



June 17, 2019

Dylan Rose-Coss  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 1  
1625 French Drive  
Hobbs, NM 88240

Ryan Mann  
Hobbs Field Office  
New Mexico State Land Office  
2827 North Dal Paso Street, Suite 117  
Hobbs, NM 88240

**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**

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*

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

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

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

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.

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

## 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	800
	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	2,200	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



**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)
SP5	Surface	In-Situ	06-Mar-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	1,540	1,540	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	4,930
	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	22,000
	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

**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)
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

**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)
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

**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)
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

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

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
Closure Criteria				10	50	-	-	-	-	100	600

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

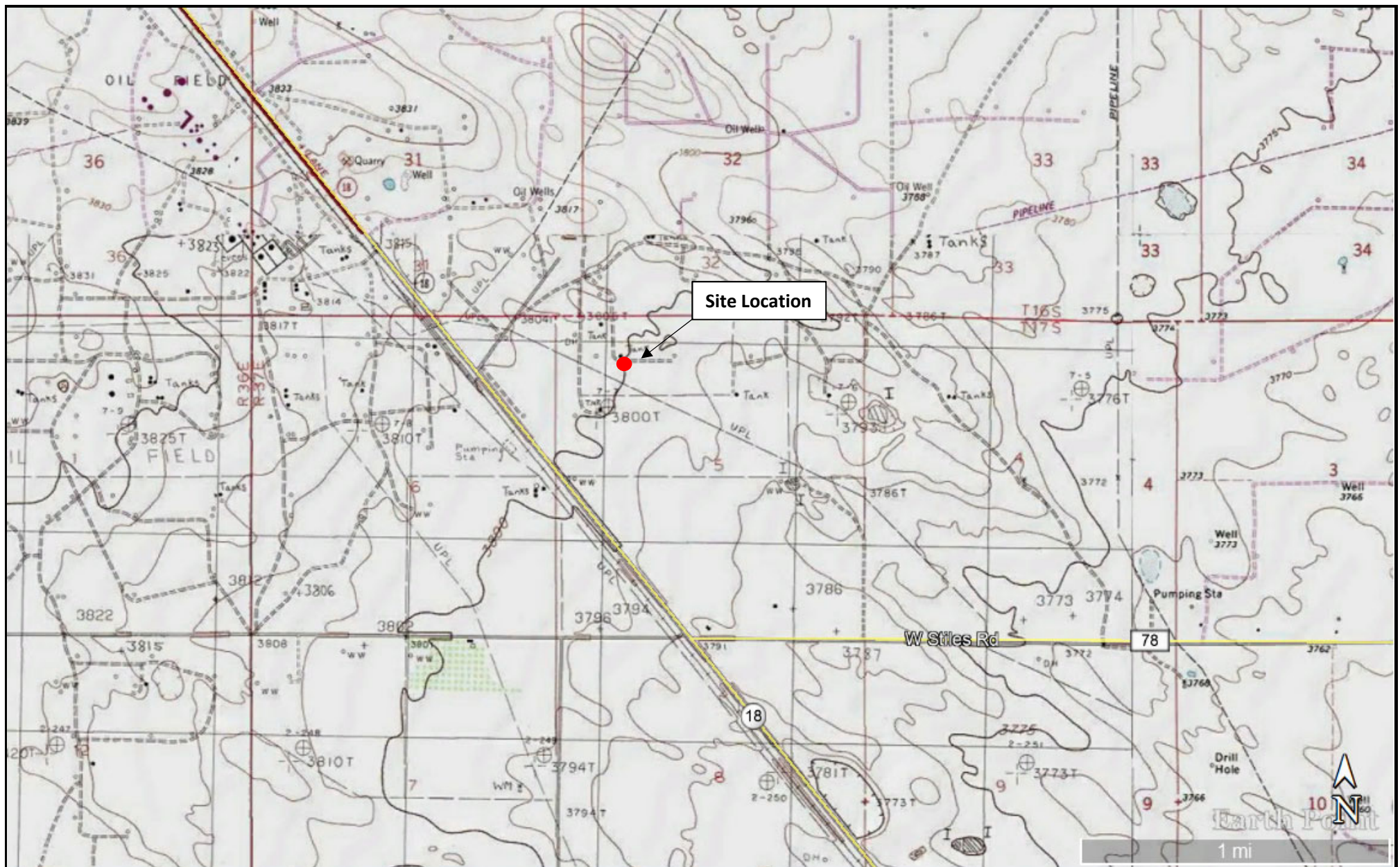
This document has been prepared on behalf of Vanguard Operating, LLC. Use of information contained in this report, including exhibits and attachments, by any other party without the consent of LEA and/or Vanguard Operating, LLC is prohibited.

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



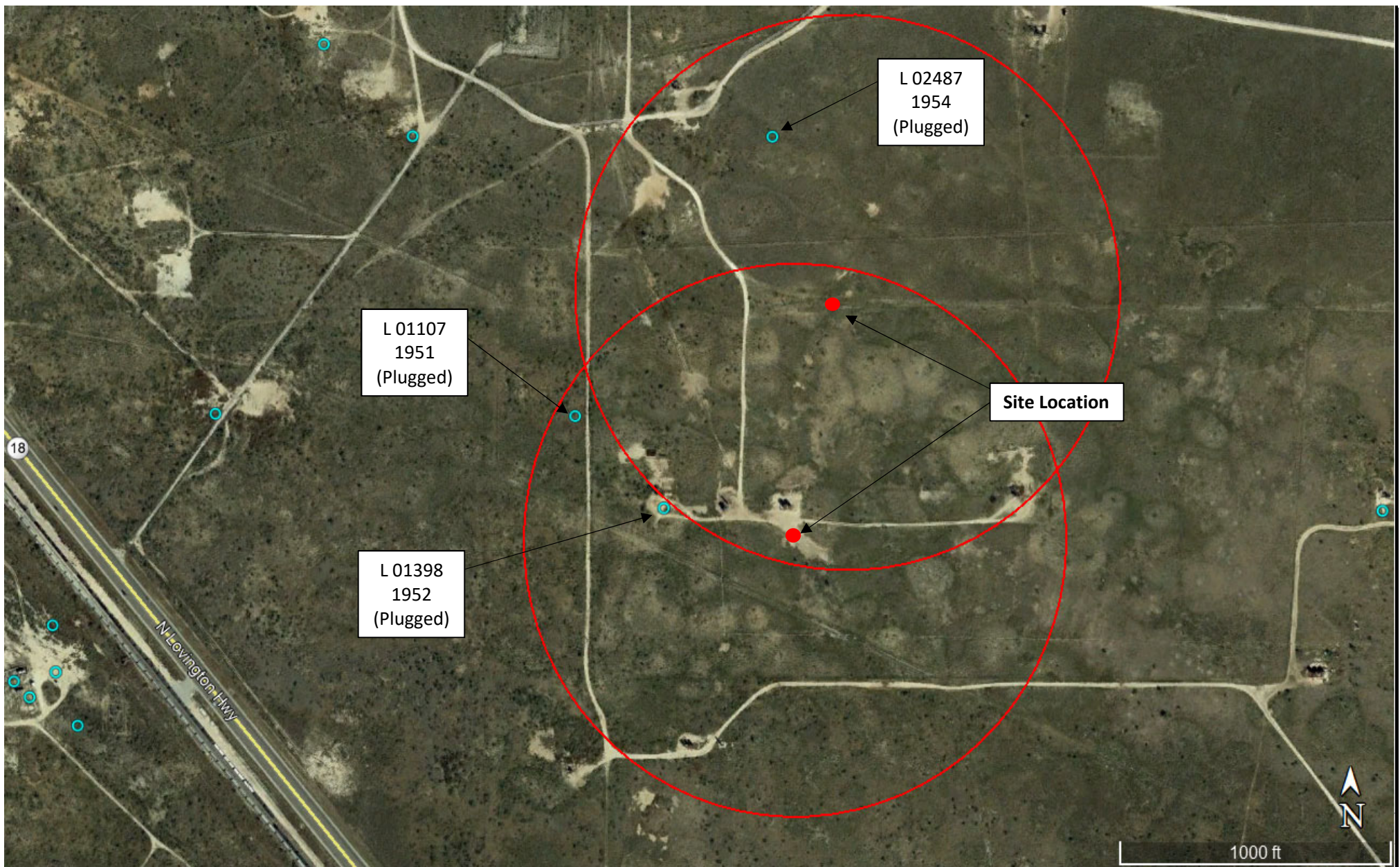
Drafted by: jwl

Checked by: client

Date: 6/17/2019

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





**LEGEND:**

- Site Location
- Fresh Water Well
- 100-Year Floodplain
- High/Critical Karst

- Non-Industrial Building
- Subsurface Mine
- 1,000 Ft. Radius

**Figure 2**

**Aerial 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 #3**

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

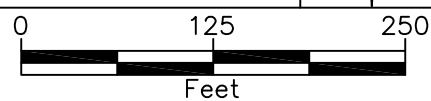




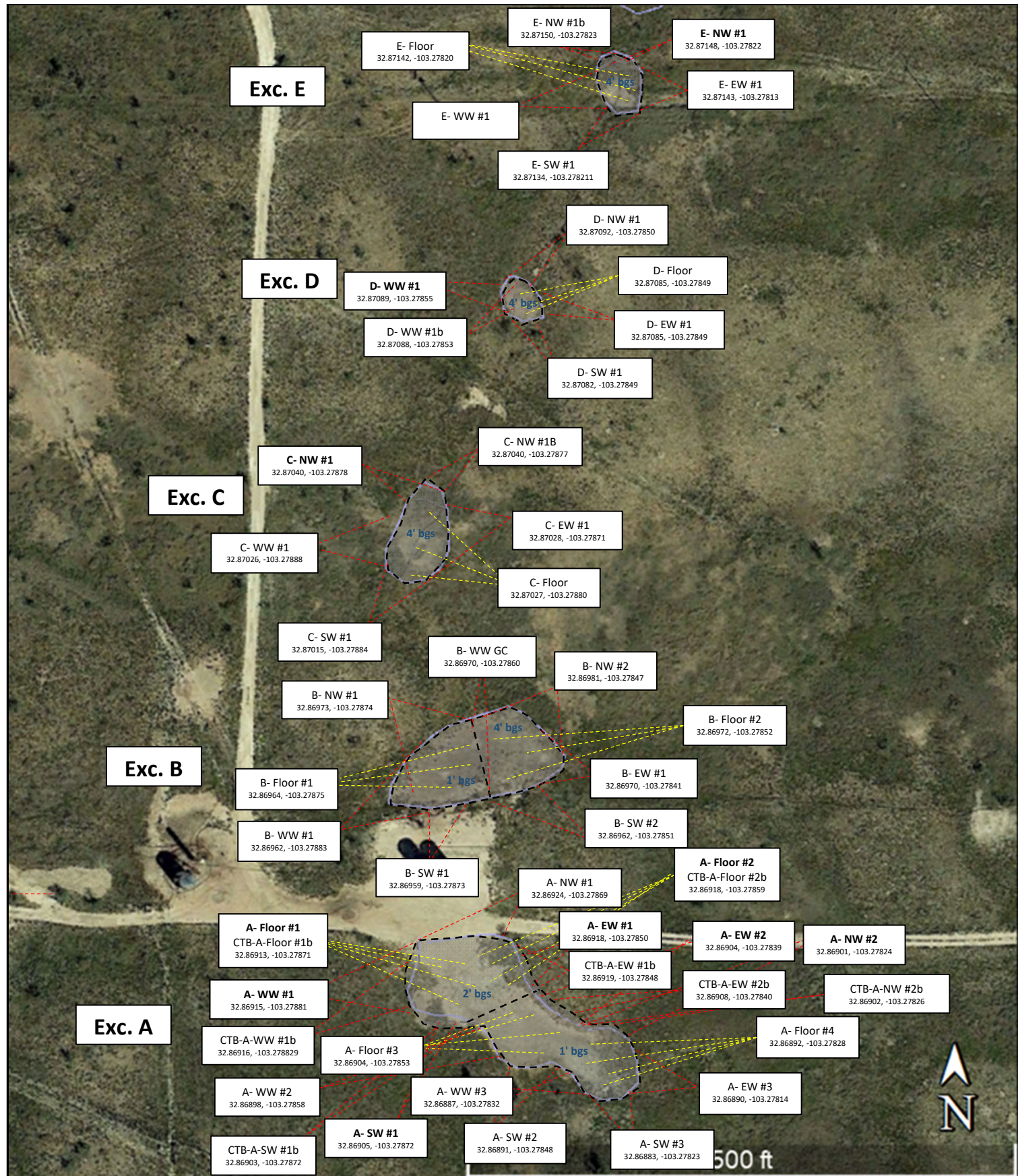
Figure 3  
Site/Sample Map  
Vanguard  
State V Tank Battery

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
- Excavated Area

**Figure 3b**

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



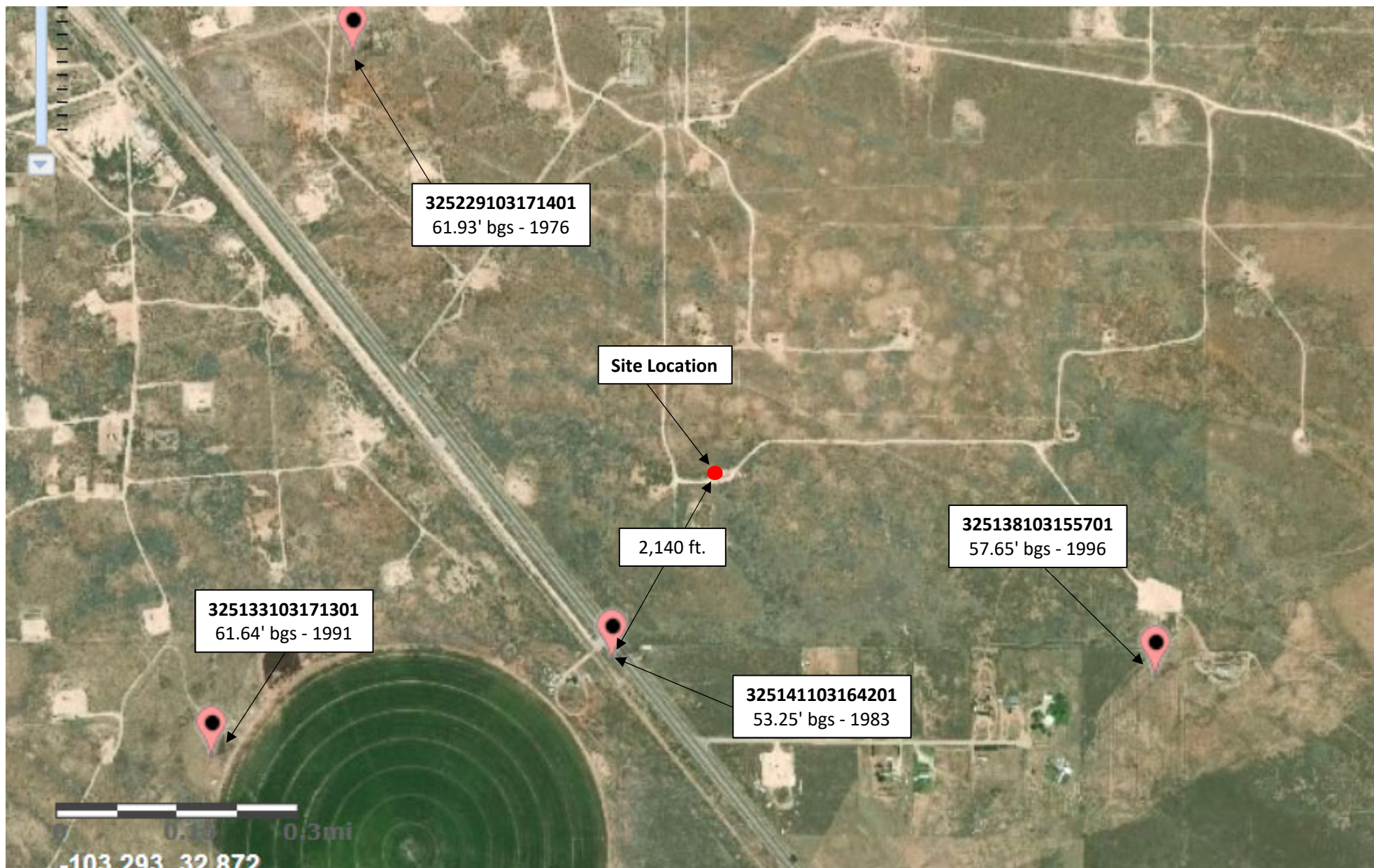
Drafted by: jwl

Checked by: client

Date: 6/17/2019

**Attachment #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



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	Code	POD 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	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	2	06	17S	37E	660397	3638214*	511	105		
<a href="#">L 02549</a>		L	LE	3	3	1	05	17S	37E	660807	3637616*	512	138	65	73
<a href="#">L 05458</a>		L	LE	1	4	4	31	16S	37E	660512	3638620*	633	240	50	190
<a href="#">L 13414 POD5</a>		L	LE	4	1	2	06	17S	37E	660218	3637979	695	110	93	17
<a href="#">L 13414 POD4</a>		L	LE	2	3	2	06	17S	37E	660248	3637870	697	110	93	17
<a href="#">L 13038 POD1</a>		L	LE	4	1	2	06	17S	37E	660223	3637928	703	115		
<a href="#">L 13414 POD2</a>		L	LE	4	1	2	06	17S	37E	660194	3637900	739	102	93	9
<a href="#">L 13414 POD1</a>		L	LE	4	1	2	06	17S	37E	660176	3637917	751	110	93	17
<a href="#">L 00449 S</a>		L	LE	2	2	4	06	17S	37E	660611	3637409*	767	120	48	72
<a href="#">L 00449 S</a>	R	L	LE	2	2	4	06	17S	37E	660611	3637409*	767	120	48	72
<a href="#">L 11773</a>		L	LE	2	2	4	06	17S	37E	660611	3637409	767	235		
<a href="#">L 13414 POD3</a>		L	LE	2	3	2	06	17S	37E	660143	3637890	790	110	93	17
<a href="#">L 13038 POD2</a>		L	LE	2	3	2	06	17S	37E	660146	3637865	795	115		
<a href="#">L 13038 POD3</a>		L	LE	2	3	2	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.


6/14/19 12:04 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# 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)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	01398	1	1	05	17S	37E	660901	3638119*	
x									
Driller License:	46	Driller Company:			ABBOTT BROTHERS COMPANY				
Driller Name:	ABBOTT, MURRELL								
Drill Start Date:	03/13/1952	Drill Finish Date:			03/14/1952		Plug Date:	01/31/1953	
Log File Date:	03/17/1952	PCW Rev Date:			09/19/1952		Source:	Shallow	
Pump Type:	Pipe Discharge Size:			Estimated Yield:					
Casing Size:	Depth Well:			115 feet		Depth Water:		50 feet	
x									
Water Bearing Stratifications:				Top	Bottom	Description			
				50	115	Sandstone/Gravel/Conglomerate			
x									

\*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 9:43 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)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
<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* 
x									
<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	
x									
<b>Water Bearing Stratifications:</b>		<b>Top</b>	<b>Bottom</b>	<b>Description</b>					
		38	70	Sandstone/Gravel/Conglomerate					
		80	92	Sandstone/Gravel/Conglomerate					
x									
<b>Casing Perforations:</b>		<b>Top</b>	<b>Bottom</b>						
		40	78						
x									

\*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)							
		(quarters are smallest to largest)		(NAD83 UTM in meters)					
<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*	
x									
<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	
x									
<b>Water Bearing Stratifications:</b>		<b>Top</b>	<b>Bottom</b>	<b>Description</b>					
		38	90	Sandstone/Gravel/Conglomerate					
x									

\*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:	
Groundwater	United States	GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

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.

---

[Questions about sites/data?](#)  
[Feedback on this web site](#)  
[Automated retrievals](#)  
[Help](#)  
[Data Tips](#)  
[Explanation of terms](#)  
[Subscribe for system changes](#)  
[News](#)

[Accessibility](#)   [Plug-Ins](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**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








USGS Home  
Contact USGS  
Search USGS

## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:	
Groundwater	United States	GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 325141103164201

Minimum number of levels = 1

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

### 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 measurment
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.

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)



[Subscribe for system changes](#)  
[News](#)

[Accessibility](#)   [Plug-Ins](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**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 13:34:59 EDT

0.46 0.44 nadww02



## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:	
Groundwater	United States	GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

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.

[Questions about sites/data?](#)  
[Feedback on this web site](#)  
[Automated retrievals](#)  
[Help](#)  
[Data Tips](#)  
[Explanation of terms](#)  
[Subscribe for system changes](#)  
[News](#)

[Accessibility](#)   [Plug-Ins](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**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 13:36:21 EDT

0.44 0.41 nadww02





## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:	
Groundwater	United States	GO

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 325229103171401

Minimum number of levels = 1

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

### 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.

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)  
[Explanation of terms](#)  
[Subscribe for system changes](#)  
[News](#)

[Accessibility](#)   [Plug-Ins](#)   [FOIA](#)   [Privacy](#)   [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**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

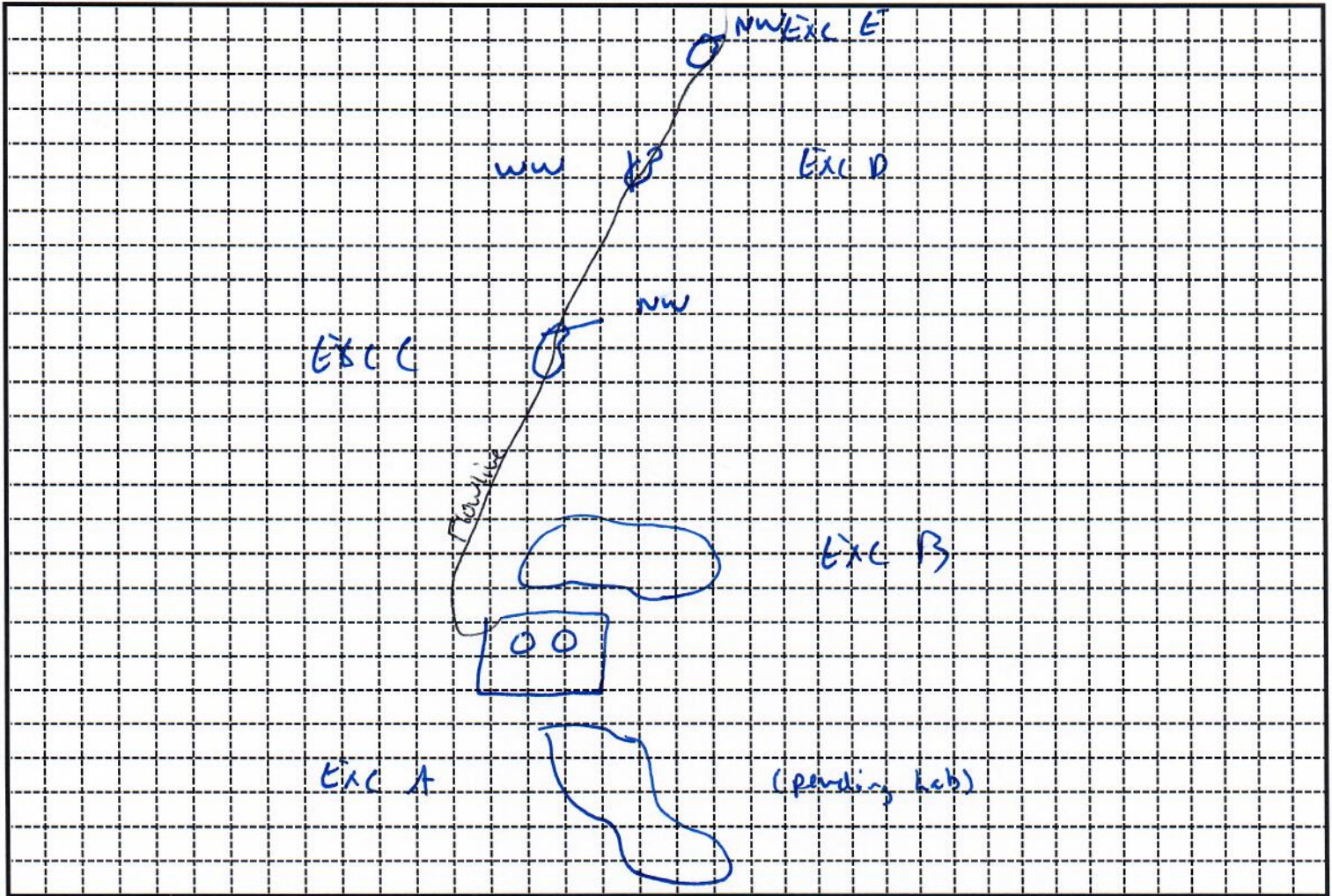
Description		Depth (ft. bgs)
Brown Clayey Top Soil		1
		2
Calcrete / Caliche		3
Caliche Rock	 Tip	4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0



# FIELD NOTES

Site Name: State V Tangle 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,



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/01/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

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

BTX 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 BTX	<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
Chloride	368	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	
DRO >C10-C28	86.0	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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/01/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/01/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**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, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	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	
DRO >C10-C28	64.5	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/01/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

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

BTX 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 BTX	<0.300	0.300	03/10/2017	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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/02/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**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	
Toluene*	0.079	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	32.0	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	03/09/2017	ND	199	99.5	200	4.57	
DRO >C10-C28	176	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/02/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

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

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

BTX 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	
Toluene*	0.299	0.050	03/14/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	0.219	0.050	03/14/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	0.351	0.150	03/14/2017	ND	5.29	88.1	6.00	3.03	
Total BTX	0.869	0.300	03/14/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	03/09/2017	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	
DRO >C10-C28	2200	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

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

**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, 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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/06/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**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
Chloride	208	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	
DRO >C10-C28	1540	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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  
Reported: 03/14/2017  
Project Name: STATE V  
Project Number: UL-C SEC.5, T17S,R37E  
Project Location: NOT GIVEN

Sampling Date: 03/06/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

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

BTX 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 BTX	<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
Chloride	48.0	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 77.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 75.8 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager

# Environmental Plus, Inc.

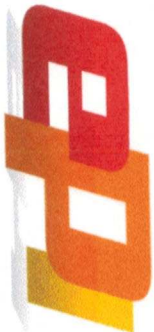
2100 Avenue O, Eunice, NM 88231  
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form  
LAB Cardinal

Bill To

ANALYSIS REQUEST



Attn: Daniel Dominguez

P.O. Box 1558

Eunice, NM 88231

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company Vanguard

Facility Name State V

Location UL-C Sec. 5, T17S, R37E

Project Reference

EPI Sampler Name Dustin Crockett

LAB I.D.

SAMPLE I.D.

(G)RAB OR (C)OMP.

# CONTAINERS

GROUND WATER

WASTEWATER

SOIL

CRUDE OIL

SLUDGE

OTHER:

ACID/BASE

ICE/COOL

OTHER

DATE

TIME

BTEX 8021B

TPH 8015M

CHLORIDES (Cl<sup>-</sup>)

SULFATES (SO<sub>4</sub><sup>2-</sup>)

pH

TCLP

OTHER >>>

PAH

#100583

1 SP1 (Surface)

2 SP1 (8')

3 SP2 (Surface)

4 SP2 (8')

5 SP3 (Surface)

6 SP3 (28')

7 SP4 (Surface)

8 SP4 (14')

9 SP5 (Surface)

10 SP5 (12')

Sampler Relinquished:

Relinquished By:

Delivered by:

Date 3-7-17

Time 6:00 am

Date 3/7/17

Time 3:31 pm

Received By:

Received By: (lab staff)

Sample Cool & Intact

Yes

Checked By:

Checked By:

10 #75

E-mail results to: ddominguezepi@gmail.com & jerry@vnrllc.com

NOTES:

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,



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 (SURFACE) (H700646-01)**

BTX 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 BTX	<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	4930	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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)**

BTX 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 BTX	<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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 03/09/2017  
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, SM4500Cl-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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

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

BTX 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 BTX	<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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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 (SURFACE) (H700646-05)**

BTX 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 BTX	<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	3760	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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)**

BTX 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 BTX	<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	288	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager

# Environmental Plus, Inc.

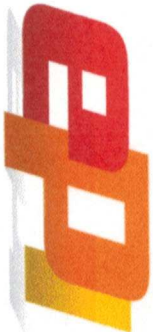
2100 Avenue O, Eunice, NM 88231  
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form  
LAB Cardinal

Bill To

ANALYSIS REQUEST



Attn: Daniel Dominguez

P.O. Box 1558

Eunice, NM 88231

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company Vanguard

Facility Name State V

Location UL- C Sec. 5, T17S, R37E

Project Reference

EPI Sampler Name Dustin Crockett

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	SAMPLING		BTEX 8021B	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>=</sup> )	pH	TCLP	OTHER >>>	PAH
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE		ICE/COOL	OTHER								
H700646	1 SP6 (Surface)	G	1			X					X		08-Mar-17	7:40	X	X	X				
	2 SP6 (38')	G	1			X					X		08-Mar-17	13:30	X	X	X				
	3 SP7 (Surface)	G	1			X					X		09-Mar-17	6:40	X	X	X				
	4 SP7 (26')	G	1			X					X		09-Mar-17	13:15	X	X	X				
	5 SP8 (Surface)	G	1			X					X		10-Mar-17	7:15	X	X	X				
	6 SP8 (42')	G	1			X					X		10-Mar-17	13:35	X	X	X				
	7																				
	8																				
	9																				
	10																				

Sampler Relinquished:

Date 3-13-17

Received By:

E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com

Relinquished by:

Date 3/13/17

Received By: (lab staff)

Time 6:00 am

Time 3:47 pm

Sample Cool & Intact

Checked By:

Delivered by:

4:18 (es)

No

70. #75

NOTES:

Sample #4 has headspace.

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,



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: 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
Chloride	16.0	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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)**

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	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 90.9 % 25.1-158

Surrogate: 1-Chlorooctadecane 99.8 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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 ( 1') (H700647-04)**

BTX 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 BTX	<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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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, 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 111 % 25.1-158

Surrogate: 1-Chlorooctadecane 121 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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 ( 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, 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 98.5 % 25.1-158

Surrogate: 1-Chlorooctadecane 115 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 105 % 25.1-158

Surrogate: 1-Chlorooctadecane 110 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: SABHE ( SURFACE) (H700647-11)**
**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>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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 96.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 99.1 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 84.2 % 25.1-158

Surrogate: 1-Chlorooctadecane 88.8 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<0.300	0.300	03/16/2017	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	<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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 88.7 % 25.1-158

Surrogate: 1-Chlorooctadecane 89.6 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 97.1 % 25.1-158

Surrogate: 1-Chlorooctadecane 97.3 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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*	0.055	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 BTX	<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	03/16/2017	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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*	0.056	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 BTX	<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	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	97.3	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 86.4 % 25.1-158

Surrogate: 1-Chlorooctadecane 86.8 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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
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 89.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 93.0 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 98.0 % 25.1-158

Surrogate: 1-Chlorooctadecane 100 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

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	97.3	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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	03/17/2017	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 91.6 % 25.1-158

Surrogate: 1-Chlorooctadecane 95.2 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, SM4500Cl-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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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	03/17/2017	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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

BTX 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 BTX	<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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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: 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, 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 86.5 % 25.1-158

Surrogate: 1-Chlorooctadecane 91.0 % 26.8-170

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



## Chain of Custody Form

**IAB**  
**Cardinal**

**ANAL VOICE PROJECTIONS**

ANALYSIS REQUEST

[illegible]



# Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231  
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB Cardinal

Bill To

ANALYSIS REQUEST



Attn: Daniel Dominguez  
P.O. Box 1558  
Eunice, NM 88231

Company Name		Environmental Plus, Inc.			
EPI Project Manager		Daniel Dominguez			
Mailing Address		P.O. BOX 1558			
City, State, Zip		Eunice New Mexico 88231			
EPI Phone#/Fax#		575-394-3481 / 575-394-2601			
Client Company		Vanguard			
Facility Name		State V			
Location		UL-C Sec. 5, T17S, R37E			
Project Reference					
EPI Sampler Name		Dustin Crockett			

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	ANALYSIS REQUEST										
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:			ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	pH	TCCLP
11	SABHE (Surface)	G	1			X					X	09-Mar-17	9:15	X	X	X						
12	SABHE (1')	G	1			X					X	09-Mar-17	9:20	X	X	X						
13	SABHS (Surface)	G	1			X					X	09-Mar-17	9:25	X	X	X						
14	SABHS (1')	G	1			X					X	09-Mar-17	9:30	X	X	X						
15	SABHW (Surface)	G	1			X					X	09-Mar-17	9:35	X	X	X						
16	SABHW (1')	G	1			X					X	09-Mar-17	9:40	X	X	X						
17	SACHN (Surface)	G	1			X					X	09-Mar-17	8:00	X	X	X						
18	SACHN (1')	G	1			X					X	09-Mar-17	8:05	X	X	X						
19	SACHE (Surface)	G	1			X					X	09-Mar-17	8:10	X	X	X						
20	SACHE (1')	G	1			X					X	09-Mar-17	8:15	X	X	X						

Sampler Relinquished:	Date 3-13-17	Received By:	E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com
Relinquished by:	Date 3/13/17	Received By: (lab staff)	NOTES:
Delivered by:	Sample Cool & Intact	Checked By:	



## Chain of Custody Form

**LAB**  
*Cardinal*

ANALYSIS REQUEST

[illegible]



# Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231  
(575) 394-3481 FAX: (575) 394-2601

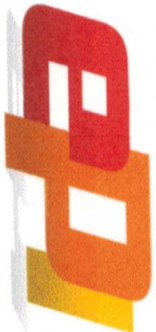
P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB Cardinal

Bill To

ANALYSIS REQUEST



Attn: Daniel Dominguez

P.O. Box 1558

Eunice, NM 88231

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company Vanguard

Facility Name State V

Location UL-C Sec. 5, T17S, R37E

Project Reference

EPI Sampler Name Dustin Crockett

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	DATE	TIME	ANALYSIS REQUEST							
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:				BTEX 8021B	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	pH	TCLP	OTHER >>>	PAH
31	SADHW (Surface)	G	1			X				X	09-Mar-17	7:40	X	X	X					
32	SADHW (1')	G	1			X				X	09-Mar-17	7:45	X	X	X					
33	SAEHN (Surface)	G	1			X				X	09-Mar-17	6:15	X	X	X					
34	SAEHN (1')	G	1			X				X	09-Mar-17	6:20	X	X	X					
35	SAEHE (Surface)	G	1			X				X	09-Mar-17	6:25	X	X	X					
36	SAEHE (1')	G	1			X				X	09-Mar-17	6:30	X	X	X					
37	SAEHS (Surface)	G	1			X				X	09-Mar-17	6:35	X	X	X					
38	SAEHS (1')	G	1			X				X	09-Mar-17	6:40	X	X	X					
39	SAEHW (Surface)	G	1			X				X	09-Mar-17	6:45	X	X	X					
40	SAEHW (1')	G	1			X				X	09-Mar-17	6:50	X	X	X					

Sampler Relinquished:

Date 3-13-17

Receiver By:

Relinquished By:

Date 3/13/17

Receiver By: (lab staff)

Delivered by:

Sample Cool & Intact

Checked By:

E-mail results to: ddominguezepi@gmail.com & cjohnston@vntlc.com  
NOTES:



*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 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 **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: MB-45327	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 45327	RunNo: 60350
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2040927 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-45327	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 45327	RunNo: 60350
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2040928 Units: mg/Kg
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: MB-45328	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 45328	RunNo: 60349
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2041072 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-45328	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 45328	RunNo: 60349
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2041073 Units: mg/Kg
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.  
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-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.  
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-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: 1905E10-002AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: NW #2	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039222 Units: mg/Kg
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: 1905E10-002AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range
Client ID: NW #2	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039223 Units: mg/Kg
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.  
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-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: MB-45283	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBS	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039249 Units: mg/Kg
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: LCS-45283	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSS	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039250 Units: mg/Kg
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: 1905E10-003AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles
Client ID: EW	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039253 Units: mg/Kg
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: 1905E10-003AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles
Client ID: EW	Batch ID: 45283	RunNo: 60311
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039254 Units: mg/Kg
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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. 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:

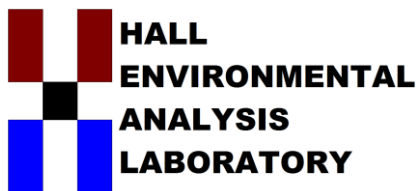
16. Additional remarks:

## 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	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 over a white background.

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: MB-45328	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 45328	RunNo: 60349
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2041072 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-45328	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 45328	RunNo: 60349
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2041073 Units: mg/Kg
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: MB-45384	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 45384	RunNo: 60433
Prep Date: 6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2043901 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-45384	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 45384	RunNo: 60433
Prep Date: 6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2043902 Units: mg/Kg
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: MB-45398	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 45398	RunNo: 60439
Prep Date: 6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2044238 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-45398	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 45398	RunNo: 60439
Prep Date: 6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2044239 Units: mg/Kg
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: 1905E11-006AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: SW #1		Batch ID: 45302		RunNo: 60436						
Prep Date: 5/31/2019		Analysis Date: 6/7/2019		SeqNo: 2044903			Units: mg/Kg			
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.  
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 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.  
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: **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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. 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?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

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

## Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

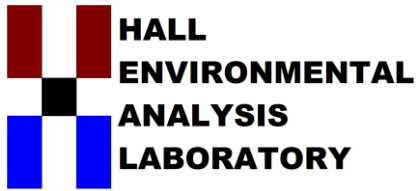
16. Additional remarks:

## 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	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)*

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 over a horizontal line.

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.

**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:** 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.

**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:** 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.

<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:** 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.  
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>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.  
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 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**

*UUG*

Completed By: **Erin Melendrez**

**5/18/2019 2:31:41 PM**

*UUG*

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. 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?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

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

## 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	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) \_\_\_\_\_

Date	Time	Matrix	Sample Name
5-15-19	0815	Soil	WW #1
5-15-19	0820		EW #1
5-15-19	0825		SW #1
5-15-19	0830		WW #1
5-15-19	0835		Floor

Date: 5-17-19 Time: 0700 Relinquished by: Matt Taylor  
 Date: 5-17-19 Time: 1900 Relinquished by: [Signature]

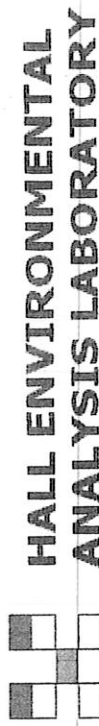
Turn-Around Time: Same  
☐ Standard ☐ Rush  
 Project Name: State V CTB-D

Project #:  
 Project Manager: Joel Lowry

Sampler: Jordyne Taylor  
 On Ice: ☒ Yes ☐ No  
 # of Coolers: 1  
 Cooler Temp (including CF): 1.6°C

Container Type and #  
4oz Glass  
 Preservative Type  
ICE  
 HEAL No.  
1905964  
-001  
-002  
-003  
-004  
-005

Received by: [Signature] Date: 5/17/19 Time: 0700  
 Received by: Via Courier Date: 5/18/19 Time: 1010



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

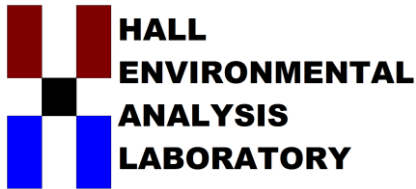
www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

BTX / 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
X	X	X							X	X
X	X	X							X	X

Remarks: Please email results to:

joe@lowryenvironmental.com  
jordyne.caprockservices@gmail.com



*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 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.

**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:** 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.

**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:** 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.

<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:** 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.  
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-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			

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.  
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: **1905965**

RcptNo: 1

Received By: **Erin Melendrez**

5/18/2019 10:10:00 AM

Completed By: **Erin Melendrez**

5/18/2019 2:39:17 PM

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: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

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

☐ NELAC ☒ Other NMDCD Eq.

☐ EDD (Type)

Date	Time	Matrix	Sample Name
5-15-19	0730	Soil	NW#1
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

Container Type and #	Preservative Type	Cooler Temp (including CP):
4oz Glass	FLC	1.6°C
↓	↓	EM515181
↓	↓	HEALING
↓	↓	190815965
↓	↓	-001
↓	↓	-002
↓	↓	-003
↓	↓	-004
↓	↓	-005

BTEX / MTBE / TMBs (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: jlovel@lowryenvironmental.com  
jordyne.caprockservices@gmail.com

Received by: [Signature] Date: 5/17/19 Time: 0700  
 Received by: [Signature] Date: 5/18/19 Time: 1010

Date: 5-17-19 Time: 0700 Relinquished by: [Signature]  
 Date: 5-17-19 Time: 1900 Relinquished by: [Signature]



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

Project Manager: Joel Lowry

Sampler: Jordyne Taylor

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CP): 1.6°C



*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 over a horizontal line.

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.

**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:** 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.

**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-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.  
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**

*UAG*

Completed By: **Erin Melendrez**

**5/18/2019 2:43:46 PM**

*UAG*

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. 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?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

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

Adjusted? \_\_\_\_\_

Checked by: **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:

## 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			



**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



**Figure 7** View of affected area and portion of Excavation B, facing East.

B



**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.
----------------------	----------------	---------

**LOCATION OF RELEASE**

Unit Letter C	Section 5	Township 17S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County 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

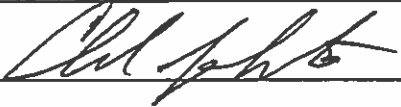

**RECEIVED**

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