

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								
Type of Release	Crude Oil and Froduced Water	Volume Recovered (bbls)	Unknown								
Cause of Release	Cause of Release										
During an on-site inspection	n, NMSLO representatives discovered six	6) affected areas in need of	remediation adjacent to the tank								
battery and associated flowlines.											
Affected Area											
The releases affected appro	oximately 19,400 Sq. Ft. of pasture land.										
Was this a major release?	If YES, for what reasons (s) is this cor	sidered a major release?									
NA	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.

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

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

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

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

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

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INITIAL SITE ASSESSMENT

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

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

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

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

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)
	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
SP1	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
	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
SP2	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
	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	-	-		-	-			1	
SP3	12	In-Situ	02-Mar-17	0.0	2,160	1	1		1	1			1	
	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
	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
SP4	4	In-Situ	03-Mar-17	2.7	80									
514	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

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)
	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
SP5	4	In-Situ	06-Mar-17	8.4	80									
843	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
	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									
SP6	6	In-Situ	08-Mar-17	0.0	200									
510	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
	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									
SP7	6	In-Situ	09-Mar-17	0.0	2,400									
SF /	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

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)
	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									
SP8	22	In-Situ	10-Mar-17	0.0	1,680	-	-		-	-			-	
510	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
SAAHN	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
SAAHE	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
SAAHS	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
заап w	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

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
SABHN	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
SABHE	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
ЗАВПЗ	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
SABITW	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
SACHN	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
SACHE	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
SACIIS	1	In-Situ	09-Mar-17		80	< 0.050	0.055	< 0.050	< 0.150	< 0.300	<10.0	<10.0	<20.0	32
CACHW	Surface	In-Situ	09-Mar-17		80	< 0.050	0.056	< 0.050	< 0.150	< 0.300	<10.0	<10.0	<20.0	16
SACHW	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
SADIIN	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
SADHE	1	In-Situ	09-Mar-17		80	< 0.050	< 0.050	< 0.050	< 0.150	< 0.300	<10.0	<10.0	<20.0	32
CADIIC	Surface	In-Situ	09-Mar-17		80	< 0.050	< 0.050	< 0.050	< 0.150	< 0.300	<10.0	<10.0	<20.0	32
SADHS	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
SADHW	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
SAERIN	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
SAEHE	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
SAEHS	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		ended Reme Levels	dial Action	100		10				50			1,000	600

^{- - =} Not Analyzed

Bold values are in excess of NMOCD Recommended Remedial Action Levels

Incident ID	NOY1707237994
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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 #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 #1b, CTB-B-SW #1b, 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 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

	C	oncen	trations o	f BTEX, TP	PH and/or	Chloride	in Soil - C	onfirmation	on Sample	es	
				SW 846	8021B		E300				
Sample ID	Date	Depth	Soil Status	Benzene	BTEX	GRO	DRO	GRO + DRO	ORO	TPH	Chloride
•		·		(mg/kg)	(mg/kg)	C ₆ -C ₁₀	C ₁₀ -C ₂₈	C ₆ -C ₂₈	C ₂₈ -C ₃₆	C ₆ -C ₃₆	(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 NA	In-Situ	ND	ND	ND	ND 70	ND 70	ND	ND	ND 220
A- EW #1	5/28/19	NA NA	Excavated	ND ND	ND ND	ND ND	79 65	79 65	280 340	359 405	220 ND
CTB-A-EW #1B A- EW #2	6/10/19 5/28/19		pending In-Situ		ND ND	ND ND	52	52	230	282	260
CTB-A-EW #2B	6/10/19	NA NA	In-Situ In-Situ	ND ND	ND	ND ND	10	10	52	62	ND
A- EW #3	5/28/19	NA 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 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	ND	220
D- EW #1	5/15/19	NA NA	In-Situ	ND	ND	ND	ND ND	ND	ND	ND	560
D- SW #1 D- WW #1	5/15/19 5/15/19	NA NA	In-Situ Excavated	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	290 700
D- WW #1 D- WW #1b	6/3/19	NA NA	In-Situ	- ND	- ND	IND	IND	IND	ואט	IND	420
D- WWW #16	5/15/19	1NA 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	ND	ND ND	450
E- SW #1	5/15/19	NA	In-Situ	ND	ND	ND	ND ND	ND	ND	ND ND	ND
E- WW #1	5/15/19	NA NA	Excavated	ND	ND	ND	ND	ND	ND	ND ND	670
E- NW #1b	5/15/19	NA NA	In-Situ	-	-	-	-	-	-	-	420
E- Floor	5/15/19	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,200
	Closure C			10	50	_	_		_	100	600
	Ciosule C	riteria		10	30	-	-	_	-	100	000

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

PROPSED 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)

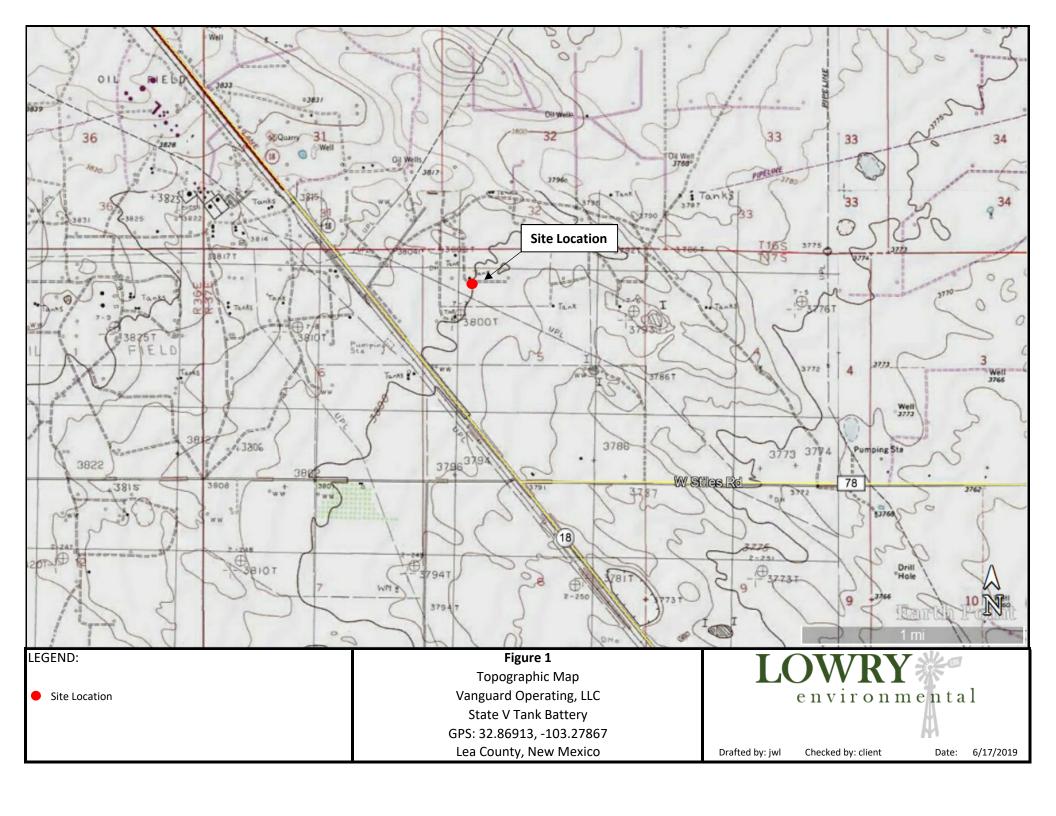
LIMITATIONS

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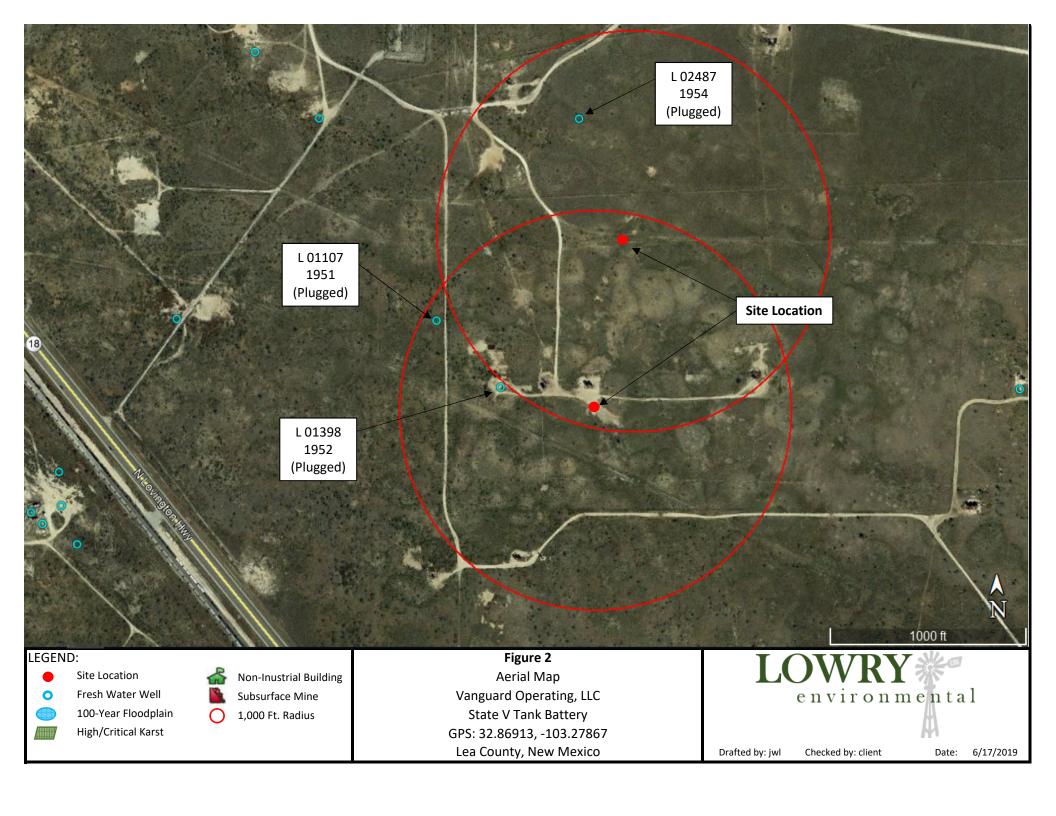
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LEA has prepared this report to the best of its ability. No other warranty, expressed or implied, is made or intended.

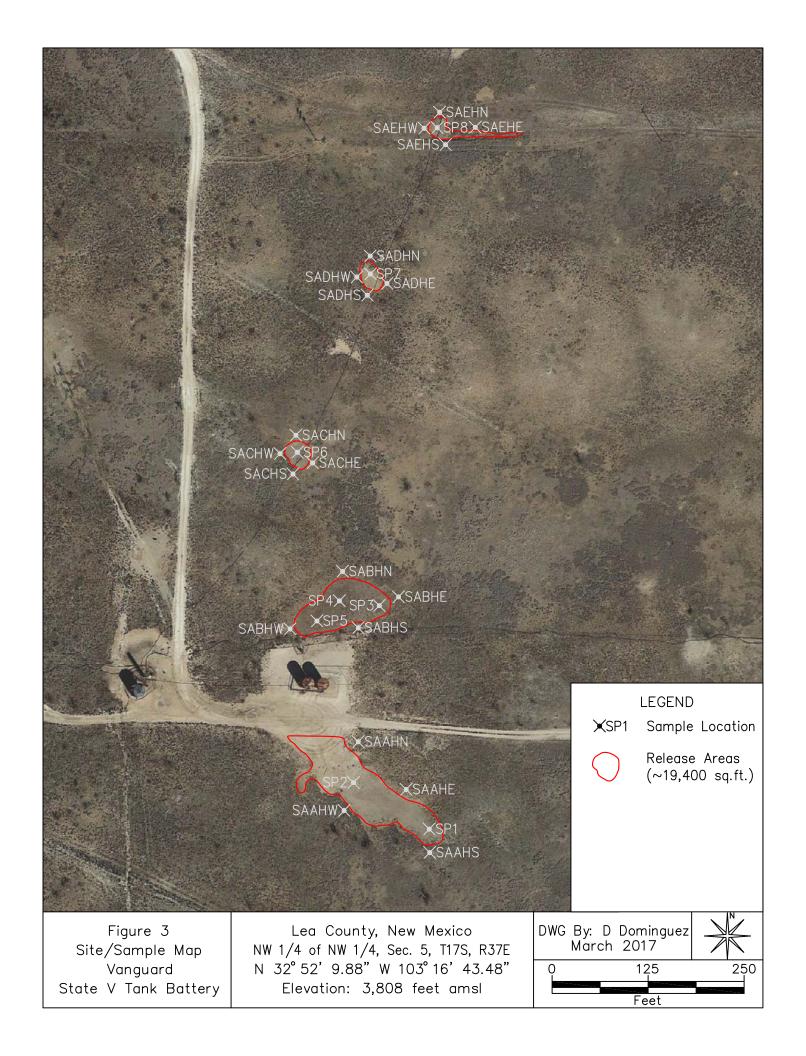
Attachment #1 Figure 1 - Topographic Map

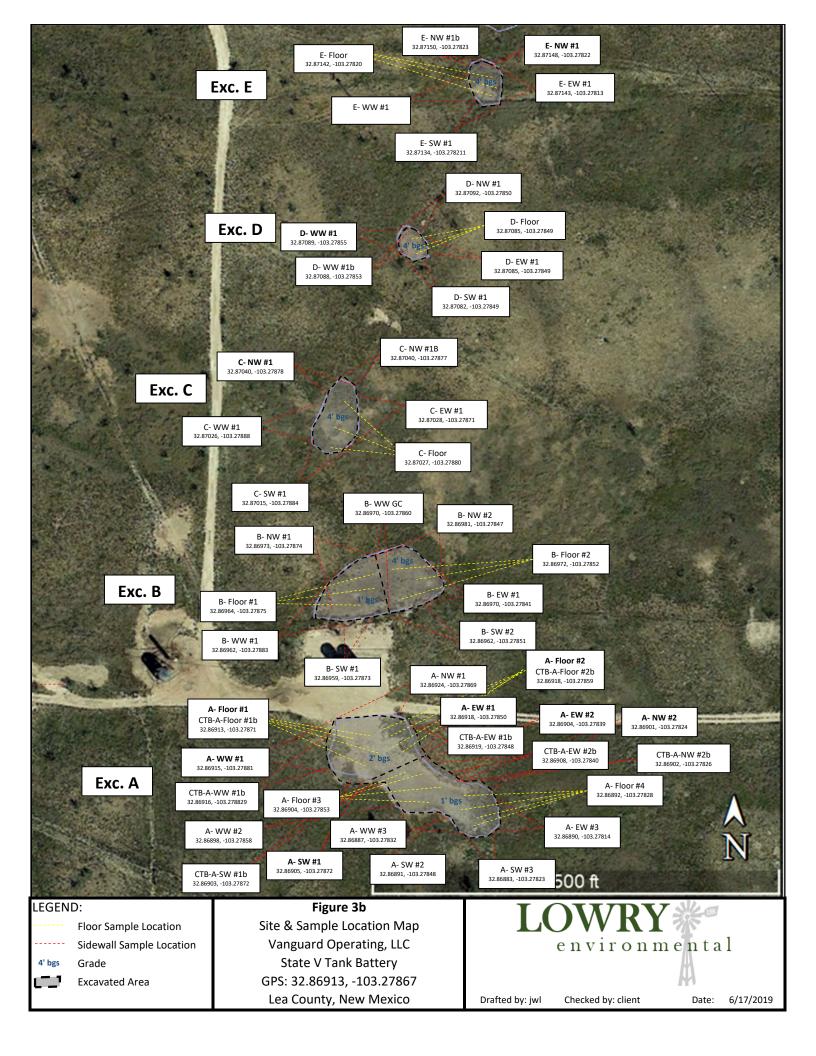


Attachment #2 Figure 2 - Aerial Map

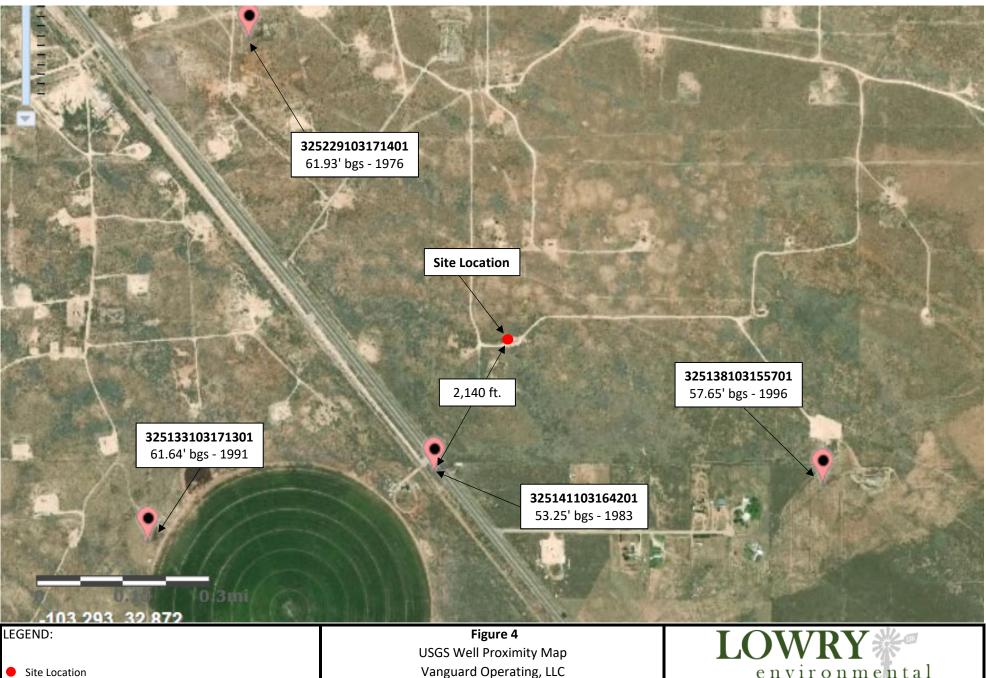


Attachment #3 Figure 3 - Site & Sample Location Map





Attachment #4 Depth to Groundwater Information



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



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												
DOD N. I	G 1	Sub-	0	-	Q (-	T	n	•	*7	D' (D	al XV, IIID		Vater
POD Number L 01398	Code	basin L	County LE	64		1 Sec		Kng 37E	X 660901	Y 3638119*	DistanceDe	epthWellDep 115	tn water Co 50	oiumn 65
L 01107 POD1		L	LE	1	1	05	17S	37E	660800	3638218*	140	92	38	54
<u>L 02487</u>		L	LE		3	3 32	16S	37E	661016	3638527*	423	90	35	55
<u>L 02078</u>		L	LE		4 4	31	16S	37E	660613	3638521*	493	112	50	62
L 01604 POD1		L	LE	1	2	2 06	17S	37E	660397	3638214*	511	105		
<u>L 02549</u>		L	LE	3	3	05	17S	37E	660807	3637616*	512	138	65	73
<u>L 05458</u>		L	LE	1	4	31	16S	37E	660512	3638620*	633	240	50	190
<u>L 13414 POD5</u>		L	LE	4	1 2	2 06	17S	37E	660218	3637979	695	110	93	17
<u>L 13414 POD4</u>		L	LE	2	3	2 06	17S	37E	660248	3637870	697	110	93	17
L 13038 POD1		L	LE	4	1 2	2 06	17S	37E	660223	3637928	703	115		
<u>L 13414 POD2</u>		L	LE	4	1 2	2 06	17S	37E	660194	3637900	739	102	93	9
<u>L 13414 POD1</u>		L	LE	4	1 2	2 06	17S	37E	660176	3637917 🌍	751	110	93	17
<u>L 00449 S</u>		L	LE	2	2 4	1 06	17S	37E	660611	3637409*	767	120	48	72
<u>L 00449 S</u>	R	L	LE	2	2 4	1 06	17S	37E	660611	3637409*	767	120	48	72
<u>L 11773</u>		L	LE	2	2 4	1 06	17S	37E	660611	3637409	767	235		
<u>L 13414 POD3</u>		L	LE	2	3	2 06	17S	37E	660143	3637890	790	110	93	17
<u>L 13038 POD2</u>		L	LE	2	3	2 06	17S	37E	660146	3637865	795	115		
L 13038 POD3		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.

WATER COLUMN/ AVERAGE DEPTH TO WATER



Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

1 05 17S 37E

660901 3638119*

Estimated Yield:

Driller License: 46 Driller Company: ABBOTT BROTHERS COMPANY

Driller Name: ABBOTT, MURRELL

L 01398

 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:

Casing Size: Depth Well: 115 feet Depth Water: 50 feet

Water Bearing Stratifications: Top Bottom Description

50 115 Sandstone/Gravel/Conglomerate

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

^{*}UTM location was derived from PLSS - see Help



Point of Diversion Summary

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

 $(quarters\ are\ smallest\ to\ largest)$

(NAD83 UTM in meters)

POD Number Well Tag Q64 Q16 Q4 Sec Tws Rng L 01107 POD1

1 1 05 17S 37E

660800 3638218*

Driller License: Driller Company:

Driller Name: C O ALDRIDGE

Drill Start Date: 04/14/1951 **Drill Finish Date:** 04/16/1951 Plug Date: 12/31/1952 Log File Date: 05/04/1951 **PCW Rcv Date:** 05/10/1951 Source: Shallow

Pump Type: Pipe Discharge Size: **Estimated Yield:**

Casing Size: 7.00 Depth Well: 92 feet Depth Water: 38 feet

Water Bearing Stratifications:	Тор	Bottom	Description
	38	70	Sandstone/Gravel/Conglomerate
	80	92	Sandstone/Gravel/Conglomerate
Casing Perforations	: Тор	Bottom	
	40	78	

^{*}UTM location was derived from PLSS - see Help

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6/17/19 9:44 AM

POINT OF DIVERSION SUMMARY



Point of Diversion Summary

16S 37E

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

3 32

 $(quarters\ are\ smallest\ to\ largest)$

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng

L 02487

661016 3638527*

Driller License: 33 **Driller Company:** TATUM CLAUDE E.

Driller Name:

Drill Start Date: 02/06/1954 **Drill Finish Date:** 02/07/1954 Plug Date: 04/05/1955 Log File Date: 03/12/1954 PCW Rcv Date: Shallow Source:

Pump Type: Pipe Discharge Size: **Estimated Yield:**

Casing Size: Depth Well: 90 feet Depth Water: 35 feet

> Water Bearing Stratifications: Top Bottom Description

> > 38 90 Sandstone/Gravel/Conglomerate

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

^{*}UTM location was derived from PLSS - see Help



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USGS Water Resources

Data Category: Groundwater Geographic Area:

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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 (1210GLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

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 measurema
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		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	А	Approved for publication Processing and review completed.				

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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: <u>USGS Water Data Support Team</u> Page Last Modified: 2019-06-14 13:33:31 EDT

0.45 0.42 nadww02





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• 325141103164201

Minimum number of levels = 1

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USGS 325141103164201 17S.37E.05.133334

Lea County, New Mexico Latitude 32°51'51", Longitude 103°16'54" NAD27

Land-surface elevation 3,799.00 feet above NGVD29

This well is completed in the Ogallala Formation (1210GLL) local aquifer.

Output formats

output formute						
Table of data						
Tab-separated data						
Graph of data						
Reselect period						

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 measurem
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

Code	Description
D	Date is accurate to the Day
2	Water level accuracy to nearest hundredth of a foot
	The reported water-level measurement represents a static level
U	Unknown method.
	Not determined
U	Source is unknown.
Α	Approved for publication Processing and review completed.
	D 2 U U

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Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2019-06-14 13:34:59 EDT 0.46 0.44 nadww02





National Water Information System: Web Interface

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

• 325133103171301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 325133103171301 17S.37E.06.411331

Lea County, New Mexico Latitude 32°51'45", Longitude 103°17'25" NAD27 Land-surface elevation 3,806.00 feet above NGVD29 The depth of the well is 100 feet below land surface.

This well is completed in the Ogallala Formation (1210GLL) local aquifer.

Output formats

Table of data							
Tab-separated data							
Graph of data							
Reselect period							

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 measurem
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	Α	Approved for publication Processing and review completed.

Ouestions about sites/data? Feedback on this web site Automated retrievals Help Data Tips Explanation of terms
Subscribe for system changes <u>News</u>

Plug-Ins Accessibility 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: <u>USGS Water Data Support Team</u> 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: Groundwater Geographic Area:

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 (1210GLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

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 measurem
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	Α	Approved for publication Processing and review completed.

Data Tips Explanation of terms Subscribe for system changes News

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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: <u>USGS Water Data Support Team</u> Page Last Modified: 2019-06-14 13:37:22 EDT 0.45 0.42 nadww02



Attachment #5 Soil Profile

SOIL PROFILE

Site Name: Stale V TB

Date: 6/10/2019

Description		Depth (ft. bgs)
Brown Clayey Topsoil		1
CCS		2
Calcrete / Caliche		3
Calibe Rock		4
	tee tee	7p 5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		V215x
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
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		7
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		9
		9

Site Name:	State	V Taule	Bullery
Site Name:_	SHAPE	Viame	Butter

Date: 5/15/19

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Re-Sample Exlanated Sidewalls where previous Chloride exceedences
where Pislovered, Field Screen, Exc C, P, E
Photograph excavations

Odor/PID

Chloride

Field ID	Odor/PID	Chloride
C-NW#1	Ne	601
D-WW#1	Nove	408
ENWEL	wow	364

Odor/PID

Field ID

Chloride	Field ID	Odor/PID	Chloride

Field ID

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/ga/lab accred certif.html.

Cardinal Laboratories is accreditated 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)

Celey D. Keine

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



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

, ,

Received: 03/07/2017 Sampling Date: 03/01/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	< 0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.4	% 72-148	,						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	98.1	% 26.8-17	0						

Cardinal Laboratories *=Accredited Analyte

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

Received: 03/07/2017 Sampling Date: 03/01/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/09/2017	ND	480	120	400	3.39	
TPH 8015M	mg/	kg	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	87.0 9	% 26.8-17	0						

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

Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/01/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyze	d 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 9	% 72-148							
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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	
dito co cio									

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Celeg D. Keine

Surrogate: 1-Chlorooctadecane

82.4 %

26.8-170



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

Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/01/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: UL-C SEC.5, T17S,R37E Tamara Oldaker

NOT GIVEN Project Location:

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2017	ND	2.05	103	2.00	2.94	
Toluene*	<0.050	0.050	03/10/2017	ND	1.92	96.2	2.00	3.02	
Ethylbenzene*	<0.050	0.050	03/10/2017	ND	1.93	96.6	2.00	2.92	
Total Xylenes*	<0.150	0.150	03/10/2017	ND	5.54	92.3	6.00	2.99	
Total BTEX	<0.300	0.300	03/10/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 72-148	}						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	91.89	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 91.8 % 26.8-170

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Received: 03/07/2017 Sampling Date: 03/02/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyze	d 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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	% 25.1-15	8						

Surrogate: 1-Chlorooctadecane 102 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/02/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	90.0	% 26.8-17	0						

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

Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/03/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2017	ND	2.01	101	2.00	1.89	
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 BTEX	0.869	0.300	03/14/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 72-148	}						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						

Surrogate: 1-Chlorooctadecane 154 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/03/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/09/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	81.5	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 81.5 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/07/2017 Sampling Date: 03/06/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

TEX 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, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						

Surrogate: 1-Chlorooctadecane 144 % 26.8-170

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Received: 03/07/2017 Sampling Date: 03/06/2017

Reported: 03/14/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: UL-C SEC.5, T17S,R37E Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

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

BTEX 8021B	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	03/13/2017	ND	2.01	101	2.00	1.89	
Toluene*	<0.050	0.050	03/13/2017	ND	1.87	93.7	2.00	2.37	
Ethylbenzene*	<0.050	0.050	03/13/2017	ND	1.86	92.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	03/13/2017	ND	5.29	88.1	6.00	3.03	
Total BTEX	<0.300	0.300	03/13/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 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	03/09/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d 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 %	25.1-15	8						
Surrogate: 1-Chlorooctadecane	75.8 9	% 26.8-170	0						

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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

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	Inc.
2	

2100 Avenue O, Eunice, NM 88231

Facility Name Client Company

> State V Vanguard

ocation

Project Reference **EPI Sampler Name**

Dustin Crockett

LAB I.D.

SAMPLE I.D.

SP1 (Surface)

SP2 (Surface) SP1 (8')

P.O. Box 1558, Eunice, NM 88231

EPI Project Manager Company Name (575) 394-3481 FAX: (575) 394-2601 EPI Phone#/Fax# City, State, Zip Mailing Address P.O. BOX 1558 575-394-3481 / 575-394-2601 Daniel Dominguez Environmental Plus, Inc. **Eunice New Mexico 88231** Bill To ANALYSIS REQUEST

UL- C Sec. 5, T17S, R37E (G)RAB OR (C)OMP. G G G G G 9 9 G G # CONTAINERS **GROUND WATER** WASTEWATER MATRIX SOIL × × × × × CRUDE OIL SLUDGE Attn: Daniel Dominguez OTHER: **Eunice, NM 88231** PRESERV. ACID/BASE P.O. Box 1558 ICE/COOL E-mail results to: ddominguezepi@gmail.com & jterry@vnrllc.com × × NOTES OTHER 02-Mar-17 01-Mar-17 01-Mar-17 01-Mar-17 01-Mar-17 03-Mar-17 03-Mar-17 02-Mar-17 06-Mar-17 06-Mar-17 DATE SAMPLING 10:00 9:50 11:40 12:50 14:25 11:40 11:03 8:40 2:40 TIME 7:45 **BTEX 8021B**

TPH 8015M

OTHER >>>

рΗ TCLP

PAH

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CHLORIDES (CI')

SULFATES (SO4")

Sampler Relinquished

SP4 (14') SP4 (Surface) SP3 (28') SP3 (Surface) SP2 (8')

SP5 (12") SP5 (Surface)

×

nquished by

28.2

Time 6:00 am 3-7-17

Received By:

(lab staff)

elivered by

4,40

Sample Cool & Intact
Yes No

necked By

Chain of Custody Form Cardinal

Page 13 of 13



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/ga/lab accred certif.html.

Cardinal Laboratories is accreditated 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)

Celey D. Keine

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



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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/08/2017

Reported: 03/17/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: VANGUARD Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	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 9	72-148	}						
Chloride, SM4500Cl-B	mg/	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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	107 9	% 26.8-17	0						

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/08/2017

Reported: 03/17/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Project Number: Sample Received By: **VANGUARD** Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	77.1	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 77.1 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/17/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: VANGUARD Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	6 25.1-15	8						
Surrogate: 1-Chlorooctadecane	105 9	6 26.8-17	0						

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 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/17/2017
 Sampling Type:
 Soil

Reported: 03/17/2017 Sampling Type: Soil
Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: VANGUARD Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d By: MS					A-01
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	97.4 9	6 26.8-17	0						

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/10/2017

Reported: 03/17/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: **VANGUARD** Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.00	99.8	2.00	0.479	
Toluene*	<0.050	0.050	03/16/2017	ND	1.87	93.5	2.00	0.616	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.86	93.1	2.00	0.899	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.32	88.7	6.00	0.918	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	% 72-148	}						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	92.2	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 92.2 % 26.8-170

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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/10/2017

Reported: 03/17/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: VANGUARD Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	107	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 107 % 26.8-170

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Notes and Definitions

A-01 Sample jar contained headspace. Results may be biased low.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Freene

Page 1 of 1

Chain of Custody Form

Page 9 of 9

LAB

Cardinal

2100 Avenue O, Eunice, NM 88231 **Environmental Plus, Inc.**

P.O. Box 1558, Eunice, NM 88231

Project Reference Facility Name Client Company EPI Phone#/Fax# City, State, Zip Mailing Address **EPI Project Manager** Company Name **EPI Sampler Name** Location (575) 394-3481 FAX: (575) 394-2601 LAB I.D. SP8 (Surface) SP7 (26') SP7 (Surface) SP6 (38') SP6 (Surface) SP8 (42") SAMPLE I.D. State V 575-394-3481 / 575-394-2601 **Daniel Dominguez** Vanguard **Eunice New Mexico 88231** P.O. BOX 1558 **Environmental Plus, Inc. Dustin Crockett** UL- C Sec. 5, T17S, R37E Date 3-13-17 Time 6:00 am Date S/ 13/17 G G (G)RAB OR (C)OMP. G G G yed By: (lab staff **GROUND WATER** WASTEWATER MATRIX SOIL CRUDE OIL SLUDGE Attn: Daniel Dominguez OTHER: **Eunice, NM 88231** ACID/BASE PRESERV. P.O. Box 1558 E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com ICE/COOL Bill To Sample #4 has headspare OTHER 09-Mar-17 09-Mar-17 08-Mar-17 10-Mar-17 10-Mar-17 08-Mar-17 DATE SAMPLING 13:15 13:30 13:35 6:40 TIME 7:15 7:40 **BTEX 8021B TPH 8015M** CHLORIDES (CI') **ANALYSIS REQUEST** SULFATES (SO4") pН TCLP OTHER >>> PAH

elivered by

Sample Cool & Intact No

70.

Checked By:



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/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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)

Celey D. Keine

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



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

Fax To: (505) 394-2601

Received: 03/13/2017

Project Name: STATE V

Project Location: UL-C SEC.5, T17S,R37E

Sampling Date: 03/09/2017 Reported: 03/20/2017 Sampling Type: Soil

Sampling Condition: Cool & Intact Project Number: **NOT GIVEN** Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148	}						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					

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	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d 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 % 25.1-158 103 % 26.8-170 Surrogate: 1-Chlorooctadecane

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Fax To: (505) 394-2601

Received: 03/13/2017 Reported: 03/20/2017

Project Name: STATE V
Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

87.9 %

26.8-170

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	Analyze	d 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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	% 25.1-15	8						

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Celey D. Keine

Surrogate: 1-Chlorooctadecane



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

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	/kg	Analyze	d 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

Chlorida CM4500Cl D	mg/kg Analy			J D 40					
Chloride, SM4500CI-B	mg	/кд	Anaiyze	d 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

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148	}						
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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 %	6 25.1-15	8						

Surrogate: 1-Chlorooctadecane 117 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

Sample ID: SAAHS (SURFACE) (H700647-05)

BTEX 8021B	mg/	kg	Analyze	d 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 9	% 72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chile 1.1	46.0	16.0	02/46/2017	ND	44.6	104	400	0.00	

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

Surrogate: 1-Chlorooctane 111 % 25.1-158 Surrogate: 1-Chlorooctadecane 121 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil Project Name: STATE V

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	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 9	25.1-15	8						
-									

115 % 26.8-170 Surrogate: 1-Chlorooctadecane

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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017 Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

117%

26.8-170

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

BTEX 8021B	mg/kg		Analyze	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 9	% 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	% 25.1-15	8						

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Celey D. Keine

Surrogate: 1-Chlorooctadecane



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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	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	Analyze	d 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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	115 9	% 26.8-17	0						

Surrogate: 1-Chlorooctadecane 115 % 26.8-170

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Celeg D. Freene

03/09/2017



Analytical Results For:

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date:

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B Analyte	mg/kg		Analyzed By: MS						
	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 %	6 72-148	}						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						

Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/16/2017	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	208	104	200	4.11	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	213	107	200	6.16	

Surrogate: 1-Chlorooctane 105 % 25.1-158 Surrogate: 1-Chlorooctadecane 110 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil Project Name: STATE V Sampling Condition:

Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	d 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	Analyze	d 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	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
	<10.0	10.0	03/15/2017	ND	208	104	200	4.11	
GRO C6-C10	<10.0	20.0							

116 % 26.8-170 Surrogate: 1-Chlorooctadecane

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 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/20/2017
 Sampling Type:
 Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	97.2 9	% 26.8-17	70						

Surrogate: 1-Chlorooctadecane 97.2 % 26.8-170

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	< 0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	< 0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	101 9	6 26.8-17	0						

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Analytical Results For:

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

Received: 03/13/2017 Sampling Date:

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

Sample ID: SABHS (SURFACE) (H700647-13)

BTEX 8021B	mg/k	кg	Analyze	d 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 %	6 72-148							
Chloride, SM4500Cl-B	mg/k	кg	Analyze	d By: AC					

Chloride, SM4500CI-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 96.7 % 25.1-158 Surrogate: 1-Chlorooctadecane 100 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 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 %	6 25.1-15	8						
Surrogate: 1-Chlorooctadecane	101 9	6 26.8-17	0						

20.0 1/0

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

Received: 03/13/2017

Reported: 03/20/2017
Project Name: STATE V
Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

Sampling Date: 03/09/2017

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/16/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/16/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	<0.050	0.050	03/16/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/16/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/16/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	% 72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chlorido	16.0	16.0	02/16/2017	ND	116	104	400	0.00	

Chloride, SM4500CI-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/16/2017	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/14/2017	ND	195	97.3	200	4.00	
DRO >C10-C28	<10.0	10.0	03/14/2017	ND	205	102	200	3.29	

Surrogate: 1-Chlorooctane 90.6 % 25.1-158 Surrogate: 1-Chlorooctadecane 94.7 % 26.8-170

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03/09/2017

Soil



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

Sampling Type: Project Name: STATE V Sampling Condition: Cool & Intact Project Number: Sample Received By: NOT GIVEN Tamara Oldaker

Sampling Date:

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	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	3						
Chloride, SM4500Cl-B	mg/	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	Analyze	d 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	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	99.1	% 26.8-17	70						

Surrogate: 1-Chlorooctadecane 26.8-170

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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

Surrogate: 1-Chlorooctane 84.2 % 25.1-158
Surrogate: 1-Chlorooctadecane 88.8 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	91.19	% 26.8-17	0						

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Received: 03/13/2017 Sampling Date: 03/09/2017 Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.00440	
Toluene*	<0.050	0.050	03/17/2017	ND	1.95	97.7	2.00	0.214	
Ethylbenzene*	< 0.050	0.050	03/17/2017	ND	1.95	97.6	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.58	93.0	6.00	0.324	
Total BTEX	<0.300	0.300	03/17/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	87.8 9	% 26.8-17	0						

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Project Number: Sample Received By: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	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 %	6 72-148	}						
Chloride, SM4500CI-B	mg/	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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	89.69	% 26.8-17	70						

Surrogate: 1-Chlorooctadecane 89.6 % 26.8-170

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Received: 03/13/2017

Reported: 03/20/2017
Project Name: STATE V
Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

Sampling Date: 03/09/2017

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
Toluene*	<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
Total Xylenes*	<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
Total BTEX	<0.300	0.300	03/17/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 72-148							
Chloride, SM4500Cl-B	mg,	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/16/2017	ND	416	104	400	0.00	

PD Qualifier	r
00	
29	
0	00

Surrogate: 1-Chlorooctane 97.1 % 25.1-158 Surrogate: 1-Chlorooctadecane 97.3 % 26.8-170

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03/09/2017



Analytical Results For:

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

Received: 03/13/2017 Sampling Date:

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 BTEX	<0.300	0.300	03/17/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	81.89	6 26.8-17	0						

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03/09/2017

Soil



Analytical Results For:

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: Reported: 03/20/2017 Sampling Type:

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

78.0 %

26.8-170

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

BTEX 8021B	mg/kg		Analyze	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 BTEX	<0.300	0.300	03/17/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						

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Celey D. Keine

Surrogate: 1-Chlorooctadecane



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

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: UL-C SEC.5, T17S,R37E

mg/kg

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

BTEX 8021B

	91								
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 %	6 72-148							
Chloride, SM4500CI-B	mg/	kg	Analyze	d 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	Analyze	d 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	86.49	25.1-150	8						

Surrogate: 1-Chlorooctadecane 86.8 % 26.8-170

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Fax To: (505) 394-2601

 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/20/2017
 Sampling Type:
 Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148	}						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	93.0 9	% 26.8-17	0						

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 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/20/2017
 Sampling Type:
 Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d 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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	100 %	6 26.8-17	0						

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg,	kg	Analyze	d 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	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

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

mg/l	kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	03/17/2017	ND	2.07	103	2.00	0.523	
<0.050	0.050	03/17/2017	ND	1.94	97.2	2.00	0.0733	
<0.050	0.050	03/17/2017	ND	1.96	98.1	2.00	0.977	
<0.150	0.150	03/17/2017	ND	5.61	93.5	6.00	1.04	
<0.300	0.300	03/17/2017	ND					
104 %	6 72-148	}						
mg/l	kg	Analyze	d By: AC					
	Result <0.050 <0.050 <0.050 <0.150 <0.300	<0.050 0.050 <0.050 0.050 <0.050 0.050 <0.050 0.150 <0.150 0.300	Result Reporting Limit Analyzed <0.050	Result Reporting Limit Analyzed Method Blank <0.050	Result Reporting Limit Analyzed Method Blank BS <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <0.050	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <0.050

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

Surrogate: 1-Chlorooctane 94.6 % 25.1-158 Surrogate: 1-Chlorooctadecane 102 % 26.8-170

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 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/20/2017
 Sampling Type:
 Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 72-148							
Chloride, SM4500Cl-R	ma/	ka	Δnalvze	d Bv: AC					

Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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-Chlorooctane91.8 %25.1-158Surrogate: 1-Chlorooctadecane87.0 %26.8-170

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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	Analyze	d 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	Analyze	d 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	% 25.1-15	8						
G 1 CH 1	07.44	24.0.17	10						

97.4 % 26.8-170 Surrogate: 1-Chlorooctadecane

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Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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	Qualifie
Chloride	<16.0	16.0	03/16/2017	ND	400	100	400	7.69	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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								

94.1 % 26.8-170 Surrogate: 1-Chlorooctadecane

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Received: 03/13/2017 Sampling Date: 03/09/2017 Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: NOT GIVEN

Project Location: UL-C SEC.5, T17S,R37E

99.0 %

26.8-170

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

BTEX 8021B	mg/kg		Analyze	d 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	Qualifie
Chloride	16.0	16.0	03/17/2017	ND	400	100	400	7.69	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
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 9	% 25.1-15	8						

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Celey D. Keine

Surrogate: 1-Chlorooctadecane

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	95.69	% 26.8-17	70						

Surrogate: 1-Chlorooctadecane 95.6 % 26.8-170

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: UL-C SEC.5, T17S,R37E

ma/ka

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

RTFY 8021R

B1EX 8021B	mg/	кд	Anaiyze	а ву: мѕ					
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 %	6 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	Analyze	d 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 %	6 25.1-156	8						
Surrogate: 1-Chlorooctadecane	89.79	6 26.8-170	0						

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

Fax To: (505) 394-2601

 Received:
 03/13/2017
 Sampling Date:
 03/09/2017

 Reported:
 03/20/2017
 Sampling Type:
 Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	92.0 9	% 26.8-17	0						

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Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: UL-C SEC.5, T17S,R37E

mg/kg

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

BTEX 8021B

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 %	6 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	Analyze	d 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	91.69	25.1-15	8						

Surrogate: 1-Chlorooctadecane 95.2 % 26.8-170

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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact Sample Received By: Project Number: NOT GIVEN Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/	kg	Analyze	d 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 %	6 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	Analyze	d 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 9	% 25.1-15	8						
Surrogate: 1-Chlorooctadecane	96.99	% 26.8-17	70						

Surrogate: 1-Chlorooctadecane 26.8-170

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

Fax To: (505) 394-2601

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil
Project Name: STATE V Sampling Condition: Cool & Intact

Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: UL-C SEC.5, T17S,R37E

ma/ka

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

RTFY 8021R

BIEX 8021B	mg/	кд	Anaiyze	а ву: м5					
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 %	6 72-148	,						
Chloride, SM4500Cl-B	mg/	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	Analyze	d 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 9	25.1-15	8						
Surrogate: 1-Chlorooctadecane	96.5 9	% 26.8-17	0						

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

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Project Location: UL-C SEC.5, T17S,R37E

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

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/17/2017	ND	2.26	113	2.00	1.12	
Toluene*	<0.050	0.050	03/17/2017	ND	2.14	107	2.00	1.24	
Ethylbenzene*	<0.050	0.050	03/17/2017	ND	2.16	108	2.00	1.71	
Total Xylenes*	< 0.150	0.150	03/17/2017	ND	6.17	103	6.00	1.63	
Total BTEX	<0.300	0.300	03/17/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	72-148							
Chloride, SM4500CI-B	mg/	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	RS	% Recovery	True Value OC	RPD	Qualifier

Chloride, SM4500CI-B	mg	/kg	Analyze	d 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,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/15/2017	ND	195	97.6	200	0.583	
DRO >C10-C28	<10.0	10.0	03/15/2017	ND	206	103	200	0.0802	

Surrogate: 1-Chlorooctane 98.3 % 25.1-158 Surrogate: 1-Chlorooctadecane 101 % 26.8-170

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

Received: 03/13/2017 Sampling Date: 03/09/2017

Reported: 03/20/2017 Sampling Type: Soil

Project Name: STATE V Sampling Condition: Cool & Intact
Project Number: NOT GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: UL-C SEC.5, T17S,R37E

mg/kg

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

BTEX 8021B

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 %	6 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	Analyze	d 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-Chlorooctadecane 91.0 % 26.8-170

86.5 %

25.1-158

Surrogate: 1-Chlorooctane

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Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Eunica I	mental
VM 88231	Plus,
	Inc.
P.O	

Sampler Relinquished: Control C	10 SABHN (1")	9 SABHN (Surface)	8 SAAHW (1')	7 SAAHW (Surface)		SAAHS	SAAHE		2 SAAHN (1")	1 SAAHN (Surface)	LAB I.D. SAMPLE I.D.		EPI Sampler Name Dustin Crockett	Project Reference	Location UL- C Sec. 5, T17S,	Facility Name State V	Client Company Vanguard	EPI Phone#/Fax# 575-394-3481 / 575-394-2601	City, State, Zip Eunice New Mexico 88231	Mailing Address P.O. BOX 1558	EPI Project Manager Daniel Dominguez	le	(575) 394-3481 FAX: (575) 394-2601	2100 Avenue O, Eunice, NM 88231	Environmental Plus, Inc.	
Received By: Received By: Recoived By: No	G 1	G 1	G 1	G 1	G 1	G 1	G 1	G 1	G 1	G 1	(G)RAB OR (C)OMP. # CONTAINERS GROUND WATER				R37E			394-2601	88231			, Inc.		P.O. Box 15		
(lab staff) Checked By	×	×	×	×	×	×	×	×	X	×	CRUDE OIL SLUDGE	MATRIX			_					_	_			P.O. Box 1558, Eunice, NM 88231		
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E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com NOTES:	US-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-17	09-Mar-1/	DATE	SAMPLING	M 88231	(1558	ominguez							0				
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Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231

P.O. Box 1558, Eunice, NM 88231

Delivered by.	Relinquished by:	Why Gocket	Sampler Relinguished:	WC 07			18 SA	17 SA	16 SA	15 SA			12 SA	11 SA		LAB I.D.		EPI Sampler Name	Project Reference	Location	Facility Name	Client Company	EPI Phone#/Fax#	City, State, Zip	Mailing Address	EPI Project Manager	Company Name	(575) 394-3481 FAX
4.76 (es) No	Imed in		Date 3-13-17	SACIE (1)	CHE (1")	SACHE (Surface)	SACHN (1')	17 SACHN (Surface)	16 SABHW (1')	15 SABHW (Surface)	SABHS (1')	SABHS (Surface)	SABHE (1')	SABHE (Surface)		SAMPLE I.D.		Dustin Crockett		UL- C Sec. 5, T17S,	State V	Vanguard	575-394-3481 / 575-394-2601	Eunice New Mexico 88231	P.O. BOX 1558	Daniel Dominguez	Environmental Plus,	FAX: (575) 394-2601
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2100 Avenue O, Eunice, NM 88231

P.O. Box 1558, Eunice, NM 88231

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Chain of Custody Form Page 46 of 46



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

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1905E10**

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	120	60		mg/Kg	20	6/3/2019 4:42:55 PM	45327
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst	JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
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
EPA METHOD 8021B: VOLATILES						Analyst	NSB
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.

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 1 of 15

Analytical Report

Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	ND	60		mg/Kg	20	6/3/2019 4:55:20 PM	45327
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst	JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
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
EPA METHOD 8021B: VOLATILES						Analyst	NSB
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.

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 2 of 15

Lab Order 1905E10

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	270	60	mg/Kg	20	6/3/2019 5:07:44 PM	45327
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	NSB
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.

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 Quanitative Limit

- 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

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Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	ND	60		mg/Kg	20	6/3/2019 2:39:07 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	200	60	mg/Kg	20	6/3/2019 3:16:20 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	NSB
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.

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 Quanitative 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

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Lab Order 1905E10

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	82	60	mg/Kg	20	6/3/2019 3:28:45 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	79	60	mg/Kg	20	6/3/2019 3:41:10 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E10

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	81	60	mg/Kg	20	6/3/2019 3:53:34 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	88	60	mg/Kg	20	6/3/2019 4:05:59 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Client:

Hall Environmental Analysis Laboratory, Inc.

14

1.5

15.00

Vanguard Operating

WO#: **1905E10**

Qual

RPDLimit

10-Jun-19

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: mq/Kq PQL SPK value SPK Ref Val %REC LowLimit %RPD Analyte Result HighLimit Chloride ND 1.5

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

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: Ics 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

O

90.3

90

110

Qualifiers:

Chloride

- 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 Quanitative 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.

WO#: **1905E10**

10-Jun-19

Client: Vanguard Operating
Project: State V CTB-B

Sample ID: MB-45297 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 45297 RunNo: 60356 Units: mg/Kg Prep Date: 5/31/2019 Analysis Date: 6/3/2019 SeqNo: 2040613 Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result

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: LCS-45297 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 45297 RunNo: 60356

Prep Date: 5/31/2019 Analysis Date: 6/3/2019 SeqNo: 2040614 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD Analyte PQL LowLimit HighLimit **RPDLimit** Qual Diesel Range Organics (DRO) 46 10 50.00 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 Quanitative 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

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1905E10**

10-Jun-19

Project: State V	СТВ-В		
Sample ID: MB-45276	SampType: MBLK	TestCode: EPA Method	l 8015D: Gasoline Range
Client ID: PBS	Batch ID: 45276	RunNo: 60312	
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039133	Units: mg/Kg
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: LCS-45276	SampType: LCS	TestCode: EPA Method	l 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 45276	RunNo: 60312	
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039134	Units: mg/Kg
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: MB-45287	SampType: MBLK	TestCode: EPA Method	l 8015D: Gasoline Range
Client ID: PBS	Batch ID: 45287	RunNo: 60312	
Prep Date: 5/30/2019	Analysis Date: 5/31/2019	SeqNo: 2039157	Units: %Rec
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: LCS-45287	SampType: LCS	TestCode: EPA Method	l 8015D: Gasoline Range
Sample ID: LCS-45287 Client ID: LCSS	SampType: LCS Batch ID: 45287	TestCode: EPA Method RunNo: 60312	l 8015D: Gasoline Range
			Units: %Rec
Client ID: LCSS	Batch ID: 45287 Analysis Date: 5/31/2019	RunNo: 60312	Units: %Rec
Client ID: LCSS Prep Date: 5/30/2019	Batch ID: 45287 Analysis Date: 5/31/2019	RunNo: 60312 SeqNo: 2039158	Units: %Rec HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8	Units: %Rec HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8	Units: %Rec HighLimit
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method	Units: %Rec HighLimit
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO)	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO)	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit 91.1 73.8	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0 910 1000	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit 91.1 73.8	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: LCS-45283	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0 910 1000 SampType: LCS	RunNo: 60312 SPK Ref Val SPK Ref Val MREC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit 91.1 73.8 TestCode: EPA Method	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: LCS-45283 Client ID: LCSS	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0 910 1000 SampType: LCS Batch ID: 45283 Analysis Date: 5/31/2019	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit 91.1 73.8 TestCode: EPA Method RunNo: 60311	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: LCS-45283 Client ID: LCSS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO)	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0 910 1000 SampType: LCS Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value SampType: LCS Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value 23 5.0 25.00	RunNo: 60312 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit TestCode: EPA Method RunNo: 60311 SeqNo: 2039217 SPK Ref Val %REC LowLimit SPK Ref Val %REC LowLimit 0 92.0 80.1	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual 123
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: LCS-45283 Client ID: LCSS Prep Date: 5/30/2019 Analyte	Batch ID: 45287 Analysis Date: 5/31/2019 Result PQL SPK value 1100 1000 SampType: MBLK Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value ND 5.0 910 1000 SampType: LCS Batch ID: 45283 Analysis Date: 5/31/2019 Result PQL SPK value	RunNo: 60312 SeqNo: 2039158 SPK Ref Val %REC LowLimit 105 73.8 TestCode: EPA Method RunNo: 60311 SeqNo: 2039216 SPK Ref Val %REC LowLimit TestCode: EPA Method RunNo: 60311 SeqNo: 2039217 SPK Ref Val %REC LowLimit	Units: %Rec HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual 119 I 8015D: Gasoline Range Units: mg/Kg HighLimit %RPD RPDLimit Qual 123

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 Quanitative 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.

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

 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 Quanitative 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

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1905E10**

10-Jun-19

Project: State V	СТВ-В								
Sample ID: MB-45276	SampType: I	//BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch ID: 4	15276	R	RunNo: 60	312				
Prep Date: 5/30/2019	Analysis Date:	5/31/2019	S	SeqNo: 20	39171	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 0.02	5							
Toluene	ND 0.05	0							
Ethylbenzene	ND 0.05								
Xylenes, Total	ND 0.1								
Surr: 4-Bromofluorobenzene	1.0	1.000		99.8	80	120			
Sample ID: LCS-45276	SampType: I	.cs	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID: 4	5276	R	RunNo: 60	312				
Prep Date: 5/30/2019	Analysis Date:	5/31/2019	S	SeqNo: 20	39172	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1 0.02	5 1.000	0	105	80	120			
Toluene	1.0 0.05	0 1.000	0	101	80	120			
Ethylbenzene	0.98 0.05	0 1.000	0	98.4	80	120			
Xylenes, Total	2.8 0.1	0 3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	1.0	1.000		101	80	120			
Sample ID: MB-45287	SampType: N	/IBLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch ID: 4	5287	R	RunNo: 60	312				
Prep Date: 5/30/2019	Analysis Date:	5/31/2019	S	SeqNo: 20	39195	Units: %Red	;		
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: LCS-45287	SampType: L	_CS	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID: 4	5287	R	RunNo: 60	312				
Prep Date: 5/30/2019	Analysis Date:	5/31/2019	S	SeqNo: 20	39196	Units: %Red	:		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0	1.000		102	80	120			
Sull. 4-DIOINOIROIODENZENE	1.0	1.000							
Sample ID: MB-45283	SampType: I		Tes		PA Method	8021B: Volat	iles		
		MBLK				8021B: Volat	iles		
Sample ID: MB-45283	SampType: I	MBLK 15283	R	tCode: EF	311	8021B: Volat			
Sample ID: MB-45283 Client ID: PBS	SampType: N	MBLK 15283 5/31/2019	R	tCode: EF RunNo: 6 (311			RPDLimit	Qual
Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019	SampType: N Batch ID: 4 Analysis Date:	MBLK 15283 5/31/2019	R	tCode: EF RunNo: 60 SeqNo: 20)311)39249	Units: mg/K	g	RPDLimit	Qual
Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte	SampType: I Batch ID: 4 Analysis Date: Result PQL	MBLK 15283 5/31/2019 SPK value	R	tCode: EF RunNo: 60 SeqNo: 20)311)39249	Units: mg/K	g	RPDLimit	Qual
Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Benzene	SampType: Batch ID: 4 Analysis Date: Result PQL ND 0.02	MBLK 45283 5/31/2019 SPK value 5	R	tCode: EF RunNo: 60 SeqNo: 20)311)39249	Units: mg/K	g	RPDLimit	Qual
Sample ID: MB-45283 Client ID: PBS Prep Date: 5/30/2019 Analyte Benzene Toluene	SampType: II Batch ID: 4 Analysis Date: Result PQL ND 0.02 ND 0.05	MBLK 45283 5/31/2019 SPK value 5 0	R	tCode: EF RunNo: 60 SeqNo: 20)311)39249	Units: mg/K	g	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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 14 of 15

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

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result Qual

Surr: 4-Bromofluorobenzene 1.0 1.000 104 80 120

Sample ID: LCS-45283 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Batch ID: 45283 Client ID: LCSS RunNo: 60311

Prep Date: Analysis Date: 5/31/2019 SeaNo: 2039250 E/20/2010 Units: ma/Ka

1 10p Bate: 3/30/2013	7 thaiyolo L	Jaic. 3	31/2013	,	204110. Z	000200	Office. High	•9		
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 D)ate: 5/ 3	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 D	Date: 5/	31/2019	5	SeqNo: 2039254 Units: mg/Kg			g		
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

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 15 of 15



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Cli	ent Name:	VANGARD	OPERATING	G Work	Order Num	ber: 1905E10		RcptNo	: 1
Red	ceived By:	Leah Baca	a	5/30/20	19 8:45:00	АМ	Look Bree	4	
Cor	mpleted By:	Leah Baca	1	5/30/20	19 11:25:4°	1 AM	Lool Base		
Rev	viewed By:	18		5/20	10		Lungs		
		ry		5/50	10				
Cha	ain of Cust	ody							
	s Chain of Cu		ete?			Yes 🗸	No 🗌	Not Present	
2. H	low was the s	ample deliv	ered?			Courier		18	
		•			40				
v. 20	<u>g In</u>								
3. V	Vas an attemp	ot made to c	ool the samp	les?		Yes 🗸	No 📙	NA 🗌	
4 v	Voro all compl	ss received	at a tamanana	ture of >0° C t	- 6 000		No 🗌		
4. V	vere all samp	es received	at a tempera	ture or >0 C t	0 6.0 C	Yes 🗸	140	NA L	
5. s	Sample(s) in p	roper contai	ner(s)?			Yes 🗸	No 🗌		
	ufficient samp					Yes 🗹	No 🗌		
				perly preserve	d?	Yes 🗸	No 📙	_	
8. v	Vas preservati	ve added to	bottles?			Yes	No 🗸	NA 🗌	
9. v	OA vials have	zero heads	pace?			Yes	No 🗆	No VOA Vials	
	Vere any sam			roken?		Yes	No 🗹	THE VENT VILLE E	
10.		pro comanio		ionom.		103	110	# of preserved bottles checked	
11.D	oes paperwor	k match bot	tle labels?			Yes 🗸	No 🗆	for pH:	
1)	Note discrepa	ncies on cha	in of custody)					r >12 unless noted)
		- 0		n of Custody?		Yes 🗹	No 🗌	Adjusted?	
	it clear what			?		Yes 🗸	No 📙		
	Vere all holdin f no, notify cu					Yes 🗸	No 🗌	Checked by:	
Spec	cial Handli	ng (if app	licable)						
15.V	Vas client not	ified of all di	screpancies v	vith this order?		Yes	No 🗌	NA 🗸	
	Person N	Notified:			Date				
	By Whor	n: [Via:	eMail	Phone Fax	☐ In Person	
	Regardir	ng:							
	Client In:	structions:							
16.	Additional rem	narks:							
17	Cooler Inforn	nation							
17.	Cooler Inform	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	***************************************	
	1	2.1	Good	Yes		200			

Chain-of-Custody Record	300 7	Turn-Around	Turn-Around Time:	1600				1			9 11 11	Č	Ć		ŀ	an cj	
Client:		Standard Standard	□ Rush				1 [j ×				ANALYSTS LABORA-		TODY	
>		Project Name						}	w.h.	allenv	ironr	www.hallenvironmental.com	com.)	# #	
Mailing Address: 400 Pe	Perbrooke Sta. 201	State	VCTB-	B		49()1 Ha	4901 Hawkins NE	NE S	- Alb	enbn	rque,	ΣZ	Albuquerque, NM 87109			
Ode55a TX 7976.	8	Project #:	•			Tel.		505-345-3975	-397E		Fax	505-345-4107	45-4	20			
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email or Fax#:		Project Manager: Tool		Loury	(1			_	_	ÞΟ			(11				
QA/QC Package:	Œ.				208		s'8		CIA	S '*			iəsq				
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Accreditation: Az Compliance	20 Es.	Sampler: //k	H 700/10	\ S	∃MT \	O / DE	Z808/	(1.40	728 ro	'ZON	Market Market		19891				
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If necessary, samples submit	necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	intracted to other ac	scredited laboratories	s. This serves as notice of	this pos	sibility. /	Any sub	-contrac	ted dat	a will be	clearly	notatec	I on the	analytical r	eport.		7



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

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	530	59	mg/Kg	20	6/3/2019 4:18:23 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 1 of 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	530	60	mg/Kg	20	6/3/2019 4:55:36 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	NSB
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.

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 2 of 22

Lab Order 1905E11

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	6/3/2019 5:08:01 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

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

Page 3 of 22

Lab Order 1905E11

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	480	60	mg/Kg	20	6/3/2019 5:20:26 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 4 of 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	ND	60	mg/Kg	20	6/3/2019 5:32:50 PM	45328
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: SW #1

State V CTB-A Collection Date: 5/28/2019 9:25:00 AM **Project:** 1905E11-006 Received Date: 5/30/2019 8:45:00 AM Lab ID: Matrix: SOIL

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	ND	60	mg/Kg	20	6/5/2019 2:02:06 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	61	60	mg/Kg	20	6/5/2019 2:39:20 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	120	60		mg/Kg	20	6/5/2019 2:51:45 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	220	60	mg/Kg	20	6/5/2019 3:04:10 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	260	60		mg/Kg	20	6/5/2019 3:41:24 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS						Analyst:	smb
Chloride	130	60		mg/Kg	20	6/5/2019 3:53:49 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst:	BRM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
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
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
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.

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 Quanitative 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
- pring Limit Page 11 of 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	70	60	mg/Kg	20	6/5/2019 4:06:14 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG				Analyst	: TOM	
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating **Client Sample ID:** Floor #2

Collection Date: 5/28/2019 10:00:00 AM State V CTB-A **Project:** Lab ID: 1905E11-013 Matrix: SOIL **Received Date: 5/30/2019 8:45:00 AM**

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CJS
Chloride	66	60	mg/Kg	20	6/5/2019 8:51:11 PM	45398
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	NSB
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.

Qualifiers:

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

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1905E11

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	: CJS
Chloride	92	60	mg/Kg	20	6/5/2019 9:03:36 PM	45398
EPA METHOD 8015M/D: DIESEL RANGE ORG				Analyst	: TOM	
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative 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

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Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 300.0: ANIONS					Analyst	: CJS
Chloride	91	60	mg/Kg	20	6/5/2019 9:16:01 PM	45398
EPA METHOD 8015M/D: DIESEL RANGE ORG				Analyst	: TOM	
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
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.

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 Quanitative Limit

- 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

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1905E11**

10-Jun-19

Client: Project:	Vanguard State V C										
Sample ID: MB	3-45328	SampType: mblk			Tes	TestCode: EPA Method 300.0: Anions					
Client ID: PB	S	Batch	ID: 45 3	328	F	RunNo: 6	0349				
Prep Date: 6/	/3/2019	Analysis Da	ate: 6/ 3	3/2019	5	SeqNo: 2	041072	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LC	S-45328	SampTy	/pe: lcs	1	Tes	tCode: El	PA Method	300.0: Anions	5		
Client ID: LC	SS	Batch	ID: 45 3	328	F	RunNo: 6	0349				
Prep Date: 6/	/3/2019	Analysis Da	ate: 6/ 3	3/2019	9	SeqNo: 2	041073	Units: mg/K	g		
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	3-45384	SampTy	/pe: ME	BLK	Tes	tCode: El	PA Method	300.0: Anions	S		
Client ID: PB	s	Batch	ID: 45	384	F	RunNo: 6	0433				
Prep Date: 6/	/5/2019	Analysis Da	ate: 6/	5/2019	9	SeqNo: 2	043901	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LC	S-45384	SampTy	/pe: LC	S	Tes	tCode: El	PA Method	300.0: Anions	5		
Client ID: LC	SS	Batch	ID: 45	384	RunNo: 60433						
Prep Date: 6/	/5/2019	Analysis Da	ate: 6/	5/2019	SeqNo: 2043902 Units: mg/l				g		
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	3-45398	SampTy	/pe: mb	olk	Tes	tCode: El	PA Method	300.0: Anion	S		
Client ID: PB	s	Batch	ID: 45	398	F	RunNo: 6	0439				
Prep Date: 6/	/5/2019	Analysis Da	ate: 6/	5/2019	9	SeqNo: 2	044238	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LC	S-45398	SampTy	/pe: lcs	;	Tes	tCode: El	PA Method	300.0: Anions	S		
Client ID: LC	SS	Batch	ID: 45 3	398	F	RunNo: 6	0439				
Prep Date: 6/	/5/2019	Analysis Da	ate: 6/	5/2019	\$	SeqNo: 2	044239	Units: mg/K	g		
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 Quanitative 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

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1905E11**

10-Jun-19

Project: State V C	ТВ-А									
Sample ID: LCS-45302	SampType:	LCS	Tes	tCode: EPA Metho	d 8015M/D: Die	sel Range	e Organics			
Client ID: LCSS	Batch ID:	45302	F	RunNo: 60335						
Prep Date: 5/31/2019	Analysis Date:	6/3/2019	\$	SeqNo: 2040606	Units: mg/Kg	g				
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	50	0 50.00	0	101 63.9	124					
Surr: DNOP	5.2	5.000		104 70	130					
Sample ID: MB-45302	SampType:	MBLK	Tes	tCode: EPA Metho	d 8015M/D: Die	l 8015M/D: Diesel Range Organics				
Client ID: PBS	Batch ID:	45302	F	RunNo: 60335						
Prep Date: 5/31/2019	Analysis Date:	6/3/2019	9	SeqNo: 2040608	Units: mg/Kg	g				
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)		0								
Motor Oil Range Organics (MRO)		50								
Surr: DNOP	12	10.00		120 70) 130					
Sample ID: MB-45297	SampType:	d 8015M/D: Die	sel Range	e Organics						
Client ID: PBS	Batch ID:	45297	RunNo: 60356							
Prep Date: 5/31/2019	Analysis Date:	6/3/2019	5	SeqNo: 2040613	Units: mg/Kg					
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	ND ^	0								
Motor Oil Range Organics (MRO)	ND 5	0								
Surr: DNOP	8.9	10.00		88.6 70	130					
Sample ID: LCS-45297	SampType:	_CS	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID:	15297	F	RunNo: 60356						
Prep Date: 5/31/2019	Analysis Date:	6/3/2019	5	SeqNo: 2040614	Units: mg/Kg	g				
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	46	0 50.00	0	91.1 63.9	124					
Surr: DNOP	4.4	5.000		88.7 70	130					
Sample ID: 1905E11-006AMS	SampType:	MS	Tes	tCode: EPA Metho	d 8015M/D: Die	sel Range	e Organics			
Client ID: SW #1	Batch ID:	45302	F	RunNo: 60436						
Prep Date: 5/31/2019	Analysis Date:	6/7/2019	S	SeqNo: 2044902	902 Units: mg/Kg					
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC LowLimi	t HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	38 9	.8 48.92	70.05	-66.4 57	7 142			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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 17 of 22

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 70.05 R Diesel Range Organics (DRO) 10 97.5 20 110 50.40 77.5 57 142 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 Quanitative 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

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1905E11**

10-Jun-19

Project: State V C	CTB-A								
Sample ID: MB-45287	SampType	e: MBLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID	: 45287	R	RunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039157	Units: mg/k	(g		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 890	5.0		89.4	73.8	119			
Sample ID: LCS-45287	SampType	e: LCS	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCSS	Batch ID	: 45287	R	RunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039158	Units: mg/k	(g		
Analyte	Result P	QL 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: 1905E11-013AMS	SampType	e: MS	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: Floor #2	Batch ID	: 45287	R	RunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039160	Units: mg/K	(g		
Analyte	Result P	QL 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: 1905E11-013AMS	D SampType	e: MSD	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: Floor #2	Batch ID	: 45287	R	RunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039161	Units: mg/k	(g		
Analyte	Result P	QL 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: MB-45283	SampType	e: MBLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: PBS	Batch ID	: 45283	R	RunNo: 60	0311				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039216	Units: mg/k	(g		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 910	5.0		91.1	73.8	119			
Sample ID: LCS-45283	SampType	: LCS	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCSS	Batch ID	: 45283	R	RunNo: 60	0311				
Prep Date: 5/30/2019	Analysis Date	5/31/2019	S	SeqNo: 20	039217	Units: mg/K	(g		

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 19 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905E11**

10-Jun-19

Client: Vanguard Operating
Project: State V CTB-A

Sample ID: LCS-45283 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 45283 RunNo: 60311

Prep Date: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039217 Units: mg/Kg

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 20 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E11

10-Jun-19

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

Sample ID: MB-45287 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: 45287 RunNo: 60312

Batch ID: 45287

Prep Date: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039195 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual Benzene ND 0.025

Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10

Client ID: LCSS

Surr: 4-Bromofluorobenzene 0.91 1.000 91.3 80 120

Sample ID: LCS-45287 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Prep Date: Analysis Date: 5/31/2019 SeqNo: 2039196 5/30/2019 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1.000 1.0 0.025 0 105 80 120 Benzene Toluene 1.0 0.050 1.000 0 104 80 120 Ethylbenzene 0 0.050 1.000 103 80 120 1.0 0 100 Xylenes, Total 3.0 0.10 3.000 80 120 Surr: 4-Bromofluorobenzene 1.0 1.000 102 80 120

RunNo: 60312

Sample ID: 1905E11-014AMS SampType: MS TestCode: EPA Method 8021B: Volatiles

Client ID: Floor #3 Batch ID: 45287 RunNo: 60312

Prep Date: 5/30/2019	Analysis [Date: 6/	1/2019	5	SeqNo: 2	039199	Units: mg/K	(g		
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: 1905E11-014AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles

Batch ID: 45287 RunNo: 60312 Client ID: Floor #3

Prep Date: 5/30/2019	Analysis [Date: 6/	1/2019	5	SeqNo: 20	039200	Units: mg/K	(g		
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

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 21 of 22

Hall Environmental Analysis Laboratory, Inc.

1.1

WO#: 1905E11

10-Jun-19

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

Sample ID: MB-45283 SampType: MBLK TestCode: EPA Method 8021B: Volatiles PBS Client ID: Batch ID: 45283 RunNo: 60311

Prep Date: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039249 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Benzene ND 0.025

Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10

1.000 Surr: 4-Bromofluorobenzene 1.0 104 80 120

1.000

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

109

80

120

Qualifiers:

Xylenes, Total

Surr: 4-Bromofluorobenzene

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Е Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

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 Completed By: Leah Baca 5/30/2019 11:28:45 AM Reviewed By: 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? No 🗌 NA 🗍 Yes 🗸 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? Yes 🗸 No 🗌 6. Sufficient sample volume for indicated test(s)? No 🗌 Yes 🗸 No 🗆 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 8. Was preservative added to bottles? No 🗸 Yes NA 🗌 9. VOA vials have zero headspace? No 🗌 No VOA Vials Yes 10. Were any sample containers received broken? Yes 🗆 No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 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 🗌 Checked by: (If no, notify customer for authorization.) 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 Temp °C Cooler No Condition Seal Intact Seal No Seal Date Signed By 2.1 Good

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_	fnecessary, sam	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	contracted to other a	ccredited laboratories	s. This serves as notice of this	possibility. Any su	b-contra	cted dat	a will be	clearly r	otated o	the analytics	al report.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY	a	Hawkins NE - Albuqu	Tel. 505-545-5975 Fax 505-545-4107	ysis kedu	[†] OS	bO⁺' SIWS	(1. (1. (2.) (2.)	8/86 504 01 0 1 0 1 1 1 1 1 1 1	bod : bod : 310	ethe y 83 8 Me 37, 1 AO	181 Per 180 Pe	85 CI	×	× × × × × × × × × × × × × × × × × × ×	×							Remarks: Joel & Lowry environmetal. com	ForchMe. Caprock Services @ Gmail. Eo un	sapples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
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Turn-Around Time: 5 day [Lurn] Standard □ Rush Project Name:	(1, L. 1/75 A	フ究のフルン・ Project #:			Project Manager: Joe / Lowny		Sampler: Math Taylor	* Yes	# of Coolers: (I)	Cooler Temp(including CF): $1.9 + 0.2 = 2.1$	Container Preservative , HEAL No.	Type	40 6655 ILE -013	10- 101	7/ //	>						Received for Staring Staring 5700	Received by: Via: Cougriss Date Time	ocontracted to other accredited laboratories. This serves as notice of
Chain-of-Custody Record	Mailing Address: Line 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	1001 Pendrook St20/	Octobs 1x 19162	Phone #:	email or Fax#:	QA/QC Package:	:	DINELAC OTHER NIM DUD EQ.	□ EDD (Type)			Date Time Matrix Sample Name	5-35-4 6000 So:1 F100R#Z		1010 1 F100R #4							Date: Time: Relinquished by:	Relinquished by:	If necessary, sapplies submitted to Hall Environmental may be sub



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

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: smb
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative 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

Lab Order 1905964

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: smb
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 2 of 9

Lab Order 1905964

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: smb
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 3 of 9

Lab Order 1905964

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	700	60		mg/Kg	20	5/23/2019 2:21:40 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative 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

Lab Order **1905964**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 5 of 9

Hall Environmental Analysis Laboratory, Inc.

WO#: **19**

1905964 28-May-19

Client: Caprock Services, LLC

Project: State V CTB-D

Sample ID: MB-45141 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45141 RunNo: 60132

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031535 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-45141 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45141 RunNo: 60132

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031536 Units: mg/Kg

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 Quanitative 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

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1905964**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-D

Sample ID: LCS-45063 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 45063 RunNo: 60057 Prep Date: 5/21/2019 Analysis Date: 5/22/2019 SeqNo: 2028025 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result

 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: MB-45063 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 45063 RunNo: 60057

Prep Date: 5/21/2019 Analysis Date: 5/22/2019 SeqNo: 2028027 Units: mg/Kg

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 Quanitative 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.

WO#: 190

1905964 28-May-19

Client: Caprock Services, LLC

Project: State V CTB-D

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027109 Units: mg/Kg

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: LCS-45034 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 45034 RunNo: 60046

1000

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027110 Units: mg/Kg

1000

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 21 5.0 25.00 0 85.8 80.1 123

102

73.8

119

Qualifiers:

Surr: BFB

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 8 of 9

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905964**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-D

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 45034 RunNo: 60046 Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027141 Units: mq/Kq PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte LowLimit HighLimit Qual Benzene ND 0.025 Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.99 1.000 99.4 80 120

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

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

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

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 9 of 9



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: CAPROCK	SERVICES, L	Work C	Order Numb	er: 1905964	6	Rcpt	No: 1
Received By: Erin Mele	ndrez	5/18/2019	9 10:10:00	АМ	u_n	6	
Completed By: Erin Mele	ndrez		9 2:31:41 P		U U.	1	
Reviewed By: ENH		5/20/	_		14,0	<u>ب</u>	
1 -			en 6. 0 °				
Chain of Custody	20/19						
Is Chain of Custody comp	lete?			Yes 🗸	No [Not Present	٦
					NO L		_
How was the sample deliv	/ered?			Courier			
Log In							
3. Was an attempt made to o	cool the samples?			Yes 🗸	No 🗆	□ NA □	
					1000		
 Were all samples received 	I at a temperature of	of >0° C to	6.0°C	Yes 🗸	No L	NA [
5. Sample(s) in proper conta	iner(s)?			Yes 🗸	No 🗆	7	
				103	110	_	
6. Sufficient sample volume f	or indicated test(s)	?		Yes 🗸	No 🗆]	
7. Are samples (except VOA	and ONG) properly	preserved	l?	Yes 🗸	No 🗆]	
8. Was preservative added to	bottles?			Yes	No 🗸	NA 🗆]
9. VOA vials have zero heads	20002			V	N	Ne VOA Verie	1
	19	-0		Yes 🗌	No L]
10. Were any sample containe	ers received broker	17		Yes 🗀	No 🛂	# of preserved	/
11. Does paperwork match bo	ttle labels?			Yes 🗸	No 🗆	bottles checked for pH:	
(Note discrepancies on cha				,00 😉	.,,	(<2	2 or 12 unless noted)
2. Are matrices correctly iden	tified on Chain of C	Custody?		Yes 🗸	No 🗆	Adjusted?	
3. Is it clear what analyses we				Yes 🗸	No 🗆		
4. Were all holding times able				Yes 🗸	No 🗆	Checked by	: DAD 5/20/19
(If no, notify customer for a						,	
Special Handling (if app	olicable)						
15. Was client notified of all d	iscrepancies with th	nis order?		Yes \square	No [NA ₩	
Person Notified:		alministrativastr	Date:		THE RESIDENCE OF THE PERSON OF	-	
By Whom:	<u> </u>		Via:	eMail [Phone F	ax In Person	
Regarding:		***************************************					
Client Instructions:							
16. Additional remarks:							
17. <u>Cooler Information</u>							
Cooler No Temp °C	Condition Se	al Intact	Seal No	Seal Date	Signed By		
1 1.6	Good Yes	*****	a copekseens id		- J.J., Cu. D.J	ANGES	

M HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	°OS	oO*' a	NB's2 32 PO 32, F	308/se 308/se 1.405 58 no 8 DN .e	(GP) (GP) (GP) (GP) (GP) (GP)	15D estideth 19th 19th 19th 19th 19th 19th	TEX / STEX / STE	2		X	X	X	× ×					Time Remarks: Please email results to;	19 070 pel@lowryenviromental.com	Time /Q/Q/O/	
Turn-Around Time:	☐ Standard ☐ Rush	Project Name: Sチaナと レムナ8-♪		Project #:		Project Manager:	Joel Coword		Sampler: Joydyl 1041 On Ice: Yes D No	# of Coolers:	Cooler Temp(including cF): 1_(0		Type Type	1	2.00 -	200-1) (X) - (X)	7 (/-					Received by Via: Date	SIM SIM	Received by: Via: COUNTIEN Date	
Chain-of-Custody Record			Mailing Address: P.D. Box 457		110	10	QA/QC Package:	Standard 🗆 Level 4 (Full Validation)	Accreditation: Az Compliance Other NWOCD Ea.	ouv.			Time Matrix Sample Name	5-4-4 0815 Sil NW	(2/8/9 (2 8/20) EW #1	1000		2000	5-15-408-35 1-1001				Date: Time: Relinquished by:	240 040	Time: Relinquished by:	



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

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1905965

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 Q	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: smb
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 1 of 10

Lab Order **1905965**

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: smb
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.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative 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

Lab Order **1905965**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: smb
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 3 of 10

Lab Order **1905965**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	240	60	mg/Kg	20	5/23/2019 3:48:58 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 4 of 10

Lab Order **1905965**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative 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.

WO#: **1905965**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: MB-45141 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45141 RunNo: 60132

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031535 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-45141 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45141 RunNo: 60132

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031536 Units: mg/Kg

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: MB-45142 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45142 RunNo: 60144

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031663 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-45142 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45142 RunNo: 60144

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031664 Units: mg/Kg

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 10

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905965**

28-May-19

Client:	Caprock Services,	LLC

Project: State V CTB-C

State V	<u> </u>								
Sample ID: MB-45096	SampType: MB	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rango	e Organics	
Client ID: PBS	Batch ID: 450	96	F	RunNo: 6	0078				
Prep Date: 5/21/2019	Analysis Date: 5/2	22/2019	5	SeqNo: 2	028763	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
liesel Range Organics (DRO)	ND 10								
Motor Oil Range Organics (MRO)	ND 50								
Surr: DNOP	9.6	10.00		95.8	70	130			
Sample ID: LCS-45096	LCS-45096 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 450	096	F	RunNo: 6	0078				
Prep Date: 5/21/2019	Analysis Date: 5/2	22/2019	(SeqNo: 2	028765	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range Organics (DRO)	57 10	50.00	0	114	63.9	124			
Surr: DNOP	5.7	5.000		113	70	130			
Sample ID: 1905965-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: NW #1	Batch ID: 450	096	RunNo: 60078						
Prep Date: 5/21/2019	Analysis Date: 5/2	22/2019	3	SeqNo: 2	029475	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range Organics (DRO)	62 9.9	49.36	0	126	53.5	126			
Surr: DNOP	6.3	4.936		128	70	130			
Sample ID: 1905965-001AMS	SD SampType: MS	SD .	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: NW #1	Batch ID: 450	096	F	RunNo: 6	0078				
Prep Date: 5/21/2019	Analysis Date: 5/2	22/2019	3	SeqNo: 2	029476	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel 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: MB-45119	SampType: MB	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch ID: 451	119	F	RunNo: 6	0110				
Prep Date: 5/22/2019	Analysis Date: 5/2	23/2019	5	SeqNo: 2	030204	Units: %Red	С		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11	10.00		106	70	130			
Sample ID: LCS-45119	SampType: LC	s	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch ID: 451	119		RunNo: 6			J	-	
Prep Date: 5/22/2019	Analysis Date: 5/2	23/2019		SeqNo: 2		Units: %Red	С		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
		2						· · · = = ······	

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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 7 of 10

Hall Environmental Analysis Laboratory, Inc.

7.3

WO#: 1905965

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: LCS-45119 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 45119 RunNo: 60110

Prep Date: 5/22/2019 Analysis Date: 5/23/2019 SeqNo: 2030205 Units: %Rec

5.000

Analyte SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Surr: DNOP S

145

70

130

Sample ID: LCS-45119 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 45119 RunNo: 60110

SeqNo: 2030850 Prep Date: 5/22/2019 Analysis Date: 5/23/2019 Units: %Rec

SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual

Surr: DNOP 5.000 142 S 7.1 130

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 8 of 10

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905965**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027109 Units: mg/Kg

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: LCS-45034 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 45034 RunNo: 60046

1000

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027110 Units: mg/Kg

1000

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 21 5.0 25.00 0 85.8 80.1 123

102

73.8

119

Qualifiers:

Surr: BFB

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 9 of 10

Hall Environmental Analysis Laboratory, Inc.

1.0

WO#: **1905965**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-C

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027141 Units: mg/Kg

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

1.000

Sample ID: LCS-45034	SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batcl	n ID: 45 0	034	F	RunNo: 60	0046				
Prep Date: 5/20/2019	Analysis D	Date: 5/	21/2019	9	SeqNo: 20	027142	Units: mg/K	g		
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			

104

80

120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 10 of 10



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com 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 5/20/19 Reviewed By: 1 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? No 🗌 Yes 🗸 NA 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 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? No 🗌 Yes 🗸 8. Was preservative added to bottles? NA 🗌 Yes No 🗸 9. VOA vials have zero headspace? No 🗌 No VOA Vials Yes 🗌 Yes 🗆 10. Were any sample containers received broken? No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 13. Is it clear what analyses were requested? Yes 🗸 No 🗌 Checked by: DAD 5/20/19 14. Were all holding times able to be met? Yes 🗸 No 🗌 (If no, notify customer for authorization.) 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

1.6

Good

Yes

hain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL
Client: Caprock Services, LLC	□ Standard □ Rush	ANALYSIS LABORATORY
	Project Name: Sチャチレレムア8-C	www.hallenvironmental.com
Mailing Address: P.O. Box 457		4901 Hawkins NE - Albuquerque, NM 87109
Og	Project #:	
Phone # 1575 \ 704 - 97 \R		/sis Redu
-ax#: Caprockservices 560 amail	.Com Project Manager:	*OS
QA/QC Package:	Joel Coward	a (80%)
A Compliance	Sampler: Clordy to Loulor	280 (1.)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
CD 69.	Yes 🗆 No	8/89 504 504 10 Or 11 12 10 (AO)
ype)	# of Coolers:	cide ocide 31(C AC A/)
	Cooler Temp(including CF): (OC	15[esti Neth yy 8 8 M 8 M 3r,
	Container Preservative HEAL No.	91:80 (N) 90 (N) 90 (N) 80 (N) 12 (N) 003
Date Time Matrix Sample Name	# Type 140	800 ET
-46730 S: \ NW#1	402648 ILE -001	× ×
. 3	200-	X
1 2	500-	× ×
0140 201	7001	× ×
S-15-19 0745 Soil WW.		1
5-15-19 0750 Sail F100R#1	C00-	<
	(
Date: Time: Relinquished by:	Received by Wia: Date Time	
-1740m Mett lest	SW 5/17/19 0700	pello buryenviromental.com
Date: Time: Relinquished by:	Received by: Via:COULTIEN Date Time 1010	jordyne.coprockservices@gmail.com
If necessary, samples submitted to Hall Environmental may be subco	contracted to other accredited laboratories. This serves as notice of the	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

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 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1905966**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE (ORGANICS					Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 1 of 9

Lab Order **1905966**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative 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

Lab Order **1905966**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 3 of 9

Lab Order **1905966**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: JME
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
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
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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
EPA METHOD 300.0: ANIONS						Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit

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

Page 4 of 9

Lab Order **1905966**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS				Analyst: JME	
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
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
EPA METHOD 8021B: VOLATILES					Analyst: NSB
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
EPA METHOD 300.0: ANIONS					Analyst: MRA
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
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Page 5 of 9

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905966**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: MB-45142 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45142 RunNo: 60144

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031663 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-45142 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45142 RunNo: 60144

Prep Date: 5/23/2019 Analysis Date: 5/23/2019 SeqNo: 2031664 Units: mg/Kg

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 Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 9

Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

Batch ID: 45119

Analysis Date: 5/23/2019

Result

7.1

WO#: **1905966**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: MB-45096	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batcl	n ID: 45	096	F	RunNo: 6	0078						
Prep Date: 5/21/2019	Analysis D	Date: 5/	22/2019	9	SeqNo: 2	028763	Units: mg/Kg					
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: LCS-45096	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID: LCSS	Batcl	n ID: 45	096	RunNo: 60078								
Prep Date: 5/21/2019	te: 5/21/2019 Analysis Date: 5/22/2019				SeqNo: 2	028765	Units: mg/Kg					
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: MB-45119 SampType: MBLK				TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batcl	n ID: 45	119	RunNo: 60110								
Prep Date: 5/22/2019	Analysis D	Date: 5/	23/2019	\$	SeqNo: 2	030204	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: DNOP	11		10.00		106	70	130					
Sample ID: LCS-45119	SampT	ype: LC	<u></u>	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	• • •				RunNo: 6							
Prep Date: 5/22/2019	Analysis D	Date: 5/	23/2019	S	SeqNo: 2	030205	Units: %Red	C				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: DNOP		145	70	130		<u></u>	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 Quanitative Limit

Sample ID: LCS-45119

Prep Date: 5/22/2019

Client ID: LCSS

Analyte

Surr: DNOP

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

RunNo: 60110

142

SeqNo: 2030850

TestCode: EPA Method 8015M/D: Diesel Range Organics

Units: %Rec

HighLimit

%RPD

RPDLimit

Qual

S

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

SPK value SPK Ref Val %REC LowLimit

5.000

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905966**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027109 Units: mg/Kg

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: LCS-45034 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027110 Units: mg/Kg

Analyte LowLimit Result PQL SPK value SPK Ref Val %REC 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 Quanitative 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.

1.0

WO#: 1905966

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 45034 RunNo: 60046 Analysis Date: 5/21/2019 Prep Date: 5/20/2019 SeqNo: 2027141 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Benzene ND 0.025 ND 0.050 ND 0.050

Toluene Ethylbenzene Xylenes, Total ND 0.10

0.99 1.000 99.4 80 120 Surr: 4-Bromofluorobenzene

1.000

Sample ID: LCS-45034	SampT	SampType: LCS			TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch	n ID: 45 0	034	F	RunNo: 60								
Prep Date: 5/20/2019	Analysis D	oate: 5/	21/2019	5	SeqNo: 20	027142	Units: mg/K	g					
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						

104

80

120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 9 of 9



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: CAPROCK SERVICES, L Work Order Number: 1905966 RcptNo: 1 una, Received By: Erin Melendrez 5/18/2019 10:10:00 AM in al Completed By: 5/18/2019 2:43:46 PM Erin Melendrez Reviewed By: EDM 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 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 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 🗆 Yes No 🗸 8. Was preservative added to bottles? NA 🗌 9. VOA vials have zero headspace? Yes No 🗌 No VOA Vials Yes 10. Were any sample containers received broken? No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 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? No 🗌 Checked by: DAD 5/20/19 Yes 🗸 (If no, notify customer for authorization.) 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 1.6 Good Yes

Chain-of-Custody Record	Turn-Around Time:	S. Sday				HAL	Ш		02	ENVIRONMENTAL	TAL	2
Client: Caprock Services, LLC	☐ Standard Project Name: < 1	□ Rush <				Z		SIS	4	ANALYSIS LABORATORY	TOR	>
	,)				www.nailenvironmental.com	allen	ווסוו	ella.	= 0		
Mailing Address: P.D. Box 457				4901	Hawki	4901 Hawkins NE	1	enbn	dne,	Albuquerque, NM 87109		
Lovington NM 88960	Project #:			Tel. 5	505-34	505-345-3975	5	Fax 5	05-34	505-345-4107		
Phone #: (575) 704 - 9718							Analysis	sis F	Request] 		
-ax#: Caprockservices 560 amail	.Com Project Manager:					1	[†] OS		(140	(),,,		
QA/QC Package:	1905	Juna)				SMIS	'†O			001		
X Standard □ Level 4 (Full Validation)		1				S02	d 'z		,;uo			
r:	Sampler: Opvo	Jordyna Taylor				.85	ON					
•	On Ice: 🙀 Yes						-					***********
ype)	# of Coolers: \					100000000000000000000000000000000000000		()		0/		
	Cooler Temp(including CF):	ing CF): 1. (OC						√O/		0.1	-	
	Container	Preservative	<i>[</i> <u>₩</u>]	08:H	M) B	d sH.	AA:	^) 09	5) 04	10/A		
Date Time Matrix Sample Name	#	5	_					28	-	7		-
1.02 000	10 I Sould 2014	100-	×	\times		_			\dashv	×		
2	-	- LAN7	^	×						入		
S-5-19 0855 NW #		000	+-	-	-	\dagger	+		+	1		
5-15-4 0900 EW#1		-005	×	×	_	1	+		+	×	$\frac{1}{1}$	1
W >000		P00-	X	×			-		1	×		1
		700-	×	>						×		
S-18-19 09/0 WW. 1	>		+-	-	-		-		\vdash			
				+	-	\pm	+		+			F
				+	\bot	$\frac{1}{2}$	-		\dagger	+		-
			1	+	-	+	+		+			+
				+		\exists	+		+		+	7
							_					7
				 -			_					
Date: Time: Relinquished by:	Received by:	Via: Date Time		Remarks: Please emoil	Plea	86	36		results	s to i		
000 4	X	0	DZC) 100	joel@lowryenviromental.com	2000	Yen	Je J	Par	al.0	OM		
Time: Re	Received by:	Via:COUNTIENDate Tim	0	jordyne.coprockservices@gmail	8	pood	KS X	Vice	8	-=	COM	
If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	ubcontracted to other accred	dited laboratories. This serves as no	tice of this possik	bility. An	y sub-co	ntracted	iata will	oe clear	y notate	on the analytic	al report.	

Attachment #7
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.



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.



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.





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

Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

			Relea	ase Notifica	ation	and Co	rrective 2	Action						
					(OPERATOR						Final Report		
Name of Co	ompany: V	anguard				Contact: Ch	uck Johnstor	1						
				a Texas 79762		Telephone No. 432-202-4771								
Facility Na	me: State \	Tank Batte	гу		1	Facility Typ	e: Tank Batt	егу						
Surface Ow	ner: State			Mineral (Owner:	r: API No.								
				LOCA	TION	OF REL	EASE							
Unit Letter C	Section 5	Township 17S	Range 37E	Feet from the	North/	South Line	Feet from th	e East	West Line		Coun Lea			
D= tank	battery]	La	titude: <u>N 32.86</u>		_		675°						
CP CP I		1337		NAT	URE C	FRELE			1377 2					
Type of Rele		Battery and I	Flowline				Release: unkr			lecovered:				
Source of Re	rease. Tank	. Dattery and i			Date and Hour of Occurrence: Date and Hour of Discovery:									
Was Immedi	ate Notice (Yes 🗵	No Not R	equired	If YES, To	Whom?		•					
By Whom?						Date and Hour:								
Was a Water	course Read					If YES, Volume Impacting the Watercourse:								
			Yes 🛚	No		Not Applic	able							
Describe Ca	ise of Proble	m and Reme	dial Action	Not Applicable Taken.*			CEIVE Olivia Y		0:03 ar	n, Ma	r 13,	2017		
		and Cleanup Anistoric releas		ten.* om flowline and to	ank batte	ry. Samples	will be collecte	ed and sen	t to the lab f	or testing.				
regulations a public health should their or or the environ	Il operators or the envir operations h nment. In a	are required to conment. The ave failed to a	o report ar acceptant idequately ICD accep	is true and comp nd/or file certain r ce of a C-141 repo investigate and r tance of a C-141	release no ort by the remediate	otifications as NMOCD m contaminati	nd perform con arked as "Fina on that pose a	rrective ac I Report" threat to g	tions for rele does not reli ground water	ases which eve the op , surface v	h may er erator of vater, hu	ndanger f liability man health		
	/.	101	//	1_		OIL CONSERVATION DIVISION								
Signature:	11	11/1	h	8										
Printed Name	e: Chuck Jo	unston			1	Approved by Environmental Specialist:								
Title: EHS					/	Approval Dat	e: 3/13/2	017	Expiration 1	Date:				
E-mail Addre	ess: cjohnsto	n@vnrllc.com	n			Conditions of	Approval:			Attache	ı 🗀 /	/		
Date: 3-	9-17	2	Phone:	432-202-4771			ttached o	directiv	'e	Attache	u <u>L</u>	_		
Attach Additi	onal Sheet	s If Necessar	у			1RP-46	640 nO	Y1707	7237630					

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