

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	DJR Operating LLC	OGRID	371838
Contact Name	Amy Archuleta	Contact Telephone	505-632-3476
Contact email	aarchuleta@djrlc.com	Incident # (assigned by OCD)	NCS 1808030855
Contact mailing address	1 Road 6263, Aztec, New Mexico, 87410		

Location of Release Source

Latitude 36.39910 Longitude -108.00645
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	E.W. Mudge #8	Site Type	Well Site
Date Release Discovered	3/13/18	API# (if applicable)	30-045-26217

Unit Letter	Section	Township	Range	County
J	16	25N	11W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 5.5 bbls	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release is believed to be the result of vandalism. A valve, with no handle, was found open on the well head at 1:30 PM on 3/13/18.

NMOC

NOV 15 2018

DISTRICT III

68

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	50-100' (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Application ID	

Remediation Plan**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
☐ Extents of contamination must be fully delineated.
☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Archuleta Title: Regulatory Specialist
 Signature: [Signature] Date: 11-9-18
 email: aarchuleta@djrlc.com Telephone: 505-632-3476

NOTE: Emailed digital copy on 11/12/18 @ 2:30 pm.

OCD Only

Received by: OCD Date: 11/15/18
☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: [Signature] Date: 12/3/18

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Monday, December 3, 2018 10:32 AM
To: 'Amy Archuleta'; Fields, Vanessa, EMNRD; 'Emmanuel'
Cc: 'Tami C. Knight'; 'David Striegel'
Subject: RE: EW Mudge 8 30-045-26217 incident# nCS1808030855

Amy,

OCD received a remediation plan for the EW Mudge #8 incident# ncs1808030855 on November 15, 2018 and has approved the plan with the following conditions of approval.

- DJR will return to the site within the indicated timelines and remediate all areas above closure standards.

Since the remediation plan is essentially a request for additional time to remediate, OCD approved the plan with the limited delineation information. In the future please make sure that the delineation follows 19.15.17.11 NMAC (each bore hole must have at least 2 samples highest observed and bottom hole) also include field notes like borehole logs field ovm etc.

Thank you,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Smith, Cory, EMNRD
Sent: Thursday, November 15, 2018 3:49 PM
To: 'Amy Archuleta' <aarchuleta@djrlc.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Emmanuel <aadeloye@blm.gov>
Cc: Tami C. Knight <tknight@animasenvironmental.com>; David Striegel <dstriegel@djrlc.com>
Subject: RE: EW Mudge 8 30-045-26217

Works for me

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

November 8, 2018

Amy Archuleta
Regulatory Supervisor
DJR Operating, LLC
1 Road 3263
Aztec, New Mexico 87410-9521

Sent via electronic mail to:
aarchuleta@djrlc.com

**RE: Site Remediation Plan
E.W. Mudge #8
API# 30-045-26217
Incident No. NCS 1808030855
NW¼ SE¼, Section 16, T25N, R11W
San Juan County, New Mexico**

Dear Ms. Archuleta:

Animas Environmental Services, LLC (AES) has prepared this Remediation Plan for a release which occurred March 13, 2018, at the DJR Operating (DJR) E.W. Mudge #8, located in San Juan County, New Mexico. The release consisted of approximately 5.5 barrels (bbls) of crude oil from an open valve on the wellhead and is believed to be the result of vandalism. Initial response by DJR included the removal of 40 cubic yards (yds³) of visibly contaminated soil on March 14, 2018. Photographic documentation of site conditions is provided in the attachments.

During excavation of the March 2018 release, DJR discovered that the release had co-mingled with a historic reserve pit. A total of 116 yds³ of visibly contaminated soil were removed during initial excavation activities and disposed of at Industrial Ecosystems Landfarm (NMOCD Permit #NM-01-0010B) in March and April 2018. An additional 320 yds³ were excavated and disposed of at the Envirotech Landfarm (NMOCD Permit #NM-01-0011) in June and July 2018.

On November 5, 2018, AES completed excavation soil confirmation sampling for the March 2018 release, and a site delineation was also completed the same day in order to develop a plan for excavation of the historic reserve pit. Mitigation of petroleum impacted soils via further excavation with off-site disposal is proposed for the site.

604 W. Piñon St.
Farmington, NM 87401
505-564-2281

1911 Main, Ste 206
Durango, CO 81301
970-403-3084

1.0 Site Information

1.1 Location

Site Name – E.W. Mudge #8

API# – 30-045-26217

Legal Description – NW¼ SE¼, Section 16, T25N, R11W, San Juan County, New Mexico

Release Latitude/Longitude – N36.39910 and W108.00645, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Location Map

1.2 NMOCD Ranking

The subject release occurred in March 2018; however, DJR is complying with New Mexico Oil Conservation Division's (NMOCD) request to conform to release regulations that were adopted on August 14, 2018. In accordance with NMAC 19.15.29.12 Table I (August 2018), release closure criteria for this location are based on the minimum depth to groundwater within the horizontal extent of the release area and proximity to sensitive receptors:

- **Depth to Groundwater:** The site is less than 5 ft higher than a playa lake located 780 ft to the west. Note however that no groundwater was encountered during any of the recent site excavation work. Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be between 50 and 100 ft below ground surface (bgs).
- **Sensitive Receptor Determination:** An unnamed wash that ultimately drains to Gallegos Canyon is located 140 ft south of the location. In accordance with NMAC 19.15.29.12C.4, the release must be treated as if it occurred less than 50 ft bgs to groundwater.

Action levels are:

- 10 mg/kg benzene and 50 mg/kg total benzene, toluene, ethylbenzene, and xylene (BTEX);
- 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO); and
- 600 mg/kg chloride.

2.0 Confirmation Sampling and Site Delineation

AES was initially contacted by Amy Archuleta of DJR on October 29, 2018, and on November 5, 2018, Corwin Lameman and Sheradan Jaquez of AES completed the excavation confirmation sampling and site delineation field work. AES soil boring locations are presented on Figure 3.

2.1 Subsurface Lithology

Geologic subsurface lithology encountered included sand at the surface transitioning to dry clay then hard shale. Sand extended to depths of 0.5 ft to 5.25 ft bgs. The underlying clay layer was encountered from depths of 0.5 ft to 6.75 ft bgs. Shale was encountered beneath clay in all borings except SB-2. The shale contact resulted in hand auger refusal; therefore, the borings were terminated at the shale contact. A geological cross section of the site is included as Figure 4.

2.2 Soil Sampling

Excavation Confirmation Sampling

A total of 12 excavation composite soil samples (SC-1 through SC-12) were collected during the excavation confirmation field work on November 5, 2018. All 12 excavation composite soil samples were submitted for confirmation laboratory analysis.

Site Delineation Sampling

A total of 11 soil borings were advanced during the site delineation field work on November 5, 2018. Two samples were collected from each boring. To provide delineation guidance, 13 soil boring samples were field screened for volatile organic compounds (VOCs), and eight samples were field screened for TPH.

Based on field screening results and requirements specified in NMAC 19.15.29.11, two soil samples from eight of the soil borings were submitted for laboratory analysis. Samples were selected from the highest field screening results and the total depth of the soil boring. Note that samples were not collected from SB-7 since hydrocarbon contamination, resembling grease, was observed in the boring.

2.2.1 Field Screening

Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas in accordance with U.S. Environmental Protection Agency (USEPA) Method 3815.

Total Petroleum Hydrocarbons

To provide guidance for the delineation, select soil samples were also analyzed in the field for TPH per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES' *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per USEPA Method 418.1*.

2.2.2 Soil Samples for Laboratory Analyses

The samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. The samples were maintained on ice until delivery to the analytical laboratory, Envirotech Analytical Laboratory (Envirotech).

Laboratory Analyses

The samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH as GRO/DRO/MRO per USEPA Method 8015M/D; and
- Chloride per USEPA method 300.0.

2.3 Field Screening and Laboratory Analytical Results

2.3.1 Field Screening Results

The highest site delineation soil boring VOC reading was reported in SB-7 at 4.5 ft with 120.5 ppm, and the highest TPH concentration was reported in SB-1 at 5 ft with greater than 2,400 mg/kg. TPH concentrations above the NMOCD action level of 100 mg/kg were also reported in SB-2 at 5.25 ft bgs (172 mg/kg) and SB-5 at 5.25 ft bgs (894 mg/kg).

2.3.2 Laboratory Analytical Results

Excavation Confirmation

Laboratory analyses were used to confirm the removal of contaminated soil in the excavation area. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively, in all samples. TPH (GRO/DRO/MRO) concentrations were reported above the NMOCD action level of 100 mg/kg in SC-7, SC-9, and SC-10, with the highest concentration reported in SC-7 with 1,999 mg/kg. Chloride concentrations were reported below the NMOCD action level of 600 mg/kg in all samples, with the highest concentration reported in SC-9 with 249 mg/kg.

Site Delineation

Laboratory analyses were used to confirm the extent of contamination east of the pump jack in the vicinity of the historic reserve pit. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively, in all samples. TPH (GRO/DRO/MRO) concentrations were reported above the NMOCD action level of 100 mg/kg in SB-1, SB-2, SB-5, SB-10, and SB-11, with the highest concentration reported in SB-1 at 5 ft with 7,850 mg/kg. Chloride concentrations were reported below the NMOCD action level of 600 mg/kg in all samples, with the highest concentration reported in SB-5 at 4.5 ft with 302 mg/kg.

Field screening results are summarized on the attached AES Field Screening Reports. Laboratory analytical results are included on Tables 1 and 2 and Figure 3. Laboratory analytical reports are attached.

2.4 Vertical and Lateral Extent of Petroleum Hydrocarbon Impacts

The lateral extents of petroleum hydrocarbon impacts remaining at the site are in the immediate vicinity of the wellhead at SC-7, the base of the excavation (SC-9 and SC-10), and near the historic reserve pit at SB-1, SB-2, SB-5, SB-7, SB-10, and SB-11. The estimated lateral extents of remaining subsurface petroleum hydrocarbon impacts are included on Figure 3.

Vertically, petroleum hydrocarbon contaminant concentrations in excess of the NMOCD action levels were reported in the base of the existing excavation, indicating that contamination likely extends deeper than 6 feet. Site delineation at the former reserve pit indicates contamination to the depth of shale at 4 to 6.75 ft bgs. The estimated vertical extents of petroleum hydrocarbon impacts in soil are found on Figure 4.

3.0 Remediation Plan

3.1 Additional Excavation

AES proposes further excavation at the site to include deepening the current open excavation area. Excavation of the former reserve pit area, including borings with TPH readings in excess of the NMOCD action level, will extend into the shale layer and include any visible contamination. The proposed additional excavation extents are included on Figure 3 and 4.

3.2 Site Re-Evaluation

Upon completion of proposed excavation activities, DJR will notify NMOCD and schedule excavation confirmation sampling. After the receipt of confirmation laboratory

analytical results, DJR will submit a release closure report. If supplemental or alternative remedial measures are warranted, DJR will prepare and submit a Supplemental Remedial Plan to NMOCD for review and approval.

4.0 Deliverables

A report detailing remedial activities will be submitted to NMOCD and will include the following information:

- Excavation clearance report;
- Reclamation information;
- Tabulated field screening and laboratory analytical results for soil;
- Laboratory analytical reports
- Waste manifests; and
- Site photographs.

5.0 Proposed Schedule

The following timeframe is anticipated upon plan Remediation Plan approval:

<i>Month from NMOCD Approval:</i>	<i>Task:</i>
1 month	Completion of excavation activities;
2 months	Excavation Clearance Report with C-141

If you have any questions about site conditions or this Remediation Plan, please do not hesitate to contact Elizabeth McNally or Tami Knight at (505) 564-2281.

Sincerely,



David J. Reese
Environmental Scientist



Elizabeth McNally, P.E.

Attachments:

AES Field Screening Report 110518
Table 1. Excavation Confirmation Laboratory Analytical Results, November 2018
Table 2. Site Delineation Laboratory Analytical Results, November 2018
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Location Map
Figure 3. Site Delineation and Excavation Confirmation Sample Locations and
Results, November 2018
Figure 4. Geological Cross Section
Photo Log
Envirotech Analytical Report P811017
Envirotech Analytical Report P811018

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Projects\DJ Resources\EW Mudge 8\Reports\EW Mudge #8 Remediation Plan 110818.docx

AES Field Screening Report



Client: DJR Operating

Project Location: EW Mudge 8

Date: 11/5/2018

Matrix: Soil

Sample ID	Collection Date	Collection Time	PID-OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @5'	11/5/2018	10:04	38.9	>2,400	11:10	20.0	1.0	SJ
SB-1 @6.5'	11/5/2018	10:06	2.8	Not Analyzed for TPH				
SB-2 @4.75'	11/5/2018	11:20	1.3	Not Analyzed for TPH				
SB-2 @5.25'	11/5/2018	11:23	27.8	172	12:05	20.0	1.0	SJ
SB-3 @5'	11/5/2018	11:25	0.0	Not Analyzed for TPH				
SB-3 @6.25'	11/5/2018	11:27	0.0	38.6	11:56	20.0	1.0	SJ
SB-4 @4.25'	11/5/2018	12:22	0.0	Not Analyzed for TPH				
SB-4 @5'	11/5/2018	12:31	0.0	42.3	12:35	20.0	1.0	SJ
SB-5 @4.5'	11/5/2018	12:39	0.2	Not Analyzed for TPH				
SB-5 @5.25'	11/5/2018	12:46	7.2	894	13:00	20.0	1.0	SJ
SB-6 @4.25'	11/5/2018	13:09	0.0	Not Analyzed for TPH				
SB-6 @5'	11/5/2018	13:11	0.0	55.6	13:19	20.0	1.0	SJ
SB-7 @2	11/5/2018	13:25	NA	Not Analyzed for TPH				
SB-7 @4.5'	11/5/2018	13:36	120.5	Not Analyzed for TPH				
SB-8 @4'	11/5/2018	14:42	NA	Not Analyzed for TPH				

Sample ID	Collection Date	Collection Time	PID-OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-8 @5.25'	11/5/2018	14:44	NA	16.8	14:50	20.0	1.0	SJ
SB-9 @4'	11/5/2018	14:52	NA	Not Analyzed for TPH				
SB-9 @6.5'	11/5/2018	14:55	NA	67.7	15:01	20.0	1.0	SJ
SB-10 @4'	11/5/2018	16:03	NA	Not Analyzed for TPH				
SB-10 @5'	11/5/2018	16:05	NA	Not Analyzed for TPH				
SB-11 @2.25'	11/5/2018	16:10	NA	Not Analyzed for TPH				
SB-11 @4.25'	11/5/2018	16:14	NA	Not Analyzed for TPH				

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



TABLE 1
Excavation Confirmation - E.W. Mudge #8, Incident No. NCS 1808030855
Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides
November 2018

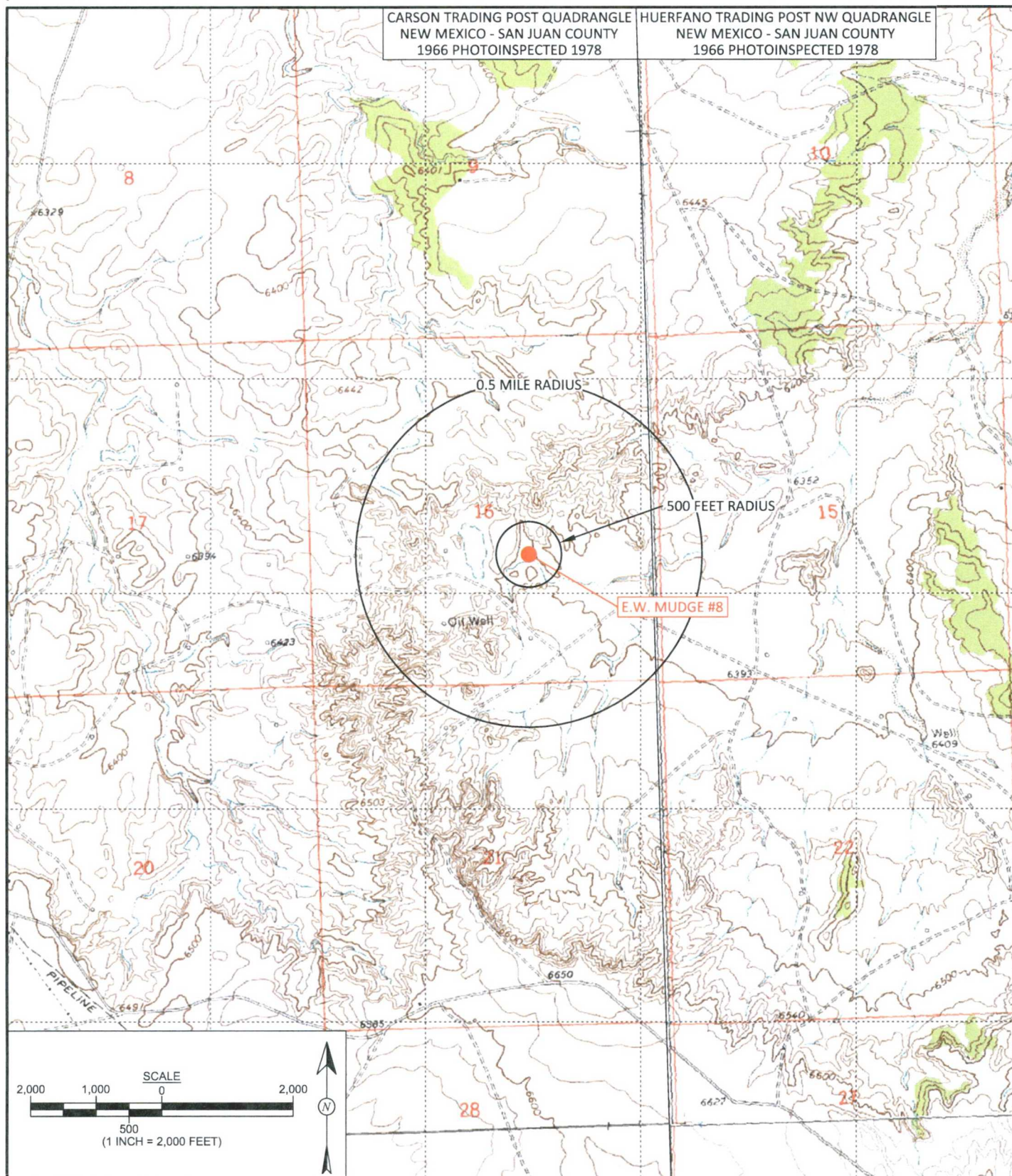
Sample ID	Date	Sample Depth (ft)	Benzene mg/kg	BTEX mg/kg	TPH-GRO mg/kg	TPH-DRO mg/kg	TPH-MRO mg/kg	Chlorides mg/kg
Analytical Method			8021	8021	8015			300.0
NMOCD Action Levels*			10	50	100			600
SC-1	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	232
SC-2	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	52.6
SC-3	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	118
SC-4	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	140
SC-5	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	94.2
SC-6	11/5/2018	2-6	<0.1	<0.1	<20	<25	<50	<20
SC-7	11/5/2018	2-6	<0.1	<0.1	<20	1,690	309	146
SC-8	11/5/2018	2-6	<0.1	<0.1	<20	39.9	<50	142
SC-9	11/5/2018	6-8	<0.1	<0.1	<20	211	<50	249
SC-10	11/5/2018	6-8	<0.1	<0.1	<20	476	76.0	63.4
SC-11	11/5/2018	0.5	<0.1	<0.1	<20	51.2	<50	34.6
SC-12	11/5/2018	0.5	<0.1	<0.1	<20	<25	<50	24.2

Notes: *Action levels determined by NMAC 19.15.29.12 (2018)

TABLE 2
Site Delineation - E.W. Mudge #8, Incident No. NCS 1808030855
Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides
November 2018

<i>Sample ID</i>	<i>Date</i>	<i>Sample Depth (ft)</i>	<i>Benzene mg/kg</i>	<i>BTEX mg/kg</i>	<i>TPH-GRO mg/kg</i>	<i>TPH-DRO mg/kg</i>	<i>TPH-MRO mg/kg</i>	<i>Chlorides mg/kg</i>
Analytical Method			8021	8021	8015			300.0
NMOCD Action Levels*			10	50	100			600
SB-1 @5'	11/5/2018	5.0	<0.1	<0.1	<20.0	5,060	2,790	174
SB-1 @6.5'	11/5/2018	6.5	<0.1	<0.1	<20.0	83.4	77.8	173
SB-2 @4.75'	11/5/2018	4.75	<0.1	<0.1	<20.0	45.0	<50.0	203
SB-2 @5.25'	11/5/2018	5.25	<0.1	<0.1	<20.0	165	132	114
SB-3 @5'	11/5/2018	5.0	<0.1	<0.1	<20.0	<25.0	<50.0	215
SB-3 @6.25'	11/5/2018	6.25	<0.1	<0.1	<20.0	<25.0	<50.0	265
SB-4 @4.5'	11/5/2018	4.5	<0.1	<0.1	<20.0	<25.0	<50.0	135
SB-4 @5'	11/5/2018	5.0	<0.1	<0.1	<20.0	<25.0	<50.0	80.7
SB-5 @4.5'	11/5/2018	4.5	<0.1	<0.1	<20.0	292	179	302
SB-5 @5.25'	11/5/2018	5.25	<0.1	<0.1	<20.0	249	124	181
SB-6 @4.25'	11/5/2018	4.25	<0.1	<0.1	<20.0	<25.0	<50.0	123
SB-6 @5'	11/5/2018	5.0	<0.1	<0.1	<20.0	<25.0	<50.0	147
SB-10 @4'	11/5/2018	4.0	<0.1	<0.1	<20.0	507	481	201
SB-10 @5'	11/5/2018	5.0	<0.1	<0.1	<20.0	184	209	161
SB-11 @2.5'	11/5/2018	2.5	<0.1	<0.1	<20.0	1,870	1,980	200
SB-11 @4.25'	11/5/2018	4.25	<0.1	<0.1	<20.0	108	231	238

Notes: *Action levels determined by NMAC 19.15.29.12 (2018)



animas
environmental
services

Farmington, NM • Durango, CO
animasenvironmental.com

DRAWN BY:
C. Lameman

DATE DRAWN:
August 9, 2018

REVISIONS BY:
C. Lameman

DATE REVISED:
November 6, 2018

CHECKED BY:
T. Knight

DATE CHECKED:
November 6, 2018

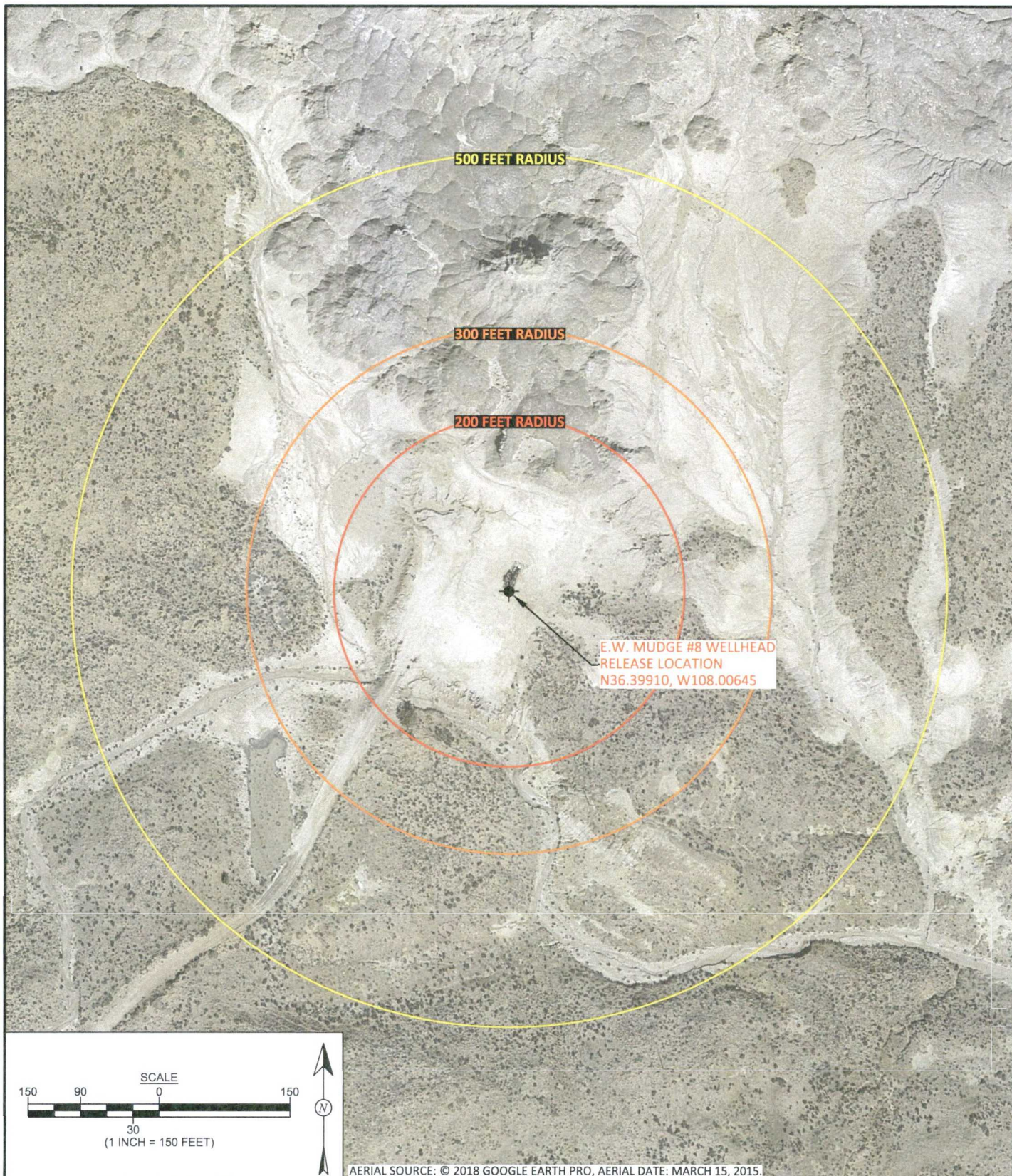
APPROVED BY:
E. McNally

DATE APPROVED:
November 6, 2018

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

DJR OPERATING
E.W. MUDGE #8
API: 30-045-26217
INCIDENT NO. NCS 1808030855
NW¼ SE¼, SECTION 16, T25N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.39910, W108.00645



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animasenvironmental.com

DRAWN BY:
C. Lameman

DATE DRAWN:
August 9, 2018

REVISIONS BY:
C. Lameman

DATE REVISED:
November 6, 2018

CHECKED BY:
T. Knight

DATE CHECKED:
November 6, 2018

APPROVED BY:
E. McNally

DATE APPROVED:
November 6, 2018

FIGURE 2

AERIAL SITE LOCATION MAP
DJR OPERATING
E.W. MUDGE #8
API: 30-045-26217
INCIDENT NO. NCS 1808030855
NW¼ SE¼, SECTION 16, T25N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.39910, W108.00645

FIGURE 3

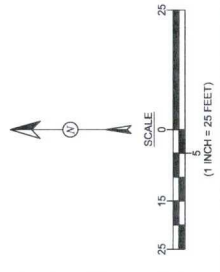
**SITE DELINEATION AND EXCAVATION
CONFIRMATION SAMPLE LOCATIONS
AND RESULTS, NOVEMBER 2018**

E.W. MUDGE #8
API: 30-045-26217
INCIDENT NO. NCS 1808030855
NW¼ SE¼, SECTION 16, T25N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.39910, W108.00645



DRAWN BY: C. Lamenan
DATE DRAWN: November 6, 2018
REVISIONS BY: C. Lamenan
DATE REVISED: November 6, 2018
CHECKED BY: T. Knight
DATE CHECKED: November 6, 2018
APPROVED BY: E. McNally
DATE APPROVED: November 6, 2018

- LEGEND**
- 5-POINT COMPOSITE SAMPLE LOCATIONS
 - SOIL BORING GRAB SAMPLE LOCATIONS
 - SURFACE FLOW PATH
 - APPROXIMATE BURIED PIPELINE
 - APPROXIMATE BURIED ELECTRIC

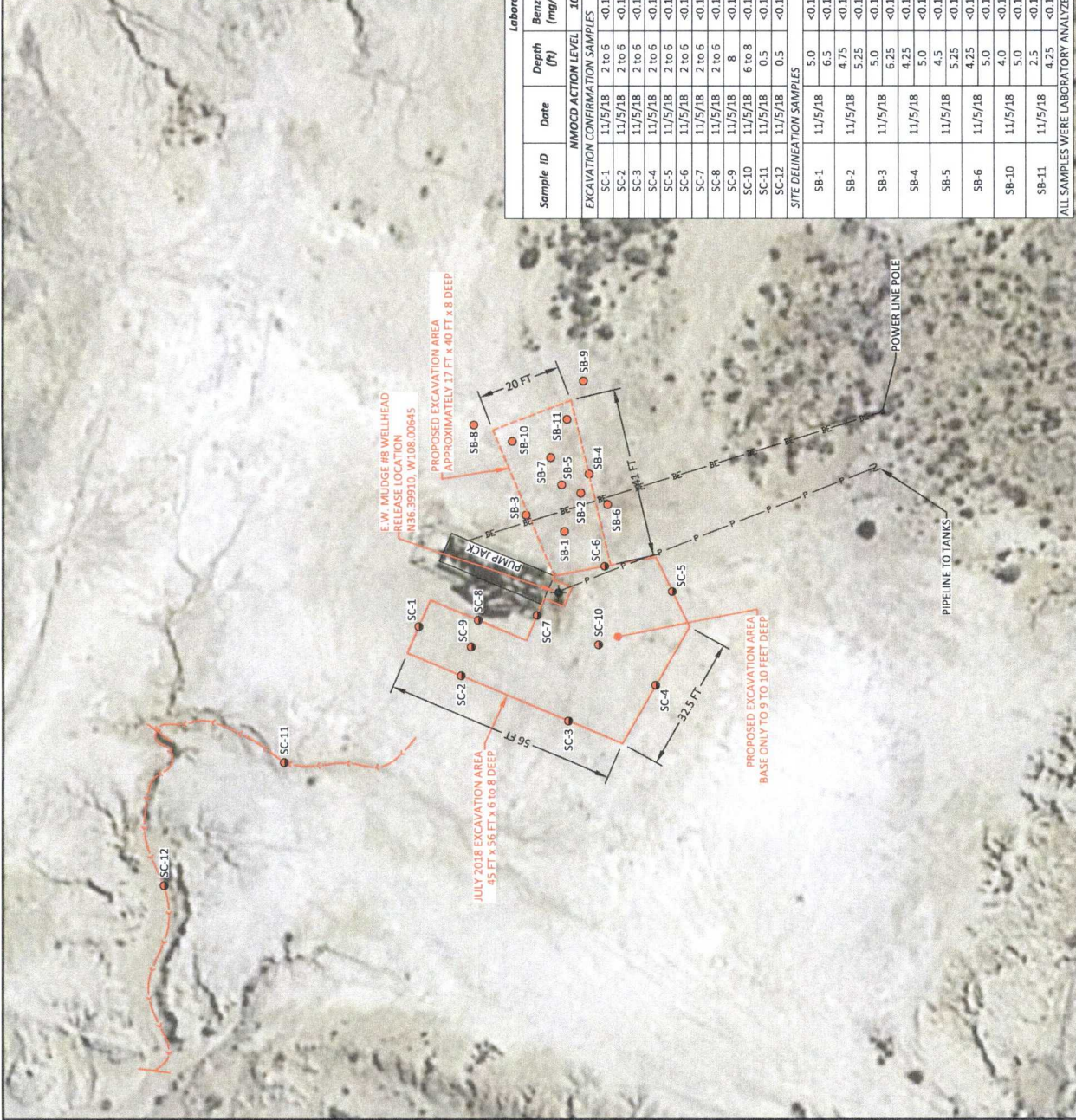


Site Delineation Field Screening Results

Sample ID	Date	Depth (ft)	PID - OVM (ppm)	TPH (mg/kg)
SB-1	11/5/18	5.0	38.9	>2,400
SB-2	11/5/18	4.75	1.3	NA
SB-3	11/5/18	5.25	27.8	172
SB-4	11/5/18	6.25	0.0	NA
SB-5	11/5/18	4.5	7.2	NA
SB-6	11/5/18	4.25	0.0	NA
SB-7	11/5/18	5.0	0.0	55.6
SB-8	11/5/18	4.5	120.5	NA
SB-9	11/5/18	5.25	NA	<20.0
SB-10	11/5/18	6.5	NA	67.7
SB-11	11/5/18	4.0	NA	NA
SB-12	11/5/18	5.0	NA	NA
SB-13	11/5/18	2.5	NA	NA
SB-14	11/5/18	4.25	NA	NA

Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - MRO (mg/kg)	Chlorides (mg/kg)
SC-1	11/5/18	2 to 6	<0.100	<20.0	<25.0	232
SC-2	11/5/18	2 to 6	<0.100	<20.0	<25.0	52.6
SC-3	11/5/18	2 to 6	<0.100	<20.0	<25.0	118
SC-4	11/5/18	2 to 6	<0.100	<20.0	<25.0	140
SC-5	11/5/18	2 to 6	<0.100	<20.0	<25.0	94.2
SC-6	11/5/18	2 to 6	<0.100	<20.0	<25.0	<20.0
SC-7	11/5/18	2 to 6	<0.100	<20.0	1,690	309
SC-8	11/5/18	2 to 6	<0.100	<20.0	39.9	<50.0
SC-9	11/5/18	8	<0.100	<20.0	211	<50.0
SC-10	11/5/18	6 to 8	<0.100	<20.0	476	76.0
SC-11	11/5/18	0.5	<0.100	<20.0	51.2	<50.0
SC-12	11/5/18	0.5	<0.100	<20.0	<25.0	24.2
SB-1	11/5/18	5.0	<0.100	<20.0	5,060	2,790
SB-2	11/5/18	4.75	<0.100	<20.0	83.4	77.8
SB-3	11/5/18	5.25	<0.100	<20.0	165	132
SB-4	11/5/18	6.25	<0.100	<20.0	<25.0	<50.0
SB-5	11/5/18	4.5	<0.100	<20.0	<25.0	<50.0
SB-6	11/5/18	5.0	<0.100	<20.0	<25.0	<50.0
SB-7	11/5/18	4.25	<0.100	<20.0	<25.0	<50.0
SB-8	11/5/18	5.0	<0.100	<20.0	<25.0	<50.0
SB-9	11/5/18	4.5	<0.100	<20.0	292	179
SB-10	11/5/18	4.25	<0.100	<20.0	249	124
SB-11	11/5/18	5.0	<0.100	<20.0	<25.0	<50.0
SB-12	11/5/18	4.0	<0.100	<20.0	507	481
SB-13	11/5/18	5.0	<0.100	<20.0	209	161
SB-14	11/5/18	2.5	<0.100	<20.0	1,870	1,980
SB-15	11/5/18	4.25	<0.100	<20.0	108	231



ALL SAMPLES WERE LABORATORY ANALYZED PER USEPA METHOD 8021, 8015 AND 300.0.

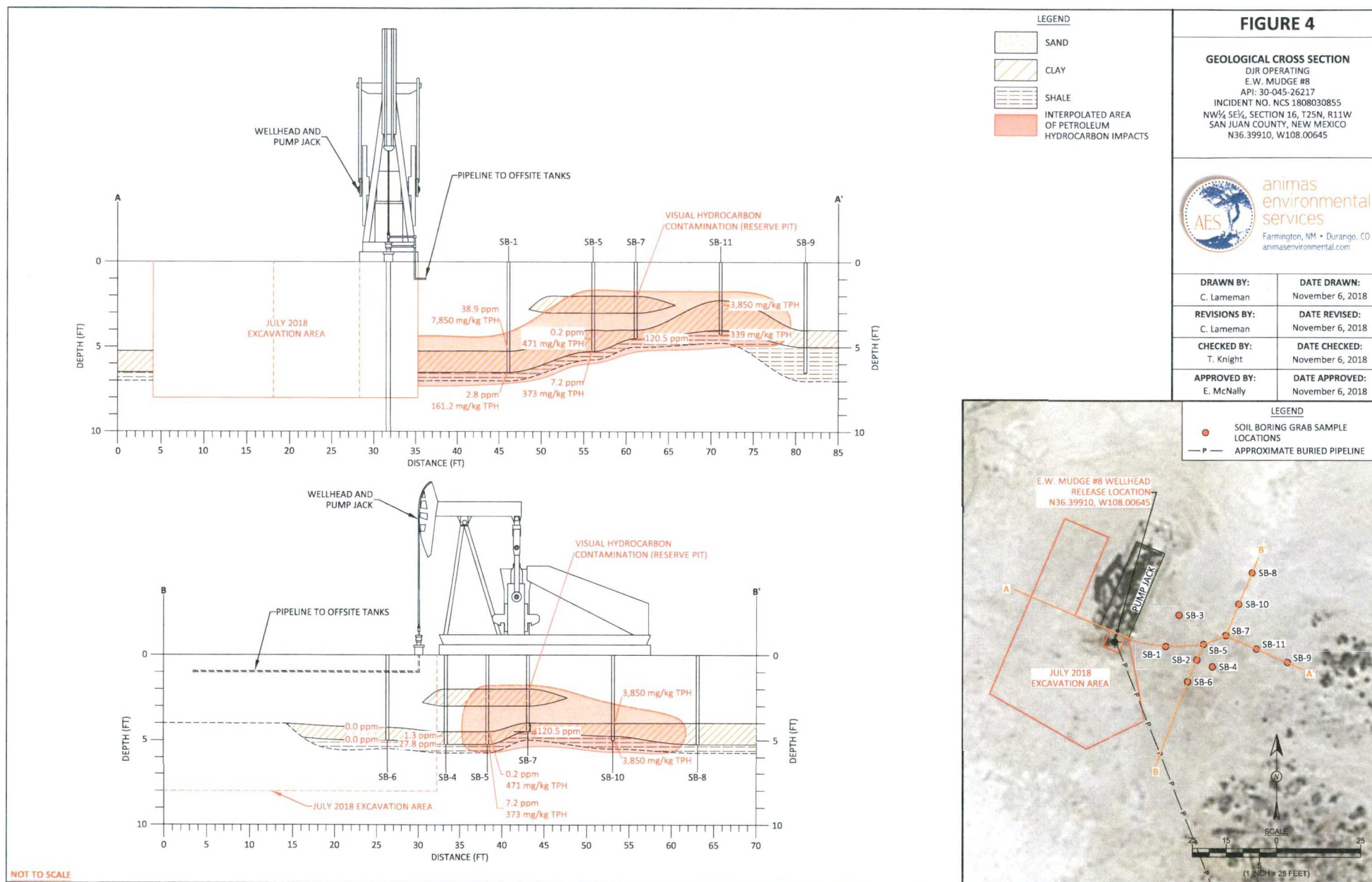


FIGURE 4

GEOLOGICAL CROSS SECTION

DJR OPERATING
E.W. MUDGE #8
API: 30-045-26217
INCIDENT NO. NCS 1808030855
NW¼ SE¼, SECTION 16, T25N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.39910, W108.00645



animas environmental services
Farmington, NM • Durango, CO
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DRAWN BY: C. Lameman	DATE DRAWN: November 6, 2018
REVISIONS BY: C. Lameman	DATE REVISED: November 6, 2018
CHECKED BY: T. Knight	DATE CHECKED: November 6, 2018
APPROVED BY: E. McNally	DATE APPROVED: November 6, 2018

NOT TO SCALE

E.W. Mudge #8
API #3004527167, Incident No. NCS 1808030855
March 2018 Release



Photo 1: The site before excavation took place.



Photo 2: Existing excavation of initial release.

E.W. Mudge #8
API #3004527167, Incident No. NCS 1808030855
March 2018 Release



Photo 3: Excavation adjacent to pump jack.



Photo 4: Excavation area along surface drainage.

E.W. Mudge #8
API #3004527167, Incident No. NCS 1808030855
March 2018 Release



Photo 5: Stormwater collected in surface drainage, no sheen.



Photo 6: Buried liner near pump jack, suspected to be historic reserve pit.

Analytical Report

Report Summary

Client: Animas Environmental Services
Chain Of Custody Number:
Samples Received: 11/6/2018 10:17:00AM
Job Number: 99083-0001
Work Order: P811017
Project Name/Location: EW Mudge 8

Report Reviewed By:



Date: 11/8/18

Walter Hinchman, Laboratory Director



Date: 11/8/18

Tim Cain, Project Manager



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
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Envirotech, Inc. currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-1	P811017-01A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-01B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-2	P811017-02A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-02B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-3	P811017-03A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-03B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-4	P811017-04A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-04B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-5	P811017-05A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-05B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-6	P811017-06A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-06B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-7	P811017-07A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-07B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-8	P811017-08A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-08B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-9	P811017-09A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-09B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-10	P811017-10A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-10B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-11	P811017-11A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-11B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SC-12	P811017-12A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811017-12B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name: EW Mudge 8 Project Number: 99083-0001 Project Manager: Tami Knight	Reported: 11/08/18 16:53
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SC-1
P811017-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.9 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		92.3 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	232	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-2
P811017-02 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		93.1 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	52.6	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-3
P811017-03 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.8 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		93.5 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	

Anions by 300.0/9056A

Chloride	118	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SC-4
P811017-04 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID

100 % 50-150 1845010 11/06/18 11/06/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID

104 % 50-150 1845010 11/06/18 11/06/18 EPA 8015D

Surrogate: n-Nonane

92.3 % 50-200 1845013 11/06/18 11/06/18 EPA 8015D

Anions by 300.0/9056A

Chloride	140	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SC-5
P811017-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		91.1 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	94.2	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-6
P811017-06 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		91.3 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SC-7
P811017-07 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 98.3 % 50-150 1845010 11/06/18 11/06/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1690	50.0	mg/kg	2	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	309	100	mg/kg	2	1845013	11/06/18	11/06/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 101 % 50-150 1845010 11/06/18 11/06/18 EPA 8015D

Surrogate: n-Nonane 117 % 50-200 1845013 11/06/18 11/06/18 EPA 8015D

Anions by 300.0/9056A

Chloride	146	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-8
P811017-08 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.5 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	39.9	25.0	mg/kg	1	1845013	11/06/18	11/07/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/07/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		101 %		50-200	1845013	11/06/18	11/07/18	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	142	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SC-9
P811017-09 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		103 %		50-150	1845010	11/06/18	11/06/18	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	211	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1845010	11/06/18	11/06/18	EPA 8015D	
Surrogate: n-Nonane		102 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	

Anions by 300.0/9056A

Chloride	249	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-10
P811017-10 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/06/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID	101 %	50-150	1845010	11/06/18	11/06/18	EPA 8021B
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Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	476	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	76.0	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID	101 %	50-150	1845010	11/06/18	11/06/18	EPA 8015D
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Surrogate: n-Nonane	101 %	50-200	1845013	11/06/18	11/06/18	EPA 8015D
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Anions by 300.0/9056A

Chloride	63.4	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

SC-11
P811017-11 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.7 %		50-150	1845010	11/06/18	11/07/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/07/18	EPA 8015D	
Diesel Range Organics (C10-C28)	51.2	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		104 %		50-150	1845010	11/06/18	11/07/18	EPA 8015D	
Surrogate: n-Nonane		101 %		50-200	1845013	11/06/18	11/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	34.6	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SC-12
P811017-12 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845010	11/06/18	11/07/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 99.8 % 50-150 1845010 11/06/18 11/07/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845010	11/06/18	11/07/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845013	11/06/18	11/06/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 104 % 50-150 1845010 11/06/18 11/07/18 EPA 8015D

Surrogate: n-Nonane 91.2 % 50-200 1845013 11/06/18 11/06/18 EPA 8015D

Anions by 300.0/9056A

Chloride	24.2	20.0	mg/kg	1	1845012	11/06/18	11/06/18	EPA 300.0/9056A	
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Animas Environmental Services
624 E. Comanche St.
Farmington NM, 87401-6815

Project Name: EW Mudge 8
Project Number: 99083-0001
Project Manager: Tami Knight

Reported:
11/08/18 16:53

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845010 - Purge and Trap EPA 5030A

Blank (1845010-BLK1)

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	7860		"	8000		98.3	50-150			

LCS (1845010-BS1)

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Benzene	3600	100	ug/kg	5000		72.0	70-130			
Toluene	3640	100	"	5000		72.7	70-130			
Ethylbenzene	3670	100	"	5000		73.4	70-130			
p,m-Xylene	7570	200	"	10000		75.7	70-130			
o-Xylene	3680	100	"	5000		73.5	70-130			
Total Xylenes	11300	100	"	15000		75.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8000		"	8000		100	50-150			

Matrix Spike (1845010-MS1)

Source: P811014-01

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Benzene	3730	100	ug/kg	5000	ND	74.5	54.3-133			
Toluene	3790	100	"	5000	ND	75.7	61.4-130			
Ethylbenzene	3820	100	"	5000	ND	76.5	61.4-133			
p,m-Xylene	7880	200	"	10000	ND	78.8	63.3-131			
o-Xylene	3820	100	"	5000	ND	76.3	63.3-131			
Total Xylenes	11700	100	"	15000	ND	78.0	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7870		"	8000		98.4	50-150			

Matrix Spike Dup (1845010-MSD1)

Source: P811014-01

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Benzene	4660	100	ug/kg	5000	ND	93.1	54.3-133	22.2	20	D1
Toluene	4720	100	"	5000	ND	94.4	61.4-130	21.9	20	D1
Ethylbenzene	4770	100	"	5000	ND	95.4	61.4-133	22.0	20	D1
p,m-Xylene	9840	200	"	10000	ND	98.4	63.3-131	22.0	20	D1
o-Xylene	4780	100	"	5000	ND	95.7	63.3-131	22.5	20	D1
Total Xylenes	14600	100	"	15000	ND	97.5	63.3-131	22.2	20	D1
Surrogate: 4-Bromochlorobenzene-PID	7820		"	8000		97.8	50-150			

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5796 US Highway 64, Farmington, NM 87401

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/08/18 16:53
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845010 - Purge and Trap EPA 5030A

Blank (1845010-BLK1)

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.34		"	8.00		104	50-150			

LCS (1845010-BS2)

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	41.0	20.0	mg/kg	50.0		82.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.85		"	8.00		98.1	50-150			

Matrix Spike (1845010-MS2)

Source: P811014-01

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	55.8	20.0	mg/kg	50.0	ND	112	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.50		"	8.00		106	50-150			

Matrix Spike Dup (1845010-MSD2)

Source: P811014-01

Prepared: 11/06/18 0 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	53.3	20.0	mg/kg	50.0	ND	107	70-130	4.63	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.43		"	8.00		105	50-150			

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/08/18 16:53

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845013 - DRO Extraction EPA 3570
Blank (1845013-BLK1)

Prepared & Analyzed: 11/06/18 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	58.5		"	50.0		117	50-200			

LCS (1845013-BS1)

Prepared & Analyzed: 11/06/18 1

Diesel Range Organics (C10-C28)	458	25.0	mg/kg	500		91.7	38-132			
Surrogate: n-Nonane	50.3		"	50.0		101	50-200			

Matrix Spike (1845013-MS1)

Source: P811014-01

Prepared & Analyzed: 11/06/18 1

Diesel Range Organics (C10-C28)	570	25.0	mg/kg	500	98.7	94.2	38-132			
Surrogate: n-Nonane	46.4		"	50.0		92.8	50-200			

Matrix Spike Dup (1845013-MSD1)

Source: P811014-01

Prepared & Analyzed: 11/06/18 1

Diesel Range Organics (C10-C28)	543	25.0	mg/kg	500	98.7	88.8	38-132	4.79	20	
Surrogate: n-Nonane	49.9		"	50.0		99.8	50-200			

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name: EW Mudge 8 Project Number: 99083-0001 Project Manager: Tami Knight	Reported: 11/08/18 16:53
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Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845012 - Anion Extraction EPA 300.0/9056A

Blank (1845012-BLK1)				Prepared & Analyzed: 11/06/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1845012-BS1)				Prepared & Analyzed: 11/06/18 1						
Chloride	257	20.0	mg/kg	250		103	90-110			
Matrix Spike (1845012-MS1)				Prepared & Analyzed: 11/06/18 1						
Chloride	501	20.0	mg/kg	250	232	107	80-120			
Matrix Spike Dup (1845012-MSD1)				Prepared & Analyzed: 11/06/18 1						
Chloride	497	20.0	mg/kg	250	232	106	80-120	0.708	20	

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5796 US Highway 64, Farmington, NM 87401

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

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laboratory@envirotech-inc.com



Animas Environmental Services	Project Name:	EW Mudge 8	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Tami Knight	11/08/18 16:53

Notes and Definitions

D1	Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

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Project Information

Chain of Custody

Page 1 of 2

Client: AES		Report Attention		Lab Use Only		TAT		EPA Program				
Project: EW Mudge 8		Report due by: <u>11/08/18</u> <u>11/07/18</u>		Lab WO# <u>P811017</u>		Job Number <u>99083-000</u>		1D	3D	RCRA	CWA	SDWA
Project Manager: Tami Knight		Attention: Amy Archuleta										
Address: 604 W. Pinon		Address: 1 Road 3263								State		
City, State, Zip: Farmington, NM 87401		City, State, Zip: Aztec, NM 87410								NM CO UT AZ		
Phone: 505-564-2281		Phone: 505-632-3476										
Email: tknight@animasenvironmental.com		Email: aarchuleta@dirllc.com										

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORD by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
14:40	11-5-18	Soil	2	SC-1	1	X	X	X			X		
14:36		Soil	2	SC-2	2	X	X	X			X		
14:37		Soil	2	SC-3	3	X	X	X			X		
14:35		Soil	2	SC-4	4	X	X	X			X		
14:39		Soil	2	SC-5	5	X	X	X			X		
14:30		Soil	2	SC-6	6	X	X	X			X		
14:29		Soil	2	SC-7	7	X	X	X			X		
14:31		Soil	2	SC-8	8	X	X	X			X		
14:33		Soil	2	SC-9	9	X	X	X			X		
14:34		Soil	2	SC-10	10	X	X	X			X		

Additional Instructions: vis. ice in cooler - m

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Sheraden Jaquez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<u>[Signature]</u>	<u>11-6-18</u>	<u>10:17</u>	<u>[Signature]</u>	<u>11-06-18</u>	<u>10:17</u>	Received on ice: <u>Y</u> / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3
						AVG Temp °C <u>4.0</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Project Information

Chain of Custody

Page 2 of 2

Client: AES		Report Attention		Lab Use Only		TAT		EPA Program					
Project: EW Mudge 8		Report due by: <u>11/08/18</u> <u>11/07/18</u>		Lab WO# <u>P811017</u>		Job Number <u>99083-0001</u>		1D 3D		RCRA	CWA	SDWA	
Project Manager: Tami Knight		Attention: Amy Archuleta						☒					
Address: 604 W. Pinon		Address: 1 Road 3263								State			
City, State, Zip: Farmington, NM 87401		City, State, Zip: Aztec, NM 87410								NM	CO	UT	AZ
Phone: 505-564-2281		Phone: 505-632-3476											
Email: tknight@animasenvironmental.com		Email: aarchuleta@djrlc.com											

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
15:27	11-6-18	Soil	2	SC-11	11	X	X	X			X		
15:29	11-5-18	Soil	2	SC-12	12	X	X	X			X		

Additional Instructions: vis. ice in cooler -m

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Sheraden Jaquez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<u>[Signature]</u>	<u>11-6-18</u>	<u>10:17</u>	<u>[Signature]</u>	<u>11-6-18</u>	<u>10:17</u>	Received on ice: <u>(Y) / N</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1
						AVG Temp °C <u>4.0</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Analytical Report

Report Summary

Client: Animas Environmental Services
Chain Of Custody Number:
Samples Received: 11/6/2018 10:17:00AM
Job Number: 99083-0001
Work Order: P811018
Project Name/Location: EW Mudge 8

Report Reviewed By:



Date: 11/9/18

Walter Hinchman, Laboratory Director



Date: 11/9/18

Tim Cain, Project Manager



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
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Envirotech, Inc. currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1 @ 5'	P811018-01A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-01B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-1 @ 6.5'	P811018-02A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-2 @ 4.75'	P811018-03A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-2 @ 5.25'	P811018-04A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-04B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-3 @ 5'	P811018-05A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-05B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-3 @ 6.25'	P811018-06A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-06B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-4 @ 4.5'	P811018-07A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-07B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-4 @ 5'	P811018-08A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-08B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-5 @ 4.5'	P811018-09A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-09B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-5 @ 5.25'	P811018-10A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-10B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-6 @ 4.25'	P811018-11A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-11B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-6 @ 5'	P811018-12A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-12B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-10 @ 4'	P811018-13A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-13B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-10 @ 5'	P811018-14A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-14B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-11 @ 2.5'	P811018-15A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-15B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
SB-11 @ 4.25'	P811018-16A	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.
	P811018-16B	Soil	11/05/18	11/06/18	Glass Jar, 4 oz.

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-1 @5'
P811018-01 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/07/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 98.7 % 50-150 1845015 11/06/18 11/07/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/07/18	EPA 8015D	
Diesel Range Organics (C10-C28)	5060	125	mg/kg	5	1845014	11/06/18	11/09/18	EPA 8015D	
Oil Range Organics (C28-C40+)	2790	250	mg/kg	5	1845014	11/06/18	11/09/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 97.9 % 50-150 1845015 11/06/18 11/07/18 EPA 8015D

Surrogate: n-Nonane 99.4 % 50-200 1845014 11/06/18 11/09/18 EPA 8015D

Anions by 300.0/9056A

Chloride	174	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-1 @ 6.5'
P811018-02 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	83.4	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	77.8	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		99.6 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		83.3 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	173	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-2 @ 4.75'
P811018-03 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	45.0	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.3 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		82.1 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	

Anions by 300.0/9056A

Chloride	203	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-2 @ 5.25'
P811018-04 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 101 % 50-150 1845015 11/06/18 11/08/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	165	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	132	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 99.9 % 50-150 1845015 11/06/18 11/08/18 EPA 8015D

Surrogate: n-Nonane 86.5 % 50-200 1845014 11/06/18 11/08/18 EPA 8015D

Anions by 300.0/9056A

Chloride	114	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	
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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-3 @ 5'
P811018-05 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		82.2 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	215	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-3 @ 6.25'
P811018-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		84.8 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	265	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-4 @ 4.5'
P811018-07 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		84.4 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	135	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-4 @ 5'
P811018-08 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		100 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		86.3 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	80.7	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name: EW Mudge 8 Project Number: 99083-0001 Project Manager: Tami Knight	Reported: 11/09/18 11:28
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SB-5 @ 4.5'
P811018-09 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	292	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	179	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		86.5 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	302	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-5 @ 5.25'
P811018-10 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	249	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	124	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		85.7 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	181	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services
 624 E. Comanche St.
 Farmington NM, 87401-6815

 Project Name: EW Mudge 8
 Project Number: 99083-0001
 Project Manager: Tami Knight

Reported:
 11/09/18 11:28

SB-6 @ 4.25'
P811018-11 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		100 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		84.0 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	123	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-6 @ 5'
P811018-12 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		83.7 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	147	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-10 @ 4'
P811018-13 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.8 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	507	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	481	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		99.4 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	201	20.0	mg/kg	1	1845021	11/07/18	11/07/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-10 @ 5'
P811018-14 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	184	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	209	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		97.2 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	161	20.0	mg/kg	1	1845021	11/07/18	11/08/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-11 @ 2.5'
P811018-15 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.7 %		50-150	1845015	11/06/18	11/08/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1870	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	1980	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %		50-150	1845015	11/06/18	11/08/18	EPA 8015D	
Surrogate: n-Nonane		101 %		50-200	1845014	11/06/18	11/08/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	200	20.0	mg/kg	1	1845021	11/07/18	11/08/18	EPA 300.0/9056A	

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

SB-11 @ 4.25'
P811018-16 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1845015	11/06/18	11/08/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID	98.6 %	50-150	1845015	11/06/18	11/08/18	EPA 8021B
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Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1845015	11/06/18	11/08/18	EPA 8015D	
Diesel Range Organics (C10-C28)	108	25.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	
Oil Range Organics (C28-C40+)	231	50.0	mg/kg	1	1845014	11/06/18	11/08/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID	99.9 %	50-150	1845015	11/06/18	11/08/18	EPA 8015D
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Surrogate: n-Nonane	90.3 %	50-200	1845014	11/06/18	11/08/18	EPA 8015D
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Anions by 300.0/9056A

Chloride	238	20.0	mg/kg	1	1845021	11/07/18	11/08/18	EPA 300.0/9056A	
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Animas Environmental Services
624 E. Comanche St.
Farmington NM, 87401-6815

Project Name: EW Mudge 8
Project Number: 99083-0001
Project Manager: Tami Knight

Reported:
11/09/18 11:28

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845015 - Purge and Trap EPA 5030A

Blank (1845015-BLK1)

Prepared: 11/06/18 1 Analyzed: 11/07/18 1

Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	8100		"	8000		101	50-150			

LCS (1845015-BS1)

Prepared: 11/06/18 1 Analyzed: 11/07/18 1

Benzene	4490	100	ug/kg	5000		89.8	70-130			
Toluene	4540	100	"	5000		90.8	70-130			
Ethylbenzene	4590	100	"	5000		91.8	70-130			
p,m-Xylene	9420	200	"	10000		94.2	70-130			
o-Xylene	4580	100	"	5000		91.7	70-130			
Total Xylenes	14000	100	"	15000		93.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8120		"	8000		102	50-150			

Matrix Spike (1845015-MS1)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/07/18 2

Benzene	5060	100	ug/kg	5000	ND	101	54.3-133			
Toluene	5100	100	"	5000	ND	102	61.4-130			
Ethylbenzene	5170	100	"	5000	ND	103	61.4-133			
p,m-Xylene	10600	200	"	10000	ND	106	63.3-131			
o-Xylene	5080	100	"	5000	ND	102	63.3-131			
Total Xylenes	15700	100	"	15000	ND	104	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7870		"	8000		98.4	50-150			

Matrix Spike Dup (1845015-MSD1)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/07/18 2

Benzene	5090	100	ug/kg	5000	ND	102	54.3-133	0.737	20	
Toluene	5140	100	"	5000	ND	103	61.4-130	0.864	20	
Ethylbenzene	5200	100	"	5000	ND	104	61.4-133	0.525	20	
p,m-Xylene	10600	200	"	10000	ND	106	63.3-131	0.421	20	
o-Xylene	5100	100	"	5000	ND	102	63.3-131	0.434	20	
Total Xylenes	15700	100	"	15000	ND	105	63.3-131	0.426	20	
Surrogate: 4-Bromochlorobenzene-PID	7880		"	8000		98.5	50-150			

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845014 - DRO Extraction EPA 3570

Blank (1845014-BLK1)

Prepared: 11/06/18 1 Analyzed: 11/08/18 2

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	43.4		"	50.0		86.7	50-200			

LCS (1845014-BS1)

Prepared: 11/06/18 1 Analyzed: 11/08/18 2

Diesel Range Organics (C10-C28)	484	25.0	mg/kg	500		96.8	38-132			
Surrogate: n-Nonane	43.0		"	50.0		86.1	50-200			

Matrix Spike (1845014-MS1)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/09/18 0

Diesel Range Organics (C10-C28)	5720	125	mg/kg	500	5060	132	38-132			
Surrogate: n-Nonane	52.7		"	50.0		105	50-200			

Matrix Spike Dup (1845014-MSD1)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/09/18 0

Diesel Range Organics (C10-C28)	5210	125	mg/kg	500	5060	29.9	38-132	9.37	20	SPK2
Surrogate: n-Nonane	50.3		"	50.0		101	50-200			

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Animas Environmental Services 624 E. Comanche St. Farmington NM, 87401-6815	Project Name: EW Mudge 8 Project Number: 99083-0001 Project Manager: Tami Knight	Reported: 11/09/18 11:28
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845015 - Purge and Trap EPA 5030A

Blank (1845015-BLK1)

Prepared: 11/06/18 1 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		"	8.00		98.5	50-150			

LCS (1845015-BS2)

Prepared: 11/06/18 1 Analyzed: 11/07/18 1

Gasoline Range Organics (C6-C10)	46.2	20.0	mg/kg	50.0		92.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.93		"	8.00		99.1	50-150			

Matrix Spike (1845015-MS2)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/08/18 0

Gasoline Range Organics (C6-C10)	46.0	20.0	mg/kg	50.0	ND	92.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.90		"	8.00		98.8	50-150			

Matrix Spike Dup (1845015-MSD2)

Source: P811018-01

Prepared: 11/06/18 1 Analyzed: 11/08/18 0

Gasoline Range Organics (C6-C10)	47.7	20.0	mg/kg	50.0	ND	95.4	70-130	3.60	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.11		"	8.00		101	50-150			

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Animas Environmental Services	Project Name:	EW Mudge 8	Reported: 11/09/18 11:28
624 E. Comanche St.	Project Number:	99083-0001	
Farmington NM, 87401-6815	Project Manager:	Tami Knight	

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1845021 - Anion Extraction EPA 300.0/9056A

Blank (1845021-BLK1)

Prepared & Analyzed: 11/07/18 1

Chloride	ND	20.0	mg/kg
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LCS (1845021-BS1)

Prepared & Analyzed: 11/07/18 1

Chloride	256	20.0	mg/kg	250	102	90-110
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Matrix Spike (1845021-MS1)

Source: P811018-01

Prepared & Analyzed: 11/07/18 1

Chloride	443	20.0	mg/kg	250	174	107	80-120
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Matrix Spike Dup (1845021-MSD1)

Source: P811018-01

Prepared & Analyzed: 11/07/18 1

Chloride	462	20.0	mg/kg	250	174	115	80-120	4.37	20
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Animas Environmental Services	Project Name:	EW Mudge 8	
624 E. Comanche St.	Project Number:	99083-0001	Reported:
Farmington NM, 87401-6815	Project Manager:	Tami Knight	11/09/18 11:28

Notes and Definitions

SPK2	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
**	Methods marked with ** are non-accredited methods.

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Project Information

Chain of Custody

Page 1 of 2

Client: AES		Report Attention		Lab Use Only		TAT		EPA Program					
Project: EW Mudge 8		Report due by: 11/08/18		Lab WO# <u>P811018</u>		Job Number <u>99083-0001</u>		1D	3D	RCRA	CWA	SDWA	
Project Manager: Tami Knight		Attention: Amy Archuleta							X				
Address: 604 W. Pinon		Address: 1 Road 3263								State			
City, State, Zip: Farmington, NM 87401		City, State, Zip: Aztec, NM 87410								NM	CO	UT	AZ
Phone: 505-564-2281		Phone: 505-632-3476											
Email: tknight@animasenvironmental.com		Email: aarchuleta@djrlc.com											

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORQ by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
10:04	11-5-18	Soil	2	SB-1 @ 5'	1	X	X	X			X		
10:06		Soil	1	SB-1 @ 6.5'	2	X	X	X			X		
11:20		Soil	1	SB-2 @ 4.75'	3	X	X	X			X		
11:23		Soil	2	SB-2 @ 5.25'	4	X	X	X			X		
11:25		Soil	2	SB-3 @ 5'	5	X	X	X			X		
11:27		Soil	2	SB-3 @ 6.25'	6	X	X	X			X		
12:22		Soil	2	SB-4 @ 4.5'	7	X	X	X			X		
12:31		Soil	2	SB-4 @ 5'	8	X	X	X			X		
12:39		Soil	2	SB-5 @ 4.5'	9	X	X	X			X		
12:46		Soil	2	SB-5 @ 5.25'	10	X	X	X			X		

Additional Instructions: vis. ice in cooler -uyI, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Sheraden Jaquez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>11-6-18</u>	Time <u>10:17</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>11-6-18</u>	Time <u>10:17</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <u>Y / N</u>
						T1
						T2
						T3
						AVG Temp °C <u>40</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

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Ph (970) 259-0615 Fr 362-1879envirotech-inc.com
laboratory@envirotech-inc.com

Project Information

Chain of Custody

Page 2 of 2

Client: AES

Project: EW Mudge 8

Project Manager: Tami Knight

Address: 604 W. Pinon

City, State, Zip: Farmington, NM 87401

Phone: 505-564-2281

Email: tknight@animasenvironmental.com

Report Attention

Report due by: 11/08/18

Attention: Amy Archuleta

Address: 1 Road 3263

City, State, Zip: Aztec, NM 87410

Phone: 505-632-3476

Email: aarchuleta@dirllc.com

Lab Use Only

Lab WO#

Job Number

P811018

99083-0001

TAT

1D 3D

X

EPA Program

RCRA

CWA

SDWA

Analysis and Method

State

NM

CO

UT

AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks
13:09	11-5-18	Soil	2	SB-6 @ 4.25'	11	X	X	X		X			
13:11		Soil	2	SB-6 @ 5'	12	X	X	X		X			
16:03		Soil	2	SB-10 @ 4'	13	X	X	X		X			
16:05		Soil	2	SB-10 @ 5'	14	X	X	X		X			
16:10		Soil	2	SB-11 @ 2.5'	15	X	X	X		X			
16:14		Soil	2	SB-11 @ 4.25'	16	X	X	X		X			

Additional Instructions: vs. ice in cooler -mI, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Shercidan Jaquez

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Lab Use Only

Received on ice: Y/N

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

T1 T2 T3
AVG Temp °C 4.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.