-17-5-1-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-05	GP-17-5-8-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-05	GP-17-5-8-060916	Login	6/14/2016 12:20:49 PM	PMG	VW-2
HS16060751-05	GP-17-5-8-060916	Login	6/14/2016 12:20:49 PM	PMG	BTEX A1
HS16060751-05	GP-17-5-8-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-06	GP-17-5-15-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-06	GP-17-5-15-060916	Login	6/14/2016 12:20:49 PM	PMG	VW-2
HS16060751-06	GP-17-5-15-060916	Login	6/14/2016 12:20:49 PM	PMG	BTEX A1
HS16060751-06	GP-17-5-15-060916	Login	6/14/2016 12:20:49 PM	PMG	2D
HS16060751-07	GP-17-3-3-060916	Login	6/14/2016 12:24:10 PM	PMG	2D
HS16060751-07	GP-17-3-3-060916	Login	6/14/2016 12:24:10 PM	PMG	VW-2
HS16060751-07	GP-17-3-3-060916	Login	6/14/2016 12:24:10 PM	PMG	BTEX A1
HS16060751-07	GP-17-3-3-060916	Login	6/14/2016 12:24:10 PM	PMG	2D
HS16060751-08	GP-17-3-10-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-08	GP-17-3-10-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-08	GP-17-3-10-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-08	GP-17-3-10-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-09	GP-17-3-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-09	GP-17-3-14-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-09	GP-17-3-14-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-09	GP-17-3-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-10	GP-17-2-3-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-10	GP-17-2-3-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-10	GP-17-2-3-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-10	GP-17-2-3-060916	Login	6/14/2016 12:24:11 PM	PMG	2D

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

SAMPLE TRACKING

HS16060751-11	GP-17-2-7-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-11	GP-17-2-7-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-11	GP-17-2-7-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-11	GP-17-2-7-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-12	GP-17-2-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-12	GP-17-2-14-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-12	GP-17-2-14-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-12	GP-17-2-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-13	GP-17-1-3-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-13	GP-17-1-3-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-13	GP-17-1-3-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-13	GP-17-1-3-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-14	GP-17-1-4-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-14	GP-17-1-4-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-14	GP-17-1-4-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-14	GP-17-1-4-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-15	GP-17-1-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-15	GP-17-1-14-060916	Login	6/14/2016 12:24:11 PM	PMG	VW-2
HS16060751-15	GP-17-1-14-060916	Login	6/14/2016 12:24:11 PM	PMG	BTEX A1
HS16060751-15	GP-17-1-14-060916	Login	6/14/2016 12:24:11 PM	PMG	2D
HS16060751-16	GP-17-6-2-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-16	GP-17-6-2-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-16	GP-17-6-2-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-16	GP-17-6-2-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-17	GP-17-6-8-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-17	GP-17-6-8-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-17	GP-17-6-8-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-17	GP-17-6-8-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-18	GP-17-6-15-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-18	GP-17-6-15-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-18	GP-17-6-15-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-18	GP-17-6-15-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-19	GP-17-7-3-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-19	GP-17-7-3-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-19	GP-17-7-3-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-19	GP-17-7-3-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-20	GP-17-7-5-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-20	GP-17-7-5-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-20	GP-17-7-5-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-20	GP-17-7-5-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-21	GP-17-7-12-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-21	GP-17-7-12-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

SAMPLE TRACKING

HS16060751-21	GP-17-7-12-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-21	GP-17-7-12-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-22	GP-17-8-3-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-22	GP-17-8-3-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-22	GP-17-8-3-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-22	GP-17-8-3-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-23	GP-17-8-9-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-23	GP-17-8-9-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-23	GP-17-8-9-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-23	GP-17-8-9-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-24	GP-17-8-14-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-24	GP-17-8-14-060916	Login	6/14/2016 12:27:02 PM	PMG	VW-2
HS16060751-24	GP-17-8-14-060916	Login	6/14/2016 12:27:02 PM	PMG	BTEX A1
HS16060751-24	GP-17-8-14-060916	Login	6/14/2016 12:27:02 PM	PMG	2D
HS16060751-01	GP-17-4-1-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-02	GP-17-4-6-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-03	GP-17-4-14-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-04	GP-17-5-1-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-05	GP-17-5-8-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-06	GP-17-5-15-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-07	GP-17-3-3-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-08	GP-17-3-10-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-09	GP-17-3-14-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-10	GP-17-2-3-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-11	GP-17-2-7-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-12	GP-17-2-14-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-13	GP-17-1-3-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-14	GP-17-1-4-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-15	GP-17-1-14-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-16	GP-17-6-2-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-17	GP-17-6-8-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-18	GP-17-6-15-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-19	GP-17-7-3-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-20	GP-17-7-5-060916	Out	6/23/2016 1:26:35 PM	JCJ	METPREP
HS16060751-01	GP-17-4-1-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-02	GP-17-4-6-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-03	GP-17-4-14-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-04	GP-17-5-1-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-05	GP-17-5-8-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-06	GP-17-5-15-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-07	GP-17-3-3-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-08	GP-17-3-10-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D

Client: Kinder Morgan
Project: McElmo Dome + Doe Canyon
Work Order: HS16060751

SAMPLE TRACKING

HS16060751-09	GP-17-3-14-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-10	GP-17-2-3-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-11	GP-17-2-7-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-12	GP-17-2-14-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-13	GP-17-1-3-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-14	GP-17-1-4-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-15	GP-17-1-14-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-16	GP-17-6-2-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-17	GP-17-6-8-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-18	GP-17-6-15-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-19	GP-17-7-3-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-20	GP-17-7-5-060916	Return	6/23/2016 1:26:51 PM	JCJ	2D
HS16060751-21	GP-17-7-12-060916	Out	6/23/2016 1:34:55 PM	JCJ	METPREP
HS16060751-22	GP-17-8-3-060916	Out	6/23/2016 1:34:55 PM	JCJ	METPREP
HS16060751-23	GP-17-8-9-060916	Out	6/23/2016 1:34:55 PM	JCJ	METPREP
HS16060751-24	GP-17-8-14-060916	Out	6/23/2016 1:34:55 PM	JCJ	METPREP
HS16060751-21	GP-17-7-12-060916	Return	6/23/2016 1:35:11 PM	JCJ	2D
HS16060751-22	GP-17-8-3-060916	Return	6/23/2016 1:35:11 PM	JCJ	2D
HS16060751-23	GP-17-8-9-060916	Return	6/23/2016 1:35:11 PM	JCJ	2D
HS16060751-24	GP-17-8-14-060916	Return	6/23/2016 1:35:11 PM	JCJ	2D

Sample Receipt Checklist

Client Name: Kinder Morgan
Work Order: HS16060751
Date/Time Received: **14-Jun-2016 09:00**
Received by: **JRM**

Checklist completed by: *Paresh M. Giga* eSignature 14-Jun-2016 Date
Reviewed by: *Sonia West* eSignature 15-Jun-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):	2.4c/3.1c,2.0c/2.7c,3.0c/3.7c U/C	IR4	
Cooler(s)/Kit(s):	25262,25308,24243		
Date/Time sample(s) sent to storage:	6/14/16 12:55		
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: Trip Blanks received logged in on hold

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

Chain of Custody Form

Page _____ of _____

COC ID: 142437

HS16060751

Kinder Morgan

McElmo Dome + Doe Canyon

IV

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	McElmo Dome + Doe Canyon
Work Order		Project Number	
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan
Send Report To	Aaron Hale	Invoice Attn	
Address	1001 Louisiana Street Suite 740D	Address	1001 Louisiana Street Suite 740D
City/State/Zip	Houston	City/State/Zip	Houston
Phone		Phone	(713) 369-9193
Fax		Fax	(713) 495-2835
e-Mail Address	aaron_hale@kindermorgan.com	e-Mail Address	

A	BTEX 8260
B	TPH GRO 8015
C	TPH DRO 8015
D	PAH 8270
E	SAR & EC
F	pH
G	Metals 6020 & Mercury 7471
H	Cr+6 & Cr+3
I	Moisture
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-17-4-1-060916	060916	0825	soil	N/A	4	X	X	X	X	X	X	X	X	X		
2	GP-17-4-6-060916	060916	0835	soil	N/A	4	X	X	X	X	X	X	X	X	X		
3	GP-17-4-14-060916	060916	0845	soil	N/A	4	X	X	X	X	X	X	X	X	X		
4	GP-17-5-1-060916	060916	1215	soil	N/A	4	X	X	X	X	X	X	X	X	X		
5	GP-17-5-8-060916	060916	1225	soil	N/A	4	X	X	X	X	X	X	X	X	X		
6	GP-17-5-15-060916	060916	1230	soil	N/A	4	X	X	X	X	X	X	X	X	X		
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: H. Stoller

Shipment Method:

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by (Laboratory): JM 06/14/16 09:00	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Notes: Soil Samples

Cooler ID	Cooler Temp.
25262	2.4
	CF 0.7
	IR 4

QC Package: (Check One Box Below)
[X] Level 2 Std QC
[ ] Level 3 Std QC/Row da
[ ] Level 4 SW846/CLP
[ ] Other/EDD _____
[ ] TRRP ChkList
[ ] TRRP Level 4

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.

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody Form

Page _____ of _____

COC ID: 142450

HS16060751

Kinder Morgan

McElmo Dome + Doe Canyon

, WV

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	McElmo Dome+Doe Canyon
Work Order		Project Number	
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan
Send Report To	Aaron Hale	Invoice Attn	
Address	1001 Louisiana Street Suite 740D	Address	1001 Louisiana Street Suite 740D
City/State/Zip	Houston	City/State/Zip	Houston
Phone		Phone	(713) 369-9193
Fax		Fax	(713) 495-2835
e-Mail Address	aaron_hale@kindermorgan.com	e-Mail Address	

A	BTEX 8260
B	TPH GRO 8015
C	TPH DRO 8015
D	PAH 8270
E	SAR & EC
F	pH
G	Metals 6020 & Mercury 7471
H	Cr+6 & Cr+3
I	Moisture
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-17-3-3-060916	060916	0900	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
2	GP-17-3-10-060916	060916	0910	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
3	GP-17-3-14-060916	060916	0920	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
4	GP-17-2-3-060916	060916	0955	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
5	GP-17-2-7-060916	060916	1010	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
6	GP-17-2-14-060916	060916	1020	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
7	GP-17-1-3-060916	060916	1040	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
8	GP-17-1-4-060916	060916	1050	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
9	GP-17-1-14-060916	060916	1110	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
10																	

Sampler(s) Please Print & Sign: H. Stoller

Shipment Method:

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): JM 06/14/16 09:00
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Soil Samples

Cooler ID	Cooler Temp.
25308	2.0
	CF 0.7
	IR4

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.

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

Chain of Custody Form

Page _____ of _____

COC ID: 142436

HS16060751

, WV

Kinder Morgan

McElmo Dome + Doe Canyon

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	MCElmo Dom+ Doe Canyon
Work Order		Project Number	
Company Name	Kinder Morgan	Bill To Company	Kinder Morgan
Send Report To	Aaron Hale	Invoice Attn	
Address	1001 Louisiana Street Suite 740D	Address	1001 Louisiana Street Suite 740D
City/State/Zip	Houston	City/State/Zip	Houston
Phone		Phone	(713) 369-9193
Fax		Fax	(713) 495-2835
e-Mail Address	aaron_hale@kindermorgan.com	e-Mail Address	

A	BTEX 8260
B	TPH GRO 8015
C	TPH DRO 8015
D	PAH 8270
E	SAR & EC
F	pH
G	Metals 6020 & Mercury 7471
H	Cr+6 & Cr+3
I	Moisture
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GP-17-6-2-060916	060916	1250	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
2	GP-17-6-8-060916	060916	1310	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
3	GP-17-6-15-060916	060916	1325	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
4	GP-17-7-3-060916	060916	1400	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
5	GP-17-7-5-060916	060916	1410	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
6	GP-17-7-12-060916	060916	1420	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
7	GP-17-8-3-060916	060916	1445	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
8	GP-17-8-9-060916	060916	1455	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
9	GP-17-8-14-060916	060916	1510	Soil	N/A	4	X	X	X	X	X	X	X	X	X		
10																	

Sampler(s) Please Print & Sign: H. Stoller

Shipment Method:

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by (Laboratory): JM 06/14/16 09:00	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Notes: Soil Samples

Cooler ID	Cooler Temp.
24243	3.0
	CF 0.7
	IR4

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

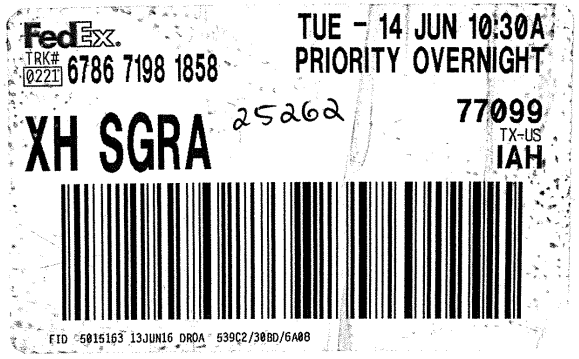
Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is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

ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

25262

CUSTODY SEAL	Seal Broken By:
Date: Time:	Date: 06/14/16
Name:	
Company:	

25262 JUN 14 2016



ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

25308

CUSTODY SEAL

Date: Time:
Name:
Company:

Seal Broken By: SM
Date: 06/14/16

25308 JUN 14 2016

ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

24243

CUSTODY SEAL

Date: _____ Time: _____
Name: _____
Company: _____

Seal Broken By: SM
Date: 06/14/16

24243

JUN 14 2016

FedEx.
TRK# 0221 6786 7198 2030

TUE - 14 JUN 10:30A
PRIORITY OVERNIGHT

XH SGRA 24243

77099
TX-US
IAH

ETD 5016163 13JUN16 DROA 539C2/30BD/6A08

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

June 28, 2016

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

Work Order: **HS16061079**

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

Dear Aaron,

ALS Environmental received 2 sample(s) on Jun 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: HS16061079

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16061079-01	GP-17-50-061616	Groundwater		16-Jun-2016 10:30	18-Jun-2016 09:20	☐
HS16061079-02	GP-19-50-061616	Groundwater		16-Jun-2016 12:30	18-Jun-2016 09:20	☐

Client: Kinder Morgan **CASE NARRATIVE**
Project: McElmo Dome & Doe Canyon
Work Order: HS16061079

GCMS Volatiles by Method SW8260

Batch ID: R277094

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

WetChemistry by Method M2540C

Batch ID: R276983

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

WetChemistry by Method E300

Batch ID: R276739

Sample ID: **HS16061140-01MS**
• MS and MSD are for an unrelated sample

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: GP-17-50-061616
Collection Date: 16-Jun-2016 10:30

ANALYTICAL REPORT
WorkOrder:HS16061079
Lab ID:HS16061079-01
Matrix:Groundwater

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-Jun-2016 17:16
Ethylbenzene	ND		1.0	ug/L	1	27-Jun-2016 17:16
m,p-Xylene	ND		2.0	ug/L	1	27-Jun-2016 17:16
o-Xylene	ND		1.0	ug/L	1	27-Jun-2016 17:16
Toluene	ND		1.0	ug/L	1	27-Jun-2016 17:16
Xylenes, Total	ND		3.0	ug/L	1	27-Jun-2016 17:16
Surr: 1,2-Dichloroethane-d4	*114*		*71-125*	*%REC*	*1*	*27-Jun-2016 17:16*
Surr: 4-Bromofluorobenzene	*95.4*		*70-125*	*%REC*	*1*	*27-Jun-2016 17:16*
Surr: Dibromofluoromethane	*116*		*74-125*	*%REC*	*1*	*27-Jun-2016 17:16*
Surr: Toluene-d8	*114*		*75-125*	*%REC*	*1*	*27-Jun-2016 17:16*
TOTAL DISSOLVED SOLIDS BY SM2540C		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,270**		**10.0**	**mg/L**	1	23-Jun-2016 17:45
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Chloride	**31.8**		**0.500**	**mg/L**	1	21-Jun-2016 13:50
Sulfate	**418**		**10.0**	**mg/L**	20	21-Jun-2016 14:05

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Sample ID: GP-19-50-061616
Collection Date: 16-Jun-2016 12:30

ANALYTICAL REPORT
WorkOrder:HS16061079
Lab ID:HS16061079-02
Matrix:Groundwater

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-Jun-2016 17:42
Ethylbenzene	ND		1.0	ug/L	1	27-Jun-2016 17:42
m,p-Xylene	ND		2.0	ug/L	1	27-Jun-2016 17:42
o-Xylene	ND		1.0	ug/L	1	27-Jun-2016 17:42
Toluene	ND		1.0	ug/L	1	27-Jun-2016 17:42
Xylenes, Total	ND		3.0	ug/L	1	27-Jun-2016 17:42
Surr: 1,2-Dichloroethane-d4	*112*		*71-125*	*%REC*	*1*	*27-Jun-2016 17:42*
Surr: 4-Bromofluorobenzene	*92.7*		*70-125*	*%REC*	*1*	*27-Jun-2016 17:42*
Surr: Dibromofluoromethane	*111*		*74-125*	*%REC*	*1*	*27-Jun-2016 17:42*
Surr: Toluene-d8	*107*		*75-125*	*%REC*	*1*	*27-Jun-2016 17:42*
TOTAL DISSOLVED SOLIDS BY SM2540C		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**860**		**10.0**	**mg/L**	1	23-Jun-2016 17:45
ANIONS BY E300.0		**Method:E300**				Analyst: JBA
Chloride	**57.4**		**0.500**	**mg/L**	1	21-Jun-2016 14:19
Sulfate	**102**		**10.0**	**mg/L**	20	21-Jun-2016 14:34

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R276739	**Test Name :** ANIONS BY E300.0				**Matrix:** Groundwater	
HS16061079-01	GP-17-50-061616	16 Jun 2016 10:30			21 Jun 2016 14:05	20
HS16061079-01	GP-17-50-061616	16 Jun 2016 10:30			21 Jun 2016 13:50	1
HS16061079-02	GP-19-50-061616	16 Jun 2016 12:30			21 Jun 2016 14:34	20
HS16061079-02	GP-19-50-061616	16 Jun 2016 12:30			21 Jun 2016 14:19	1
Batch ID R276983	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C				**Matrix:** Groundwater	
HS16061079-01	GP-17-50-061616	16 Jun 2016 10:30			23 Jun 2016 17:45	1
HS16061079-02	GP-19-50-061616	16 Jun 2016 12:30			23 Jun 2016 17:45	1
Batch ID R277094	**Test Name :** LOW LEVEL VOLATILES BY SW8260C				**Matrix:** Groundwater	
HS16061079-01	GP-17-50-061616	16 Jun 2016 10:30			27 Jun 2016 17:16	1
HS16061079-02	GP-19-50-061616	16 Jun 2016 12:30			27 Jun 2016 17:42	1

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R277094 **Instrument: VOA4** **Method: SW8260**

MBLK Sample ID: **VBLKW-160627** Units: **ug/L** Analysis Date: **27-Jun-2016 11:31**
Client ID: Run ID: **VOA4_277094** SeqNo: **3740164** 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	3.0								
Surr: 1,2-Dichloroethane-d4	*56.26*	*1.0*	*50*	*0*	*113*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.18*	*1.0*	*50*	*0*	*96.4*	*70 - 125*				
Surr: Dibromofluoromethane	*58.31*	*1.0*	*50*	*0*	*117*	*74 - 125*				
Surr: Toluene-d8	*55.4*	*1.0*	*50*	*0*	*111*	*75 - 125*				

LCS Sample ID: **VLCSW-160627** Units: **ug/L** Analysis Date: **27-Jun-2016 10:14**
Client ID: Run ID: **VOA4_277094** SeqNo: **3740162** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.26	1.0	50	0	105	75 - 122				
Ethylbenzene	50.11	1.0	50	0	100	80 - 120				
m,p-Xylene	102	2.0	100	0	102	80 - 120				
o-Xylene	50.56	1.0	50	0	101	80 - 120				
Toluene	50.14	1.0	50	0	100	75 - 121				
Xylenes, Total	152.6	3.0	150	0	102	79 - 124				
Surr: 1,2-Dichloroethane-d4	*56.58*	*1.0*	*50*	*0*	*113*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*53.62*	*1.0*	*50*	*0*	*107*	*70 - 125*				
Surr: Dibromofluoromethane	*56.43*	*1.0*	*50*	*0*	*113*	*74 - 125*				
Surr: Toluene-d8	*53.19*	*1.0*	*50*	*0*	*106*	*75 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R277094 **Instrument: VOA4** **Method: SW8260**

LCSD Sample ID: **VLCSDW-160627** Units: **ug/L** Analysis Date: **27-Jun-2016 10:39**
Client ID: Run ID: **VOA4_277094** SeqNo: **3740163** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	52	1.0	50	0	104	75 - 122	52.26	0.505	20	
Ethylbenzene	49.35	1.0	50	0	98.7	80 - 120	50.11	1.52	20	
m,p-Xylene	100.8	2.0	100	0	101	80 - 120	102	1.18	20	
o-Xylene	48.34	1.0	50	0	96.7	80 - 120	50.56	4.5	20	
Toluene	49.19	1.0	50	0	98.4	75 - 121	50.14	1.9	20	
Xylenes, Total	149.1	3.0	150	0	99.4	80 - 124	152.6	2.27	20	
Surr: 1,2-Dichloroethane-d4	*56.3*	*1.0*	*50*	*0*	*113*	*71 - 125*	*56.58*	*0.499*	*20*	
Surr: 4-Bromofluorobenzene	*55.67*	*1.0*	*50*	*0*	*111*	*70 - 125*	*53.62*	*3.74*	*20*	
Surr: Dibromofluoromethane	*58.55*	*1.0*	*50*	*0*	*117*	*74 - 125*	*56.43*	*3.69*	*20*	
Surr: Toluene-d8	*54.58*	*1.0*	*50*	*0*	*109*	*75 - 125*	*53.19*	*2.59*	*20*	

MS Sample ID: **HS16061156-02MS** Units: **ug/L** Analysis Date: **27-Jun-2016 12:24**
Client ID: Run ID: **VOA4_277094** SeqNo: **3740166** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	51.92	1.0	50	0	104	75 - 122				
Ethylbenzene	47.6	1.0	50	0	95.2	80 - 120				
m,p-Xylene	97.03	2.0	100	0	97.0	80 - 120				
o-Xylene	48.6	1.0	50	0	97.2	80 - 120				
Toluene	49.89	1.0	50	0	99.8	75 - 121				
Xylenes, Total	145.6	3.0	150	0	97.1	80 - 124				
Surr: 1,2-Dichloroethane-d4	*56.45*	*1.0*	*50*	*0*	*113*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*53.52*	*1.0*	*50*	*0*	*107*	*70 - 125*				
Surr: Dibromofluoromethane	*56.8*	*1.0*	*50*	*0*	*114*	*74 - 125*				
Surr: Toluene-d8	*54.06*	*1.0*	*50*	*0*	*108*	*75 - 125*				

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R277094 **Instrument: VOA4** **Method: SW8260**

MSD Sample ID: **HS16061156-02MSD** Units: **ug/L** Analysis Date: **27-Jun-2016 12:50**
Client ID: Run ID: **VOA4_277094** SeqNo: **3740167** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	51.38	1.0	50	0	103	75 - 122	51.92	1.05	20	
Ethylbenzene	46.03	1.0	50	0	92.1	80 - 120	47.6	3.36	20	
m,p-Xylene	92.91	2.0	100	0	92.9	80 - 120	97.03	4.34	20	
o-Xylene	46.97	1.0	50	0	93.9	80 - 120	48.6	3.41	20	
Toluene	46.97	1.0	50	0	93.9	75 - 121	49.89	6.02	20	
Xylenes, Total	139.9	3.0	150	0	93.3	80 - 124	145.6	4.03	20	
Surr: 1,2-Dichloroethane-d4	*56.68*	*1.0*	*50*	*0*	*113*	*71 - 125*	*56.45*	*0.401*	*20*	
Surr: 4-Bromofluorobenzene	*51.89*	*1.0*	*50*	*0*	*104*	*70 - 125*	*53.52*	*3.1*	*20*	
Surr: Dibromofluoromethane	*56.09*	*1.0*	*50*	*0*	*112*	*74 - 125*	*56.8*	*1.27*	*20*	
Surr: Toluene-d8	*52.04*	*1.0*	*50*	*0*	*104*	*75 - 125*	*54.06*	*3.81*	*20*	

The following samples were analyzed in this batch: HS16061079-01 HS16061079-02

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R276739 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **WBLKW1-062116** Units: **mg/L** Analysis Date: **21-Jun-2016 13:07**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733111** 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: **WLCSW1-062116** Units: **mg/L** Analysis Date: **21-Jun-2016 13:21**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733112** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.71	0.500	20	0	104	90 - 110				
Sulfate	20.67	0.500	20	0	103	90 - 110				

LCSD Sample ID: **WLCSDKW1-062116** Units: **mg/L** Analysis Date: **21-Jun-2016 13:36**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733113** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.3	0.500	20	0	101	90 - 110	20.71	2.02	20	
Sulfate	20.2	0.500	20	0	101	90 - 110	20.67	2.29	20	

MS Sample ID: **HS16061140-01MS** Units: **mg/L** Analysis Date: **21-Jun-2016 19:49**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733133** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.46	0.500	10	8.789	96.7	80 - 120				
Sulfate	56.4	0.500	10	48.53	78.7	80 - 120				SO

MS Sample ID: **HS16061007-01MS** Units: **mg/L** Analysis Date: **21-Jun-2016 15:56**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733120** PrepDate: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	36520	500	10000	27230	92.9	80 - 120				
Sulfate	10290	500	10000	828.4	94.6	80 - 120				

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R276739 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS16061140-01MSD** Units: **mg/L** Analysis Date: **21-Jun-2016 20:03**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733134** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.33	0.500	10	8.789	95.4	80 - 120	18.46	0.701	20	
Sulfate	56.2	0.500	10	48.53	76.7	80 - 120	56.4	0.359	20	SO

MSD Sample ID: **HS16061007-01MSD** Units: **mg/L** Analysis Date: **21-Jun-2016 16:40**
Client ID: Run ID: **ICS2100_276739** SeqNo: **3733123** PrepDate: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	37570	500	10000	27230	103	80 - 120	36520	2.83	20	
Sulfate	10700	500	10000	828.4	98.7	80 - 120	10290	3.87	20	

The following samples were analyzed in this batch: HS16061079-01 HS16061079-02

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: HS16061079

QC BATCH REPORT

Batch ID: R276983 **Instrument: Balance1** **Method: M2540C**

MBLK Sample ID: **WBLK-062316** Units: **mg/L** Analysis Date: **23-Jun-2016 17:45**
Client ID: Run ID: **Balance1_276983** SeqNo: **3737833** 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-062316** Units: **mg/L** Analysis Date: **23-Jun-2016 17:45**
Client ID: Run ID: **Balance1_276983** SeqNo: **3737834** 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)	1002	10.0	1000	0	100	85 - 115				

DUP Sample ID: **HS16061225-01DUP** Units: **mg/L** Analysis Date: **23-Jun-2016 17:45**
Client ID: Run ID: **Balance1_276983** SeqNo: **3737830** 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)	88	10.0					86	2.3	5	

The following samples were analyzed in this batch: HS16061079-01 HS16061079-02

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

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
WorkOrder: **HS16061079**

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	16-022-0	27-Mar-2017
California	2919	31-Jul-2016
Kansas	E-10352 2014-2015	31-Jul-2016
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2015/2016	30-Jun-2016
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2015-047	31-Aug-2016
Texas	TX104704231-16-17	30-Apr-2017

Client: Kinder Morgan
Project: McElmo Dome & Doe Canyon
Work Order: HS16061079

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16061079-01	GP-17-50-061616	Login	6/20/2016 12:00:08 PM	CGG	7A
HS16061079-01	GP-17-50-061616	Login	6/20/2016 12:00:08 PM	CGG	VW-3
HS16061079-02	GP-19-50-061616	Login	6/20/2016 12:00:08 PM	CGG	7A
HS16061079-02	GP-19-50-061616	Login	6/20/2016 12:00:08 PM	CGG	VW-3

Sample Receipt Checklist

Client Name: Kinder Morgan
Work Order: HS16061079

Date/Time Received: **18-Jun-2016 09:20**
Received by: **PMG**

Checklist completed by: *Corey Grandits* eSignature — 20-Jun-2016 Date

Reviewed by: *Bernadette A. Fini* eSignature — 21-Jun-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):	3.2c/3.8c uc/c	IR#5	
Cooler(s)/Kit(s):	24665		
Date/Time sample(s) sent to storage:	06/20/2016 12:05		
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

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

Chain of Custody Form

Page _____ of _____

COC ID: 142429

HS16061079

Kinder Morgan

McElmo Dome & Doe Canyon

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	McElmo Dome + Doe Canyon	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	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	~~DC~~GP-17-50-061616	6/16/16	1030	GW	HCL	4	X	X	X								
2	GP-19-50-061616	6/16/16	1230	GW	HCL	4	X	X	X								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: H. Stolle

Shipment Method

Required Turnaround Time: (Check Box) [X] Std 10 WK days [ ] 5 WK Days [ ] 2 WK Days [ ] 24 Hour [ ] Other _____

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by (Laboratory): 6.18.16. 09:20
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

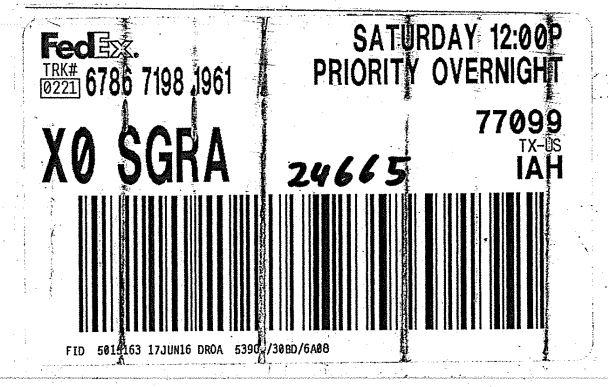
Notes: Water Samples

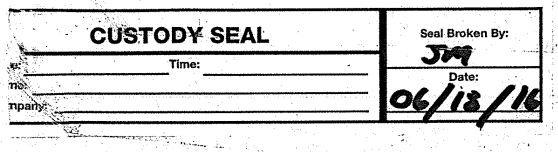
Cooler ID	Cooler Temp.
	UIC.
24665	3.2°

QC Package: (Check One Box Below)
- [X] Level 2 Std QC
- [ ] Level 3 Std QC/Row da
- [ ] Level 4 SW846/CLP
- [ ] Other/EDD _____
- [ ] TRRP ChkList
- [ ] TRRP Level 4

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 [illegible]





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.

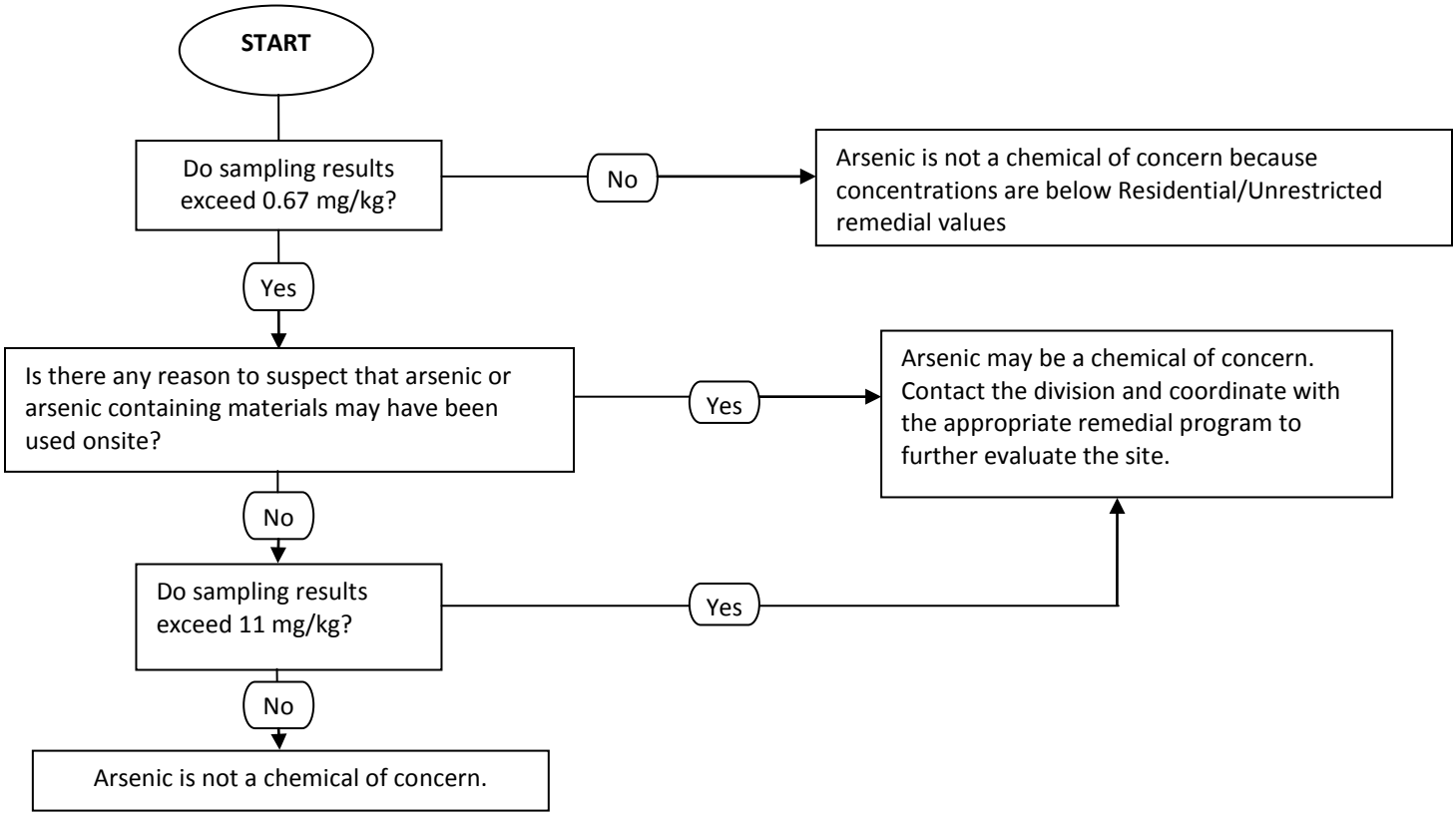
Region 8 U.S. EPA 95% UCLM Background Soil Arsenic Concentrations in Colorado

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

75 Suttle Street
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

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

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

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

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

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

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							

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

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	

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

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

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

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

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

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

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

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	"	"	"	"	"	"	

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	

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

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

SunStar Laboratories, Inc.

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

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

Printed: 6/19/2015 3:52:46PM

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