



June 17, 2019

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Incident ID	NOY1707237994
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

**REVIEWED**  
 By Dylan Rose-Coss at 11:45 am, Jul 10, 2019

**Re: Site Assessment Report and Proposed Remediation Plan**  
**Site Name: State V Tank Battery**  
**GPS: Latitude: 32.86913 Longitude: -103.27867**  
**Legals: UL "C", Sec. 5, T17S, R37E**  
**Lea County, New Mexico**  
**NMOCD Ref. No. 1RP-4640**

Lowry Environmental & Associates, LLC (LEA), on behalf of Vanguard Operating, LLC, has prepared this Site Assessment Report and Proposed Remediation Plan for the Release Site known as the State V Tank Battery. Details of the release are summarized on the table below:

Nature and Volume of Release	
<b>Date Release Discovered</b>	Historic
<b>Type of Release</b>	Crude Oil and Produced Water
<b>Source of Release</b>	Tank Battery & Flowline
	<b>Volume Released (bbls)</b> Unknown
	<b>Volume Recovered (bbls)</b> Unknown
<b>Cause of Release</b>	
During an on-site inspection, NMSLO representatives discovered six (6) affected areas in need of remediation adjacent to the tank battery and associated flowlines.	
<b>Affected Area</b>	
The releases affected approximately 19,400 Sq. Ft. of pasture land.	
<b>Was this a major release?</b>	<b>If YES, for what reasons (s) is this considered a major release?</b>
NA	NA
<b>If Yes, was immediate notice given to the OCD? By whom? To whom? When and by what means?</b>	
N/A	

A copy of the Release Notification (NMOCD Form C-141) is provided as Attachment #8.

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Site Assessment/Characterization	
What is the shallowest depth to groundwater beneath the area affected by the release?	~53 Ft.
Did this release impact groundwater or surface water?	No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	No
Are the lateral extents of the release within 300 feet of a wetland?	No
Are the lateral extents of the release overlying a subsurface mine?	No
Are the lateral extents of the release overlying an unstable area such as karst geology?	No
Are the lateral extents of the release within a 100-year floodplain?	No
Did the release impact areas <b>not</b> on an exploration, development, production or storage site?	Yes

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey was conducted in an effort to determine the average depth to groundwater within a 1/2 Mile radius of the Site and identify any registered water wells within a 1,000 Ft. radius of the Site. A search of the NMOSE database suggested the presence of 3 water wells (L 01398, L 01107 POD1 and L 02487) within 1,000 ft. of the Site. A field survey indicated available geographic information for L 01398, L 01107 POD1 and L 02487 was outdated and/or incorrect; there were no water wells in that vicinity. Further review indicates the wells were drilled between 1951 and 1954 for "prospecting and natural resource development" and have since been plugged and abandoned. A search of the USGS database did not identify any water wells within a 1/2 Mile radius.

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release	
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons	2,500 mg/kg
Combined GRO and DRO	1,000 mg/kg
Chloride	10,000 mg/kg

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2. Depth to groundwater information is provided as Attachment #4. A Photographic Log is provided as Attachment #7.

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## INITIAL SITE ASSESSMENT

On **July 31, 2018**, eight (8) investigative soil bores (SP-1 through SP-8) were advanced at the Site in an effort to determine the vertical extent of impacted soil affected above the NMOCD Closure Criteria. During the advancement of the soil bore, sixteen (16) soil samples were collected and submitted to the laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated soil was not affected above the NMOCD Closure Criteria for BTEX, TPH or chloride beyond 8 ft. bgs in the areas characterized by sample points SP1 and SP2, 28 Ft. bgs in the area characterized by sample point SP3, 14 Ft. bgs in the area characterized by sample point SP4, 12 Ft. bgs in the area characterized by sample point SP5, 38 Ft. bgs in the area characterized by sample point SP6, 26 Ft. bgs in the area characterized by sample point SP7, or 38 Ft. bgs in the area characterized by sample point SP8.

In addition, forty (40) soil samples were collected from the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil affected above the NMOCD Closure Criteria. The collected soil samples were submitted to an NMOCD-approved laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil

In **April 2017**, a Site Characterization and Work Plan was prepared by an environmental contractor that is no longer affiliated with the Site. The Site Characterization and Work Plan proposed remediation activities that were designed to advance the Site toward and approved closure; it is unclear whether the Work Plan was ever submitted and/or approved.

A Site and Sample Location Map from the original workplan is provided as Figure 3. A table summarizing laboratory analytical results from soil samples collected during the initial site assessment is provided on the following pages:

**TABLE 2**  
**Summary of Soil Sample Field Testing and Laboratory Analytical Results**  
**Vanguard**  
**State V Tank Battery**

Lab Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
SP1	Surface	In-Situ	01-Mar-17	0.0	400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	86.0	86.0	368
	4	In-Situ	01-Mar-17	0.0	160	--	--	--	--	--	--	--	--	--
	8	In-Situ	01-Mar-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	80
SP2	Surface	In-Situ	01-Mar-17	0.0	480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	64.5	64.5	<b>800</b>
	4	In-Situ	01-Mar-17	0.0	240	--	--	--	--	--	--	--	--	--
	8	In-Situ	01-Mar-17	0.0	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	256
SP3	Surface	In-Situ	02-Mar-17	0.0	80	<0.050	0.079	<0.050	<0.150	<0.300	<10.0	176	176	32
	4	In-Situ	02-Mar-17	0.0	800	--	--	--	--	--	--	--	--	--
	8	In-Situ	02-Mar-17	0.0	1,040	--	--	--	--	--	--	--	--	--
	12	In-Situ	02-Mar-17	0.0	2,160	--	--	--	--	--	--	--	--	--
	20	In-Situ	02-Mar-17	0.0	400	--	--	--	--	--	--	--	--	--
	24	In-Situ	02-Mar-17	0.0	240	--	--	--	--	--	--	--	--	--
	28	In-Situ	02-Mar-17	0.0	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	352
SP4	Surface	In-Situ	03-Mar-17	0.290	80	<0.050	0.299	0.219	0.351	0.869	<10.0	2,200	<b>2,200</b>	32
	4	In-Situ	03-Mar-17	2.7	80	--	--	--	--	--	--	--	--	--
	8	In-Situ	03-Mar-17	0.0	80	--	--	--	--	--	--	--	--	--
	14	In-Situ	03-Mar-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	80

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SP5	Surface	In-Situ	06-Mar-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	1,540	<b>1,540</b>	208
	4	In-Situ	06-Mar-17	8.4	80	--	--	--	--	--	--	--	--	--
	6	In-Situ	06-Mar-17	0.0	80	--	--	--	--	--	--	--	--	--
	12	In-Situ	06-Mar-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	48
SP6	Surface	In-Situ	08-Mar-17	0.0	4,000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<b>4,930</b>
	4	In-Situ	08-Mar-17	0.0	1,600	--	--	--	--	--	--	--	--	--
	6	In-Situ	08-Mar-17	0.0	200	--	--	--	--	--	--	--	--	--
	14	In-Situ	08-Mar-17	0.0	2,400	--	--	--	--	--	--	--	--	--
	34	In-Situ	08-Mar-17	0.0	240	--	--	--	--	--	--	--	--	--
	38	In-Situ	08-Mar-17	0.0	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	112
SP7	Surface	In-Situ	09-Mar-17	0.0	4,000	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<b>22,000</b>
	4	In-Situ	09-Mar-17	0.0	1,760	--	--	--	--	--	--	--	--	--
	6	In-Situ	09-Mar-17	0.0	2,400	--	--	--	--	--	--	--	--	--
	14	In-Situ	09-Mar-17	0.0	1,040	--	--	--	--	--	--	--	--	--
	22	In-Situ	09-Mar-17	0.0	240	--	--	--	--	--	--	--	--	--
	26	In-Situ	09-Mar-17	0.0	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	80

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SP8	Surface	In-Situ	10-Mar-17	0.0	2,960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	3,760
	4	In-Situ	10-Mar-17	0.0	160	--	--	--	--	--	--	--	--	--
	10	In-Situ	10-Mar-17	0.0	1,120	--	--	--	--	--	--	--	--	--
	22	In-Situ	10-Mar-17	0.0	1,680	--	--	--	--	--	--	--	--	--
	28	In-Situ	10-Mar-17	0.0	2,240	--	--	--	--	--	--	--	--	--
	34	In-Situ	10-Mar-17	0.0	880	--	--	--	--	--	--	--	--	--
	38	In-Situ	10-Mar-17	0.0	240	--	--	--	--	--	--	--	--	--
	42	In-Situ	10-Mar-17	0.0	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	288
SAAHN	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SAAHE	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SAAHS	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SAAHW	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0

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SABHN	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SABHE	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SABHS	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SABHW	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SACHN	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SACHE	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SACHS	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	0.055	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SACHW	Surface	In-Situ	09-Mar-17	--	80	<0.050	0.056	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SADHN	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32

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SADHE	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SADHS	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SADHW	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SAEHN	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SAEHE	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SAEHS	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	48
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SAEHW	Surface	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
	1	In-Situ	09-Mar-17	--	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
NMOCD Recommended Remedial Action Levels				100		10				50			1,000	600

-- = Not Analyzed

**Red** values are in excess of NMOCD Recommended Remedial Action Levels

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On **May 15, 2019**, upon conducting limited remediation activities, five (5) soil samples (C-NW #1, C-EW #1, C-SW #1, C-WW #1 and C-Floor) were collected from the floor and sidewalls of Excavation C and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. Chloride concentrations ranged from less than the applicable laboratory reporting limit in soil sample C-SW #1 to 3,300 mg/kg in soil sample C-

In addition, five (5) soil samples (D-NW #1, D-EW #1, D-SW #1, D-WW #1 and D-Floor) were collected from the floor and sidewalls of Excavation D and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. Chloride concentrations ranged from 220 mg/kg in soil sample D-NW #1 to 2,500 mg/kg in soil sample D-Floor.

Finally, five (5) soil samples (E-NW #1, E-EW #1, E-SW #1, E-WW #1 and E-Floor) were collected from the floor and sidewalls of Excavation E and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX and TPH concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. Chloride concentrations ranged from less than the applicable laboratory reporting limit in soil sample E-SW #1 to 3,200 mg/kg in soil sample E-Floor.

On **May 28, 2019**, fifteen (15) soil samples (A-Floor #1, A-Floor #2, A-Floor #3, A-Floor #4, A-NW #1, A-NW #2, A-SW #1, A-SW #2, A-SW #3, A-WW #1, A-WW #2, A-WW #3, A-EW #1, A-EW #2 and A- EW #3) were collected from the floor and sidewalls of Excavation A and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. TPH concentrations ranged from less than the applicable laboratory reporting limit in soil samples A-Floor #3, A-Floor #4, A-NW #1, A-WW #2, A-WW #3, and A-EW #3 to 671 mg/kg in soil sample A-Floor #1. Chloride concentrations ranged from less than the applicable laboratory reporting limit in soil samples A-SW #1, A-WW #1 and A-WW #3 to 530 mg/kg in soil samples A-NW #1 and A-NW #2.

In addition, nine (9) soil samples (B-Floor #1, B-Floor #2, B-NW #1, B-NW #2, B-SW #1, B-SW #2, B-WW #1, B-EW and B-WW GC) were collected from the floor and sidewalls of Excavation B and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. TPH concentrations ranged from less than the applicable laboratory reporting limit in soil samples B-Floor #1, B-Floor #2, B-WW #1 and B-WW GC to 2,340 mg/kg in soil sample B-NW #2. Chloride concentrations ranged from less than the applicable laboratory reporting limit in soil samples B-NW #2 and B-SW #1 to 270 mg/kg in soil sample B-EW.

On **May 10, 2019**, upon conducting additional excavation activities, LEA collected thirteen (13) soil samples (CTB-A-Floor #1b, CTB-A-Floor #2b, CTB-A-NW #2b, CTB-A-SW #1b, CTB-A-WW #1b, CTB-A-EW #1b, CTB-A-EW #2b, CTB-B-NW #1b, CTB-B-NW #2b, CTB-B-SW #1b, CTB-B-SW #2b and CTB-B-EW #1b) from the floor and sidewalls of Excavations A and B. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples. Analytical results indicated chloride concentrations were less than the applicable laboratory reporting limit in each of the submitted soil samples with the exception of soil sample CTB-B-SW #2b, which exhibited a chloride concentration of 260 mg/kg. TPH concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples with the exception of soil sample CTB-A-NW #2b, which exhibited a TPH concentration of 429 mg/kg, soil sample CTB-A-WW #1b, which exhibited a TPH concentration of 400 mg/kg, CTB-A-EW #2b, which exhibited a TPH concentration of 405 mg/kg, soil sample CTB-B-SW #1b, which exhibited a TPH concentration of 502 mg/kg and soil sample CTB-B-EW #1b, which exhibited a TPH concentration of 193 mg/kg.

A Site and Sample Location Map for the most recent soil samples is provided as Figure 3b. A table summarizing laboratory analytical results from the most recent soil samples is provided on the following page:

Incident ID	NOY1707237994
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

Concentrations of BTEX, TPH and/or Chloride in Soil - Confirmation Samples												
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					E300	
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub>	DRO C <sub>10</sub> -C <sub>28</sub>	GRO + DRO C <sub>6</sub> -C <sub>28</sub>	ORO C <sub>28</sub> -C <sub>36</sub>	TPH C <sub>6</sub> -C <sub>36</sub>	Chloride (mg/kg)	
A-Floor #1	5/28/19	1'	Excavated	ND	ND	ND	81	81	590	671	70	
CTB-A-Floor #1B	6/10/19	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
A-Floor #2	5/28/19	1'	Excavated	ND	ND	ND	67	67	500	567	66	
CTB-A-Floor #2B	6/10/19	1.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
A-Floor #3	5/28/19	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	92	
A-Floor #4	5/28/19	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	91	
A-NW #1	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	530	
A-NW #2	5/28/19	NA	Excavated	ND	ND	ND	24	24	92	116	530	
CTB-A-NW #2B	6/10/19	NA	pending	ND	ND	ND	69	69	360	429	ND	
A-SW #1	5/28/19	NA	Excavated	ND	ND	ND	70	70	320	390	ND	
CTB-A-SW #1B	6/10/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
A-SW #2	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	66	66	61	
A-SW #3	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	120	
A-WW #1	5/28/19	NA	Excavated	ND	ND	ND	12	12	90	102	ND	
CTB-A-WW #1B	6/10/19	NA	pending	ND	ND	ND	60	60	340	400	ND	
A-WW #2	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	480	
A-WW #3	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
A-EW #1	5/28/19	NA	Excavated	ND	ND	ND	79	79	280	359	220	
CTB-A-EW #1B	6/10/19	NA	pending	ND	ND	ND	65	65	340	405	ND	
A-EW #2	5/28/19	NA	In-Situ	ND	ND	ND	52	52	230	282	260	
CTB-A-EW #2B	6/10/19	NA	In-Situ	ND	ND	ND	10	10	52	62	ND	
A-EW #3	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	130	
B-Floor #1	5/28/19	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	79	
B-Floor #2	5/28/19	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	81	
B-NW #1	5/28/19	NA	Excavated	ND	ND	ND	410	410	970	1,380	120	
CTB-B-NW #1B	6/10/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
B-NW #2	5/28/19	NA	Excavated	ND	ND	ND	740	740	1600	2,340	ND	
CTB-B-NW #2B	6/10/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
B-SW #1	5/28/19	NA	Excavated	ND	ND	ND	210	210	730	940	ND	
CTB-B-SW #1B	6/10/19	NA	pending	ND	ND	ND	72	72	430	502	ND	
B-SW #2	5/28/19	NA	Excavated	ND	ND	ND	16	16	94	110	200	
CTB-B-SW #2B	6/10/19	NA	In-Situ	ND	ND	ND	ND	ND	49	49	260	
B-WW #1	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	82	
B-EW	5/28/19	NA	Excavated	ND	ND	ND	64	64	280	344	270	
CTB-B-EW #1B	6/10/19	NA	pending	ND	ND	ND	33	33	160	193	ND	
B-WW GC	5/28/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	88	
C-NW #1	5/15/19	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	740	
C-NW #1b	6/3/19	NA	In-Situ	-	-	-	-	-	-	-	110	
C-EW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	170	
C-SW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
C-WW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	240	
C-Floor	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,300	
D-NW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	220	
D-EW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	560	
D-SW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	290	
D-WW #1	5/15/19	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	700	
D-WW #1b	6/3/19	NA	In-Situ	-	-	-	-	-	-	-	420	
D-Floor	5/15/19	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,500	
E-NW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	210	
E-EW #1	5/15/19	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	450	
E-SW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND	
E-WW #1	5/15/19	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	670	
E-NW #1b	5/15/19	NA	In-Situ	-	-	-	-	-	-	-	420	
E-Floor	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,200	
<b>Closure Criteria</b>				<b>10</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>100</b>	<b>600</b>	

Incident ID	NOY1707237994
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

## PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessments, Vanguard Operating, LLC, proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria for BTEX, TPH and chloride remaining in-situ in the areas characterized by, but not limited to, CTB-A-NW #2b, CTB-A-WW #1b, CTB-A-EW #1b, CTB-B-SW #1b, and CTB-B-EW #1B.
- Excavate impacted soil affected above the NMOCD Reclamation Standard for BTEX, TPH and chloride present within the uppermost 4 Ft. of the affected area. The uppermost 4 Ft. of the excavation sidewalls will be advanced horizontally until laboratory analytical results from excavation confirmation soil sampled indicate BTEX, TPH and chloride concentrations are below the NMOCD Reclamation Standard.
- Excavated soil will be temporarily stockpiled on-site, pending transportation under manifest to an NMOCD-approved disposal facility.
- Upon receiving favorable laboratory analytical results from confirmation soil samples (below the NMOCD Closure Criteria) a 20-mil polyurethane liner will be placed within the floor of the excavated areas atop soil affected above the NMOCD Reclamation Standard for chloride, where necessary. An approximate 6-inch layer of pad sand will be installed below and above the liner in an effort to maintain the liner's integrity during backfilling activities. This engineering control is designed to inhibit the vertical migration of contaminants left in-situ.
- Upon installing the 20-mil polyurethane liners, where necessary, excavated areas will be backfilled with locally sourced, non-impacted "like" material. Excavation backfill will be placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable.

## SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than **50 linear ft.** A minimum of **one (1)** representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every **500 square feet.** Additional, "discrete" confirmation soil samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

## TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed **within 90 days** of receiving necessary approval(s) of this Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately **3,600 cubic yards** of soil has been affected above the NMOCD Closure Criteria.

Incident ID	NOY1707237994
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

## RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency-approved seed mixture during the first favorable growing season following closure of the site.

If you have any questions, or need any additional information, please feel free to contact Kyle Zimmerman or the undersigned by phone or email.

Respectfully,



Joel W. Lowry  
Environmental Professional  
Lowry Environmental & Associates, LLC

- Attachments:**
- Attachment #1- Figure 1 - Topographic Map
  - Attachment #2- Figure 2 - Aerial Map
  - Attachment #3- Figure 3 and Figure 3b - Site & Sample Location Map
  - Attachment #4- Depth to Groundwater Information
  - Attachment #5- Soil Profile
  - Attachment #6- Laboratory Analytical Reports
  - Attachment #7- Photographic Log
  - Attachment #8- Release Notification (FORM C-141)

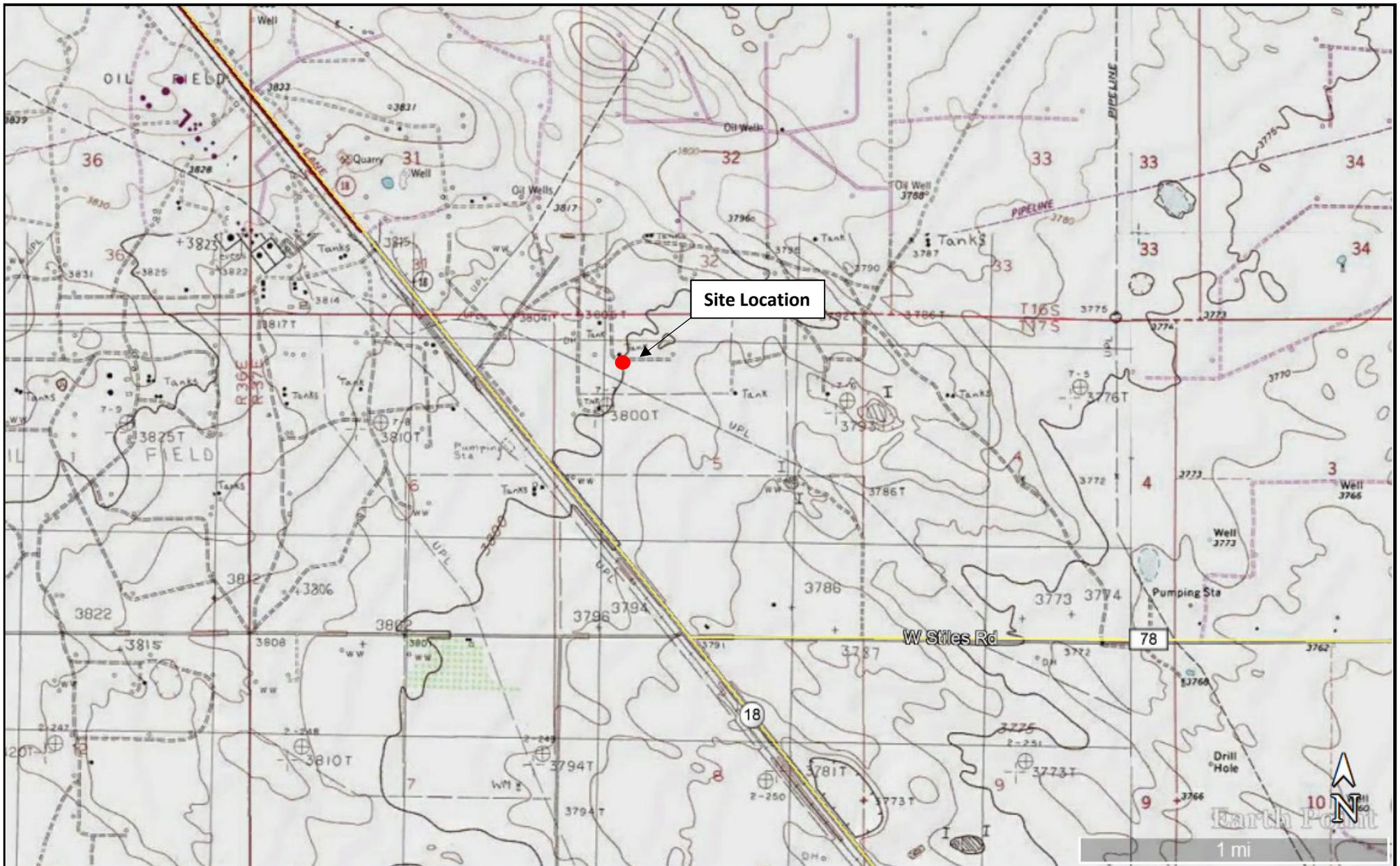
## LIMITATIONS

This document has been prepared on behalf of Vanguard Operating, LLC. Use of information contained in this report, including exhibits and attachments, by any other party without the consent of LEA and/or Vanguard Operating, LLC is prohibited.

This document has been prepared in a professional manner, using the degree of skill and care exercised by similar environmental professionals. LEA notes that the facts and conditions referenced in this document may change over time and that the conclusions and recommendations are only applicable to the facts and conditions as described at the time this document was prepared.

LEA has prepared this report to the best of its ability. No other warranty, expressed or implied, is made or intended.

**Attachment #1**  
**Figure 1 - Topographic Map**



**LEGEND:**

● Site Location

**Figure 1**

Topographic Map  
 Vanguard Operating, LLC  
 State V Tank Battery  
 GPS: 32.86913, -103.27867  
 Lea County, New Mexico

**LOWRY**  
 environmental

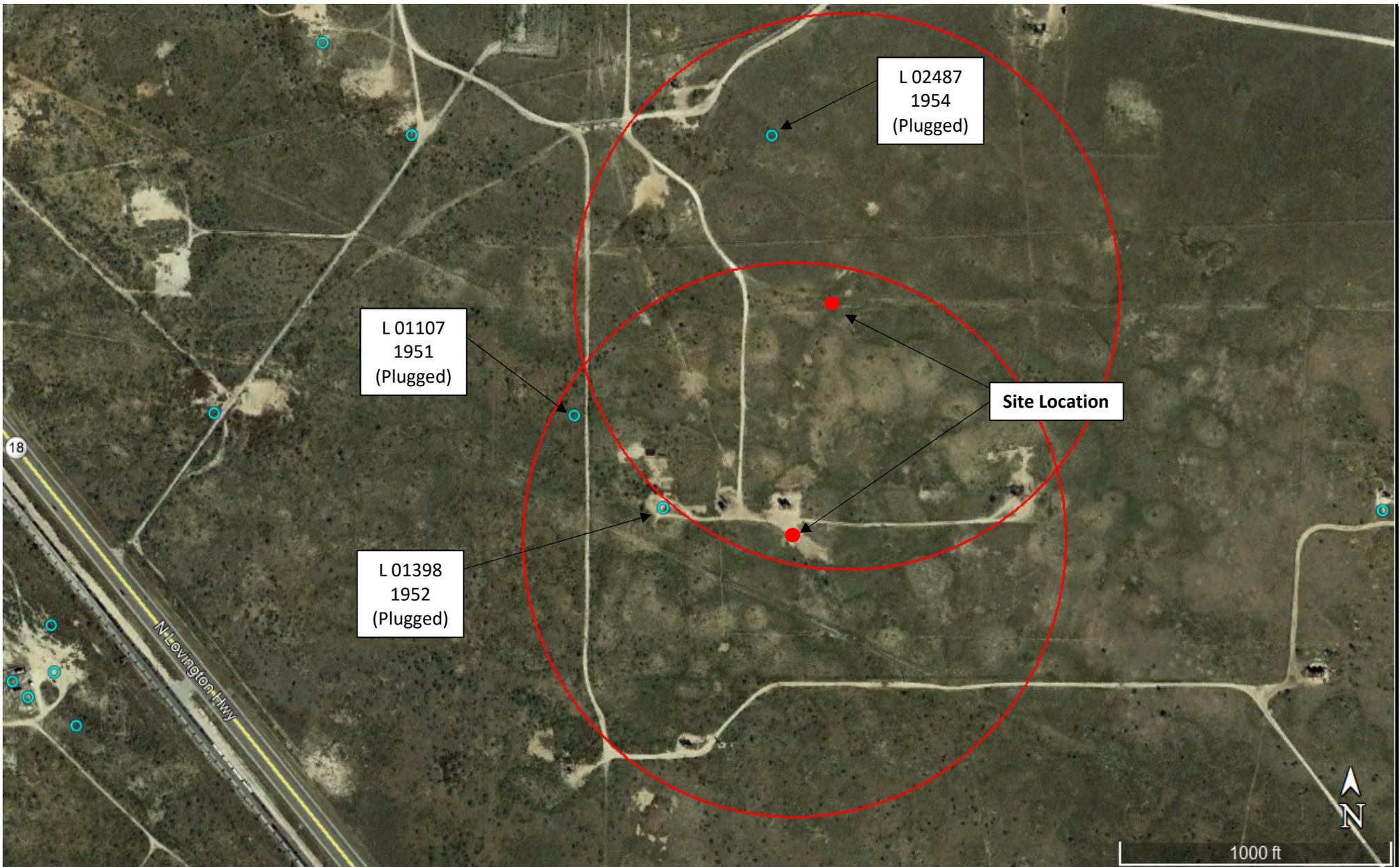


Drafted by: jwl

Checked by: client

Date: 6/17/2019

**Attachment #2**  
**Figure 2 - Aerial Map**



**LEGEND:**

	Site Location		Non-Industrial Building
	Fresh Water Well		Subsurface Mine
	100-Year Floodplain		1,000 Ft. Radius
	High/Critical Karst		

**Figure 2**  
 Aerial Map  
 Vanguard Operating, LLC  
 State V Tank Battery  
 GPS: 32.86913, -103.27867  
 Lea County, New Mexico



Drafted by: jwl    Checked by: client    Date: 6/17/2019

**Attachment #3**

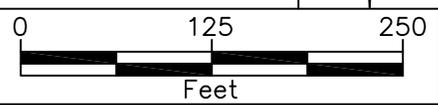
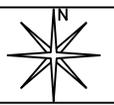
**Figure 3 - Site & Sample Location Map**

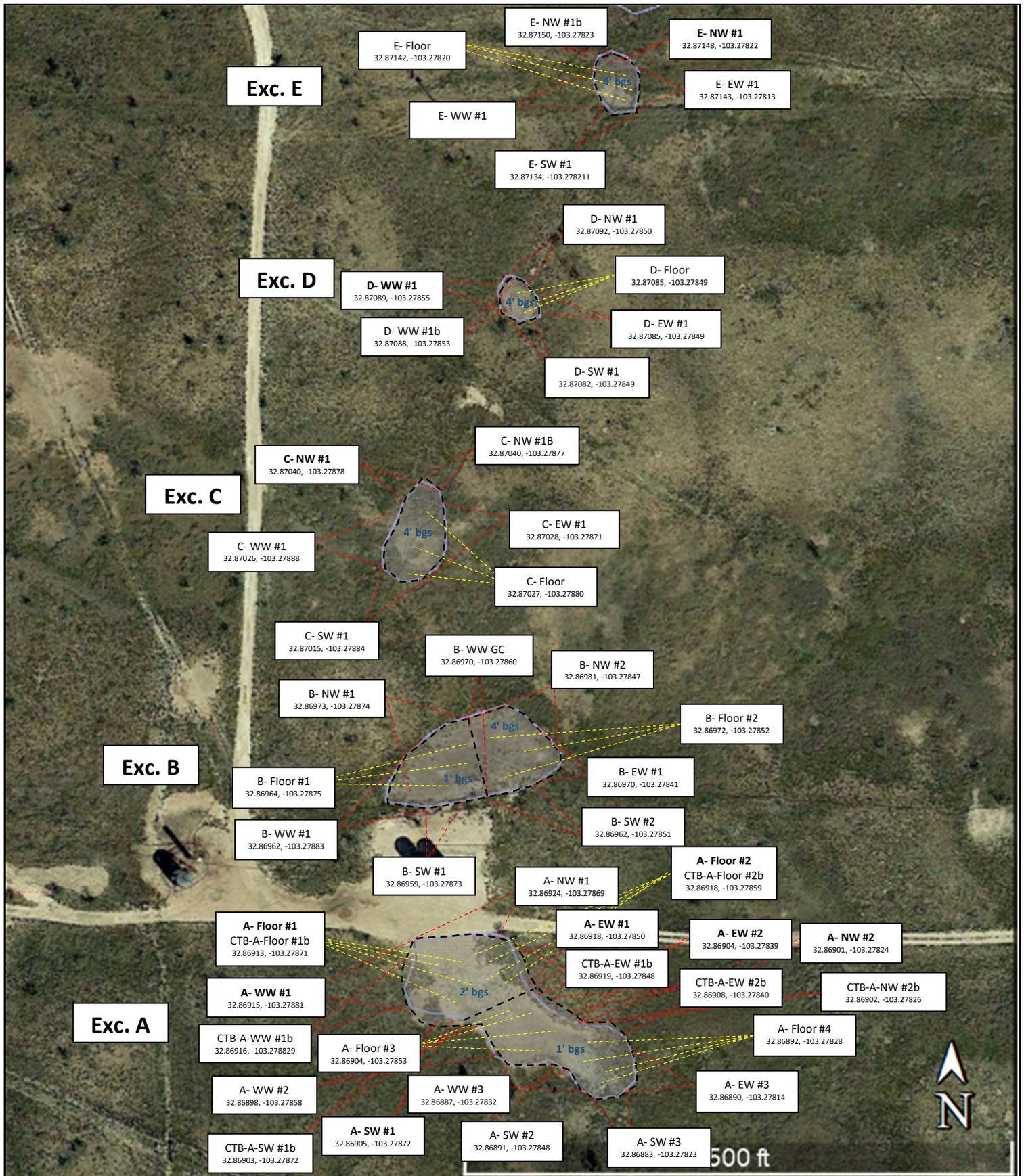


Figure 3  
 Site/Sample Map  
 Vanguard  
 State V Tank Battery

Lea County, New Mexico  
 NW 1/4 of NW 1/4, Sec. 5, T17S, R37E  
 N 32° 52' 9.88" W 103° 16' 43.48"  
 Elevation: 3,808 feet amsl

DWG By: D Dominguez  
 March 2017





**LEGEND:**

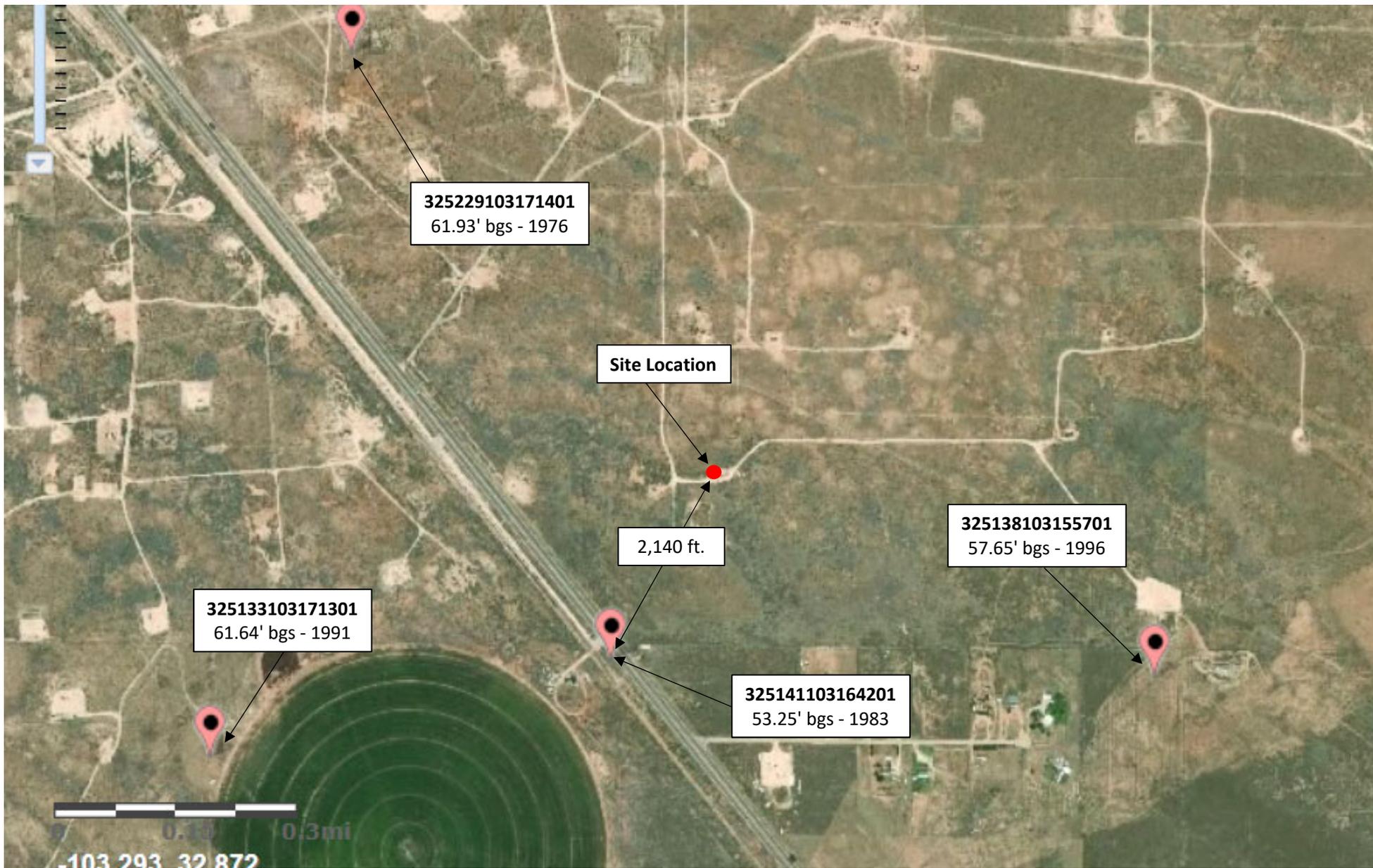
- Floor Sample Location
- Sidewall Sample Location
- 4' bgs Grade
- Excavated Area

**Figure 3b**  
 Site & Sample Location Map  
 Vanguard Operating, LLC  
 State V Tank Battery  
 GPS: 32.86913, -103.27867  
 Lea County, New Mexico

**LOWRY**  
 environmental

Drafted by: jwl    Checked by: client    Date: 6/17/2019

**Attachment #4**  
**Depth to Groundwater Information**



**LEGEND:**

● Site Location

**Figure 4**  
 USGS Well Proximity Map  
 Vanguard Operating, LLC  
 State V Tank Battery  
 GPS: 32.86913, -103.27867  
 Lea County, New Mexico

**LOWRY**  
 environmental

Drafted by: jwl    Checked by: client    Date: 6/18/2019



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">L_01398</a>		L	LE	1	1	05	17S	37E		660901	3638119*	1	115	50	65
<a href="#">L_01107 POD1</a>		L	LE	1	1	05	17S	37E		660800	3638218*	140	92	38	54
<a href="#">L_02487</a>		L	LE	3	3	32	16S	37E		661016	3638527*	423	90	35	55
<a href="#">L_02078</a>		L	LE	4	4	31	16S	37E		660613	3638521*	493	112	50	62
<a href="#">L_01604 POD1</a>		L	LE	1	2	06	17S	37E		660397	3638214*	511	105		
<a href="#">L_02549</a>		L	LE	3	3	05	17S	37E		660807	3637616*	512	138	65	73
<a href="#">L_05458</a>		L	LE	1	4	31	16S	37E		660512	3638620*	633	240	50	190
<a href="#">L_13414 POD5</a>		L	LE	4	1	06	17S	37E		660218	3637979*	695	110	93	17
<a href="#">L_13414 POD4</a>		L	LE	2	3	06	17S	37E		660248	3637870*	697	110	93	17
<a href="#">L_13038 POD1</a>		L	LE	4	1	06	17S	37E		660223	3637928*	703	115		
<a href="#">L_13414 POD2</a>		L	LE	4	1	06	17S	37E		660194	3637900*	739	102	93	9
<a href="#">L_13414 POD1</a>		L	LE	4	1	06	17S	37E		660176	3637917*	751	110	93	17
<a href="#">L_00449 S</a>		L	LE	2	2	06	17S	37E		660611	3637409*	767	120	48	72
<a href="#">L_00449 S</a>	R	L	LE	2	2	06	17S	37E		660611	3637409*	767	120	48	72
<a href="#">L_11773</a>		L	LE	2	2	06	17S	37E		660611	3637409*	767	235		
<a href="#">L_13414 POD3</a>		L	LE	2	3	06	17S	37E		660143	3637890*	790	110	93	17
<a href="#">L_13038 POD2</a>		L	LE	2	3	06	17S	37E		660146	3637865*	795	115		
<a href="#">L_13038 POD3</a>		L	LE	2	3	06	17S	37E		660146	3637865*	795	115		

Average Depth to Water: **65 feet**  
 Minimum Depth: **35 feet**  
 Maximum Depth: **93 feet**

**Record Count:** 18

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 660900.1

**Northing (Y):** 3638119.5

**Radius:** 804

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)
		(quarters are smallest to largest)				
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X      Y</b>
L 01398		1 1 05	17S	37E	660901 3638119*	

<b>Driller License:</b> 46		<b>Driller Company:</b> ABBOTT BROTHERS COMPANY	
<b>Driller Name:</b> ABBOTT, MURRELL			
<b>Drill Start Date:</b> 03/13/1952	<b>Drill Finish Date:</b> 03/14/1952	<b>Plug Date:</b> 01/31/1953	
<b>Log File Date:</b> 03/17/1952	<b>PCW Rev Date:</b> 09/19/1952	<b>Source:</b> Shallow	
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>	
<b>Casing Size:</b>	<b>Depth Well:</b> 115 feet	<b>Depth Water:</b> 50 feet	

Water Bearing Stratifications:	Top	Bottom	Description
	50	115	Sandstone/Gravel/Conglomerate

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L 01107	POD1	1	1	1	05	17S	37E	660800	3638218* 
<b>Driller License:</b>		<b>Driller Company:</b>							
<b>Driller Name:</b> C O ALDRIDGE									
<b>Drill Start Date:</b>	04/14/1951	<b>Drill Finish Date:</b>	04/16/1951		<b>Plug Date:</b>	12/31/1952			
<b>Log File Date:</b>	05/04/1951	<b>PCW Rev Date:</b>	05/10/1951		<b>Source:</b>	Shallow			
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>			<b>Estimated Yield:</b>				
<b>Casing Size:</b>	7.00	<b>Depth Well:</b>	92 feet		<b>Depth Water:</b>	38 feet			
<b>Water Bearing Stratifications:</b>		<b>Top</b>	<b>Bottom</b>	<b>Description</b>					
		38	70	Sandstone/Gravel/Conglomerate					
		80	92	Sandstone/Gravel/Conglomerate					
<b>Casing Perforations:</b>		<b>Top</b>	<b>Bottom</b>						
		40	78						

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/17/19 9:44 AM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)					(NAD83 UTM in meters)		
		(quarters are smallest to largest)							
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
L	02487	3	3	32	16S	37E	661016	3638527*	
<hr/>									
<b>Driller License:</b>	33	<b>Driller Company:</b>	TATUM CLAUDE E.						
<b>Driller Name:</b>									
<b>Drill Start Date:</b>	02/06/1954	<b>Drill Finish Date:</b>	02/07/1954	<b>Plug Date:</b>	04/05/1955				
<b>Log File Date:</b>	03/12/1954	<b>PCW Rev Date:</b>			<b>Source:</b>	Shallow			
<b>Pump Type:</b>			<b>Pipe Discharge Size:</b>				<b>Estimated Yield:</b>		
<b>Casing Size:</b>			<b>Depth Well:</b>	90 feet	<b>Depth Water:</b>	35 feet			
<hr/>									
	<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>					
		38	90	Sandstone/Gravel/Conglomerate					
<hr/>									

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/17/19 9:44 AM

POINT OF DIVERSION SUMMARY



National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:  Geographic Area:

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Groundwater levels for the Nation

**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list = 

- 325138103155701

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

**USGS 325138103155701 17S.37E.05.412221**

Lea County, New Mexico  
Latitude 32°51'50", Longitude 103°16'12" NAD27  
Land-surface elevation 3,791.00 feet above NGVD29  
The depth of the well is 130 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

**Output formats**

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1961-02-02		D	36.54				2		U	
1966-02-25		D	41.39				2		U	
1971-02-09		D	44.52				2		U	
1976-02-25		D	48.03				2		U	
1981-01-07		D	52.29				2		U	
1986-01-29		D	56.10				2		U	
1991-01-24		D	57.40				2		U	
1996-01-19		D	57.65				2		S	

**Explanation**

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

---

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-06-14 13:33:31 EDT

0.45 0.42 nadww02



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**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list = 

- 325141103164201

Minimum number of levels = 1

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**USGS 325141103164201 17S.37E.05.133334**

Lea County, New Mexico  
Latitude 32°51'51", Longitude 103°16'54" NAD27  
Land-surface elevation 3,799.00 feet above NGVD29  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

**Output formats**

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1980-01-04		D	51.77				2		U	
1981-01-07		D	52.16				2		U	
1982-01-05		D	52.59				2		U	
1983-01-05		D	53.25				2		U	

**Explanation**

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



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0.46 0.44 nadww02



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Groundwater levels for the Nation

**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list = 

- 325133103171301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

**USGS 325133103171301 17S.37E.06.411331**

Lea County, New Mexico  
Latitude 32°51'45", Longitude 103°17'25" NAD27  
Land-surface elevation 3,806.00 feet above NGVD29  
The depth of the well is 100 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

**Output formats**

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1961-02-02		D	38.46				2		U	
1966-02-25		D	39.36				2		U	
1971-02-09		D	52.04				2		U	
1976-02-25		D	54.17				2		U	
1981-01-07		D	57.89				2		U	
1986-01-29		D	59.73				2		U	
1991-01-31		D	61.64				2		U	

**Explanation**

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

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0.44 0.41 nadww02





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Groundwater levels for the Nation

**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list = 

- 325229103171401

Minimum number of levels = 1

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**USGS 325229103171401 16S.37E.31.322244**

Lea County, New Mexico  
Latitude 32°52'29", Longitude 103°17'14" NAD27  
Land-surface elevation 3,811 feet above NAVD88  
The depth of the well is 148 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

**Output formats**

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1961-02-17		D	41.41				2		U	
1966-02-24		D	46.23				2		U	
1971-02-17		D	55.88				2		U	
1976-03-17		D	61.93				2		U	

**Explanation**

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-06-14 13:37:22 EDT

0.45 0.42 nadww02



**Attachment #5**  
**Soil Profile**

# SOIL PROFILE

Site Name: State V TB

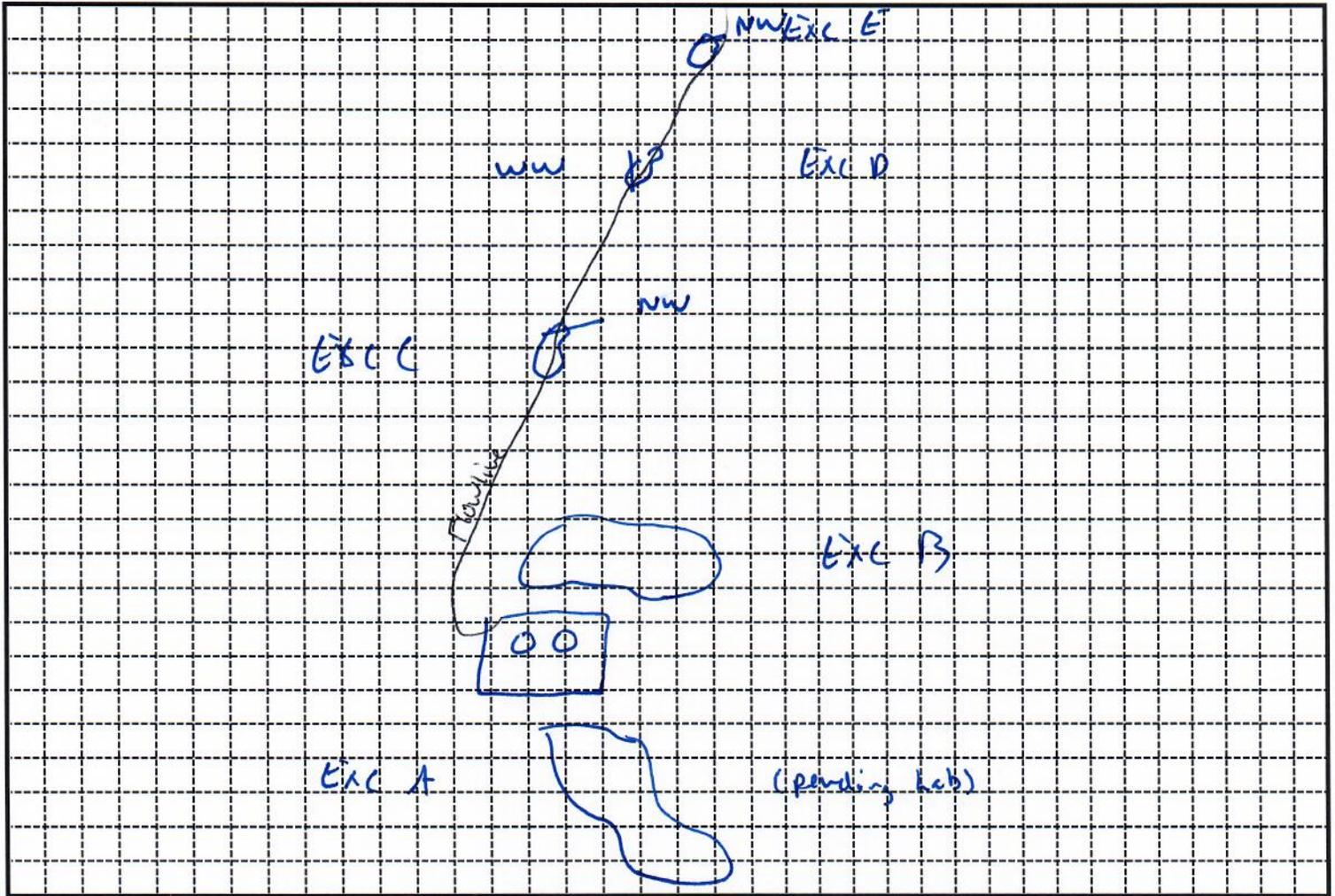
Date: 6/10/2019

Description	Depth (ft. bgs)
Brown Clayey Topsoil	1
Calcrete / Caliche	2
Caliche Rock	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	0

# FIELD NOTES

Site Name: State V Tower Battery

Date: 5/15/19



Re-sample Excavated Sidewalls where previous Chloride exceedences were discovered, Field Screen, Exc C, D, E  
Photograph excavations

Field ID	Odor/PID	Chloride
C-NW#1	None	2108
D-WW#1	None	408
E-NW#1	None	364

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

**Attachment #6**  
**Laboratory Analytical Reports**



March 14, 2017

Daniel Dominguez  
Environmental Plus, Inc.  
P.O. Box 1558  
Eunice, NM 88231

RE: STATE V

Enclosed are the results of analyses for samples received by the laboratory on 03/07/17 15:31.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/01/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP1 (SURFACE) (H700583-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>368</b>	16.0	03/09/2017	ND	480	120	400	3.39	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/09/2017	ND	199	99.5	200	4.57	
<b>DRO &gt;C10-C28</b>	<b>86.0</b>	10.0	03/09/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 88.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 98.1 % 26.8-170

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/01/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP1 (8') (H700583-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/09/2017	ND	480	120	400	3.39	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/08/2017	ND	199	99.5	200	4.57	
DRO >C10-C28	<10.0	10.0	03/08/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 88.1 % 25.1-158

Surrogate: 1-Chlorooctadecane 87.0 % 26.8-170

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/01/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP2 (SURFACE) (H700583-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2017	ND	2.05	103	2.00	2.94	
Toluene*	<0.050	0.050	03/10/2017	ND	1.92	96.2	2.00	3.02	
Ethylbenzene*	<0.050	0.050	03/10/2017	ND	1.93	96.6	2.00	2.92	
Total Xylenes*	<0.150	0.150	03/10/2017	ND	5.54	92.3	6.00	2.99	
Total BTEX	<0.300	0.300	03/10/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>800</b>	16.0	03/09/2017	ND	480	120	400	3.39	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/09/2017	ND	199	99.5	200	4.57	
<b>DRO &gt;C10-C28</b>	<b>64.5</b>	10.0	03/09/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 80.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 82.4 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/01/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP2 (8') (H700583-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/10/2017	ND	2.05	103	2.00	2.94		
Toluene*	<0.050	0.050	03/10/2017	ND	1.92	96.2	2.00	3.02		
Ethylbenzene*	<0.050	0.050	03/10/2017	ND	1.93	96.6	2.00	2.92		
Total Xylenes*	<0.150	0.150	03/10/2017	ND	5.54	92.3	6.00	2.99		
Total BTEX	<0.300	0.300	03/10/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/09/2017	ND	480	120	400	3.39		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/08/2017	ND	199	99.5	200	4.57		
DRO >C10-C28	<10.0	10.0	03/08/2017	ND	211	106	200	7.03		

Surrogate: 1-Chlorooctane 88.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 91.8 % 26.8-170

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/02/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP3 (SURFACE) (H700583-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
<b>Toluene*</b>	<b>0.079</b>	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/09/2017	ND	480	120	400	3.39	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/09/2017	ND	199	99.5	200	4.57	
<b>DRO &gt;C10-C28</b>	<b>176</b>	10.0	03/09/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 87.9 % 25.1-158

Surrogate: 1-Chlorooctadecane 102 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/02/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP3 (28') (H700583-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	03/09/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/08/2017	ND	199	99.5	200	4.57	
DRO >C10-C28	<10.0	10.0	03/08/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 89.6 % 25.1-158

Surrogate: 1-Chlorooctadecane 90.0 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/03/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP4 (SURFACE) (H700583-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2017	ND	2.01	101	2.00	1.89	
<b>Toluene*</b>	<b>0.299</b>	0.050	03/14/2017	ND	1.87	93.7	2.00	2.37	
<b>Ethylbenzene*</b>	<b>0.219</b>	0.050	03/14/2017	ND	1.86	92.9	2.00	2.94	
<b>Total Xylenes*</b>	<b>0.351</b>	0.150	03/14/2017	ND	5.29	88.1	6.00	3.03	
<b>Total BTEX</b>	<b>0.869</b>	0.300	03/14/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/09/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	03/08/2017	ND	199	99.5	200	4.57	
<b>DRO &gt;C10-C28</b>	<b>2200</b>	50.0	03/08/2017	ND	211	106	200	7.03	

Surrogate: 1-Chlorooctane 99.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 154 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/03/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP4 (14') (H700583-08)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89		
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37		
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94		
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03		
Total BTEX	<0.300	0.300	03/13/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/09/2017	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/08/2017	ND	199	99.5	200	4.57		
DRO >C10-C28	<10.0	10.0	03/08/2017	ND	211	106	200	7.03		

Surrogate: 1-Chlorooctane 79.8 % 25.1-158

Surrogate: 1-Chlorooctadecane 81.5 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/06/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP5 (SURFACE) (H700583-09)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89		
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37		
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94		
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03		
Total BTEX	<0.300	0.300	03/13/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>208</b>	16.0	03/09/2017	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	03/08/2017	ND	199	99.5	200	4.57		
<b>DRO &gt;C10-C28</b>	<b>1540</b>	50.0	03/08/2017	ND	211	106	200	7.03		

Surrogate: 1-Chlorooctane 98.9 % 25.1-158

Surrogate: 1-Chlorooctadecane 144 % 26.8-170

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/07/2017	Sampling Date:	03/06/2017
Reported:	03/14/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	UL-C SEC.5, T17S,R37E	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP5 (12') (H700583-10)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89		
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37		
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94		
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03		
Total BTEX	<0.300	0.300	03/13/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	03/09/2017	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/08/2017	ND	199	99.5	200	4.57		
DRO >C10-C28	<10.0	10.0	03/08/2017	ND	211	106	200	7.03		

*Surrogate: 1-Chlorooctane 77.0 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 75.8 % 26.8-170*

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- QM-07      The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND          Analyte NOT DETECTED at or above the reporting limit
- RPD        Relative Percent Difference
- \*\*          Samples not received at proper temperature of 6°C or below.
- \*\*\*        Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report



---

Celey D. Keene, Lab Director/Quality Manager





March 17, 2017

Daniel Dominguez  
Environmental Plus, Inc.  
P.O. Box 1558  
Eunice, NM 88231

RE: STATE V

Enclosed are the results of analyses for samples received by the laboratory on 03/13/17 15:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/08/2017
Reported:	03/17/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	VANGUARD	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SP6 (SURFACE) (H700646-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>4930</b>	16.0	03/16/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

*Surrogate: 1-Chlorooctane 103 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 107 % 26.8-170*

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/17/2017  
 Project Name: STATE V  
 Project Number: VANGUARD  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/08/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP6 (38') (H700646-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/16/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 96.9 % 25.1-158

Surrogate: 1-Chlorooctadecane 77.1 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

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 Daniel Dominguez  
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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/17/2017  
 Project Name: STATE V  
 Project Number: VANGUARD  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP7 (SURFACE) (H700646-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22000	16.0	03/16/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 101 % 25.1-158

Surrogate: 1-Chlorooctadecane 105 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/17/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	VANGUARD	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SP7 (26') (H700646-04)**

BTEX 8021B		mg/kg		Analyzed By: MS				A-01		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479		
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616		
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899		
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918		
Total BTEX	<0.300	0.300	03/16/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				A-01		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/16/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS				A-01		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11		
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16		

Surrogate: 1-Chlorooctane 91.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 97.4 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/10/2017
Reported:	03/17/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	VANGUARD	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SP8 (SURFACE) (H700646-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479		
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616		
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899		
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918		
Total BTEX	<0.300	0.300	03/16/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>3760</b>	16.0	03/16/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11		
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16		

Surrogate: 1-Chlorooctane 91.1 % 25.1-158

Surrogate: 1-Chlorooctadecane 92.2 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/17/2017  
 Project Name: STATE V  
 Project Number: VANGUARD  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/10/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP8 (42') (H700646-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>288</b>	16.0	03/16/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 102 % 25.1-158

Surrogate: 1-Chlorooctadecane 107 % 26.8-170

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- A-01 Sample jar contained headspace. Results may be biased low.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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---

Celey D. Keene, Lab Director/Quality Manager





March 20, 2017

Daniel Dominguez  
Environmental Plus, Inc.  
P.O. Box 1558  
Eunice, NM 88231

RE: STATE V

Enclosed are the results of analyses for samples received by the laboratory on 03/13/17 15:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" and "K".

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAAHN ( SURFACE) (H700647-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	03/16/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

*Surrogate: 1-Chlorooctane 96.8 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 103 % 26.8-170*

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAAHN ( 1') (H700647-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440		
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214		
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409		
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324		
Total BTEX	<0.300	0.300	03/16/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	03/16/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11		
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16		

*Surrogate: 1-Chlorooctane 84.3 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 87.9 % 26.8-170*

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAAHE ( SURFACE) (H700647-03)**

<b>BTEX 8021B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

<b>Chloride, SM4500Cl-B</b>		<b>mg/kg</b>		<b>Analyzed By: AC</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/16/2017	ND	416	104	400	0.00	

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

*Surrogate: 1-Chlorooctane 90.9 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 99.8 % 26.8-170*

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAAHE ( 1' ) (H700647-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 110 % 25.1-158

Surrogate: 1-Chlorooctadecane 117 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAAHS ( SURFACE) (H700647-05)**
**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 111 % 25.1-158

Surrogate: 1-Chlorooctadecane 121 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAAHS ( 1' ) (H700647-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 98.5 % 25.1-158

Surrogate: 1-Chlorooctadecane 115 % 26.8-170

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 Daniel Dominguez  
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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAAHW ( SURFACE) (H700647-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 107 % 25.1-158

Surrogate: 1-Chlorooctadecane 117 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAAHW ( 1' ) (H700647-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

*Surrogate: 1-Chlorooctane 106 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 115 % 26.8-170*

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SABHN ( SURFACE) (H700647-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 105 % 25.1-158

Surrogate: 1-Chlorooctadecane 110 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SABHN (1') (H700647-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 108 % 25.1-158

Surrogate: 1-Chlorooctadecane 116 % 26.8-170

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**Analytical Results For:**

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 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SABHE ( SURFACE) (H700647-11)**

<b>BTEX 8021B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

<b>Chloride, SM4500CI-B</b>		<b>mg/kg</b>		<b>Analyzed By: AC</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/16/2017	ND	416	104	400	0.00	

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	213	107	200	6.16	

*Surrogate: 1-Chlorooctane 92.5 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 97.2 % 26.8-170*

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SABHE ( 1' ) (H700647-12)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 97.5 % 25.1-158

Surrogate: 1-Chlorooctadecane 101 % 26.8-170

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**Analytical Results For:**

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 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SABHS ( SURFACE) (H700647-13)**
**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 96.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 100 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SABHS ( 1' ) (H700647-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 100 % 25.1-158

Surrogate: 1-Chlorooctadecane 101 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SABHW ( SURFACE) (H700647-15)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 90.6 % 25.1-158

Surrogate: 1-Chlorooctadecane 94.7 % 26.8-170

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 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SABHW ( 1' ) (H700647-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 96.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 99.1 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SACHN ( SURFACE) (H700647-17)**
**BTEX 8021B**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

**Chloride, SM4500Cl-B**

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

**TPH 8015M**

mg/kg

Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 84.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 88.8 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SACHN (1') (H700647-18)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 88.8 % 25.1-158

Surrogate: 1-Chlorooctadecane 91.1 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SACHE ( SURFACE) (H700647-19)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/17/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 85.1 % 25.1-158

Surrogate: 1-Chlorooctadecane 87.8 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SACHE ( 1') (H700647-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 88.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 89.6 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SACHS ( SURFACE) (H700647-21)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 97.1 % 25.1-158

Surrogate: 1-Chlorooctadecane 97.3 % 26.8-170

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 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SACHS ( 1' ) (H700647-22)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
<b>Toluene*</b>	<b>0.055</b>	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/16/2017	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

*Surrogate: 1-Chlorooctane 79.9 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 81.8 % 26.8-170*

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SACHW ( SURFACE) (H700647-23)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
<b>Toluene*</b>	<b>0.056</b>	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 73.5 % 25.1-158

Surrogate: 1-Chlorooctadecane 78.0 % 26.8-170

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SACHW ( 1' ) (H700647-24)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 86.4 % 25.1-158

Surrogate: 1-Chlorooctadecane 86.8 % 26.8-170

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**Analytical Results For:**

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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHN ( SURFACE) (H700647-25)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523		
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733		
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977		
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04		
Total BTEX	<0.300	0.300	03/17/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/16/2017	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00		
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29		

*Surrogate: 1-Chlorooctane 89.0 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 93.0 % 26.8-170*

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**Analytical Results For:**

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 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SADHN ( 1') (H700647-26)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 98.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 100 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHE ( SURFACE) (H700647-27)**

<b>BTEX 8021B</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523		
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733		
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977		
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04		
Total BTEX	<0.300	0.300	03/17/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

<b>Chloride, SM4500CI-B</b>		<b>mg/kg</b>		<b>Analyzed By: AC</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	03/16/2017	ND	400	100	400	7.69		

<b>TPH 8015M</b>		<b>mg/kg</b>		<b>Analyzed By: MS</b>						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.3	200	4.00		
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	205	102	200	3.29		

*Surrogate: 1-Chlorooctane 94.5 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 98.5 % 26.8-170*

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**Analytical Results For:**

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 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SADHE ( 1') (H700647-28)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523		
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733		
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977		
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04		
Total BTEX	<0.300	0.300	03/17/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/16/2017	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583		
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802		

Surrogate: 1-Chlorooctane 94.6 % 25.1-158

Surrogate: 1-Chlorooctadecane 102 % 26.8-170

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Celey D. Keene, Lab Director/Quality Manager

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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHS ( SURFACE) (H700647-29)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 91.8 % 25.1-158

Surrogate: 1-Chlorooctadecane 87.0 % 26.8-170

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**Analytical Results For:**

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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHS (1') (H700647-30)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 92.6 % 25.1-158

Surrogate: 1-Chlorooctadecane 97.4 % 26.8-170

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**Analytical Results For:**

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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHW ( SURFACE) (H700647-31)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 89.8 % 25.1-158

Surrogate: 1-Chlorooctadecane 94.1 % 26.8-170

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SADHW (1') (H700647-32)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 94.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 99.0 % 26.8-170

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAEHN ( SURFACE) (H700647-33)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523		
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733		
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977		
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04		
Total BTEX	<0.300	0.300	03/17/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/17/2017	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583		
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802		

Surrogate: 1-Chlorooctane 89.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 95.6 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAEHN ( 1') (H700647-34)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 87.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 89.7 % 26.8-170

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 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAEHE ( SURFACE) (H700647-35)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 86.8 % 25.1-158

Surrogate: 1-Chlorooctadecane 92.0 % 26.8-170

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 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAEHE (1') (H700647-36)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

*Surrogate: 1-Chlorooctane 91.6 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 95.2 % 26.8-170*

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAEHS ( SURFACE) (H700647-37)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 92.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 96.9 % 26.8-170

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAEHS ( 1' ) (H700647-38)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

*Surrogate: 1-Chlorooctane 91.7 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 96.5 % 26.8-170*

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 Environmental Plus, Inc.  
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 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 03/13/2017  
 Reported: 03/20/2017  
 Project Name: STATE V  
 Project Number: NOT GIVEN  
 Project Location: UL-C SEC.5, T17S,R37E

 Sampling Date: 03/09/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SAEHW ( SURFACE) (H700647-39)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.26	113	2.00	1.12	
Toluene*	<0.050	0.050	03/17/2017	ND	2.14	107	2.00	1.24	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	2.16	108	2.00	1.71	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	6.17	103	6.00	1.63	
Total BTEX	<0.300	0.300	03/17/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/17/2017	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 98.3 % 25.1-158

Surrogate: 1-Chlorooctadecane 101 % 26.8-170

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Received:	03/13/2017	Sampling Date:	03/09/2017
Reported:	03/20/2017	Sampling Type:	Soil
Project Name:	STATE V	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.5, T17S,R37E		

**Sample ID: SAEHW ( 1' ) (H700647-40)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/17/2017	ND	2.26	113	2.00	1.12		
Toluene*	<0.050	0.050	03/17/2017	ND	2.14	107	2.00	1.24		
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	2.16	108	2.00	1.71		
Total Xylenes*	<0.150	0.150	03/17/2017	ND	6.17	103	6.00	1.63		
Total BTEX	<0.300	0.300	03/17/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	03/17/2017	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583		
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802		

*Surrogate: 1-Chlorooctane 86.5 % 25.1-158*
*Surrogate: 1-Chlorooctadecane 91.0 % 26.8-170*

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager











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

June 10, 2019

Joel Lowry  
Vanguard Operating  
4001 Penbrook Ste.201  
Odessa, TX 79762  
TEL:  
FAX:

RE: State V CTB-B

OrderNo.: 1905E10

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/30/2019 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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** NW #1

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:00:00 AM

**Lab ID:** 1905E10-001

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	120	60		mg/Kg	20	6/3/2019 4:42:55 PM	45327
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	410	88		mg/Kg	10	6/3/2019 8:05:10 PM	45297
Motor Oil Range Organics (MRO)	970	440		mg/Kg	10	6/3/2019 8:05:10 PM	45297
Surr: DNOP	0	70-130	S	%Rec	10	6/3/2019 8:05:10 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 10:34:20 PM	45276
Surr: BFB	92.7	73.8-119		%Rec	1	5/31/2019 10:34:20 PM	45276
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 10:34:20 PM	45276
Toluene	ND	0.050		mg/Kg	1	5/31/2019 10:34:20 PM	45276
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 10:34:20 PM	45276
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 10:34:20 PM	45276
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	5/31/2019 10:34:20 PM	45276

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** NW #2

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:05:00 AM

**Lab ID:** 1905E10-002

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/3/2019 4:55:20 PM	45327
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	740	92		mg/Kg	10	6/3/2019 8:29:33 PM	45297
Motor Oil Range Organics (MRO)	1600	460		mg/Kg	10	6/3/2019 8:29:33 PM	45297
Surr: DNOP	0	70-130	S	%Rec	10	6/3/2019 8:29:33 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 10:34:26 AM	45283
Surr: BFB	91.7	73.8-119		%Rec	1	5/31/2019 10:34:26 AM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 10:34:26 AM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 10:34:26 AM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 10:34:26 AM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 10:34:26 AM	45283
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/31/2019 10:34:26 AM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905E10**

Date Reported: **6/10/2019**

**CLIENT:** Vanguard Operating

**Client Sample ID:** EW

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:10:00 AM

**Lab ID:** 1905E10-003

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	270	60		mg/Kg	20	6/3/2019 5:07:44 PM	45327
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	64	9.7		mg/Kg	1	6/3/2019 8:53:53 PM	45297
Motor Oil Range Organics (MRO)	280	48		mg/Kg	1	6/3/2019 8:53:53 PM	45297
Surr: DNOP	99.2	70-130		%Rec	1	6/3/2019 8:53:53 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 11:44:45 AM	45283
Surr: BFB	89.9	73.8-119		%Rec	1	5/31/2019 11:44:45 AM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 11:44:45 AM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 11:44:45 AM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 11:44:45 AM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 11:44:45 AM	45283
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/31/2019 11:44:45 AM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

CLIENT: Vanguard Operating

Client Sample ID: SW #1

Project: State V CTB-B

Collection Date: 5/28/2019 8:15:00 AM

Lab ID: 1905E10-004

Matrix: SOIL

Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/3/2019 2:39:07 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	210	90		mg/Kg	10	6/3/2019 10:07:11 PM	45297
Motor Oil Range Organics (MRO)	730	450		mg/Kg	10	6/3/2019 10:07:11 PM	45297
Surr: DNOP	0	70-130	S	%Rec	10	6/3/2019 10:07:11 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 12:55:12 PM	45283
Surr: BFB	89.9	73.8-119		%Rec	1	5/31/2019 12:55:12 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 12:55:12 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 12:55:12 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 12:55:12 PM	45283
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2019 12:55:12 PM	45283
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/31/2019 12:55:12 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** SW #2

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:20:00 AM

**Lab ID:** 1905E10-005

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	200	60		mg/Kg	20	6/3/2019 3:16:20 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	6/5/2019 8:55:45 PM	45297
Motor Oil Range Organics (MRO)	94	50		mg/Kg	1	6/5/2019 8:55:45 PM	45297
Surr: DNOP	94.0	70-130		%Rec	1	6/5/2019 8:55:45 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 1:18:45 PM	45283
Surr: BFB	90.7	73.8-119		%Rec	1	5/31/2019 1:18:45 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 1:18:45 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 1:18:45 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 1:18:45 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 1:18:45 PM	45283
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/31/2019 1:18:45 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** WW #1

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:25:00 AM

**Lab ID:** 1905E10-006

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	82	60		mg/Kg	20	6/3/2019 3:28:45 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/3/2019 3:14:06 PM	45297
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/3/2019 3:14:06 PM	45297
Surr: DNOP	97.5	70-130		%Rec	1	6/3/2019 3:14:06 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 1:42:18 PM	45283
Surr: BFB	90.7	73.8-119		%Rec	1	5/31/2019 1:42:18 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 1:42:18 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 1:42:18 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 1:42:18 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 1:42:18 PM	45283
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/31/2019 1:42:18 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #1

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:30:00 AM

**Lab ID:** 1905E10-007

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	79	60		mg/Kg	20	6/3/2019 3:41:10 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/3/2019 12:00:36 PM	45297
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/3/2019 12:00:36 PM	45297
Surr: DNOP	97.7	70-130		%Rec	1	6/3/2019 12:00:36 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 2:05:48 PM	45283
Surr: BFB	91.5	73.8-119		%Rec	1	5/31/2019 2:05:48 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 2:05:48 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 2:05:48 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 2:05:48 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 2:05:48 PM	45283
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/31/2019 2:05:48 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #2

**Project:** State V CTB-B

**Collection Date:** 5/28/2019 8:35:00 AM

**Lab ID:** 1905E10-008

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	81	60		mg/Kg	20	6/3/2019 3:53:34 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/3/2019 12:24:47 PM	45297
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/3/2019 12:24:47 PM	45297
Surr: DNOP	96.0	70-130		%Rec	1	6/3/2019 12:24:47 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 2:29:23 PM	45283
Surr: BFB	91.0	73.8-119		%Rec	1	5/31/2019 2:29:23 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 2:29:23 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 2:29:23 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 2:29:23 PM	45283
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2019 2:29:23 PM	45283
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/31/2019 2:29:23 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E10

Date Reported: 6/10/2019

CLIENT: Vanguard Operating

Client Sample ID: WW GC

Project: State V CTB-B

Collection Date: 5/28/2019 8:40:00 AM

Lab ID: 1905E10-009

Matrix: SOIL

Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	88	60		mg/Kg	20	6/3/2019 4:05:59 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/3/2019 12:48:58 PM	45297
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/3/2019 12:48:58 PM	45297
Surr: DNOP	92.0	70-130		%Rec	1	6/3/2019 12:48:58 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 2:53:01 PM	45283
Surr: BFB	92.7	73.8-119		%Rec	1	5/31/2019 2:53:01 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 2:53:01 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 2:53:01 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 2:53:01 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 2:53:01 PM	45283
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/31/2019 2:53:01 PM	45283

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		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>MB-45327</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45327</b>	RunNo: <b>60350</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040927</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-45327</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45327</b>	RunNo: <b>60350</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040928</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.2	90	110			

Sample ID: <b>MB-45328</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041072</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-45328</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041073</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	90.3	90	110			

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>MB-45297</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45297</b>	RunNo: <b>60356</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040613</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	8.9		10.00		88.6	70	130			

Sample ID: <b>LCS-45297</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45297</b>	RunNo: <b>60356</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040614</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	63.9	124			
Surr: DNOP	4.4		5.000		88.7	70	130			

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>MB-45276</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45276</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039133</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	940		1000		93.8	73.8	119			

Sample ID: <b>LCS-45276</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45276</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039134</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.4	80.1	123			
Surr: BFB	1000		1000		105	73.8	119			

Sample ID: <b>MB-45287</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039157</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	73.8	119			

Sample ID: <b>LCS-45287</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039158</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		105	73.8	119			

Sample ID: <b>MB-45283</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039216</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	910		1000		91.1	73.8	119			

Sample ID: <b>LCS-45283</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039217</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.0	80.1	123			
Surr: BFB	1100		1000		105	73.8	119			

**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#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>1905E10-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>NW #2</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039222</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.9	24.41	1.505	109	69.1	142			
Surr: BFB	990		976.6		102	73.8	119			

Sample ID: <b>1905E10-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>NW #2</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039223</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.88	1.505	92.1	69.1	142	14.2	20	
Surr: BFB	1000		995.0		102	73.8	119	0	0	

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>MB-45276</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45276</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039171</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: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID: <b>LCS-45276</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45276</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039172</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: <b>MB-45287</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039195</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.3	80	120			

Sample ID: <b>LCS-45287</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039196</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: <b>MB-45283</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039249</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								

**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#: 1905E10

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-B

Sample ID: <b>MB-45283</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039249</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: <b>LCS-45283</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039250</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.1	80	120			
Toluene	0.95	0.050	1.000	0	94.9	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID: <b>1905E10-003AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>EW</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039253</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9756	0	96.2	63.9	127			
Toluene	1.0	0.049	0.9756	0.01327	101	69.9	131			
Ethylbenzene	1.0	0.049	0.9756	0	106	71	132			
Xylenes, Total	3.1	0.098	2.927	0.02212	107	71.8	131			
Surr: 4-Bromofluorobenzene	1.0		0.9756		104	80	120			

Sample ID: <b>1905E10-003AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>EW</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039254</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	0.9940	0	92.3	63.9	127	2.27	20	
Toluene	0.98	0.050	0.9940	0.01327	97.4	69.9	131	1.72	20	
Ethylbenzene	1.0	0.050	0.9940	0	102	71	132	2.10	20	
Xylenes, Total	3.1	0.099	2.982	0.02212	103	71.8	131	2.08	20	
Surr: 4-Bromofluorobenzene	1.0		0.9940		104	80	120	0	0	

**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

**Sample Log-In Check List**

Client Name: **VANGARD OPERATING**

Work Order Number: **1905E10**

RcptNo: 1

Received By: **Leah Baca**

**5/30/2019 8:45:00 AM**

*Leah Baca*

Completed By: **Leah Baca**

**5/30/2019 11:25:41 AM**

*Leah Baca*

Reviewed By:

*LB*

*5/30/19*

**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° C to 6.0°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. VOA vials have zero headspace? Yes  No  No VOA Vials   
 10. Were any sample containers received broken? Yes  No   
 11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 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? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**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:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			





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

June 10, 2019

Joel Lowry  
Vanguard Operating  
4001 Penbrook Ste.201  
Odessa, TX 79762  
TEL:  
FAX:

RE: State V CTB-A

OrderNo.: 1905E11

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 15 sample(s) on 5/30/2019 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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** NW #1

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:00:00 AM

**Lab ID:** 1905E11-001

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	530	59		mg/Kg	20	6/3/2019 4:18:23 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/3/2019 7:15:52 PM	45297
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/3/2019 7:15:52 PM	45297
Surr: DNOP	96.7	70-130		%Rec	1	6/3/2019 7:15:52 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 4:03:47 PM	45283
Surr: BFB	95.6	73.8-119		%Rec	1	5/31/2019 4:03:47 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 4:03:47 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 4:03:47 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 4:03:47 PM	45283
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2019 4:03:47 PM	45283
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	5/31/2019 4:03:47 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** NW #2

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:05:00 AM

**Lab ID:** 1905E11-002

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	530	60		mg/Kg	20	6/3/2019 4:55:36 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	24	9.0		mg/Kg	1	6/5/2019 3:13:30 PM	45297
Motor Oil Range Organics (MRO)	92	45		mg/Kg	1	6/5/2019 3:13:30 PM	45297
Surr: DNOP	116	70-130		%Rec	1	6/5/2019 3:13:30 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 4:27:25 PM	45283
Surr: BFB	94.2	73.8-119		%Rec	1	5/31/2019 4:27:25 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 4:27:25 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 4:27:25 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 4:27:25 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 4:27:25 PM	45283
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	5/31/2019 4:27:25 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** WW #1

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:10:00 AM

**Lab ID:** 1905E11-003

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/3/2019 5:08:01 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	6/5/2019 3:37:52 PM	45297
Motor Oil Range Organics (MRO)	90	49		mg/Kg	1	6/5/2019 3:37:52 PM	45297
Surr: DNOP	119	70-130		%Rec	1	6/5/2019 3:37:52 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 4:51:04 PM	45283
Surr: BFB	92.3	73.8-119		%Rec	1	5/31/2019 4:51:04 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/31/2019 4:51:04 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 4:51:04 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 4:51:04 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 4:51:04 PM	45283
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/31/2019 4:51:04 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** WW #2

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:15:00 AM

**Lab ID:** 1905E11-004

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	480	60		mg/Kg	20	6/3/2019 5:20:26 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/3/2019 7:40:36 PM	45297
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/3/2019 7:40:36 PM	45297
Surr: DNOP	88.0	70-130		%Rec	1	6/3/2019 7:40:36 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 5:14:44 PM	45283
Surr: BFB	95.6	73.8-119		%Rec	1	5/31/2019 5:14:44 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 5:14:44 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 5:14:44 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 5:14:44 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 5:14:44 PM	45283
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	5/31/2019 5:14:44 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** WW #3

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:20:00 AM

**Lab ID:** 1905E11-005

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/3/2019 5:32:50 PM	45328
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2019 4:02:06 PM	45297
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/5/2019 4:02:06 PM	45297
Surr: DNOP	93.5	70-130		%Rec	1	6/5/2019 4:02:06 PM	45297
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 5:38:28 PM	45283
Surr: BFB	94.9	73.8-119		%Rec	1	5/31/2019 5:38:28 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 5:38:28 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 5:38:28 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 5:38:28 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 5:38:28 PM	45283
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	5/31/2019 5:38:28 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** SW #1

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:25:00 AM

**Lab ID:** 1905E11-006

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	ND	60		mg/Kg	20	6/5/2019 2:02:06 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	70	9.9		mg/Kg	1	6/6/2019 10:43:19 AM	45302
Motor Oil Range Organics (MRO)	320	50		mg/Kg	1	6/6/2019 10:43:19 AM	45302
Surr: DNOP	74.4	70-130		%Rec	1	6/6/2019 10:43:19 AM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 6:02:13 PM	45283
Surr: BFB	92.2	73.8-119		%Rec	1	5/31/2019 6:02:13 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 6:02:13 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 6:02:13 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 6:02:13 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 6:02:13 PM	45283
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	5/31/2019 6:02:13 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** SW #2

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:30:00 AM

**Lab ID:** 1905E11-007

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	61	60		mg/Kg	20	6/5/2019 2:39:20 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/6/2019 11:13:58 AM	45302
Motor Oil Range Organics (MRO)	66	49		mg/Kg	1	6/6/2019 11:13:58 AM	45302
Surr: DNOP	81.7	70-130		%Rec	1	6/6/2019 11:13:58 AM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 6:26:00 PM	45283
Surr: BFB	91.8	73.8-119		%Rec	1	5/31/2019 6:26:00 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 6:26:00 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 6:26:00 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 6:26:00 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 6:26:00 PM	45283
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/31/2019 6:26:00 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** SW #3

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:35:00 AM

**Lab ID:** 1905E11-008

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	120	60		mg/Kg	20	6/5/2019 2:51:45 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/6/2019 11:36:12 AM	45302
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/6/2019 11:36:12 AM	45302
Surr: DNOP	52.5	70-130	S	%Rec	1	6/6/2019 11:36:12 AM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 6:49:42 PM	45283
Surr: BFB	92.0	73.8-119		%Rec	1	5/31/2019 6:49:42 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 6:49:42 PM	45283
Toluene	ND	0.050		mg/Kg	1	5/31/2019 6:49:42 PM	45283
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 6:49:42 PM	45283
Xylenes, Total	ND	0.099		mg/Kg	1	5/31/2019 6:49:42 PM	45283
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/31/2019 6:49:42 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** EW #1

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:40:00 AM

**Lab ID:** 1905E11-009

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	220	60		mg/Kg	20	6/5/2019 3:04:10 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	79	9.7		mg/Kg	1	6/5/2019 5:39:32 PM	45302
Motor Oil Range Organics (MRO)	280	49		mg/Kg	1	6/5/2019 5:39:32 PM	45302
Surr: DNOP	79.2	70-130		%Rec	1	6/5/2019 5:39:32 PM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 7:13:20 PM	45283
Surr: BFB	88.7	73.8-119		%Rec	1	5/31/2019 7:13:20 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/31/2019 7:13:20 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 7:13:20 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 7:13:20 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 7:13:20 PM	45283
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/31/2019 7:13:20 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** EW #2

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:45:00 AM

**Lab ID:** 1905E11-010

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	260	60		mg/Kg	20	6/5/2019 3:41:24 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	52	9.9		mg/Kg	1	6/6/2019 11:32:25 AM	45302
Motor Oil Range Organics (MRO)	230	49		mg/Kg	1	6/6/2019 11:32:25 AM	45302
Surr: DNOP	50.1	70-130	S	%Rec	1	6/6/2019 11:32:25 AM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 7:36:56 PM	45283
Surr: BFB	92.6	73.8-119		%Rec	1	5/31/2019 7:36:56 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 7:36:56 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 7:36:56 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 7:36:56 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 7:36:56 PM	45283
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/31/2019 7:36:56 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** EW #3

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:50:00 AM

**Lab ID:** 1905E11-011

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	130	60		mg/Kg	20	6/5/2019 3:53:49 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/6/2019 11:58:27 AM	45302
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/6/2019 11:58:27 AM	45302
Surr: DNOP	68.3	70-130	S	%Rec	1	6/6/2019 11:58:27 AM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 8:23:55 PM	45283
Surr: BFB	86.9	73.8-119		%Rec	1	5/31/2019 8:23:55 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 8:23:55 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 8:23:55 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 8:23:55 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 8:23:55 PM	45283
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	5/31/2019 8:23:55 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #1

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 9:55:00 AM

**Lab ID:** 1905E11-012

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>smb</b>
Chloride	70	60		mg/Kg	20	6/5/2019 4:06:14 PM	45384
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	81	10		mg/Kg	1	6/6/2019 12:21:50 PM	45302
Motor Oil Range Organics (MRO)	590	50		mg/Kg	1	6/6/2019 12:21:50 PM	45302
Surr: DNOP	86.6	70-130		%Rec	1	6/6/2019 12:21:50 PM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/31/2019 8:47:23 PM	45283
Surr: BFB	94.8	73.8-119		%Rec	1	5/31/2019 8:47:23 PM	45283
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/31/2019 8:47:23 PM	45283
Toluene	ND	0.049		mg/Kg	1	5/31/2019 8:47:23 PM	45283
Ethylbenzene	ND	0.049		mg/Kg	1	5/31/2019 8:47:23 PM	45283
Xylenes, Total	ND	0.098		mg/Kg	1	5/31/2019 8:47:23 PM	45283
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	5/31/2019 8:47:23 PM	45283

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #2

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 10:00:00 AM

**Lab ID:** 1905E11-013

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	66	60		mg/Kg	20	6/5/2019 8:51:11 PM	45398
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	67	10		mg/Kg	1	6/6/2019 1:11:23 PM	45302
Motor Oil Range Organics (MRO)	500	50		mg/Kg	1	6/6/2019 1:11:23 PM	45302
Surr: DNOP	73.2	70-130		%Rec	1	6/6/2019 1:11:23 PM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/31/2019 10:56:59 PM	45287
Surr: BFB	92.1	73.8-119		%Rec	1	5/31/2019 10:56:59 PM	45287
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/31/2019 10:56:59 PM	45287
Toluene	ND	0.050		mg/Kg	1	5/31/2019 10:56:59 PM	45287
Ethylbenzene	ND	0.050		mg/Kg	1	5/31/2019 10:56:59 PM	45287
Xylenes, Total	ND	0.10		mg/Kg	1	5/31/2019 10:56:59 PM	45287
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	5/31/2019 10:56:59 PM	45287

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #3

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 10:05:00 AM

**Lab ID:** 1905E11-014

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	92	60		mg/Kg	20	6/5/2019 9:03:36 PM	45398
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/5/2019 8:06:42 PM	45302
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/5/2019 8:06:42 PM	45302
Surr: DNOP	82.6	70-130		%Rec	1	6/5/2019 8:06:42 PM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/1/2019 12:04:51 AM	45287
Surr: BFB	95.6	73.8-119		%Rec	1	6/1/2019 12:04:51 AM	45287
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/1/2019 12:04:51 AM	45287
Toluene	ND	0.050		mg/Kg	1	6/1/2019 12:04:51 AM	45287
Ethylbenzene	ND	0.050		mg/Kg	1	6/1/2019 12:04:51 AM	45287
Xylenes, Total	ND	0.10		mg/Kg	1	6/1/2019 12:04:51 AM	45287
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/1/2019 12:04:51 AM	45287

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905E11

Date Reported: 6/10/2019

**CLIENT:** Vanguard Operating

**Client Sample ID:** Floor #4

**Project:** State V CTB-A

**Collection Date:** 5/28/2019 10:10:00 AM

**Lab ID:** 1905E11-015

**Matrix:** SOIL

**Received Date:** 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	91	60		mg/Kg	20	6/5/2019 9:16:01 PM	45398
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/5/2019 8:31:17 PM	45302
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/5/2019 8:31:17 PM	45302
Surr: DNOP	88.4	70-130		%Rec	1	6/5/2019 8:31:17 PM	45302
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/1/2019 1:12:51 AM	45287
Surr: BFB	91.5	73.8-119		%Rec	1	6/1/2019 1:12:51 AM	45287
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/1/2019 1:12:51 AM	45287
Toluene	ND	0.049		mg/Kg	1	6/1/2019 1:12:51 AM	45287
Ethylbenzene	ND	0.049		mg/Kg	1	6/1/2019 1:12:51 AM	45287
Xylenes, Total	ND	0.099		mg/Kg	1	6/1/2019 1:12:51 AM	45287
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	6/1/2019 1:12:51 AM	45287

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		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E11

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-A

Sample ID: <b>MB-45328</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041072</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-45328</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45328</b>	RunNo: <b>60349</b>								
Prep Date: <b>6/3/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2041073</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	90.3	90	110			

Sample ID: <b>MB-45384</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45384</b>	RunNo: <b>60433</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043901</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-45384</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45384</b>	RunNo: <b>60433</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2043902</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	93.0	90	110			

Sample ID: <b>MB-45398</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45398</b>	RunNo: <b>60439</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2044238</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-45398</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45398</b>	RunNo: <b>60439</b>								
Prep Date: <b>6/5/2019</b>	Analysis Date: <b>6/5/2019</b>	SeqNo: <b>2044239</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	95.1	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E11

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-A

Sample ID: <b>LCS-45302</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45302</b>	RunNo: <b>60335</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040606</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	63.9	124			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID: <b>MB-45302</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45302</b>	RunNo: <b>60335</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040608</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	12		10.00		120	70	130			

Sample ID: <b>MB-45297</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45297</b>	RunNo: <b>60356</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040613</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	8.9		10.00		88.6	70	130			

Sample ID: <b>LCS-45297</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45297</b>	RunNo: <b>60356</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/3/2019</b>	SeqNo: <b>2040614</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	63.9	124			
Surr: DNOP	4.4		5.000		88.7	70	130			

Sample ID: <b>1905E11-006AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SW #1</b>	Batch ID: <b>45302</b>	RunNo: <b>60436</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/7/2019</b>	SeqNo: <b>2044902</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.8	48.92	70.05	-66.4	57	142			S
Surr: DNOP	1.4		4.892		29.0	70	130			S

**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#: 1905E11

10-Jun-19

**Client:** Vanguard Operating

**Project:** State V CTB-A

Sample ID: <b>1905E11-006AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>SW #1</b>	Batch ID: <b>45302</b>	RunNo: <b>60436</b>								
Prep Date: <b>5/31/2019</b>	Analysis Date: <b>6/7/2019</b>	SeqNo: <b>2044903</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	10	50.40	70.05	77.5	57	142	97.5	20	R
Surr: DNOP	3.9		5.040		77.9	70	130	0	0	

### 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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E11

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-A

Sample ID: <b>MB-45287</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039157</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	890		1000		89.4	73.8	119			

Sample ID: <b>LCS-45287</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039158</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.5	80.1	123			
Surr: BFB	1100		1000		105	73.8	119			

Sample ID: <b>1905E11-013AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>Floor #2</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039160</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	24.85	0	129	69.1	142			
Surr: BFB	1100		994.0		108	73.8	119			

Sample ID: <b>1905E11-013AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>Floor #2</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039161</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.37	0	124	69.1	142	6.00	20	
Surr: BFB	1100		974.7		108	73.8	119	0	0	

Sample ID: <b>MB-45283</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039216</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	910		1000		91.1	73.8	119			

Sample ID: <b>LCS-45283</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039217</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**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#: 1905E11

10-Jun-19

**Client:** Vanguard Operating

**Project:** State V CTB-A

Sample ID: <b>LCS-45283</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039217</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.0	80.1	123			
Surr: BFB	1100		1000		105	73.8	119			

## 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#: 1905E11

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-A

Sample ID: <b>MB-45287</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039195</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: 4-Bromofluorobenzene	0.91		1.000		91.3	80	120			

Sample ID: <b>LCS-45287</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039196</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: <b>1905E11-014AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>Floor #3</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>6/1/2019</b>	SeqNo: <b>2039199</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.025	0.9921	0	138	63.9	127			S
Toluene	1.4	0.050	0.9921	0	140	69.9	131			S
Ethylbenzene	1.4	0.050	0.9921	0	140	71	132			S
Xylenes, Total	4.1	0.099	2.976	0	137	71.8	131			S
Surr: 4-Bromofluorobenzene	1.1		0.9921		108	80	120			

Sample ID: <b>1905E11-014AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>Floor #3</b>	Batch ID: <b>45287</b>	RunNo: <b>60312</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>6/1/2019</b>	SeqNo: <b>2039200</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.025	0.9852	0	140	63.9	127	0.640	20	S
Toluene	1.4	0.049	0.9852	0	140	69.9	131	0.646	20	S
Ethylbenzene	1.4	0.049	0.9852	0	140	71	132	0.135	20	S
Xylenes, Total	4.1	0.099	2.956	0	137	71.8	131	0.296	20	S
Surr: 4-Bromofluorobenzene	1.0		0.9852		104	80	120	0	0	

**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#: 1905E11

10-Jun-19

**Client:** Vanguard Operating  
**Project:** State V CTB-A

Sample ID: <b>MB-45283</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039249</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: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: <b>LCS-45283</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45283</b>	RunNo: <b>60311</b>								
Prep Date: <b>5/30/2019</b>	Analysis Date: <b>5/31/2019</b>	SeqNo: <b>2039250</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.1	80	120			
Toluene	0.95	0.050	1.000	0	94.9	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

**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 |   |

# Sample Log-In Check List

Client Name: **VANGARD OPERATING**

Work Order Number: **1905E11**

RcptNo: 1

Received By: **Leah Baca**

**5/30/2019 8:45:00 AM**

*Leah Baca*

Completed By: **Leah Baca**

**5/30/2019 11:28:45 AM**

*Leah Baca*

Reviewed By:

*LB*

*5/30/19*

**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° C to 6.0°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. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
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? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**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:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

# Chain-of-Custody Record

Client: Vanguard  
 Mailing Address: 4001 Penbrook St 201  
Odessa TX 79762  
 Phone #:

email or Fax#: \_\_\_\_\_  
 QA/QC Package:  Level 4 (Full Validation)  
 Standard  Az Compliance  Other NM OGD Eq.  
 Accreditation:  NELAC  Other NM OGD Eq.  
 EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5-28-19	0900	Soil	NW #1	4oz Glass Jar	FCE	1905F11
	0905		NW #2			
	0910		WW #1			
	0915		WW #2			
	0920		WW #3			
	0925		SW #1			
	0930		SW #2			
	0935		SW #3			
	0940		EW #1			
	0945		EW #2			
	0950		EW #3			
	0955		Floor #1			

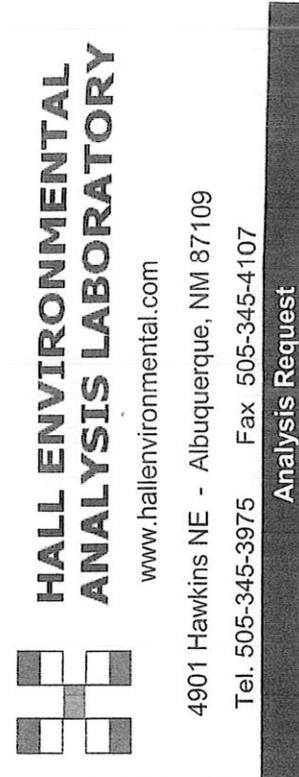
Relinquished by: Joel Lowry Date: 5/29/19 Time: 0700  
 Relinquished by: Leah Ra Date: 5/30/19 Time: 0845

Turn-Around Time: 5 day Turn  
 Standard  Rush  
 Project Name: State V CTB-A  
 Project #:

Project Manager: Joel Lowry  
 Sampler: Matt Taylor  
 On Ice:  Yes  No  
 # of Coolers: (1)  
 Cooler Temp (including CF): 19.0°C @ 2 = 67.0°F

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X								Chloride
									X
									X
									X
									X
									X
									X
									X
									X
									X

Received by: Joel Lowry Date: 5/29/19 Time: 0700  
 Received by: Leah Ra Date: 5/30/19 Time: 0845



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Remarks: Joel Lowry environmental.com  
Jordyne Caprock Services @ Gmail.com

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.





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

May 28, 2019

Joel Lowry  
Caprock Services, LLC  
PO Box 457  
Lovington, NM 88260  
TEL: (575) 704-2718  
FAX

RE: State V CTB-D

OrderNo.: 1905964

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/18/2019 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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905964**

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** NW #1

**Project:** State V CTB-D

**Collection Date:** 5/15/2019 8:15:00 AM

**Lab ID:** 1905964-001

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/23/2019 5:09:44 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/23/2019 5:09:44 PM
Surr: DNOP	136	70-130	S	%Rec	1	5/23/2019 5:09:44 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/21/2019 9:22:02 PM
Surr: BFB	88.7	73.8-119		%Rec	1	5/21/2019 9:22:02 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/21/2019 9:22:02 PM
Toluene	ND	0.050		mg/Kg	1	5/21/2019 9:22:02 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/21/2019 9:22:02 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/21/2019 9:22:02 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/21/2019 9:22:02 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	220	60		mg/Kg	20	5/23/2019 1:19:36 PM

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905964**

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** EW #1

**Project:** State V CTB-D

**Collection Date:** 5/15/2019 8:20:00 AM

**Lab ID:** 1905964-002

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/23/2019 5:31:53 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/23/2019 5:31:53 PM
Surr: DNOP	118	70-130		%Rec	1	5/23/2019 5:31:53 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/21/2019 11:18:52 PM
Surr: BFB	88.6	73.8-119		%Rec	1	5/21/2019 11:18:52 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/21/2019 11:18:52 PM
Toluene	ND	0.050		mg/Kg	1	5/21/2019 11:18:52 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/21/2019 11:18:52 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/21/2019 11:18:52 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/21/2019 11:18:52 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	560	60		mg/Kg	20	5/23/2019 1:56:51 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905964**

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** SW #1

**Project:** State V CTB-D

**Collection Date:** 5/15/2019 8:25:00 AM

**Lab ID:** 1905964-003

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/23/2019 5:54:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/23/2019 5:54:14 PM
Surr: DNOP	111	70-130		%Rec	1	5/23/2019 5:54:14 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 11:42:12 PM
Surr: BFB	86.5	73.8-119		%Rec	1	5/21/2019 11:42:12 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/21/2019 11:42:12 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 11:42:12 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 11:42:12 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/21/2019 11:42:12 PM
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	5/21/2019 11:42:12 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	290	60		mg/Kg	20	5/23/2019 2:09:15 PM

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905964**

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** WW #1

**Project:** State V CTB-D

**Collection Date:** 5/15/2019 8:30:00 AM

**Lab ID:** 1905964-004

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/23/2019 6:16:31 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/23/2019 6:16:31 PM
Surr: DNOP	166	70-130	S	%Rec	1	5/23/2019 6:16:31 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 12:05:32 AM
Surr: BFB	88.4	73.8-119		%Rec	1	5/22/2019 12:05:32 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 12:05:32 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 12:05:32 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 12:05:32 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/22/2019 12:05:32 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/22/2019 12:05:32 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	700	60		mg/Kg	20	5/23/2019 2:21:40 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905964

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** Floor

**Project:** State V CTB-D

**Collection Date:** 5/15/2019 8:35:00 AM

**Lab ID:** 1905964-005

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/23/2019 6:38:48 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/23/2019 6:38:48 PM
Surr: DNOP	138	70-130	S	%Rec	1	5/23/2019 6:38:48 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 12:28:49 AM
Surr: BFB	87.8	73.8-119		%Rec	1	5/22/2019 12:28:49 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 12:28:49 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 12:28:49 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 12:28:49 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 12:28:49 AM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	5/22/2019 12:28:49 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	2500	150		mg/Kg	50	5/24/2019 11:11:15 PM

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

**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#: 1905964

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-D

Sample ID: <b>MB-45141</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45141</b>	RunNo: <b>60132</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031535</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-45141</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45141</b>	RunNo: <b>60132</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031536</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	94.3	90	110			

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905964

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-D

Sample ID: <b>LCS-45063</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45063</b>	RunNo: <b>60057</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028025</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	94.2	63.9	124			
Surr: DNOP	4.4		5.000		88.8	70	130			

Sample ID: <b>MB-45063</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45063</b>	RunNo: <b>60057</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028027</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	9.4		10.00		93.6	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#: 1905964

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-D

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>		RunNo: <b>60046</b>							
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>		SeqNo: <b>2027109</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	870		1000		87.4	73.8	119			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>		RunNo: <b>60046</b>							
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>		SeqNo: <b>2027110</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.8	80.1	123			
Surr: BFB	1000		1000		102	73.8	119			

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905964

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-D

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027141</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: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027142</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: <b>1905964-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>NW #1</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027144</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	0.9843	0	98.9	63.9	127			
Toluene	1.0	0.049	0.9843	0.008583	104	69.9	131			
Ethylbenzene	1.1	0.049	0.9843	0	108	71	132			
Xylenes, Total	3.2	0.098	2.953	0	110	71.8	131			
Surr: 4-Bromofluorobenzene	0.99		0.9843		101	80	120			

Sample ID: <b>1905964-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>NW #1</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027145</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9950	0	103	63.9	127	4.97	20	
Toluene	1.1	0.050	0.9950	0.008583	107	69.9	131	3.79	20	
Ethylbenzene	1.1	0.050	0.9950	0	112	71	132	4.70	20	
Xylenes, Total	3.4	0.10	2.985	0	113	71.8	131	3.81	20	
Surr: 4-Bromofluorobenzene	1.0		0.9950		102	80	120	0	0	

**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

**Sample Log-In Check List**

Client Name: **CAPROCK SERVICES, L**

Work Order Number: **1905964**

RcptNo: **1**

Received By: **Erin Melendrez** **5/18/2019 10:10:00 AM** *EM*

Completed By: **Erin Melendrez** **5/18/2019 2:31:41 PM** *EM*

Reviewed By: **ENM** **5/20/19**

LB: DAD 5/20/19

**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° C to 6.0°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. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
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? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: DAD 5/20/19

**Special Handling (if applicable)**

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

# Chain-of-Custody Record

Client: Caprock Services, LLC

Mailing Address: P.O. Box 457

Lovington NM 88260

Phone #: (575) 704-2718

email or Fax#: Caprockservices56@gmail.com

QA/QC Package:  Standard  Level 4 (Full Validation)

Accreditation:  Az Compliance  Other NMDCD Eq.

NELAC  EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5-15-19	0815	Soil	NW #1	4oz Glass	FCE	1905964
5-15-19	0820		EW #1	↓	↓	-001
5-15-19	0825		SW #1	↓	↓	-002
5-15-19	0830		NW #1	↓	↓	-003
5-15-19	0835		Floor	↓	↓	-004
						-005

Turn-Around Time: Same

Standard  Rush

Project Name: State VCTB-D

Project #:

Project Manager: Joel Lowry

Sampler: Jordyne Taylor

On Ice:  Yes  No

# of Coolers: 1

Cooler Temp (including CF): 1.6°C

Analysis Request										
BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
X	X									X
X	X									X
X	X									X
X	X									X
X	X									X

Remarks: Please email results to:

joel@lowryenvironmental.com

jordyne.caprockservices@gmail.com

Received by: [Signature] Date: 5/17/19 Time: 0700

Received by: [Signature] Date: 5/18/19 Time: 1010

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.



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

May 28, 2019

Joel Lowry  
Caprock Services, LLC  
PO Box 457  
Lovington, NM 88260  
TEL: (575) 704-2718  
FAX

RE: State V CTB-C

OrderNo.: 1905965

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/18/2019 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905965

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** NW #1

**Project:** State V CTB-C

**Collection Date:** 5/15/2019 7:30:00 AM

**Lab ID:** 1905965-001

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 10:49:25 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 10:49:25 AM
Surr: DNOP	128	70-130		%Rec	1	5/22/2019 10:49:25 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 12:52:09 AM
Surr: BFB	88.1	73.8-119		%Rec	1	5/22/2019 12:52:09 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 12:52:09 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 12:52:09 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 12:52:09 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 12:52:09 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/22/2019 12:52:09 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	740	60		mg/Kg	20	5/23/2019 2:46:30 PM

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905965

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** SW #1

**Project:** State V CTB-C

**Collection Date:** 5/15/2019 7:35:00 AM

**Lab ID:** 1905965-002

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/22/2019 12:06:04 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 12:06:04 PM
Surr: DNOP	113	70-130		%Rec	1	5/22/2019 12:06:04 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/22/2019 1:15:33 AM
Surr: BFB	86.4	73.8-119		%Rec	1	5/22/2019 1:15:33 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/22/2019 1:15:33 AM
Toluene	ND	0.048		mg/Kg	1	5/22/2019 1:15:33 AM
Ethylbenzene	ND	0.048		mg/Kg	1	5/22/2019 1:15:33 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/22/2019 1:15:33 AM
Surr: 4-Bromofluorobenzene	98.5	80-120		%Rec	1	5/22/2019 1:15:33 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	ND	60		mg/Kg	20	5/23/2019 2:58:55 PM

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905965

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** EW #1

**Project:** State V CTB-C

**Collection Date:** 5/15/2019 7:40:00 AM

**Lab ID:** 1905965-003

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/22/2019 12:30:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/22/2019 12:30:12 PM
Surr: DNOP	120	70-130		%Rec	1	5/22/2019 12:30:12 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 1:38:58 AM
Surr: BFB	85.3	73.8-119		%Rec	1	5/22/2019 1:38:58 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 1:38:58 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 1:38:58 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 1:38:58 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 1:38:58 AM
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	5/22/2019 1:38:58 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>smb</b>
Chloride	170	60		mg/Kg	20	5/23/2019 3:11:20 PM

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905965

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** WW #1

**Project:** State V CTB-C

**Collection Date:** 5/15/2019 7:45:00 AM

**Lab ID:** 1905965-004

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/22/2019 12:54:20 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 12:54:20 PM
Surr: DNOP	110	70-130		%Rec	1	5/22/2019 12:54:20 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 2:02:19 AM
Surr: BFB	87.0	73.8-119		%Rec	1	5/22/2019 2:02:19 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 2:02:19 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 2:02:19 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 2:02:19 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 2:02:19 AM
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	5/22/2019 2:02:19 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	240	60		mg/Kg	20	5/23/2019 3:48:58 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905965

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** Floor #1

**Project:** State V CTB-C

**Collection Date:** 5/15/2019 7:50:00 AM

**Lab ID:** 1905965-005

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/22/2019 1:18:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/22/2019 1:18:23 PM
Surr: DNOP	146	70-130	S	%Rec	1	5/22/2019 1:18:23 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 2:25:42 AM
Surr: BFB	87.1	73.8-119		%Rec	1	5/22/2019 2:25:42 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 2:25:42 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 2:25:42 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 2:25:42 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/22/2019 2:25:42 AM
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	5/22/2019 2:25:42 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	3300	150		mg/Kg	50	5/24/2019 8:54:42 PM

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	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905965

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-C

Sample ID: <b>MB-45141</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45141</b>	RunNo: <b>60132</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031535</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-45141</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45141</b>	RunNo: <b>60132</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031536</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	94.3	90	110			

Sample ID: <b>MB-45142</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45142</b>	RunNo: <b>60144</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031663</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-45142</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45142</b>	RunNo: <b>60144</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031664</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.0	90	110			

**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 |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905965

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-C

Sample ID: <b>MB-45096</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028763</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	9.6		10.00		95.8	70	130			

Sample ID: <b>LCS-45096</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028765</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	57	10	50.00	0	114	63.9	124			
Surr: DNOP	5.7		5.000		113	70	130			

Sample ID: <b>1905965-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>NW #1</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2029475</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	62	9.9	49.36	0	126	53.5	126			
Surr: DNOP	6.3		4.936		128	70	130			

Sample ID: <b>1905965-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>NW #1</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2029476</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	63	9.5	47.66	0	132	53.5	126	1.31	21.7	S
Surr: DNOP	6.5		4.766		136	70	130	0	0	S

Sample ID: <b>MB-45119</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030204</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: DNOP	11		10.00		106	70	130			
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Sample ID: <b>LCS-45119</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030205</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**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#: 1905965

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: <b>LCS-45119</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030205</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3		5.000		145	70	130			S

Sample ID: <b>LCS-45119</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030850</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.1		5.000		142	70	130			S

### 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#: 1905965

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027109</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	870		1000		87.4	73.8	119			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027110</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.8	80.1	123			
Surr: BFB	1000		1000		102	73.8	119			

### 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#: 1905965

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-C

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027141</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: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027142</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

**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 |   |

**Sample Log-In Check List**

Client Name: CAPROCK SERVICES, L

Work Order Number: 1905965

RcptNo: 1

Received By: Erin Melendrez 5/18/2019 10:10:00 AM *EM*

Completed By: Erin Melendrez 5/18/2019 2:39:17 PM *EM*

Reviewed By: *EM* 5/20/19

*LB: DAD 5/20/19*

**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° C to 6.0°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. VOA vials have zero headspace? Yes  No  No VOA Vials   
 10. Were any sample containers received broken? Yes  No   
 11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 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? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: *DAD 5/20/19*

**Special Handling (if applicable)**

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

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

# Chain-of-Custody Record

Client: Caprock Services, LLC

Mailing Address: P.O. Box 4517  
Lovington NM 88260

Phone #: (575) 704-2718

email or Fax#: Caprockservices56@gmail.com

QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation:  Az Compliance  
 NELAC  Other NMDCD Eq.

EDD (Type)

Turn-Around Time: 5 day  
 Standard  Rush  
 Project Name: State VLTB-L

Project #: \_\_\_\_\_

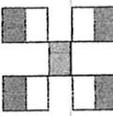
Project Manager:  
Joel Lowry

Sampler: Jordyne Taylor  
 On Ice:  Yes  No

# of Coolers: 1

Cooler Temp (including CP): 1.6°C

Container Type and #	Preservative Type	EMERGENCY HEALING NO.
4oz Glass	FLE	1908150965
↓	↓	-001
↓	↓	-002
↓	↓	-003
↓	↓	-004
↓	↓	-005



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X								X
X	X								X
X	X								X
X	X								X
X	X								X

Remarks: Please email results to:

joel@lowryenvironmental.com

jordyne.caprockservices@gmail.com

Date	Time	Matrix	Sample Name	Relinquished by:
5-15-19	0730	Soil	NW#1	<u>Matt Beck</u>
5-15-19	0735	Soil	SW#1	
5-15-19	0740	Soil	EW#1	
5-15-19	0745	Soil	WW#1	
5-15-19	0750	Soil	F100R#1	

Received by: [Signature] Date: 5/17/19 0700

Received by: [Signature] Date: 5/18/19 1010

Relinquished by: [Signature] Date: 5/17/19 1900

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.



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

May 28, 2019

Joel Lowry  
Caprock Services, LLC  
PO Box 457  
Lovington, NM 88260  
TEL: (575) 704-2718  
FAX

RE: State V CTB-E

OrderNo.: 1905966

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/18/2019 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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905966

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** Floor

**Project:** State V CTB-E

**Collection Date:** 5/15/2019 8:50:00 AM

**Lab ID:** 1905966-001

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/22/2019 1:42:44 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 1:42:44 PM
Surr: DNOP	162	70-130	S	%Rec	1	5/22/2019 1:42:44 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 2:49:08 AM
Surr: BFB	87.3	73.8-119		%Rec	1	5/22/2019 2:49:08 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 2:49:08 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 2:49:08 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 2:49:08 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 2:49:08 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/22/2019 2:49:08 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	3200	150		mg/Kg	50	5/24/2019 9:07:06 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905966

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** NW #1

**Project:** State V CTB-E

**Collection Date:** 5/15/2019 8:55:00 AM

**Lab ID:** 1905966-002

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 2:07:09 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 2:07:09 PM
Surr: DNOP	142	70-130	S	%Rec	1	5/22/2019 2:07:09 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 3:36:12 AM
Surr: BFB	85.5	73.8-119		%Rec	1	5/22/2019 3:36:12 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 3:36:12 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 3:36:12 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 3:36:12 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 3:36:12 AM
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	5/22/2019 3:36:12 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	210	60		mg/Kg	20	5/23/2019 5:15:48 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905966**

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** EW #1

**Project:** State V CTB-E

**Collection Date:** 5/15/2019 9:00:00 AM

**Lab ID:** 1905966-003

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 2:31:39 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 2:31:39 PM
Surr: DNOP	136	70-130	S	%Rec	1	5/22/2019 2:31:39 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 3:59:44 AM
Surr: BFB	88.6	73.8-119		%Rec	1	5/22/2019 3:59:44 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 3:59:44 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 3:59:44 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 3:59:44 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 3:59:44 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/22/2019 3:59:44 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	450	60		mg/Kg	20	5/23/2019 5:28:13 PM

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

**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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905966

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** SW #1

**Project:** State V CTB-E

**Collection Date:** 5/15/2019 9:05:00 AM

**Lab ID:** 1905966-004

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/22/2019 3:01:22 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 3:01:22 PM
Surr: DNOP	159	70-130	S	%Rec	1	5/22/2019 3:01:22 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 4:23:15 AM
Surr: BFB	85.8	73.8-119		%Rec	1	5/22/2019 4:23:15 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	5/22/2019 4:23:15 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 4:23:15 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 4:23:15 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 4:23:15 AM
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	5/22/2019 4:23:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	5/23/2019 6:05:27 PM

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1905966

Date Reported: 5/28/2019

**CLIENT:** Caprock Services, LLC

**Client Sample ID:** WW #1

**Project:** State V CTB-E

**Collection Date:** 5/15/2019 9:10:00 AM

**Lab ID:** 1905966-005

**Matrix:** SOIL

**Received Date:** 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 3:25:30 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 3:25:30 PM
Surr: DNOP	82.0	70-130		%Rec	1	5/22/2019 3:25:30 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 4:46:42 AM
Surr: BFB	85.7	73.8-119		%Rec	1	5/22/2019 4:46:42 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	5/22/2019 4:46:42 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 4:46:42 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 4:46:42 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/22/2019 4:46:42 AM
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	5/22/2019 4:46:42 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	670	61		mg/Kg	20	5/23/2019 6:17:52 PM

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	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905966

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: <b>MB-45142</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45142</b>	RunNo: <b>60144</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031663</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-45142</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45142</b>	RunNo: <b>60144</b>								
Prep Date: <b>5/23/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2031664</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.0	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1905966

28-May-19

**Client:** Caprock Services, LLC

**Project:** State V CTB-E

Sample ID: <b>MB-45096</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028763</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	9.6		10.00		95.8	70	130			

Sample ID: <b>LCS-45096</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45096</b>	RunNo: <b>60078</b>								
Prep Date: <b>5/21/2019</b>	Analysis Date: <b>5/22/2019</b>	SeqNo: <b>2028765</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	63.9	124			
Surr: DNOP	5.7		5.000		113	70	130			

Sample ID: <b>MB-45119</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030204</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	70	130			

Sample ID: <b>LCS-45119</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030205</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3		5.000		145	70	130			S

Sample ID: <b>LCS-45119</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45119</b>	RunNo: <b>60110</b>								
Prep Date: <b>5/22/2019</b>	Analysis Date: <b>5/23/2019</b>	SeqNo: <b>2030850</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.1		5.000		142	70	130			S

**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#: 1905966

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027109</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	870		1000		87.4	73.8	119			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027110</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.8	80.1	123			
Surr: BFB	1000		1000		102	73.8	119			

### 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#: 1905966

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: <b>MB-45034</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027141</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: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID: <b>LCS-45034</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45034</b>	RunNo: <b>60046</b>								
Prep Date: <b>5/20/2019</b>	Analysis Date: <b>5/21/2019</b>	SeqNo: <b>2027142</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.4	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

### 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

**Sample Log-In Check List**

Client Name: **CAPROCK SERVICES, L**

Work Order Number: **1905966**

RcptNo: **1**

Received By: **Erin Melendrez** **5/18/2019 10:10:00 AM** *EM*

Completed By: **Erin Melendrez** **5/18/2019 2:43:46 PM** *EM*

Reviewed By: **ENM**  
**LB: DAD 5/20/19**

**5/20/19**

**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° C to 6.0°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. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
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? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: **DAD 5/20/19**

**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:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

# Chain-of-Custody Record

Client: Caprock Services, LLC  
 Mailing Address: P.O. Box 457  
Lovington NM 88260  
 Phone #: (575) 704-2718  
 email or Fax#: Caprockservices56@gmail.com

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  AZ Compliance  
 NELAC  Other NMDCD Eq.  
 EDD (Type)

Turn-Around Time: 3 days  
 Standard  Rush  
 Project Name: State V LTB - E

Project #: \_\_\_\_\_  
 Project Manager: Joel Lowry  
 Sampler: Jordyne Taylor  
 On Ice:  Yes  No  
 # of Coolers: 1  
 Cooler Temp (including CF): 1.6°C

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5-15-19	0850	Soil	F100R	4oz Glass	ICE	1905966
5-15-19	0855		NW #1			-001
5-15-19	0900		FW #1			-002
5-15-19	0905		SW #1			-003
5-15-19	0910		NW #1			-004
						-005

Received by: [Signature] Date: 5/17/19 Time: 0700  
 Relinquished by: [Signature]  
 Received by: [Signature] Date: 5/18/19 Time: 1010  
 Relinquished by: [Signature]

Analysis Request  
 BTEX / MTBE / TMB's (8021)   
 TPH:8015D(GRO / DRO / MRO)   
 8081 Pesticides/8082 PCB's   
 EDB (Method 504.1)   
 PAHs by 8310 or 8270SIMS   
 RCRA 8 Metals   
 Cl, F, Br, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>   
 8260 (VOA)   
 8270 (Semi-VOA)   
 Total Coliform (Present/Absent)  Chloride



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

Remarks: Please email results to:  
joel@lowryenvironmental.com  
jordyne.caprockservices@gmail.com

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.

**Attachment #7**  
**Photographic Log**

## PHOTOGRAPHIC LOG



**Figure 1** View of affected area and portion of Excavation D, facing South.



**Figure 2** View of affected area and portion of Excavation C, facing East.

## PHOTOGRAPHIC LOG



**Figure 3** View of affected area and portion of Excavation E, facing North.



**Figure 4** View of affected area and portion of Excavation E, facing Northwest.

## PHOTOGRAPHIC LOG



**Figure 5** View of affected area and portion of Excavation E, facing Northwest.



**Figure 6** View of affected area and portion of Excavation B, facing Southeast.

## PHOTOGRAPHIC LOG



6/3/19, 11:44 AM  
+32.869638,-103.278723

**Figure 7** View of affected area and portion of Excavation B, facing East.

B



6/3/19, 11:38 AM  
+32.870901,-103.278566

**Figure 8** View of affected area and portion of Excavation D, facing East.

D

**Attachment #8**  
**Release Notification (FORM C-141)**

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

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

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company: Vanguard	Contact: Chuck Johnston
Address: 4001 Penbrook, Suite 201, Odessa Texas 79762	Telephone No. 432-202-4771
Facility Name: State V Tank Battery	Facility Type: Tank Battery

Surface Owner: State	Mineral Owner:	API No.
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	5	17S	37E					Lea

D= tank battery

Latitude: N 32.869134° Longitude: W 103.278675°

#### NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: unknown	Volume Recovered: unknown
Source of Release: Tank Battery and Flowline	Date and Hour of Occurrence: Historic	Date and Hour of Discovery: Historic
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: Not Applicable	

If a Watercourse was Impacted, Describe Fully.\* Not Applicable

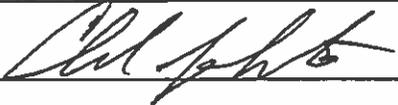
**RECEIVED**

By Olivia Yu at 10:03 am, Mar 13, 2017

Describe Cause of Problem and Remedial Action Taken.\*  
Historic releases of produced water from flowline and tank battery.

Describe Area Affected and Cleanup Action Taken.\*  
Discovered six separate historic release areas from flowline and tank battery. Samples will be collected and sent to the lab for testing.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Chuck Johnston	Approved by Environmental Specialist: 	
Title: EHS	Approval Date: 3/13/2017	Expiration Date:
E-mail Address: cjohnston@vnrllc.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 3-9-17 Phone: 432-202-4771		

\* Attach Additional Sheets If Necessary

1RP-4640

nOY1707237630

pOY1707237994

fOY1707237145