Form C-141 Page 6

State of New Mexico Oil Conservation Division

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	© 15 05 85499F
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially
Printed Name: Carmen Pitt	Title: Senior EHS Specialist
Signature:	Date: 10/7/2019
email: cpitt@grizzlyenergyllc.com	Telephone: 432-248-8145
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface v party of compliance with any other federal, state, or local laws and/o	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:



October 3, 2019

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

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 and Closure Report

Site Name: State V Tank Battery

GPS: Latitude: 32.86913 Longitude: -103.27867

Legals: UL "C", Sec. 5, T17S, R37E

Lea County, New Mexico
NMOCD Ref. No. 1RP-4640

Lowry Environmental & Associates, LLC (LEA), on behalf of Vanguard Operating, LLC, has prepared this Site Assessment and Closure Report 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 Neiease	Crude Oil and Froduced Water	Volume Recovered (bbls)	Unknown							
Cause of Release During an on-site inspection, NMSLO representatives discovered six (6) affected areas in need of remediation adjacent to the tank battery and associated flowlines.										
Affected Area The releases affected approx	kimately 19,400 Sq. Ft. of pasture land.									
Was this a major release?	If YES, for what reasons (s) is this co	nsidered a major release?								
NA		NA								
If Yes, was immediate notice given to the OCD? By whom? To whom? When and by what means?										
	N/A									

A copy of the Release Notification (NMOCD Form C-141) is provided as Attachment #9.

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 #5. A Photographic Log is provided as Attachment #8.

NMOCD WORKPLAN

On **June 27, 2019,** a Site Assessment Report and Proposed Remediation Plan was submitted to the NMOCD and NMSLO proposing remediation activities designed to advance the Site toward and approved closure.

NMOCD APPROVALS

The Site Assessment Report and Proposed Remediation Plan was subsequently approved. Please reference the associated Site Assessment Report and Proposed Remediation Plan that was submitted for 1RP-4640 for additional details.

REMEDIATION ACTIVITIES SUMMARY

On **May 3, 2019**, remediation activities commenced at the release site. In accordance with the NMOCD-approved workplan, impacted soil affected above the NMOCD Closure Criteria along within impacted soil affected above the NMOCD Reclamation Standard present within the top 4 Ft. was excavated and transported to an NMOCD-approved disposal facility. Affected areas in need of remediation were labeled Excavation A though E for ease of record keeping. The floor and sidewalls of the excavated area were advanced until laboratory analytical results from confirmation soil samples indicated concentrations of BTEX, TPH and chloride were below the NMOCD Reclamation Standard.

On May 15, 2019, Caprock collected fifteen (15) soil samples (Exc. C NW #1, Exc. C SW #1, Exc. C EW #1, Exc. C WW #1, Exc. C Floor #1, Exc. D NW #1, Exc. D SW #1, Exc. D EW #1, Exc. D WW #1, Exc. D Floor #1, Exc. E Floor, Exc. E Floor, Exc. E NW #1, Exc. E EW #1, Exc. E SW #1 and Exc. E WW #1) from the floor and sidewalls of Excavations C, D and E. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or Reclamation Standards in each of the submitted soil samples with the exception of soil samples Exc. C NW #1, which exhibited a chloride concentration of 740 mg/kg and Exc. D WW #1, which exhibited a chloride concentration of 700 mg/kg. Impacted soil in the areas characterized by soil samples Exc. C NW #1 and Exc. D WW #1 was excavated. Site and Sample Location Maps are provided as Attachments #3a and #3b. A "Soil Chemistry Table" is provided as Attachment #4. Laboratory analytical reports are provided as Attachment #7.

On May 28, 2019, Caprock collected twenty-four (24) soil samples (Exc. A NW #1, Exc. A NW #2, Exc. A WW #1, Exc. A WW #2, Exc. A WW #3, Exc. A SW #1, Exc. A SW #2, Exc. A SW #3, Exc. A EW #1, Exc. A EW #2, Exc. A EW #3, Exc. A Floor #1, Exc. A Floor #2, Exc. A Floor #3, Exc. A Floor #4, Exc. B NW #1, Exc. B NW #2, Exc. B EW, Exc. B SW #1, Exc. B SW #2, Exc. B WW #1, Exc. B Floor #1, Exc. B Floor #2 and Exc. B WW GC) 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, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or Reclamation Standards in each of the submitted soil samples with the exception of soil samples Exc. A NW #2, which exhibited a TPH concentration of 116 mg/kg, Exc. A WW #1, which exhibited a TPH concentration of 102 mg/kg, Exc. A SW #1, which exhibited a TPH concentration of 390 mg/kg, Exc. A EW #1, which exhibited a TPH concentration of 359 mg/kg, Exc. A EW #2, which exhibited a TPH concentration of 282 mg/kg, Exc. A Floor #1, which exhibited a TPH concentration of 671 mg/kg, Exc. A Floor #2, which exhibited a TPH concentration of 567 mg/kg, Exc. B NW #1, which exhibited a TPH concentration of 1,380 mg/kg, Exc. B NW #2, which exhibited a TPH concentration of 2,340 mg/kg, Exc. B EW, which exhibited a TPH concentration of 344 mg/kg, Exc. B SW #1, which exhibited a TPH concentration of 940 mg/kg and Exc. B SW #2, which exhibited a TPH concentration of 110 mg/kg. Impacted soil in the areas characterized by soil samples Exc. A NW #2, Exc. A WW #1, Exc. A SW #1, Exc. A EW #1, Exc. A EW #2, Exc. A Floor #1, Exc. A Floor #2, Exc. B NW #1, Exc. B NW #2, Exc. B EW, Exc. B SW #1 and Exc. B SW #2 was excavated.

On **June 10, 2019**, Caprock collected twelve (12) soil samples (CTB-A Floor #1b, CTB-A Floor #2b, CTB-A NW#2b, CTB-A SW #1b, CTB-A EW #1b, CTB-A EW #1b, CTB-A EW #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, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or Reclamation Standards in each of the submitted soil samples with the exception of soil samples CTB-B SW #1b, which exhibited a TPH concentration of 502 mg/kg, CTB-B EW

#1b, which exhibited a TPH concentration of 193 mg/kg, CTB-A NW #2b, which exhibited a TPH concentration of 429 mg/kg, CTB-A WW#1b, which exhibited a TPH concentration of 400 mg/kg and CTB-A EW #1b, which exhibited a TPH concentration of 405 mg/kg. Impacted soil in the areas characterized by soil samples CTB-B SW #1b, CTB-B EW #1b, CTB-A NW #2b, CTB-A WW #1b and CTB-A EW #1b was excavated.

On **June 14, 2019**, Caprock collected five (5) soil samples (Exc. A NW #2c, Exc. A WW #1c, Exc. A EW #1c, Exc. B SW #1c and Exc. B EW #1c) from the 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, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or Reclamation Standards in each of the submitted soil samples.

On **July 26, 2019**, Caprock collected thirty-eight (38) soil samples (Exc. A Floor 5, Exc. A Floor 6, Exc. A Floor 7, Exc. A Floor 8, Exc. A Floor 9, Exc. A Floor 10, Exc. A Floor 11, Exc. A Floor 12, Exc. A Floor 13, Exc. A Floor 14, Exc. A Floor 15, Exc. A Floor 16, Exc. A Floor 17, Exc. A Floor 18, Exc. A Floor 19, Exc. A Floor 20, Exc. A Floor 21, Exc. A Floor 22, Exc. A Floor 23, Exc. A Floor 24, Exc. A Floor 25, Exc. A Floor 26, Exc. A Floor 27, Exc. A Floor 28, Exc. B Floor 3, Exc. B Floor 4, Exc. B Floor 5, Exc. B Floor 6, Exc. B Floor 7, Exc. B Floor 7, Exc. B Floor 2, Exc. C Floor 3, Exc. C Floor 4, Exc. C Floor 5, Exc. C Floor 6, Exc. D Floor 2, Exc. D Floor 3 and Exc. E Floor 2) from the floor of Excavations A, B, C, D and E. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or Reclamation Standards in each of the submitted soil samples.

RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, the excavated area was backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. Excavation backfill was contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Areas affected by remediation activities will be reseeded with an NMSLO-approved seed mixture during the first favorable growing season following closure of the site.

CLOSURE REQUEST

Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples. Approximately 3,060 cubic yards of impacted soil was transported to an NMOCD-approved disposal facility. Prior to backfill, the final dimensions of Excavation A was 210 Ft. in length, 45 to 100 Ft. in width and 1 to 2 Ft. in depth. The final dimensions of Excavation B was 120 Ft. in length, 40 to 75 Ft. in width and 1 to 4 Ft. in depth. The final dimensions of Excavation D was 42 Ft. in length, 24 to 32 Ft. in width and 4 Ft. in depth. The final dimensions of Excavation E was 40 Ft. in length, 20 to 30 Ft. in width and 4 Ft. in depth.

Based on laboratory analytical results, field activities conducted to date and conditions at the site, LEA recommends Vanguard Operating, LLC provide a copy of this Remediation Summary and Closure Report to the NMOCD and request closure be granted to the State V Tank Battery Site.

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 3a - Site & Sample Location Map (Excavations A & B)

Figure 3b - Site & Sample Location Map (Excavations C, D & E)

Attachment #4- Soil Chemistry Table

Attachment #5- Depth to Groundwater Information

Attachment #6- Soil Profile

Attachment #7- Laboratory Analytical Reports

Attachment #8- Photographic Log

Attachment #9- Release Notification (FORM C-141)

Attachment #10- Field Data

LIMITATIONS

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

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

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

Figure 1 - Topographic Map

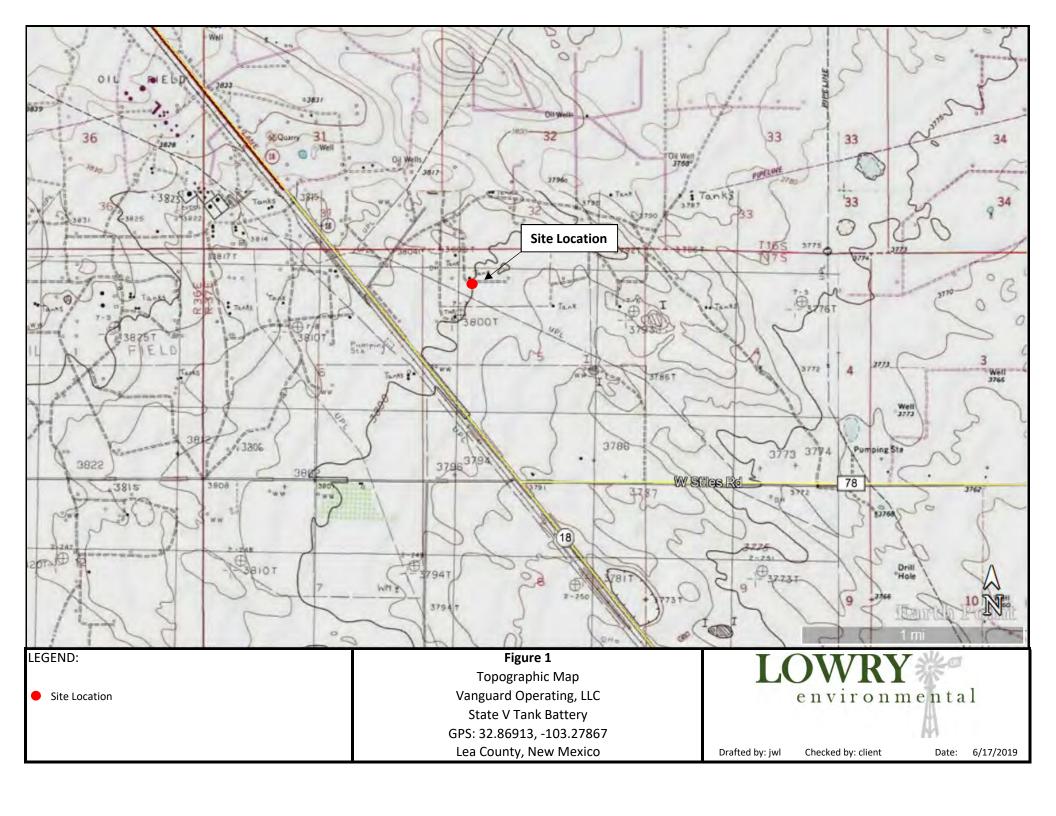


Figure 2 - Aerial Map

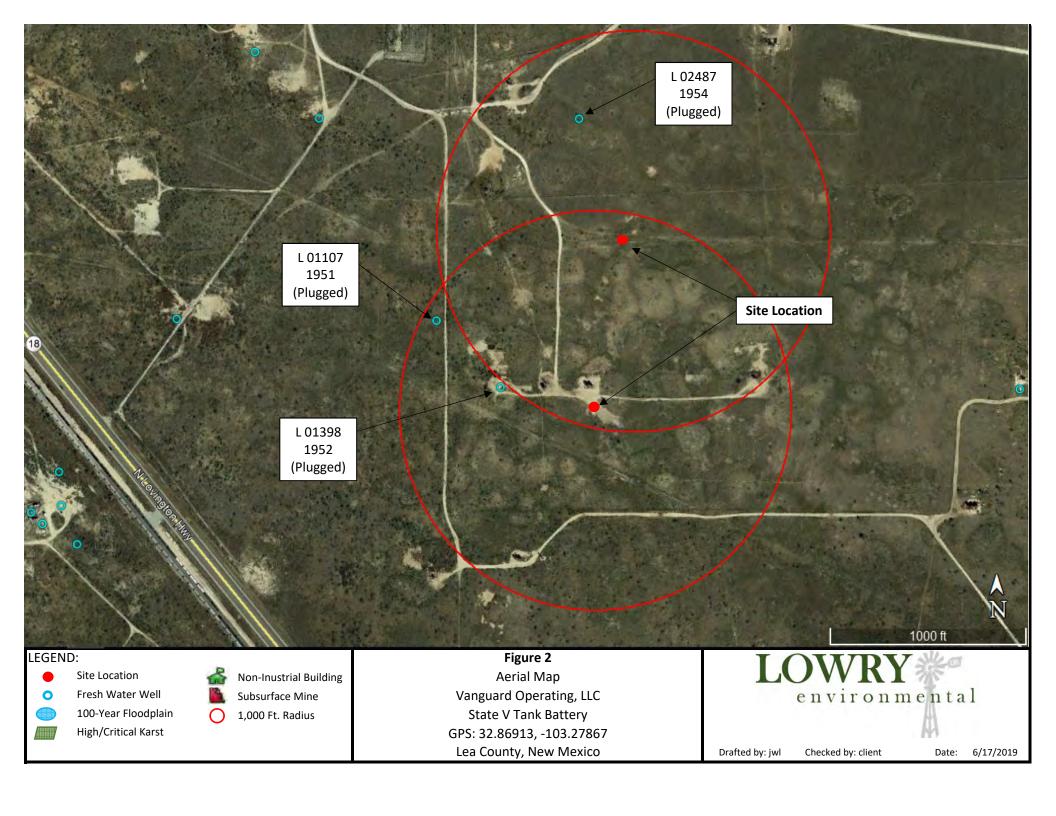


Figure 3a - Site & Sample Location Map (Excavations A & B)
Figure 3b - Site & Sample Location Map (Excavations C, D & E)



Sample Location

4' bgs

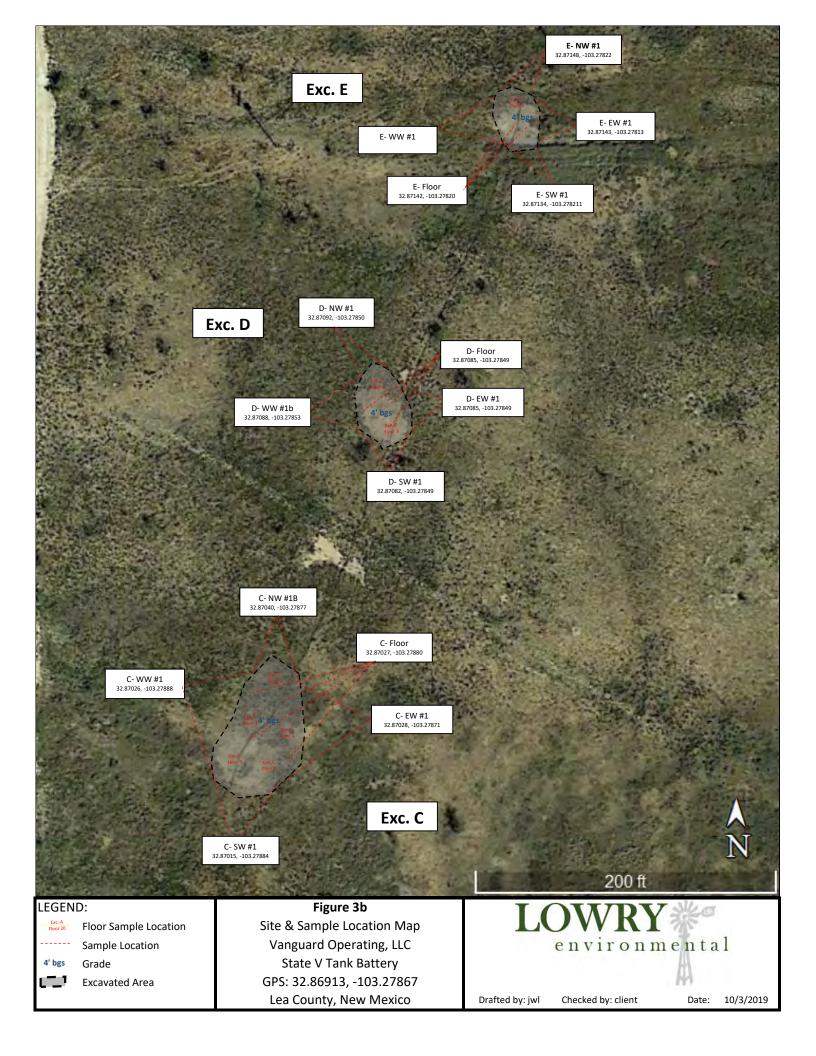
Grade

י__י **Excavated Area**

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

environmental

Drafted by: jwl Checked by: client Date: 10/3/2019



Attachment #4 Soil Chemistry Table

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX TPH AND CHLORIDE IN SOIL

Vanguard Operating State V CTB-B NMOCD Ref. # 1RP-4640

				SW 840	6 8021B		300				
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
Exc. A NW #1	5/28/2019	0-1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	530
Exc. A NW #2	5/28/2019	0-1'	Excavated	ND	ND	ND	24	24	92	116	530
Exc. A WW #1	5/28/2019	0-1'	Excavated	ND	ND	ND	12	12	90	102	ND
Exc. A WW #2	5/28/2019	0-1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	480
Exc. A WW #3	5/28/2019	0-1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A SW #1	5/28/2019	0-1'	Excavated	ND	ND	ND	70	70	320	390	ND
Exc. A SW #2	5/28/2019	NA	Excavated	ND	ND	ND	ND	ND	66	66	61
Exc. A SW #3	5/28/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	120
Exc. A EW #1	5/28/2019	NA	Excavated	ND	ND	ND	79	79	280	359	220
Exc. A EW #2	5/28/2019	NA	Excavated	ND	ND	ND	52	52	230	282	260
Exc. A EW #3	5/28/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	130
Exc. A Floor #1	5/28/2019	1'	Excavated	ND	ND	ND	81	81	590	671	70
Exc. A Floor #2	5/28/2019	1'	Excavated	ND	ND	ND	67	67	500	567	66
Exc. A Floor #3	5/28/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	92
Exc. A Floor #4	5/28/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	91
Exc. A Floor 5	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 6	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 7	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 8	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 9	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 10	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 11	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 12	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 13	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 14	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 15	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 16	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 17	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 18	7/26/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 19	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 20	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 21	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 22	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 23	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 24	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 25	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 26	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 27	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A Floor 28	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-A Floor #1B	6/10/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-A Floor #2B	6/10/2019	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-A NW#2B	6/10/2019	NA	Excavated	ND	ND	ND	69	69	360	429	ND
CTB-A SW#1B	6/10/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-A WW#1B	6/10/2019	NA	Excavated	ND	ND	ND	60	60	340	400	ND
CTB-A EW#1B	6/10/2019	NA	Excavated	ND	ND	ND	65	65	340	405	ND
CTB-A EW#2B	6/10/2019	NA	In-Situ	ND	ND	ND	10	10	52	62	ND
Exc. A NW #2C	6/14/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A WW #1C	6/14/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. A EW #1C	6/14/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Clos	sure Cr	<u>iteria</u>		10	50	-	-		-	2,500	10,000

NOTES:

⁻⁼ Not analyzed for constituent

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX TPH AND CHLORIDE IN SOIL

Vanguard Operating State V CTB-B NMOCD Ref. # 1RP-4640

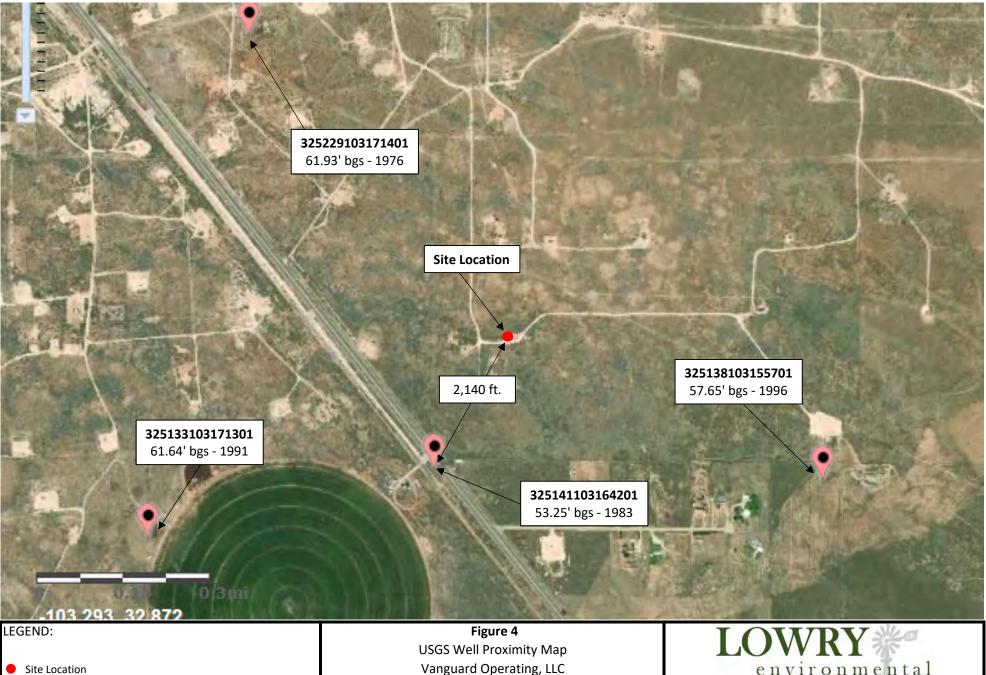
				SW 846 8021B			300				
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
Exc. B NW #1	5/28/2019	NA	Excavated	ND	ND	ND	410	410	970	1,380	120
Exc. B NW #2	5/28/2019	NA	Excavated	ND	ND	ND	740	740	1600	2,340	ND
Exc. B EW	5/28/2019	NA	Excavated	ND	ND	ND	64	64	280	344	270
Exc. B SW #1	5/28/2019	NA	Excavated	ND	ND	ND	210	210	730	940	ND
Exc. B SW #2	5/28/2019	NA	Excavated	ND	ND	ND	16	16	94	110	200
Exc. B WW #1	5/28/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	82
Exc. B Floor #1	5/28/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	79
Exc. B Floor #2	5/28/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	81
Exc. B WW GC	5/28/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	88
Exc. B Floor 3	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B Floor 4	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B Floor 5	7/26/2019	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B Floor 6	7/26/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B Floor 7	7/26/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B Floor 8	7/26/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-B-NW#1B	6/10/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-B-NW#2B	6/10/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
CTB-B-SW#1B	6/10/2019	NA	Excavated	ND	ND	ND	ND	72	430	502	ND
CTB-B-SW#2B	6/10/2019	NA	In-Situ	ND	ND	ND	ND	ND	49	49	520
CTB-B-EW#1B	6/10/2019	NA	Excavated	ND	ND	ND	33	33	160	193	ND
Exc. B SW #1C	6/14/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. B EW #1C	6/14/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. C NW #1	5/15/2019	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	740
Exc. C SW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. C EW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	170
Exc. C WW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	240
Exc. C Floor #1	5/15/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,300
Exc. C Floor 2	7/26/2019	4'	In-Situ	ND	ND	ND	41	41	270	311	950
Exc. C Floor 3	7/26/2019	4'	In-Situ	ND	ND	ND	28	28	140	168	1,400
Exc. C Floor 4	7/26/2019	4'	In-Situ	ND	ND	ND	33	33	160	193	970
Exc. C Floor 5	7/26/2019	4'	In-Situ	ND	ND	ND	29	29	150	179	1,300
Exc. C Floor 6	7/26/2019	4'	In-Situ	ND	ND	ND	36	36	200	236	1,000
Exc D. NW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	220
Exc D. EW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	560
Exc D. SW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	290
Exc D. WW #1	5/15/2019	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	700
Exc D. Floor	5/15/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,500
Exc. D Floor 2	7/26/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,500
Exc. D Floor 3	7/26/2019	4'	In-Situ	ND	ND	ND	18	18	140	158	4,200
Exc. E Floor	5/15/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,200
Exc. E NW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	210
Exc. E EW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	450
Exc. E SW #1	5/15/2019	NA	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
Exc. E WW #1	5/15/2019	NA	Excavated	ND	ND	ND	ND	ND	ND	ND	670
Exc. E Floor 2	7/26/2019	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,500
Clos	sure Cr	iteria		10	50	-	-		-	2,500	10,000

NOTES:

-= Not analyzed for constituent

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Depth to Groundwater Information



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

environmental

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												
		Sub-		_	Q (-	_	_						ater
POD Number L 01398	Code	basin L	County LE	64		1 Se 1 0:		0	X 660901	Y 3638119*	DistanceDe	pthWellDept 115	hWater Co 50	lumn 65
<u>L 01107 POD1</u>		L	LE	1	1	05	17S	37E	660800	3638218*	140	92	38	54
<u>L 02487</u>		L	LE		3 3	3 32	16S	37E	661016	3638527*	423	90	35	55
<u>L 02078</u>		L	LE		4 4	1 31	16S	37E	660613	3638521*	493	112	50	62
L 01604 POD1		L	LE	1	2 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 4	1 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	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		
L 13414 POD2		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	2 06	17S	37E	660143	3637890	790	110	93	17
<u>L 13038 POD2</u>		L	LE	2	3 2	2 06	17S	37E	660146	3637865	795	115		
L 13038 POD3		L	LE	2	3 2	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)

1 05

(NAD83 UTM in meters)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

17S 37E 66090

660901 3638119*

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: Estimated Yield:

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)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

L 01107 POD1 1 1 1 05 17S 37E

660800 3638218*

30210

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:

Top Bottom Description

38 70 Sandstone/Gravel/Conglomerate
80 92 Sandstone/Gravel/Conglomerate

Top Bottom
40 78

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6/17/19 9:44 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)

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

> 3 32 16S 37E

661016 3638527*

Driller License: 33

Driller Company:

TATUM CLAUDE E.

Driller Name:

Drill Start Date: 02/06/1954 Log File Date: 03/12/1954

L 02487

Drill Finish Date: PCW Rcv Date:

02/07/1954

Plug Date: Source:

04/05/1955 Shallow

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



National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:	
Groundwater	∨ United States	∨ GO

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Search Results -- 1 sites found

Agency code = usgs site_no list =

• 325138103155701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 325138103155701 17S.37E.05.412221

Lea County, New Mexico Latitude 32°51'50", Longitude 103°16'12" NAD27 Land-surface elevation 3,791.00 feet above NGVD29 The depth of the well is 130 feet below land surface.

This well is completed in the Ogallala Formation (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	Code	Description
Mahan laval daha kima a sasuman		Data is a summation to the Day.
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	Α	Approved for publication Processing and review completed.

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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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USGS Water Resources

Data Category: Groundwater Geographic Area:

Vinited States ✓ GO

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Search Results -- 1 sites found

Agency code = usgs site_no list =

• 325141103164201

Minimum number of levels = 1

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USGS 325141103164201 17S.37E.05.133334

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

Land-surface elevation 3,799.00 feet above NGVD29

This well is completed in the Ogallala Formation (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 measureme
1980-01-04		D	51.77			2		U		
1981-01-07		D	52.16			2		U		
1982-01-05		D	52.59			2		U		
1983-01-05		D	53.25			2		U		

Explanation

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

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Agency code = usgs site_no list =

• 325133103171301

Minimum number of levels = 1

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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.

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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater Geographic Area:

United States ✓ GO

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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.

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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 #6 Soil Profile

SOIL PROFILE

Site Name: State V TB

Date: 6/10/2019

Description	- 100 m	Depth (ft. bgs)
Brown Clayey Top Soil		1
	mun	2
Calcrete / Caliche		3
Calide Rock		4
carrier real	vocamen TV	
		5
		6
,		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
		4
		5
		6
		7
		8
		9
		0
		1
		2
		3
	Market Commission	4
		5
		6
		7
		8
		9
		0

Laboratory Analytical Reports



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

June 24, 2019

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

RE: State V CTB A OrderNo.: 1906852

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/15/2019 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: 6/24/2019

CLIENT: Vanguard Operating Client Sample ID: NW #2C

 Project:
 State V CTB A
 Collection Date: 6/14/2019 8:00:00 AM

 Lab ID:
 1906852-001
 Matrix: SOIL
 Received Date: 6/15/2019 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/19/2019 1:22:57 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/19/2019 1:22:57 PM
Surr: DNOP	64.9	70-130	S	%Rec	1	6/19/2019 1:22:57 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	6/21/2019 8:37:51 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	•					Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/18/2019 9:34:41 PM
Toluene	ND	0.050		mg/Kg	1	6/18/2019 9:34:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/18/2019 9:34:41 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/18/2019 9:34:41 PM
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	1	6/18/2019 9:34:41 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	6/18/2019 9:34:41 PM
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/18/2019 9:34:41 PM
Surr: Toluene-d8	92.1	70-130		%Rec	1	6/18/2019 9:34:41 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/18/2019 9:34:41 PM
Surr: BFB	110	70-130		%Rec	1	6/18/2019 9:34:41 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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 1906852

Date Reported: 6/24/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: WW #1C

 Project:
 State V CTB A
 Collection Date: 6/14/2019 8:05:00 AM

 Lab ID:
 1906852-002
 Matrix: SOIL
 Received Date: 6/15/2019 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/19/2019 1:47:01 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/19/2019 1:47:01 PM
Surr: DNOP	56.4	70-130	S	%Rec	1	6/19/2019 1:47:01 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	6/21/2019 8:50:15 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	Г					Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	6/18/2019 10:03:17 PM
Toluene	ND	0.049		mg/Kg	1	6/18/2019 10:03:17 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/18/2019 10:03:17 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/18/2019 10:03:17 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	1	6/18/2019 10:03:17 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	6/18/2019 10:03:17 PM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/18/2019 10:03:17 PM
Surr: Toluene-d8	92.2	70-130		%Rec	1	6/18/2019 10:03:17 PM
EPA METHOD 8015D MOD: GASOLINE RANGE	<u>:</u>					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/18/2019 10:03:17 PM
Surr: BFB	107	70-130		%Rec	1	6/18/2019 10:03:17 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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 7

Lab Order **1906852**

Date Reported: 6/24/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: EW #1C

 Project:
 State V CTB A
 Collection Date: 6/14/2019 8:10:00 AM

 Lab ID:
 1906852-003
 Matrix: SOIL
 Received Date: 6/15/2019 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGAN	NICS					Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/19/2019 2:11:16 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/19/2019 2:11:16 PM
Surr: DNOP	50.0	70-130	S	%Rec	1	6/19/2019 2:11:16 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	6/21/2019 9:02:40 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	6/19/2019 12:26:47 AM
Toluene	ND	0.049		mg/Kg	1	6/19/2019 12:26:47 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/19/2019 12:26:47 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/19/2019 12:26:47 AM
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%Rec	1	6/19/2019 12:26:47 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	6/19/2019 12:26:47 AM
Surr: Dibromofluoromethane	114	70-130		%Rec	1	6/19/2019 12:26:47 AM
Surr: Toluene-d8	94.5	70-130		%Rec	1	6/19/2019 12:26:47 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/19/2019 12:26:47 AM
Surr: BFB	108	70-130		%Rec	1	6/19/2019 12:26:47 AM

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 7

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906852**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB A

Sample ID: MB-45745 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45745 RunNo: 60839

Prep Date: 6/21/2019 Analysis Date: 6/21/2019 SeqNo: 2059680 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-45745 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45745 RunNo: 60839

Prep Date: 6/21/2019 Analysis Date: 6/21/2019 SeqNo: 2059681 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 95.2 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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906852**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB A

Sample ID: MB-45653 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 45653 RunNo: 60757 Units: mg/Kg Prep Date: 6/18/2019 Analysis Date: 6/19/2019 SeqNo: 2056491 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 10.00 94.1 70 130 9.4

Sample ID: LCS-45653 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 45653 RunNo: 60757 Prep Date: 6/18/2019 Analysis Date: 6/19/2019 SeqNo: 2056492 Units: mg/Kg SPK value SPK Ref Val %REC Analyte PQL LowLimit HighLimit %RPD **RPDLimit** Qual

Diesel Range Organics (DRO) 47 10 50.00 0 94.5 63.9 124 Surr: DNOP 4.7 5.000 94.5 70 130

- 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#: **1906852**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB A

Sample ID: Ics-45621	SampT	ype: LC	De: LCS TestCode: EPA Method 8				8260B: Volat	tiles Short	List	
Client ID: LCSS	Batcl	h ID: 45 0	621	F	RunNo: 6	0734				
Prep Date: 6/17/2019	Analysis D	Date: 6/	18/2019	9	SeqNo: 2	055220	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	70	130			
Toluene	0.98	0.050	1.000	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.3	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		115	70	130			
Surr: Toluene-d8	0.48		0.5000		95.9	70	130			

Sample ID: mb-45621	Samp	Гуре: МЕ	ype: MBLK TestCode: EPA Method 8				d 8260B: Volatiles Short List			
Client ID: PBS	Batc	h ID: 45	621	F	RunNo: 6	0734				
Prep Date: 6/17/2019	Analysis [Date: 6/	18/2019	9	SeqNo: 2	055221	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.8	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130			
Surr: Toluene-d8	0.47		0.5000		94.5	70	130			

- 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#: **1906852**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB A

Sample ID: Ics-45621 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 45621 RunNo: 60734

Prep Date: 6/17/2019 Analysis Date: 6/18/2019 SeqNo: 2055246 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Gasoline Range Organics (GRO) 0 23 5.0 25.00 93.3 70 130

Surr: BFB 550 500.0 110 70 130

Sample ID: mb-45621 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 45621 RunNo: 60734

Prep Date: 6/17/2019 Analysis Date: 6/18/2019 SeqNo: 2055247 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 550 500.0 109 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 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: VANGUARD OPERATIN Work Order Number: 1906852 RcptNo: 1 Received By: Thom Maybee 6/15/2019 10:15:00 AM Completed By: Leah Baca 6/17/2019 8:36:31 AM Lad Baca 6/17/19 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? Yes 🗸 NA 🗌 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 🗌 No 🗌 Sufficient sample volume for indicated test(s)? Yes V 7. Are samples (except VOA and ONG) properly preserved? No Yes 8. Was preservative added to bottles? No V Yes NA 🔲 9. VOA vials have zero headspace? Yes No 🗌 No VOA Vials Yes 🗌 10. Were any sample containers received broken? No V # of preserved bottles checked Yes 🗸 11. Does paperwork match bottle labels? No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? No 🗌 Yes V 13. Is it clear what analyses were requested? Yes V No 🗌 14. Were all holding times able to be met? No 🗌 Checked by: Yes 🗸 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA V 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 4.6 Good Yes



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

June 24, 2019

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

RE: State V CTB B OrderNo.: 1906849

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/15/2019 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: 6/24/2019

CLIENT: Vanguard Operating Client Sample ID: SW #1C

 Project:
 State V CTB B
 Collection Date: 6/14/2019 8:30:00 AM

 Lab ID:
 1906849-001
 Matrix: SOIL
 Received Date: 6/15/2019 10:15:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	ORGANICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	6/18/2019 12:45:24 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	6/18/2019 12:45:24 PM
Surr: DNOP	117	70-130	%Rec	1	6/18/2019 12:45:24 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/21/2019 4:29:41 PM
EPA METHOD 8260B: VOLATILES SHORT	LIST				Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	6/18/2019 4:48:56 PM
Toluene	ND	0.048	mg/Kg	1	6/18/2019 4:48:56 PM
Ethylbenzene	ND	0.048	mg/Kg	1	6/18/2019 4:48:56 PM
Xylenes, Total	ND	0.097	mg/Kg	1	6/18/2019 4:48:56 PM
Surr: 1,2-Dichloroethane-d4	97.2	70-130	%Rec	1	6/18/2019 4:48:56 PM
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	6/18/2019 4:48:56 PM
Surr: Dibromofluoromethane	112	70-130	%Rec	1	6/18/2019 4:48:56 PM
Surr: Toluene-d8	93.0	70-130	%Rec	1	6/18/2019 4:48:56 PM
EPA METHOD 8015D MOD: GASOLINE RA	NGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	6/18/2019 4:48:56 PM
Surr: BFB	106	70-130	%Rec	1	6/18/2019 4:48:56 PM

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

- 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.

Date Reported: 6/24/2019

CLIENT: Vanguard Operating Client Sample ID: EW #1C

 Project:
 State V CTB B
 Collection Date: 6/14/2019 8:35:00 AM

 Lab ID:
 1906849-002
 Matrix: SOIL
 Received Date: 6/15/2019 10:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	6/18/2019 2:34:54 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/18/2019 2:34:54 PM
Surr: DNOP	108	70-130	%Rec	1	6/18/2019 2:34:54 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/21/2019 4:42:06 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	Γ				Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	6/18/2019 5:17:34 PM
Toluene	ND	0.049	mg/Kg	1	6/18/2019 5:17:34 PM
Ethylbenzene	ND	0.049	mg/Kg	1	6/18/2019 5:17:34 PM
Xylenes, Total	ND	0.098	mg/Kg	1	6/18/2019 5:17:34 PM
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	6/18/2019 5:17:34 PM
Surr: 4-Bromofluorobenzene	99.6	70-130	%Rec	1	6/18/2019 5:17:34 PM
Surr: Dibromofluoromethane	114	70-130	%Rec	1	6/18/2019 5:17:34 PM
Surr: Toluene-d8	95.8	70-130	%Rec	1	6/18/2019 5:17:34 PM
EPA METHOD 8015D MOD: GASOLINE RANGE	<u> </u>				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	6/18/2019 5:17:34 PM
Surr: BFB	111	70-130	%Rec	1	6/18/2019 5:17:34 PM

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

- 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#: **1906849**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB B

Sample ID: MB-45732 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **45732** RunNo: **60839**

Prep Date: 6/21/2019 Analysis Date: 6/21/2019 SeqNo: 2059650 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-45732 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45732 RunNo: 60839

Prep Date: 6/21/2019 Analysis Date: 6/21/2019 SeqNo: 2059651 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 95.3 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

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906849**

24-Jun-19

Client: Vanguar	rd Operating									
Project: State V	СТВ В									
Sample ID: LCS-45594	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LCSS	Batch I	ID: 45	594	R	lunNo: 6	0697				
Prep Date: 6/14/2019	Analysis Da	te: 6/	17/2019	S	SeqNo: 2	054871	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.000		75.9	70	130			
Sample ID: MB-45594	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batch I	ID: 45	594	R	lunNo: 6	0697				
Prep Date: 6/14/2019	Analysis Da	te: 6/	17/2019	S	SeqNo: 2	054872	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		81.9	70	130			
Sample ID: LCS-45629	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Sample ID: LCS-45629 Client ID: LCSS	SampTy _l Batch I				tCode: El tunNo: 6		8015M/D: Di	esel Range	e Organics	
1		ID: 45 6	629	R		0697	8015M/D: Di		e Organics	
Client ID: LCSS	Batch I	ID: 45 6	629 18/2019	R	tunNo: 6 SeqNo: 2	0697			e Organics RPDLimit	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO)	Batch I Analysis Da Result 48	ID: 45 6	50.00	R	RunNo: 6 SeqNo: 2 %REC 97.0	0697 055120 LowLimit 63.9	Units: mg/F HighLimit 124	(g	-	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte	Batch I Analysis Da Result	ID: 45 6 te: 6/ PQL	629 18/2019 SPK value	SPK Ref Val	dunNo: 6 SeqNo: 2 %REC	0697 055120 LowLimit	Units: mg/k	(g	-	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO)	Batch I Analysis Da Result 48	ID: 456 te: 6/ PQL 10	50.00 5.000	SPK Ref Val	8unNo: 6 SeqNo: 2 %REC 97.0 82.7	0697 055120 LowLimit 63.9 70	Units: mg/F HighLimit 124	(g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO) Surr: DNOP	Batch I Analysis Da Result 48 4.1	ID: 45 (te: 6 /PQL 10	50.00 5.000	SPK Ref Val 0	8unNo: 6 SeqNo: 2 %REC 97.0 82.7	0697 055120 LowLimit 63.9 70	Units: mg/k HighLimit 124 130	(g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: MB-45629	Batch I Analysis Da Result 48 4.1 SampTyl	ID: 45 0 te: 6/ PQL 10 pe: ME	50.00 5.000 5.000	SPK Ref Val 0	RunNo: 6 GeqNo: 2 %REC 97.0 82.7	0697 055120 LowLimit 63.9 70 PA Method 0697	Units: mg/k HighLimit 124 130	%RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: MB-45629 Client ID: PBS	Batch I Analysis Da Result 48 4.1 SampTyl Batch I	ID: 45 0 te: 6/ PQL 10 pe: ME	529 18/2019 SPK value 50.00 5.000 3LK 629 18/2019	SPK Ref Val 0	RunNo: 6 SeqNo: 2 %REC 97.0 82.7 CCode: El	0697 055120 LowLimit 63.9 70 PA Method 0697	Units: mg/k HighLimit 124 130 8015M/D: Di	%RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: MB-45629 Client ID: PBS Prep Date: 6/17/2019	Batch I Analysis Da Result 48 4.1 SampTyl Batch I Analysis Da	ID: 450 te: 6/ PQL 10 pe: ME ID: 450 te: 6/	529 18/2019 SPK value 50.00 5.000 3LK 629 18/2019	SPK Ref Val 0 Test	RunNo: 6 SeqNo: 2 %REC 97.0 82.7 CCode: El	0697 055120 LowLimit 63.9 70 PA Method 0697 055121	Units: mg/k HighLimit 124 130 8015M/D: Did Units: mg/k	Kg %RPD esel Rango	RPDLimit e Organics	
Client ID: LCSS Prep Date: 6/17/2019 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: MB-45629 Client ID: PBS Prep Date: 6/17/2019 Analyte	Batch I Analysis Da Result 48 4.1 SampTyl Batch I Analysis Da Result	ID: 450 tte: 6/ PQL 10 pe: ME ID: 450 tte: 6/	529 18/2019 SPK value 50.00 5.000 3LK 629 18/2019	SPK Ref Val 0 Test	RunNo: 6 SeqNo: 2 %REC 97.0 82.7 CCode: El	0697 055120 LowLimit 63.9 70 PA Method 0697 055121	Units: mg/k HighLimit 124 130 8015M/D: Did Units: mg/k	Kg %RPD esel Rango	RPDLimit e Organics	

- 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#: **1906849**

24-Jun-19

Client: Vanguard Operating
Project: State V CTB B

Sample ID: Ics-45621	SampT	Type: LC	S	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: LCSS	Batcl	h ID: 45 0	621	F	RunNo: 6	0734				
Prep Date: 6/17/2019	Analysis D	Date: 6/	18/2019	9	SeqNo: 2	055220	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	70	130			
Toluene	0.98	0.050	1.000	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.3	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		115	70	130			
Surr: Toluene-d8	0.48		0.5000		95.9	70	130			

Sample ID: mb-45621	Samp	Гуре: МЕ	ype: MBLK TestCode: EPA Method 8				d 8260B: Volatiles Short List			
Client ID: PBS	Batc	h ID: 45	621	F	RunNo: 6	0734				
Prep Date: 6/17/2019	Analysis [Date: 6/	18/2019	9	SeqNo: 2	055221	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.8	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130			
Surr: Toluene-d8	0.47		0.5000		94.5	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

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#: 1906849

24-Jun-19

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

Sample ID: Ics-45621 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: LCSS Batch ID: 45621 RunNo: 60734

Prep Date: 6/17/2019 Analysis Date: 6/18/2019 SeqNo: 2055246 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Gasoline Range Organics (GRO) 0 23 5.0 25.00 93.3 70 130 Surr: BFB 550 500.0 110 70 130

Sample ID: mb-45621 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 45621 RunNo: 60734

Prep Date: 6/17/2019 Analysis Date: 6/18/2019 SeqNo: 2055247 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 550 500.0 109 70 130

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 6 of 6



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:	VANGUARD OPERATIN	Work Order Number	: 1906	849			RcptNo	1.1	
Received By:	Thom Maybee	6/15/2019 10:15:00 A	М						
Completed By:	Leah Baca	6/17/2019 8:13:41 AM	P		1.1	Baca			
Reviewed By:	DAD 6/17/17				Law	Jan			
Chain of Cus	stody								
1. Is Chain of C	custody complete?		Yes	V	No		Not Present		
2. How was the	sample delivered?		Cour	ier					
Log In									
A CONTRACTOR OF THE PARTY OF TH	npt made to cool the samples'		Yes	V	No		NA \square		
4. Were all sam	ples received at a temperature	e of >0° C to 6.0°C	Yes	~	No		NA 🗆		
5. Sample(s) in	proper container(s)?		Yes	V	No				
6. Sufficient san	nple volume for indicated test(s)?	Yes	V	No				
7. Are samples	(except VOA and ONG) prope	rly preserved?	Yes	V	No				
8. Was preserva	ative added to bottles?		Yes		No	V	NA \square		
9. VOA vials hav	ve zero headspace?		Yes		No		No VOA Vials		
10. Were any sai	mple containers received broke	en?	Yes		No	~	# of preserved		
	ork match bottle labels? ancies on chain of custody)		Yes	V	No		bottles checked for pH:	r >12 unle:	ss noted)
2. Are matrices	correctly identified on Chain of	Custody?	Yes	V	No		Adjusted?		
3. Is it clear wha	t analyses were requested?		Yes	V	No		,	12	
	ing times able to be met? ustomer for authorization.)		Yes	V	No		Checked by:	1)C	6.17-1
Special Handi	ling (if applicable)								
	otified of all discrepancies with	this order?	Yes		No		NA 🗹		
Person	Notified:	Date				-			
By Who	om:	Via:	_ eMa	ail 🔲 F	Phone [Fax	☐ In Person		
Regard	ling:								
Client I	nstructions:								
16. Additional re	emarks:								
17. Cooler Info	and the second s								
Cooler No		- North Control of the Control of th	Seal Da	ate	Signed I	Зу			
1	4.6 Good Ye	5							

ANALYSIS LABORATORY ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107	EDB (Method 504.1) SAHs by 8310 or 8270SIMS SCRA 8 Metals 1, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄ S20 (VOA) S270 (Semi-VOA) otal Coliform (Present/Absent)		Time: Relinquished by: Received by: Receiv
4901 F Tel. 5(PH:8015D(GRO / DRO / MRO)		Remarks: Ma H, Joe 10 Low 17
	STEX / MTBE / TMB's (8021)		Remarks:
Turn-Around Time: School fust ☐ Standard ☐ Rush Project Name: State VCTB-B	Project Manager: Sampler:	765	Received by: Via: Date Time Received by: Via: Correct Date Time The Contract Date Time
Client: Vansaved Mailing Address: 4001 Pen brook St 201 Colesse TX 79762	email or Fax#: QA/QC Package: \(\text{Standard} \) Accreditation: \(\text{Standard} \) Accreditation: \(\text{D NELAC} \) \(\text{POTHER MMOC P \(\text{Poll Validation} \)} \(\text{Tother MMOC P \(\text{Poll Validation} \)} \(\text{Tother MMOC P \(\text{Poll Validation} \)} \(\text{Tother MMOC P \(\text{Poll Validation} \)} \(\text{Tother MMOC P \(\text{Poll Validation} \)	90835 So.7 9085	Date: Time: Relinquished by: 5-1449 1200 IIIII - Date: 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

June 13, 2019

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

RE: State V CTB-A OrderNo.: 1906579

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 7 sample(s) on 6/12/2019 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: 6/13/2019

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-Floor #1B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:30:00 AM

 Lab ID:
 1906579-001
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	6/12/2019 12:15:49 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/12/2019 12:15:49 PM
Surr: DNOP	79.9	70-130	%Rec	1	6/12/2019 12:15:49 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 12:39:25 PM
EPA METHOD 8260B: VOLATILES SHORT LI	IST				Analyst: RAA
Benzene	ND	0.022	mg/Kg	1	6/12/2019 10:47:26 AM
Toluene	ND	0.045	mg/Kg	1	6/12/2019 10:47:26 AM
Ethylbenzene	ND	0.045	mg/Kg	1	6/12/2019 10:47:26 AM
Xylenes, Total	ND	0.089	mg/Kg	1	6/12/2019 10:47:26 AM
Surr: 1,2-Dichloroethane-d4	89.1	70-130	%Rec	1	6/12/2019 10:47:26 AM
Surr: 4-Bromofluorobenzene	86.6	70-130	%Rec	1	6/12/2019 10:47:26 AM
Surr: Dibromofluoromethane	109	70-130	%Rec	1	6/12/2019 10:47:26 AM
Surr: Toluene-d8	78.0	70-130	%Rec	1	6/12/2019 10:47:26 AM
EPA METHOD 8015D MOD: GASOLINE RANG	GE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	6/12/2019 10:47:26 AM
Surr: BFB	98.9	70-130	%Rec	1	6/12/2019 10:47:26 AM

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 13

Lab Order **1906579**

Date Reported: 6/13/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-Floor #2B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:35:00 AM

 Lab ID:
 1906579-002
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Result **RL Qual Units** DF **Date Analyzed Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) 6/12/2019 12:40:27 PM ND 9.4 mg/Kg 1 Motor Oil Range Organics (MRO) 6/12/2019 12:40:27 PM ND 47 mg/Kg 1 Surr: DNOP 91.9 70-130 %Rec 1 6/12/2019 12:40:27 PM **EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride ND 6/12/2019 12:51:49 PM 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA ND 0.024 mg/Kg 6/12/2019 11:16:02 AM 1 Toluene ND 0.048 mg/Kg 6/12/2019 11:16:02 AM 1 Ethylbenzene ND 0.048 mg/Kg 1 6/12/2019 11:16:02 AM Xylenes, Total ND 0.095 mg/Kg 1 6/12/2019 11:16:02 AM Surr: 1.2-Dichloroethane-d4 88.0 70-130 %Rec 1 6/12/2019 11:16:02 AM Surr: 4-Bromofluorobenzene 89.7 70-130 %Rec 1 6/12/2019 11:16:02 AM Surr: Dibromofluoromethane 107 70-130 %Rec 1 6/12/2019 11:16:02 AM Surr: Toluene-d8 80.4 70-130 %Rec 1 6/12/2019 11:16:02 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND mg/Kg 6/12/2019 11:16:02 AM 4.8 1 Surr: BFB 105 70-130 %Rec 1 6/12/2019 11:16:02 AM

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

- 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

Lab Order **1906579**

Date Reported: 6/13/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-NW #2B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:40:00 AM

 Lab ID:
 1906579-003
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	69	9.7	mg/Kg	1	6/12/2019 2:16:08 PM
Motor Oil Range Organics (MRO)	360	48	mg/Kg	1	6/12/2019 2:16:08 PM
Surr: DNOP	90.3	70-130	%Rec	1	6/12/2019 2:16:08 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 1:29:03 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst: RAA
Benzene	ND	0.022	mg/Kg	1	6/12/2019 11:44:42 AM
Toluene	ND	0.045	mg/Kg	1	6/12/2019 11:44:42 AM
Ethylbenzene	ND	0.045	mg/Kg	1	6/12/2019 11:44:42 AM
Xylenes, Total	ND	0.090	mg/Kg	1	6/12/2019 11:44:42 AM
Surr: 1,2-Dichloroethane-d4	88.0	70-130	%Rec	1	6/12/2019 11:44:42 AM
Surr: 4-Bromofluorobenzene	86.2	70-130	%Rec	1	6/12/2019 11:44:42 AM
Surr: Dibromofluoromethane	107	70-130	%Rec	1	6/12/2019 11:44:42 AM
Surr: Toluene-d8	80.9	70-130	%Rec	1	6/12/2019 11:44:42 AM
EPA METHOD 8015D MOD: GASOLINE RANGE	<u> </u>				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	6/12/2019 11:44:42 AM
Surr: BFB	103	70-130	%Rec	1	6/12/2019 11:44:42 AM

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 13

Lab Order **1906579**

Date Reported: 6/13/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-SW #1B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:45:00 AM

 Lab ID:
 1906579-004
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	6/12/2019 1:04:59 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/12/2019 1:04:59 PM
Surr: DNOP	86.1	70-130	%Rec	1	6/12/2019 1:04:59 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 1:41:28 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	Т				Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	6/12/2019 12:13:21 PM
Toluene	ND	0.047	mg/Kg	1	6/12/2019 12:13:21 PM
Ethylbenzene	ND	0.047	mg/Kg	1	6/12/2019 12:13:21 PM
Xylenes, Total	ND	0.095	mg/Kg	1	6/12/2019 12:13:21 PM
Surr: 1,2-Dichloroethane-d4	87.9	70-130	%Rec	1	6/12/2019 12:13:21 PM
Surr: 4-Bromofluorobenzene	86.9	70-130	%Rec	1	6/12/2019 12:13:21 PM
Surr: Dibromofluoromethane	109	70-130	%Rec	1	6/12/2019 12:13:21 PM
Surr: Toluene-d8	81.5	70-130	%Rec	1	6/12/2019 12:13:21 PM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/12/2019 12:13:21 PM
Surr: BFB	103	70-130	%Rec	1	6/12/2019 12:13:21 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 4 of 13

Lab Order **1906579**

Date Reported: 6/13/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-WW #1B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:50:00 AM

 Lab ID:
 1906579-005
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	60	9.2	mg/Kg	1	6/12/2019 3:04:56 PM
Motor Oil Range Organics (MRO)	340	46	mg/Kg	1	6/12/2019 3:04:56 PM
Surr: DNOP	91.0	70-130	%Rec	1	6/12/2019 3:04:56 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 1:53:52 PM
EPA METHOD 8260B: VOLATILES SHORT LIS	ST .				Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	6/12/2019 12:42:06 PM
Toluene	ND	0.047	mg/Kg	1	6/12/2019 12:42:06 PM
Ethylbenzene	ND	0.047	mg/Kg	1	6/12/2019 12:42:06 PM
Xylenes, Total	ND	0.093	mg/Kg	1	6/12/2019 12:42:06 PM
Surr: 1,2-Dichloroethane-d4	88.4	70-130	%Rec	1	6/12/2019 12:42:06 PM
Surr: 4-Bromofluorobenzene	87.3	70-130	%Rec	1	6/12/2019 12:42:06 PM
Surr: Dibromofluoromethane	106	70-130	%Rec	1	6/12/2019 12:42:06 PM
Surr: Toluene-d8	80.8	70-130	%Rec	1	6/12/2019 12:42:06 PM
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/12/2019 12:42:06 PM
Surr: BFB	101	70-130	%Rec	1	6/12/2019 12:42:06 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 5 of 13

Lab Order **1906579**

Date Reported: 6/13/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-EW #1B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 11:55:00 AM

 Lab ID:
 1906579-006
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	65	9.9	mg/Kg	1	6/13/2019 8:17:17 AM
Motor Oil Range Organics (MRO)	340	50	mg/Kg	1	6/13/2019 8:17:17 AM
Surr: DNOP	97.3	70-130	%Rec	1	6/13/2019 8:17:17 AM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 2:06:17 PM
EPA METHOD 8260B: VOLATILES SHORT LIST	Т				Analyst: RAA
Benzene	ND	0.020	mg/Kg	1	6/12/2019 1:10:51 PM
Toluene	ND	0.040	mg/Kg	1	6/12/2019 1:10:51 PM
Ethylbenzene	ND	0.040	mg/Kg	1	6/12/2019 1:10:51 PM
Xylenes, Total	ND	0.080	mg/Kg	1	6/12/2019 1:10:51 PM
Surr: 1,2-Dichloroethane-d4	89.4	70-130	%Rec	1	6/12/2019 1:10:51 PM
Surr: 4-Bromofluorobenzene	88.6	70-130	%Rec	1	6/12/2019 1:10:51 PM
Surr: Dibromofluoromethane	110	70-130	%Rec	1	6/12/2019 1:10:51 PM
Surr: Toluene-d8	81.3	70-130	%Rec	1	6/12/2019 1:10:51 PM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	6/12/2019 1:10:51 PM
Surr: BFB	105	70-130	%Rec	1	6/12/2019 1:10:51 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 6 of 13

Date Reported: 6/13/2019

Lab Order 1906579

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-A-EW #2B

 Project:
 State V CTB-A
 Collection Date: 6/10/2019 12:00:00 PM

 Lab ID:
 1906579-007
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	10	9.6	mg/Kg	1	6/12/2019 2:19:02 PM
Motor Oil Range Organics (MRO)	52	48	mg/Kg	1	6/12/2019 2:19:02 PM
Surr: DNOP	94.3	70-130	%Rec	1	6/12/2019 2:19:02 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 2:18:41 PM
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst: RAA
Benzene	ND	0.022	mg/Kg	1	6/12/2019 1:39:40 PM
Toluene	ND	0.043	mg/Kg	1	6/12/2019 1:39:40 PM
Ethylbenzene	ND	0.043	mg/Kg	1	6/12/2019 1:39:40 PM
Xylenes, Total	ND	0.086	mg/Kg	1	6/12/2019 1:39:40 PM
Surr: 1,2-Dichloroethane-d4	89.6	70-130	%Rec	1	6/12/2019 1:39:40 PM
Surr: 4-Bromofluorobenzene	88.4	70-130	%Rec	1	6/12/2019 1:39:40 PM
Surr: Dibromofluoromethane	110	70-130	%Rec	1	6/12/2019 1:39:40 PM
Surr: Toluene-d8	83.7	70-130	%Rec	1	6/12/2019 1:39:40 PM
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1	6/12/2019 1:39:40 PM
Surr: BFB	104	70-130	%Rec	1	6/12/2019 1:39:40 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

Page 7 of 13

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906579**

13-Jun-19

Client: Vanguard Operating
Project: State V CTB-A

Sample ID: MB-45535 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45535 RunNo: 60593

Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050889 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-45535 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45535 RunNo: 60593

Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050890 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 93.0 90 110

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#: **1906579**

13-Jun-19

Sample ID: MB-45534 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 45534 RunNo: 60580 Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2049863 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP 9.7 10.00 96.8 70 130 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics	Qual
Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2049863 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 9.7 10.00 96.8 70 130	Qual
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP 9.7 10.00 96.8 70 130	Qual
Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 9.7 10.00 96.8 70 130	Qual
Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 9.7 10.00 96.8 70 130	
Surr: DNOP 9.7 10.00 96.8 70 130	
Sample ID: LCS-45534 SampTyne: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Campio 12. 200-45554 Campio 19. 200 Campio 12. 200-45554 Campio 15. 200-4556 Campio 15. 200-4566	
Client ID: LCSS Batch ID: 45534 RunNo: 60580	
Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2049866 Units: mg/Kg	
, , , , , , , , , , , , , , , , , , ,	Qual
Diesel Range Organics (DRO) 49 10 50.00 0 97.0 63.9 124	
Surr: DNOP 4.4 5.000 87.9 70 130	
Sample ID: 1906577-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: BatchQC Batch ID: 45534 RunNo: 60580	
Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050982 Units: mg/Kg	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit (Qual
Diesel Range Organics (DRO) 45 9.8 48.97 0 92.3 57 142	
Surr: DNOP 4.9 4.897 100 70 130	
Sample ID: 1906577-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: BatchQC Batch ID: 45534 RunNo: 60580	
Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050983 Units: mg/Kg	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit (Qual
Diesel Range Organics (DRO) 34 9.9 49.41 0 69.7 57 142 27.0 20	R
Surr: DNOP 3.7 4.941 74.0 70 130 0 0	
Sample ID: 1906465-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: BatchQC Batch ID: 45479 RunNo: 60580	
Prep Date: 6/10/2019 Analysis Date: 6/12/2019 SeqNo: 2050988 Units: %Rec	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit 0	Qual
Surr: DNOP 5.0 4.873 103 70 130	
Sample ID: 1906465-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: BatchQC Batch ID: 45479 RunNo: 60580	
Prep Date: 6/10/2019 Analysis Date: 6/12/2019 SeqNo: 2050989 Units: %Rec	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit (Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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 13

Hall Environmental Analysis Laboratory, Inc.

4.4

WO#: **1906579**

13-Jun-19

Client: Vanguard Operating
Project: State V CTB-A

Surr: DNOP

Sample ID: 1906465-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: BatchQC Batch ID: 45479 RunNo: 60580

Prep Date: 6/10/2019 Analysis Date: 6/12/2019 SeqNo: 2050989 Units: %Rec

4.748

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

93.5

70

130

0

0

Sample ID: LCS-45479 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 45479 RunNo: 60580

Prep Date: 6/10/2019 Analysis Date: 6/12/2019 SeqNo: 2050992 Units: %Rec

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

Surr: DNOP 4.9 5.000 98.8 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

Page 10 of 13

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906579**

13-Jun-19

Client:	Vanguard Operating
Project:	State V CTB-A

Sample ID: 100ng Ics	SampT	ype: LC	s	Tes	PA Method	8260B: Vola	tiles Short	List			
Client ID: LCSS	Batch	n ID: R6	0592	F	RunNo: 60592						
Prep Date:	Analysis Date: 6/12/2019			SeqNo: 2050136 Units: I				ng/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.025	1.000	0	113	70	130				
Toluene	1.0	0.050	1.000	0	101	70	130				
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		84.6	70	130				
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.1	70	130				
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130				
Surr: Toluene-d8	0.39		0.5000		77.9	70	130				

Sample ID: rb	Samp ⁻	Гуре: МЕ	BLK	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batc	h ID: R6	0592	F	RunNo: 60592					
Prep Date:	Analysis [Date: 6/	12/2019	SeqNo: 2050144 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: 1,2-Dichloroethane-d4	0.42		0.5000		83.9	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.6	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.39		0.5000		77.8	70	130			

Sample ID: 1906579-001a m	s Samp	Гуре: МS	6	Tes	od 8260B: Volatiles Short List						
Client ID: CTB-A-Floor #1E	Batc	h ID: R6	0592	RunNo: 60592							
Prep Date:	Analysis [Date: 6/	12/2019	5	SeqNo: 2	050497	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.022	0.8921	0	117	68.9	131		_		
Toluene	0.92	0.045	0.8921	0	104	64.3	137				
Surr: 1,2-Dichloroethane-d4	0.41		0.4460		90.8	70	130				
Surr: 4-Bromofluorobenzene	0.40		0.4460		89.6	70	130				
Surr: Dibromofluoromethane	0.48		0.4460		109	70	130				
Surr: Toluene-d8	0.36		0.4460		81.0	70	130				

Sample ID: 1906579-001a msc	SampT	ype: MS	SD	Tes	tCode: El	PA Method	d 8260B: Volatiles Short List					
Client ID: CTB-A-Floor #1B	Batch	Batch ID: R60592 RunNo: 60592										
Prep Date:	Analysis D	ate: 6/	12/2019	8	SeqNo: 20	050498	Units: mg/K					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.0	0.022	0.8921	0	112	68.9	131	4.53	20			
Toluene	0.91	0.045	0.8921	0	102	64.3	137	1.21	20			

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 11 of 13

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906579**

13-Jun-19

Client: Vanguard Operating
Project: State V CTB-A

Sample ID: 1906579-001a msd SampType: MSD TestCode: EPA Method 8260B: Volatiles Short List

Client ID: CTB-A-Floor #1B Batch ID: R60592 RunNo: 60592

Prep Date: Analysis Date: 6/12/2019 SeqNo: 2050498 Units: mg/Kg

op zate.	7a., 0.0 D		, _ 0 . 0	•	2000 100 0 miles migri			-9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.41		0.4460		92.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.38		0.4460		85.4	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4460		114	70	130	0	0	
Surr: Toluene-d8	0.37		0.4460		83.8	70	130	0	0	

- 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.

510

477.1

WO#: **1906579**

13-Jun-19

Client: Va	nguard Operatin	g												
Project: Sta	te V CTB-A													
Sample ID: rb	Sampl	Гуре: МЕ	BLK	TestCode: EPA Method 8015D Mod: Gasoline Range										
Client ID: PBS	Batcl	Batch ID: G60592			RunNo: 6	0592								
Prep Date:	Analysis [Date: 6/	12/2019	5	SeqNo: 2	050154	Units: mg/h	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GR Surr: BFB	RO) ND 490	5.0	500.0		97.2	70	130							
Sample ID: 2.5ug gro I	cs Samp1	Гуре: LC	s	Tes	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: LCSS	Batcl	h ID: G 6	0592	F	RunNo: 60592									
Prep Date:	Analysis D	Analysis Date: 6/12/2019			SeqNo: 2050155			Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GR		5.0	25.00	0	90.7	70	130							
Surr: BFB	500		500.0		101	70	130							
Sample ID: 1906579-00	2a ms Samp1	Гуре: М\$	3	TestCode: EPA Method 8015D Mod: Gasoline Range										
Client ID: CTB-A-Floo	or #2B Batcl	h ID: G 6	0592	RunNo: 60592										
Prep Date:	Analysis D	Date: 6/	12/2019	9	SeqNo: 2	050546	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GF	,	4.8	23.86	0	80.1	68.2	135							
Surr: BFB	500		477.1		104	70	130							
Sample ID: 1906579-00	2a msd Samp1	Гуре: М\$	SD	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range					
Client ID: CTB-A-Floo	or #2B Batcl	h ID: G 6	0592	F	RunNo: 6	0592								
Prep Date:	Analysis D	Date: 6/	12/2019	5	SeqNo: 2	050547	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Gasoline Range Organics (GF	RO) 19	4.8	23.86	0	78.2	68.2	135	2.48	20					

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

B Analyte detected in the associated Method Blank

106

70

130

0

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

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

Client Name:	VANGUARI	OPERATIN	W ork	Order Number	r: 190	6579			RcptNo:	1		
Received By:	Leah Baca Leah Baca			19 8:55:00 AI 19 9:06:14 AI			Lash	Baei Baei	5			
Reviewed By:	70		6/12	119			- my	pr.				
Chain of Cus	stody											
1. Is Chain of C		ete?			Yes	~	No		Not Present			
2. How was the	sample delive	ered?			Cou	ırier						
Log In												
3. Was an atten	npt made to co	ool the samp	les?		Yes	V	No		NA 🗌			
4. Were all sam	ples received	at a tempera	ture of >0° C t	to 6.0°C	Yes	V	No		NA 🗆			
5. Sample(s) in	proper contair	ner(s)?			Yes	V	No					
6. Sufficient sam	nple volume fo	r indicated te	est(s)?		Yes	V	No					
7. Are samples (except VOA a	nd ONG) pro	perly preserve	ed?	Yes	~	No					
8. Was preserva	tive added to	bottles?			Yes		No	V	NA 🗌			
9. VOA vials hav	ve zero heads	pace?			Yes		No		No VOA Vials			.,
10. Were any sar	mple container	s received b	roken?		Yes		No	V	# of preserved		/	
11. Does paperwo)		Yes	V	No		bottles checked for pH: (<2 or	>12 unles	s noted)	
12. Are matrices					Yes	~	No		Adjusted?			
13. Is it clear wha	t analyses we	re requested	?		Yes	~	No			12	1	11
14. Were all holdi (If no, notify c	J. 2 1				Yes	V	No		Checked by:	M	6/12	11,
Special Handl									1			
15. Was client no			vith this order?		Yes		No		NA 🗹			
Person	Notified:			Date								
By Who	om: [Via:	eN	lail 🗌	Phone [Fax	☐ In Person			
Regard												
	nstructions:											
16. Additional re												
 Cooler Infor Cooler No 	1	Condition	Seal Intact	Seal No	Seal D)ata	Cinnad	D.				
1	1.8	Good	Yes	Seal NO	Seai L	ale	Signed I	БУ				
T. 11 (1994)		Notice of the sequences	Carrier Control of the Control of th	And the second second	*************							

HALL ENVIRONMENTAL	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109		Analysis	γO	O [¢] ' S	705 705 9 's	\$/808 504.1 504.1 500.0 6	ides 110 103 103	etho y 83 h Me r, <i>h</i> OA)	DB (M AHs b CRA 8 1, F, B 250 (S 270 (S	88 C C B C B C B	×								marks:	mail Taylor	Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time: SHWE DAY	5	4	Project #:			208)	N W W		38 8	1000	Preservative	906844 7 B	500 - 100 - 100 X X	-002	7	WW 200-	- 005	300,	<u> </u>		William Pater Time Ren	Received by: Via:Coorus Date Time Land 6/12/14 0/55	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.
Client: Con Control Co		Mailing Address: 400 / Pen brook 5+ 20 /	Och 55c TX 79762	Phone #:	email or Fax#:	ige:	Level 4 (Full validation)	Accreditation: ☐ Az Compliance S ☐ NELAC ☑ Other // // (CC) ☐ O			i i	Matrix Sample Name	1130 30,1 CID-H-HOOK 1D	1135 CTB-A-FNOR#2B	1140 , CTB-A-NW#2B	1145 V CTB-14-5W#1 B	V 1150 (JB-19-WW#118)	1155 CTB-19-EW#113"	1200 CTB-4 EW #2B		Date: Time: Relinquished by: Re	Date: Time: Relinquished by: Re	ssary, samples



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

June 17, 2019

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

RE: State V CTB-B OrderNo.: 1906577

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/12/2019 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 **1906577**

Date Reported: 6/17/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-B-NW #1B

 Project:
 State V CTB-B
 Collection Date: 6/10/2019 1:05:00 PM

 Lab ID:
 1906577-001
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 11:37:22 AM	45535
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	6/12/2019 12:23:34 PM	45534
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/12/2019 12:23:34 PM	45534
Surr: DNOP	96.9	70-130	%Rec	1	6/12/2019 12:23:34 PM	45534
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	6/12/2019 11:31:22 AM	G60589
Surr: BFB	94.3	73.8-119	%Rec	1	6/12/2019 11:31:22 AM	G60589
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	6/12/2019 11:31:22 AM	B60589
Toluene	ND	0.048	mg/Kg	1	6/12/2019 11:31:22 AM	B60589
Ethylbenzene	ND	0.048	mg/Kg	1	6/12/2019 11:31:22 AM	B60589
Xylenes, Total	ND	0.096	mg/Kg	1	6/12/2019 11:31:22 AM	B60589
Surr: 4-Bromofluorobenzene	99.0	80-120	%Rec	1	6/12/2019 11:31:22 AM	B60589

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 1 of 10

Lab Order **1906577**

Date Reported: 6/17/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating Client Sample ID: CTB-B-NW #2B

 Project:
 State V CTB-B
 Collection Date: 6/10/2019 1:10:00 PM

 Lab ID:
 1906577-002
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 11:49:47 AM	45535
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	6/12/2019 12:45:42 PM	45534
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/12/2019 12:45:42 PM	45534
Surr: DNOP	89.4	70-130	%Rec	1	6/12/2019 12:45:42 PM	45534
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/12/2019 11:54:53 AM	G60589
Surr: BFB	95.4	73.8-119	%Rec	1	6/12/2019 11:54:53 AM	G60589
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	6/12/2019 11:54:53 AM	B60589
Toluene	ND	0.047	mg/Kg	1	6/12/2019 11:54:53 AM	B60589
Ethylbenzene	ND	0.047	mg/Kg	1	6/12/2019 11:54:53 AM	B60589
Xylenes, Total	ND	0.095	mg/Kg	1	6/12/2019 11:54:53 AM	B60589
Surr: 4-Bromofluorobenzene	99.4	80-120	%Rec	1	6/12/2019 11:54:53 AM	B60589

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 2 of 10

Lab Order **1906577**

Date Reported: 6/17/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-B-SW #1B

 Project:
 State V CTB-B
 Collection Date: 6/10/2019 1:15:00 PM

 Lab ID:
 1906577-003
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 12:02:12 PM	45535
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst:	BRM
Diesel Range Organics (DRO)	72	9.9	mg/Kg	1	6/12/2019 2:58:08 PM	45534
Motor Oil Range Organics (MRO)	430	49	mg/Kg	1	6/12/2019 2:58:08 PM	45534
Surr: DNOP	114	70-130	%Rec	1	6/12/2019 2:58:08 PM	45534
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	6/12/2019 12:18:27 PM	G60589
Surr: BFB	92.1	73.8-119	%Rec	1	6/12/2019 12:18:27 PM	G60589
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.021	mg/Kg	1	6/12/2019 12:18:27 PM	B60589
Toluene	ND	0.041	mg/Kg	1	6/12/2019 12:18:27 PM	B60589
Ethylbenzene	ND	0.041	mg/Kg	1	6/12/2019 12:18:27 PM	B60589
Xylenes, Total	ND	0.083	mg/Kg	1	6/12/2019 12:18:27 PM	B60589
Surr: 4-Bromofluorobenzene	95.3	80-120	%Rec	1	6/12/2019 12:18:27 PM	B60589

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 3 of 10

Lab Order **1906577**

Date Reported: 6/17/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating Client Sample ID: CTB-B-SW #2B

 Project:
 State V CTB-B
 Collection Date: 6/10/2019 1:20:00 PM

 Lab ID:
 1906577-004
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	520	60	mg/Kg	20	6/12/2019 12:14:36 PM	45535
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	6/12/2019 2:36:00 PM	45534
Motor Oil Range Organics (MRO)	49	49	mg/Kg	1	6/12/2019 2:36:00 PM	45534
Surr: DNOP	92.9	70-130	%Rec	1	6/12/2019 2:36:00 PM	45534
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	6/12/2019 12:42:02 PM	G60589
Surr: BFB	97.4	73.8-119	%Rec	1	6/12/2019 12:42:02 PM	G60589
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.025	mg/Kg	1	6/12/2019 12:42:02 PM	B60589
Toluene	ND	0.050	mg/Kg	1	6/12/2019 12:42:02 PM	B60589
Ethylbenzene	ND	0.050	mg/Kg	1	6/12/2019 12:42:02 PM	B60589
Xylenes, Total	ND	0.10	mg/Kg	1	6/12/2019 12:42:02 PM	B60589
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	6/12/2019 12:42:02 PM	B60589

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 10

Lab Order 1906577

Date Reported: 6/17/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating

Client Sample ID: CTB-B-EW #1B

 Project:
 State V CTB-B
 Collection Date: 6/10/2019 1:25:00 PM

 Lab ID:
 1906577-005
 Matrix: MEOH (SOIL)
 Received Date: 6/12/2019 8:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	6/12/2019 12:27:00 PM	45535
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	BRM
Diesel Range Organics (DRO)	33	10	mg/Kg	1	6/12/2019 1:51:46 PM	45534
Motor Oil Range Organics (MRO)	160	50	mg/Kg	1	6/12/2019 1:51:46 PM	45534
Surr: DNOP	103	70-130	%Rec	1	6/12/2019 1:51:46 PM	45534
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	6/12/2019 1:05:39 PM	G60589
Surr: BFB	96.2	73.8-119	%Rec	1	6/12/2019 1:05:39 PM	G60589
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.021	mg/Kg	1	6/12/2019 1:05:39 PM	B60589
Toluene	ND	0.042	mg/Kg	1	6/12/2019 1:05:39 PM	B60589
Ethylbenzene	ND	0.042	mg/Kg	1	6/12/2019 1:05:39 PM	B60589
Xylenes, Total	ND	0.084	mg/Kg	1	6/12/2019 1:05:39 PM	B60589
Surr: 4-Bromofluorobenzene	99.8	80-120	%Rec	1	6/12/2019 1:05:39 PM	B60589

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 5 of 10

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906577** *17-Jun-19*

Client: Vanguard Operating
Project: State V CTB-B

Sample ID: MB-45535 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 45535 RunNo: 60593

Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050889 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-45535 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 45535 RunNo: 60593

Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050890 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 93.0 90 110

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

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1906577**

17-Jun-19

Project:	State V C	ТВ-В									
Sample ID:	MB-45534	SampTy	pe: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 45	534	F	RunNo: 60	0580				
Prep Date:	6/12/2019	Analysis Da	ate: 6/	/12/2019	5	SeqNo: 20	049863	Units: mg/k	ζg		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O		ND	10								
_	Organics (MRO)	ND	50			00.0	70	400			
Surr: DNOP		9.7		10.00		96.8	70	130			
Sample ID:	LCS-45534	SampTy	pe: LC	cs	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 45	534	F	RunNo: 60	0580				
Prep Date:	6/12/2019	Analysis Da	ate: 6/	/12/2019	9	SeqNo: 20	049866	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	49	10	50.00	0	97.0	63.9	124			
Surr: DNOP		4.4		5.000		87.9	70	130			
Sample ID:	LCS-45506	SampTy	pe: LC	cs	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 45	506	F	RunNo: 60	0571				
Prep Date:	6/11/2019	Analysis Da	ate: 6/	/12/2019	S	SeqNo: 20	050487	Units: %Re	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.4		5.000		88.6	70	130			
Sample ID:	MB-45506	SampTy	/ре: М І	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 45	506	F	RunNo: 60	0571				
Prep Date:	6/11/2019	Analysis Da	ate: 6/	/12/2019	5	SeqNo: 20	050488	Units: %Re	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		12		10.00		122	70	130			
Sample ID:	1906577-001AMS	SampTy	pe: M \$	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	CTB-B-NW #1B	Batch	ID: 45	534	F	RunNo: 60	0580				
Prep Date:	6/12/2019	Analysis Da	ate: 6/	/12/2019	S	SeqNo: 20	050982	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	45	9.8	48.97	0	92.3	57	142			
Surr: DNOP		4.9		4.897		100	70	130			
Sample ID:	1906577-001AMSD	SampTy	pe: M \$	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	CTB-B-NW #1B	Batch	ID: 45	534	F	RunNo: 60	0580				
Prep Date:	6/12/2019	Analysis Da	ate: 6/	/12/2019	S	SeqNo: 20	050983	Units: mg/K	(g		
Analyta		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte											

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.

WO#: **1906577**

17-Jun-19

Client: Vanguard Operating
Project: State V CTB-B

Sample ID: 1906577-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **CTB-B-NW #1B** Batch ID: **45534** RunNo: **60580**

Prep Date: 6/12/2019 Analysis Date: 6/12/2019 SeqNo: 2050983 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual Surr: DNOP 3.7 4.941 74.0 70 130 Λ Λ

Sample ID: LCS-45543 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 45543 RunNo: 60622

Prep Date: 6/12/2019 Analysis Date: 6/13/2019 SegNo: 2052482 Units: %Rec

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

Surr: DNOP 4.8 5.000 95.4 70 130

Sample ID: MB-45543 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 45543 RunNo: 60622

Prep Date: 6/12/2019 Analysis Date: 6/13/2019 SeqNo: 2052483 Units: %Rec

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

Surr: DNOP 11 10.00 113 70 13

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 8 of 10

Hall Environmental Analysis Laboratory, Inc.

1100

1000

WO#: **1906577**

17-Jun-19

Client: Vanguard	Operating								
Project: State V C	ТВ-В								
Sample ID: RB	SampType: M I	BLK	Tes	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: G6	60589	F	unNo: 60	0589				
Prep Date:	Analysis Date: 6	/12/2019	S	eqNo: 20	050516	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 970	1000		97.5	73.8	119			
Sample ID: 2.5UG GRO LCS	SampType: L (s	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID: G6	60589	F	unNo: 60	0589				
Prep Date:	Analysis Date: 6	/12/2019	S	eqNo: 20	050519	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24 5.0	25.00	0	96.9	80.1	123			
Surr: BFB	1200	1000		115	73.8	119			
Sample ID: MB-45503	SampType: M I	BLK	Tes	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: 45	503	F	tunNo: 60	0589				
Prep Date: 6/11/2019	Analysis Date: 6	/12/2019	S	eqNo: 20	050522	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000	1000		101	73.8	119			
Sample ID: LCS-45503	SampType: L (cs	Tes	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID: 45	503	F	tunNo: 60	0589				
Prep Date: 6/11/2019	Analysis Date: 6	/12/2019	S	eqNo: 20	050523	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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

108

73.8

119

- 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#: **1906577**

17-Jun-19

Client:	Vanguard (
Project:	State V CT	В-В									
Sample ID: RB		SampTy	oe: MB	LK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	5	Batch I	D: B6	0589	F	lunNo: 60	0589				
Prep Date:	A	Analysis Da	te: 6/ 1	12/2019	S	SeqNo: 20	050552	Units: mg/K	g		
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-Bromofluo	robenzene	1.0		1.000		101	80	120			
Sample ID: 100	NG BTEX LCS	SampTy	oe: LC	s	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCS	ss	Batch I	D: B6	0589	F	tunNo: 60	0589				
Prep Date:	A	Analysis Da	te: 6/ 1	12/2019	S	SeqNo: 20	050553	Units: mg/Kg	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.99	0.025	1.000	0	98.5	80	120			
Toluene		1.0	0.050	1.000	0	103	80	120			
Ethylbenzene		1.0	0.050	1.000	0	103	80	120			
Xylenes, Total		3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluo	robenzene	1.0		1.000		102	80	120			
Sample ID: MB	-45503	SampTy	oe: MB	LK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	S	Batch I	D: 455	503	F	lunNo: 60	0589				
Prep Date: 6/	11/2019 <i>/</i>	Analysis Da	te: 6/ *	12/2019	S	SeqNo: 20	050556	Units: %Rec	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluo	robenzene	1.0		1.000		103	80	120			
Sample ID: LCS	S-45503	SampTy	oe: LC	<u></u>	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCS	SS	Batch I	D: 455	503	F	lunNo: 60	0589				
Prep Date: 6/	11/2019 <i>/</i>	Analysis Da	te: 6/ ′	12/2019	S	SeqNo: 20	050557	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

1.0

1.000

- 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

101

120

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P 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: VANGUARD OPERATIN Work Order Number: 1906577 RcptNo: 1 Received By: Leah Baca 6/12/2019 8:55:00 AM Completed By: Leah Baca 6/12/2019 9:09:12 AM 4/12/14 Reviewed By: 10 Chain of Custody 1. Is Chain of Custody complete? Yes V No 🗌 Not Present 2. How was the sample delivered? Courier 3. Was an attempt made to cool the samples? Yes V No NA 🗌 No 📗 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 No 🗌 5. Sample(s) in proper container(s)? Yes 🗸 No 🗌 Sufficient sample volume for indicated test(s)? Yes V 7. Are samples (except VOA and ONG) properly preserved? No 🗌 Yes 🗸 No V 8. Was preservative added to bottles? Yes NA 🗌 9. VOA vials have zero headspace? No VOA Vials 🗸 Yes No 🗌 Yes No 🗸 10. Were any sample containers received broken? # 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? No 🗌 12. Are matrices correctly identified on Chain of Custody? Yes V 13. Is it clear what analyses were requested? Yes 🗸 No 🗌 14. Were all holding times able to be met? Yes 🗸 No 🗌 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes NA 🗸 No 🗌 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 1.8 Good Yes

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel 505-345-3975 Fax 505-345-4107	Analysis	†OS	s (802 PO ₄ , 9	82 I (1)	(AO)	o(Geide bor 3310 Meta NC MC	on 510 Pest to 20 Method Br, 8 M Br, 700,	9081 PH:80 9081 PAPS 900 (SCRAP) 10, F, 10, Ph	3 3 3 3				2					Remarks: e mail (a Joe Lowry	Meril taglor	This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time:	□ Standard X Rush Same and	Project Name: State VCTB-B		Project #:		Project Manager: 304 Low14		11111	Sampler, ///a 7/ /cu//cOn Ice: ☑ Yes ☐ No		Cooler Temp(including cF): 2.3 -c+< = /.8 C		1 ype and # 1 ype 1 10 0 3 + 402 8/635	in the	- 002	-03	NO. 0	500-				Receivedby Via: Date Time	Received by: Via: Course, Bate Time	bcontracted to other accredited laboratories. This serves as notice of th
Chain-of-Custody Record	Client: 1/2 A S 2 11 CA	Lan Sevia	Mailing Address: 4001 Penbruke 5+ 201	1	Col 550 1X 19/62	Fhone #: email or Fax#:	äi		Accreditation: \square Az Compliance \square NFI AC \square Other M/M OC \square \square \square \square \square	ype)			Time	J. (10 15 11 WAT)	111	11/1315 V CT13-13-5W#1B	20 178-8-842	(T13-8-FW#)					Date Time: Relinquished by:	f necessary samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.



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 ORGA	ANICS					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 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: 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 (ORGANICS					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 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 **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 ORGA	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 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 O	RGANICS					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 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 9

Lab Order **1905966**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC Client Sample ID: WW #1

 Project:
 State V CTB-E
 Collection Date: 5/15/2019 9:10:00 AM

 Lab ID:
 1905966-005
 Matrix: SOIL
 Received Date: 5/18/2019 10:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				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 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#: **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.

Result

11

WO#: **1905966**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Sample ID: MB-45096	SampT	уре: МЕ	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics		
Client ID: PBS	Batch	ID: 45 0	096	F	RunNo: 6	0078					
Prep Date: 5/21/2019	Analysis D	ate: 5/	22/2019	8	SeqNo: 2	028763	Units: mg/k	(g			
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	SampT	ype: LC	s	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch	ID: 45 0	096	F	RunNo: 60078						
Prep Date: 5/21/2019	Analysis D	ate: 5/	22/2019	8	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	SampT	уре: МЕ	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID: PBS	Batch	ID: 45	119	F	RunNo: 6	0110					
Prep Date: 5/22/2019	Analysis D	ate: 5/	23/2019	Ş	SeqNo: 2	030204	Units: %Re	r			

Sample ID: LCS-45119	SampType: LC:	S	Test	tCode: El	PA Method	8015M/D: Die	sel Range	organics	
Client ID: LCSS	Batch ID: 451	19	R	tunNo: 6	0110				
Prep Date: 5/22/2019	Analysis Date: 5/2	23/2019	S	SeqNo: 20	030205	Units: %Rec	:		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3	5.000		145	70	130			S

SPK value SPK Ref Val %REC LowLimit

106

10.00

HighLimit

130

70

%RPD

RPDLimit

Qual

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: 2030850 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	7.1 5.000	142 70 130 S

Qualifiers:

Analyte

Surr: DNOP

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 9

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

1000

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

1000

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

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.

0.99

1.0

WO#: **1905966**

28-May-19

Client: Caprock Services, LLC

Project: State V CTB-E

Surr: 4-Bromofluorobenzene

Surr: 4-Bromofluorobenzene

Sample ID: MB-45034 SampType: MBLK TestCode: EPA Method 8021B: Volatiles PBS Client ID: Batch ID: 45034 RunNo: 60046 Units: mg/Kg Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027141 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

99.4

104

80

80

120

120

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

1.000

1.000

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 SERVIC	ES, L Work Order	Number: 1905966		RcptNo:	1
Received By: Erin Melendrez	5/18/2019 10:	10:00 AM	una	7	
Completed By: Erin Melendrez Reviewed By: ENM LB: DAD 5/20/19	5/18/2019 2:4 5/70/9	3:46 PM	u uz	2	
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 sa	amples?	Yes 🗸	No 🗆	NA 🗆	
4. Were all samples received at a temp	perature of >0° C to 6.0°	C Yes 🗹	No 🗌	NA 🗆	
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗆		
6. Sufficient sample volume for indicate	ed test(s)?	Yes 🗸	No 🗌		
7. Are samples (except VOA and ONG)	properly preserved?	Yes 🗸	No 🗆		
8. Was preservative added to bottles?		Yes	No 🗹	NA 🗆	
9. VOA vials have zero headspace?		Yes	No 🗌	No VOA Vials	
10. Were any sample containers receive	ed broken?	Yes	No 🗹	# of preserved	/
11. Does paperwork match bottle labels' (Note discrepancies on chain of cust		Yes 🗸	No 🗆	bottles checked for pH:	12 unless noted)
12. Are matrices correctly identified on C	Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	
13. Is it clear what analyses were reques	sted?	Yes 🗸	No 🗌	/ -	
 Were all holding times able to be me (If no, notify customer for authorization) 		Yes 🗸	No 🗌	Checked by: U	AD 5/20/19
Special Handling (if applicable)					
15. Was client notified of all discrepanci	es with this order?	Yes 🗌	No 🗆	NA 🗹	
Person Notified: By Whom: Regarding: Client Instructions:		Date: Via: eMail	Phone Fax	☐ In Person	
16. Additional remarks:					
17. Cooler Information Cooler No Temp °C Conditi 1 1.6 Good	on Seal Intact Seal	No Seal Date	Signed By		

Client: Caprock Services, LLC	☐ Standard Project Name:		0			ANA	1	S	W I		*
Mailing Address: P.O. Box 457 Lovington NW 889Le0 Phone #: (575) 704 - 97 IR email or Fax#: CapackServices 5Le@gmail.Com Projec QA/QC Package: Standard Level 4 (Full Validation)		7	CTR-F							ANALYSIS LABORATORY	
Malling Address: P.D. Box 457 Lovington NW 889LeD Phone #: (575) 704 - 971R email or Fax#: Capack Services 5Le@ gmailCom Project QA/QC Package: Standard Level 4 (Full Validation))			www	<u>=</u>	www.nallenvironmental.com	ental.c	OILI	
Lovington NW 88960 Phone #: (575) 704 - 9718 email or Fax#: CapackServices 56 @ gmail. Com Projec QA/QC Package: Standard Level 4 (Full Validation)				49	4901 Hawkins NE	kins NE	f	ndne	dne, N	Albuquerque, NM 87109	
Phone #: (575) 704 - 9718 email or Fax#: (aprockServices 5/e@gmai/Com/Projec QA/QC Package: Standard □ Level 4 (Full Validation)	ot #:			ř	Tel. 505-345-3975	345-39	22	Fax 5	05-34	505-345-4107	
email or Fax#: Capack Services Sle Ganai J. Com Projec QA/QC Package:				13 Y			Ana	Sis	Request		
QA/QC Package: Call Validation)	ct Manage	.i.					os		(juə		
	199	huma)	7	S08) a	CB,	SWIS	' [†] Oc		edA\t		
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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

andy

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 Qu	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 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 ORG	ANICS				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 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 10

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 Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				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 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 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	ANICS				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
- 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 10

Lab Order **1905965**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC Client Sample ID: Floor #1

 Project:
 State V CTB-C
 Collection Date: 5/15/2019 7:50:00 AM

 Lab ID:
 1905965-005
 Matrix: SOIL
 Received Date: 5/18/2019 10:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					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: mq/Kq

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, LL	C

Project: State V CTB-C

State V	C12 C			
Sample ID: MB-45096	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 45096	RunNo: 60078		
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028763	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	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 45096	RunNo: 60078		
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028765	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: 1905965-001AMS	SampType: MS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: NW #1	Batch ID: 45096	RunNo: 60078		
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2029475	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Diesel Range Organics (DRO)	62 9.9 49.36	0 126 53.5	126	
Surr: DNOP	6.3 4.936	128 70	130	
Sample ID: 1905965-001AMS	SD SampType: MSD	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: NW #1	Batch ID: 45096	RunNo: 60078		
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2029476	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Diesel Range Organics (DRO)	63 9.5 47.66	0 132 53.5	126 1.31 21.7	S
Surr: DNOP	6.5 4.766	136 70	130 0 0	S
Sample ID: MB-45119	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 45119	RunNo: 60110		
Prep Date: 5/22/2019	Analysis Date: 5/23/2019	SeqNo: 2030204	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	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	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
		J	g= /514 D 14 DEIIII	~~~

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.

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

Analyte SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Surr: DNOP S 7.3 5.000 145 70 130

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

Client ID: LCSS Batch ID: 45119 RunNo: 60110

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

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

Surr: DNOP 7.1 5.000 142 70 130 S

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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 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.

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

 Benzene
 ND
 0.025

 Toluene
 ND
 0.050

 Ethylbenzene
 ND
 0.050

 Xylenes, Total
 ND
 0.10

Surr: 4-Bromofluorobenzene 0.99 1.000 99.4 80 120

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

Client ID: LCSS Batch ID: 45034 RunNo: 60046

Prep Date: 5/20/2019 Analysis Date: 5/21/2019 SeqNo: 2027142 Units: mg/Kg

Prep Date: 5/20/2019	Analysis L	Date: 5/	21/2019	3	seqivo: 20	02/142	Units: mg/r	.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			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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 10 of 10



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: 1905965 RcptNo: 1 MUL 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: 5/20/19 DAD Chain of Custody 1. Is Chain of Custody complete? Yes V No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? Yes V No 🗌 NA 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C NA 🗌 Sample(s) in proper container(s)? Yes V No 🗌 Sufficient sample volume for indicated test(s)? Yes V No 🗌 7. Are samples (except VOA and ONG) properly preserved? No | Yes 8. Was preservative added to bottles? No V NA 🗌 Yes 9. VOA vials have zero headspace? No 🗌 No VOA Vials V Yes 10. Were any sample containers received broken? Yes 🗆 No V # of preserved bottles checked 11. Does paperwork match bottle labels? Yes V 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? V No 🗌 Yes 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 V 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

Project Name: System of Name	Chain-of-Custody Record	Time	HALL ENVIRONMENTAL
Malling Address: P. D. & Ox 4 \$\insert 18 \)	CHEIN: COOMOR SELVICES, CLC	Ish O	ANALYSIS LABOKATORY
Project #:	Mailing Address: O. C. C.		
Property	1.0. 00x 13 1	D 4.	
Phone #		Project #:	505-345-3975 Fax
email or Faziet Coroclescovices St. 6 Ornesii (Dec. Project Manager: Accreditation: Az Compliance On less: EDD (Type) The and # Type and # Tourist Container Date: Time: Matrix Sample Name On less: A Yes and # Type and Type an	Phone #: 7575/ 704 - 9718		
Control Cont	email or Fax#: (agraph/Services Sto @ Gmai).	Com Project Manager:	(O)
Standard	QA/QC Package:		PO4, SIMS
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S-15-19 0746 20.1 4/10.2 1 1 1 1 1 1 1 1 1	0,000	500- //	×
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Signal of 150 Sail Floor III Date: Time: Relinquished by: Received by: Received by: Received by: Nat. Date Time Remarks: Please e-moil resturities to a processor of the contract of the contracted date will be deally not analyted report. This serves as notice of this possibility. Any sub-contracted date will be deally notated on the analyted report.	0745 Sil WW!	- 1.4.	
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This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	Time:	Via:COURIES Date TI	-3
If peopleary samples submitted to Hall Environmental injury or subscriptions and a submitted to Hall Environmental injury or subscriptions and a submitted to Hall Environmental injury or subscriptions and a submitted to Hall Environmental injury or subscriptions and a submitted to Hall Environmental injury or submitted to	if necessary samples submitted to Hall Environmental may l	be subcontracted to other accredited laboratories. This serves as notice of the	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-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**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC Client Sample ID: EW #1

 Project:
 State V CTB-D
 Collection Date: 5/15/2019 8:20:00 AM

 Lab ID:
 1905964-002
 Matrix: SOIL
 Received Date: 5/18/2019 10:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				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

Lab Order **1905964**

Date Reported: 5/28/2019

Hall Environmental Analysis Laboratory, Inc.

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 ORG	SANICS				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

- 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	SANICS					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

Page 4 of 9

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	ANICS					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
- 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#: **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

Page 6 of 9

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) 10 0 47 50.00 94.2 63.9 124

 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

9.4

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

10.00

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

93.6

70

130

Qualifiers:

Surr: DNOP

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 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 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 ND 0.10

Xylenes, Total Surr: 4-Bromofluorobenzene 0.99 1.000 99.4 80

120

0.9843

0.99

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

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

Surr: 4-Bromofluorobenzene

Holding times for preparation or analysis exceeded Н

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

101

80

120

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: 1905964 RcptNo: 1 una6 Received By: Erin Melendrez 5/18/2019 10:10:00 AM Completed By: Erin Melendrez 5/18/2019 2:31:41 PM 5/20/A Reviewed By: DAD 5/20/19 Chain of Custody 1. Is Chain of Custody complete? Yes V No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? Yes V No 🗌 NA 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 Yes 🗸 Sample(s) in proper container(s)? No 🗌 6. Sufficient sample volume for indicated test(s)? Yes V No 🗌 Yes V 7. Are samples (except VOA and ONG) properly preserved? No 🗌 8. Was preservative added to bottles? Yes No V NA 🗌 9. VOA vials have zero headspace? No 🗌 No VOA Vials 🗸 Yes Yes 10. Were any sample containers received broken? No V # 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 V No 🗌 13. Is it clear what analyses were requested? Yes V 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 NA V No 🗌 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

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	sis Requ	*OS	PO4, PSIMS PCB's	280 (1.)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	99/88/86 204) 0 0r 18 19 19 19 19 19 19 19 19 19 19 19 19 19	cide ocide 310 A) (A)	orecti Meth by 8 8 M Br, VOA	ТРН:80 8081 Р ВОВ (1 РРН В ССРА СІ, Е, В В СО (1 В В СО (1 В СО (1)	×	×		1		X				Remarks: Please email results to ;	pelle buryenviromental.com	jordyne. Caprack services agamail. Com	This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time: Sawy	□ Standard □ Rush	Project Name: State V CTB-D		Project #:			fucna)	Sample: Clocking Toulor	M Yes □ No		Cooler Temp(including cF): (82	Container Preservative CODESCUL Type Type		200-	2 5 1 1			-005 ×				Received by Via: Date Time R	S/11/2 070	-	contracted to other accredited laboratories. This serves as notice of this p
hain-of-Custody Record	Client: Caprol Services, LLC		Mailing Address: P.O. Box 457		Phone #: (575) 704 - 9718	0	QA/QC Package:		Other NWOCD 69.	ype)		Sample Name	// // // // // // // // // // // // //	227	02820		5-15-19 0830 WWW	>				Date: Time: Relinquished by:	STA ORO Wattall	Time:	- 4



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

August 06, 2019

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

FAX:

RE: State V CTB-A OrderNo.: 1907E82

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 24 sample(s) on 7/30/2019 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 **1907E82**

, Inc. Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 5

Project: State V CTB-A
 Collection Date: 7/26/2019 9:10:00 AM

 Lab ID: 1907E82-001
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CAS
Chloride	ND	60		mg/Kg	20	8/2/2019 12:48:02 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANGE	≣					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2019 4:09:00 PM	46491
Surr: BFB	94.7	70-130		%Rec	1	8/1/2019 4:09:00 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analyst	том
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/2/2019 2:31:37 PM	46535
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	8/2/2019 2:31:37 PM	46535
Surr: DNOP	132	70-130	S	%Rec	1	8/2/2019 2:31:37 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST	Т					Analyst	JMR
Benzene	ND	0.025		mg/Kg	1	8/1/2019 4:09:00 PM	46491
Toluene	ND	0.049		mg/Kg	1	8/1/2019 4:09:00 PM	46491
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2019 4:09:00 PM	46491
Xylenes, Total	ND	0.099		mg/Kg	1	8/1/2019 4:09:00 PM	46491
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	8/1/2019 4:09:00 PM	46491
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	8/1/2019 4:09:00 PM	46491
Surr: Dibromofluoromethane	105	70-130		%Rec	1	8/1/2019 4:09:00 PM	46491
Surr: Toluene-d8	99.5	70-130		%Rec	1	8/1/2019 4:09:00 PM	46491

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 32

Lab Order **1907E82**

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 6

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 9:15:00 AM

 Lab ID:
 1907E82-002
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CAS
Chloride	ND	60		mg/Kg	20	8/2/2019 1:00:27 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2019 4:37:55 PM	46491
Surr: BFB	95.6	70-130		%Rec	1	8/1/2019 4:37:55 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/2/2019 2:53:49 PM	46535
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	8/2/2019 2:53:49 PM	46535
Surr: DNOP	149	70-130	S	%Rec	1	8/2/2019 2:53:49 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST	-					Analyst	: JMR
Benzene	ND	0.024		mg/Kg	1	8/1/2019 4:37:55 PM	46491
Toluene	ND	0.049		mg/Kg	1	8/1/2019 4:37:55 PM	46491
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2019 4:37:55 PM	46491
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2019 4:37:55 PM	46491
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%Rec	1	8/1/2019 4:37:55 PM	46491
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	8/1/2019 4:37:55 PM	46491
Surr: Dibromofluoromethane	96.6	70-130		%Rec	1	8/1/2019 4:37:55 PM	46491
Surr: Toluene-d8	98.5	70-130		%Rec	1	8/1/2019 4:37:55 PM	46491

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 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 7

Project: State V CTB-A
 Collection Date: 7/26/2019 9:20:00 AM

 Lab ID: 1907E82-003
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	61	mg/Kg	20	8/2/2019 1:12:52 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	: JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/1/2019 5:06:50 PM	46491
Surr: BFB	96.2	70-130	%Rec	1	8/1/2019 5:06:50 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/2/2019 3:38:17 PM	46535
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/2/2019 3:38:17 PM	46535
Surr: DNOP	95.8	70-130	%Rec	1	8/2/2019 3:38:17 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst	: JMR
Benzene	ND	0.025	mg/Kg	1	8/1/2019 5:06:50 PM	46491
Toluene	ND	0.050	mg/Kg	1	8/1/2019 5:06:50 PM	46491
Ethylbenzene	ND	0.050	mg/Kg	1	8/1/2019 5:06:50 PM	46491
Xylenes, Total	ND	0.099	mg/Kg	1	8/1/2019 5:06:50 PM	46491
Surr: 1,2-Dichloroethane-d4	96.5	70-130	%Rec	1	8/1/2019 5:06:50 PM	46491
Surr: 4-Bromofluorobenzene	97.7	70-130	%Rec	1	8/1/2019 5:06:50 PM	46491
Surr: Dibromofluoromethane	103	70-130	%Rec	1	8/1/2019 5:06:50 PM	46491
Surr: Toluene-d8	101	70-130	%Rec	1	8/1/2019 5:06:50 PM	46491

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 3 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 8

Project: State V CTB-A
 Collection Date: 7/26/2019 9:25:00 AM

 Lab ID: 1907E82-004
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:25:16 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 5:35:45 PM	46491
Surr: BFB	95.3	70-130	%Rec	1	8/1/2019 5:35:45 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 4:00:35 PM	46535
Motor Oil Range Organics (MRO)	ND	52	mg/Kg	1	8/2/2019 4:00:35 PM	46535
Surr: DNOP	129	70-130	%Rec	1	8/2/2019 4:00:35 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst	: JMR
Benzene	ND	0.024	mg/Kg	1	8/1/2019 5:35:45 PM	46491
Toluene	ND	0.048	mg/Kg	1	8/1/2019 5:35:45 PM	46491
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 5:35:45 PM	46491
Xylenes, Total	ND	0.097	mg/Kg	1	8/1/2019 5:35:45 PM	46491
Surr: 1,2-Dichloroethane-d4	92.9	70-130	%Rec	1	8/1/2019 5:35:45 PM	46491
Surr: 4-Bromofluorobenzene	98.5	70-130	%Rec	1	8/1/2019 5:35:45 PM	46491
Surr: Dibromofluoromethane	98.8	70-130	%Rec	1	8/1/2019 5:35:45 PM	46491
Surr: Toluene-d8	99.5	70-130	%Rec	1	8/1/2019 5:35:45 PM	46491

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 32

Lab Order **1907E82**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 9

Project: State V CTB-A
 Collection Date: 7/26/2019 9:30:00 AM

 Lab ID: 1907E82-005
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CAS
Chloride	ND	60		mg/Kg	20	8/2/2019 2:02:29 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANGE	≣					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/1/2019 6:04:40 PM	46491
Surr: BFB	95.8	70-130		%Rec	1	8/1/2019 6:04:40 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/2/2019 4:22:47 PM	46535
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/2/2019 4:22:47 PM	46535
Surr: DNOP	145	70-130	S	%Rec	1	8/2/2019 4:22:47 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	Т					Analyst	: JMR
Benzene	ND	0.025		mg/Kg	1	8/1/2019 6:04:40 PM	46491
Toluene	ND	0.050		mg/Kg	1	8/1/2019 6:04:40 PM	46491
Ethylbenzene	ND	0.050		mg/Kg	1	8/1/2019 6:04:40 PM	46491
Xylenes, Total	ND	0.099		mg/Kg	1	8/1/2019 6:04:40 PM	46491
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	8/1/2019 6:04:40 PM	46491
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	8/1/2019 6:04:40 PM	46491
Surr: Dibromofluoromethane	101	70-130		%Rec	1	8/1/2019 6:04:40 PM	46491
Surr: Toluene-d8	100	70-130		%Rec	1	8/1/2019 6:04:40 PM	46491

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 5 of 32

Lab Order **1907E82**Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 10

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 9:35:00 AM

 Lab ID:
 1907E82-006
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CAS
Chloride	ND	61		mg/Kg	20	8/2/2019 2:14:54 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANGI	E					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2019 6:33:34 PM	46491
Surr: BFB	92.8	70-130		%Rec	1	8/1/2019 6:33:34 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/2/2019 4:45:12 PM	46535
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/2/2019 4:45:12 PM	46535
Surr: DNOP	136	70-130	S	%Rec	1	8/2/2019 4:45:12 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	Т					Analyst	: JMR
Benzene	ND	0.024		mg/Kg	1	8/1/2019 6:33:34 PM	46491
Toluene	ND	0.049		mg/Kg	1	8/1/2019 6:33:34 PM	46491
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2019 6:33:34 PM	46491
Xylenes, Total	ND	0.098		mg/Kg	1	8/1/2019 6:33:34 PM	46491
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%Rec	1	8/1/2019 6:33:34 PM	46491
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	8/1/2019 6:33:34 PM	46491
Surr: Dibromofluoromethane	98.8	70-130		%Rec	1	8/1/2019 6:33:34 PM	46491
Surr: Toluene-d8	95.0	70-130		%Rec	1	8/1/2019 6:33:34 PM	46491

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 6 of 32

Lab Order **1907E82**

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 11

Project: State V CTB-A
 Collection Date: 7/26/2019 9:40:00 AM

 Lab ID: 1907E82-007
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	59	mg/Kg	20	8/2/2019 2:27:18 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	8/1/2019 7:02:25 PM	46491
Surr: BFB	94.7	70-130	%Rec	1	8/1/2019 7:02:25 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 5:07:23 PM	46535
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 5:07:23 PM	46535
Surr: DNOP	90.2	70-130	%Rec	1	8/2/2019 5:07:23 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: JMR
Benzene	ND	0.023	mg/Kg	1	8/1/2019 7:02:25 PM	46491
Toluene	ND	0.046	mg/Kg	1	8/1/2019 7:02:25 PM	46491
Ethylbenzene	ND	0.046	mg/Kg	1	8/1/2019 7:02:25 PM	46491
Xylenes, Total	ND	0.092	mg/Kg	1	8/1/2019 7:02:25 PM	46491
Surr: 1,2-Dichloroethane-d4	95.4	70-130	%Rec	1	8/1/2019 7:02:25 PM	46491
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	8/1/2019 7:02:25 PM	46491
Surr: Dibromofluoromethane	100	70-130	%Rec	1	8/1/2019 7:02:25 PM	46491
Surr: Toluene-d8	99.7	70-130	%Rec	1	8/1/2019 7:02:25 PM	46491

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 7 of 32

Lab Order **1907E82**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/6/2019

CLIENT: Caprock Services, LLC Client Sample ID: Floor 12

Project: State V CTB-A
 Collection Date: 7/26/2019 9:45:00 AM

 Lab ID: 1907E82-008
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 2:39:42 AM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 7:31:16 PM	46491
Surr: BFB	94.1	70-130	%Rec	1	8/1/2019 7:31:16 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/2/2019 5:29:54 PM	46535
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/2/2019 5:29:54 PM	46535
Surr: DNOP	90.0	70-130	%Rec	1	8/2/2019 5:29:54 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst	: JMR
Benzene	ND	0.024	mg/Kg	1	8/1/2019 7:31:16 PM	46491
Toluene	ND	0.048	mg/Kg	1	8/1/2019 7:31:16 PM	46491
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 7:31:16 PM	46491
Xylenes, Total	ND	0.096	mg/Kg	1	8/1/2019 7:31:16 PM	46491
Surr: 1,2-Dichloroethane-d4	97.4	70-130	%Rec	1	8/1/2019 7:31:16 PM	46491
Surr: 4-Bromofluorobenzene	99.6	70-130	%Rec	1	8/1/2019 7:31:16 PM	46491
Surr: Dibromofluoromethane	101	70-130	%Rec	1	8/1/2019 7:31:16 PM	46491
Surr: Toluene-d8	97.1	70-130	%Rec	1	8/1/2019 7:31:16 PM	46491

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 8 of 32

Lab Order **1907E82**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/6/2019

CLIENT: Caprock Services, LLC Client Sample ID: Floor 13

Project: State V CTB-A
 Collection Date: 7/26/2019 9:50:00 AM

 Lab ID: 1907E82-009
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 10:46:26 AM	46555
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2019 8:00:04 PM	46491
Surr: BFB	94.5	70-130	%Rec	1	8/1/2019 8:00:04 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 5:52:15 PM	46535
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 5:52:15 PM	46535
Surr: DNOP	98.3	70-130	%Rec	1	8/2/2019 5:52:15 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.023	mg/Kg	1	8/1/2019 8:00:04 PM	46491
Toluene	ND	0.047	mg/Kg	1	8/1/2019 8:00:04 PM	46491
Ethylbenzene	ND	0.047	mg/Kg	1	8/1/2019 8:00:04 PM	46491
Xylenes, Total	ND	0.094	mg/Kg	1	8/1/2019 8:00:04 PM	46491
Surr: 1,2-Dichloroethane-d4	98.2	70-130	%Rec	1	8/1/2019 8:00:04 PM	46491
Surr: 4-Bromofluorobenzene	97.0	70-130	%Rec	1	8/1/2019 8:00:04 PM	46491
Surr: Dibromofluoromethane	100	70-130	%Rec	1	8/1/2019 8:00:04 PM	46491
Surr: Toluene-d8	98.1	70-130	%Rec	1	8/1/2019 8:00:04 PM	46491

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 9 of 32

Lab Order 1907E82

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 14

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 9:55:00 AM

 Lab ID:
 1907E82-010
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CAS
Chloride	ND	60		mg/Kg	20	8/2/2019 10:58:51 AM	46555
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/1/2019 8:28:55 PM	46491
Surr: BFB	93.9	70-130		%Rec	1	8/1/2019 8:28:55 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/2/2019 6:14:51 PM	46535
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/2/2019 6:14:51 PM	46535
Surr: DNOP	137	70-130	S	%Rec	1	8/2/2019 6:14:51 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	JMR
Benzene	ND	0.024		mg/Kg	1	8/1/2019 8:28:55 PM	46491
Toluene	ND	0.048		mg/Kg	1	8/1/2019 8:28:55 PM	46491
Ethylbenzene	ND	0.048		mg/Kg	1	8/1/2019 8:28:55 PM	46491
Xylenes, Total	ND	0.095		mg/Kg	1	8/1/2019 8:28:55 PM	46491
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	1	8/1/2019 8:28:55 PM	46491
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	8/1/2019 8:28:55 PM	46491
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	8/1/2019 8:28:55 PM	46491
Surr: Toluene-d8	98.5	70-130		%Rec	1	8/1/2019 8:28:55 PM	46491

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 10 of 32

Lab Order **1907E82**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 15

Project: State V CTB-A
 Collection Date: 7/26/2019 10:00:00 AM

 Lab ID: 1907E82-011
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 11:11:15 AM	46555
EPA METHOD 8015D MOD: GASOLINE RANGI	≣				Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2019 8:57:44 PM	46491
Surr: BFB	95.8	70-130	%Rec	1	8/1/2019 8:57:44 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 6:37:11 PM	46535
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 6:37:11 PM	46535
Surr: DNOP	112	70-130	%Rec	1	8/2/2019 6:37:11 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	Т				Analyst	JMR
Benzene	ND	0.023	mg/Kg	1	8/1/2019 8:57:44 PM	46491
Toluene	ND	0.047	mg/Kg	1	8/1/2019 8:57:44 PM	46491
Ethylbenzene	ND	0.047	mg/Kg	1	8/1/2019 8:57:44 PM	46491
Xylenes, Total	ND	0.093	mg/Kg	1	8/1/2019 8:57:44 PM	46491
Surr: 1,2-Dichloroethane-d4	96.4	70-130	%Rec	1	8/1/2019 8:57:44 PM	46491
Surr: 4-Bromofluorobenzene	97.8	70-130	%Rec	1	8/1/2019 8:57:44 PM	46491
Surr: Dibromofluoromethane	98.3	70-130	%Rec	1	8/1/2019 8:57:44 PM	46491
Surr: Toluene-d8	98.8	70-130	%Rec	1	8/1/2019 8:57:44 PM	46491

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 11 of 32

Lab Order **1907E82**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 16

Project: State V CTB-A
 Collection Date: 7/26/2019 10:05:00 AM

 Lab ID: 1907E82-012
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	CAS
Chloride	ND	60		mg/Kg	20	8/2/2019 11:48:28 AM	46555
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/1/2019 9:26:31 PM	46491
Surr: BFB	93.2	70-130		%Rec	1	8/1/2019 9:26:31 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	том
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/2/2019 6:59:39 PM	46535
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/2/2019 6:59:39 PM	46535
Surr: DNOP	136	70-130	S	%Rec	1	8/2/2019 6:59:39 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	JMR
Benzene	ND	0.025		mg/Kg	1	8/1/2019 9:26:31 PM	46491
Toluene	ND	0.050		mg/Kg	1	8/1/2019 9:26:31 PM	46491
Ethylbenzene	ND	0.050		mg/Kg	1	8/1/2019 9:26:31 PM	46491
Xylenes, Total	ND	0.099		mg/Kg	1	8/1/2019 9:26:31 PM	46491
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%Rec	1	8/1/2019 9:26:31 PM	46491
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	8/1/2019 9:26:31 PM	46491
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	8/1/2019 9:26:31 PM	46491
Surr: Toluene-d8	98.3	70-130		%Rec	1	8/1/2019 9:26:31 PM	46491

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 12 of 32

Lab Order 1907E82

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 17

Project: State V CTB-A
 Collection Date: 7/26/2019 10:10:00 AM

 Lab ID: 1907E82-013
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 12:50:29 PM	46555
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 11:50:28 PM	46491
Surr: BFB	93.0	70-130	%Rec	1	8/1/2019 11:50:28 PM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	том
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/2/2019 7:21:58 PM	46535
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/2/2019 7:21:58 PM	46535
Surr: DNOP	89.1	70-130	%Rec	1	8/2/2019 7:21:58 PM	46535
EPA METHOD 8260B: VOLATILES SHORT LIST	-				Analyst	JMR
Benzene	ND	0.024	mg/Kg	1	8/1/2019 11:50:28 PM	46491
Toluene	ND	0.048	mg/Kg	1	8/1/2019 11:50:28 PM	46491
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 11:50:28 PM	46491
Xylenes, Total	ND	0.096	mg/Kg	1	8/1/2019 11:50:28 PM	46491
Surr: 1,2-Dichloroethane-d4	98.8	70-130	%Rec	1	8/1/2019 11:50:28 PM	46491
Surr: 4-Bromofluorobenzene	96.7	70-130	%Rec	1	8/1/2019 11:50:28 PM	46491
Surr: Dibromofluoromethane	101	70-130	%Rec	1	8/1/2019 11:50:28 PM	46491
Surr: Toluene-d8	100	70-130	%Rec	1	8/1/2019 11:50:28 PM	46491

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

porting Limit Page 13 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 18

Project: State V CTB-A
 Collection Date: 7/26/2019 10:15:00 AM

 Lab ID: 1907E82-014
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:02:54 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 8:29:03 PM	46536
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	8/2/2019 8:29:03 PM	46536
Surr: DNOP	106	70-130	%Rec	1	8/2/2019 8:29:03 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	7/31/2019 9:24:57 PM	46492
Surr: BFB	108	73.8-119	%Rec	1	7/31/2019 9:24:57 PM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	7/31/2019 9:24:57 PM	46492
Toluene	ND	0.047	mg/Kg	1	7/31/2019 9:24:57 PM	46492
Ethylbenzene	ND	0.047	mg/Kg	1	7/31/2019 9:24:57 PM	46492
Xylenes, Total	ND	0.095	mg/Kg	1	7/31/2019 9:24:57 PM	46492
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	1	7/31/2019 9:24:57 PM	46492

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 14 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 19

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 10:20:00 AM

 Lab ID:
 1907E82-015
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:15:18 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 9:36:01 PM	46536
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 9:36:01 PM	46536
Surr: DNOP	121	70-130	%Rec	1	8/2/2019 9:36:01 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	7/31/2019 10:33:13 PM	46492
Surr: BFB	106	73.8-119	%Rec	1	7/31/2019 10:33:13 PM	46492
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.023	mg/Kg	1	7/31/2019 10:33:13 PM	46492
Toluene	ND	0.046	mg/Kg	1	7/31/2019 10:33:13 PM	46492
Ethylbenzene	ND	0.046	mg/Kg	1	7/31/2019 10:33:13 PM	46492
Xylenes, Total	ND	0.092	mg/Kg	1	7/31/2019 10:33:13 PM	46492
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	1	7/31/2019 10:33:13 PM	46492

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 15 of 32

Lab Order 1907E82

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 20

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 10:25:00 AM

 Lab ID:
 1907E82-016
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:27:43 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 9:58:26 PM	46536
Motor Oil Range Organics (MRO)	ND	52	mg/Kg	1	8/2/2019 9:58:26 PM	46536
Surr: DNOP	124	70-130	%Rec	1	8/2/2019 9:58:26 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	7/31/2019 11:41:19 PM	46492
Surr: BFB	103	73.8-119	%Rec	1	7/31/2019 11:41:19 PM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	7/31/2019 11:41:19 PM	46492
Toluene	ND	0.047	mg/Kg	1	7/31/2019 11:41:19 PM	46492
Ethylbenzene	ND	0.047	mg/Kg	1	7/31/2019 11:41:19 PM	46492
Xylenes, Total	ND	0.094	mg/Kg	1	7/31/2019 11:41:19 PM	46492
Surr: 4-Bromofluorobenzene	89.3	80-120	%Rec	1	7/31/2019 11:41:19 PM	46492

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 16 of 32

Lab Order 1907E82

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 21

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 10:30:00 AM

 Lab ID:
 1907E82-017
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:40:07 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 10:20:49 PM	46536
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	8/2/2019 10:20:49 PM	46536
Surr: DNOP	113	70-130	%Rec	1	8/2/2019 10:20:49 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/1/2019 12:04:02 AM	46492
Surr: BFB	105	73.8-119	%Rec	1	8/1/2019 12:04:02 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.025	mg/Kg	1	8/1/2019 12:04:02 AM	46492
Toluene	ND	0.050	mg/Kg	1	8/1/2019 12:04:02 AM	46492
Ethylbenzene	ND	0.050	mg/Kg	1	8/1/2019 12:04:02 AM	46492
Xylenes, Total	ND	0.10	mg/Kg	1	8/1/2019 12:04:02 AM	46492
Surr: 4-Bromofluorobenzene	91.1	80-120	%Rec	1	8/1/2019 12:04:02 AM	46492

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 17 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 22

Project: State V CTB-A
 Collection Date: 7/26/2019 10:35:00 AM

 Lab ID: 1907E82-018
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 1:52:32 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/2/2019 10:43:12 PM	46536
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 10:43:12 PM	46536
Surr: DNOP	112	70-130	%Rec	1	8/2/2019 10:43:12 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 12:26:47 AM	46492
Surr: BFB	104	73.8-119	%Rec	1	8/1/2019 12:26:47 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	8/1/2019 12:26:47 AM	46492
Toluene	ND	0.048	mg/Kg	1	8/1/2019 12:26:47 AM	46492
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 12:26:47 AM	46492
Xylenes, Total	ND	0.097	mg/Kg	1	8/1/2019 12:26:47 AM	46492
Surr: 4-Bromofluorobenzene	89.8	80-120	%Rec	1	8/1/2019 12:26:47 AM	46492

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 18 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 23

Project: State V CTB-A
 Collection Date: 7/26/2019 10:40:00 AM

 Lab ID: 1907E82-019
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 2:04:57 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	8/2/2019 11:05:31 PM	46536
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/2/2019 11:05:31 PM	46536
Surr: DNOP	103	70-130	%Rec	1	8/2/2019 11:05:31 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 12:49:31 AM	46492
Surr: BFB	106	73.8-119	%Rec	1	8/1/2019 12:49:31 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.025	mg/Kg	1	8/1/2019 12:49:31 AM	46492
Toluene	ND	0.049	mg/Kg	1	8/1/2019 12:49:31 AM	46492
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 12:49:31 AM	46492
Xylenes, Total	ND	0.099	mg/Kg	1	8/1/2019 12:49:31 AM	46492
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	1	8/1/2019 12:49:31 AM	46492

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 19 of 32

Lab Order 1907E82

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/6/2019

CLIENT: Caprock Services, LLC Client Sample ID: Floor 24

Project: State V CTB-A
 Collection Date: 7/26/2019 10:45:00 AM

 Lab ID: 1907E82-020
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 2:17:21 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	11	mg/Kg	1	8/2/2019 11:27:50 PM	46536
Motor Oil Range Organics (MRO)	ND	53	mg/Kg	1	8/2/2019 11:27:50 PM	46536
Surr: DNOP	110	70-130	%Rec	1	8/2/2019 11:27:50 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 1:12:19 AM	46492
Surr: BFB	107	73.8-119	%Rec	1	8/1/2019 1:12:19 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	8/1/2019 1:12:19 AM	46492
Toluene	ND	0.048	mg/Kg	1	8/1/2019 1:12:19 AM	46492
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 1:12:19 AM	46492
Xylenes, Total	ND	0.097	mg/Kg	1	8/1/2019 1:12:19 AM	46492
Surr: 4-Bromofluorobenzene	91.9	80-120	%Rec	1	8/1/2019 1:12:19 AM	46492

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 20 of 32

Lab Order 1907E82

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/6/2019

CLIENT: Caprock Services, LLC Client Sample ID: Floor 25

 Project:
 State V CTB-A
 Collection Date: 7/26/2019 10:50:00 AM

 Lab ID:
 1907E82-021
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 2:54:34 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	11	mg/Kg	1	8/2/2019 11:50:08 PM	46536
Motor Oil Range Organics (MRO)	ND	53	mg/Kg	1	8/2/2019 11:50:08 PM	46536
Surr: DNOP	103	70-130	%Rec	1	8/2/2019 11:50:08 PM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	8/1/2019 1:35:12 AM	46492
Surr: BFB	99.0	73.8-119	%Rec	1	8/1/2019 1:35:12 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.023	mg/Kg	1	8/1/2019 1:35:12 AM	46492
Toluene	ND	0.046	mg/Kg	1	8/1/2019 1:35:12 AM	46492
Ethylbenzene	ND	0.046	mg/Kg	1	8/1/2019 1:35:12 AM	46492
Xylenes, Total	ND	0.091	mg/Kg	1	8/1/2019 1:35:12 AM	46492
Surr: 4-Bromofluorobenzene	85.4	80-120	%Rec	1	8/1/2019 1:35:12 AM	46492

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 21 of 32

Lab Order 1907E82

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 26

Project: State V CTB-A
 Collection Date: 7/26/2019 10:55:00 AM

 Lab ID: 1907E82-022
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 3:06:58 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/3/2019 12:12:37 AM	46536
Motor Oil Range Organics (MRO)	ND	52	mg/Kg	1	8/3/2019 12:12:37 AM	46536
Surr: DNOP	120	70-130	%Rec	1	8/3/2019 12:12:37 AM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 1:57:59 AM	46492
Surr: BFB	103	73.8-119	%Rec	1	8/1/2019 1:57:59 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.025	mg/Kg	1	8/1/2019 1:57:59 AM	46492
Toluene	ND	0.049	mg/Kg	1	8/1/2019 1:57:59 AM	46492
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 1:57:59 AM	46492
Xylenes, Total	ND	0.099	mg/Kg	1	8/1/2019 1:57:59 AM	46492
Surr: 4-Bromofluorobenzene	89.5	80-120	%Rec	1	8/1/2019 1:57:59 AM	46492

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 22 of 32

Lab Order **1907E82**

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 27

Project: State V CTB-A
 Collection Date: 7/26/2019 11:00:00 AM

 Lab ID: 1907E82-023
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 3:19:23 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/3/2019 12:57:25 AM	46536
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/3/2019 12:57:25 AM	46536
Surr: DNOP	115	70-130	%Rec	1	8/3/2019 12:57:25 AM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 2:20:56 AM	46492
Surr: BFB	105	73.8-119	%Rec	1	8/1/2019 2:20:56 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.025	mg/Kg	1	8/1/2019 2:20:56 AM	46492
Toluene	ND	0.049	mg/Kg	1	8/1/2019 2:20:56 AM	46492
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 2:20:56 AM	46492
Xylenes, Total	ND	0.098	mg/Kg	1	8/1/2019 2:20:56 AM	46492
Surr: 4-Bromofluorobenzene	89.6	80-120	%Rec	1	8/1/2019 2:20:56 AM	46492

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 23 of 32

Lab Order **1907E82**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 28

Project: State V CTB-A
 Collection Date: 7/26/2019 11:05:00 AM

 Lab ID: 1907E82-024
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 3:31:48 PM	46555
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/3/2019 1:19:50 AM	46536
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/3/2019 1:19:50 AM	46536
Surr: DNOP	95.6	70-130	%Rec	1	8/3/2019 1:19:50 AM	46536
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 1:31:31 AM	46492
Surr: BFB	91.7	73.8-119	%Rec	1	8/1/2019 1:31:31 AM	46492
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	8/1/2019 1:31:31 AM	46492
Toluene	ND	0.048	mg/Kg	1	8/1/2019 1:31:31 AM	46492
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 1:31:31 AM	46492
Xylenes, Total	ND	0.096	mg/Kg	1	8/1/2019 1:31:31 AM	46492
Surr: 4-Bromofluorobenzene	91.2	80-120	%Rec	1	8/1/2019 1:31:31 AM	46492

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 24 of 32

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB-A

Sample ID: MB-46547 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097049 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46547 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097050 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 96.3 90 110

Sample ID: MB-46555 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46555 RunNo: 61879

Prep Date: 8/2/2019 Analysis Date: 8/2/2019 SeqNo: 2098288 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46555 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46555 RunNo: 61879

Prep Date: 8/2/2019 Analysis Date: 8/2/2019 SeqNo: 2098289 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 92.9 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 25 of 32

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client:	Caprock Services, LLC
Duniant.	Chaha VI CTD A

Project: State V CTB-A

Sample ID: LCS-46512	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 46512	RunNo: 61831						
Prep Date: 7/31/2019	Analysis Date: 8/1/2019	SeqNo: 2096582 Units: %Rec						
Analyte	Result PQL SPK value SF	PK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual						

Surr: DNOP 4.0 5.000 79.1 70 130

Sample ID: MB-46512	SampType: M	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 46	512	R	RunNo: 6	1831				
Prep Date: 7/31/2019	Analysis Date: 8	/1/2019	S	SeqNo: 20	No: 2096583 Units: %Rec				
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8	10.00	<u> </u>	87.8	70	130		_	

Sample ID: 1907E82-014AMS	SampT	ype: MS	3	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: Floor 18	Batch	ID: 46	536	R	RunNo: 61831						
Prep Date: 8/1/2019	Analysis Date: 8/2/2019			SeqNo: 2097756			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	9.8	49.16	0	96.0	57	142				
Surr: DNOP	3.8		4 916		76.3	70	130				

Sample ID: 1907E82-014AMS	D SampT	ype: M \$	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	organics	
Client ID: Floor 18	Batch	ID: 46	536	R	RunNo: 6	1831				
Prep Date: 8/1/2019	Analysis D	ate: 8/	2/2019	S	SeqNo: 20	097757	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	9.5	47.62	0	132	57	142	28.3	20	R
Surr: DNOP	5.2		4.762		109	70	130	0	0	

Sample ID: 1907E78-001AMS	TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: BatchQC	Client ID: BatchQC Batch ID: 46535					RunNo: 61831					
Prep Date: 8/1/2019	Analysis D	ate: 8/	2/2019	S	SeqNo: 20	097766	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	64	9.6	48.08	0	133	57	142				
Surr: DNOP	6.4		4.808		134	70	130			S	

Sample ID: 1907E78-001AMS	S ampT	SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BatchQC	Batch	ID: 46	535	R	tunNo: 6	1831				
Prep Date: 8/1/2019	Analysis D	ate: 8/	2/2019	SeqNo: 2097767 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	10	49.80	0	135	57	142	5.00	20	
Surr: DNOP	6.6		4.980		133	70	130	0	0	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 26 of 32

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC
Project: State V CTB-A

Sample ID: LCS-46535 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 46535 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097809 Units: mg/Kg PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual Diesel Range Organics (DRO) 10 0 50 50.00 99.0 63.9 124 Surr: DNOP 4.7 5.000 94.9 130

Sample ID: LCS-46536 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 46536 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097810 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 10 50.00 O 121 63.9 124 Surr: DNOP 98.4 4.9 5.000 70 130

TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID: MB-46535 SampType: MBLK Client ID: PBS Batch ID: 46535 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097811 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte HighLimit Qual Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 13 10.00 135 70 130 S

Sample ID: MB-46536 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 46536 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097812 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 13 10.00 133 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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB-A

Sample ID: 1907E82-014AMS	SampT	ype: MS	3	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: Floor 18	Batch ID: 46492 RunNo: 61812									
Prep Date: 7/30/2019	Analysis D	ate: 7/	31/2019	SeqNo: 2095467 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.34	0	107	69.1	142			
Surr: BFB	1100		933.7		122	73.8	119			S

Sample ID: 1907E82-014AMS	Sampi	ype: MS	ype: MSD TestCode: EPA Method 8015D: Gasoline Range								
Client ID: Floor 18	Batch	n ID: 46	492	F	RunNo: 6	1812					
Prep Date: 7/30/2019	Analysis D	Analysis Date: 7/31/2019			SeqNo: 2095468			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	23	4.7	23.28	0	100	69.1	142	6.94	20		
Surr: BFB	1100		931.1		123	73.8	119	0	0	S	

Sample ID: LCS-46492	SampT	SampType: LCS TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch	ID: 46	492	F	RunNo: 6	1812				
Prep Date: 7/30/2019	Analysis D	ate: 7/	31/2019	SeqNo: 2095480 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	91.7	80.1	123			
Surr: BFB	1200		1000		121	73.8	119			S

Sample ID: MB-46492	SampT	ype: ME	BLK TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch	n ID: 464	492	F	RunNo: 61812						
Prep Date: 7/30/2019	Analysis Date: 7/31/2019			SeqNo: 2095482			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	1100		1000		108	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.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB-A

Sample ID: 1907E82-015AMS	SampT	ype: MS	3	TestCode: EPA Method 8021B: Volatiles						
Client ID: Floor 19	Batch	n ID: 464	492	RunNo: 61812						
Prep Date: 7/30/2019	Analysis D	ate: 7/ 3	31/2019	8	SeqNo: 2	095663	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.023	0.9294	0	96.2	63.9	127			
Toluene	0.95	0.046	0.9294	0.008158	102	69.9	131			
Ethylbenzene	0.92	0.046	0.9294	0	98.9	71	132			
Xylenes, Total	2.7	0.093	2.788	0.01427	95.3	71.8	131			
Surr: 4-Bromofluorobenzene	0.96		0.9294		103	80	120			

Sample ID: 1907E82-015AMS	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: Floor 19	Batch	n ID: 464	492	F	RunNo: 6	1812				
Prep Date: 7/30/2019	Analysis D	ate: 7/ 3	31/2019	5	SeqNo: 2	095664	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9709	0	98.2	63.9	127	6.48	20	
Toluene	1.0	0.049	0.9709	0.008158	104	69.9	131	6.56	20	
Ethylbenzene	0.98	0.049	0.9709	0	101	71	132	6.78	20	
Xylenes, Total	2.9	0.097	2.913	0.01427	98.4	71.8	131	7.52	20	
Surr: 4-Bromofluorobenzene	1.0		0.9709		106	80	120	0	0	

Sample ID: LCS-46492	SampT	Гуре: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batcl	h ID: 46 4	492	F	RunNo: 6	1812				
Prep Date: 7/30/2019	Analysis D	Date: 7/	31/2019	S	SeqNo: 20	095674	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.1	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: MB-46492	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	iles		
Client ID: PBS	Batch	n ID: 464	492	F	RunNo: 6	1812				
Prep Date: 7/30/2019	Analysis D	oate: 7/	31/2019	S	SeqNo: 2	095676	Units: mg/k	ίg		
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	0.93		1.000		93.2	80	120			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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 29 of 32

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB-A

Sample ID: Ics-46491	Samp1	Гуре: LC	:S	Tes	tCode: El	PA Method	ethod 8260B: Volatiles Short List						
Client ID: LCSS	Batc	h ID: 46 4	491	F	RunNo: 6	1815							
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	8	SeqNo: 2	095750	Units: mg/k	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.93	0.025	1.000	0	92.5	70	130						
Toluene	1.0	0.050	1.000	0	100	70	130						
Ethylbenzene	1.0	0.050	1.000	0	99.9	70	130						
Xylenes, Total	3.1	0.10	3.000	0	102	70	130						
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130						
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130						
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130						
Surr: Toluene-d8	0.50		0.5000		99.5	70	130						
Sample ID: mb-46491	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List				

Sample 1D: mb-46491	Samp	ype: we	SLN	res	icode: Ei	PA Wethod	8260B: Voiai	illes Snort	LIST	
Client ID: PBS	Batc	h ID: 46	491	F	RunNo: 6	1815				
Prep Date: 7/30/2019	Analysis [Date: 8/	1/2019	5	SeqNo: 2	095751	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		99.9	70	130			

Sample ID: 1907e81-001ams	SampT	ype: MS	3	Tes	tCode: El	PA Method	d 8260B: Volatiles Short List					
Client ID: BatchQC	Batcl	n ID: 46	491	F	RunNo: 6	1815						
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	8	SeqNo: 2	095763	Units: mg/K	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.93	0.025	0.9940	0	93.7	68.9	131					
Toluene	1.0	0.050	0.9940	0	105	64.3	137					
Ethylbenzene	1.1	0.050	0.9940	0	107	70	130					
Xylenes, Total	3.1	0.099	2.982	0	106	70	130					
Surr: 1,2-Dichloroethane-d4	0.47		0.4970		95.4	70	130					
Surr: 4-Bromofluorobenzene	0.50		0.4970		100	70	130					
Surr: Dibromofluoromethane	0.47		0.4970		95.0	70	130					
Surr: Toluene-d8	0.49		0.4970		99.3	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

Page 30 of 32

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E82**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB-A

Sample ID: 1907e81-001amsd SampType: MSD TestCode: EPA Method 8260B: Volatiles Short List Client ID: **BatchQC** Batch ID: 46491 RunNo: 61815 Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095764 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene 0.91 0.025 0.9901 0 92.0 68.9 131 2.21 20 Toluene 1.0 0.050 0.9901 0 102 64.3 137 3.02 20 Ethylbenzene 0.050 0.9901 0 105 70 2.13 0 1.0 130 0.099 0 1.89 0 Xylenes, Total 3.1 2.970 104 70 130 96.8 0 Surr: 1,2-Dichloroethane-d4 0.48 0.4950 70 130 0 Surr: 4-Bromofluorobenzene 0.50 0.4950 101 70 130 0 0 Surr: Dibromofluoromethane 0.46 0.4950 93.0 70 130 0 0 Surr: Toluene-d8 0.48 0.4950 97.4 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.

Batch ID: 46521

Analysis Date: 8/2/2019

Result

470

Caprock Services, LLC

WO#: **1907E82**

06-Aug-19

Sample ID: Ics-46491	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline l	Range	
Client ID: LCSS	Batch	1D: 46 4	491	R	RunNo: 61	1815				
Prep Date: 7/30/2019	Analysis D	ate: 8/	1/2019	S	SeqNo: 20	95774	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.0	70	130			
Surr: BFB	480		500.0		95.5	70	130			
Sample ID: mb-46491	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline l	Range	
Client ID: PBS	Batch	1D: 46 4	491	R	RunNo: 61	1815				
Prep Date: 7/30/2019	Analysis D	ate: 8/	1/2019	S	SeqNo: 20	95775	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
	400		= 000		05.5	70	400			
Surr: BFB	480		500.0		95.5	70	130			
Sample ID: 1907e78-001am		ype: MS		Tes			8015D Mod:	Gasoline l	Range	
	ns SampT	ype: MS	3			PA Method		Gasoline l	Range	
Sample ID: 1907e78-001am	ns SampT	n ID: 46 4	6 491	R	tCode: EF	PA Method 1815			Range	
Sample ID: 1907e78-001am Client ID: BatchQC	ns SampT Batch	n ID: 46 4	491 1/2019	R	tCode: EF RunNo: 64 SeqNo: 20	PA Method 1815	8015D Mod:		Range RPDLimit	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Gasoline Range Organics (GRO)	ns SampT Batch Analysis D	n ID: 464 Pate: 8/	491 1/2019	R	tCode: EF RunNo: 64 SeqNo: 20 %REC 84.0	PA Method 1815 095778	8015D Mod: Units: mg/F	(g	Ū	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte	ns SampT Batch Analysis D Result	n ID: 46 4 Pate: 8/	5 491 1/2019 SPK value	SPK Ref Val	tCode: EF RunNo: 6 ′ SeqNo: 2 (%REC	PA Method 1815 095778 LowLimit	8015D Mod: Units: mg/k	(g	Ū	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Gasoline Range Organics (GRO)	SampTy Batch Analysis D Result 21 480	n ID: 46 4 Pate: 8/	\$491 1/2019 SPK value 24.78 495.5	SPK Ref Val	RunNo: 66 SeqNo: 20 %REC 84.0 97.8	PA Method 1815 095778 LowLimit 68.2 70	8015D Mod: Units: mg/k HighLimit 135	(g %RPD	RPDLimit	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB	SampTy Batch Analysis D Result 21 480 nsd SampTy	PQL 5.0	SPK value 24.78 495.5	SPK Ref Val 0	RunNo: 66 SeqNo: 20 %REC 84.0 97.8	PA Method 1815 195778 LowLimit 68.2 70	8015D Mod: Units: mg/F HighLimit 135 130	(g %RPD	RPDLimit	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: 1907e78-001am	SampTy Batch Analysis D Result 21 480 nsd SampTy	PQL 5.0 Type: MS	SPK value 24.78 495.5	SPK Ref Val 0	RunNo: 64 SeqNo: 20 %REC 84.0 97.8	PA Method 1815 095778 LowLimit 68.2 70 PA Method	8015D Mod: Units: mg/F HighLimit 135 130	(g %RPD Gasoline I	RPDLimit	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID: 1907e78-001am Client ID: BatchQC	ns SampTy Batch Analysis De Result 21 480 nsd SampTy Batch	PQL 5.0 Sype: MS 1D: 464 Type: MS 2464 Sype: MS 3464 Sype: MS 3464 Sype: MS 3464	SPK value 24.78 495.5 6D 491	SPK Ref Val 0	## RunNo: 67 SeqNo: 20 ## ## ## ## ## ## ## ## ## ## ## ## #	PA Method 1815 195778 LowLimit 68.2 70 PA Method 1815 195779	8015D Mod: Units: mg/F HighLimit 135 130 8015D Mod:	(g %RPD Gasoline I	RPDLimit	Qual
Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019 Analyte Basoline Range Organics (GRO) Surr: BFB Sample ID: 1907e78-001am Client ID: BatchQC Prep Date: 7/30/2019	SampTy Batch Analysis D Result 21 480 nsd SampTy Batch Analysis D	PQL 5.0 Sype: MS 1D: 464 Type: MS 2464 Sype: MS 3464 Sype: MS 3464 Sype: MS 3464	SPK value 24.78 495.5 6D 491	SPK Ref Val 0 Test	## RunNo: 67 SeqNo: 20 ## ## ## ## ## ## ## ## ## ## ## ## #	PA Method 1815 195778 LowLimit 68.2 70 PA Method 1815 195779	8015D Mod: Units: mg/h HighLimit 135 130 8015D Mod: Units: mg/h	%RPD Gasoline I	RPDLimit Range	

Sample ID: mb-46521	SampType	e: MBLK	Tes	Code: El	PA Method	8015D Mod:	Gasoline l	Range	
Client ID: PBS	Batch ID	D: 46521	R	unNo: 6	1843				
Prep Date: 7/31/2019	Analysis Date	e: 8/2/2019	S	eqNo: 2	096863	Units: %Red	:		
Analyte	Result F	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	470	500.0		94.4	70	130			

SPK value SPK Ref Val %REC

500.0

Qualifiers:

Client ID: LCSS

Analyte

Surr: BFB

Prep Date: 7/31/2019

- 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

RunNo: 61843

94.1

SeqNo: 2096862

LowLimit

70

Units: %Rec

130

%RPD

RPDLimit

Qual

HighLimit

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

Page 32 of 32



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: 1907E82 RcptNo: 1 Received By: Daniel 7/30/2019 8:43:00 AM Completed By: Leah Baca 7/30/2019 9:59:26 AM Last Baca DAD 7/30/19 Reviewed By: Chain of Custody Yes 🗸 1. Is Chain of Custody complete? No 🗌 Not Present 2. How was the sample delivered? Client Log In Yes 🗸 No 🗌 NA 🗌 3. Was an attempt made to cool the samples? No V 4. Were all samples received at a temperature of >0° C to 6.0°C NA 🗌 Yes Approved by client. 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 V No V 8. Was preservative added to bottles? Yes NA 🗌 9. VOA vials have zero headspace? Yes No No VOA Vials Yes 10. Were any sample containers received broken? No V # of preserved bottles checked for pH: No 🗌 11. Does paperwork match bottle labels? Yes V 2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 Yes 🗸 No 🗌 13. Is it clear what analyses were requested? No 🗌 14. Were all holding times able to be met? Yes V 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 V 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

1

2

3

3.5

6.6

3.8

Good

Good

Good

Yes

Yes

Yes

O	hain	-of-CL	Chain-of-Custody Record	Turn-Around	Time:				6	6	60 Mil	10		ŀ		
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D NELAC	30	▼ Othe	A Other NWIUCU CO.	On Ice:	X Yes	No 🗆				_	1 '6	AC	ıЧ)			
EDD	EDD (Type)			# of Coolers:	m					-	-		mic			
				Cooler Temp	Cooler Temp(including CF): 3, (0:6.) - 3.52	:6,1-3.58					-		olilo			
				Container	Preservative	HEAL No.	H:80	94 18 M) 80	d sH	3 A A S	V) 09	S) 02	tal Co			
Date	Time	Matrix	Sample Name	Type and #		1907582							юТ			
1-26-19	0/0/	1 is	Floor 17	Hor glass	70K	-013	XX			7	7					
1	MIS	/	Floor 18) \	,	-014) !				_					
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	1040		Floor 23			-019				_						
	1245		Floor 24			-020										
_	1050		Floor 15			-021										
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	necessary	, samples sut	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.	bcontracted to other a	ccredited laboratorie	s. This serves as notice of this	possibility. A	ny sub-co	ntracted	data will	be clea	ırly nota	ed on the analy	/tical report.		1



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

August 07, 2019

Joel Lowry Caprock Services, LLC PO Box 457 Lovington, NM 88260

TEL: (575) 704-2718

FAX

RE: State V CTB B OrderNo.: 1907E81

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/30/2019 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 8/7/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 3

Project: State V CTB B
 Collection Date: 7/26/2019 8:40:00 AM

 Lab ID: 1907E81-001
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/2/2019 12:15:44 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/2/2019 12:15:44 PM
Surr: DNOP	126	70-130	%Rec	1	8/2/2019 12:15:44 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	8/1/2019 11:33:37 PM
EPA METHOD 8260B: VOLATILES SHORT L	IST				Analyst: JMR
Benzene	ND	0.025	mg/Kg	1	8/1/2019 5:43:44 AM
Toluene	ND	0.049	mg/Kg	1	8/1/2019 5:43:44 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 5:43:44 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/1/2019 5:43:44 AM
Surr: 1,2-Dichloroethane-d4	94.2	70-130	%Rec	1	8/1/2019 5:43:44 AM
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	8/1/2019 5:43:44 AM
Surr: Dibromofluoromethane	95.2	70-130	%Rec	1	8/1/2019 5:43:44 AM
Surr: Toluene-d8	97.5	70-130	%Rec	1	8/1/2019 5:43:44 AM
EPA METHOD 8015D MOD: GASOLINE RAN	GE				Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 5:43:44 AM
Surr: BFB	94.3	70-130	%Rec	1	8/1/2019 5:43:44 AM

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 11

Date Reported: 8/7/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 4

 Project:
 State V CTB B
 Collection Date: 7/26/2019 8:45:00 AM

 Lab ID:
 1907E81-002
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 12:40:36 PM
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	8/2/2019 12:40:36 PM
Surr: DNOP	127	70-130	%Rec	1	8/2/2019 12:40:36 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	8/1/2019 11:46:02 PM
EPA METHOD 8260B: VOLATILES SHORT LI	ST				Analyst: JMR
Benzene	ND	0.024	mg/Kg	1	8/1/2019 7:09:28 AM
Toluene	ND	0.049	mg/Kg	1	8/1/2019 7:09:28 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 7:09:28 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/1/2019 7:09:28 AM
Surr: 1,2-Dichloroethane-d4	93.8	70-130	%Rec	1	8/1/2019 7:09:28 AM
Surr: 4-Bromofluorobenzene	98.9	70-130	%Rec	1	8/1/2019 7:09:28 AM
Surr: Dibromofluoromethane	92.9	70-130	%Rec	1	8/1/2019 7:09:28 AM
Surr: Toluene-d8	94.9	70-130	%Rec	1	8/1/2019 7:09:28 AM
EPA METHOD 8015D MOD: GASOLINE RANG	GE				Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 7:09:28 AM
Surr: BFB	92.5	70-130	%Rec	1	8/1/2019 7:09:28 AM

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

Date Reported: 8/7/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 5

 Project:
 State V CTB B
 Collection Date: 7/26/2019 8:50:00 AM

 Lab ID:
 1907E81-003
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL ·	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/2/2019 1:02:45 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/2/2019 1:02:45 PM
Surr: DNOP	135	70-130	S	%Rec	1	8/2/2019 1:02:45 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	8/1/2019 11:58:26 PM
EPA METHOD 8260B: VOLATILES SHORT LI	ST					Analyst: JMR
Benzene	ND	0.023		mg/Kg	1	8/1/2019 2:13:27 PM
Toluene	ND	0.047		mg/Kg	1	8/1/2019 2:13:27 PM
Ethylbenzene	ND	0.047		mg/Kg	1	8/1/2019 2:13:27 PM
Xylenes, Total	ND	0.094		mg/Kg	1	8/1/2019 2:13:27 PM
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%Rec	1	8/1/2019 2:13:27 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	8/1/2019 2:13:27 PM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	8/1/2019 2:13:27 PM
Surr: Toluene-d8	98.8	70-130		%Rec	1	8/1/2019 2:13:27 PM
EPA METHOD 8015D MOD: GASOLINE RANG	GE					Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/1/2019 2:13:27 PM
Surr: BFB	93.8	70-130		%Rec	1	8/1/2019 2:13:27 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
- 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 11

Lab Order **1907E81**Date Reported: **8/7/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 6

Project: State V CTB B
 Collection Date: 7/26/2019 8:55:00 AM

 Lab ID: 1907E81-004
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/2/2019 1:24:49 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/2/2019 1:24:49 PM
Surr: DNOP	105	70-130	%Rec	1	8/2/2019 1:24:49 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 12:10:50 AM
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst: JMR
Benzene	ND	0.024	mg/Kg	1	8/1/2019 2:42:19 PM
Toluene	ND	0.048	mg/Kg	1	8/1/2019 2:42:19 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 2:42:19 PM
Xylenes, Total	ND	0.095	mg/Kg	1	8/1/2019 2:42:19 PM
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec	1	8/1/2019 2:42:19 PM
Surr: 4-Bromofluorobenzene	94.1	70-130	%Rec	1	8/1/2019 2:42:19 PM
Surr: Dibromofluoromethane	105	70-130	%Rec	1	8/1/2019 2:42:19 PM
Surr: Toluene-d8	100	70-130	%Rec	1	8/1/2019 2:42:19 PM
EPA METHOD 8015D MOD: GASOLINE RANGE	<u> </u>				Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 2:42:19 PM
Surr: BFB	92.5	70-130	%Rec	1	8/1/2019 2:42:19 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 4 of 11

Date Reported: 8/7/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 7

 Project:
 State V CTB B
 Collection Date: 7/26/2019 9:00:00 AM

 Lab ID:
 1907E81-005
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/2/2019 1:47:07 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/2/2019 1:47:07 PM
Surr: DNOP	105	70-130	%Rec	1	8/2/2019 1:47:07 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	61	mg/Kg	20	8/2/2019 12:23:14 AM
EPA METHOD 8260B: VOLATILES SHORT LIS	Т				Analyst: JMR
Benzene	ND	0.025	mg/Kg	1	8/1/2019 3:11:12 PM
Toluene	ND	0.050	mg/Kg	1	8/1/2019 3:11:12 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/1/2019 3:11:12 PM
Xylenes, Total	ND	0.099	mg/Kg	1	8/1/2019 3:11:12 PM
Surr: 1,2-Dichloroethane-d4	91.7	70-130	%Rec	1	8/1/2019 3:11:12 PM
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	8/1/2019 3:11:12 PM
Surr: Dibromofluoromethane	99.8	70-130	%Rec	1	8/1/2019 3:11:12 PM
Surr: Toluene-d8	96.6	70-130	%Rec	1	8/1/2019 3:11:12 PM
EPA METHOD 8015D MOD: GASOLINE RANGI	E				Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/1/2019 3:11:12 PM
Surr: BFB	94.2	70-130	%Rec	1	8/1/2019 3:11:12 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 11

Lab Order **1907E81**

Date Reported: 8/7/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 8

 Project:
 State V CTB B
 Collection Date: 7/26/2019 9:05:00 AM

 Lab ID:
 1907E81-006
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	8/2/2019 2:09:19 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/2/2019 2:09:19 PM
Surr: DNOP	103	70-130	%Rec	1	8/2/2019 2:09:19 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	8/2/2019 12:35:38 AM
EPA METHOD 8260B: VOLATILES SHORT L	IST				Analyst: JMR
Benzene	ND	0.025	mg/Kg	1	8/1/2019 3:40:05 PM
Toluene	ND	0.050	mg/Kg	1	8/1/2019 3:40:05 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/1/2019 3:40:05 PM
Xylenes, Total	ND	0.10	mg/Kg	1	8/1/2019 3:40:05 PM
Surr: 1,2-Dichloroethane-d4	94.0	70-130	%Rec	1	8/1/2019 3:40:05 PM
Surr: 4-Bromofluorobenzene	96.9	70-130	%Rec	1	8/1/2019 3:40:05 PM
Surr: Dibromofluoromethane	99.7	70-130	%Rec	1	8/1/2019 3:40:05 PM
Surr: Toluene-d8	99.0	70-130	%Rec	1	8/1/2019 3:40:05 PM
EPA METHOD 8015D MOD: GASOLINE RAN	GE				Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/1/2019 3:40:05 PM
Surr: BFB	95.9	70-130	%Rec	1	8/1/2019 3:40:05 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 6 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E81**

07-Aug-19

Client: Caprock Services, LLC

Project: State V CTB B

Sample ID: MB-46547 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097049 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46547 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097050 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 96.3 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

Page 7 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E81**

%RPD

RPDLimit

Qual

07-Aug-19

Client: Caprock Services, LLC

Project: State V CTB B

Sample ID: LCS-46512 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 46512 RunNo: 61831

Prep Date: 7/31/2019 Analysis Date: 8/1/2019 SeqNo: 2096582 Units: %Rec

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

Surr: DNOP 4.0 5.000 79.1 70 130

Sample ID: MB-46512 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 46512 RunNo: 61831

Prep Date: 7/31/2019 Analysis Date: 8/1/2019 SeqNo: 2096583 Units: %Rec

 Analyte
 Result
 PQL
 SPK value
 SPK Ref Val
 %REC
 LowLimit
 HighLimit

 Surr: DNOP
 8.8
 10.00
 87.8
 70
 130

Sample ID: LCS-46535 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 46535 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097809 Units: mq/Kq Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 50 10 50.00 0 99.0 63.9 124 5.000 Surr: DNOP 4.7 94.9 70 130

Sample ID: MB-46535 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 46535 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097811 Units: mg/Kg %RPD PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Analyte Result Qual Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 135 70 S 13 10.00 130

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

Page 8 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E81**

07-Aug-19

Client: Caprock Services, LLC

Project: State V CTB B

Sample ID: Ics-46491	SampT	Type: LC	.CS TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batcl	h ID: 464	491	F	RunNo: 6	1815				
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	5	SeqNo: 2	095750	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.5	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Ethylbenzene	1.0	0.050	1.000	0	99.9	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

Sample ID: mb-46491	Samp ⁻	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Volatiles Short List					
Client ID: PBS	Batc	h ID: 46 4	491	F	RunNo: 6	1815						
Prep Date: 7/30/2019	Analysis [Date: 8/	1/2019	SeqNo: 2095751			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: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130					
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130					
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130					
Surr: Toluene-d8	0.50		0.5000		99.9	70	130					

Sample ID: 1907e81-001ams	SampT	SampType: MS TestCode: EPA Method					d 8260B: Volatiles Short List					
Client ID: Floor 3	Batch	n ID: 46 4	491	F	RunNo: 6	1815						
Prep Date: 7/30/2019	Analysis D	oate: 8/	1/2019	8	SeqNo: 20	095763	Units: mg/K	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.93	0.025	0.9940	0	93.7	68.9	131					
Toluene	1.0	0.050	0.9940	0	105	64.3	137					
Ethylbenzene	1.1	0.050	0.9940	0	107	70	130					
Xylenes, Total	3.1	0.099	2.982	0	106	70	130					
Surr: 1,2-Dichloroethane-d4	0.47		0.4970		95.4	70	130					
Surr: 4-Bromofluorobenzene	0.50		0.4970		100	70	130					
Surr: Dibromofluoromethane	0.47		0.4970		95.0	70	130					
Surr: Toluene-d8	0.49		0.4970		99.3	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

Page 9 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E81**

07-Aug-19

Client: Caprock Services, LLC

Project: State V CTB B

Sample ID: 1907e81-001amsd SampType: MSD TestCode: EPA Method 8260B: Volatiles Short List Client ID: Floor 3 RunNo: 61815 Batch ID: 46491 Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095764 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene 0.91 0.025 0.9901 0 92.0 68.9 131 2.21 20 Toluene 1.0 0.050 0.9901 0 102 64.3 137 3.02 20 Ethylbenzene 0.050 0.9901 0 105 70 2.13 0 1.0 130 0 1.89 0 Xylenes, Total 3.1 0.099 2.970 104 70 130 96.8 0 Surr: 1,2-Dichloroethane-d4 0.48 0.4950 70 130 0 Surr: 4-Bromofluorobenzene 0.50 0.4950 101 70 130 0 0 Surr: Dibromofluoromethane 0.46 0.4950 93.0 70 130 0 0 Surr: Toluene-d8 0.48 0.4950 97.4 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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E81**

07-Aug-19

Client: Caprock Services, LLC

Project: State V CTB B

Sample ID: Ics-46491 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 46491 RunNo: 61815

Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095774 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Gasoline Range Organics (GRO) 0 20 5.0 25.00 81.0 70 130

Surr: BFB 480 500.0 95.5 70 130

Sample ID: mb-46491 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: **PBS** Batch ID: **46491** RunNo: **61815**

Prep Date: **7/30/2019** Analysis Date: **8/1/2019** SeqNo: **2095775** 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 480 500.0 95.5 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 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: 1907E81 RcptNo: 1 Daniel Received By: 7/30/2019 8:43:00 AM Completed By: Leah Baca 7/30/2019 10:02:42 AM Las Baca Reviewed By: DAD 7/30/19 Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Client Log In 3. Was an attempt made to cool the samples? No 🗌 Yes 🗸 NA 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C No V NA 🗍 Yes Approved by client. 5. Sample(s) in proper container(s)? No 🗌 Yes 🗸 6. Sufficient sample volume for indicated test(s)? Yes 🗸 No 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No 8. Was preservative added to bottles? Yes No V NA 🗌 9. VOA vials have zero headspace? No 🗌 No VOA Vials Yes Yes 🗌 10. Were any sample containers received broken? No V # 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 V No 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 NA V No 🗌 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 3.5 Good Yes 2 6.6 Good Yes

3.8

Good

Yes

3

Coolect Name Cool	Chain-of-Custody Record	Turn-Around Time: Standard Name N	HALL ENVIRONMENTAL ANALYSIS LABORATORY
D. C.C. 45 Stock V. 15 Defect #:			www.hallenvironmental.com
Tel. 505-345-3975 Tel. 505-345-3575 Tel. 505-345-3575 Tel. 505-345-3575 Tel. 505-345-3675 Tel. 505-345-3575 Tel. 505-345-345-345 Tel. 505-345-345 Tel	P.D. 90x	7	1
Course 1	MA	Project #:	Fax
CWCV Servative Tour CWCV Servative	9-13-101 (ST2)		Analysis Request
CURT	nail or Fax#: CopockServices Siplognail Co		*OS
Month Matrix Sample Matrix Ma	QA/QC Package:	<u> </u>	bO [¢] ' beiwe bcΒ,ε
Type Name	□ A7 Cop	Sampler: Matt 1911	S80 (1.) (1.) (1.) (1.) (2.)
Type # of Cooler Templemanny Crit. 3 2 2 2 2 2 2 2 2 2	X Other NWOCD	X-Yes	(AO)
Time Matrix Sample Name Type and # Type T	ype)	3 00	D(G hod B310 Meta NC (A)
Time Matrix Sample Name Type and # Type 140 168 160 16			9015 (Met by 8 8 N Br, (VO)
1845 Sp. 1 Floor 3 402 chos T.CE -001 75 X 1845 Floor 4 -003 1850 Floor 6 -003 1855 Floor 6 -004 1865 Floor 6 -005 1865	Time	Preservative 1900	ТРН% 8081 ЕDВ РАН: КСДР, СДР,
1850 Floor 1 1850 Floor 6 1865 Floor 6 1865 Floor 8 18	M 884 Spil Floor	207	X
10850 Floor (-0.0.3 -0.0.3		7 / -005	
785 700 700 700 700 700 700 700 700 700 70		-003	
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Time: Relinquished by: Received By: Via: Date Time Remarks: (4p Fock Sorvices Stocked by: 198 199 1			
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Obschild 1/39/19 0630 Look 1 3.6-01=3.5° Time: Relifiquished by: Nia: Date Time 2 Look 1 2.6.7 0.1 = 6.0 U An M.A. H. An Chuic Inneque Coucus (3/50/19) 8/43 2 2.7-01=3.8°	Time:	Via: Date T	Remarks: (βωρ Γου Κ΄ Sοτυ, τα-δ S6
Time: Relfinguished by:	0630	51/82/6	600 Kr 1 3.6-01,73.50
A JUNE TO	Time:	Via: Date	2 6.7.0.1
111111111111111111111111111111111111111	A JUNE X	Danie mangura Course (3/20/19)	843 3 2.7-01=3.80



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

August 06, 2019

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

FAX:

RE: State V CTB C OrderNo.: 1907E80

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 5 sample(s) on 7/30/2019 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1907E80**

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 2

Project: State V CTB C
 Collection Date: 7/26/2019 8:15:00 AM

 Lab ID: 1907E80-001
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	950	60	mg/Kg	20	8/1/2019 9:41:58 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	8/1/2019 6:30:06 AM	46480
Surr: BFB	94.3	70-130	%Rec	1	8/1/2019 6:30:06 AM	46480
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: TOM
Diesel Range Organics (DRO)	41	10	mg/Kg	1	8/3/2019 5:02:32 AM	46481
Motor Oil Range Organics (MRO)	270	51	mg/Kg	1	8/3/2019 5:02:32 AM	46481
Surr: DNOP	96.8	70-130	%Rec	1	8/3/2019 5:02:32 AM	46481
EPA METHOD 8260B: VOLATILES SHORT LIST	-				Analyst	: DJF
Benzene	ND	0.023	mg/Kg	1	8/1/2019 6:30:06 AM	46480
Toluene	ND	0.046	mg/Kg	1	8/1/2019 6:30:06 AM	46480
Ethylbenzene	ND	0.046	mg/Kg	1	8/1/2019 6:30:06 AM	46480
Xylenes, Total	ND	0.093	mg/Kg	1	8/1/2019 6:30:06 AM	46480
Surr: 1,2-Dichloroethane-d4	85.7	70-130	%Rec	1	8/1/2019 6:30:06 AM	46480
Surr: 4-Bromofluorobenzene	94.4	70-130	%Rec	1	8/1/2019 6:30:06 AM	46480
Surr: Dibromofluoromethane	86.8	70-130	%Rec	1	8/1/2019 6:30:06 AM	46480
Surr: Toluene-d8	96.6	70-130	%Rec	1	8/1/2019 6:30:06 AM	46480

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 11

Lab Order **1907E80**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 3

Project: State V CTB C
 Collection Date: 7/26/2019 8:20:00 AM

 Lab ID: 1907E80-002
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	1400	60	mg/Kg	20	8/1/2019 9:54:23 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2019 6:58:59 AM	46480
Surr: BFB	94.7	70-130	%Rec	1	8/1/2019 6:58:59 AM	46480
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	28	9.3	mg/Kg	1	8/5/2019 10:15:11 PM	46512
Motor Oil Range Organics (MRO)	140	47	mg/Kg	1	8/5/2019 10:15:11 PM	46512
Surr: DNOP	98.0	70-130	%Rec	1	8/5/2019 10:15:11 PM	46512
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	8/1/2019 6:58:59 AM	46480
Toluene	ND	0.048	mg/Kg	1	8/1/2019 6:58:59 AM	46480
Ethylbenzene	ND	0.048	mg/Kg	1	8/1/2019 6:58:59 AM	46480
Xylenes, Total	ND	0.095	mg/Kg	1	8/1/2019 6:58:59 AM	46480
Surr: 1,2-Dichloroethane-d4	82.3	70-130	%Rec	1	8/1/2019 6:58:59 AM	46480
Surr: 4-Bromofluorobenzene	93.9	70-130	%Rec	1	8/1/2019 6:58:59 AM	46480
Surr: Dibromofluoromethane	84.3	70-130	%Rec	1	8/1/2019 6:58:59 AM	46480
Surr: Toluene-d8	99.1	70-130	%Rec	1	8/1/2019 6:58:59 AM	46480

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

pple pH Not In Range Page 2 of 11

Lab Order 1907E80

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 4

Project: State V CTB C
 Collection Date: 7/26/2019 8:25:00 AM

 Lab ID: 1907E80-003
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	970	60	mg/Kg	20	8/1/2019 10:06:47 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 12:03:44 PM	46480
Surr: BFB	86.2	70-130	%Rec	1	8/1/2019 12:03:44 PM	46480
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	33	10	mg/Kg	1	8/5/2019 11:28:42 PM	46512
Motor Oil Range Organics (MRO)	160	51	mg/Kg	1	8/5/2019 11:28:42 PM	46512
Surr: DNOP	96.1	70-130	%Rec	1	8/5/2019 11:28:42 PM	46512
EPA METHOD 8260B: VOLATILES SHORT LIS	ST .				Analyst	: DJF
Benzene	ND	0.024	mg/Kg	1	8/1/2019 12:03:44 PM	46480
Toluene	ND	0.049	mg/Kg	1	8/1/2019 12:03:44 PM	46480
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 12:03:44 PM	46480
Xylenes, Total	ND	0.097	mg/Kg	1	8/1/2019 12:03:44 PM	46480
Surr: 1,2-Dichloroethane-d4	87.6	70-130	%Rec	1	8/1/2019 12:03:44 PM	46480
Surr: 4-Bromofluorobenzene	90.7	70-130	%Rec	1	8/1/2019 12:03:44 PM	46480
Surr: Dibromofluoromethane	90.3	70-130	%Rec	1	8/1/2019 12:03:44 PM	46480
Surr: Toluene-d8	95.2	70-130	%Rec	1	8/1/2019 12:03:44 PM	46480

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 3 of 11

Lab Order **1907E80**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 5

 Project:
 State V CTB C
 Collection Date: 7/26/2019 8:30:00 AM

 Lab ID:
 1907E80-004
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	1300	61	mg/Kg	20	8/1/2019 10:44:01 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 1:02:48 PM	46480
Surr: BFB	86.4	70-130	%Rec	1	8/1/2019 1:02:48 PM	46480
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	29	10	mg/Kg	1	8/6/2019 1:55:24 AM	46512
Motor Oil Range Organics (MRO)	150	50	mg/Kg	1	8/6/2019 1:55:24 AM	46512
Surr: DNOP	82.7	70-130	%Rec	1	8/6/2019 1:55:24 AM	46512
EPA METHOD 8260B: VOLATILES SHORT LIS	ST				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	8/1/2019 1:02:48 PM	46480
Toluene	ND	0.049	mg/Kg	1	8/1/2019 1:02:48 PM	46480
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 1:02:48 PM	46480
Xylenes, Total	ND	0.098	mg/Kg	1	8/1/2019 1:02:48 PM	46480
Surr: 1,2-Dichloroethane-d4	89.6	70-130	%Rec	1	8/1/2019 1:02:48 PM	46480
Surr: 4-Bromofluorobenzene	94.7	70-130	%Rec	1	8/1/2019 1:02:48 PM	46480
Surr: Dibromofluoromethane	89.4	70-130	%Rec	1	8/1/2019 1:02:48 PM	46480
Surr: Toluene-d8	88.1	70-130	%Rec	1	8/1/2019 1:02:48 PM	46480

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 11

Lab Order 1907E80

Date Reported: **8/6/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 6

 Project:
 State V CTB C
 Collection Date: 7/26/2019 8:35:00 AM

 Lab ID:
 1907E80-005
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	1000	60	mg/Kg	20	8/1/2019 10:56:25 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 1:32:28 PM	46480
Surr: BFB	92.3	70-130	%Rec	1	8/1/2019 1:32:28 PM	46480
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	36	10	mg/Kg	1	8/6/2019 12:42:03 AM	46512
Motor Oil Range Organics (MRO)	200	51	mg/Kg	1	8/6/2019 12:42:03 AM	46512
Surr: DNOP	89.2	70-130	%Rec	1	8/6/2019 12:42:03 AM	46512
EPA METHOD 8260B: VOLATILES SHORT LIS	ST				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	8/1/2019 1:32:28 PM	46480
Toluene	ND	0.049	mg/Kg	1	8/1/2019 1:32:28 PM	46480
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 1:32:28 PM	46480
Xylenes, Total	ND	0.097	mg/Kg	1	8/1/2019 1:32:28 PM	46480
Surr: 1,2-Dichloroethane-d4	89.4	70-130	%Rec	1	8/1/2019 1:32:28 PM	46480
Surr: 4-Bromofluorobenzene	96.8	70-130	%Rec	1	8/1/2019 1:32:28 PM	46480
Surr: Dibromofluoromethane	88.6	70-130	%Rec	1	8/1/2019 1:32:28 PM	46480
Surr: Toluene-d8	95.3	70-130	%Rec	1	8/1/2019 1:32:28 PM	46480

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 5 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E80**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

Sample ID: MB-46547 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097049 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46547 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097050 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 96.3 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

Page 6 of 11

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E80**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

Sample ID: LCS-46481	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID: LCSS	Batch I	ID: 46 4	481	RunNo: 61770								
Prep Date: 7/30/2019	Analysis Da	te: 7/	31/2019	S	SeqNo: 2	094814	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	52	10	50.00	0	105	63.9	124					
Surr: DNOP	4.8		5.000		96.3	70	130					
Sample ID: MB-46481	SampTy	ре: МЕ	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics			
Client ID: PBS	Batch I	ID: 46 4	481	F	RunNo: 61770							
Prep Date: 7/30/2019	Analysis Da	te: 7/	31/2019	SeqNo: 2094815			Units: mg/K	g				
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	9.9		10.00		98.8	70	130					
Sample ID: LCS-46512	SampTy	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: LCSS	Batch I	ID: 46	512	F	RunNo: 6	1831						
Prep Date: 7/31/2019	Analysis Da	te: 8/	1/2019	S	SeqNo: 2	096582	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	50	10	50.00	0	101	63.9	124					
Surr: DNOP	4.0		5.000		79.1	70	130					
Sample ID: MB-46512	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics			
Client ID: PBS	Batch I	ID: 46	512	F	RunNo: 6	1831						
Prep Date: 7/31/2019	Analysis Da	te: 8/	1/2019	S	SeqNo: 2	096583	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	ND	10										
Motor Oil Range Organics (MRO)	ND	50										
Surr: DNOP	8.8		10.00		87.8	70	130					
Sample ID: 1907F27-001AMS	SampTy	pe: MS	;	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics			
Client ID: BatchQC	Batch I	ID: 46	537	RunNo: 61864								
Prep Date: 8/1/2019	Analysis Da	to: 9/	2/2010	c	SeaNo: 2	007833	Units: %Red					

Qualifiers:

Analyte

Surr: DNOP

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Result

5.0

- 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

106

70

E Value above quantitation range

PQL SPK value SPK Ref Val %REC LowLimit HighLimit

4.735

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

%RPD

130

RPDLimit

Qual

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E80**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

Sample ID: 1907F27-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: BatchQC Batch ID: 46537 RunNo: 61864

Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097834 Units: %Rec

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

Surr: DNOP 4.7 4.575 104 70 130 0 0

Sample ID: LCS-46537 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 46537 RunNo: 61864

Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097873 Units: %Rec

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

Surr: DNOP 4.8 5.000 95.9 70 130

Sample ID: MB-46537 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 46537 RunNo: 61864

Prep Date: **8/1/2019** Analysis Date: **8/2/2019** SeqNo: **2097875** Units: **%Rec**

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

Surr: DNOP 10 10.00 105 70 13

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#: **1907E80**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

Sample ID: mb-46480	SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: PBS	Batc	Batch ID: 46480 RunNo: 61819									
Prep Date: 7/30/2019	Analysis D	Analysis Date: 7/31/2019			SeqNo: 20	095794	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: 1,2-Dichloroethane-d4	0.43		0.5000		86.4	70	130				
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.1	70	130				
Surr: Dibromofluoromethane	0.43		0.5000		86.5	70	130				
Surr: Toluene-d8	0.47		0.5000		94.5	70	130				

Sample ID: Ics-46480	SampType: LCS TestCode: EPA Method 8260B: Volatiles Short List											
Client ID: LCSS	Batc	h ID: 46	480	F								
Prep Date: 7/30/2019	Analysis [Date: 7/	31/2019	S	SeqNo: 2	095795	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.025	1.000	0	105	70	130					
Toluene	0.96	0.050	1.000	0	95.8	70	130					
Ethylbenzene	0.97	0.050	1.000	0	96.5	70	130					
Xylenes, Total	3.0	0.10	3.000	0	98.9	70	130					
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.8	70	130					
Surr: 4-Bromofluorobenzene	0.47		0.5000		95.0	70	130					
Surr: Dibromofluoromethane	0.44		0.5000		87.4	70	130					
Surr: Toluene-d8	0.48		0.5000		95.3	70	130					

Sample ID: 1907e79-001ams	SampType: MS TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: BatchQC	Batch	tch ID: 46480 RunNo: 61819									
Prep Date: 7/30/2019	Analysis D	oate: 8/	1/2019	SeqNo: 2095815			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.024	0.9747	0	104	68.9	131				
Toluene	0.97	0.049	0.9747	0	99.2	64.3	137				
Ethylbenzene	0.95	0.049	0.9747	0	97.2	70	130				
Xylenes, Total	3.0	0.097	2.924	0	104	70	130				
Surr: 1,2-Dichloroethane-d4	0.41		0.4873		83.4	70	130				
Surr: 4-Bromofluorobenzene	0.47		0.4873		97.4	70	130				
Surr: Dibromofluoromethane	0.42		0.4873		86.7	70	130				
Surr: Toluene-d8	0.47		0.4873		96.1	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

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 11

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907E80

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

Sample ID: 1907e79-001amsd	SampType: MSD TestCode: EPA Method 8						8260B: Volat	iles Short	List	
Client ID: BatchQC	Batcl	h ID: 46 4	480	F	RunNo: 61819					
Prep Date: 7/30/2019	Analysis Date: 8/1/2019			S	SeqNo: 20	ίg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9785	0	107	68.9	131	2.79	20	
Toluene	1.0	0.049	0.9785	0	102	64.3	137	3.11	20	
Ethylbenzene	0.95	0.049	0.9785	0	97.2	70	130	0.369	0	
Xylenes, Total	3.0	0.098	2.935	0	103	70	130	0.143	0	
Surr: 1,2-Dichloroethane-d4	0.44		0.4892		89.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.47		0.4892		96.3	70	130	0	0	
Surr: Dibromofluoromethane	0.44		0.4892		90.6	70	130	0	0	
Surr: Toluene-d8	0.47		0.4892		96.2	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

- 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#: **1907E80**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB C

 Sample ID:
 mb-46480
 SampType:
 MBLK
 TestCode:
 EPA Method 8015D Mod:
 Gasoline Range

 Client ID:
 PBS
 Batch ID:
 46480
 RunNo:
 61819

 Prep Date:
 7/30/2019
 Analysis Date:
 7/31/2019
 SeqNo:
 2095872
 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
 450
 500.0
 90.8
 70
 130

Sample ID: Ics-46480 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 46480 RunNo: 61819

Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095873 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 70 Gasoline Range Organics (GRO) 5.0 25.00 O 87.2 130

Surr: BFB 460 500.0 92.8 70 130

Sample ID: 1907d83-002ams SampType: MS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: BatchQC Batch ID: 46480 RunNo: 61819

Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095877 Units: mg/Kg-dry

%REC Result PQL SPK value SPK Ref Val LowLimit HighLimit %RPD **RPDLimit** Analyte Qual Gasoline Range Organics (GRO) 28 5.7 28.48 0 98.9 68.2 135 Surr: BFB 70 530 569.6 93.5 130

Sample ID: 1907d83-002amsd SampType: MSD TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: BatchQC Batch ID: 46480 RunNo: 61819

Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095879 Units: mg/Kg-dry PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result LowLimit Qual Gasoline Range Organics (GRO) 27 26.97 101 68.2 135 3.16 5.4 20 Surr: BFB 520 539.4 97.3 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

Page 11 of 11



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

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

Client Nar	me: CAPROCK	SERVICES	, L Work C	rder Numb	er: 1907E80		RcptNo: 1	
Received	By: Danie	IM	7/30/2019	9 8:43:00 A	М			
Completed	By: Leah Bac	a	7/30/2019	10:21:47	АМ	Last Ba		
Reviewed	By: DAD 7	130/19				1 al Jan		
Chain of	Custody							
1. Is Chair	of Custody comp	olete?			Yes 🗸	No 🗌	Not Present	
2. How wa	s the sample deliv	vered?			Client			
Log In								
	attempt made to	cool the sam	ples?		Yes 🗸	No 🗌	NA 🗆	
4. Were all	samples received	d at a temper	ature of >0° C to	6.0°C	Yes 🗌	No 🗸	NA 🗆	
					Approved	by client.		
5. Sample	(s) in proper conta	niner(s)?			Yes 🗸	No 🗌		
6. Sufficien	it sample volume t	for indicated	test(s)?		Yes 🗸	No 🗌		
7. Are sam	ples (except VOA	and ONG) p	roperly preserved	?	Yes 🗸	No 🗌		
	servative added to				Yes 🗌	No 🗸	NA 🗆	
9. VOA vial	ls have zero head:	space?			Yes	No 🗌	No VOA Vials ✓	,
10. Were ar	ny sample contain	ers received	broken?		Yes	No 🗸	# of preserved	
14 -		Tall Standard					bottles checked	
	perwork match bo screpancies on ch		y)		Yes 🗸	No 🗆	for pH: (<2 or >12	unless noted
	rices correctly ider				Yes 🗸	No 🗌	Adjusted?	
3. Is it clea	r what analyses w	ere requeste	d?		Yes 🗸	No 🗌	/	
	holding times able)		Yes 🗸	No 🗆	Checked by:	101/2
	andling (if app		,) [
	ent notified of all d		with this order?		Yes	No 🗆	NA 🗸	
Pe	erson Notified:	ſ		Date				***
Ву	y Whom:	ĺ		Via:	eMail	Phone Far	x In Person	
Re	egarding:							
CI	lient Instructions:							
16. Addition	nal remarks:							
17. <u>Cooler</u>	Information							
	er No Temp °C			Seal No	Seal Date	Signed By		
2	3.5	Good	Yes		11. (TEX.00000 >0	Control of the Contro		
2	6.6	Good	Yes					

3

3.8

Good

Yes

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Reduest		Time: Relinquished by Received by: Receive
Turn-Around Time: Solution Standard Rush Standard Project Name: Stark VCTB - C	Project Manager: Joel Court Court	Received by Via: Date Time Received by Via: Date Time
S)	Phone #: (\$75) 704- 9718 email or Fax#: Capock Services Ste Cagnuil Confect Manage CAVOC Package: Accreditation: Accredit	Date: Time: Relinquished by: Date: Time: Relinquished by: PA-F Ro MKH. If necessary, samples submitted to Hall Environmental may be sut



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

August 05, 2019

Joel Lowry
Caprock Services, LLC
PO Box 457
Lovington, NM 88260

TEL: (575) 704-2718

FAX

RE: State V CTB D OrderNo.: 1907E79

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/30/2019 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1907E79**

Date Reported: 8/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 2

Project: State V CTB D
 Collection Date: 7/26/2019 8:05:00 AM

 Lab ID: 1907E79-001
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/31/2019 7:08:05 PM
Motor Oil Range Organics (MRO)	ND	52	mg/Kg	1	7/31/2019 7:08:05 PM
Surr: DNOP	96.9	70-130	%Rec	1	7/31/2019 7:08:05 PM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	2500	150	mg/Kg	50	8/2/2019 5:31:34 PM
EPA METHOD 8260B: VOLATILES SHORT LIS	т				Analyst: DJF
Benzene	ND	0.025	mg/Kg	1	8/1/2019 4:33:39 AM
Toluene	ND	0.049	mg/Kg	1	8/1/2019 4:33:39 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/1/2019 4:33:39 AM
Xylenes, Total	ND	0.099	mg/Kg	1	8/1/2019 4:33:39 AM
Surr: 1,2-Dichloroethane-d4	83.7	70-130	%Rec	1	8/1/2019 4:33:39 AM
Surr: 4-Bromofluorobenzene	95.6	70-130	%Rec	1	8/1/2019 4:33:39 AM
Surr: Dibromofluoromethane	86.1	70-130	%Rec	1	8/1/2019 4:33:39 AM
Surr: Toluene-d8	95.5	70-130	%Rec	1	8/1/2019 4:33:39 AM
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2019 4:33:39 AM
Surr: BFB	90.0	70-130	%Rec	1	8/1/2019 4:33:39 AM

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 7

Lab Order **1907E79**

Date Reported: 8/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC

Client Sample ID: Floor 3

Project: State V CTB D
 Collection Date: 7/26/2019 8:10:00 AM

 Lab ID: 1907E79-002
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: TOM
Diesel Range Organics (DRO)	18	10	mg/Kg	1	8/3/2019 5:46:49 AM
Motor Oil Range Organics (MRO)	140	51	mg/Kg	1	8/3/2019 5:46:49 AM
Surr: DNOP	85.0	70-130	%Rec	1	8/3/2019 5:46:49 AM
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	4200	150	mg/Kg	50	8/2/2019 5:43:59 PM
EPA METHOD 8260B: VOLATILES SHORT LIS	ST.				Analyst: DJF
Benzene	ND	0.025	mg/Kg	1	8/1/2019 6:01:10 AM
Toluene	ND	0.050	mg/Kg	1	8/1/2019 6:01:10 AM
Ethylbenzene	ND	0.050	mg/Kg	1	8/1/2019 6:01:10 AM
Xylenes, Total	ND	0.10	mg/Kg	1	8/1/2019 6:01:10 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130	%Rec	1	8/1/2019 6:01:10 AM
Surr: 4-Bromofluorobenzene	97.3	70-130	%Rec	1	8/1/2019 6:01:10 AM
Surr: Dibromofluoromethane	85.2	70-130	%Rec	1	8/1/2019 6:01:10 AM
Surr: Toluene-d8	100	70-130	%Rec	1	8/1/2019 6:01:10 AM
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/1/2019 6:01:10 AM
Surr: BFB	98.2	70-130	%Rec	1	8/1/2019 6:01:10 AM

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#: **1907E79**

05-Aug-19

Client: Caprock Services, LLC

Project: State V CTB D

Sample ID: MB-46544 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46544 RunNo: 61848

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2096889 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46544 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46544 RunNo: 61848

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2096890 Units: mg/Kg

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

Chloride 15 1.5 15.00 0 96.9 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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E79**

05-Aug-19

Client: Caprock Services, LLC

Project: State V CTB D

Sample ID: LCS-46481	SampType: L0	cs	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 46	6481	F	RunNo: 6	1770					
Prep Date: 7/30/2019	Analysis Date: 7	/31/2019	S	SeqNo: 20	094814	Units: mg/K	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	52 10		0	105	63.9	124				
Surr: DNOP	4.8	5.000		96.3	70	130				
Sample ID: MB-46481	SampType: M	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics		
Client ID: PBS	Batch ID: 46	6481	F	RunNo: 6	1770					
Prep Date: 7/30/2019	Analysis Date: 7	/31/2019	8	SeqNo: 20	094815	Units: mg/K	(g			
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) Surr: DNOP	ND 50 9.9	10.00		98.8	70	130				
Suil. DNOF	9.9	10.00		90.0	70	130				
Sample ID: LCS-46512	SampType: Lo	CS	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics		
Client ID: LCSS	Batch ID: 46	5512	F	RunNo: 6	1831					
Prep Date: 7/31/2019	Analysis Date: 8	/1/2019	S	SeqNo: 20	096582	Units: %Red	3			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.0	5.000		79.1	70	130				
Sample ID: MB-46512	SampType: M	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics		
Client ID: PBS	Batch ID: 46	5512	F	RunNo: 6	1831					
Prep Date: 7/31/2019	Analysis Date: 8	/1/2019	S	SeqNo: 20	096583	Units: %Red	3			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	8.8	10.00		87.8	70	130				
Sample ID: LCS-46536	SampType: L0	cs	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics		
Client ID: LCSS	Batch ID: 46	6536	F	RunNo: 6	1831					
Prep Date: 8/1/2019	Analysis Date: 8	/2/2019	S	SeqNo: 20	097810	Units: %Red	:			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.9	5.000		98.4	70	130				

Qualifiers:

Analyte

Surr: DNOP

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

SampType: MBLK

Batch ID: 46536

Analysis Date: 8/2/2019

Result

13

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Sample ID: MB-46536

Prep Date: 8/1/2019

Client ID: PBS

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

RunNo: 61831

133

SeqNo: 2097812

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

Units: %Rec

HighLimit

130

70

%RPD

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

SPK value SPK Ref Val %REC LowLimit

10.00

RL Reporting Limit

RPDLimit

Qual

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E79**

05-Aug-19

Client: Caprock Services, LLC

Project: State V CTB D

Sample ID: mb-46480 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List PBS Client ID: Batch ID: 46480 RunNo: 61819 Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095794 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result Qual Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 70 Surr: 1,2-Dichloroethane-d4 0.43 0.5000 86.4 130 0.48 Surr: 4-Bromofluorobenzene 0.5000 95.1 70 130 Surr: Dibromofluoromethane 0.43 0.5000 86.5 70 130 Surr: Toluene-d8 0.47 0.5000 94.5 70 130

Sample ID: Ics-46480 SampType: LCS TestCode: EPA Method 8260B: Volatiles Short List Client ID: LCSS Batch ID: 46480 RunNo: 61819 Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095795 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte LowLimit Qual 0.025 1.000 0 105 70 130 Benzene 1.1 0 Toluene 0.96 0.050 1.000 95.8 70 130 Ethylbenzene 0.97 0.050 1.000 0 96.5 70 130 Xylenes, Total 3.0 0.10 3.000 0 98.9 70 130 Surr: 1,2-Dichloroethane-d4 88.8 70 0.44 0.5000 130 Surr: 4-Bromofluorobenzene 0.47 0.5000 95.0 70 130 Surr: Dibromofluoromethane 87.4 70 130 0.44 0.5000 Surr: Toluene-d8 0.48 0.5000 95.3 70 130

Sample ID: 1907e79-001ams	MS TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: Floor 2	Batch	n ID: 46 4	180	F	RunNo: 6					
Prep Date: 7/30/2019	Analysis D	ate: 8/	1/2019	8	SeqNo: 20	095815	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9747	0	104	68.9	131			
Toluene	0.97	0.049	0.9747	0	99.2	64.3	137			
Ethylbenzene	0.95	0.049	0.9747	0	97.2	70	130			
Xylenes, Total	3.0	0.097	2.924	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	0.41		0.4873		83.4	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.4873		97.4	70	130			
Surr: Dibromofluoromethane	0.42		0.4873		86.7	70	130			
Surr: Toluene-d8	0.47		0.4873		96.1	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

Page 5 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E79**

05-Aug-19

Client: Caprock Services, LLC

Project: State V CTB D

Sample ID: 1907e79-001amsc	I Samp∃	Гуре: МS	SD	Tes	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: Floor 2	Batc	h ID: 46 4	480	F	RunNo: 6							
Prep Date: 7/30/2019	Analysis [Date: 8/	1/2019	9	SeqNo: 2							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.0	0.024	0.9785	0	107	68.9	131	2.79	20			
Toluene	1.0	0.049	0.9785	0	102	64.3	137	3.11	20			
Ethylbenzene	0.95	0.049	0.9785	0	97.2	70	130	0.369	0			
Xylenes, Total	3.0	0.098	2.935	0	103	70	130	0.143	0			
Surr: 1,2-Dichloroethane-d4	0.44		0.4892		89.2	70	130	0	0			
Surr: 4-Bromofluorobenzene	0.47		0.4892		96.3	70	130	0	0			
Surr: Dibromofluoromethane	0.44		0.4892		90.6	70	130	0	0			
Surr: Toluene-d8	0.47		0.4892		96.2	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

- 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#: **1907E79**

05-Aug-19

Client: Caprock Services, LLC

Project: State V CTB D

Sample ID: mb-46480 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 46480 RunNo: 61819

Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095872 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 450 500.0 90.8 70 130

Sample ID: Ics-46480 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 46480 RunNo: 61819

460

Prep Date: 7/30/2019 Analysis Date: 7/31/2019 SeqNo: 2095873 Units: mg/Kg

500.0

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 70 22 5.0 25.00 0 87.2 130

92.8

70

130

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



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: 1907E79 RcptNo: 1 Received By: Daniel 7/30/2019 8:43:00 AM Completed By: Leah Baca 7/30/2019 10:24:48 AM Last Baca Reviewed By: DAD 7/30/19 Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Client Log In 3. Was an attempt made to cool the samples? No 🗌 Yes 🗸 NA 🗌 No V 4. Were all samples received at a temperature of >0° C to 6.0°C NA 🗌 Yes Approved by client. No 🗌 Sample(s) in proper container(s)? Yes 🗸 6. Sufficient sample volume for indicated test(s)? Yes V No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No No 🗸 NA 🗌 8. Was preservative added to bottles? Yes 9. VOA vials have zero headspace? No 🗌 No VOA Vials Yes Yes 🗌 No 🗸 10. Were any sample containers received broken? # of preserved bottles checked 11. Does paperwork match bottle labels? Yes V No 🗌 for pH: <2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 13. Is it clear what analyses were requested? Yes V No 🗌 14. Were all holding times able to be met? Checked by: Yes 🗸 No 🗌 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes NA V No 🗌 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 3.5 Good Yes 2 6.6 Good Yes

3.8

Good

Yes

3

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109		Analysis Requ	90°S	PO4,) SS () () () () () () () () () () () () ()	30 \ CS 504.1 504.1 50 or 82 8 2 504.1 6 7 7 7 8	o(GR) ood 310 etal (A)	15E esti by 8 by M B M B M 3r,	8081 Р 8081 Р 8081 Р РРН 8 Б РСКА 8 8260 (У 8270 (9 Тоtal С	×		X						Remarks: Caprock Sorv, ces 56 @ Compa, 1, cour	1.0-0	7 2 2 2 2 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Living Control of the secretaristic laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time: Sam	X Standard Rush		Sta* VC13 - 0	Project #:			Joer COWS	ニックオング	Sampler: IVI and I and I are On Ice: No	olers: 3	Cooler Temp(including CF): 3.(Q - 0.1=35°C	Container Preservative HEAL No.	I I I	402 9105 100	11 -002						Regeivedby: Via: Date Time	Second by: Via: Date Time		honorracied to other accredited laboratories. This serves as notice of this po
hain-of-Custody Record	Slient Approck Services		Mailing Address: P.O. Roy 450	07638	Phone #: (STS) 104- 9118	email or Fax#: CapackService Sip @gmail.com Project Manager:	QA/QC Package:	Standard Devel 4 (Full Validation)	Accreditation: Az Compliance	(ac)		i	Matrix Salliple Nath	7-34-11 10805 SOIN TI LIUCK &							1	7 0010	Time: Kelinquished	179 H May Mir. H.



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

August 06, 2019

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

FAX:

RE: State V CTB E OrderNo.: 1907E78

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/30/2019 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1907E78**

Date Reported: 8/6/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Caprock Services, LLC Client Sample ID: Floor 2

Project: State V CTB E
 Collection Date: 7/26/2019 8:00:00 AM

 Lab ID: 1907E78-001
 Matrix: SOIL
 Received Date: 7/30/2019 8:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	3500	150		mg/Kg	50	8/2/2019 5:19:09 PM	46547
EPA METHOD 8015D MOD: GASOLINE RANG	E					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/1/2019 4:17:26 AM	46491
Surr: BFB	92.2	70-130		%Rec	1	8/1/2019 4:17:26 AM	46491
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	том
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/2/2019 11:09:17 AM	46535
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/2/2019 11:09:17 AM	46535
Surr: DNOP	137	70-130	S	%Rec	1	8/2/2019 11:09:17 AM	46535
EPA METHOD 8260B: VOLATILES SHORT LIS	ST .					Analyst	JMR
Benzene	ND	0.024		mg/Kg	1	8/1/2019 4:17:26 AM	46491
Toluene	ND	0.049		mg/Kg	1	8/1/2019 4:17:26 AM	46491
Ethylbenzene	ND	0.049		mg/Kg	1	8/1/2019 4:17:26 AM	46491
Xylenes, Total	ND	0.097		mg/Kg	1	8/1/2019 4:17:26 AM	46491
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	8/1/2019 4:17:26 AM	46491
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	8/1/2019 4:17:26 AM	46491
Surr: Dibromofluoromethane	104	70-130		%Rec	1	8/1/2019 4:17:26 AM	46491
Surr: Toluene-d8	97.7	70-130		%Rec	1	8/1/2019 4:17:26 AM	46491

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 7

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E78**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Sample ID: MB-46547 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097049 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-46547 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 46547 RunNo: 61834

Prep Date: 8/1/2019 Analysis Date: 8/1/2019 SeqNo: 2097050 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 96.3 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

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907E78

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Sample ID: LCS-46512 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 46512 RunNo: 61831

Prep Date: 7/31/2019 Analysis Date: 8/1/2019 SeqNo: 2096582 Units: %Rec

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

Surr: DNOP 4.0 5.000 79.1 70 130

Sample ID: MB-46512 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 46512 RunNo: 61831

Prep Date: 7/31/2019 Analysis Date: 8/1/2019 SeqNo: 2096583 Units: %Rec

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

Surr: DNOP 8.8 10.00 87.8

Sample ID: 1907E78-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: Floor 2 Batch ID: 46535 RunNo: 61831 Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097766 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Diesel Range Organics (DRO) 64 9.6 48.08 0 133 57 142 70 Surr: DNOP 6.4 4.808 134 130 S

Sample ID: 1907E78-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: Floor 2 Batch ID: 46535

RunNo: 61831

Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097767 Units: mg/Kg %RPD **RPDLimit** PQL SPK value SPK Ref Val %REC HighLimit Analyte Result I owl imit Qual Diesel Range Organics (DRO) 67 10 49.80 0 135 57 142 5.00 20 Surr: DNOP 6.6 4.980 133 70 130 0 S

Sample ID: LCS-46535 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 46535 RunNo: 61831

Analysis Date: 8/2/2019 Prep Date: 8/1/2019 SeqNo: 2097809 Units: mg/Kg

Result PQL SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte SPK value LowLimit Qual Diesel Range Organics (DRO) 10 n 99.0 63.9 50 50.00 124

Surr: DNOP 4.7 5.000 94.9 130

Sample ID: MB-46535 TestCode: EPA Method 8015M/D: Diesel Range Organics SampType: MBLK

Client ID: PBS Batch ID: 46535 RunNo: 61831

Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097811 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

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit

POL 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 3 of 7

Hall Environmental Analysis Laboratory, Inc.

13

WO#: 1907E78

S

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Surr: DNOP

Sample ID: MB-46535 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 46535 RunNo: 61831

Prep Date: 8/1/2019 Analysis Date: 8/2/2019 SeqNo: 2097811 Units: mg/Kg

10.00

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

135

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

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 7

Hall Environmental Analysis Laboratory, Inc.

WO#: 1907E78

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Sample ID: Ics-46491	Samp ⁻	Type: LC	s	TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: LCSS	Batc	h ID: 46	491	F	RunNo: 61815								
Prep Date: 7/30/2019	Analysis [Date: 8/	1/2019	S	SeqNo: 2	095750	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.93	0.025	1.000	0	92.5	70	130						
Toluene	1.0	0.050	1.000	0	100	70	130						
Ethylbenzene	1.0	0.050	1.000	0	99.9	70	130						
Xylenes, Total	3.1	0.10	3.000	0	102	70	130						
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130						
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130						
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130						
Surr: Toluene-d8	0.50		0.5000		99.5	70	130						
Sample ID: mb-46491	Samp	Гуре: М Е	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	<u>'</u>			
Client ID: PBS	h ID: 46	491	F	RunNo: 61815									
Prep Date: 7/30/2019	Prep Date: 7/30/2019 Analysis Date: 8/1/2019				SeaNo: 2095751 Units: ma/Ka								

Client ID: PBS	Batcl	n ID: 46	491	R	RunNo: 6					
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	S	SeqNo: 2	095751	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.50		0.5000		99.9	70	130			

Sample ID: 1907e81-001ams	Sampl	Гуре: МЅ	3	Tes								
Client ID: BatchQC	Batc	h ID: 46 4	191	RunNo: 61815								
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	\$	SeqNo: 20	095763	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.93	0.025	0.9940	0	93.7	68.9	131					
Toluene	1.0	0.050	0.9940	0	105	64.3	137					
Ethylbenzene	1.1	0.050	0.9940	0	107	70	130					
Xylenes, Total	3.1	0.099	2.982	0	106	70	130					
Surr: 1,2-Dichloroethane-d4	0.47		0.4970		95.4	70	130					
Surr: 4-Bromofluorobenzene	0.50		0.4970		100	70	130					
Surr: Dibromofluoromethane	0.47		0.4970		95.0	70	130					
Surr: Toluene-d8	0.49		0.4970		99.3	70	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

Reporting Limit

Page 5 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E78**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Sample ID: 1907e81-001amsd	I Samp1	Гуре: М S	SD	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: BatchQC	Batcl	h ID: 46 4	491	RunNo: 61815						
Prep Date: 7/30/2019	Analysis D	Date: 8/	1/2019	S	SeqNo: 20	095764	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9901	0	92.0	68.9	131	2.21	20	
Toluene	1.0	0.050	0.9901	0	102	64.3	137	3.02	20	
Ethylbenzene	1.0	0.050	0.9901	0	105	70	130	2.13	0	
Xylenes, Total	3.1	0.099	2.970	0	104	70	130	1.89	0	
Surr: 1,2-Dichloroethane-d4	0.48		0.4950		96.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.50		0.4950		101	70	130	0	0	
Surr: Dibromofluoromethane	0.46		0.4950		93.0	70	130	0	0	
Surr: Toluene-d8	0.48		0.4950		97.4	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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907E78**

06-Aug-19

Client: Caprock Services, LLC

Project: State V CTB E

Sample ID: Ics-46491	SampT	ype: LC	S	Tes	PA Method	8015D Mod:	Gasoline	Range		
Client ID: LCSS	Batch	n ID: 464	491	F	RunNo: 6	1815				
Prep Date: 7/30/2019	Analysis D	ate: 8/	1/2019	S	SeqNo: 20	095774	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.0	70	130			
Surr: BFB	480		500.0		95.5	70	130			
Sample ID: mb-46491	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015D Mod: Gasoline Range					·	

Client ID: PBS Batch ID: 46491 RunNo: 61815 Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095775 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 480 70 500.0 95.5 130

Sample ID: 1907e78-001ams SampType: MS TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: Floor 2 Batch ID: 46491 RunNo: 61815 Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095778 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Qual Gasoline Range Organics (GRO) 21 5.0 24.78 0 84.0 68.2 135 Surr: BFB 480 495.5 97.8 70 130

Sample ID: 1907e78-001amsd TestCode: EPA Method 8015D Mod: Gasoline Range SampType: MSD Batch ID: 46491 Client ID: Floor 2 RunNo: 61815 Prep Date: 7/30/2019 Analysis Date: 8/1/2019 SeqNo: 2095779 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** LowLimit Qual 23.00 Gasoline Range Organics (GRO) 19 81.4 68.2 135 10.6 4.6 20 Surr: BFB 430 460.0 93.9 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



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: 1907E78 RcptNo: 1 Received By: DanielM 7/30/2019 8:43:00 AM Completed By: Leah Baca 7/30/2019 10:26:48 AM Las Baca Reviewed By: DAD 7/30/19 Chain of Custody No 🗌 1. Is Chain of Custody complete? Yes V Not Present 2. How was the sample delivered? Client Log In 3. Was an attempt made to cool the samples? Yes 🗸 No 🗌 NA 🗌 No V 4. Were all samples received at a temperature of >0° C to 6.0°C NA 🗌 Yes Approved by client. No 🗌 Sample(s) in proper container(s)? Yes V Sufficient sample volume for indicated test(s)? Yes V No 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No 🗌 8. Was preservative added to bottles? No 🗸 NA 🗌 Yes 9. VOA vials have zero headspace? Yes No 🗌 No VOA Vials Yes 🗌 10. Were any sample containers received broken? No V # 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) djusted? Yes 🗸 No 🗌 12. Are matrices correctly identified on Chain of Custody? No 🗌 13. Is it clear what analyses were requested? Yes V 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 3.5 Good Yes 2 6.6 Good Yes

3.8

Good

Yes

3

O	hain	-of-Cu	Chain-of-Custody Record	Turn-Around Time: Solar					HALL ENVIRONMENTAL	<<
Client:	000	Jonnak	Services	X Standard □ Rush		A	ILYS.	S	ANALYSIS LABORATORY	TORY
				Project Name: / / / Z		www	www.hallenvironmental.com	onmen	al.com	
Mailing	Address	0.0	Mailing Address: P. D. Box 4157	State 1 Cia C	4901 H	4901 Hawkins NE -		dnerdn	Albuquerque, NM 87109	
100	OD	K	09638 MN	Project #:	Tel. 50	505-345-3975	75 Fax		505-345-4107 Regulast	
Phone #:	# (5)	I (SLS)	Phone #: (STS) 107 - 4/10 email or Fax#: Pachan Service Su Damail.com Project Manager	Project Manager:	0.4	A Company	†O5	100	(tu	
QA/QC I	QA/QC Package:		O l evel 4 (Full Validation)	Joel Lown	AM / O	SMIS	PO⁴, 9		əsdA∖tı	
	creditation:	□ Az Com	Az Compliance	Sampler: Matt Taylor On Ice: Sizes No	7 TMB 30 / O8 8/808	(1.405 0728 ro		(AC	(Preser	
	EDD (Type)			5	Б(СЕ		ON		form	
				Mp(including CF): 3_(Q ^ O.)	8016		18 A8 A	OV) (Ser	ıl Coli	
Date	Time	Matrix	Sample Name	Container Preservative HEAL No. Type and # Type 100767	НЭТ		(i)	-	etoT	
7-36-19	7-34-19 1800	Soil	to resid	4020/05 ICE -001	X X		X			
			- T	/ /						
								-		
Date		Relinquished by:	shed by:	Received by: Via: Date Time	Remarks: @aprock	aprock	- Services		56 @ 6Ma:1	· & .>
Date O	OBC Time	Relinduíshed bv:	fred by:	Received by: Via: Date Time	S	1	23.5	001	11.25 S	
740 19	740 19 19mm	1	17 17.	Daniel M. 1847. Garie 7/30/198.	5		10 10	0-1	.(=382	
11/1/	If necessar	ry, samples si	ubmitted to Hall Environmental may be sub	other accredited laboratories. This serve	s possibility. Any s	ub-contracted	data will be	clearly no	ated on the analytical r	eport.



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

- 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	SANICS				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

- 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

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

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	SANICS				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

- 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

ple pH Not In Range
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	ANICS				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
- 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 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating Client Sample ID: SW #1

Project: State V CTB-A
 Collection Date: 5/28/2019 9:25:00 AM

 Lab ID: 1905E11-006
 Matrix: SOIL
 Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
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	ANICS				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
- 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 22

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

Page 7 of 22

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	SANICS					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

- 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 22

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

Page 9 of 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating Client Sample ID: EW #2

State V CTB-A Collection Date: 5/28/2019 9:45:00 AM **Project:** 1905E11-010 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	260	60		mg/Kg	20	6/5/2019 3:41:24 PM	45384
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					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
- % 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

Page 10 of 22

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	SANICS					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

- 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 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	SANICS				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
- 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 12 of 22

Lab Order 1905E11

Date Reported: 6/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vanguard Operating Client Sample ID: Floor #2

 Project:
 State V CTB-A
 Collection Date: 5/28/2019 10:00:00 AM

 Lab ID:
 1905E11-013
 Matrix: SOIL
 Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
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
- 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 13 of 22

Lab Order 1905E11

Hall Environmental Analysis Laboratory, Inc. Date Reported: 6/10/2019

CLIENT: Vanguard Operating Client Sample ID: Floor #3

State V CTB-A Collection Date: 5/28/2019 10:05:00 AM **Project:** 1905E11-014 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	CJS
Chloride	92	60	mg/Kg	20	6/5/2019 9:03:36 PM	45398
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				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
- % 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

Page 14 of 22

Lab Order 1905E11

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/10/2019

CLIENT: Vanguard Operating Client Sample ID: Floor #4

Project: State V CTB-A
 Collection Date: 5/28/2019 10:10:00 AM

 Lab ID: 1905E11-015
 Matrix: SOIL
 Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
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	ANICS				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
- 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 15 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905E11**

10-Jun-19

Client: Project:	C	nard Operating V CTB-A			
Sample ID:	MB-45328	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID:	PBS	Batch ID: 45328	RunNo: 60349		
Prep Date:	6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2041072	Units: mg/Kg	
Analyte		Result PQL SPK value SPK	Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-45328	SampType: 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
Chloride		14 1.5 15.00	0 90.3 90	110	
Sample ID:	MB-45384	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID:	PBS	Batch ID: 45384	RunNo: 60433		
Prep Date:	6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2043901	Units: mg/Kg	
Analyte		Result PQL SPK value SPK	Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-45384	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID:	LCSS	Batch ID: 45384	RunNo: 60433		
Prep Date:	6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2043902	Units: mg/Kg	
Analyte		Result PQL SPK value SPK	Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 93.0 90	110	
Sample ID:	MB-45398	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID:	PBS	Batch ID: 45398	RunNo: 60439		
Prep Date:	6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2044238	Units: mg/Kg	
Analyte		Result PQL SPK value SPK	Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-45398	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID:	LCSS	Batch ID: 45398	RunNo: 60439		
Prep Date:	6/5/2019	Analysis Date: 6/5/2019	SeqNo: 2044239	Units: mg/Kg	
Analyte		Result PQL SPK value SPK	Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 95.1 90	110	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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 16 of 22

Client:

Hall Environmental Analysis Laboratory, Inc.

Vanguard Operating

WO#: **1905E11**

10-Jun-19

Project: State V C	CTB-A									
Sample ID: LCS-45302	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch	ID: 45	302	F	RunNo: 6	0335				
Prep Date: 5/31/2019	Analysis Da	ate: 6/	3/2019	S	SeqNo: 2	040606	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	63.9	124			
Surr: DNOP	5.2		5.000		104	70	130			
Sample ID: MB-45302	SampTy	/pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 45	302	F	RunNo: 6	0335				
Prep Date: 5/31/2019	Analysis Da	ate: 6/	3/2019	S	SeqNo: 2	040608	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		120	70	130			
Sample ID: MB-45297	SampTy	/pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 45	297	F	RunNo: 6	0356				
Prep Date: 5/31/2019	Analysis Da	ate: 6/	3/2019	5	SeqNo: 2	040613	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.6	70	130			
Sample ID: LCS-45297	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch	ID: 45	297	F	RunNo: 6	0356				
Prep Date: 5/31/2019	Analysis Da	ate: 6/	3/2019	5	SeqNo: 2	040614	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	63.9	124			
Surr: DNOP	4.4		5.000		88.7	70	130			
Sample ID: 1905E11-006AMS	SampTy	pe: MS	6	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: SW #1	Batch	ID: 45	302	F	RunNo: 6	0436				
Prep Date: 5/31/2019	Analysis Da	ate: 6/	7/2019	S	SeqNo: 2	044902	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.8	48.92	70.05	-66.4	57	142			S
Surr: DNOP	1.4		4.892		29.0	70	130			S

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical 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	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch	ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	S	SeqNo: 2	039157	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.4	73.8	119			
Sample ID: LCS-45287	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch	ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	S	SeqNo: 2	039158	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.5	80.1	123			
Surr: BFB	1100		1000		105	73.8	119			
Sample ID: 1905E11-013AMS	SampT	ype: M \$	6	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: Floor #2	Batch	ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	S	SeqNo: 2	039160	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	24.85	0	129	69.1	142			
Surr: BFB	1100		994.0		108	73.8	119			
Sample ID: 1905E11-013AMS	D SampT	уре: М\$	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: Floor #2	Batch	ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	8	SeqNo: 2	039161	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.37	0	124	69.1	142	6.00	20	
Surr: BFB	1100		974.7		108	73.8	119	0	0	
Sample ID: MB-45283	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch	ID: 45	283	F	RunNo: 6	0311				
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	S	SeqNo: 2	039216	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	73.8	119			
Sample ID: LCS-45283	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch	ID: 45	283	F	RunNo: 6	0311				
								_		
Prep Date: 5/30/2019	Analysis Da	ate: 5/	31/2019	S	SeqNo: 2	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

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.

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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

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

PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte LowLimit HighLimit Qual Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene

 Xylenes, Total
 ND
 0.10

 Surr: 4-Bromofluorobenzene
 0.91
 1.000
 91.3
 80
 120

1.000

0.9921

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

102

108

80

80

120

120

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 SeqNo: 2039199 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.025 138 S 1.4 0.9921 63.9 127 Benzene O Toluene 0.050 0.9921 0 140 69.9 131 S 1.4 S 1.4 0 140 71 Ethylbenzene 0.050 0.9921 132 Xylenes, Total 4.1 0.099 2.976 0 137 71.8 131 S

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

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

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 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

 Client ID:
 PBS
 Batch ID:
 45283
 RunNo:
 60311

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

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

 Benzene
 ND
 0.025

 Toluene
 ND
 0.050

 Ethylbenzene
 ND
 0.050

 Xylenes, Total
 ND
 0.10

 Surr: 4-Bromofluorobenzene
 1.0
 1.000
 104
 80
 120

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 Xylenes, Total

109

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



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 🗸 4. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? Yes V No 🗌 6. Sufficient sample volume for indicated test(s)? No 🗌 Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No V 8. Was preservative added to bottles? Yes NA 🗌 9. VOA vials have zero headspace? No 🗌 No VOA Vials V Yes 10. Were any sample containers received broken? Yes L No V # of preserved bottles checked 11. Does paperwork match bottle labels? Yes V 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 V No 🗌 14. Were all holding times able to be met? Checked by: 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 V Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Seal Intact Cooler No Temp °C Condition Seal No Seal Date Signed By 2.1 Good Yes

)	Shain	-of-CI	Chain-of-Custody Record	Turn-Around	Time:	74		_			TARR	0	THE	
Client:	lanciara	bud		Standard	d - Rush						V	N N	I ARODATODA	. >
				Project Name:					www.h	allenvi		www.hallenvironmental.com		
Mailin	Mailing Address: 400 l	100h:s	Perbrook St 201	State	1 678.	A	4901	4901 Hawkins NE	ns NE	- Albi	rdner	lne, NI	Albuquerque, NM 87109	
0 de 55a	SS 7X	X 79762	762	Project #⁻			Tel.	505-345-3975	5-397		Fax 50	505-345-4107	4107	
Phone #:	#:									Analy	sis Re	Analysis Request		
email	email or Fax#:	18		Project Manager:	-	Lower				†O	-	(ţu		
QA/QC	QA/QC Package:		☐ Level 4 (Full Validation)				e (805) O \ WK	0.50	SMIS	PO4, S		əsdA\ti		
Accre	Accreditation:	□ Az Cc	□ Az Compliance	Sampler: //	16# Tay 1	he	AO /		0728	10 ⁵				
□ NELAC	LAC	Other NM	INM DCD CO.	On Ice:	és	□ No	90	_			IVC			
	EDD (Type)		•	# of Coolers:	(\cdot)		(et	_					7/2.	
				Cooler Temp(including cF).		9.060,2 = 15'EU	12D						.'.	
				Container	Preservative	HEAL No.	08:H	M) 8	d sH		A) 02	2) 07 S) (S)	99	
Date	Time	Matrix	Sample Name	#	Type	1905F11	ЧΤ	_					7	
5.2	5-38-40900	1,05	NWHI	402 GASS	FLE	-001	×						×	
_	0905	_	24 MM			-005	_						×	
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//	0920	///	WW #3	W	/2/	-0115							*	
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	0440		石の井/			-000							*	
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	0360		Ew#3			-011							*	
	0955		F100R#1			-012	个个						*	
Date:	Time:	Re	hed by:	Received by:	Via:	Date Time	Remarks:	1001	0	Sing	0 1	0:110	Remarks: The 1 Phones and in many that low	3
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11/11/11	1411	K	hmitted to Hall Environmental may be su	Contracted to other ag	credited laboratories	30	D sossibility. Any	Any sub-contracted	racted de	od Iliw e	otoorly n	an Poteto	the confidence of	



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

Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/10/2019

CLIENT: Vanguard Operating Client Sample ID: NW #1

 Project:
 State V CTB-B
 Collection Date: 5/28/2019 8:00:00 AM

 Lab ID:
 1905E10-001
 Matrix: SOIL
 Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
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	GANICS					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

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

- 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
- 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 15

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 ORG	SANICS					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
- 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 15

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

Page 5 of 15

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	ANICS				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

Page 6 of 15

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

Page 7 of 15

Lab Order 1905E10

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/10/2019

CLIENT: Vanguard Operating Client Sample ID: Floor #2

Project: State V CTB-B
 Collection Date: 5/28/2019 8:35:00 AM

 Lab ID: 1905E10-008
 Matrix: SOIL
 Received Date: 5/30/2019 8:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
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
- 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 15

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
- 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 15

Client:

Chloride

Analyte

Chloride

Sample ID: LCS-45328

Prep Date: 6/3/2019

Client ID: LCSS

Hall Environmental Analysis Laboratory, Inc.

ND

Result

14

1.5

SampType: Ics

Batch ID: 45328

PQL

1.5

SPK value SPK Ref Val

0

15.00

Analysis Date: 6/3/2019

Vanguard Operating

WO#: **1905E10**

10-Jun-19

Project: State V	/ CTB-B			
Sample ID: MB-45327	SampType: MBLK	TestCode: EPA Method	1 300.0: Anions	
Client ID: PBS	Batch ID: 45327	RunNo: 60350		
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2040927	Units: mg/Kg	
Analyte	Result PQL SPK value SI	PK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-45327	SampType: LCS	TestCode: EPA Method	1 300.0: Anions	
Client ID: LCSS	Batch ID: 45327	RunNo: 60350		
Prep Date: 6/3/2019	Analysis Date: 6/3/2019	SeqNo: 2040928	Units: mg/Kg	
Analyte	Result PQL SPK value SI	PK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	15 1.5 15.00	0 97.2 90	110	
Sample ID: MB-45328	SampType: mblk	TestCode: EPA Method	l 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 SI	PK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual

Qualifiers:

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

B Analyte detected in the associated Method Blank

TestCode: EPA Method 300.0: Anions

90

Units: mg/Kg

110

%RPD

RPDLimit

Qual

HighLimit

RunNo: 60349

90.3

SeqNo: 2041073

%REC LowLimit

- 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.

4.4

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

88.7

70

130

5.000

Qualifiers:

Surr: DNOP

- 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	CTB-B								
Sample ID: MB-45276	SampType: M	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 45	276	RunNo: 60312						
Prep Date: 5/30/2019	Analysis Date: 5	/31/2019	S	eqNo: 20	039133	Units: mg/K	g		
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: L0	cs	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 45	276	R	tunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date: 5	/31/2019	S	eqNo: 20	039134	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23 5.0		0	90.4	80.1	123			
Surr: BFB	1000	1000		105	73.8	119			
Sample ID: MB-45287	SampType: M	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 45	287	R	tunNo: 60	0312				
Prep Date: 5/30/2019	Analysis Date: 5	/31/2019	S	eqNo: 20	039157	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890	1000		89.4	73.8	119			
			TestCode: EPA Method 8015D: Gasoline Range						
Sample ID: LCS-45287	SampType: L0	cs	Test	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Sample ID: LCS-45287 Client ID: LCSS	SampType: L0 Batch ID: 45			Code: EF		8015D: Gaso	line Rang	e	
•		5287	R		0312	8015D: Gaso Units: %Rec		e	
Client ID: LCSS	Batch ID: 45	3287 /31/2019	R	eunNo: 60 eqNo: 20	0312			e RPDLimit	Qual
Client ID: LCSS Prep Date: 5/30/2019	Batch ID: 45 Analysis Date: 5	3287 /31/2019	R S	eunNo: 60 eqNo: 20	0312 039158	Units: %Red	:		Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte	Batch ID: 45 Analysis Date: 5 Result PQL	31/2019 SPK value 1000	SPK Ref Val	eunNo: 6(seqNo: 2(%REC 105	0312 039158 LowLimit 73.8	Units: %Red HighLimit	%RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB	Batch ID: 45 Analysis Date: 5 Result PQL 1100	SPK value 1000	SPK Ref Val	eunNo: 6(seqNo: 2(%REC 105	0312 039158 LowLimit 73.8	Units: %Red HighLimit 119	%RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283	Batch ID: 45 Analysis Date: 5 Result PQL 1100 SampType: M	SPK value 1000 BLK 5283	R S SPK Ref Val Test R	eunNo: 60 eqNo: 20 %REC 105 Code: EF	0312 039158 LowLimit 73.8 PA Method	Units: %Red HighLimit 119	%RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 5/30/2019 Analyte Surr: BFB Sample ID: MB-45283 Client ID: PBS	Batch ID: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45	SPK value 1000 BLK 5283 /31/2019	R S SPK Ref Val Test R	eunNo: 60 seqNo: 20 %REC 105 scCode: EF sunNo: 60 seqNo: 20	0312 039158 LowLimit 73.8 PA Method 0311 039216	Units: %Red HighLimit 119 8015D: Gaso	%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	Batch ID: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5	SPK value 1000 BLK 5283 31/2019 SPK value	SPK Ref Val Test R	eunNo: 60 seqNo: 20 %REC 105 scCode: EF sunNo: 60 seqNo: 20	0312 039158 LowLimit 73.8 PA Method 0311 039216	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K	%RPD	RPDLimit e	
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: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL	SPK value 1000 BLK 5283 31/2019 SPK value	SPK Ref Val Test R	eunNo: 60 seqNo: 20 %REC 105 scCode: EF sunNo: 60 seqNo: 20	0312 039158 LowLimit 73.8 PA Method 0311 039216	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K	%RPD	RPDLimit e	
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: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0	SPK value 1000 BLK 5283 /31/2019 SPK value	SPK Ref Val Test R S SPK Ref Val	eunNo: 60 seqNo: 20 %REC 105 scCode: EF sunNo: 60 seqNo: 20 %REC 91.1	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit	%RPD line Rang g %RPD	RPDLimit e RPDLimit	
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: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0 910	SPK value 1000 BLK 5283 /31/2019 SPK value	SPK Ref Val Test R S SPK Ref Val	eunNo: 60 seqNo: 20 %REC 105 scCode: EF sunNo: 60 seqNo: 20 %REC 91.1	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit	%RPD line Rang g %RPD	RPDLimit e RPDLimit	
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: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0 910 SampType: L0	SPK value 1000 BLK 5283 /31/2019 SPK value 1000 CS 5283	SPK Ref Val Test R SPK Ref Val Test R	eunNo: 60 deqNo: 20 %REC 105 dCode: EF dunNo: 60 deqNo: 20 %REC 91.1 dCode: EF	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8 PA Method 0311	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit	%RPD line Rang %RPD www.g	RPDLimit e RPDLimit	
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: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0 910 SampType: L0 Batch ID: 45	SPK value 1000 BLK 5283 /31/2019 SPK value 1000 CS 5283 /31/2019	SPK Ref Val Test R SPK Ref Val Test R	eunNo: 60 REC 105 Code: EF CunNo: 60 REC 91.1 Code: EF CunNo: 60 REC	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8 PA Method 0311	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit 119 8015D: Gaso	%RPD line Rang %RPD www.g	RPDLimit e RPDLimit	
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	Batch ID: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0 910 SampType: LC Batch ID: 45 Analysis Date: 5	SPK value 1000 BLK 5283 /31/2019 SPK value 1000 CS 5283 /31/2019 SPK value	Test R SPK Ref Val Test R SPK Ref Val	eunNo: 60 deqNo: 20 %REC 105 Code: EF dunNo: 60 deqNo: 20 %REC 91.1 Code: EF dunNo: 60 deqNo: 20 deqNo: 20	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8 PA Method 0311 039217	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit 119 8015D: Gaso Units: mg/K	%RPD line Rang %RPD line Rang	RPDLimit e 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 Prep Date: 5/30/2019 Analyte	Batch ID: 45 Analysis Date: 5 Result PQL 1100 SampType: M Batch ID: 45 Analysis Date: 5 Result PQL ND 5.0 910 SampType: LC Batch ID: 45 Analysis Date: 5 Result PQL Result PQL Result PQL Result PQL Result PQL Result PQL	SPK value 1000 BLK 5283 /31/2019 SPK value 1000 CS 5283 /31/2019 SPK value	SPK Ref Val Test R SPK Ref Val Test R SSPK Ref Val	eunNo: 60 eqNo: 20 %REC 105 cCode: EF cunNo: 60 eqNo: 20 %REC 91.1 cCode: EF cunNo: 60 eqNo: 20 %REC	0312 039158 LowLimit 73.8 PA Method 0311 039216 LowLimit 73.8 PA Method 0311 039217 LowLimit	Units: %Red HighLimit 119 8015D: Gaso Units: mg/K HighLimit 119 8015D: Gaso Units: mg/K HighLimit	%RPD line Rang %RPD line Rang	RPDLimit e 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

Hall Environmental Analysis Laboratory, Inc.

990

WO#: **1905E10**

10-Jun-19

Client: Vanguard Operating
Project: State V CTB-B

Surr: BFB

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

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result 1.505 Gasoline Range Organics (GRO) 28 4.9 24.41 109 69.1 142

102

73.8

119

Sample ID: 1905E10-002AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

976.6

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

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905E10

10-Jun-19

	anguard Operatin	ıg								
Sample ID: MB-45276	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Bato	h ID: 45	276	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis I	Date: 5/	31/2019	5	SeqNo: 2	039171	Units: mg/K	g		
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-Bromofluorobenzer	ne 1.0		1.000		99.8	80	120			
Sample ID: LCS-45276	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Bato	h ID: 45	276	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis I	Date: 5/	31/2019	5	SeqNo: 2	039172	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzer	ne 1.0		1.000		101	80	120			
Sample ID: MB-45287	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Bato	h ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis I	Date: 5/	31/2019	5	SeqNo: 2	039195	Units: %Red	;		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzer	ne 0.91		1.000		91.3	80	120			
Sample ID: LCS-45287	' Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Bato	h ID: 45	287	F	RunNo: 6	0312				
Prep Date: 5/30/2019	Analysis I	Date: 5/	31/2019	5	SeqNo: 2	039196	Units: %Red	;		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzer	ne 1.0		1.000		102	80	120			
Sample ID: MB-45283	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		-
Client ID: PBS	Bato	h ID: 45	283	F	RunNo: 6	0311				
Prep Date: 5/30/2019	Analysis I	Date: 5/	31/2019	5	SeqNo: 2	039249	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025					<u> </u>			
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
·										

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- 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
- Value above quantitation range
- Analyte detected below quantitation limits
- 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-45283 SampType: MBLK TestCode: EPA Method 8021B: Volatiles RunNo: 60311 Client ID: PBS Batch ID: 45283 Prep Date: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039249 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit 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: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039250 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit 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 0 98.0 80 1.000 120 Xylenes, Total 3.0 0.10 3.000 0 99.9 80 120 1.000 109 80 120 Surr: 4-Bromofluorobenzene 1.1

Sample ID: 1905E10-003AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: EW Batch ID: 45283 RunNo: 60311 Prep Date: 5/30/2019 Analysis Date: 5/31/2019 SeqNo: 2039253 Units: mg/Kg PQL %REC **RPDLimit** Analyte Result SPK value SPK Ref Val LowLimit HighLimit %RPD 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 0.049 71 Ethylbenzene 1.0 0.9756 106 132 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	n ID: 45 2	283	F	RunNo: 60311						
Prep Date: 5/30/2019	Analysis D	oate: 5/	31/2019	9	SeqNo: 2	039254	Units: mg/K	(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

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 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

Client Name: VANGARD OPERATING Work Order Number: 1905E10 RcptNo: 1 Received By: Leah Baca 5/30/2019 8:45:00 AM Completed By: Leah Baca 5/30/2019 11:25:41 AM Reviewed By: Chain of Custody 1. Is Chain of Custody complete? Yes V No 🗌 Not Present 2. How was the sample delivered? Courier Log In NA 🗌 3. Was an attempt made to cool the samples? 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 V No 🗌 Sufficient sample volume for indicated test(s)? Yes V No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes V No 🗌 No V NA 🗌 8. Was preservative added to bottles? Yes No VOA Vials 9. VOA vials have zero headspace? No | Yes Yes 🗌 No V 10. Were any sample containers received broken? # of preserved bottles checked No 🗌 11. Does paperwork match bottle labels? Yes V for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes V No 🗌 13. Is it clear what analyses were requested? Yes V No 🗌 Yes 🗸 No 🗌 Checked by: 14. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA V 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 2.1 Good Yes

Attachment #8

Photographic Log



Figure 1 View of portion of Excavation A, facing South.



Figure 2 View of portion of Excavation B, facing Southwest.



Figure 3 View of portion of Excavation C, facing South.



Figure 4 View of portion of Excavation D, facing South.



Figure 5 View of portion of Excavation E, facing North.



Figure 6 View of portion of Excavation A after remediation activities, facing South.



Figure 7 View of portion of Excavation B after remediation activities, facing North.



Figure 8 View of portion of Excavation C after remediation activities, facing North.



Figure 9 View of portion of Excavation D after remediation activities, facing North.

Attachment #9

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

Responsible Party Vanguard Operating, LLC

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nOY1707237630
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

Release Notification

Responsible Party

OGRID 258350

Contact Name Marty Bloodworth						Contact Telephone 432-770-9738				
		orth@vnrenero	gy.com		Incident #	(assigned by OCD)			
		4001 Penbroc		Odes	sa, TX, 79	9762				
	·		Location		Release So	ource				
Latitude 32.	.86906		OVAD 83 in de	acinal da	Longitude _	-103.27863				
01: 27			(MAZZ OS M AC	ecomin tre		·				
Site Name S							and Flowline			
Date Release	Discovered	Historic			API# (if app	olicable)				
Unit Letter Section Township Range					Cour	ıty	7			
D	5	17S	37E	Lea						
Crude Oi	Materia	Federal Tr	Nature an	d Vo	lume of l	justification for th	e volumes provided below) overed (bbls) Uknown			
☑ Produced	l Water	Volume Release	ed (bbls) Unknov	٧n		Volume Recovered (bbls) Unknown				
		Is the concentrate produced water	tion of dissolved >10,000 mg/l?	chlorid	e in the	☐ Yes ☐ I	No			
Condens	ate	Volume Release	ed (bbls)			Volume Reco	overed (bbls)			
☐ Natural C	Gas	Volume Release	ed (Mcf)			Volume Reco	overed (Mcf)			
Other (de	escribe)	Volume/Weight	Released (provid	le units)	Volume/Wei	ght Recovered (provide units)			
Cause of Re	^{lease} Histo the ta	ric soil impact ink battery at s	s appear to b some point in	e the the p	result of t past.	he failure o	f the flowline and overflowing of			



State of New Mexico Oil Conservation Division

Incident ID	nOY1707237630
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

Was this a major release as defined by	If YES, for what reason(s) does the respondence Volume	sible party consider this a major release?
19.15.29.7(A) NMAC?		
☑ Yes ☐ No		
If YES, was immediate r NA (Historical Releas		nom? When and by what means (phone, email, etc)?
	Initial R	esponse
The responsible	party must undertake the following actions immediate.	y unless they could create a safety hazard that would result in injury
☐ The source of the rel	ease has been stopped.	
☑ The impacted area ha	as been secured to protect human health and	the environment.
Released materials h	ave been contained via the use of berms or	likes, absorbent pads, or other containment devices.
All free liquids and r	recoverable materials have been removed an	d managed appropriately.
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred blease attach all information needed for closure evaluation.
regulations all operators are public health or the environ failed to adequately investig	e required to report and/or file certain release not iment. The acceptance of a C-141 report by the G gate and remediate contamination that pose a thro	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name: Marty B	Bloodworth	Title: District Manager Dist. Supt.
Signature:	stroff	Date: 6/17/2019
email: mbloodworth	@vnrenergy.com	Telephone: 432-770-9738
OCD Only		
Received by: Olivia Y	u	Date: _03/13/2017

Form C-141 Page 3

State of New Mexico Oil Conservation Division

Incident ID	nOY1707237630
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	53 (ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ☑ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☑ No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☑ No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☑ No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☑ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☑ No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☑ No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☑ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☑ No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☑ No	
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No	
Did the release impact areas not on an exploration, development, production, or storage site?	☑ Yes ☐ No	
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
Characterization Report Checklist: Each of the following items must be included in the report.		
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data Data table of soil contaminant concentration data Depth to water determination Determination of water sources and significant watercourses within ⅓-mile of the lateral extents of the release Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody		

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



Form C-141 Page 4

State of New Mexico Oil Conservation Division

Incident ID	nOY1707237630
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: Marty Bloodworth	Title: District Manager Dist Supt.	
Signature My W	Date: 6/17/2019	
email: mbloodworth@vnrenergy.com	Telephone: 432-770-9738	
OCD Only Received by: Dylan Rose-Coss	Date:06/27/2019	

Form C-141 Page 5

State of New Mexico Oil Conservation Division

Incident ID	nOY1707237630
District RP	1RP-4640
Facility ID	fOY1707237145
Application ID	pOY1707237994

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.		
Detailed description of proposed remediation technique		
Scaled sitemap with GPS coordinates showing delineation point	s	
Estimated volume of material to be remediated		
Closure criteria is to Table 1 specifications subject to 19.15.29.1	2(C)(4) NMAC	
Proposed schedule for remediation (note if remediation plan tim		
	our and the state of the state	
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.		
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.		
Extents of contamination must be fully delineated.		
Contamination does not cause an imminent risk to human health	t, the environment, or groundwater.	
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file complete which may endanger public health or the environment. The accepta liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local limits of the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal, state, or local limits and the compliance with any other federal state.	pertain release notifications and perform corrective actions for releases ance of a C-141 report by the OCD does not relieve the operator of a and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of	
Printed Name: Marty Bloodworth	Title: District Manager Dist. Supt.	
Signature:	Date: 6/17/2019	
email: mbloodworth@vnrenergy.com	Telephone: 432-770-9738	
OCD Only		
Received by:	Date: 06/27/2019	
Received by	Bate	
Approved Approved with Attached Conditions of	Approval	
Signature: Dylan Rose-Coss	Date: 07/10/2019	