

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources 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	
District RP	1RP-5166
Facility ID	
Application ID	

APPROVED

Release Notification

Responsible Party

Responsible Party COG Operating LLC	OGRID 229137
Contact Name Robert McNeill	Contact Telephone 432-683-7443
Contact email rmcneill@concho.com	Incident # (assigned by OCD)
Contact mailing address 600 West Illinois Avenue, Midland, TX 79701	

Location of Release Source

Latitude 32.50708 Longitude -103.59671
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Becknell State Com #003H Battery	Site Type Battery
Date Release Discovered 8/15/2018	API# (if applicable) 30-025-41299

Unit Letter	Section	Township	Range	County
K	05	21S	33E	Lea

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

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0.5
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 270	Volume Recovered (bbls) 240
	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"/> 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 (provide units)	Volume/Weight Recovered (provide units)

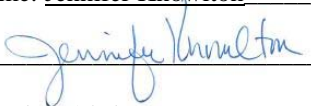
Cause of Release
Ruptured flowline

Incident ID	
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Facility ID	
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? 19.15.29.7(1): Major Release is any release of a volume of 25 barrels or more
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Oliva Yu- NMOCD, Christina Hernandez – NMOCD, Ryann Mann - SLO	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: <u>Jennifer Knowlton</u>	Title: <u>HRL Compliance Solutions, Regional Manager</u>
Signature: <u></u>	Date: _____
email: <u>jknowlton@hrlcomp.com</u>	Telephone: <u>505-238-3588</u>
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	
District RP	1RP-5166
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?	100 (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

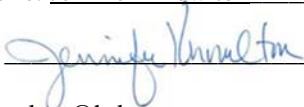
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

<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 type="checkbox"/> Boring or excavation logs<input 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.

Incident ID	
District RP	1RP-5166
Facility ID	
Application ID	

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Printed Name: Jennifer KnowltonTitle: HRL Compliance Solutions, Regional ManagerSignature: 

Date: _____

email: jknowlton@hrlcomp.comTelephone: 505-238-3588**OCD Only**

Received by: _____

Date: _____

Incident ID	
District RP	1RP-5166
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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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	
District RP	1RP-5166
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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.

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature:  Date: 10/29/18

email: itavare@concho.com Telephone: 432-683-7443

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



1RP-5166

SUBJECT: CLOSURE PLAN FOR THE INCIDENT AT THE Becknell State Com #003H Battery, LEA COUNTY, NEW MEXICO

On behalf of COG Operating, LLC, HRL Compliance Solutions, Inc (HRL) has prepared this closure plan that describes the assessment, characterization, and closure for a release associated with the Becknell State Com #003H Battery. The site is in Unit K, SECTION 5, TOWNSHIP 21S, RANGE 33E, NMPM, Eddy County, New Mexico, on State land.

Site Assessment/Characterization

An assessment of surrounding water well information identifies 1 water well within a 3-mile buffer. Depth to water at this site is estimated to be over 100 feet at the location. This information is illustrated in Attachment A.

There are no features of concern identified within proximity of the site. There is no flowing watercourse or significant watercourse within 300 feet of this location. There is no lakebed, sinkhole, or playa lake within 200 feet for this location. This location is not within 300 feet of an occupied permanent residence, school, hospital, institution, or church. This location is not within 500 feet of a spring or domestic freshwater well. This facility is not within incorporated municipal boundaries or within a defined municipal freshwater well field. This is illustrated in Attachment B.

An assessment of wetlands and springs was performed using USGS National Water Information System and re-verified utilizing a 7.5-minute topographical map. There are no wetlands within 300 feet of this location. There are no springs within 1000 feet of this location. This map is in Attachment B.

This facility is not within a 100-year floodplain as per FEMA. It is in a Flood Zone D. A portion of the FEMA map is in Attachment B.

This location is not located in an area identified in an unstable karst geology area. An area map generated with data from the USGS showing geologic units and structural features is in Attachment B.

Upon receiving clearance from the underground utility locate (811) on August 27, 2018, HRL field personnel assessed the impacted area. Samples were collected on 8/27/2018 to characterize the extent of impacts and calculate a volume of soil to be excavated for disposal with a backhoe. All samples were collected and analyzed at a National Environmental Laboratory Accreditation Program (NELAP) laboratory and in accordance with NMOC soil sampling procedures. The samples were submitted to Hall Laboratories for analyses including chlorides by Method 300.0, volatile organics (BTEX) by Method 8021B, and MRO, DRO, and GRO by EPA Method 8015B. Sample locations are depicted in Attachment C. All laboratory results are summarized in Table 1 with raw analytical reports included in Attachment D.



Table 1: Analytical Results Summary

Becknell State Com 003H Battery								
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	TPH mg/Kg
S1- Surface	8/27/2018	9,500	ND	ND	ND	30	56	86
S1-1'	8/27/2018	6,100	ND	ND	ND	ND	ND	ND
S1-2'	8/27/2018	7,500	-	-	-	-	-	-
S1-3'	8/27/2018	6,000	-	-	-	-	-	-
S1-4'	8/27/2018	4,900	-	-	-	-	-	-
S1-6'	8/27/2018	5,400	-	-	-	-	-	-
S1-6.5'	8/27/2018	2,500	-	-	-	-	-	-
S2 Surface	8/27/2018	9,900	ND	ND	ND	280	290	570
S2-1'	8/27/2018	4,500	ND	ND	ND	ND	ND	ND
S2-2'	8/27/2018	3,600	-	-	-	-	-	-
S2-3'	8/27/2018	4,000	-	-	-	-	-	-
S2-4'	8/27/2018	2,500	-	-	-	-	-	-
S2-6'	8/27/2018	4,500	-	-	-	-	-	-
S3 Surface	8/27/2018	7,900	ND	ND	ND	10	ND	10
S3-1'	8/27/2018	8,800	ND	ND	ND	ND	ND	ND
S3-2'	8/27/2018	9,700	-	-	-	-	-	-
S3-3'	8/27/2018	7,200	-	-	-	-	-	-
S3-4'								
S3-6'								
S4 Surface	8/27/2018	3,400	ND	ND	ND	ND	ND	ND
S4-1'	8/27/2018	8,700	ND	ND	ND	ND	ND	ND
S4-2'	8/27/2018	7,800	-	-	-	-	-	-
S4-3'								
S4-4'								
S4-6'								



Becknell State Com 003H Battery								
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	TPH mg/Kg
S5 Surface	8/27/2018	8,900	ND	ND	ND	ND	ND	ND
S5-1'	8/27/2018	620	ND	ND	ND	ND	ND	ND
S5-2'	8/27/2018	2,700	-	-	-	-	-	-
S5-3'	8/27/2018	980	-	-	-	-	-	-
S5-4'	8/27/2018	100	-	-	-	-	-	-
S5-5'	8/27/2018	1,800						
S6 Surface	8/27/2018	2,700	ND	ND	ND	ND	ND	ND
S6-1'	8/27/2018	4,000	ND	ND	ND	ND	ND	ND
S6-2'	8/27/2018	120	-	-	-	-	-	-

Closure Criteria Assessment

Closure Criteria		
Depth to Ground Water	Constituent	Limit
>100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remediation Plan

All samples logged are below the Table 1 closure criteria and thus no remediation will occur.

Restoration, Reclamation, and Re-Vegetation

The incident affected small areas outside of the active pad. Concho will reclamation and revegetate this area per NMED 19.15.29.13. Concho will remove at least 4 feet of contaminated material around Sample Points 3, 4 and 6. This will result in approximately 175 cubic yards of material being removed. The area will be backfilled with non-waste containing material and reseeded per State Land Office guidelines when appropriate.



If there are any questions regarding this report, please contact Jennifer Knowlton at 505-238-3588.

Submitted by:
HRL Compliance Solutions, Inc

A handwritten signature in blue ink that reads "Jennifer Knowlton". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Jennifer Knowlton
Regional Manager - Permian

Attachments:

Attachment A: NMOSE Depth to Water Map and Report

Attachment B: Site Location Map

Wetlands Map

Floodplain Map

Karst Area Map

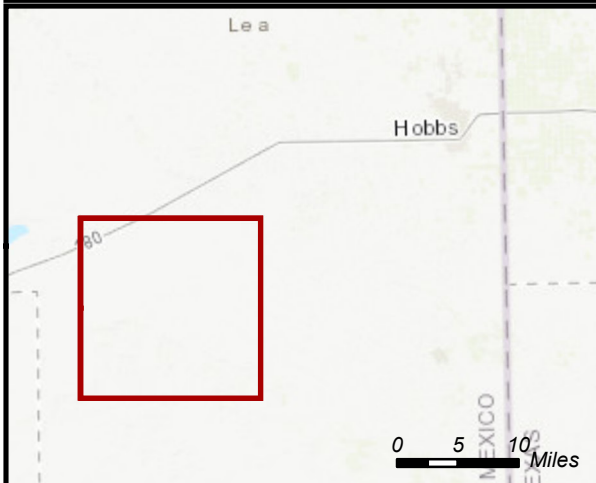
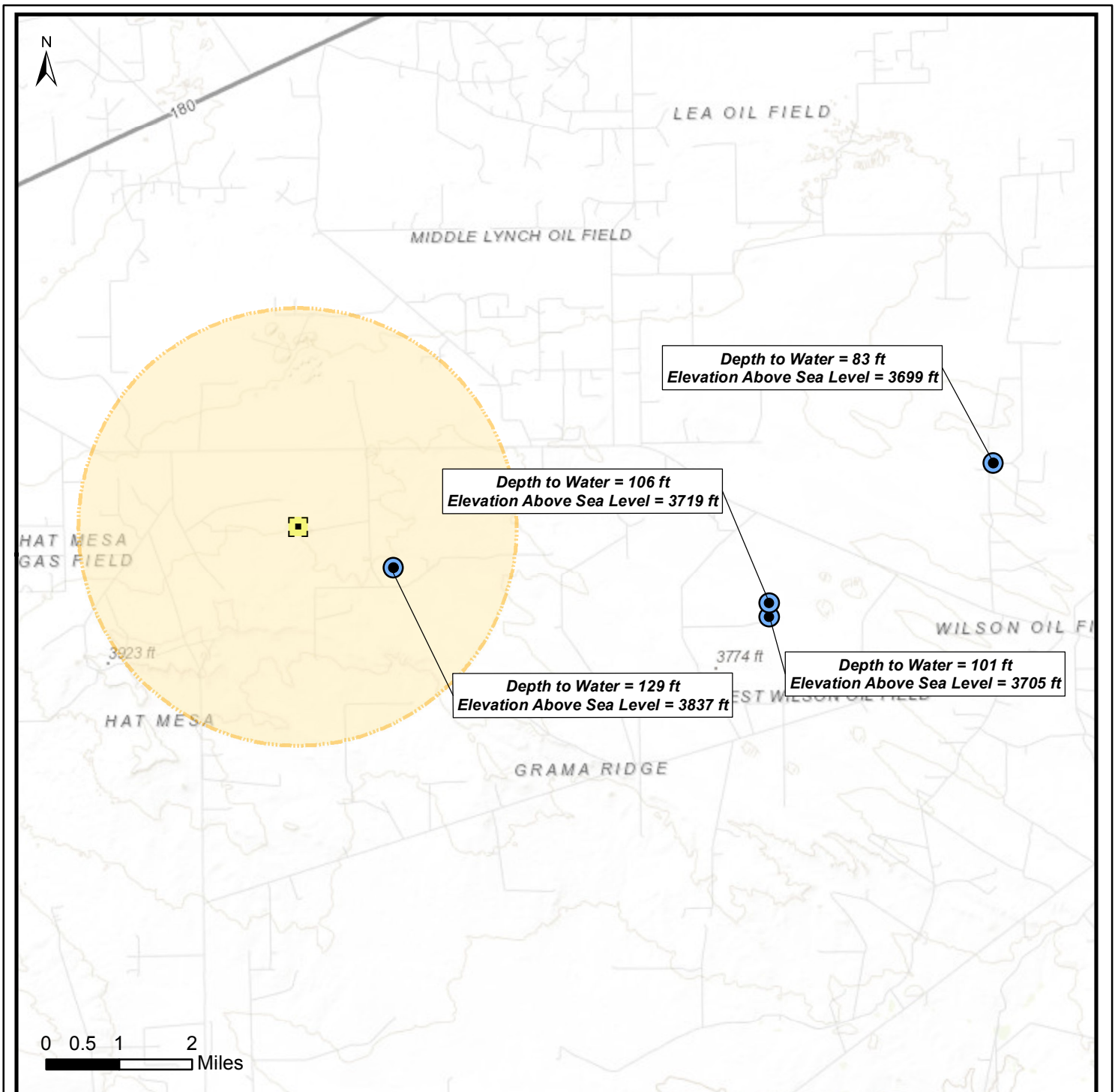
Attachment C: Sample Location Map

Attachment D: Laboratory Analytical Reports



Attachment A:

NMOSE Depth to Water Map and Report



Site Location Map

Becknell State COM #003H Battery

32.507080 -103.596718

Section 05, Township 21 South, Range 33 East

Legend

- Water Well
- 3 Mile Buffer
- Becknell State COM #003 Battery

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HCSL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



HRL
COMPLIANCE
SOLUTIONS

Author: K. Fox
Revision: 0
Date: 9/26/2018

USGS				Depth to	Elevation
				Water	
322916103291101	32.48778	-103.486		101	3705
322925103290502	32.49056	-103.486		106	3719
322955103342801	32.49861	-103.574		129	3837
323104103260001	32.51778	-103.433		83	3699



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00793 POD1	CP	LE		1	1	2	01	21S	32E	628932	3598270*	2984	1000		
CP 00794 POD1	CP	LE		4	1	1	18	21S	33E	629976	3594865*	3224	160		
CP 00795 POD1	CP	LE		4	1	1	18	21S	33E	629976	3594865*	3224	170		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 631818.43

Northing (Y): 3597511.55

Radius: 4828

*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.



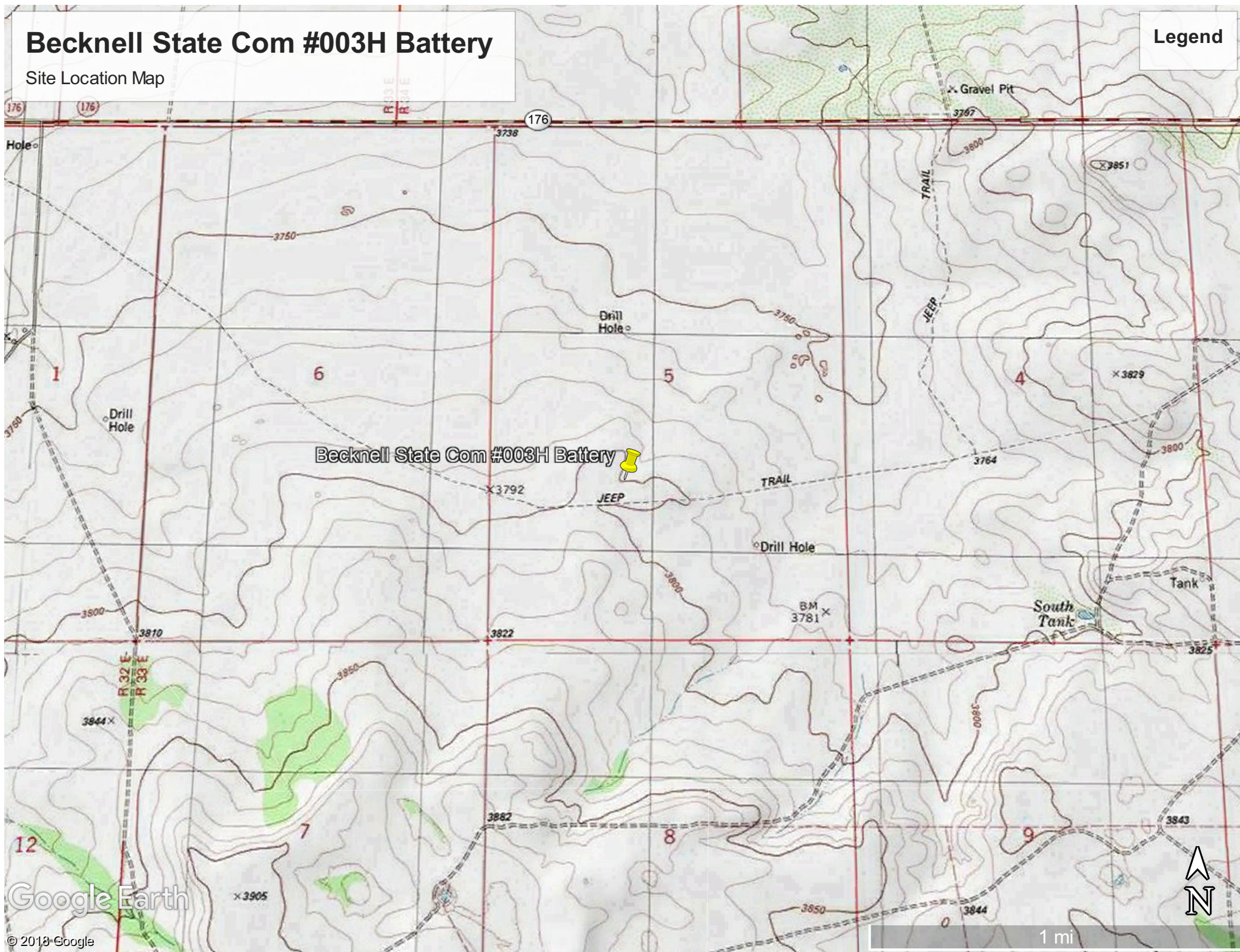
Attachment B:

**Site Location Map
Wetlands Map
Floodplain Map
Karst Area Map**

Becknell State Com #003H Battery

Site Location Map

Legend





U.S. Fish and Wildlife Service

National Wetlands Inventory



Becknell State Com #003H Battery



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

September 25, 2018

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Becknell State Com #003H Battery

REFERENCE LAYERS

- NFHL Data Available
- FIRM Panel Boundary
- LOMR Boundary

SPECIAL FLOOD HAZARD AREAS

- 1% Annual Chance Flood Hazard
Zone A, AE, A99, AO, AH, AR, V, VE
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard
Zone X
- Future Conditions 1% Annual
Chance Flood Hazard Zone X
- Area with Reduced Flood Risk
due to Levee Zone X
- NO SCREEN Areas Outside the 0.2% Annual
Chance Floodplain Zone X
- Areas of Undetermined Flood
Hazard Zone D

CROSS SECTIONS & BFES

- 18.2 Cross Sections with 1% Annual
Chance Water Surface Elevation
- 17.5
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Base Flood Elevation

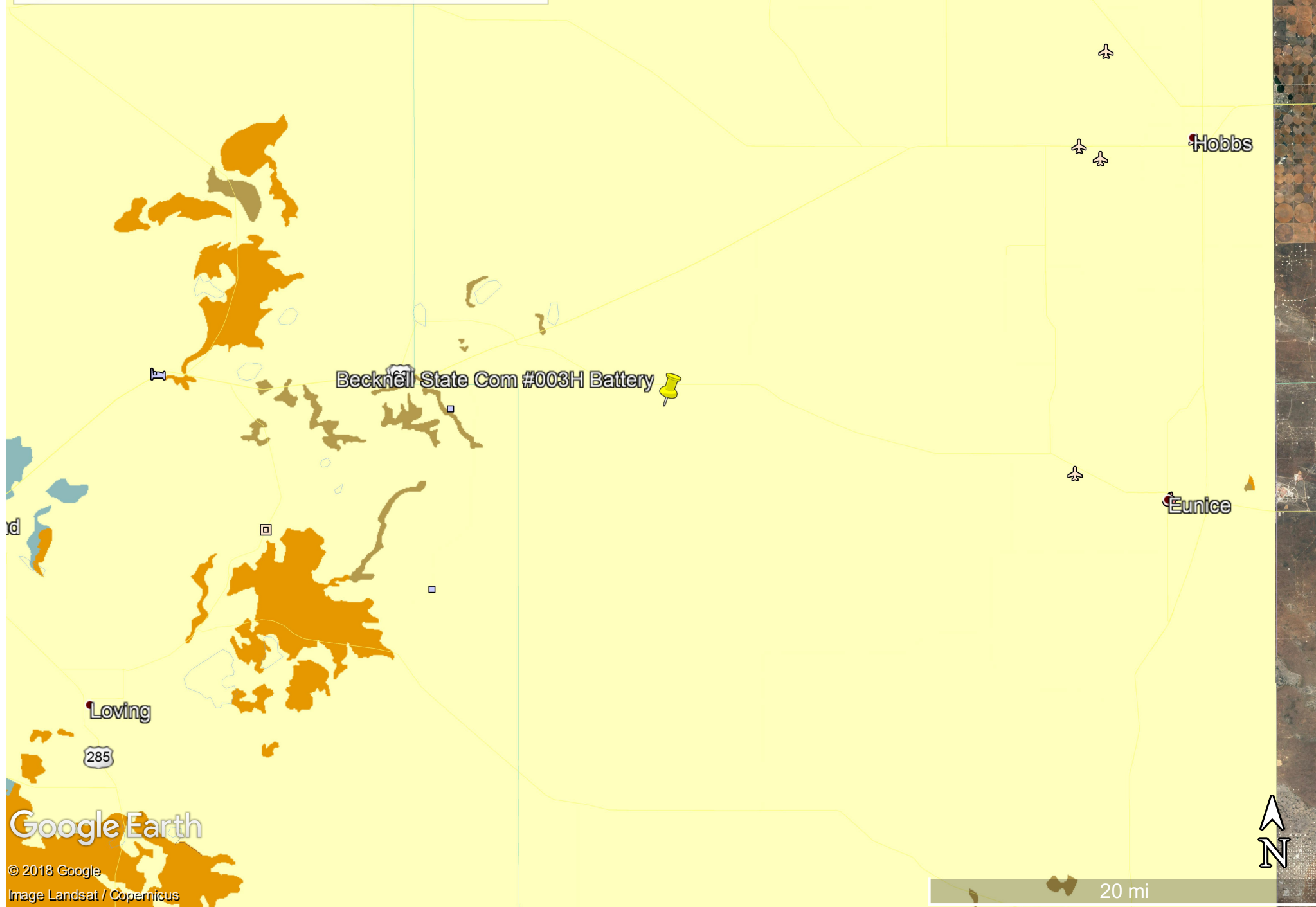
SUPPORTING INFORMATION

- Limit of Study
- Jurisdictional Boundary

Becknell State Com #003H Battery

Karst Map

Legend



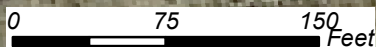
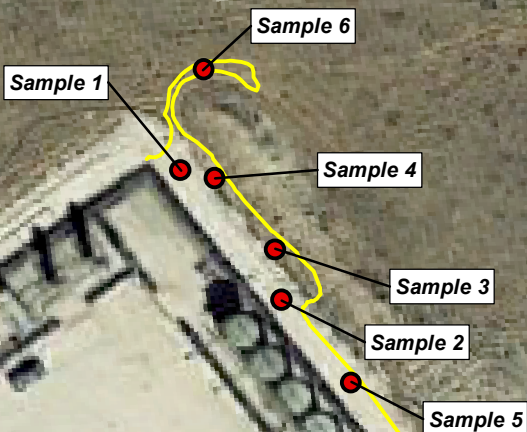
Google Earth

© 2018 Google
Image Landsat / Copernicus

20 mi





Attachment C:
Sample Location Map



Sample Location Map
Becknell State Com #003H Battery
32.5070801 -103.5967178
Section 5, Township 21 South, Range 33 East

Mapped Features

-  Sample Locations
-  Track

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



Author: A. Asay
Revision: 0
Date: 9/17/2018



Attachment D:
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

September 17, 2018

Jennifer Knowlton

Concho

600 W Illinois Ave

Midland, TX 79701

TEL: (505) 238-3588

FAX

RE: Becknell State Com 003H Battery

OrderNo.: 1809167

Dear Jennifer Knowlton:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/31/2018 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 horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1809167**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-5'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1809167-001

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	1800	75		mg/Kg	50	9/14/2018 10:20:17 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1809167

17-Sep-18

Client: Concho
Project: Becknell State Com 003H Battery

Sample ID	MB-40339		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 40339		RunNo: 54128					
Prep Date:	9/13/2018		Analysis Date: 9/13/2018		SeqNo: 1791588		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-40339		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 40339		RunNo: 54128					
Prep Date:	9/13/2018		Analysis Date: 9/13/2018		SeqNo: 1791589		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Qualifiers:

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



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: CONCHO MIDLAND

Work Order Number: 1809167

RcptNo: 1

Received By: John Caldwell 8/31/2018 8:45:00 AM

Completed By: Michelle Garcia 9/5/2018 4:15:19 PM

Reviewed By: ENM 9/5/18
LB: my 09/05/18

John Caldwell

Michelle Garcia

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: 9/5/18
(If >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	2.7	Good	Yes			
2	1.9	Good	Yes			



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

September 17, 2018

Jennifer Knowlton
Concho
600 W Illinois Ave
Midland, TX 79701
TEL: (505) 238-3588
FAX

RE: Becknell State Com 003H Battery

OrderNo.: 1808I77

Dear Jennifer Knowlton:

Hall Environmental Analysis Laboratory received 27 sample(s) on 8/31/2018 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 horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-Surface

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-001

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	30	9.7		mg/Kg	1	9/6/2018 3:47:15 AM
Motor Oil Range Organics (MRO)	56	49		mg/Kg	1	9/6/2018 3:47:15 AM
Surr: DNOP	114	50.6-138		%Rec	1	9/6/2018 3:47:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/5/2018 4:11:49 PM
Surr: BFB	93.9	15-316		%Rec	1	9/5/2018 4:11:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/5/2018 4:11:49 PM
Toluene	ND	0.049		mg/Kg	1	9/5/2018 4:11:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/5/2018 4:11:49 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/5/2018 4:11:49 PM
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	1	9/5/2018 4:11:49 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	9500	300		mg/Kg	200	9/11/2018 9:35:01 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-1'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-002

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/6/2018 4:09:08 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 4:09:08 AM
Surr: DNOP	112	50.6-138		%Rec	1	9/6/2018 4:09:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2018 5:22:10 PM
Surr: BFB	93.4	15-316		%Rec	1	9/5/2018 5:22:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/5/2018 5:22:10 PM
Toluene	ND	0.048		mg/Kg	1	9/5/2018 5:22:10 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2018 5:22:10 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/5/2018 5:22:10 PM
Surr: 4-Bromofluorobenzene	88.3	80-120		%Rec	1	9/5/2018 5:22:10 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	6100	300		mg/Kg	200	9/11/2018 9:47:25 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-2'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-003

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	7500	300		mg/Kg	200	9/11/2018 9:59:49 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-3'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-004

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	6000	300		mg/Kg	200	9/11/2018 10:12:13 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-4'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-005

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	4900	150		mg/Kg	100	9/11/2018 10:24:37 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-6'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-007

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	5400	300		mg/Kg	200	9/11/2018 10:37:02 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S1-6 1/2'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-008

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	2500	150		mg/Kg	100	9/11/2018 10:49:26 AM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-Surface

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-009

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	280	9.9		mg/Kg	1	9/6/2018 4:31:16 AM
Motor Oil Range Organics (MRO)	290	49		mg/Kg	1	9/6/2018 4:31:16 AM
Surr: DNOP	126	50.6-138		%Rec	1	9/6/2018 4:31:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/5/2018 5:45:35 PM
Surr: BFB	94.9	15-316		%Rec	1	9/5/2018 5:45:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	9/5/2018 5:45:35 PM
Toluene	ND	0.050		mg/Kg	1	9/5/2018 5:45:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/5/2018 5:45:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2018 5:45:35 PM
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	9/5/2018 5:45:35 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	9900	750		mg/Kg	500	9/11/2018 11:01:50 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-1'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-010

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2018 4:53:07 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 4:53:07 AM
Surr: DNOP	115	50.6-138		%Rec	1	9/6/2018 4:53:07 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/5/2018 6:08:57 PM
Surr: BFB	95.5	15-316		%Rec	1	9/5/2018 6:08:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	9/5/2018 6:08:57 PM
Toluene	ND	0.049		mg/Kg	1	9/5/2018 6:08:57 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/5/2018 6:08:57 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/5/2018 6:08:57 PM
Surr: 4-Bromofluorobenzene	90.3	80-120		%Rec	1	9/5/2018 6:08:57 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	4500	300		mg/Kg	200	9/11/2018 11:14:15 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-2'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-011

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	3600	150		mg/Kg	100	9/11/2018 11:26:39 AM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-3'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-012

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	4000	150		mg/Kg	100	9/11/2018 6:16:12 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-4'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-013

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	2500	150		mg/Kg	100	9/11/2018 6:28:37 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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S2-6'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-015

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	4500	300		mg/Kg	200	9/11/2018 6:41:02 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S3-Surface

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-016

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	10	9.8		mg/Kg	1	9/6/2018 5:15:07 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 5:15:07 AM
Surr: DNOP	117	50.6-138		%Rec	1	9/6/2018 5:15:07 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/5/2018 8:05:20 PM
Surr: BFB	92.9	15-316		%Rec	1	9/5/2018 8:05:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/5/2018 8:05:20 PM
Toluene	ND	0.049		mg/Kg	1	9/5/2018 8:05:20 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/5/2018 8:05:20 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/5/2018 8:05:20 PM
Surr: 4-Bromofluorobenzene	89.1	80-120		%Rec	1	9/5/2018 8:05:20 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	7900	300		mg/Kg	200	9/11/2018 6:53:27 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S3-1'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-017

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/6/2018 5:37:05 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2018 5:37:05 AM
Surr: DNOP	116	50.6-138		%Rec	1	9/6/2018 5:37:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2018 8:28:34 PM
Surr: BFB	90.3	15-316		%Rec	1	9/5/2018 8:28:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	9/5/2018 8:28:34 PM
Toluene	ND	0.047		mg/Kg	1	9/5/2018 8:28:34 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2018 8:28:34 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/5/2018 8:28:34 PM
Surr: 4-Bromofluorobenzene	87.0	80-120		%Rec	1	9/5/2018 8:28:34 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	8800	750		mg/Kg	500	9/11/2018 7:30:40 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S3-2'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-018

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	9700	750		mg/Kg	500	9/11/2018 7:43:04 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S3-3'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-019

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	7200	300		mg/Kg	200	9/11/2018 7:55:28 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S4-Surface

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-020

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/6/2018 5:59:10 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 5:59:10 AM
Surr: DNOP	107	50.6-138		%Rec	1	9/6/2018 5:59:10 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2018 8:51:47 PM
Surr: BFB	93.4	15-316		%Rec	1	9/5/2018 8:51:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	9/5/2018 8:51:47 PM
Toluene	ND	0.046		mg/Kg	1	9/5/2018 8:51:47 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/5/2018 8:51:47 PM
Xylenes, Total	ND	0.092		mg/Kg	1	9/5/2018 8:51:47 PM
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	9/5/2018 8:51:47 PM
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	3400	150		mg/Kg	100	9/11/2018 8:07:52 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S4-1'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-021

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/6/2018 6:21:02 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	9/6/2018 6:21:02 AM
Surr: DNOP	108	50.6-138		%Rec	1	9/6/2018 6:21:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2018 9:15:04 PM
Surr: BFB	94.2	15-316		%Rec	1	9/5/2018 9:15:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	9/5/2018 9:15:04 PM
Toluene	ND	0.046		mg/Kg	1	9/5/2018 9:15:04 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/5/2018 9:15:04 PM
Xylenes, Total	ND	0.092		mg/Kg	1	9/5/2018 9:15:04 PM
Surr: 4-Bromofluorobenzene	90.8	80-120		%Rec	1	9/5/2018 9:15:04 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	8700	750		mg/Kg	500	9/13/2018 9:36:07 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S4-2'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-022

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: smb
Chloride	7800	300		mg/Kg	200	9/11/2018 8:32:41 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-Surface

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-023

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/6/2018 6:43:06 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/6/2018 6:43:06 AM
Surr: DNOP	105	50.6-138		%Rec	1	9/6/2018 6:43:06 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2018 9:38:23 PM
Surr: BFB	92.6	15-316		%Rec	1	9/5/2018 9:38:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/5/2018 9:38:23 PM
Toluene	ND	0.047		mg/Kg	1	9/5/2018 9:38:23 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2018 9:38:23 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/5/2018 9:38:23 PM
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	9/5/2018 9:38:23 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	8900	750		mg/Kg	500	9/13/2018 9:48:31 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-1'

Project: Becknell State Com 003H Battery

Collection Date: 8/28/2018

Lab ID: 1808I77-024

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: Irm
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2018 7:05:05 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2018 7:05:05 AM
Surr: DNOP	107	50.6-138		%Rec	1	9/6/2018 7:05:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/5/2018 10:01:44 PM
Surr: BFB	95.0	15-316		%Rec	1	9/5/2018 10:01:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	9/5/2018 10:01:44 PM
Toluene	ND	0.050		mg/Kg	1	9/5/2018 10:01:44 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/5/2018 10:01:44 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2018 10:01:44 PM
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	9/5/2018 10:01:44 PM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	620	30		mg/Kg	20	9/11/2018 5:31:03 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-2'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-025

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	2700	75		mg/Kg	50	9/13/2018 10:00:55 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-3'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-026

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	980	30		mg/Kg	20	9/11/2018 5:55:52 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1808I77**

Date Reported: **9/17/2018**

CLIENT: Concho

Client Sample ID: S5-4'

Project: Becknell State Com 003H Battery

Collection Date: 8/27/2018

Lab ID: 1808I77-027

Matrix: SOIL

Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	100	30		mg/Kg	20	9/11/2018 6:08:16 AM

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 Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808177

17-Sep-18

Client: Concho
Project: Becknell State Com 003H Battery

Sample ID	MB-40207		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 40207		RunNo: 54025					
Prep Date:	9/7/2018		Analysis Date: 9/7/2018		SeqNo: 1784767		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-40207		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 40207		RunNo: 54025					
Prep Date:	9/7/2018		Analysis Date: 9/7/2018		SeqNo: 1784768		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	90	110			

Sample ID	MB-40259		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	40259		RunNo:	54055				
Prep Date:	9/10/2018		Analysis Date:	9/11/2018		SeqNo:	1786039		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-40259		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 40259		RunNo: 54055					
Prep Date:	9/10/2018		Analysis Date: 9/11/2018		SeqNo: 1786040		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808177

17-Sep-18

Client: Concho
Project: Becknell State Com 003H Battery

Sample ID	MB-40136		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 40136		RunNo: 53915					
Prep Date:	9/4/2018		Analysis Date: 9/6/2018		SeqNo: 1780995		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		104	50.6	138			

Sample ID	LCS-40136		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 40136		RunNo: 53915					
Prep Date:	9/4/2018		Analysis Date: 9/6/2018		SeqNo: 1780996		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	70	130			
Surr: DNOP	5.3		5.000		106	50.6	138			

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 Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808177

17-Sep-18

Client: Concho
Project: Becknell State Com 003H Battery

Sample ID MB-40113	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 40113		RunNo: 53917							
Prep Date: 9/4/2018	Analysis Date: 9/5/2018		SeqNo: 1780256		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	960		1000		95.7	15	316			

Sample ID LCS-40113	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 40113		RunNo: 53917							
Prep Date: 9/4/2018	Analysis Date: 9/5/2018		SeqNo: 1780257		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	75.9	131			
Surr: BFB	1000		1000		104	15	316			

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 Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1808I77

17-Sep-18

Client: Concho
Project: Becknell State Com 003H Battery

Sample ID	MB-40113		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	40113		RunNo:	53917			
Prep Date:	9/4/2018		Analysis Date:	9/5/2018		SeqNo:	1780294	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	0.92		1.000		92.0	80	120			

Sample ID	LCS-40113		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	40113		RunNo:	53917			
Prep Date:	9/4/2018		Analysis Date:	9/5/2018		SeqNo:	1780295	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.9	77.3	128			
Toluene	0.91	0.050	1.000	0	91.0	79.2	125			
Ethylbenzene	0.90	0.050	1.000	0	90.2	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	91.8	81.6	129			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	1808I77-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	S1-Surface		Batch ID:	40113		RunNo:	53917			
Prep Date:	9/4/2018		Analysis Date:	9/5/2018		SeqNo:	1780297	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.024	0.9662	0	90.7	68.5	133			
Toluene	0.92	0.048	0.9662	0.008031	94.9	75	130			
Ethylbenzene	0.93	0.048	0.9662	0	96.6	79.4	128			
Xylenes, Total	2.8	0.097	2.899	0.01616	97.3	77.3	131			
Surr: 4-Bromofluorobenzene	0.88		0.9662		90.6	80	120			

Sample ID	1808I77-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	S1-Surface		Batch ID:	40113		RunNo:	53917			
Prep Date:	9/4/2018		Analysis Date:	9/5/2018		SeqNo:	1780298	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.023	0.9183	0	99.0	68.5	133	3.58	20	
Toluene	0.96	0.046	0.9183	0.008031	103	75	130	3.54	20	
Ethylbenzene	0.97	0.046	0.9183	0	105	79.4	128	3.69	20	
Xylenes, Total	2.9	0.092	2.755	0.01616	105	77.3	131	2.76	20	
Surr: 4-Bromofluorobenzene	0.85		0.9183		92.4	80	120	0	0	

Qualifiers:

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

Sample Log-In Check List

Client Name: CONCHO MIDLAND

Work Order Number: 1808177

RcptNo: 1

Received By: Erin Melendrez

8/31/2018 8:45:00 AM

U. Melendrez

Completed By: Michelle Garcia

8/31/2018 11:39:19 AM

Michelle Garcia

Reviewed By:

JAB 08/31/18

LB 8/31/18

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?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *P. Garcia*

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			
2	1.9	Good	Yes			

