

Incident ID	nJMW1335341610
District RP	2RP-2122
Facility ID	
Application ID	

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?	107 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input checked="" type="checkbox"/> Field data<input checked="" type="checkbox"/> Data table of soil contaminant concentration data<input checked="" type="checkbox"/> Depth to water determination<input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input checked="" type="checkbox"/> Boring or excavation logs<input checked="" type="checkbox"/> Photographs including date and GIS information<input checked="" type="checkbox"/> Topographic/Aerial maps<input checked="" type="checkbox"/> 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.

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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: Carmen E Pitt Title: Senior HSE Specialist

Signature: *Carmen E Pitt* Date: 11/11/2020

email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

OCD Only

Received by: _____ Date: _____

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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 points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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, the environment, or groundwater.

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: Carmen E Pitt Title: Senior HSE Specialist
 Signature: Carmen E Pitt Date: 11/11/2020
 email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

OCD Only

Received by: _____ Date: _____

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Bradford Billings Date: 12/07/2020 See BELOW

Boring placed first to identify 55 feet (more or less) for depth to water check, adjust to tighter Table 1 standards if groundwater is encountered at less than 51 feet.

Site Assessment Report and Amended Remediation Workplan

Grizzly Energy, LLC Kersey State Battery Historical

Eddy County, New Mexico
Unit Letter P, Section 32, Township 17 South, Range 28 East
Latitude 32.78605 North, Longitude 104.19039 West
NMOCD Reference No. 2RP-2122

Prepared By:

Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway
Lovington, New Mexico 88260



Lance Crenshaw



Joel W. Lowry



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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Grizzly Energy, LLC, has prepared this Report for the Release Site known as the Kersey State Battery Historical. Details of the release are summarized below:

Location of Release Source

Latitude: 32.78605 Longitude: -104.19039

Provided GPS are in WGS84 format.

Site Name:	Kersey State Battery Historical	Site Type:	Tank Battery
Date Release Discovered:	12/12/2013	API # (if applicable):	30-015-30889

Unit Letter	Section	Township	Range	County
P	32	17S	28E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name _____)

Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 5
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:

Heater treater gasket blew out, spraying oil onto ground and some vegetation outside of berms. Picked up standing fluid.

Initial Response

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. In addition, an investigative soil bore will be advanced to 55 Ft. bgs at the location in an effort to determine if shallow groundwater is present. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	~107'	
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

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.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

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			
Probable Depth to Groundwater	Constituent	Method	Limit
~107'	Chloride	EPA 300.0 or SM4500 Cl B	20000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

4.0 INITIAL SITE ASSESSMENT

On May 14, 2019, Lowry Environmental conducted an initial site assessment. Twelve (12) soil samples (V1 @ Surf., V1 @ 12", V1 @ 18" R, V2 @ Surf., V2 @ 12", V2 @ 20" R, V3 @ Surf, V3 @ 12", V3 @ 24" R, V4 @ Surf, V4 @ 12" and V4 @ 16" R) were collected from within the release margins in an effort to determine the vertical extent of soil impact. In addition, twelve (12) soil samples (NH @ Surf, NH @ 6", EH1 @ Surf, EH1 @ 6", EH2 @ Surf, EH2 @ 6", SH @ Surf, SH @ 6", WH1 @ Surf, WH1 @ 6", WH2 @ Surf and WH2 @ 6") were collected from the inferred edges of the affected area in an effort to determine the horizontal extent of soil impact. 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 in each of the submitted soil samples. Analytical results indicated additional delineation of impacted soil affected above the NMOCD Reclamation Standard would be required in the area characterized by sample point V1.

On February 25, 2020, Etech revisited the Site. During the site visit, a hand-augered soil bore was advanced in the area characterized by sample point V1. During the advancement of the hand-augered soil bore, one (1) soil sample (V1 @ 2' – R) was collected and submitted to the laboratory for analysis of chloride concentrations which were determined to be 4,960 mg/kg.

On March 20, 2020, Etech revisited the Site. During the site visit, a test trench was advanced in the area characterized by sample point V1. During the advancement of the test trench, two (2) soil samples (V1 @ 3' and V1 @ 4') were collected and submitted to the laboratory for analysis of chloride concentrations which were determined to be 576 and 112 mg/kg, respectively.

Based on the laboratory analytical results, soil within the earthen bermed facility was not affected above the NMOCD Closure Criteria, soil outside the earthen bermed facility was not affected above the NMOCD Reclamation Standard beyond 3' bgs and the horizontal extent of the affected area was adequately defined.

A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

5.0 AMENDED REMEDIATION PLAN

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

- Advance an investigative soil boring to 55 Ft. bgs in an effort to determine if shallow groundwater is present.
- Further delineate the western portion of the affected area to 600 mg/kg chloride and 100 mg/kg TPH.
- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Reclamation Standard in the area characterized by sample point V1 to an estimated depth of 3 ft. bgs utilizing mechanical equipment.
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicate BTEX, TPH, and chloride concentrations are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.
- Visibly impacted soil present within the earthen containment will be excavated to the maximum extent practicable.
- Excavated soil will be stockpiled on-site, then transported to an NMOCD-permitted surface waste facility for disposal.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with locally sourced, non-impacted "like" material.
- Upon completion of remediation activities, a Remediation Summary and Closure Request will be prepared detailing remediation activities and laboratory analytical results from confirmation soil samples.
- Reclamation of impacted soil affected above the NMOCD Reclamation Standard present within the active facility will be conducted in accordance with NMAC 19.15.29.13 upon abandoning and decommissioning the facility.

6.0 SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear ft. A minimum of one (1) representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every 200 square feet. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

7.0 TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of the Site Assessment Summary and Amended Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately **95 cubic yards** is in need of removal.

8.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

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

9.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Site Assessment Report and Proposed Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Grizzly Energy, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or Grizzly Energy, LLC.

10.0 DISTRIBUTION

Grizzly Energy, LLC

4001 Penbrook

Suite 201

Odessa, TX 79762

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2

811 S. First Street

Artesia, NM 88210

Hobbs Field Office

New Mexico State Land Office

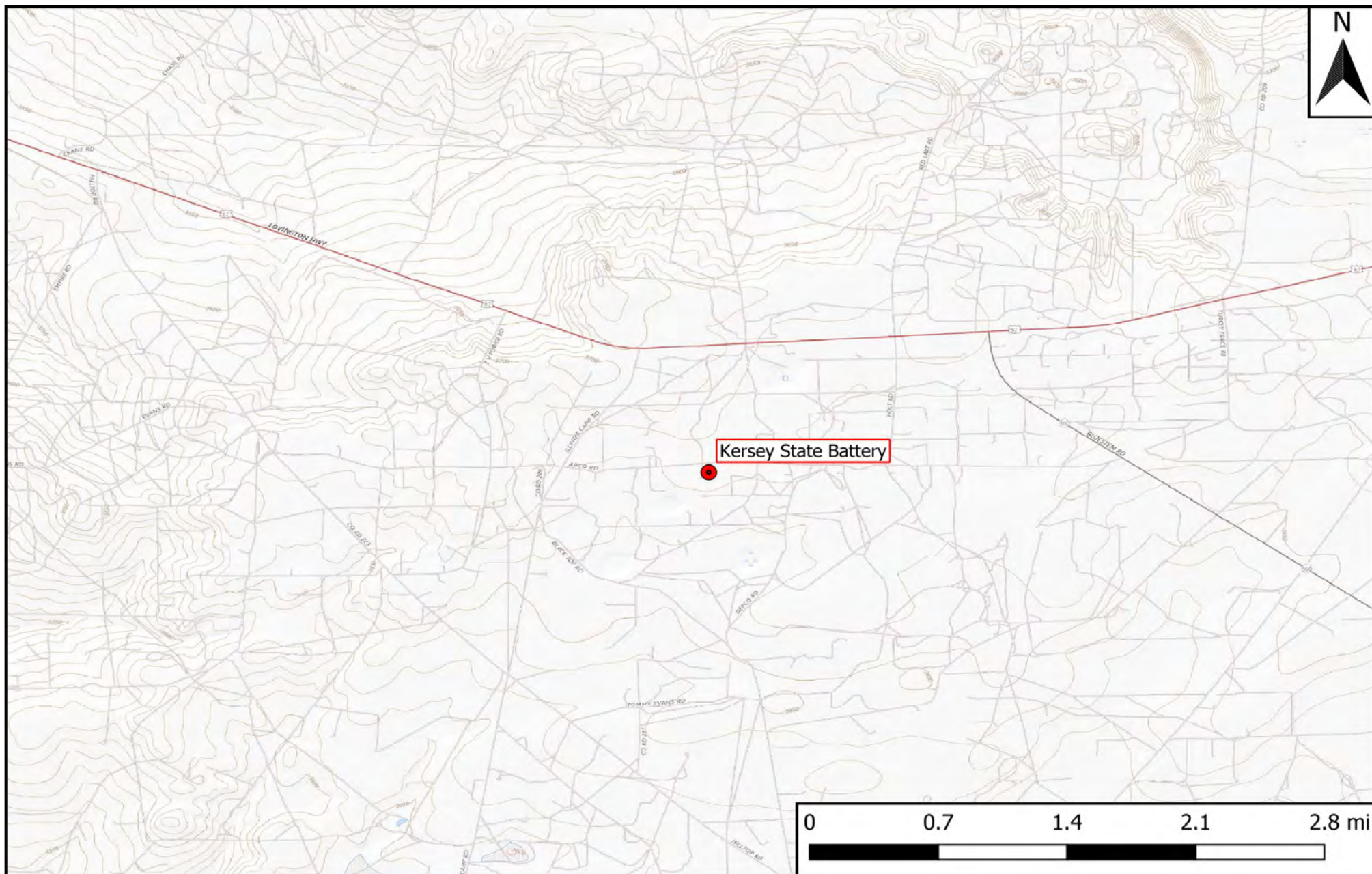
2827 North Dal Paso Street

Suite 117

Hobbs, NM 88240

(Electronic Submission)

Figure 1
Topographic Map



Legend


 Site Location

Figure 1
 Topographic Map
 Grizzly Energy, LLC
 Kersey State Battery Historical
 GPS: 32.78605, -104.19039
 Eddy County

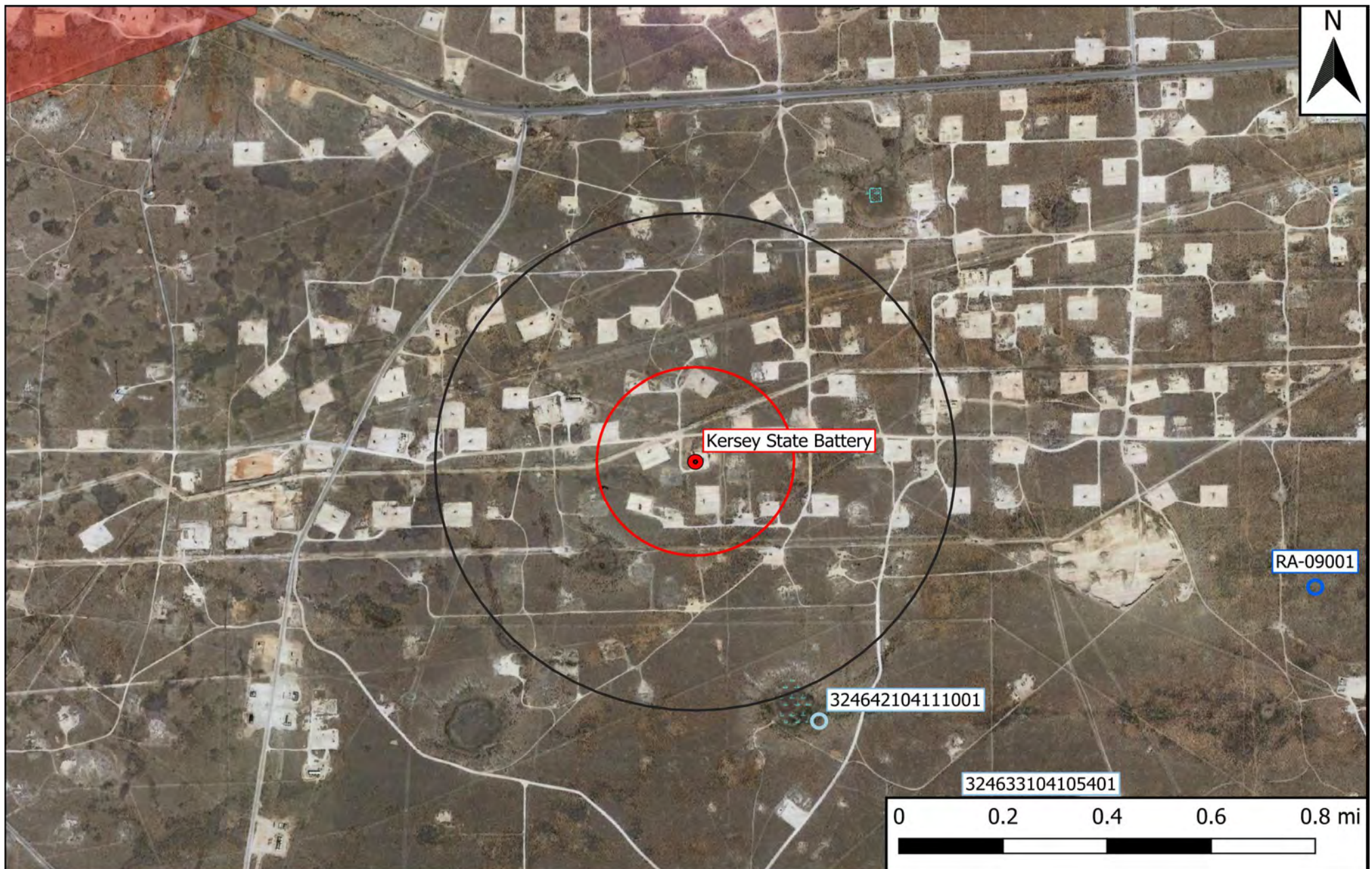
eTECH
 Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl

Date: 4/9/20

Figure 2
Aerial Proximity Map



Legend

- | | |
|------------------------|----------------------|
| 0.5 Mi Radius | Site Location |
| 1000 Ft Radius | Well - USGS |
| 1% Annual Flood Chance | Well - NMOSE |
| Surface Water | High Karst |
| Wetlands | Potash Mine Workings |

Figure 2
 Aerial Map
 Grizzly Energy, LLC
 Kersey State Battery Historical
 GPS: 32.78605, -104.19039
 Eddy County



Drafted: mag

Checked: jwl

Date: 4/9/20

Figure 3
Site and Sample Location Map



Legend:

- Sample Location
- ▭ Test Trench
- ▭ Affected Area
- ▭ Proposed Excavation Area

Figure 3
 Site and Sample Location Map
 Grizzly Energy, LLC
 Kersey State Battery Historical
 GPS: 32.78605, -104.19039
 Eddy County

Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

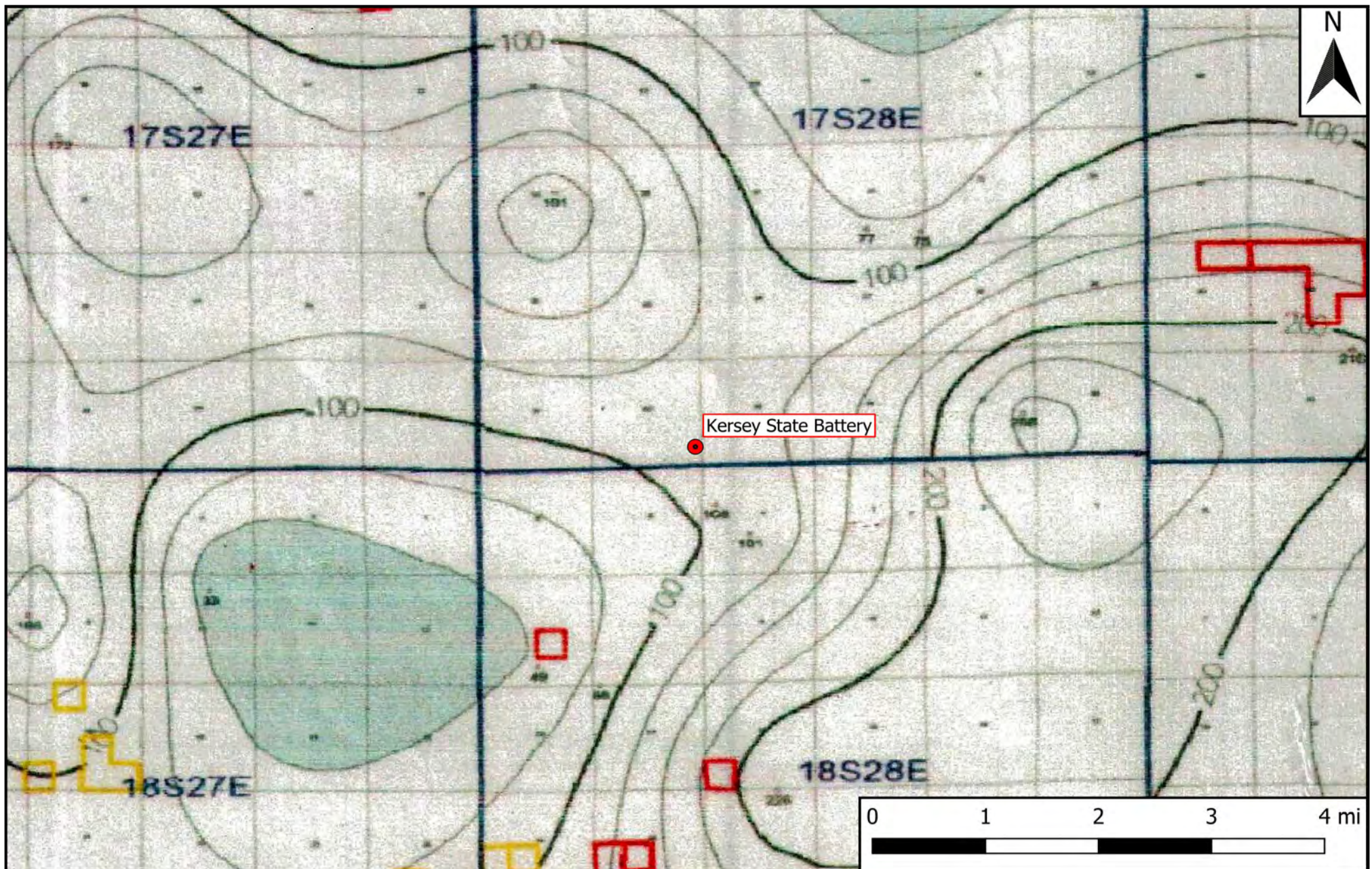
TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Grizzly Energy, LLC
Kersey State Battery Historical
NMOCD Ref. #: 2RP-2122

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				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)
V1 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	9,900
V1 @ 12"	5/14/2019	12"	In-Situ	-	-	-	-	-	-	-	6,600
V1 @ 18" R	5/14/2019	18"	In-Situ	ND	ND	ND	85.0	85.0	110	195	6,300
V2 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	19,000
V2 @ 12"	5/14/2019	12"	In-Situ	-	-	-	-	-	-	-	11,000
V2 @ 20" R	5/14/2019	20"	In-Situ	ND	ND	ND	210	210	210	420	11,000
V3 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	20.0	20.0	ND	20.0	6,700
V3 @ 12"	5/14/2019	12"	In-Situ	-	-	-	-	-	-	-	4,600
V3 @ 24" R	5/14/2019	24"	In-Situ	ND	ND	ND	190	190	250	440	4,200
V4 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND		30.0	65.0	95.0	10,000
V4 @ 12"	5/14/2019	12"	In-Situ	-	-	-	-	-	-	-	5,100
V4 @ 16" R	5/14/2019	16"	In-Situ	ND	ND	ND	70.0	70.0	120	190	6,300
NH @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH1 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH1 @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	62.0
EH2 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	200
EH2 @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	360
SH @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SH @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WH1 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,000
WH1 @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	550
WH2 @ Surf	5/14/2019	Surf.	In-Situ	ND	ND	ND	26.0	26.0	98.0	124	350
WH2 @ 6"	5/14/2019	6"	In-Situ	ND	ND	ND	12.0	12.0	76.0	88.0	350
V1 @ 2' - R	2/25/2020	2'	In-Situ	-	-	-	-	-	-	-	4,960
V1 @ 3'	3/20/2020	3'	In-Situ	-	-	-	-	-	-	-	576
V1 @ 4'	3/20/2020	4'	In-Situ	-	-	-	-	-	-	-	112

NOTES:

- = Sample not analyzed for that constituent.

Appendix A
Depth to Groundwater Information



Legend

● Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
 Grizzly Energy, LLC
 Kersey State Battery Historical
 GPS: 32.78605, -104.19039
 Eddy County



Drafted: mag

Checked: jwl

Date: 4/9/20



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 11857	POD1	1	1	2	05	18S	26E	577784	3625988

x

Driller License: 1064 **Driller Company:** DELFORD W. MARTIN

Driller Name: MARTIN, DELFORD

Drill Start Date: 09/25/2012 **Drill Finish Date:** 10/01/2012 **Plug Date:**

Log File Date: 10/15/2012 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 95 GPM

Casing Size: 5.00 **Depth Well:** 235 feet **Depth Water:** 95 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	95	130	Sandstone/Gravel/Conglomerate
	160	235	Sandstone/Gravel/Conglomerate

x

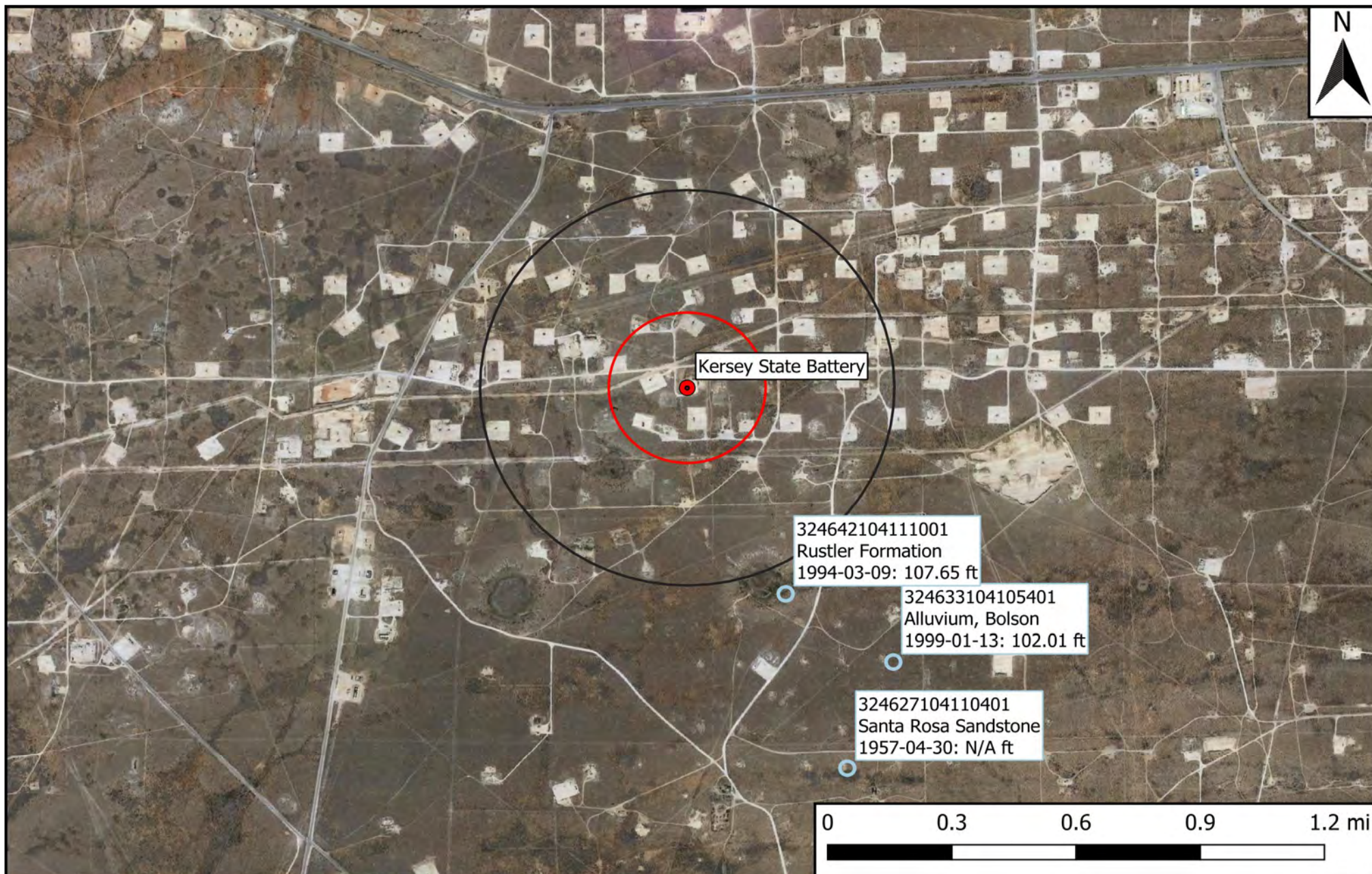
Casing Perforations:	Top	Bottom
	140	235

x

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.

2/12/20 10:10 AM

POINT OF DIVERSION SUMMARY



Legend

- Site Location
- Well - USGS
- 0.5 Mi Radius
- 1000 Ft Radius

Figure 5
USGS Well Proximity Map
Grizzly Energy, LLC
Kersey State Battery Historical
GPS: 32.78605, -104.19039
Eddy County

eTECH
Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl

Date: 4/9/20



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 324633104105401

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

USGS 324633104105401 18S.28E.04.32412

Available data for this site

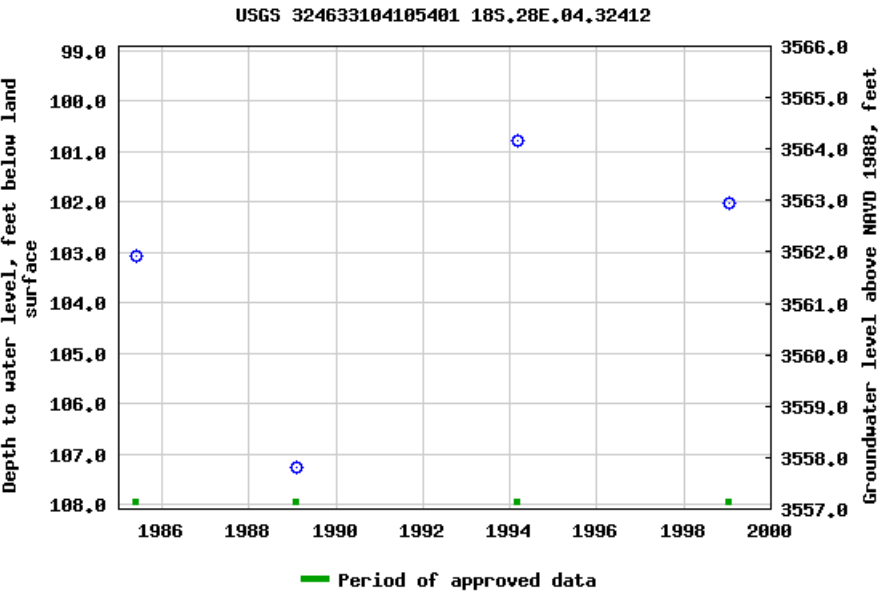
Groundwater: Field measurements

GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°46'33", Longitude 104°10'54" NAD27
Land-surface elevation 3,665 feet above NAVD88
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
[Download a presentation-quality graph](#)

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

Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
Page Last Modified: 2020-02-12 12:01:36 EST
0.61 0.46 nadww01



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

* We've detected you're using a mobile device. Find our [mobile dedicated web site here.](#)

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 324642104111001

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

USGS 324642104111001 18S.28E.04.131444

Available data for this site

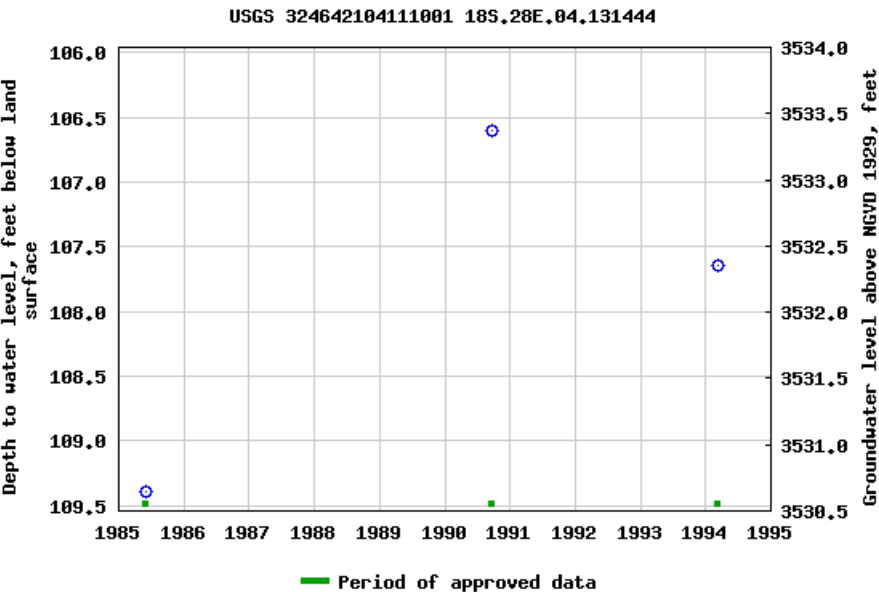
Groundwater: Field measurements

GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°46'42", Longitude 104°11'10" NAD27
Land-surface elevation 3,640 feet above NGVD29
The depth of the well is 145.00 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
[Download a presentation-quality graph](#)

[Questions about sites/data?](#)
[Feedback on this web site](#)
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[Help](#)
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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2020-02-12 12:01:37 EST

0.54 0.46 nadww01



Appendix B
Field Data and Soil Profile Logs

Site Name:

SAMPLE LOG

Date:

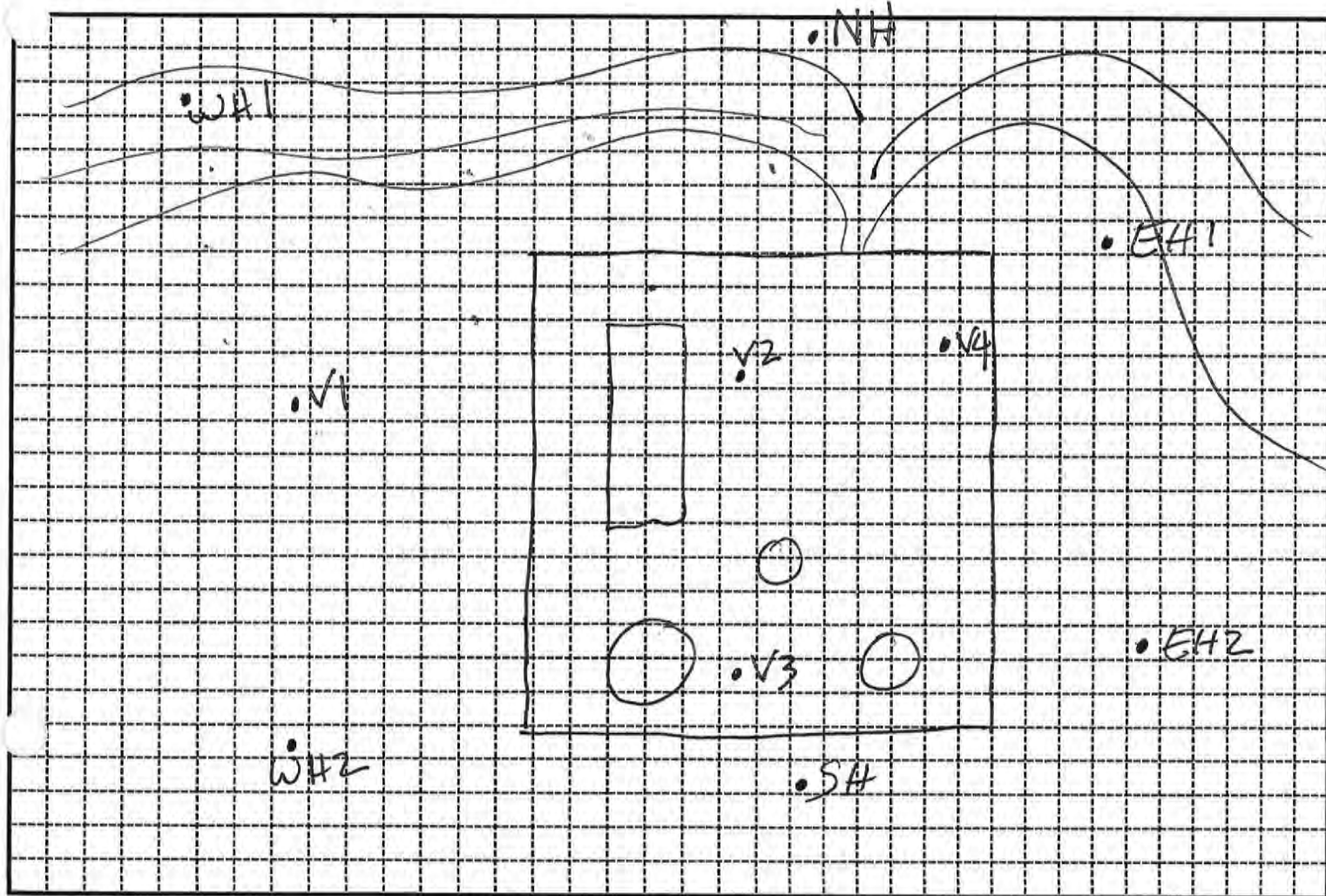
Второй этап
C⁺
Второй этап, C⁺

BTEA, TPLF, CI -

FIELD NOTES

Site Name: Kersey State

Date: 5-14-19



Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

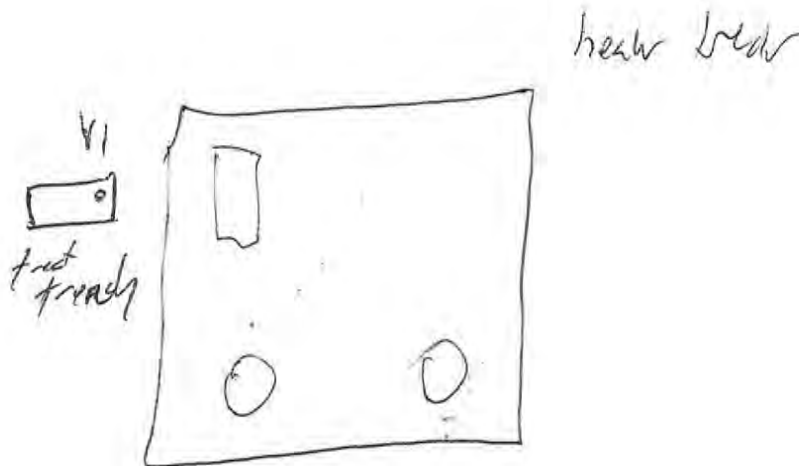
Field ID	Odor/PID	Chloride

Field ID	Odor/PID	Chloride

Initial Release Assessment Form

Project: Kersey State Battery Historical Clean Up Level: 600 mg/kg Cl⁻, 100 mg/kg TPH
 Date: 3-20-20
 Project Number: pending Latitude: 32.78605 Longitude: -104.19039

Site Diagram



Notes:

Advance trench at VI
 delineate
 collect sample & PID & field test for Cl⁻

~Length:

~Width:

~Area:

~Depth:

Yes No

3-4 Representative Pictures of the Affected Area including sample locations?

☐ ☐

Necessary Samples Field Screened and on Ice?

☐ ☐

Sample and Field Screen Data Entered on Sample Log?

☐ ☐

Was horizontal and vertical delineation achieved?

☐ ☐

Soil Profile

Date: 2/25/20

Project: Kersey State Battery Historical

Project Number: pending Latitude: 32.78605 Longitude: -104.19039

Depth (ft. bgs)

Description

1
2
3
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Surface
Caliche
Caliche hard rock layer

Appendix C

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*

May 28, 2019

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

RE: Kersey State Battery

OrderNo.: 1905961

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 24 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,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: V1 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 9:00:00 AM

Lab ID: 1905961-001

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/22/2019 10:00:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/22/2019 10:00:45 AM
Surr: DNOP	110	70-130		%Rec	1	5/22/2019 10:00:45 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 6:01:10 PM
Surr: BFB	88.3	73.8-119		%Rec	1	5/21/2019 6:01:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/21/2019 6:01:10 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 6:01:10 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 6:01:10 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/21/2019 6:01:10 PM
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	5/21/2019 6:01:10 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	9900	600		mg/Kg	200	5/23/2019 4:25:48 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: V1 @ 12"

Project: Kersey State Battery

Collection Date: 5/14/2019 9:05:00 AM

Lab ID: 1905961-002

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	6600	300		mg/Kg	100	5/24/2019 6:13:24 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**Date Reported: **5/28/2019****CLIENT:** Caprock Services, LLC**Client Sample ID:** V1 @ 18" R**Project:** Kersey State Battery**Collection Date:** 5/14/2019 9:10:00 AM**Lab ID:** 1905961-003**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 ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	85	9.6		mg/Kg	1	5/24/2019 8:27:53 PM
Motor Oil Range Organics (MRO)	110	48		mg/Kg	1	5/24/2019 8:27:53 PM
Surr: DNOP	140	70-130	S	%Rec	1	5/24/2019 8:27:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/21/2019 7:09:11 PM
Surr: BFB	85.5	73.8-119		%Rec	1	5/21/2019 7:09:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/21/2019 7:09:11 PM
Toluene	ND	0.048		mg/Kg	1	5/21/2019 7:09:11 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/21/2019 7:09:11 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/21/2019 7:09:11 PM
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	5/21/2019 7:09:11 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	6300	300		mg/Kg	100	5/24/2019 6:25:48 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: V2 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 9:15:00 AM

Lab ID: 1905961-004

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 ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 11:29:15 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 11:29:15 AM
Surr: DNOP	167	70-130	S	%Rec	1	5/22/2019 11:29:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/21/2019 8:16:53 PM
Surr: BFB	87.7	73.8-119		%Rec	1	5/21/2019 8:16:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 8:16:53 PM
Toluene	ND	0.050		mg/Kg	1	5/21/2019 8:16:53 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/21/2019 8:16:53 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/21/2019 8:16:53 PM
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	5/21/2019 8:16:53 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	19000	600		mg/Kg	200	5/24/2019 6:38:13 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: V2 @ 12"

Project: Kersey State Battery

Collection Date: 5/14/2019 9:20:00 AM

Lab ID: 1905961-005

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	11000	600		mg/Kg	200	5/24/2019 6:50:37 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: V2 @ 20" R

Project: Kersey State Battery

Collection Date: 5/14/2019 9:25:00 AM

Lab ID: 1905961-006

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)	210	9.6		mg/Kg	1	5/24/2019 5:11:51 PM
Motor Oil Range Organics (MRO)	210	48		mg/Kg	1	5/24/2019 5:11:51 PM
Surr: DNOP	107	70-130		%Rec	1	5/24/2019 5:11:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 8:39:30 PM
Surr: BFB	90.4	73.8-119		%Rec	1	5/21/2019 8:39:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 8:39:30 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 8:39:30 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 8:39:30 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/21/2019 8:39:30 PM
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	5/21/2019 8:39:30 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	11000	600		mg/Kg	200	5/24/2019 7:03:02 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: V3 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 9:30:00 AM

Lab ID: 1905961-007

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)	20	9.9		mg/Kg	1	5/24/2019 6:00:49 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/24/2019 6:00:49 PM
Surr: DNOP	113	70-130		%Rec	1	5/24/2019 6:00:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/21/2019 9:02:03 PM
Surr: BFB	89.9	73.8-119		%Rec	1	5/21/2019 9:02:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/21/2019 9:02:03 PM
Toluene	ND	0.048		mg/Kg	1	5/21/2019 9:02:03 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/21/2019 9:02:03 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/21/2019 9:02:03 PM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	5/21/2019 9:02:03 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	6700	300		mg/Kg	100	5/24/2019 7:15:26 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: V3 @ 12"

Project: Kersey State Battery

Collection Date: 5/14/2019 9:35:00 AM

Lab ID: 1905961-008

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	4600	150		mg/Kg	50	5/24/2019 7:27:50 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Project: Kersey State Battery

Lab ID: 1905961-009

Matrix: SOIL

Client Sample ID: V3 @ 24" R

Collection Date: 5/14/2019 9:40:00 AM

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)	190	9.7		mg/Kg	1	5/24/2019 6:49:38 PM
Motor Oil Range Organics (MRO)	250	48		mg/Kg	1	5/24/2019 6:49:38 PM
Surr: DNOP	115	70-130		%Rec	1	5/24/2019 6:49:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 9:24:36 PM
Surr: BFB	90.1	73.8-119		%Rec	1	5/21/2019 9:24:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/21/2019 9:24:36 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 9:24:36 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 9:24:36 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/21/2019 9:24:36 PM
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	5/21/2019 9:24:36 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	4200	150		mg/Kg	50	5/24/2019 8:05:04 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: V4 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 9:45:00 AM

Lab ID: 1905961-010

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)	30	9.9		mg/Kg	1	5/24/2019 11:43:59 PM
Motor Oil Range Organics (MRO)	65	49		mg/Kg	1	5/24/2019 11:43:59 PM
Surr: DNOP	83.8	70-130		%Rec	1	5/24/2019 11:43:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 9:47:08 PM
Surr: BFB	91.3	73.8-119		%Rec	1	5/21/2019 9:47:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 9:47:08 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 9:47:08 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 9:47:08 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/21/2019 9:47:08 PM
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	5/21/2019 9:47:08 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	10000	600		mg/Kg	200	5/24/2019 8:17:29 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: V4 @ 12"

Project: Kersey State Battery

Collection Date: 5/14/2019 9:50:00 AM

Lab ID: 1905961-011

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	5100	300		mg/Kg	100	5/24/2019 8:29:53 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: V4 @16" R

Project: Kersey State Battery

Collection Date: 5/14/2019 9:55:00 AM

Lab ID: 1905961-012

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)	70	9.8		mg/Kg	1	5/25/2019 12:33:01 AM
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	5/25/2019 12:33:01 AM
Surr: DNOP	143	70-130	S	%Rec	1	5/25/2019 12:33:01 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/21/2019 10:09:42 PM
Surr: BFB	90.6	73.8-119		%Rec	1	5/21/2019 10:09:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 10:09:42 PM
Toluene	ND	0.050		mg/Kg	1	5/21/2019 10:09:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/21/2019 10:09:42 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/21/2019 10:09:42 PM
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	1	5/21/2019 10:09:42 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	6300	300		mg/Kg	100	5/24/2019 8:42:18 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: NH @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 10:00:00 AM

Lab ID: 1905961-013

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: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/22/2019 2:04:00 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 2:04:00 PM
Surr: DNOP	106	70-130		%Rec	1	5/22/2019 2:04:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/21/2019 10:32:16 PM
Surr: BFB	90.3	73.8-119		%Rec	1	5/21/2019 10:32:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 10:32:16 PM
Toluene	ND	0.050		mg/Kg	1	5/21/2019 10:32:16 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/21/2019 10:32:16 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/21/2019 10:32:16 PM
Surr: 4-Bromofluorobenzene	97.7	80-120		%Rec	1	5/21/2019 10:32:16 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	59		mg/Kg	20	5/23/2019 12:18:01 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: NH @ 6"

Project: Kersey State Battery

Collection Date: 5/14/2019 10:05:00 AM

Lab ID: 1905961-014

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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/23/2019 8:52:10 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/23/2019 8:52:10 PM
Surr: DNOP	86.7	70-130		%Rec	1	5/23/2019 8:52:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/21/2019 10:54:49 PM
Surr: BFB	89.4	73.8-119		%Rec	1	5/21/2019 10:54:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/21/2019 10:54:49 PM
Toluene	ND	0.049		mg/Kg	1	5/21/2019 10:54:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/21/2019 10:54:49 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/21/2019 10:54:49 PM
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	5/21/2019 10:54:49 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	5/23/2019 12:30:25 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: EH 1 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 10:10:00 AM

Lab ID: 1905961-015

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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/22/2019 2:48:08 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 2:48:08 PM
Surr: DNOP	90.8	70-130		%Rec	1	5/22/2019 2:48:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 12:02:34 AM
Surr: BFB	92.0	73.8-119		%Rec	1	5/22/2019 12:02:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/22/2019 12:02:34 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 12:02:34 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 12:02:34 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/22/2019 12:02:34 AM
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	5/22/2019 12:02:34 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	5/23/2019 12:42:50 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: EH 1 @ 6"

Project: Kersey State Battery

Collection Date: 5/14/2019 10:15:00 AM

Lab ID: 1905961-016

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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/22/2019 3:10:15 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 3:10:15 PM
Surr: DNOP	100	70-130		%Rec	1	5/22/2019 3:10:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 12:25:16 AM
Surr: BFB	90.6	73.8-119		%Rec	1	5/22/2019 12:25:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/22/2019 12:25:16 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 12:25:16 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 12:25:16 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/22/2019 12:25:16 AM
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	5/22/2019 12:25:16 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	62	60		mg/Kg	20	5/23/2019 12:55:15 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**Date Reported: **5/28/2019****CLIENT:** Caprock Services, LLC**Client Sample ID:** EH 2 @ Surf**Project:** Kersey State Battery**Collection Date:** 5/14/2019 10:20:00 AM**Lab ID:** 1905961-017**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: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/23/2019 9:14:17 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/23/2019 9:14:17 PM
Surr: DNOP	70.0	70-130		%Rec	1	5/23/2019 9:14:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 12:48:01 AM
Surr: BFB	90.4	73.8-119		%Rec	1	5/22/2019 12:48:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 12:48:01 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 12:48:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 12:48:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 12:48:01 AM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	5/22/2019 12:48:01 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	200	60		mg/Kg	20	5/23/2019 1:07:40 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**Date Reported: **5/28/2019****CLIENT:** Caprock Services, LLC**Client Sample ID:** EH 2 @ 6"**Project:** Kersey State Battery**Collection Date:** 5/14/2019 10:25:00 AM**Lab ID:** 1905961-018**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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/23/2019 9:36:33 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/23/2019 9:36:33 PM
Surr: DNOP	101	70-130		%Rec	1	5/23/2019 9:36:33 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 1:10:50 AM
Surr: BFB	87.9	73.8-119		%Rec	1	5/22/2019 1:10:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 1:10:50 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 1:10:50 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 1:10:50 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 1:10:50 AM
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	5/22/2019 1:10:50 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	360	60		mg/Kg	20	5/23/2019 1:20:04 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: SH @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 10:30:00 AM

Lab ID: 1905961-019

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: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/22/2019 4:16:32 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/22/2019 4:16:32 PM
Surr: DNOP	103	70-130		%Rec	1	5/22/2019 4:16:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 1:33:40 AM
Surr: BFB	88.4	73.8-119		%Rec	1	5/22/2019 1:33:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 1:33:40 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 1:33:40 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 1:33:40 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 1:33:40 AM
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	5/22/2019 1:33:40 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	5/23/2019 1:32:28 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: SH @ 6"

Project: Kersey State Battery

Collection Date: 5/14/2019 10:35:00 AM

Lab ID: 1905961-020

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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/23/2019 9:58:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/23/2019 9:58:54 PM
Surr: DNOP	77.6	70-130		%Rec	1	5/23/2019 9:58:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 1:56:28 AM
Surr: BFB	90.1	73.8-119		%Rec	1	5/22/2019 1:56:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	5/22/2019 1:56:28 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 1:56:28 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 1:56:28 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/22/2019 1:56:28 AM
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	5/22/2019 1:56:28 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	60		mg/Kg	20	5/23/2019 2:34:31 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: WH 1 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 10:40:00 AM

Lab ID: 1905961-021

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: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/22/2019 5:00:41 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 5:00:41 PM
Surr: DNOP	151	70-130	S	%Rec	1	5/22/2019 5:00:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 2:19:16 AM
Surr: BFB	89.1	73.8-119		%Rec	1	5/22/2019 2:19:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 2:19:16 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 2:19:16 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 2:19:16 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/22/2019 2:19:16 AM
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	5/22/2019 2:19:16 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	2000	60		mg/Kg	20	5/23/2019 2:46:55 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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: WH 1 @ 6"

Project: Kersey State Battery

Collection Date: 5/14/2019 10:45:00 AM

Lab ID: 1905961-022

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: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/22/2019 5:23:02 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/22/2019 5:23:02 PM
Surr: DNOP	95.9	70-130		%Rec	1	5/22/2019 5:23:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 2:42:05 AM
Surr: BFB	87.3	73.8-119		%Rec	1	5/22/2019 2:42:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 2:42:05 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 2:42:05 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 2:42:05 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 2:42:05 AM
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	5/22/2019 2:42:05 AM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	550	60		mg/Kg	20	5/23/2019 3:48:34 PM

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

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: **5/28/2019**

CLIENT: Caprock Services, LLC

Client Sample ID: WH 2 @ Surf

Project: Kersey State Battery

Collection Date: 5/14/2019 10:50:00 AM

Lab ID: 1905961-023

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)	26	9.9		mg/Kg	1	5/24/2019 7:38:39 PM
Motor Oil Range Organics (MRO)	98	50		mg/Kg	1	5/24/2019 7:38:39 PM
Surr: DNOP	119	70-130		%Rec	1	5/24/2019 7:38:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/22/2019 3:04:51 AM
Surr: BFB	87.1	73.8-119		%Rec	1	5/22/2019 3:04:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 3:04:51 AM
Toluene	ND	0.050		mg/Kg	1	5/22/2019 3:04:51 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/22/2019 3:04:51 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 3:04:51 AM
Surr: 4-Bromofluorobenzene	92.5	80-120		%Rec	1	5/22/2019 3:04:51 AM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	350	61		mg/Kg	20	5/23/2019 11:40:19 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 Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1905961**

Date Reported: 5/28/2019

CLIENT: Caprock Services, LLC

Client Sample ID: WH 2 @ 6"

Project: Kersey State Battery

Collection Date: 5/14/2019 10:55:00 AM

Lab ID: 1905961-024

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)	12	9.7		mg/Kg	1	5/24/2019 9:16:54 PM
Motor Oil Range Organics (MRO)	76	49		mg/Kg	1	5/24/2019 9:16:54 PM
Surr: DNOP	122	70-130		%Rec	1	5/24/2019 9:16:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/22/2019 3:27:37 AM
Surr: BFB	88.9	73.8-119		%Rec	1	5/22/2019 3:27:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	5/22/2019 3:27:37 AM
Toluene	ND	0.049		mg/Kg	1	5/22/2019 3:27:37 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/22/2019 3:27:37 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/22/2019 3:27:37 AM
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	5/22/2019 3:27:37 AM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	340	60		mg/Kg	20	5/23/2019 11:52:44 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 Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905961

28-May-19

Client: Caprock Services, LLC

Project: Kersey State Battery

Sample ID: MB-45118	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 45118	RunNo: 60098								
Prep Date: 5/22/2019	Analysis Date: 5/22/2019	SeqNo: 2029813 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-45118	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 45118	RunNo: 60098								
Prep Date: 5/22/2019	Analysis Date: 5/22/2019	SeqNo: 2029814 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.1	90	110			

Sample ID: MB-45141	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 45141	RunNo: 60132								
Prep Date: 5/23/2019	Analysis Date: 5/23/2019	SeqNo: 2031535 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-45141	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 45141	RunNo: 60132								
Prep Date: 5/23/2019	Analysis Date: 5/23/2019	SeqNo: 2031536 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: MB-45137	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 45137	RunNo: 60144								
Prep Date: 5/22/2019	Analysis Date: 5/23/2019	SeqNo: 2031633 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-45137	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 45137	RunNo: 60144								
Prep Date: 5/22/2019	Analysis Date: 5/23/2019	SeqNo: 2031634 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.8	90	110			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905961

28-May-19

Client: Caprock Services, LLC

Project: Kersey State Battery

Sample ID: 1905961-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: V1 @ Surf	Batch ID: 45080	RunNo: 60056
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028020 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	75	9.8 49.16 5.576 141 53.5 126 S
Surr: DNOP	7.0	4.916 142 70 130 S

Sample ID: 1905961-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: V1 @ Surf	Batch ID: 45080	RunNo: 60056
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028021 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	80	9.8 48.83 5.576 152 53.5 126 6.43 21.7 S
Surr: DNOP	8.4	4.883 172 70 130 0 0 S

Sample ID: LCS-45080	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 45080	RunNo: 60056
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028022 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	67	10 50.00 0 134 63.9 124 S
Surr: DNOP	6.0	5.000 120 70 130

Sample ID: MB-45080	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 45080	RunNo: 60056
Prep Date: 5/21/2019	Analysis Date: 5/22/2019	SeqNo: 2028023 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	10	10.00 103 70 130

Sample ID: MB-45162	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 45162	RunNo: 60130
Prep Date: 5/23/2019	Analysis Date: 5/24/2019	SeqNo: 2031736 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	10	10.00 101 70 130

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905961

28-May-19

Client: Caprock Services, LLC

Project: Kersey State Battery

Sample ID: LCS-45162	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 45162	RunNo: 60130
Prep Date: 5/23/2019	Analysis Date: 5/24/2019	SeqNo: 2031737 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	47	10 50.00 0 93.0 63.9 124
Surr: DNOP	4.6	5.000 91.8 70 130

Sample ID: 1905961-024AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: WH 2 @ 6"	Batch ID: 45162	RunNo: 60130
Prep Date: 5/23/2019	Analysis Date: 5/24/2019	SeqNo: 2032822 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	53	9.9 49.65 12.21 82.9 53.5 126
Surr: DNOP	4.6	4.965 92.5 70 130

Sample ID: 1905961-024AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: WH 2 @ 6"	Batch ID: 45162	RunNo: 60130
Prep Date: 5/23/2019	Analysis Date: 5/24/2019	SeqNo: 2032823 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	53	9.8 49.21 12.21 83.0 53.5 126 0.548 21.7
Surr: DNOP	4.6	4.921 93.2 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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905961

28-May-19

Client: Caprock Services, LLC

Project: Kersey State Battery

Sample ID: MB-45028	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 45028	RunNo: 60047								
Prep Date: 5/20/2019	Analysis Date: 5/21/2019	SeqNo: 2027163			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	860		1000		85.8	73.8	119			

Sample ID: LCS-45028	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 45028	RunNo: 60047								
Prep Date: 5/20/2019	Analysis Date: 5/21/2019	SeqNo: 2027164			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.1	80.1	123			
Surr: BFB	1000		1000		99.6	73.8	119			

Sample ID: 1905961-001AMS	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: V1 @ Surf	Batch ID: 45028	RunNo: 60047								
Prep Date: 5/20/2019	Analysis Date: 5/21/2019	SeqNo: 2027166			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.61	0	98.1	69.1	142			
Surr: BFB	1000		984.3		103	73.8	119			

Sample ID: 1905961-001AMSD	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: V1 @ Surf	Batch ID: 45028	RunNo: 60047								
Prep Date: 5/20/2019	Analysis Date: 5/21/2019	SeqNo: 2027167			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.51	0	98.2	69.1	142	0.230	20	
Surr: BFB	1000		980.4		102	73.8	119	0	0	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1905961

28-May-19

Client: Caprock Services, LLC

Project: Kersey State Battery

Sample ID: MB-45028		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS		Batch ID: 45028		RunNo: 60047						
Prep Date: 5/20/2019		Analysis Date: 5/21/2019		SeqNo: 2027190		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.1	80	120			

Sample ID: LCS-45028		SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS		Batch ID: 45028			RunNo: 60047					
Prep Date: 5/20/2019		Analysis Date: 5/21/2019			SeqNo: 2027191		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: 1905961-003AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: V1 @ 18" R	Batch ID: 45028		RunNo: 60047							
Prep Date: 5/20/2019	Analysis Date: 5/21/2019		SeqNo: 2027194		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9699	0	113	63.9	127			
Toluene	1.1	0.048	0.9699	0.003957	117	69.9	131			
Ethylbenzene	1.1	0.048	0.9699	0.006353	116	71	132			
Xylenes, Total	3.3	0.097	2.910	0	115	71.8	131			
Surr: 4-Bromofluorobenzene	1.1		0.9699		109	80	120			

Sample ID: 1905961-003AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID: V1 @ 18" R		Batch ID: 45028		RunNo: 60047						
Prep Date: 5/20/2019		Analysis Date: 5/21/2019		SeqNo: 2027195		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9718	0	88.4	63.9	127	24.3	20	R
Toluene	1.1	0.049	0.9718	0.003957	111	69.9	131	4.53	20	
Ethylbenzene	1.1	0.049	0.9718	0.006353	110	71	132	5.24	20	
Xylenes, Total	3.2	0.097	2.915	0	108	71.8	131	5.65	20	
Surr: 4-Bromofluorobenzene	1.0		0.9718		108	80	120	0	0	

Qualifiers:

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

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

Sample Log-In Check List

Client Name: **CAPROCK SERVICES, L**

Work Order Number: **1905961**

RcptNo: **1**

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

Completed By: **Erin Melendrez** **5/18/2019 2:00:08 PM**

Reviewed By: **ENN**

LB: DAD 5/20/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐

4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐

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

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

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

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

9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: **DAD 5/20/19**

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

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

Chain-of-Custody Record

Client: Caprock Services, LLC

Turn-Around Time: 5 days

☒ Standard ☐ Rush

☒ Standard ☐ Rush _____

Kersey State Battery

Project #:

Project Manager:

18

ت

Sampler: Jordyne Taylor

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CF)	Container Type and #	Preservative Type	HEAL No.
16°C	402 gbs	Ice	1905961
			-001
			-002
			-003
			-004
			-005
			-006
			-007
			-008
			-009
			-010
			-011
			-012

Received by: <i>SPZ</i>	Via: <i>SPZ</i>	Date: <i>5/17/19</i>	Time: <i>0700</i>
Received by: <i>Life</i>	Via: <i>Courier</i>	Date: <i>5/18/19</i>	Time: <i>1010</i>

Remarks: email results to:
joel@lowryenvironmental.com

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

March 24, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: KERSEY STATE HISTORICAL

Enclosed are the results of analyses for samples received by the laboratory on 03/23/20 15:36.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Etech Environmental & Safety Solutions
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/24/2020	Sampling Type:	Soil
Project Name:	KERSEY STATE HISTORICAL	Sampling Condition:	Cool & Intact
Project Number:	11986	Sample Received By:	Kelly Jacobson
Project Location:	RURAL EDDY - GRIZZLY ENERGY		

Sample ID: V1 @ 3' (H000887-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	03/24/2020	ND	432	108	400	0.00	

Sample ID: V1 @ 4' (H000887-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/24/2020	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 28, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: KERSEY STATE HISTORICAL

Enclosed are the results of analyses for samples received by the laboratory on 02/26/20 8:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Etech Environmental & Safety Solutions
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/26/2020	Sampling Date:	02/25/2020
Reported:	02/28/2020	Sampling Type:	Soil
Project Name:	KERSEY STATE HISTORICAL	Sampling Condition:	Cool & Intact
Project Number:	11986	Sample Received By:	Tamara Oldaker
Project Location:	RURAL EDDY - GRIZZLY ENERGY		

Sample ID: V1 @ 2' - R (H000614-01)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	02/28/2020	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager

Appendix D

Photographic Log

Photographic Log

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