



November 10, 2020

Cory Smith  
New Mexico Oil Conservation Division  
1000 Rio Brazos  
Aztec, New Mexico 87410

Via electronic mail: [cory.smith@state.nm.us](mailto:cory.smith@state.nm.us)

**RE: Q2 and Q3 2020 Periodic Progress Report  
Trunk S Release (June 2019)  
3RP-1014; Incident #NCS1931842879  
Unit I, Section 7, T25N, R3W  
Rio Arriba County, New Mexico**

Dear Mr. Smith:

Animas Environmental Services, LLC (AES) has prepared this Q2 and Q3 2020 Periodic Progress Report for a release which was discovered June 25, 2019, at the Harvest Four Corners (Harvest) Trunk S natural gas pipeline, located in Rio Arriba County, New Mexico. A topographic site location map is included as Figure 1, and an aerial site map is presented on Figure 2.

### *1.0 System Installation and Startup*

Harvest Midstream purchased a Varisolar Soil Vapor Extraction (SVE) system, and a chronology of SVE system installation and start up is detailed below:

May 11, 2020 - AES installed four concrete footers at the site for the solar SVE system to be mounted upon. Each footer was constructed of a 12-inch sono tube and installed approximately 3 feet deep. Each tube was completely filled with Quikrete cement that was mechanically mixed onsite.

May 20, 2020 - AES arranged delivery and placement of the remediation system skid at the site and mounted it to the concrete footers.

June 25, 2020 - AES personnel installed aboveground conveyance piping from each SVE well to the remediation system. All conveyance piping was constructed using 2-inch schedule 40 PVC pipe and fittings. Rotometers were installed on each leg of the manifold to accompany dedicated vacuum gauges and sample ports. A combined vapor

Cory Smith NMOCD  
Harvest Trunk S Release (3RP-1014; Incident #1931842879)  
November 10, 2020; Page 2 of 4

stream sample port is located between the influent vapor manifold and the moisture separator, upstream of the blower. Additionally, a sample port was installed on the exhaust stack, downstream of the two granular carbon vessels to facilitate monitoring of emissions concentrations.

July 6, 2020 – Replacement solar panels were received from VariSolar. Two solar panels had been stolen from the system, one during transit to AES from the manufacturer and one after the system was placed at the site.

July 16, 2020 - AES personnel installed the two replacement solar panels and checked system voltage in consultation with VariSolar. Once proper voltage was confirmed, the system was placed into operation. After the system ran continuously for an hour, a start-up sample was collected to document initial SVE effluent concentrations. The system ran at a total flow of 48 actual cubic feet per minute (acfm) and an average vacuum of 11 in-H<sub>2</sub>O.

## 2.0 SVE System O&M

On September 3, 2020, AES personnel were onsite to change the granular activated carbon (GAC) in the two carbon vessels and to collect system flow, vacuum, and vapor data. The system was running at a total flow rate of 76 acfm and an averaged vacuum of 17.8 in-H<sub>2</sub>O. After the GAC change-out was completed, the system was restarted and allowed to run for approximately 30 minutes before influent and effluent vapor concentrations were measured using a calibrated Mini Rae 300 organic vapor meter (OVM). A sample of each vapor stream was collected in a Tedlar bag using a small vacuum pump. The influent vapor concentration was measured at 1,100 parts per million volumetric (ppmv), and the effluent concentration was 6.7 ppmv. Based on telemetry and field readings through September 30, 2020, total cumulative flow, converted to standard cubic feet per minute (scfm), was 2,064,713 ft<sup>3</sup>, and total petroleum mass removal between July 16 and September 30, 2020, was estimated to be **12,705 lbs of volatile organic compounds (VOCs)**. Average measured vacuum was about 16 in-H<sub>2</sub>O. System operating parameters and mass removal estimates are detailed in Table 1, and Graph 1 shows cumulative actual flow through September 30, 2020.

## 3.0 Soil Stockpile Chlorides and TPH Confirmation Sampling

On August 20, 2020, AES completed additional chlorides and TPH confirmation sampling of the soil stockpile. A sampling strategy was approved by NMOCD and was implemented in the field. Project notification to NMOCD is attached.

Cory Smith NMOCD  
Harvest Trunk S Release (3RP-1014; Incident #1931842879)  
November 10, 2020; Page 3 of 4

Twenty locations (SP-1 through SP-20) were evenly spaced across the soil stockpile, and hand auger borings were advanced at each location. Five-point composite samples were collected from each location, and each composite sample was comprised of soil from near the surface, a mid-depth and near the bottom of the stockpile. The soil from each location was placed into a new 1-gallon zip lock bag and mixed thoroughly before it was packed into soil jars for chlorides analysis by EPA Method 300.0.

Soil from each sample location was also surveyed with a calibrated Mini Rae 300 OVM. Samples with VOC concentrations greater than 100 ppm were submitted for laboratory analysis of BTEX per USEPA Method 8260 and TPH (as GRO, DRO, and MRO) per USEPA Method 8015D at Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. All samples were labeled according to sample location, sample ID, date, time and analytical method(s), and a Chain of Custody was completed prior to submittal to the analyzing laboratory.

One stockpile sample had a photoionization detector (PID) reading above 100 ppm (168 ppmv at SP-1) and another sample from SP-2 (82.9 ppmv) had a reading above background; therefore, samples from SP-1 and SP-2 were submitted for laboratory analysis. BTEX and TPH concentrations were below laboratory detection limits in both samples. Results are included in Table 2, and stockpile sampling results are presented in Figure 3. The laboratory analytical report is attached.

Stockpiled soils had chloride concentrations that were below the NMOCD action level of 600 mg/kg, with the exception of SP-11 (680 mg/kg). The soil from the SP-11 location along with the surrounding 2-feet was separated from the rest of the stockpile and transported to a land farm for processing (5 ft x 5 ft x 6 ft). The remaining stockpile soil will be used by the property owner in accordance with the conditions stipulated by NMOCD in an email dated October 28, 2020.

#### *4.0 Ongoing SVE System Monitoring and Sampling*

Harvest and AES will maintain SVE runtime greater than or equal to 90 percent per quarter based on available sunlight hours. A soil gas sample for laboratory analysis will be collected quarterly and analyzed for:

- Total petroleum hydrocarbons (TPH) gasoline range organics (GRO) per USEPA 8015;
- Volatile organics per USEPA Method 8260 Full List; and
- Carbon dioxide and oxygen per GPA 2261.

Cory Smith NMOCD  
Harvest Trunk S Release (3RP-1014; Incident #1931842879)  
November 10, 2020; Page 4 of 4

Harvest and AES will submit a quarterly progress report detailing remediation operations to NMOCD. The report will include at a minimum:

- Summary of remediation activity for the quarter;
- SVE run time, SVE operating parameters, and petroleum hydrocarbon mass removal;
- Gas sample analytical data; and
- Documentation of replacement of GAC canisters.

If you have any questions about site conditions, SVE operations, or this report, please do not hesitate to contact Eddie Hubbert or Elizabeth McNally at (505) 564-2281.

Sincerely,



Edward Hubbert  
Project Manager



Elizabeth McNally, P.E.

#### Attachments:

Table 1. SVE Field Operating Parameters

Table 2. Summary of Soil Analytical Results

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map with SVE Unit and SVE Well Layout

Figure 3. Stockpile Chloride and TPH Sample Locations and Analytical Results Map

Graph 1. SVE Cumulative Actual Flow over Time (acfm)

Laboratory Analytical Reports –

Vapor Sampling (HEAL No. 2007C69)

Stockpile Chloride and TPH Sampling (HEAL No. 2008B89)

NMOCD Project Notification Stockpile Sampling, August 17, 2020

Cc:

Kijun Hong

Harvest Midstream Company

Electronic Mail: [khong@harvestmidstream.com](mailto:khong@harvestmidstream.com)



## Attachments

TABLE 1  
SVE FIELD OPERATING PARAMETERS  
Harvest Trunk S Release

Varisolar Location	Date	Operating Days	Operating Hours Reading	PID-OVM (ppmv)	Inlet Vacuum (in H <sub>2</sub> O)	Actual Flow Rate (acfm)	Std Flow Rate (scfm)	Total Actual Flow (ft <sup>3</sup> )**	Total Standard Flow (ft <sup>3</sup> )	VOCs (GRO) (ug/L)	VOCs (GRO) Removed (lbs/ Δt)	lbs removed/ std ft <sup>3</sup>
Trunk S	16-Jul-20	0	322	4268	12	120	88	0	0	200,000		
Trunk S	3-Sep-20	49	963	1100	16	119	86	1,708,260	1,234,503	54,357	9775	0.0079
Trunk S	30-Sep-20	76	1298	1200	16	120	87	1,148,815	830,210	59,000	2930	0.0035

## Notes:

Cumulative Flow

2,857,075

2,064,713

12,705

Total lbs removed

1. PID - photoionization detector; OVM - organic vapor meter
2. ppmv - parts per million by volume (v/v; equivalent to mL/L or mL/m<sup>3</sup>)
3. acfm - measured cubic feet per minute (volumetric flow, calculated based on flow velocity and pipe diameter)
4. total flow - vapor flow between system readings (ΔT)
5. °F - degrees Fahrenheit
6. Site elevation - 7140 ft amsl
7. \*\*flow readings from telemetry data

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS  
TRUNK S RELEASE (JUNE 2019)  
Rio Arriba County, New Mexico

Sample ID	Date Sampled	Depth	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO	Chloride
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>Analytical Method</b>			<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>	<b>300</b>
<b>NMOCDA Action Level**</b>			<b>10 mg/kg Benzene / 50 mg/kg BTEX</b>				<b>100</b>			<b>600</b>
<b>PH01</b>	02-Jul-19	1	<0.024	<0.049	<0.049	<0.098	<4.9	<9.9	<50	<b>2,300</b>
<b>PH01</b>	02-Jul-19	5	<0.024	<0.049	<0.049	<0.097	<4.9	<9.9	<50	<b>2,200</b>
<b>PH02</b>	02-Jul-19	1	<0.024	<0.048	<0.048	<0.097	<4.8	<9.4	<47	<b>2,400</b>
<b>PH02</b>	02-Jul-19	5	<0.025	<0.050	<0.050	<0.10	<5.0	<9.1	<46	<60
<b>UG01</b>	02-Jul-19	surface	<0.025	<0.050	<0.050	<0.099	<5.0	<10	<50	<b>1,300</b>
<b>UG02</b>	02-Jul-19	surface	<0.025	<0.050	<0.050	<0.10	<5.0	<9.7	<48	<b>3,300</b>
<b>Surface</b>	02-Jul-19	1	<0.024	<0.048	<0.048	0.17	<4.8	<9.8	<49	<b>4,900</b>
<b>Wall</b>	02-Jul-19	15	<b>40</b>	<b>420</b>	<b>66</b>	<b>710</b>	<b>16,000</b>	<b>1,400</b>	<b>&lt;490</b>	<60
<b>Floor</b>	02-Jul-19	30	<0.12	0.61	0.31	5.4	<b>120</b>	<b>110</b>	<b>&lt;46</b>	<60
<b>SB-1</b>	19-Nov-19	8	0.054	0.44	0.090	1.4	11	<9.4	<47	<60
<b>SB-1</b>	19-Nov-19	15	<b>14</b>	<b>180</b>	<b>35</b>	<b>580</b>	<b>13,000</b>	<b>3,000</b>	<b>&lt;250</b>	14
<b>SB-1</b>	19-Nov-19	50	0.029	0.17	<0.049	1.1	37	20	<46	<60
<b>SB-1</b>	26-Nov-19	60	<0.024	<0.049	<0.049	<0.097	<4.9	<9.2	<46	<60
<b>SB-2</b>	09-Mar-20	34	<0.025	<0.050	<0.050	0.18	12	64	<47	<60
<b>SB-2</b>	09-Mar-20	59	<0.025	<0.049	<0.049	<0.098	<4.9	<9.7	<49	<60
<b>SB-3</b>	09-Mar-20	19	<0.023	<0.047	<0.047	0.53	18	27	<48	<60
<b>SB-3</b>	10-Mar-20	49	0.60	15	2.0	45	<b>1,900</b>	<b>370</b>	<b>&lt;49</b>	<60
<b>SB-3</b>	10-Mar-20	55	<0.024	<0.049	<0.049	<0.097	<4.9	<9.6	<48	<60
<b>SB-4</b>	10-Mar-20	39	<0.025	<0.049	<0.049	<0.098	<4.9	<9.7	<49	<60

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SUMMARY OF SOIL ANALYTICAL RESULTS  
TRUNK S RELEASE (JUNE 2019)  
Rio Arriba County, New Mexico

Sample ID	Date Sampled	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Chloride (mg/kg)
<b>Analytical Method</b>			<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>	<b>300</b>
<b>NMOCDA Action Level**</b>			<b>10 mg/kg Benzene / 50 mg/kg BTEX</b>				<b>100</b>			<b>600</b>
<b>SB-4</b>	10-Mar-20	53	<0.025	<0.050	<0.050	<0.10	<5.0	<9.8	<49	<60
<b>SB-5</b>	11-Mar-20	34	<0.025	<0.049	<0.049	<0.099	<4.9	<9.1	<46	<60
<b>SB-5</b>	11-Mar-20	59	<0.024	<0.048	<0.048	<0.096	<4.8	<10	<50	<60
<b>SB-6</b>	11-Mar-20	19	<0.025	<0.049	<0.049	<0.099	<4.9	<9.4	<47	<59
<b>SB-6</b>	12-Mar-20	29	<0.025	<0.049	<0.049	<0.098	<4.9	<9.4	<47	<60
<b>SB-7</b>	16-Mar-20	19	<0.024	<0.048	<0.048	0.16	<4.8	<9.4	<47	<61
<b>SB-7</b>	16-Mar-20	34	<0.025	<0.049	<0.049	<0.099	<4.9	<9.8	<49	<59
<b>SB-8</b>	16-Mar-20	19	<0.024	<0.048	<0.048	<0.096	<4.8	<9.0	<45	310
<b>SB-8</b>	16-Mar-20	29	<0.024	<0.048	<0.048	<0.096	<4.8	<9.9	<50	<60
<b>SB-9</b>	16-Mar-20	19	<0.025	<0.049	<0.049	<0.098	<4.9	<9.5	<48	<60
<b>SB-9</b>	16-Mar-20	29	<0.024	<0.048	<0.048	<0.097	<4.8	<10	<50	<60
<b>SB-10</b>	16-Mar-20	19	<0.024	<0.049	<0.049	<0.097	<4.9	<9.4	<47	<60
<b>SB-10</b>	16-Mar-20	29	<0.024	<0.048	<0.048	<0.096	<4.8	<9.3	<46	<60
<b>SB-11</b>	16-Mar-20	19	<0.025	<0.049	<0.049	0.11	<4.9	<9.7	<48	<60
<b>SB-11</b>	16-Mar-20	29	<0.024	<0.048	<0.048	<0.097	<4.8	<9.1	<45	<61

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS  
TRUNK S RELEASE (JUNE 2019)  
Rio Arriba County, New Mexico

Sample ID	Date Sampled	Depth	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO	Chloride
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>Analytical Method</b>			<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>	<b>300</b>
<b>NMOCd Action Level**</b>			<b>10 mg/kg Benzene / 50 mg/kg BTEX</b>				<b>100</b>			<b>600</b>
<b>Stockpile</b>	18-Mar-20	surface	NA	NA	NA	NA	NA	NA	NA	180
<b>Upgradient</b>	18-Mar-20	1	NA	NA	NA	NA	NA	NA	NA	<b>2,600</b>
<b>Upgradient</b>	18-Mar-20	5	NA	NA	NA	NA	NA	NA	NA	<b>1,300</b>
<b>Background</b>	18-Mar-20	1	NA	NA	NA	NA	NA	NA	NA	310
<b>Background</b>	18-Mar-20	3	NA	NA	NA	NA	NA	NA	NA	340
<b>SP-1</b>	20-Aug-20	12	<0.025	<0.050	<0.050	<0.10	<5.0	<9.9	<49	220
<b>SP-2</b>	20-Aug-20	10	<0.025	<0.050	<0.050	<0.099	<5.0	<8.9	<44	570
<b>SP-3</b>	20-Aug-20	10	NA	NA	NA	NA	NA	NA	NA	360
<b>SP-4</b>	20-Aug-20	12	NA	NA	NA	NA	NA	NA	NA	340
<b>SP-5</b>	20-Aug-20	12	NA	NA	NA	NA	NA	NA	NA	270
<b>SP-6</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	540
<b>SP-7</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	480
<b>SP-8</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	260
<b>SP-9</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	380
<b>SP-10</b>	20-Aug-20	6	NA	NA	NA	NA	NA	NA	NA	400
<b>SP-11</b>	20-Aug-20	6	NA	NA	NA	NA	NA	NA	NA	<b>680</b>
<b>SP-12</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	450
<b>SP-13</b>	20-Aug-20	8	NA	NA	NA	NA	NA	NA	NA	95
<b>SP-14</b>	20-Aug-20	3	NA	NA	NA	NA	NA	NA	NA	450
<b>SP-15</b>	20-Aug-20	3	NA	NA	NA	NA	NA	NA	NA	370
<b>SP-16</b>	20-Aug-20	3	NA	NA	NA	NA	NA	NA	NA	530
<b>SP-17</b>	20-Aug-20	3	NA	NA	NA	NA	NA	NA	NA	160

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS  
TRUNK S RELEASE (JUNE 2019)  
Rio Arriba County, New Mexico

Sample ID	Date Sampled	Depth	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO	Chloride
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>Analytical Method</b>			<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>	<b>300</b>
<b>NMOCDA Action Level**</b>			<b>10 mg/kg Benzene / 50 mg/kg BTEX</b>				<b>100</b>			<b>600</b>
<b>SP-18</b>	20-Aug-20	3	NA	NA	NA	NA	NA	NA	NA	<60
<b>SP-19</b>	20-Aug-20	10	NA	NA	NA	NA	NA	NA	NA	340
<b>SP-20</b>	20-Aug-20	10	NA	NA	NA	NA	NA	NA	NA	570

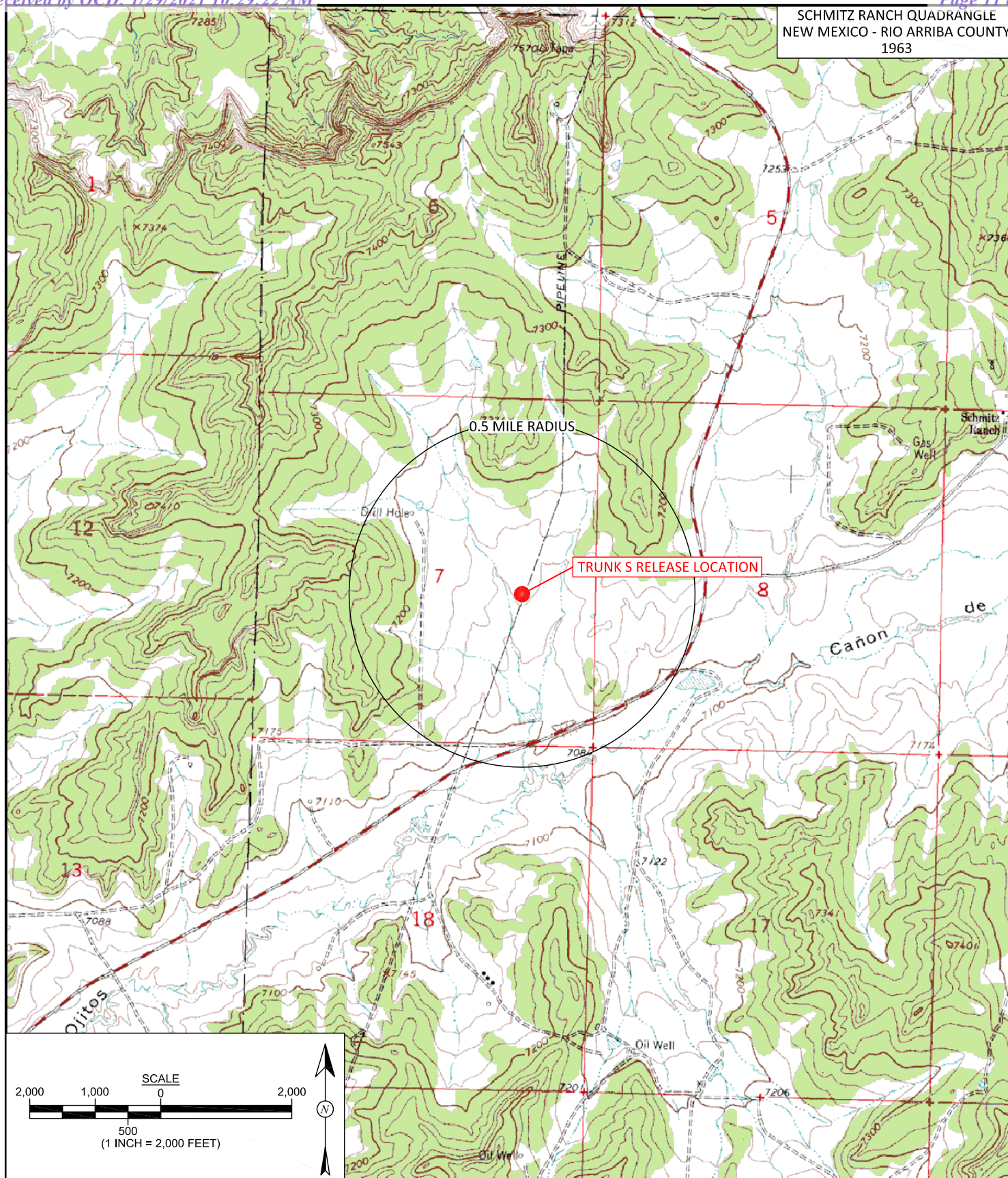
Notes: NE = Not Established

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil Range Organics

\*\*NMAC 19.15.29.12E Table I



animas  
environmental  
services

Farmington, NM • Durango, CO  
animasenvironmental.com

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
July 22, 2019

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
July 22, 2019

**CHECKED BY:**  
E. McNally

**DATE CHECKED:**  
July 22, 2019

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
July 22, 2019

## FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**  
HARVEST MIDSTREAM  
TRUNK S RELEASE LOCATION  
NE $\frac{1}{4}$  SE $\frac{1}{4}$ , SEC. 7, T25N, R3W  
RIO ARriba COUNTY, NEW MEXICO  
N36.41180, -107.18085



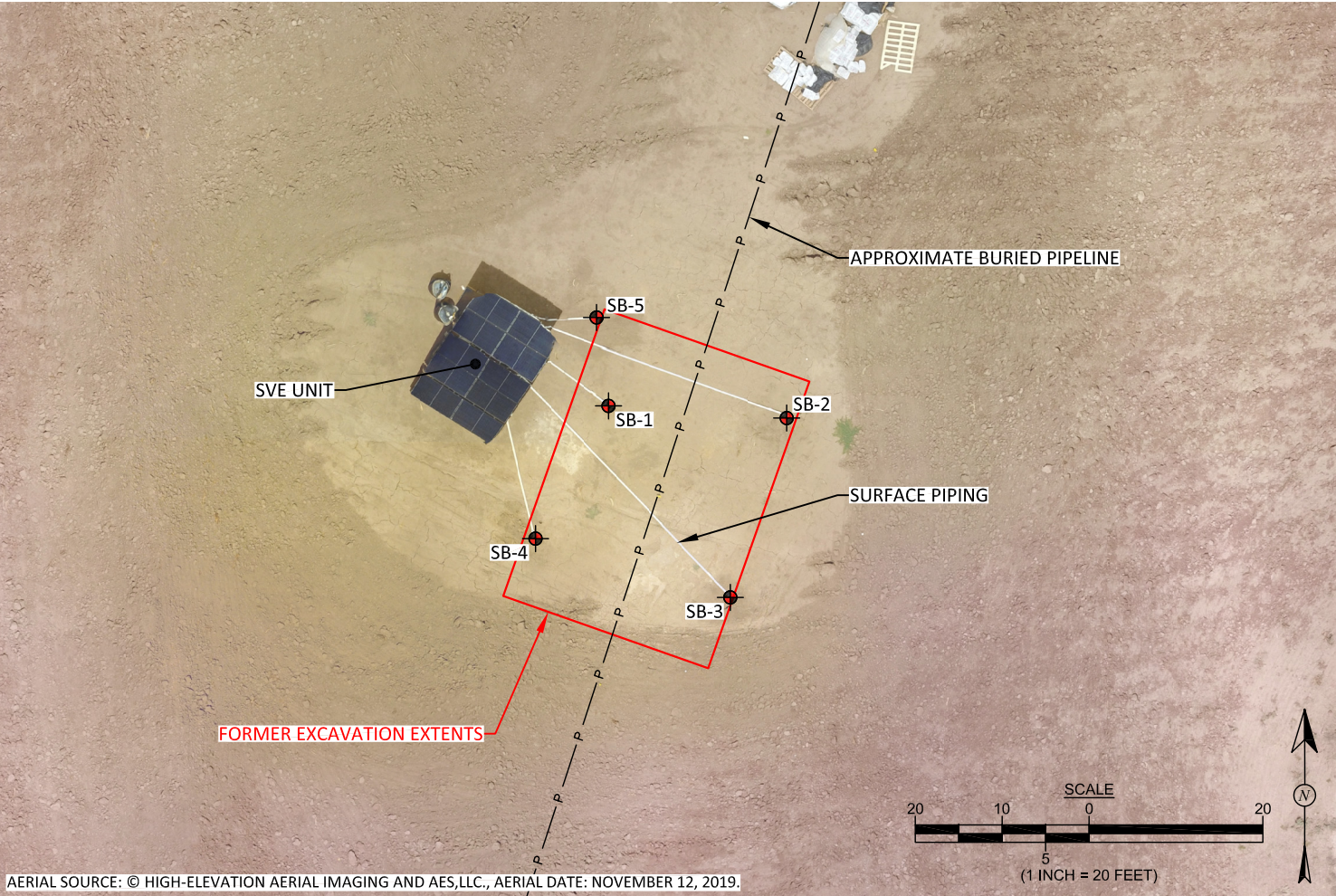
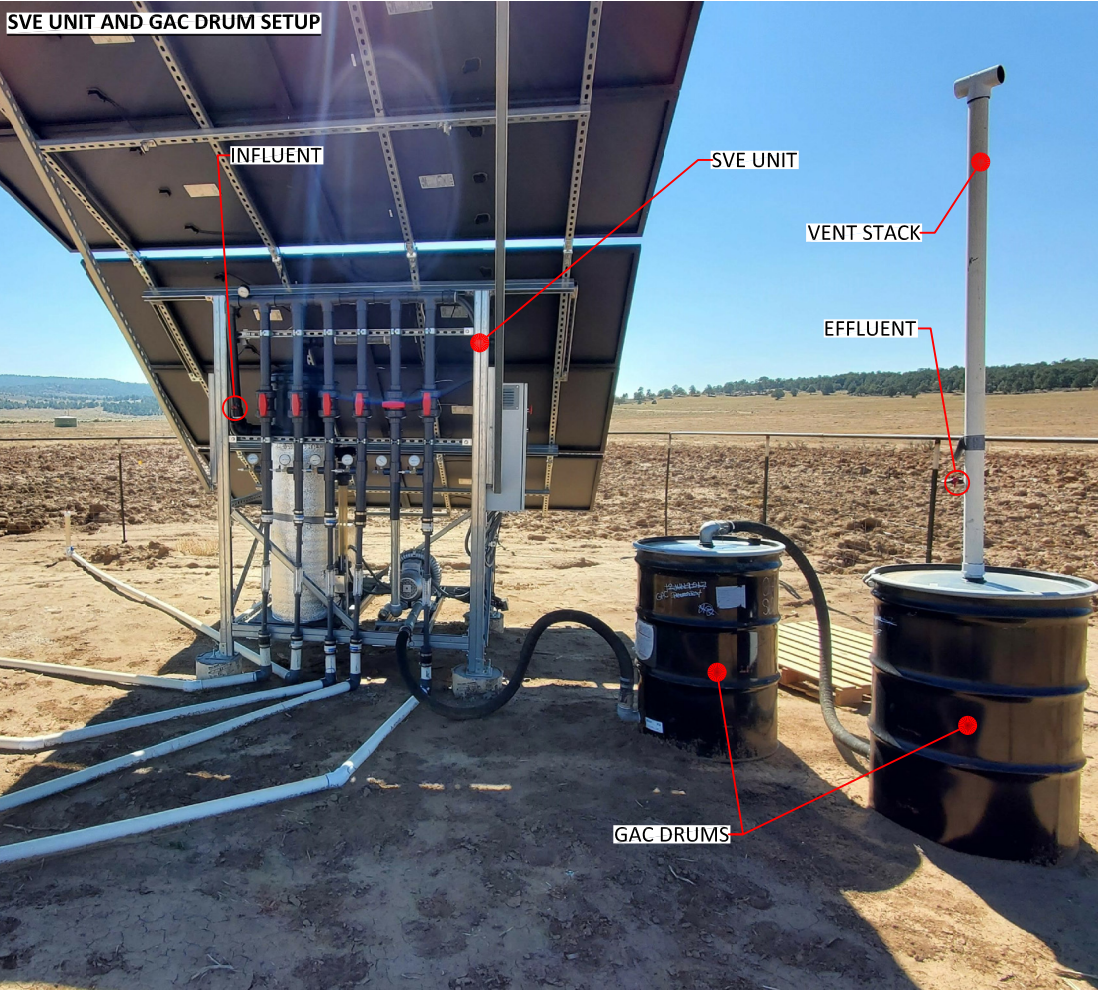


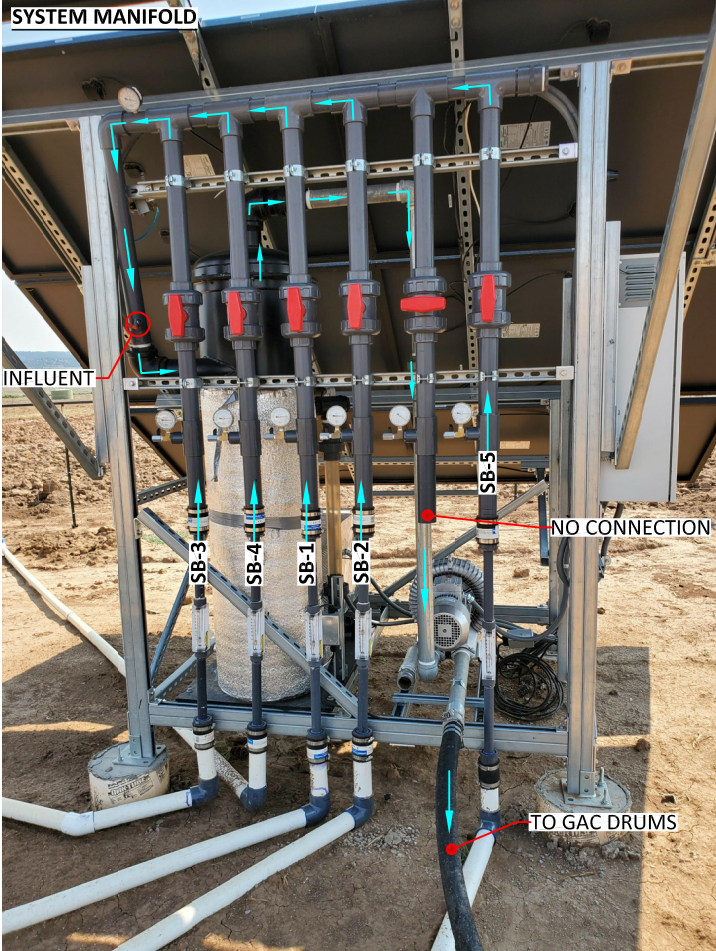
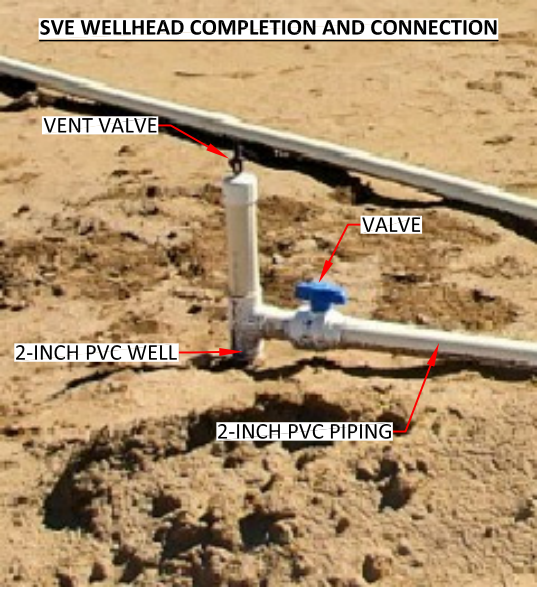
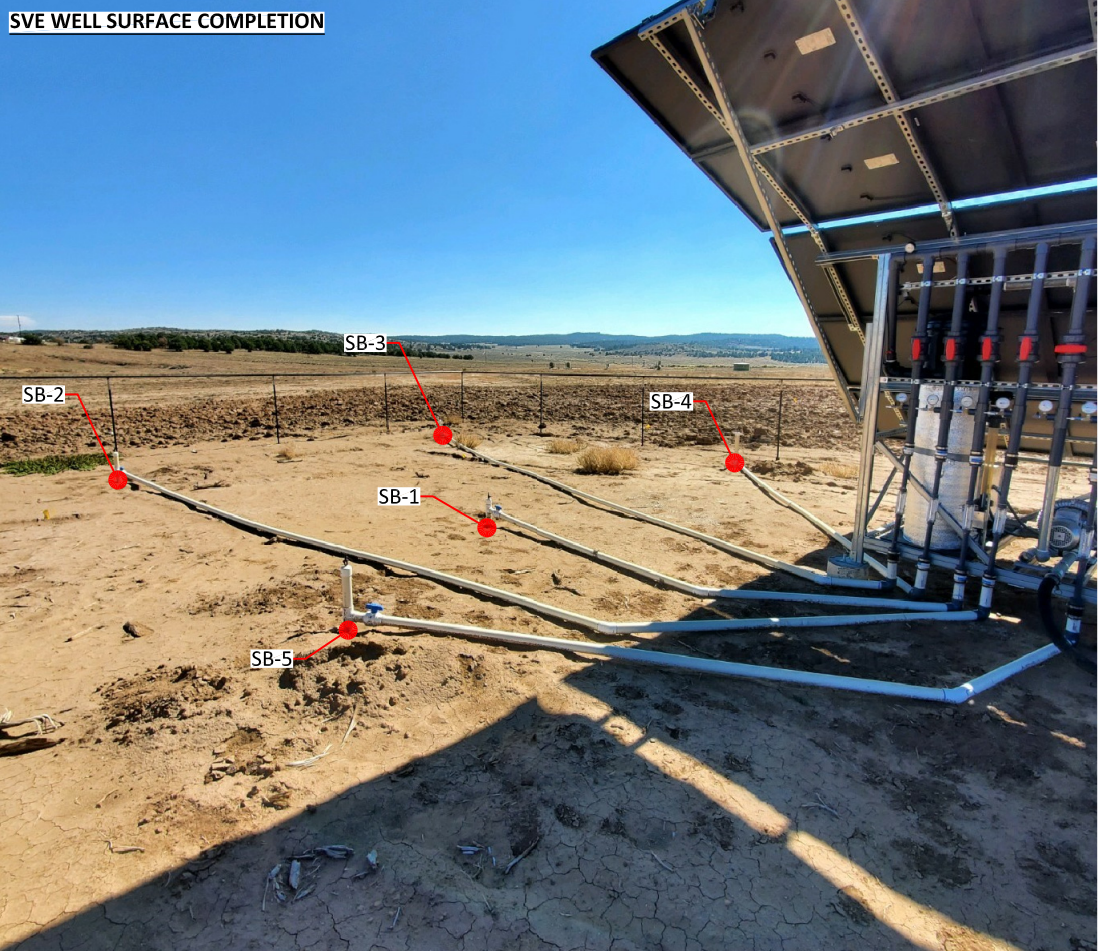
FIGURE 2

**SVE UNIT AND SVE WELL LAYOUT**  
HARVEST MIDSTREAM  
TRUNK S RELEASE LOCATION  
INCIDENT NUMBER: NCS1931842879  
RELEASE ID: 373888  
NE¼ SE¼, SEC. 7, T25N, R3W  
RIO ARriba COUNTY, NEW MEXICO  
N36.41180, W107.18085



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> August 3, 2020
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 22, 2020
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> October 22, 2020
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 22, 2020

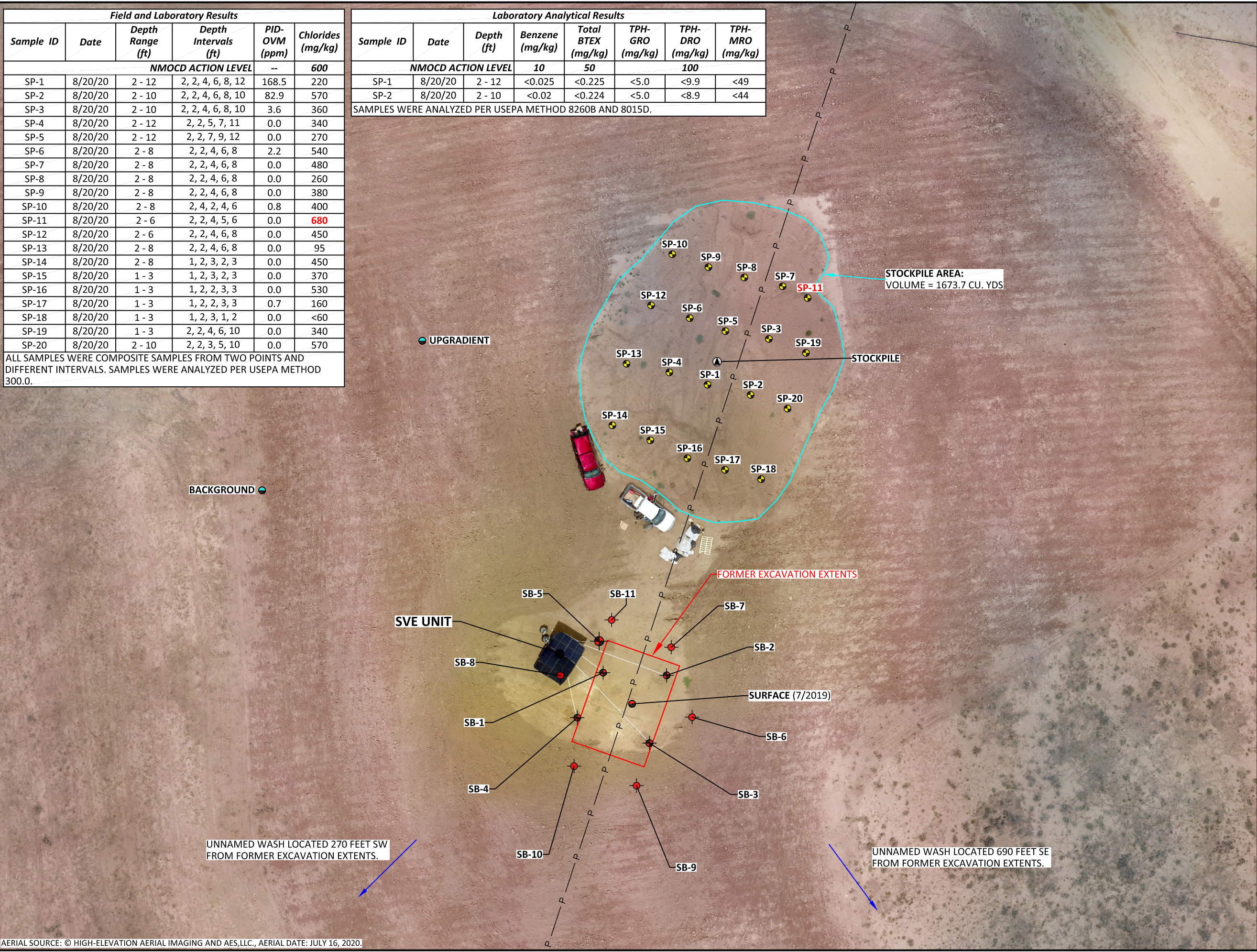
**LEGEND**  
SOIL VAPOR EXTRACTION WELL





Field and Laboratory Results					
Sample ID	Date	Depth Range (ft)	Depth Intervals (ft)	PID-OVM (ppm)	Chlorides (mg/kg)
NMOCD ACTION LEVEL				--	600
SP-1	8/20/20	2 - 12	2, 2, 4, 6, 8, 12	168.5	220
SP-2	8/20/20	2 - 10	2, 2, 4, 6, 8, 10	82.9	570
SP-3	8/20/20	2 - 10	2, 2, 4, 6, 8, 10	3.6	360
SP-4	8/20/20	2 - 12	2, 2, 5, 7, 11	0.0	340
SP-5	8/20/20	2 - 12	2, 2, 7, 9, 12	0.0	270
SP-6	8/20/20	2 - 8	2, 2, 4, 6, 8	2.2	540
SP-7	8/20/20	2 - 8	2, 2, 4, 6, 8	0.0	480
SP-8	8/20/20	2 - 8	2, 2, 4, 6, 8	0.0	260
SP-9	8/20/20	2 - 8	2, 2, 4, 6, 8	0.0	380
SP-10	8/20/20	2 - 8	2, 4, 2, 4, 6	0.8	400
SP-11	8/20/20	2 - 6	2, 2, 4, 5, 6	0.0	680
SP-12	8/20/20	2 - 6	2, 2, 4, 6, 8	0.0	450
SP-13	8/20/20	2 - 8	2, 2, 4, 6, 8	0.0	95
SP-14	8/20/20	2 - 8	1, 2, 3, 2, 3	0.0	450
SP-15	8/20/20	1 - 3	1, 2, 3, 2, 3	0.0	370
SP-16	8/20/20	1 - 3	1, 2, 2, 3, 3	0.0	530
SP-17	8/20/20	1 - 3	1, 2, 2, 3, 3	0.7	160
SP-18	8/20/20	1 - 3	1, 2, 3, 1, 2	0.0	<60
SP-19	8/20/20	1 - 3	2, 2, 4, 6, 10	0.0	340
SP-20	8/20/20	2 - 10	2, 2, 3, 5, 10	0.0	570
ALL SAMPLES WERE COMPOSITE SAMPLES FROM TWO POINTS AND DIFFERENT INTERVALS. SAMPLES WERE ANALYZED PER USEPA METHOD 300.0.					

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)
NMOCD ACTION LEVEL			10	50	100		
SP-1	8/20/20	2 - 12	<0.025	<0.225	<5.0	<9.9	<49
SP-2	8/20/20	2 - 10	<0.02	<0.224	<5.0	<8.9	<44
SAMPLES WERE ANALYZED PER USEPA METHOD 8260B AND 8015D.							



**FIGURE 3**

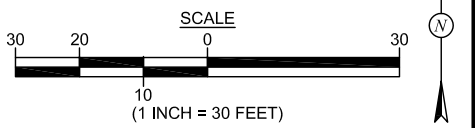
**STOCKPILE CHLORIDE AND TPH SAMPLE LOCATIONS AND LABORATORY ANALYTICAL RESULTS MAP**

HARVEST MIDSTREAM  
TRUNK S RELEASE LOCATION  
INCIDENT NUMBER: NCS1931842879  
RELEASE ID: 373888  
NE¼, SE¼, SEC. 7, T25N, R3W  
RIO ARriba COUNTY, NEW MEXICO  
N36.41180, W107.18085

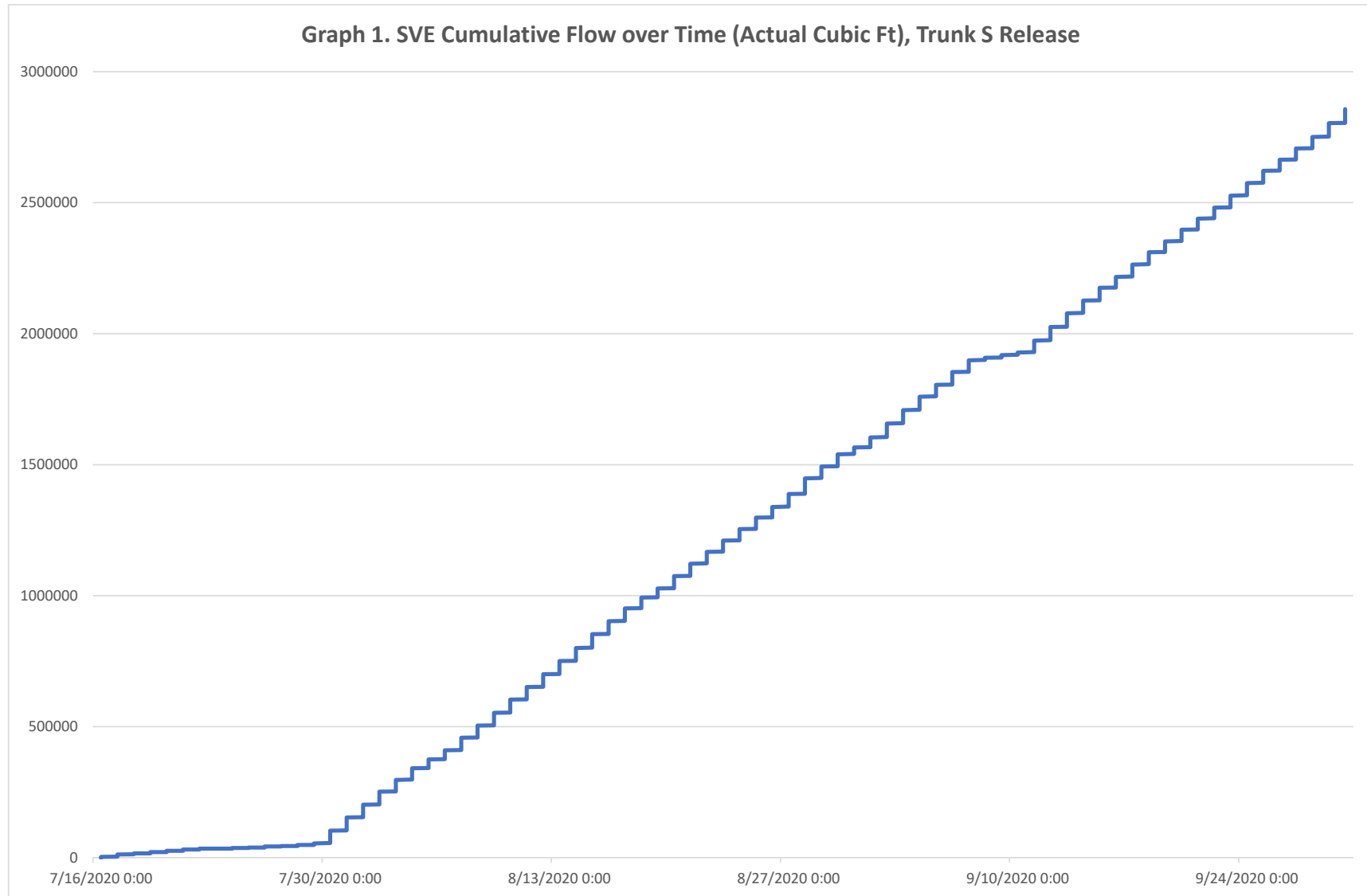


<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> September 2, 2020
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> September 2, 2020
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> September 2, 2020
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> September 2, 2020

- LEGEND**
- COMPOSITE SOIL STOCKPILE SAMPLE LOCATION
  - SOIL BORING/ SVE WELL LOCATION WITH RIG (WITHIN EXCAVATION AREA)
  - SOIL BORING LOCATION WITH RIG (OUTSIDE EXCAVATION AREA)
  - SOIL BORING LOCATION WITH HAND AUGER
  - COMPOSITE SOIL SAMPLE LOCATION









Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

July 24, 2020

Eddie Hubbert  
Animas Environmental Services  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: Trunk S

OrderNo.: 2007C69

Dear Eddie Hubbert:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/24/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## ANALYTICAL REPORT

July 24, 2020

**Hall Environmental Analysis Laboratory**

Sample Delivery Group: L1241262  
Samples Received: 07/18/2020  
Project Number:  
Description: TRUNK S  
Site: TRUNK S  
Report To: Andy Freeman  
4901 Hawkins NE  
Albuquerque, NM 87109



Entire Report Reviewed By:

John Hawkins  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	<sup>2</sup> Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	<sup>3</sup> Ss
SVE SYSTEM INFLUENT L1241262-01	5	
Qc: Quality Control Summary	7	<sup>4</sup> Cn
Volatile Organic Compounds (MS) by Method TO-15	7	<sup>5</sup> Sr
Organic Compounds (GC) by Method D1946	12	<sup>6</sup> Qc
Gl: Glossary of Terms	13	<sup>7</sup> Gl
Al: Accreditations & Locations	14	<sup>8</sup> Al
Sc: Sample Chain of Custody	15	<sup>9</sup> Sc

SVE SYSTEM INFLUENT L1241262-01 Air

Collected by  
E Hobbast

Collected date/time  
07/16/20 14:15

Received date/time  
07/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1512472	2000	07/21/20 20:07	07/21/20 20:07	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1513313	100000	07/22/20 21:09	07/22/20 21:09	CAW	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1511760	1	07/21/20 15:52	07/21/20 15:52	DAH	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

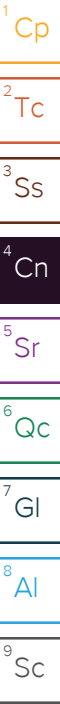
<sup>9</sup>Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



John Hawkins  
Project Manager



Collected date/time: 07/16/20 14:15

L1241262

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2500	5940	36300	86300		2000	WG1512472
Allyl chloride	107-05-1	76.53	400	1250	ND	ND		2000	WG1512472
Benzene	71-43-2	78.10	20000	63900	532000	1700000		100000	WG1513313
Benzyl Chloride	100-44-7	127	400	2080	ND	ND		2000	WG1512472
Bromodichloromethane	75-27-4	164	400	2680	ND	ND		2000	WG1512472
Bromoform	75-25-2	253	1200	12400	ND	ND		2000	WG1512472
Bromomethane	74-83-9	94.90	400	1550	ND	ND		2000	WG1512472
1,3-Butadiene	106-99-0	54.10	4000	8850	ND	ND		2000	WG1512472
Carbon disulfide	75-15-0	76.10	400	1240	ND	ND		2000	WG1512472
Carbon tetrachloride	56-23-5	154	400	2520	ND	ND		2000	WG1512472
Chlorobenzene	108-90-7	113	400	1850	ND	ND		2000	WG1512472
Chloroethane	75-00-3	64.50	400	1060	ND	ND		2000	WG1512472
Chloroform	67-66-3	119	400	1950	ND	ND		2000	WG1512472
Chloromethane	74-87-3	50.50	400	826	ND	ND		2000	WG1512472
2-Chlorotoluene	95-49-8	126	400	2060	ND	ND		2000	WG1512472
Cyclohexane	110-82-7	84.20	20000	68900	4720000	16300000		100000	WG1513313
Dibromochloromethane	124-48-1	208	400	3400	ND	ND		2000	WG1512472
1,2-Dibromoethane	106-93-4	188	400	3080	ND	ND		2000	WG1512472
1,2-Dichlorobenzene	95-50-1	147	400	2400	ND	ND		2000	WG1512472
1,3-Dichlorobenzene	541-73-1	147	400	2400	ND	ND		2000	WG1512472
1,4-Dichlorobenzene	106-46-7	147	400	2400	ND	ND		2000	WG1512472
1,2-Dichloroethane	107-06-2	99	400	1620	ND	ND		2000	WG1512472
1,1-Dichloroethane	75-34-3	98	400	1600	ND	ND		2000	WG1512472
1,1-Dichloroethene	75-35-4	96.90	400	1590	ND	ND		2000	WG1512472
cis-1,2-Dichloroethene	156-59-2	96.90	400	1590	ND	ND		2000	WG1512472
trans-1,2-Dichloroethene	156-60-5	96.90	400	1590	ND	ND		2000	WG1512472
1,2-Dichloropropane	78-87-5	113	400	1850	ND	ND		2000	WG1512472
cis-1,3-Dichloropropene	10061-01-5	111	400	1820	ND	ND		2000	WG1512472
trans-1,3-Dichloropropene	10061-02-6	111	400	1820	ND	ND		2000	WG1512472
1,4-Dioxane	123-91-1	88.10	400	1440	ND	ND		2000	WG1512472
Ethanol	64-17-5	46.10	1260	2380	2820	5320		2000	WG1512472
Ethylbenzene	100-41-4	106	400	1730	6770	29400		2000	WG1512472
4-Ethyltoluene	622-96-8	120	400	1960	1780	8740		2000	WG1512472
Trichlorofluoromethane	75-69-4	137.40	400	2250	ND	ND		2000	WG1512472
Dichlorodifluoromethane	75-71-8	120.92	400	1980	ND	ND		2000	WG1512472
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	400	3070	ND	ND		2000	WG1512472
1,2-Dichlorotetrafluoroethane	76-14-2	171	400	2800	ND	ND		2000	WG1512472
Heptane	142-82-5	100	20000	81800	1380000	5640000		100000	WG1513313
Hexachloro-1,3-butadiene	87-68-3	261	1260	13500	ND	ND		2000	WG1512472
n-Hexane	110-54-3	86.20	63000	222000	8060000	28400000		100000	WG1513313
Isopropylbenzene	98-82-8	120.20	400	1970	483	2370		2000	WG1512472
Methylene Chloride	75-09-2	84.90	400	1390	ND	ND		2000	WG1512472
Methyl Butyl Ketone	591-78-6	100	2500	10200	7200	29400		2000	WG1512472
2-Butanone (MEK)	78-93-3	72.10	2500	7370	16400	48400		2000	WG1512472
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2500	10200	ND	ND		2000	WG1512472
Methyl methacrylate	80-62-6	100.12	400	1640	ND	ND		2000	WG1512472
MTBE	1634-04-4	88.10	400	1440	ND	ND		2000	WG1512472
Naphthalene	91-20-3	128	1260	6600	ND	ND		2000	WG1512472
2-Propanol	67-63-0	60.10	2500	6150	ND	ND		2000	WG1512472
Propene	115-07-1	42.10	800	1380	ND	ND		2000	WG1512472
Styrene	100-42-5	104	400	1700	ND	ND		2000	WG1512472
1,1,2,2-Tetrachloroethane	79-34-5	168	400	2750	ND	ND		2000	WG1512472
Tetrachloroethylene	127-18-4	166	400	2720	ND	ND		2000	WG1512472
Tetrahydrofuran	109-99-9	72.10	400	1180	ND	ND		2000	WG1512472
Toluene	108-88-3	92.10	20000	75300	418000	1570000		100000	WG1513313
1,2,4-Trichlorobenzene	120-82-1	181	1260	9330	ND	ND		2000	WG1512472

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Collected date/time: 07/16/20 14:15

L1241262

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	400	2180	ND	ND		2000	<a href="#">WG1512472</a>
1,1,2-Trichloroethane	79-00-5	133	400	2180	ND	ND		2000	<a href="#">WG1512472</a>
Trichloroethylene	79-01-6	131	400	2140	ND	ND		2000	<a href="#">WG1512472</a>
1,2,4-Trimethylbenzene	95-63-6	120	400	1960	1640	8050		2000	<a href="#">WG1512472</a>
1,3,5-Trimethylbenzene	108-67-8	120	400	1960	2170	10700		2000	<a href="#">WG1512472</a>
2,2,4-Trimethylpentane	540-84-1	114.22	400	1870	ND	ND		2000	<a href="#">WG1512472</a>
Vinyl chloride	75-01-4	62.50	400	1020	ND	ND		2000	<a href="#">WG1512472</a>
Vinyl Bromide	593-60-2	106.95	400	1750	ND	ND		2000	<a href="#">WG1512472</a>
Vinyl acetate	108-05-4	86.10	400	1410	ND	ND		2000	<a href="#">WG1512472</a>
m&p-Xylene	1330-20-7	106	800	3470	102000	442000		2000	<a href="#">WG1512472</a>
o-Xylene	95-47-6	106	400	1730	17500	75900		2000	<a href="#">WG1512472</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				<a href="#">WG1512472</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.1				<a href="#">WG1513313</a>

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

## Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch	RT
Cyclohexane, 1,3-Dimethyl-, Cis-	000638-04-0	112	0.000	0.000	114000	522000	J N	2000	<a href="#">WG1512472</a>	9.75
Heptane, 2-Methyl-	000592-27-8	114	0.000	0.000	113000	527000	J N	2000	<a href="#">WG1512472</a>	9.24
Cyclopentane, 1,3-Dimethyl-	002453-00-1	98	0.000	0.000	105000	421000	J N	2000	<a href="#">WG1512472</a>	8.04
Heptane, 3-Methyl-	000589-81-1	114	0.000	0.000	96200	449000	J N	2000	<a href="#">WG1512472</a>	9.40
Unknown-01	074421-18-4	200	0.000	0.000	68200	558000	J N	2000	<a href="#">WG1512472</a>	8.73
Cyclopentane, Ethyl-	001640-89-7	98	0.000	0.000	65500	263000	J N	2000	<a href="#">WG1512472</a>	8.96
Pentane, 3-Methyl-	000096-14-0	86	0.000	0.000	58900	207000	J N	2000	<a href="#">WG1512472</a>	6.32
Unknown-02	000589-53-7	114	0.000	0.000	33300	155000	J N	2000	<a href="#">WG1512472</a>	9.29
Hexane, 2,5-Dimethyl-	000592-13-2	114	0.000	0.000	30500	142000	J N	2000	<a href="#">WG1512472</a>	8.65
Pentane, 2,3-Dimethyl-	000565-59-3	100	0.000	0.000	22900	93700	J N	2000	<a href="#">WG1512472</a>	7.70

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

## Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Oxygen	7782-44-7	32	5.00	20.2		1	<a href="#">WG1511760</a>
Carbon Monoxide	630-08-0	28	2.00	ND		1	<a href="#">WG1511760</a>
Carbon Dioxide	124-38-9	44.01	0.500	0.671		1	<a href="#">WG1511760</a>
Methane	74-82-8	16	0.400	ND		1	<a href="#">WG1511760</a>

Volatile Organic Compounds (MS) by Method TO-15 L1241262-01

Method Blank (MB)

(MB) R3551988-3 07/21/20 10:12

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (MS) by Method TO-15 L1241262-01

Method Blank (MB)

(MB) R3551988-3 07/21/20 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
Ethanol	U		0.265	0.630
(S) 1,4-Bromofluorobenzene	97.5			60.0-140

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R3551988-3 07/21/20 10:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL	CAS #
	ppbv		ppbv	ppbv	

Number of TICs found: 0

Tentatively identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

Volatile Organic Compounds (MS) by Method TO-15 L1241262-01

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3551988-1 07/21/20 08:54 • (LCSD) R3551988-2 07/21/20 09:34

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.55	3.49	94.7	93.1	55.0-148			1.70	25
Propene	3.75	3.71	3.74	98.9	99.7	64.0-144			0.805	25
Dichlorodifluoromethane	3.75	3.92	3.99	105	106	64.0-139			1.77	25
1,2-Dichlorotetrafluoroethane	3.75	3.87	3.96	103	106	70.0-130			2.30	25
Chloromethane	3.75	3.79	3.85	101	103	70.0-130			1.57	25
Vinyl chloride	3.75	3.43	3.70	91.5	98.7	70.0-130			7.57	25
1,3-Butadiene	3.75	3.36	3.74	89.6	99.7	70.0-130			10.7	25
Bromomethane	3.75	3.42	3.52	91.2	93.9	70.0-130			2.88	25
Chloroethane	3.75	3.30	3.48	88.0	92.8	70.0-130			5.31	25
Trichlorofluoromethane	3.75	3.52	3.49	93.9	93.1	70.0-130			0.856	25
1,1,2-Trichlorotrifluoroethane	3.75	3.92	3.96	105	106	70.0-130			1.02	25
1,1-Dichloroethene	3.75	3.97	3.98	106	106	70.0-130			0.252	25
1,1-Dichloroethane	3.75	4.04	4.01	108	107	70.0-130			0.745	25
Acetone	3.75	4.02	4.00	107	107	70.0-130			0.499	25
2-Propanol	3.75	4.02	3.94	107	105	70.0-139			2.01	25
Carbon disulfide	3.75	3.96	3.97	106	106	70.0-130			0.252	25
Methylene Chloride	3.75	3.83	3.86	102	103	70.0-130			0.780	25
MTBE	3.75	4.08	4.02	109	107	70.0-130			1.48	25
trans-1,2-Dichloroethene	3.75	4.07	4.01	109	107	70.0-130			1.49	25
Vinyl acetate	3.75	4.09	4.01	109	107	70.0-130			1.98	25
Methyl Ethyl Ketone	3.75	4.03	4.05	107	108	70.0-130			0.495	25
cis-1,2-Dichloroethene	3.75	4.04	3.99	108	106	70.0-130			1.25	25
Chloroform	3.75	3.98	3.98	106	106	70.0-130			0.000	25
1,1,1-Trichloroethane	3.75	4.05	4.01	108	107	70.0-130			0.993	25
Carbon tetrachloride	3.75	4.02	3.98	107	106	70.0-130			1.00	25
1,2-Dichloroethane	3.75	4.08	4.10	109	109	70.0-130			0.489	25
Trichloroethylene	3.75	3.94	3.98	105	106	70.0-130			1.01	25
1,2-Dichloropropane	3.75	3.97	3.96	106	106	70.0-130			0.252	25
1,4-Dioxane	3.75	4.01	3.95	107	105	70.0-140			1.51	25
Bromodichloromethane	3.75	3.97	3.96	106	106	70.0-130			0.252	25
cis-1,3-Dichloropropene	3.75	4.00	4.00	107	107	70.0-130			0.000	25
4-Methyl-2-pentanone (MIBK)	3.75	4.14	4.07	110	109	70.0-139			1.71	25
trans-1,3-Dichloropropene	3.75	4.07	4.01	109	107	70.0-130			1.49	25
1,1,2-Trichloroethane	3.75	3.95	3.92	105	105	70.0-130			0.762	25
Tetrachloroethylene	3.75	4.00	3.94	107	105	70.0-130			1.51	25
Methyl Butyl Ketone	3.75	4.14	4.11	110	110	70.0-149			0.727	25
Dibromochloromethane	3.75	4.00	3.94	107	105	70.0-130			1.51	25
1,2-Dibromoethane	3.75	3.97	3.95	106	105	70.0-130			0.505	25
Chlorobenzene	3.75	4.01	3.99	107	106	70.0-130			0.500	25
Ethylbenzene	3.75	4.07	4.06	109	108	70.0-130			0.246	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15 L1241262-01

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3551988-1 07/21/20 08:54 • (LCSD) R3551988-2 07/21/20 09:34

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.37	8.18	112	109	70.0-130			2.30	25
o-Xylene	3.75	4.11	4.03	110	107	70.0-130			1.97	25
Styrene	3.75	4.11	4.04	110	108	70.0-130			1.72	25
Bromoform	3.75	3.94	3.91	105	104	70.0-130			0.764	25
1,1,2,2-Tetrachloroethane	3.75	3.93	3.89	105	104	70.0-130			1.02	25
4-Ethyltoluene	3.75	4.11	4.03	110	107	70.0-130			1.97	25
1,3,5-Trimethylbenzene	3.75	4.20	4.09	112	109	70.0-130			2.65	25
1,2,4-Trimethylbenzene	3.75	4.16	4.01	111	107	70.0-130			3.67	25
1,3-Dichlorobenzene	3.75	3.94	3.87	105	103	70.0-130			1.79	25
1,4-Dichlorobenzene	3.75	3.97	3.96	106	106	70.0-130			0.252	25
Benzyl Chloride	3.75	4.07	3.96	109	106	70.0-152			2.74	25
1,2-Dichlorobenzene	3.75	3.95	3.89	105	104	70.0-130			1.53	25
1,2,4-Trichlorobenzene	3.75	3.97	3.67	106	97.9	70.0-160			7.85	25
Hexachloro-1,3-butadiene	3.75	3.96	3.84	106	102	70.0-151			3.08	25
Naphthalene	3.75	4.00	3.83	107	102	70.0-159			4.34	25
Allyl Chloride	3.75	3.97	4.00	106	107	70.0-130			0.753	25
2-Chlorotoluene	3.75	4.12	4.09	110	109	70.0-130			0.731	25
Methyl Methacrylate	3.75	3.98	4.02	106	107	70.0-130			1.00	25
Tetrahydrofuran	3.75	4.09	4.05	109	108	70.0-137			0.983	25
2,2,4-Trimethylpentane	3.75	4.22	4.20	113	112	70.0-130			0.475	25
Vinyl Bromide	3.75	3.52	3.52	93.9	93.9	70.0-130			0.000	25
Isopropylbenzene	3.75	4.16	4.06	111	108	70.0-130			2.43	25
(S) 1,4-Bromofluorobenzene				99.3	98.8	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Volatile Organic Compounds (MS) by Method TO-15 [L1241262-01](#)

Method Blank (MB)

(MB) R3552325-3 07/22/20 15:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Cyclohexane	U		0.0753	0.200
Heptane	U		0.104	0.200
n-Hexane	U		0.206	0.630
Toluene	U		0.0870	0.200
(S) 1,4-Bromofluorobenzene	101			60.0-140

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3552325-1 07/22/20 13:45 • (LCSD) R3552325-2 07/22/20 14:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
n-Hexane	3.75	3.66	3.66	97.6	97.6	70.0-130			0.000	25
Cyclohexane	3.75	3.56	3.68	94.9	98.1	70.0-130			3.31	25
Benzene	3.75	3.61	3.72	96.3	99.2	70.0-130			3.00	25
Heptane	3.75	3.08	3.13	82.1	83.5	70.0-130			1.61	25
Toluene	3.75	3.62	3.72	96.5	99.2	70.0-130			2.72	25
(S) 1,4-Bromofluorobenzene				102	103	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Organic Compounds (GC) by Method D1946 [L1241262-01](#)

Method Blank (MB)

(MB) R3551648-3 07/21/20 12:59

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Oxygen	0.604		0.225	5.00
Carbon Monoxide	U		0.665	2.00
Carbon Dioxide	U		0.121	0.500
Methane	U		0.0584	0.400

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3551648-1 07/21/20 11:43 • (LCSD) R3551648-2 07/21/20 11:49

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Oxygen	20.0	18.4	19.8	92.0	99.0	70.0-130			7.33	20
Carbon Monoxide	2.50	2.46	2.82	98.4	113	70.0-130			13.6	20
Carbon Dioxide	2.50	2.48	2.78	99.2	111	70.0-130			11.4	20
Methane	2.00	1.91	2.13	95.5	107	70.0-130			10.9	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RT	Retention Time.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

## Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
N	The analyte is tentatively identified and the associated numerical value may not be consistent with the actual concentration present in the sample.

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

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1 6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1 4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

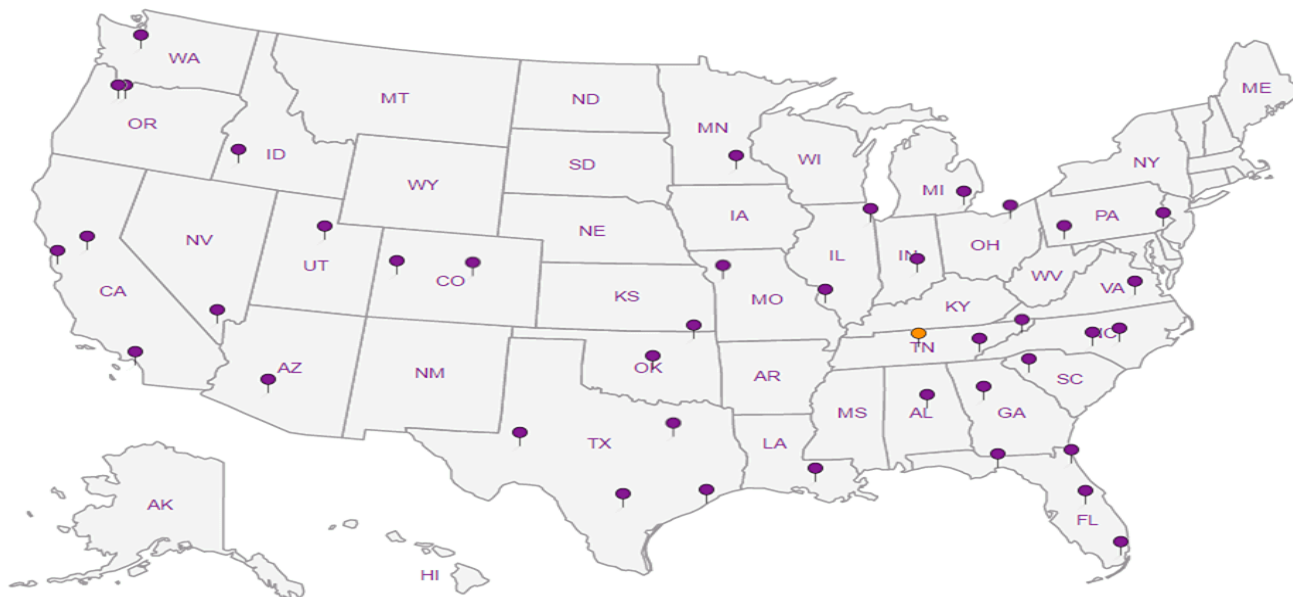
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.





Released to Imaging: 10/18/2022 2:07:08 PM



Sample sent directly to sublab - 2007C69

<b>Hall Environmental Analysis Laboratory</b> 4901 Hawkins NE Albuquerque, NM 87109		<b>Billing Information:</b> Accounts Payable 4901 Hawkins NE #D Albuquerque, NM 87109		Chain of Custody Page <u>    </u> of <u>    </u> Analysis / Container / Preservative	
Report to: <b>Jackie Bolte</b>		Email To: fmc@hallenvironmental.com; jnb@hallenvirom		Pace Analytical® National Center for Testing & Innovation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Project Description: <b>TRUNK S</b>		City/State Collected: <b>Linda H. NA</b>		Please Circle: PT MT CT ET	
Phone: 505-345-3975		Client Project # <b>HALLENVANM-SUMMA</b>		SDG # <b>U241232</b> <b>G236</b>	
Site/Facility ID # <b>TRUNKS</b>		P.O. #		Account: <b>HALLENVANM</b> Template: <b>T169830</b> Prelogin: <b>P781496</b> PM: <b>341 - John Hawkins</b> PB: <b>CG-OUTAGE</b> Shipped Via: <b>FedEX Standard</b>	
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day		Quote #		Remarks Sample # (lab only)	
Immediately Packed on Ice <b>N 2 Y</b>		Date Results Needed		No. of	
Sample ID		Comp/Grab		Matrix *	
Date		Depth		Time	
SVE System Inflow Grab		Air		NA 7/16/20 1415 1	
Air		Air		1	
Matrix: SS - Soil    AIR - Air    F - Filter GW - Groundwater    B - Bioassay WW - Waste Water DW - Drinking Water OT - Other		Samples returned via: ___ UPS ___ FedEx ___ Courier		Tracking # <b>1411 7759 7328</b>	
Relinquished by: (Signature) <b>SP</b>		Date: <b>7/16/20 1415</b>		Trip Blank Received: Yes / No HCL / MeOH TBR	
Relinquished by: (Signature)		Date:		Temp: <b>Arb</b> °C    Bottles Received: <b>1</b>	
Relinquished by: (Signature)		Date:		Date: <b>7/18/20</b> Time: <b>8:45</b>	
Relinquished by: (Signature)		Date:		Hold:	
Condition: <b>NCF</b>		Condition: <b>OK</b>		If preservation required by Login: Date/Time	



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

September 01, 2020

Eddie Hubbert  
Animas Environmental Services  
624 E. Comanche  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: Harvest Midstream / Trunk S

OrderNo.: 2008B89

Dear Eddie Hubbert:

Hall Environmental Analysis Laboratory received 20 sample(s) on 8/21/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-1

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 11:56:00 AM

Lab ID: 2008B89-001

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	220	60		mg/Kg	20	8/29/2020 3:57:44 AM	54761
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/24/2020 10:10:16 PM	54608
Surr: BFB	104	70-130		%Rec	1	8/24/2020 10:10:16 PM	54608
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/26/2020 12:17:12 AM	54628
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/26/2020 12:17:12 AM	54628
Surr: DNOP	79.9	30.4-154		%Rec	1	8/26/2020 12:17:12 AM	54628
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	8/24/2020 10:10:16 PM	54608
Toluene	ND	0.050		mg/Kg	1	8/24/2020 10:10:16 PM	54608
Ethylbenzene	ND	0.050		mg/Kg	1	8/24/2020 10:10:16 PM	54608
Xylenes, Total	ND	0.10		mg/Kg	1	8/24/2020 10:10:16 PM	54608
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%Rec	1	8/24/2020 10:10:16 PM	54608
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	8/24/2020 10:10:16 PM	54608
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/24/2020 10:10:16 PM	54608
Surr: Toluene-d8	97.4	70-130		%Rec	1	8/24/2020 10:10:16 PM	54608

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-2

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 11:40:00 AM

Lab ID: 2008B89-002

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	570	60		mg/Kg	20	8/29/2020 4:34:59 AM	54761
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/24/2020 10:38:45 PM	54608
Surr: BFB	106	70-130		%Rec	1	8/24/2020 10:38:45 PM	54608
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/26/2020 12:27:23 AM	54628
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/26/2020 12:27:23 AM	54628
Surr: DNOP	96.9	30.4-154		%Rec	1	8/26/2020 12:27:23 AM	54628
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	8/24/2020 10:38:45 PM	54608
Toluene	ND	0.050		mg/Kg	1	8/24/2020 10:38:45 PM	54608
Ethylbenzene	ND	0.050		mg/Kg	1	8/24/2020 10:38:45 PM	54608
Xylenes, Total	ND	0.099		mg/Kg	1	8/24/2020 10:38:45 PM	54608
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	8/24/2020 10:38:45 PM	54608
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	8/24/2020 10:38:45 PM	54608
Surr: Dibromofluoromethane	109	70-130		%Rec	1	8/24/2020 10:38:45 PM	54608
Surr: Toluene-d8	100	70-130		%Rec	1	8/24/2020 10:38:45 PM	54608

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-3

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 12:03:00 PM

Lab ID: 2008B89-003

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	360	60		mg/Kg	20	8/29/2020 4:47:23 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 3 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-4

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:05:00 PM

Lab ID: 2008B89-004

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	340	61		mg/Kg	20	8/29/2020 4:59:48 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 4 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-5

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 12:43:00 PM

Lab ID: 2008B89-005

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	270	60		mg/Kg	20	8/29/2020 5:12:12 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 5 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-6

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 12:26:00 PM

Lab ID: 2008B89-006

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	540	60		mg/Kg	20	8/29/2020 5:49:26 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 6 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-7

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:06:00 PM

Lab ID: 2008B89-007

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	480	60		mg/Kg	20	8/29/2020 6:01:51 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 7 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-8

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:36:00 PM

Lab ID: 2008B89-008

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	260	60		mg/Kg	20	8/29/2020 6:14:16 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 8 of 24



## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-9

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:38:00 PM

Lab ID: 2008B89-009

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	380	59		mg/Kg	20	8/29/2020 6:26:40 AM	54761

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 9 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-10

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:39:00 PM

Lab ID: 2008B89-010

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	400	59		mg/Kg	20	8/29/2020 6:03:48 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 10 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-11

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 1:41:00 PM

Lab ID: 2008B89-011

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	680	60		mg/Kg	20	8/29/2020 6:40:48 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 11 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-12

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:23:00 PM

Lab ID: 2008B89-012

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	450	59		mg/Kg	20	8/29/2020 7:17:49 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 12 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-13

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:16:00 PM

Lab ID: 2008B89-013

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	95	60		mg/Kg	20	8/29/2020 7:30:09 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 13 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-14

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:24:00 PM

Lab ID: 2008B89-014

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	450	60		mg/Kg	20	8/29/2020 7:42:28 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 14 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-15

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:33:00 PM

Lab ID: 2008B89-015

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	370	60		mg/Kg	20	8/29/2020 7:54:50 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 15 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-16

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:34:00 PM

Lab ID: 2008B89-016

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	530	60		mg/Kg	20	8/29/2020 8:07:13 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 16 of 24



## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-17

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:40:00 PM

Lab ID: 2008B89-017

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	160	60		mg/Kg	20	8/29/2020 8:19:34 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 17 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-18

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 2:43:00 PM

Lab ID: 2008B89-018

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	8/29/2020 8:31:54 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 18 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-19

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 3:16:00 PM

Lab ID: 2008B89-019

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	340	60		mg/Kg	20	8/29/2020 8:44:15 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 19 of 24

## Analytical Report

Lab Order 2008B89

Date Reported: 9/1/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SP-20

Project: Harvest Midstream / Trunk S

Collection Date: 8/20/2020 3:17:00 PM

Lab ID: 2008B89-020

Matrix: SOIL

Received Date: 8/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	570	60		mg/Kg	20	8/29/2020 8:56:35 PM	54771

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 20 of 24

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008B89

01-Sep-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream / Trunk S

Sample ID: <b>MB-54761</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54761</b>	RunNo: <b>71445</b>								
Prep Date: <b>8/28/2020</b>	Analysis Date: <b>8/29/2020</b>	SeqNo: <b>2495220</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54761</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54761</b>	RunNo: <b>71445</b>								
Prep Date: <b>8/28/2020</b>	Analysis Date: <b>8/29/2020</b>	SeqNo: <b>2495221</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	90	110			

Sample ID: <b>MB-54771</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54771</b>	RunNo: <b>71475</b>								
Prep Date: <b>8/28/2020</b>	Analysis Date: <b>8/29/2020</b>	SeqNo: <b>2495821</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54771</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54771</b>	RunNo: <b>71475</b>								
Prep Date: <b>8/28/2020</b>	Analysis Date: <b>8/29/2020</b>	SeqNo: <b>2495822</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 21 of 24

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008B89

01-Sep-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream / Trunk S

Sample ID: <b>LCS-54628</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54628</b>			RunNo: <b>71330</b>						
Prep Date: <b>8/24/2020</b>	Analysis Date: <b>8/25/2020</b>			SeqNo: <b>2490677</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.5	70	130			
Surr: DNOP	4.2		5.000		84.4	30.4	154			

Sample ID: <b>MB-54628</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54628</b>			RunNo: <b>71330</b>						
Prep Date: <b>8/24/2020</b>	Analysis Date: <b>8/25/2020</b>			SeqNo: <b>2490680</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		86.6	30.4	154			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 22 of 24



**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008B89

01-Sep-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream / Trunk S

Sample ID: <b>lcs-54608</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54608</b>	RunNo: <b>71322</b>								
Prep Date: <b>8/22/2020</b>	Analysis Date: <b>8/24/2020</b>	SeqNo: <b>2489117</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.5	80	120			
Toluene	1.0	0.050	1.000	0	99.6	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		111	70	130			
Surr: Toluene-d8	0.52		0.5000		103	70	130			

Sample ID: <b>mb-54608</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54608</b>	RunNo: <b>71322</b>								
Prep Date: <b>8/22/2020</b>	Analysis Date: <b>8/24/2020</b>	SeqNo: <b>2489118</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.9	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008B89

01-Sep-20

**Client:** Animas Environmental Services**Project:** Harvest Midstream / Trunk S

Sample ID: <b>lcs-54608</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>54608</b>			RunNo: <b>71322</b>						
Prep Date: <b>8/22/2020</b>	Analysis Date: <b>8/24/2020</b>			SeqNo: <b>2489151</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.1	70	130			
Surr: BFB	510		500.0		103	70	130			

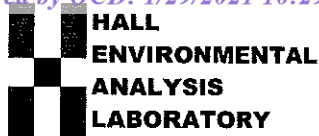
Sample ID: <b>mb-54608</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>						
Client ID: <b>PBS</b>	Batch ID: <b>54608</b>			RunNo: <b>71322</b>						
Prep Date: <b>8/22/2020</b>	Analysis Date: <b>8/24/2020</b>			SeqNo: <b>2489153</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		104	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

Page 24 of 24



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: Animas Environmental Se

Work Order Number: 2008B89

RcptNo: 1

Received By: Cheyenne Cason

8/21/2020 8:00:00 AM

Completed By: Isaiah Ortiz

8/21/2020 11:18:23 AM

Reviewed By: *AB**8/21/20**ILox*Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace  $<1/4"$  for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

$<2$  or  $>12$  unless noted)

Adjusted?

Checked by: *CM Geyer*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

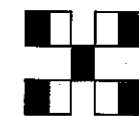
16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present			



<b>Chain-of-Custody Record</b>		Turn-Around Time:	
Client: Animas Environmental Services, LLC		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Mailing Address		Project Name:	
P.O. Box 8		Harvest Midstream / Trunk S	
Phone #:		Project #:	
Farmington, NM 87499-0008			
505-564-2281			
email or Fax#: ehubbett@animasenvironmental.com		Project Manager:	
QA/QC Package:		Eddie Hubbert	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation:			
<input type="checkbox"/> Az Compliance			
<input type="checkbox"/> NELAC <input type="checkbox"/> Other			
<input type="checkbox"/> EDD (Type)			
Sampler:		CL / GB / E4	
On Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
# of Coolers:			



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

**Tel. 505-345-3975      Fax 505-345-4107**

## Analysis Request

email or Fax#: ehubbett@animasenvironmental.com		Project Manager: Eddie Hubbert				
QA/QC Package: <input checked="" type="checkbox"/> Level 4 (Full Validation)		Sampler: CL/GP/ELH				
Accreditation: <input type="checkbox"/> Az Compliance		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
<input type="checkbox"/> NELAC		# of Coolers: ( )				
<input type="checkbox"/> EDD (Type) _____		Cooler Temp (including CF): 0.5 - 0.1204				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
8-20-20	14:16	Soil	SP-13	1-9oz jar	1-cool	20081389
	14:24		SP-14			013
	14:33		SP-15			014
	14:34		SP-16			015
	14:40		SP-17			016
	14:43		SP-18			017
	15:16		SP-19			018
	15:17		SP-20			019
						020

Remarks: Call w/ Questions.

PAGE 2 of 2

if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

**From:** [Smith, Cory, EMNRD](#)  
**To:** [Eddie Hubbert](#); [Kijun Hong](#); [Peggy McWilliams](#)  
**Cc:** [Karen Lupton](#); [Elizabeth McNally](#)  
**Subject:** RE: Trunk S Stockpile Sampling and System O&M  
**Date:** Wednesday, August 19, 2020 11:58:08 AM

---

Eddie,

OCD approves the sample size of 20 composite samples. Each composite area needs to physically identified so that if the area fails it can easily be identified. Each 5pt composite sample needs to include at a minimum 2 aliquots from variable depths that represent the pile. IE 4' and 8' in a 12' deep pile etc. Since the pile is not segregated into individual piles, any sampling area that is above the closure requirements the operator will be required to removed soils 2' into all adjacent piles regardless of that areas sample results.

Please keep in mind that if this soil is going to be spread on the surface that the requirements of 19.15.29.13 NMAC apply.

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](mailto:cory.smith@state.nm.us)

---

**From:** Eddie Hubbert <ehubbert@animasenvironmental.com>  
**Sent:** Monday, August 17, 2020 4:45 PM  
**To:** Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Kijun Hong <khong@harvestmidstream.com>; Peggy McWilliams <pmcwilliams@hilcorp.com>  
**Cc:** Karen Lupton <klupton@animasenvironmental.com>; McNally, Elizabeth <emcnally@animasenvironmental.com>  
**Subject:** [EXT] Trunk S Stockpile Sampling and System O&M

Good afternoon,

This email is to notify you that AES will be onsite at the Trunk S site on Thursday, August 20, 2020, to collect confirmation Chloride samples from the soil stockpile and perform a quick system O&M checkup. Attached you will find a site map outlining the proposed sample grid and sampling methodologies. We will be onsite by approximately 10:30 am and will complete the field activities by the end of the day (5:00 pm). Please reach out to me if you have any questions or concerns.

Thanks,

Eddie Hubbert

Project Manager

[ehubbert@animasenvironmental.com](mailto:ehubbert@animasenvironmental.com)

Animas Environmental Services, LLC

[www.animasenvironmental.com](http://www.animasenvironmental.com)

624 E Comanche, Farmington, NM 87401

P.O. Box 8, Farmington, NM 87499-0008

(Tel) 505.564.2281 (C) 505.401.5323

**From:** [Smith, Cory, EMNRD](#)  
**To:** [Elizabeth McNally](#)  
**Cc:** [Kijun Hong](#); [Karen Lupton](#)  
**Subject:** RE: [EXTERNAL] RE: Trunk S - Soil Pile  
**Date:** Wednesday, October 28, 2020 9:02:03 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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Kijun,

OCD approves Harvest request to allow the land owner to use the stock pile soils with the following conditions of approval.

- Stock pile soils cannot be used for ANY purpose involving TnT Land farm
- Land owner cannot use the soils in a location that will be in direct contact of a surface body water, or significant water course as defined in 19.15.29 NMAC
- Harvest will include the latitude/longitude of the final destination of the soils in their final c-141.

Please include a copy of this approval in the final C-141, please save this approval for your records as a hard copy will not be sent to you.

If you have any additional questions please call.

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](mailto:cory.smith@state.nm.us)

---

**From:** Elizabeth McNally <[emcnally@animasenvironmental.com](mailto:emcnally@animasenvironmental.com)>  
**Sent:** Tuesday, October 13, 2020 4:28 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Kijun Hong <[khong@harvestmidstream.com](mailto:khong@harvestmidstream.com)>; Karen Lupton <[klupton@animasenvironmental.com](mailto:klupton@animasenvironmental.com)>  
**Subject:** [EXT] RE: [EXTERNAL] RE: Trunk S - Soil Pile

Hi Cory,

I hope all is well. During delineation activities in the spring, we sampled the stockpile only for chlorides and other anions since all soils above 100 ppm had been transported to the landfarm for disposal. During the stockpile sampling in August 2020, AES collected chloride samples and also ran OVMs for every sample collected from each sample grid location. Two of the samples (SP-1 and SP-2) had OVM readings that were close to 100 ppm: SP-1 at 168.5 ppm and SP-2 at 82.9 ppm. We ran BTEX and TPHs on those samples – all came back below laboratory detection limits. All OVM readings and the lab results were included on Fig 1 that was submitted a few weeks back. Karen



sent the labs over today as well. I hope this helps.  
Thanks  
Beth

Elizabeth McNally, PE  
Animas Environmental Services  
Farmington NM  
505.564.2281  
[emcnally@animasenvironmental.com](mailto:emcnally@animasenvironmental.com)

---

**From:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Sent:** Tuesday, October 13, 2020 3:05 PM  
**To:** Elizabeth McNally <[emcnally@animasenvironmental.com](mailto:emcnally@animasenvironmental.com)>  
**Subject:** RE: [EXTERNAL] RE: Trunk S - Soil Pile

Beth,

I cant seem to find it but the soils were tested for TPH/BTEX at on point or another correct? was it during the delineation?

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](mailto:cory.smith@state.nm.us)

---

**From:** Elizabeth McNally <[emcnally@animasenvironmental.com](mailto:emcnally@animasenvironmental.com)>  
**Sent:** Tuesday, October 13, 2020 10:47 AM  
**To:** Kijun Hong <[khong@harvestmidstream.com](mailto:khong@harvestmidstream.com)>; Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Karen Lupton <[klupton@animasenvironmental.com](mailto:klupton@animasenvironmental.com)>; David Reese <[dreese@animasenvironmental.com](mailto:dreese@animasenvironmental.com)>  
**Subject:** [EXT] RE: [EXTERNAL] RE: Trunk S - Soil Pile

Yes – will send the info just shortly. Thanks

Elizabeth McNally, PE  
Animas Environmental Services  
Farmington NM  
505.564.2281  
[emcnally@animasenvironmental.com](mailto:emcnally@animasenvironmental.com)

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**From:** Kijun Hong <[khong@harvestmidstream.com](mailto:khong@harvestmidstream.com)>

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 16211

**CONDITIONS**

Operator: Harvest Four Corners, LLC 1111 Travis Street Houston, TX 77002	OGRID: 373888
	Action Number: 16211
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Accepted for the record. See app ID 129947 for most updated status.	10/18/2022