

Incident ID	
District RP	
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?	<u>>100 Ft</u> (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 type="checkbox"/> Yes <input checked="" 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.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

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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: Dakota Neel Title: HSE Coordinator
 Signature:  Date: 2/4/2020
 email: dneel2@concho.com Telephone: 575-746-2010

OCD Only

Received by: _____ Date: _____

Incident ID	
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Facility ID	
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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: Dakota Neel Title: HSE Coordinator
 Signature:  Date: 2/4/2020
 email: dneel2@concho.com Telephone: 575-746-2010

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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: Dakota Neel Title: HSE Coordinator
 Signature:  Date: 2/4/2020
 email: dneel2@concho.com Telephone: 575-746-2010

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: _____

Remediation Summary & Deferral Request

COG Operating, LLC Wild Cap State Com #1

Eddy County, New Mexico
Unit Letter "I", Section 36, Township 19 South, Range 31 East
Latitude 32.61545 North, Longitude 103.81641 West
NMOCD Reference No. 2RP-pending

Prepared By:

Etech Environmental & Safety Solutions, Inc.
3100 Plains Highway
Lovington, New Mexico 88260



Daniel Dominguez



Joel W. Lowry



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- Appendix C - Laboratory Analytical Reports
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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC, has prepared this Remediation Summary and Deferall Request for the Release Site known as the Wild Cap State Com #1. Details of the release are summarized below:

Location of Release Source				
Latitude: <u>32.61545</u>		Longitude: <u>-103.81641</u>		
Provided GPS are in WGS84 format.				
Site Name: <u>Wild Cap State Com #1</u>		Site Type: <u>Tank Battery</u>		
Date Release Discovered: <u>10/28/2019</u>		API # (if applicable): <u>30-015-33062</u>		
Unit Letter	Section	Township	Range	County
"I"	36	19S	31E	Eddy
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Private (Name _____)				
Nature and Volume of Release				
<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	6	Volume Recovered (bbls)	5
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	12	Volume Recovered (bbls)	11
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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 and Affected Area: The release was attributed to a hole in the fire-tube. Impacts from the release were limited to within the earthen containment, affecting an area measuring approximately 1,200 sq. ft.				
Initial Response				
<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"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices <input checked="" type="checkbox"/> 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. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	> 100 Ft.	
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
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 any 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
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Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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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 type="checkbox"/> Yes	<input checked="" 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
> 100 Ft.	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 REMEDIATION ACTIVITIES SUMMARY

On January 14, 2020, remediation activities commenced at the Site. In accordance with the NMOCD, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and stockpiled on-site, pending final disposition at an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard. Impacted soil adjacent to and beneath the on-site heater treater and associated piping was excavated to the maximum extent practicable.

On January 15, 2020, Etech collected seven (7) excavation confirmation soil samples (NWb, SP1 @ 1.5', SP2 @ 1.5', SW, WW, EW and SP3 @ 1.5') from the floor and sidewalls of the excavated area. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples with the exception of soil samples NWb and SP1 @ 1.5'.

On January 22, 2020, excavation activities resumed at the Site. Impacted soil in the area(s) characterized by sample point(s) NWb and SP1 @ 1.5' was excavated and transported to an NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected, two (2) additional excavation confirmation soil samples (NWc and SP1 @ 2') and submitted them to the laboratory for analysis of BTEX and/or TPH. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria in each of the submitted soil samples.

A "Site & Sample Location Map" is provided as Figure 3. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C. Field data and soil profile logs, if applicable, are provided as Appendix B.

The final dimensions of the excavated area were 25 Ft. in length, 25 Ft. in width and ranged from 1.5 to 2 Ft. in depth. During the course of remediation activities approximately 56 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

5.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. The release was limited to an active oil and gas facility. Final restoration, reclamation and re-vegetation will be conducted in accordance with NMAC 19.15.29.13 once the facility is no longer needed for production operations.

6.0 DEFERRAL REQUEST

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated to the maximum extent practicable and transported to an NMOCD-approved disposal facility. Laboratory analytical results from excavation confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria. Etech maintains excavation of impacted soil beneath and adjacent to the on-site heater treater and associated piping poses a risk to human health and safety, and will require a major facility deconstruction. Impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard remaining in-situ will be remediated upon decommissioning the facility.

Based on laboratory analytical results and field activities conducted to date, Etech recommends COG Operating, LLC provide copies of this Remediation Summary and Deferral Request to the appropriate agencies and request closure be granted to the Wild Cap State Com #1 Site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Remediation Summary and Deferral Request 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. Basis 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 COG Operating, LLC. Use of the information contained in this report is prohibited within the consent of Etech and/or COG Operating, LLC.

8.0 DISTRIBUTION

COG Operating, LLC

*600 West Illinois Avenue
Midland, TX 79701*

New Mexico Energy, Minerals and Natural Resources Department

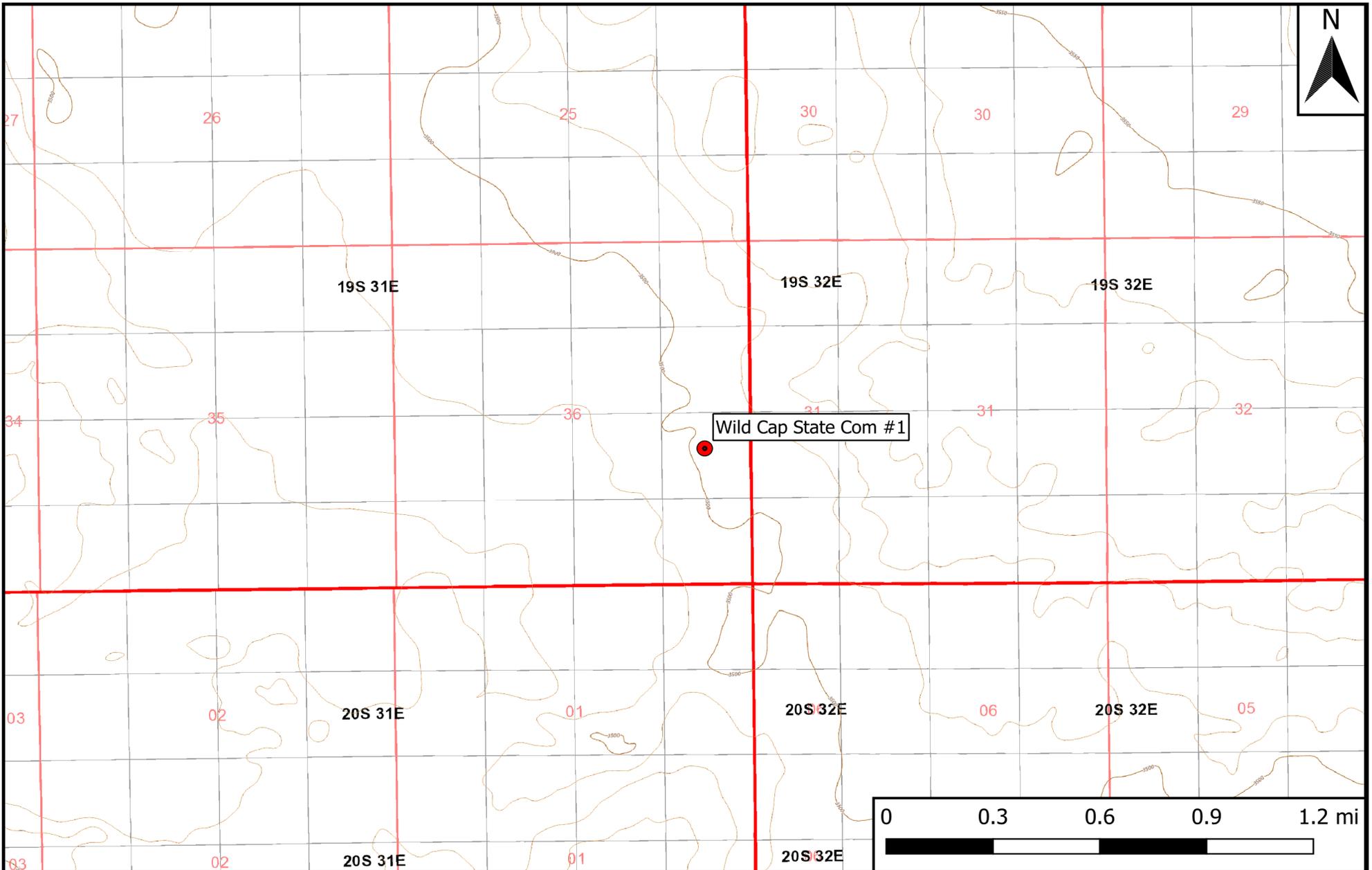
*Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210*

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

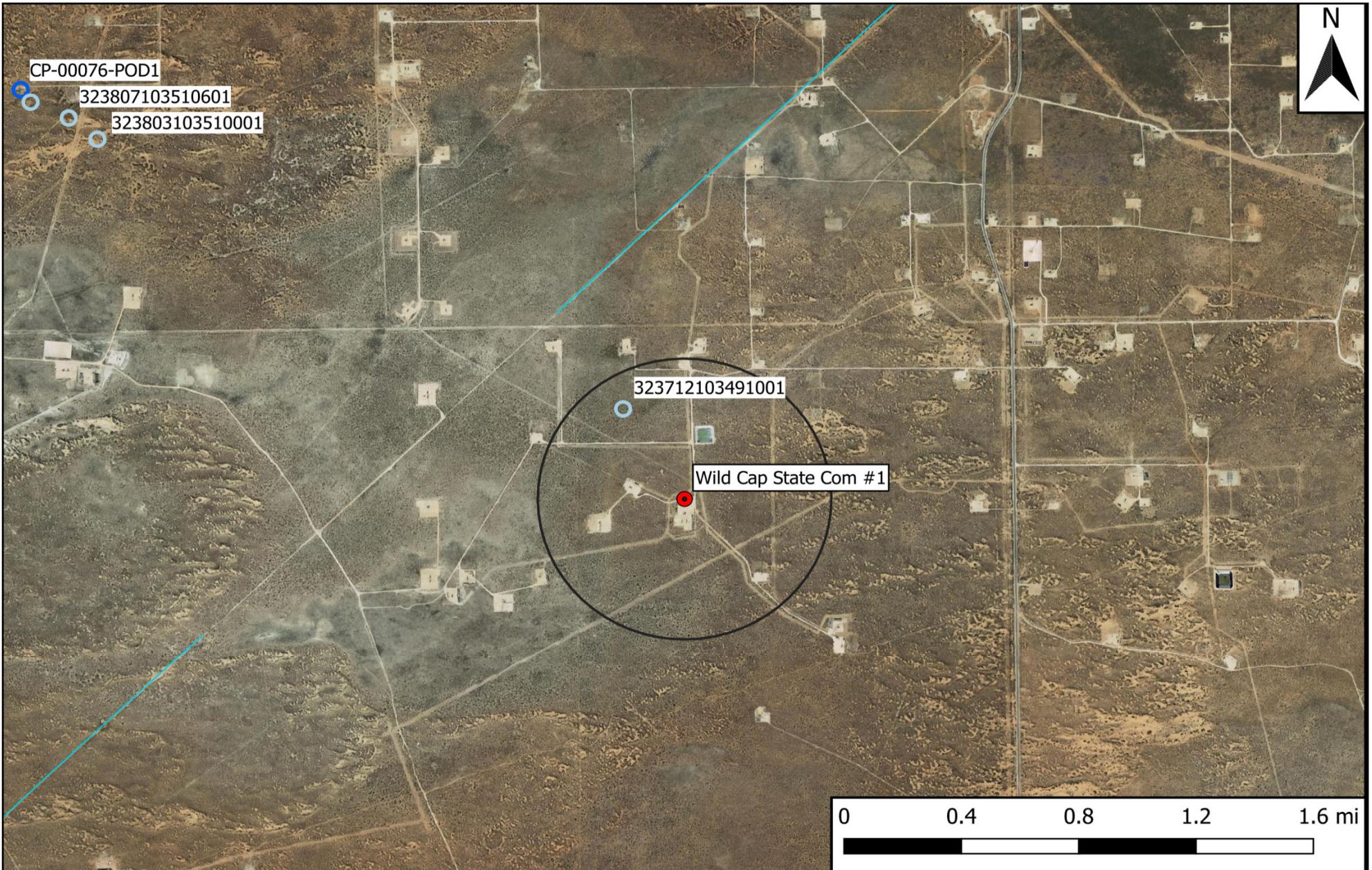
Figure 1
 Topographic Map
 COG Operating, LLC
 Wild Cap State Com #1
 GPS: 32.61545, -103.81641
 Eddy County



Drafted: mag Checked: jwl Date: 11/27/19

Figure 2

Aerial Proximity Map



Legend

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

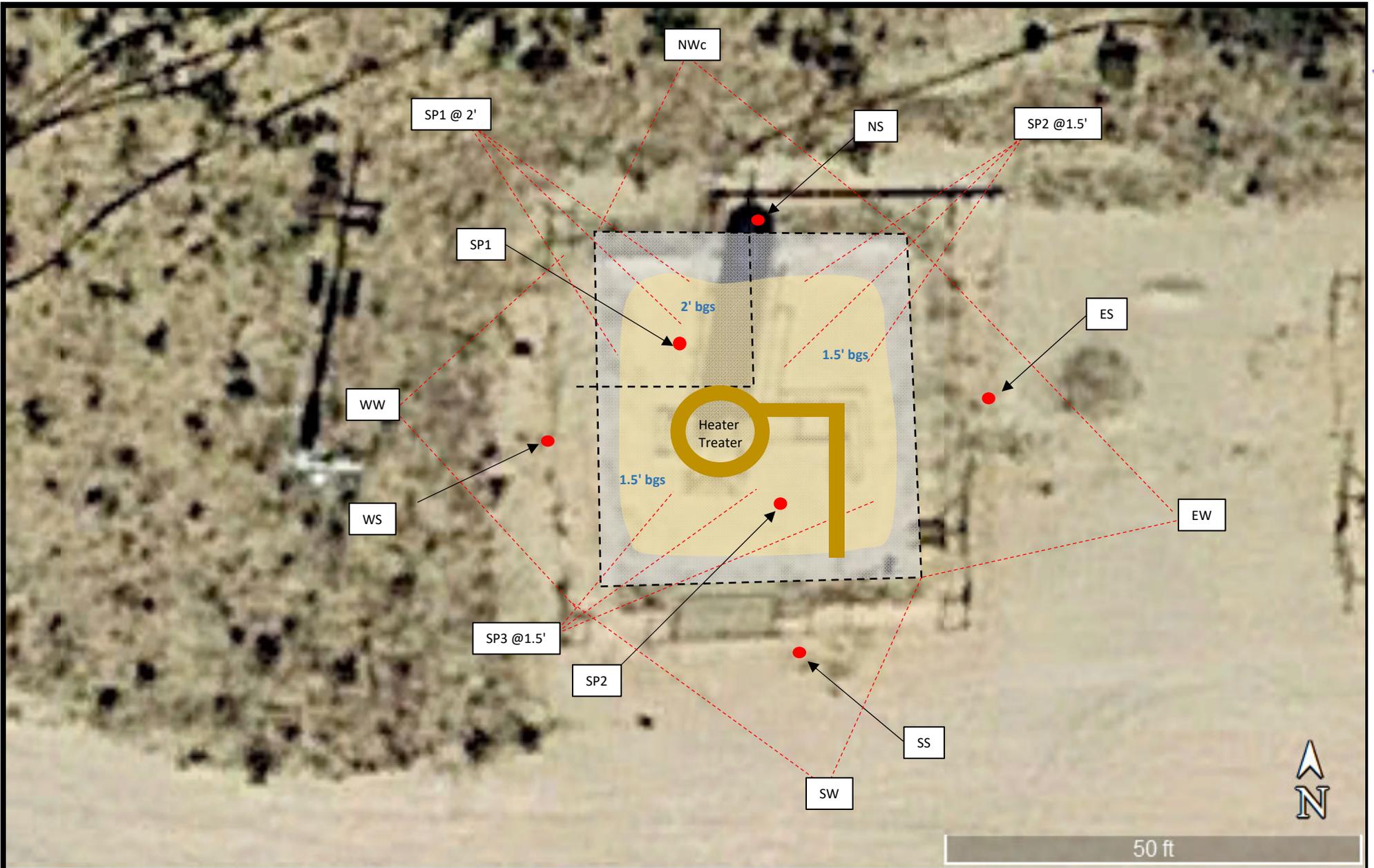
Figure 2
 Aerial Map
 COG Operating, LLC
 Wild Cap State Com #1
 GPS: 32.61545, -103.81641
 Eddy County



Drafted: mag Checked: jwl Date: 11/27/19

Figure 3

Site and Sample Location Map



Legend:

	Delienation Sample Point
	Affected Area
	Impacted Soil Remaining In-Situ
	Excavated Area

Figure 3
 Site and Sample Location Map
 COG Operating, LLC
 Wild Cap State Com #1
 GPS: 32.61545, -103.81641
 Eddy County

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: Checked: jwl Date: 2/3/20

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

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX TPH AND CHLORIDE IN SOIL
COG Operating, LLC
Wild Cap State Com #1
NMOCD Ref. #: 2RP-pending

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)
NS Surf.	11/14/2019	Surf.	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
NS 1'	11/14/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
WS Surf.	11/14/2019	Surf.	In-Situ	<0.050	<0.300	<10.0	397	397	105	502	16.0
WS 1'	11/14/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
ES Surf.	11/14/2019	Surf.	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,360
ES 2'	11/14/2019	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS Surf.	11/14/2019	Surf.	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS 1'	11/14/2019	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SP1 Surf.	11/14/2019	Surf.	Excavated	3.67	121	1,190	7,750	8,940	1,470	10,410	5,360
SP1 2'	11/14/2019	2'	In-Situ	<0.050	<0.300	<10.0	598.00	598	284	882	64.0
SP2 Surf.	11/14/2019	Surf.	Excavated	0.133	23.3	407	5,700	6,107	966	7,073	1,470
SP2 2'	11/14/2019	2'	In-Situ	<0.050	<0.300	<10.0	14.2	14.2	<10.0	14.2	48.0
NWb	1/15/2020	NA	Excavated	44.1	947	5,870	11,700	17,570	1,680	19,250	512
NWc	1/22/2020	NA	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	-
SP1 @ 1.5'	1/15/2020	1.5'	Excavated	1.10	17.10	116	1,510	1,626	486	2,112	832
SP1 @ 2'	1/22/2020	2'	In-Situ	-	-	<10.0	39.7	39.7	<10.0	39.7	-
SP2 @ 1.5'	1/15/2020	1.5'	In-Situ	<0.050	<0.300	<10.0	25.5	25.5	<10.0	25.5	496
SW	1/15/2020	NA	In-Situ	0.23	1.64	<10.0	35.8	35.8	<10.0	35.8	80.0
WW	1/15/2020	NA	In-Situ	<0.050	0.391	<10.0	831	831	267	1,098	256
EW	1/15/2020	NA	In-Situ	<0.050	<0.300	<10.0	533	533	161	694	256
SP3 @ 1.5'	1/15/2020	1.5'	In-Situ	<0.050	<0.300	<10.0	339	339	88	427	272
Closure Criteria				10	50	-	-	1,000	-	2,500	20,000

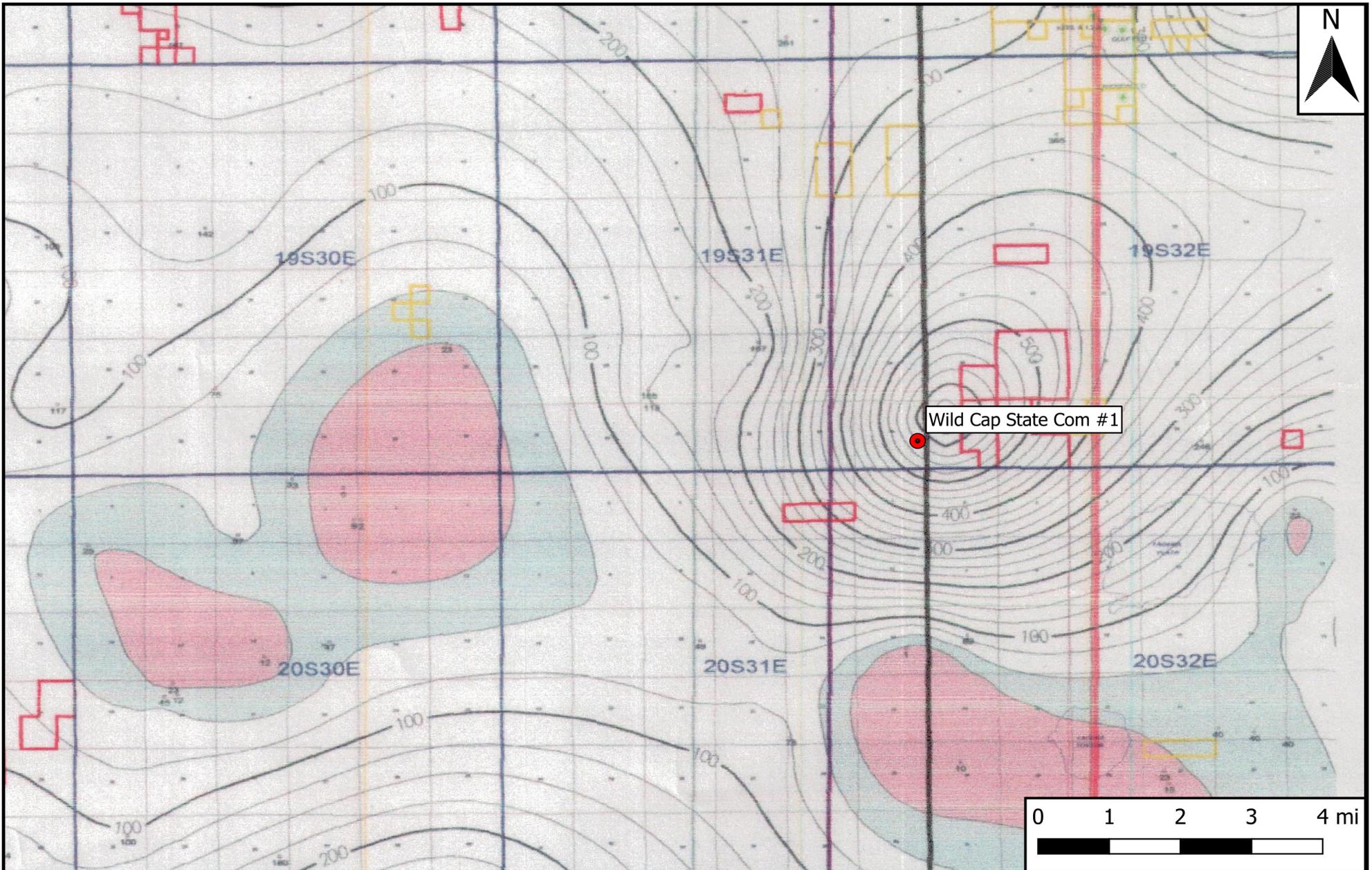
NOTES:

- = Not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A

Depth to Groundwater Information

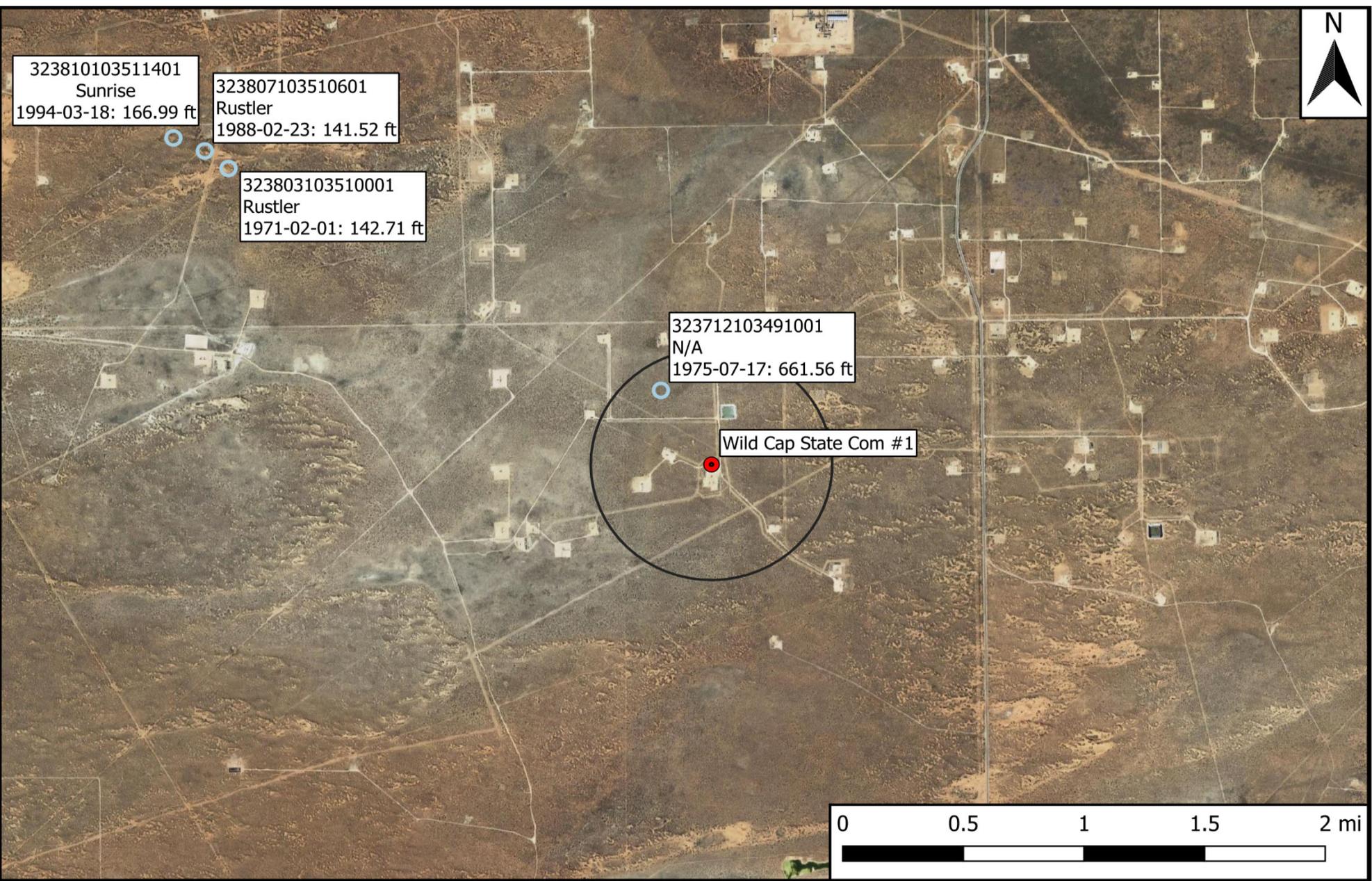


Legend
 ● Site Location

Figure 4
 Inferred Depth to Groundwater Trend Map
 COG Operating, LLC
 Wild Cap State Com #1
 GPS: 32.61545, -103.81641
 Eddy County



Drafted: mag Checked: jwl Date: 11/27/19



Legend

- Site Location
- Well - USGS

Figure 5
 USGS Well Proximity Map
 COG Operating, LLC
 Wild Cap State Com #1
 GPS: 32.61545, -103.81641
 Eddy County

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 11/27/19



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 Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column
CP 00641 POD1	CP	ED	64	16	4	4	36	19	31E	610247	3609634*	876	300	130	170		

Average Depth to Water: **130 feet**
 Minimum Depth: **130 feet**
 Maximum Depth: **130 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 611046.53 **Northing (Y):** 3609275.28 **Radius:** 1610

*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.

11/6/19 1:53 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4	Sec	Tws	Rng	X	Y
CP	00641 POD1	4	1	36	19S	31E	610247 3609634*

Driller License: 882	Driller Company: LARRY'S DRILLING & PUMP CO.		
Driller Name: FELKINS, LARRY			
Drill Start Date: 02/11/1982	Drill Finish Date: 02/12/1982	Plug Date:	
Log File Date: 02/23/1982	PCW Rcv Date:	Source: Shallow	
Pump Type:	Pipe Discharge Size:	Estimated Yield:	
Casing Size:	Depth Well: 300 feet	Depth Water: 130 feet	

*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.

11/6/19 1:54 PM

POINT OF DIVERSION SUMMARY



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Click to hide News Bulletins

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- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
 site_no list =
 • 323803103510001

Minimum number of levels = 1

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

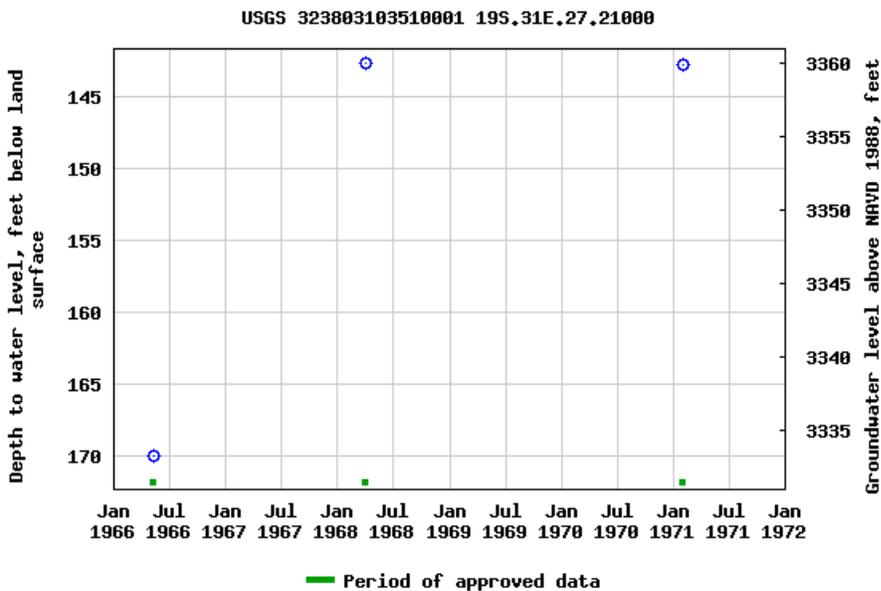
USGS 323803103510001 19S.31E.27.21000

Available data for this site

Eddy County, New Mexico
 Hydrologic Unit Code 13060011
 Latitude 32°38'03", Longitude 103°51'00" NAD27
 Land-surface elevation 3,503 feet above NAVD88
 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.

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Title: Groundwater for USA: Water Levels

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



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

Page Last Modified: 2019-11-06 15:48:36 EST

0.51 0.45 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 323807103510601

Minimum number of levels = 1

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

USGS 323807103510601 19S.31E.27.214132

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°38'07", Longitude 103°51'06" NAD27

Land-surface elevation 3,500 feet above NAVD88

The depth of the well is 177 feet below land surface.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

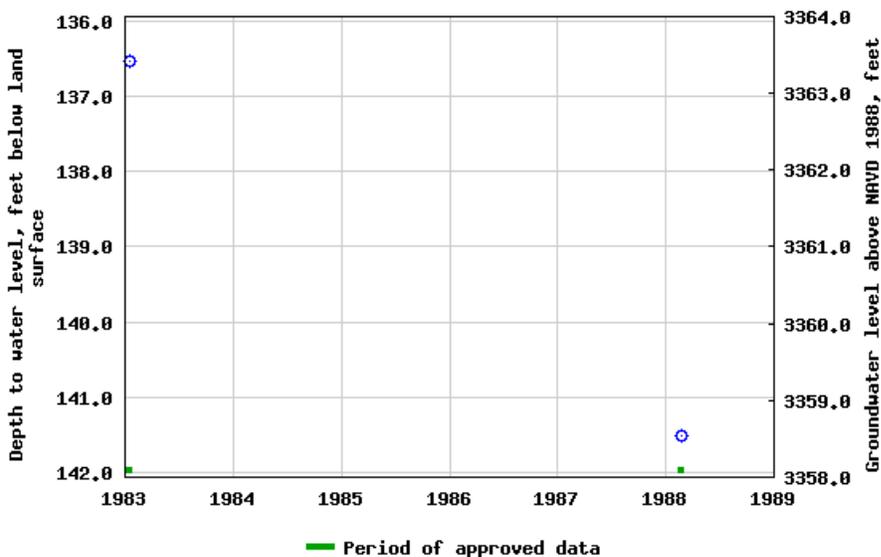
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

USGS 323807103510601 19S.31E.27.214132



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

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



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

Page Last Modified: 2019-11-06 15:48:36 EST

0.49 0.44 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
 site_no list =
 • 323810103511401

Minimum number of levels = 1

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

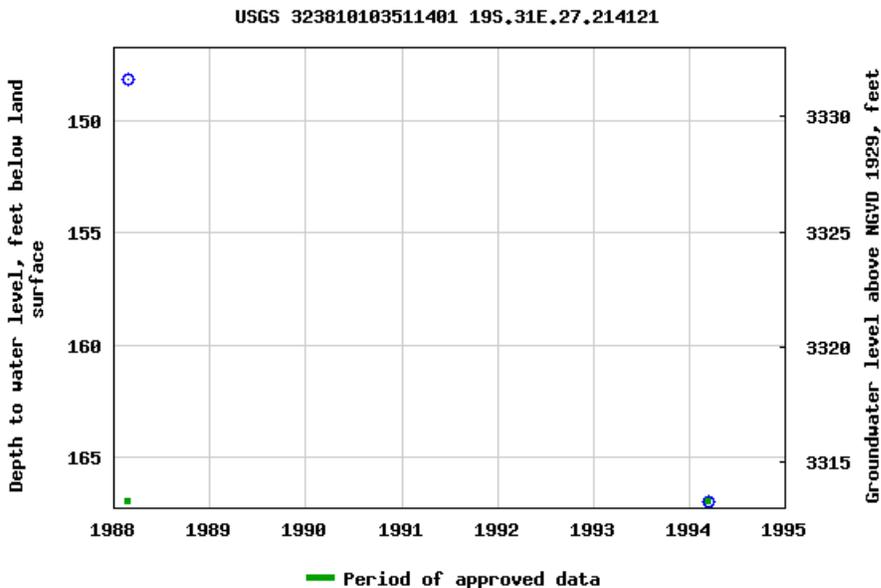
USGS 323810103511401 19S.31E.27.214121

Available data for this site

Eddy County, New Mexico
 Hydrologic Unit Code 13060011
 Latitude 32°38'10", Longitude 103°51'14" NAD27
 Land-surface elevation 3,480 feet above NGVD29
 The depth of the well is 210.00 feet below land surface.
 This well is completed in the Sunrise Formation (231SNRS) 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.

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Title: Groundwater for USA: Water Levels

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



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

Page Last Modified: 2019-11-06 15:48:37 EST

0.5 0.43 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
 site_no list =
 • 323712103491001

Minimum number of levels = 1

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

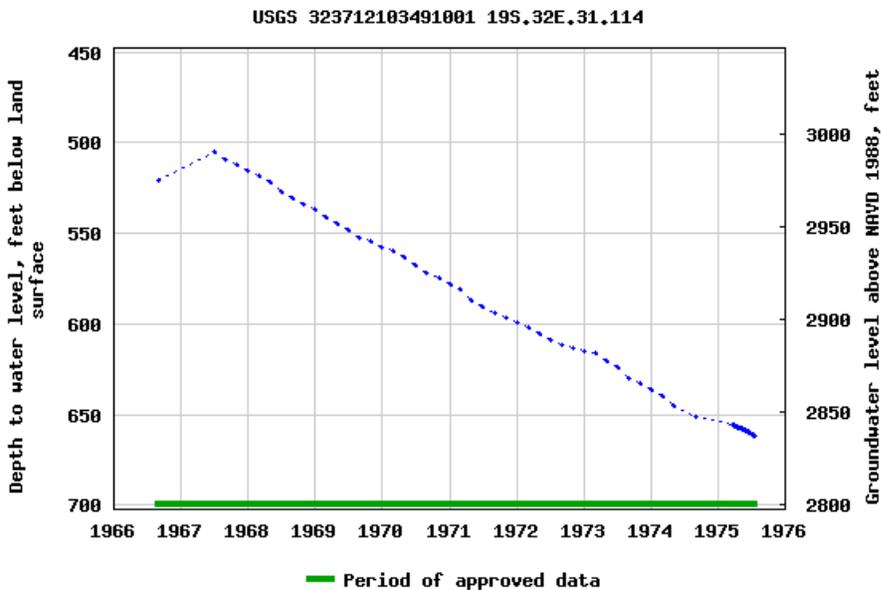
USGS 323712103491001 19S.32E.31.114

Available data for this site

Lea County, New Mexico
 Hydrologic Unit Code 13060011
 Latitude 32°37'12", Longitude 103°49'10" NAD27
 Land-surface elevation 3,497 feet above NAVD88

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.

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Title: Groundwater for USA: Water Levels

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



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

Page Last Modified: 2019-11-06 15:48:35 EST

0.54 0.47 nadww02

Appendix B

Field Data and Soil Profile Logs

Soil Profile

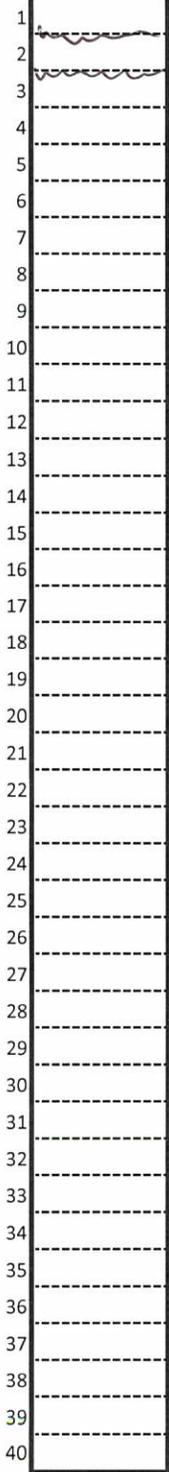
Date: 11.14.19

Project: Wild Cap State Com #1

Project Number: pending Latitude: 32.61545 Longitude: -103.81641

Depth (ft. bgs)

Description



Depth (ft. bgs)	Description
1	Impacted Caliche
2	Sand
3	TD
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Appendix C

Laboratory Analytical Reports



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

November 25, 2019

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: WILD CAP STATE COM

Enclosed are the results of analyses for samples received by the laboratory on 11/18/19 15:40.

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 "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: NS SURFACE (H903920-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18	
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10	
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59	
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79	
Total BTEX	<0.300	0.300	11/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/25/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28	
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388	
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane 80.0 % 41-142

Surrogate: 1-Chlorooctadecane 81.2 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: NS 1' (H903920-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 83.4 % 41-142

Surrogate: 1-Chlorooctadecane 84.9 % 37.6-147

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* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: WS SURFACE (H903920-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18	
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10	
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59	
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79	
Total BTEX	<0.300	0.300	11/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/25/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28	
DRO >C10-C28*	397	10.0	11/20/2019	ND	205	102	200	0.388	
EXT DRO >C28-C36	105	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane 83.2 % 41-142

Surrogate: 1-Chlorooctadecane 99.7 % 37.6-147

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 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: WS 1' (H903920-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 84.4 % 41-142

Surrogate: 1-Chlorooctadecane 81.6 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: ES SURFACE (H903920-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1360	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 82.0 % 41-142

Surrogate: 1-Chlorooctadecane 81.7 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: ES 2' (H903920-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 84.2 % 41-142

Surrogate: 1-Chlorooctadecane 82.6 % 37.6-147

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SS SURFACE (H903920-07)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 70.9 % 41-142

Surrogate: 1-Chlorooctadecane 69.6 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SS 1' (H903920-08)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/19/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/19/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/19/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	<0.150	0.150	11/19/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 70.5 % 41-142

Surrogate: 1-Chlorooctadecane 66.9 % 37.6-147

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* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 1 SURFACE (H903920-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.67	0.500	11/20/2019	ND	1.72	86.1	2.00	7.18	
Toluene*	32.3	0.500	11/20/2019	ND	1.72	86.2	2.00	6.10	
Ethylbenzene*	26.5	0.500	11/20/2019	ND	1.75	87.3	2.00	6.59	
Total Xylenes*	58.9	1.50	11/20/2019	ND	5.25	87.5	6.00	6.79	
Total BTEX	121	3.00	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5360	16.0	11/25/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	1190	50.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	7750	50.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	1470	50.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 128 % 41-142

Surrogate: 1-Chlorooctadecane 278 % 37.6-147

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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 1 2' (H903920-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/20/2019	ND	1.72	86.1	2.00	7.18	
Toluene*	0.076	0.050	11/20/2019	ND	1.72	86.2	2.00	6.10	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.75	87.3	2.00	6.59	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.25	87.5	6.00	6.79	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/25/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28	
DRO >C10-C28*	598	10.0	11/20/2019	ND	205	102	200	0.388	
EXT DRO >C28-C36	284	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane 81.7 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 2 SURFACE (H903920-11)

BTEX 8021B		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.133	0.050	11/20/2019	ND	1.72	86.1	2.00	7.18	
Toluene*	2.92	0.050	11/20/2019	ND	1.72	86.2	2.00	6.10	
Ethylbenzene*	5.66	0.050	11/20/2019	ND	1.75	87.3	2.00	6.59	
Total Xylenes*	14.6	0.150	11/20/2019	ND	5.25	87.5	6.00	6.79	
Total BTEX	23.3	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 238 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1470	16.0	11/25/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	407	10.0	11/20/2019	ND	195	97.3	200	1.28	
DRO >C10-C28*	5700	10.0	11/20/2019	ND	205	102	200	0.388	
EXT DRO >C28-C36	966	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 235 % 37.6-147

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Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/14/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 2 2' (H903920-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/20/2019	ND	1.72	86.1	2.00	7.18		
Toluene*	<0.050	0.050	11/20/2019	ND	1.72	86.2	2.00	6.10		
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.75	87.3	2.00	6.59		
Total Xylenes*	0.156	0.150	11/20/2019	ND	5.25	87.5	6.00	6.79		
Total BTEX	<0.300	0.300	11/20/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/25/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	195	97.3	200	1.28		
DRO >C10-C28*	14.2	10.0	11/20/2019	ND	205	102	200	0.388		
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND						

Surrogate: 1-Chlorooctane 81.9 % 41-142

Surrogate: 1-Chlorooctadecane 81.0 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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January 21, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: WILD CAP STATE COM

Enclosed are the results of analyses for samples received by the laboratory on 01/16/20 16:20.

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 style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/15/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: NWB (H000174-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	44.1	5.00	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	376	5.00	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	172	5.00	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	356	15.0	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	947	30.0	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	5870	50.0	01/21/2020	ND	212	106	200	3.47		
DRO >C10-C28*	11700	50.0	01/21/2020	ND	229	114	200	0.944		
EXT DRO >C28-C36	1680	50.0	01/21/2020	ND						

Surrogate: 1-Chlorooctane 231 % 41-142

Surrogate: 1-Chlorooctadecane 309 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/15/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 1 @ 1.5 (H000174-02)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.10	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	5.37	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	3.08	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	7.55	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	17.1	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 132 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	116	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	1510	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	486	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 97.4 % 41-142

Surrogate: 1-Chlorooctadecane 128 % 37.6-147

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Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/15/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 2 @ 1.5 (H000174-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	<0.050	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	<0.050	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	<0.300	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	01/20/2020	ND	416	104	400	3.77	QM-07

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	25.5	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/15/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: SW (H000174-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.226	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	0.779	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	0.208	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	0.431	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	1.64	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	35.8	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/16/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: WW (H000174-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	0.127	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	0.077	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	0.187	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	0.391	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	831	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	267	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 95.5 % 41-142

Surrogate: 1-Chlorooctadecane 117 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/16/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: EW (H000174-06)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	<0.050	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	<0.050	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	<0.300	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	533	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	161	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 93.4 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	01/16/2020	Sampling Date:	01/16/2020
Reported:	01/21/2020	Sampling Type:	Soil
Project Name:	WILD CAP STATE COM	Sampling Condition:	Cool & Intact
Project Number:	11481	Sample Received By:	Jodi Henson
Project Location:	CONCHO- RURAL LEA		

Sample ID: SP 3 @ 1.5 (H000174-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2020	ND	1.82	90.9	2.00	13.6	
Toluene*	0.051	0.050	01/21/2020	ND	1.76	88.0	2.00	15.1	
Ethylbenzene*	<0.050	0.050	01/21/2020	ND	1.81	90.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	01/21/2020	ND	5.23	87.2	6.00	14.9	
Total BTEX	<0.300	0.300	01/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	01/20/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	212	106	200	3.47	
DRO >C10-C28*	339	10.0	01/21/2020	ND	229	114	200	0.944	
EXT DRO >C28-C36	87.7	10.0	01/21/2020	ND					

Surrogate: 1-Chlorooctane 99.0 % 41-142

Surrogate: 1-Chlorooctadecane 109 % 37.6-147

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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

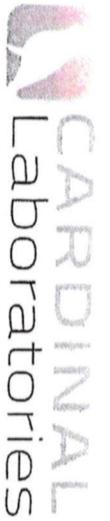
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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Eteck Environmental
 Project Manager: Joel Lowry
 Address: 3100 Plains Hwy
 City: Lovington State: NM Zip: 88260
 Phone #: 532-444-4450 Fax #: _____
 Project #: 11981 Project Owner: _____
 Project Name: Wild Gap State
 Project Location: Eddy Co, New Mexico
 Sampler Name: Miguel Renteria
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX 8021
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H000174	NMB	G	1												
	SP1 @ 1.5	G	1	X											
	SP2 @ 1.5	G	1	X											
	SW	G	1	X											
	FW	G	1	X											
	SP2 @ 1.5	G	1	X											

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Relinquished By: [Signature] Date: 1-16-20
 Relinquished By: [Signature] Date: 4-30
 Received By: Joel Lowry
 Received By: [Signature]

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: -D.S.C. #113
 Sample Condition: Intact Damaged
 Checked By: [Signature]

REMARKS: email results to joel@eteckenv.com
1-16-20
Push added by Joel
 Add'l Phone #: _____
 Add'l Fax #: _____

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
 OPRM-005 R 2.0



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

February 05, 2020

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: WILD CAP STATE COM

Enclosed are the results of analyses for samples received by the laboratory on 01/22/20 14:00.

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/ga/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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



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

Analytical Results For:

Etech Environmental & Safety Solutions
P.O. Box 301
Lovington NM, 88260

Project: WILD CAP STATE COM
Project Number: 11481
Project Manager: JOEL LOWRY
Fax To: (575) 396-1429

Reported:
05-Feb-20 10:00

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP 1 @ 2'	H000219-01	Soil	22-Jan-20 11:00	22-Jan-20 14:00
NWC	H000219-02	Soil	22-Jan-20 11:15	22-Jan-20 14:00

02/03/20 - Client added BTEX to sample -02.

02/05/20 - This is the revised report and will replace the one sent on 01/23/20.

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions P.O. Box 301 Lovington NM, 88260	Project: WILD CAP STATE COM Project Number: 11481 Project Manager: JOEL LOWRY Fax To: (575) 396-1429	Reported: 05-Feb-20 10:00
---	---	------------------------------

SP 1 @ 2'
H000219-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
DRO >C10-C28*	39.7		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
<i>Surrogate: 1-Chlorooctane</i>			95.7 %		41-142	0012204	MS	22-Jan-20	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			96.3 %		37.6-147	0012204	MS	22-Jan-20	8015B	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
P.O. Box 301
Lovington NM, 88260

Project: WILD CAP STATE COM
Project Number: 11481
Project Manager: JOEL LOWRY
Fax To: (575) 396-1429

Reported:
05-Feb-20 10:00

NWC
H000219-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0020307	MS	04-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0020307	MS	04-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0020307	MS	04-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0020307	MS	04-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0020307	MS	04-Feb-20	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			100 %	73.3-129		0020307	MS	04-Feb-20	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B	
<i>Surrogate: 1-Chlorooctane</i>			109 %	41-142		0012204	MS	22-Jan-20	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			109 %	37.6-147		0012204	MS	22-Jan-20	8015B	

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Analytical Results For:

Etech Environmental & Safety Solutions
P.O. Box 301
Lovington NM, 88260

Project: WILD CAP STATE COM
Project Number: 11481
Project Manager: JOEL LOWRY
Fax To: (575) 396-1429

Reported:
05-Feb-20 10:00

Volatile Organic Compounds by EPA Method 8021 - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0020307 - Volatiles**Blank (0020307-BLK1)**

Prepared: 03-Feb-20 Analyzed: 04-Feb-20

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0502		mg/kg	0.0500		100	73.3-129			

LCS (0020307-BS1)

Prepared: 03-Feb-20 Analyzed: 04-Feb-20

Benzene	2.00	0.050	mg/kg	2.00		99.8	72.2-131			
Toluene	1.97	0.050	mg/kg	2.00		98.7	71.7-126			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.3	68.9-126			
Total Xylenes	5.79	0.150	mg/kg	6.00		96.5	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	73.3-129			

LCS Dup (0020307-BSD1)

Prepared: 03-Feb-20 Analyzed: 04-Feb-20

Benzene	2.00	0.050	mg/kg	2.00		100	72.2-131	0.162	14.6	
Toluene	1.99	0.050	mg/kg	2.00		99.6	71.7-126	0.939	17.4	
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.6	68.9-126	0.363	18.9	
Total Xylenes	5.80	0.150	mg/kg	6.00		96.7	71.4-125	0.185	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0503		mg/kg	0.0500		101	73.3-129			

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Etech Environmental & Safety Solutions
P.O. Box 301
Lovington NM, 88260

Project: WILD CAP STATE COM
Project Number: 11481
Project Manager: JOEL LOWRY
Fax To: (575) 396-1429

Reported:
05-Feb-20 10:00

Petroleum Hydrocarbons by GC FID - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0012204 - General Prep - Organics**Blank (0012204-BLK1)**

Prepared & Analyzed: 22-Jan-20

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
<i>Surrogate: 1-Chlorooctane</i>	51.4		mg/kg	50.0		103	41-142			
<i>Surrogate: 1-Chlorooctadecane</i>	49.8		mg/kg	50.0		99.7	37.6-147			

LCS (0012204-BS1)

Prepared & Analyzed: 22-Jan-20

GRO C6-C10	196	10.0	mg/kg	200		97.9	76.5-133			
DRO >C10-C28	183	10.0	mg/kg	200		91.6	72.9-138			
Total TPH C6-C28	379	10.0	mg/kg	400		94.7	78-132			
<i>Surrogate: 1-Chlorooctane</i>	52.1		mg/kg	50.0		104	41-142			
<i>Surrogate: 1-Chlorooctadecane</i>	51.1		mg/kg	50.0		102	37.6-147			

LCS Dup (0012204-BSD1)

Prepared & Analyzed: 22-Jan-20

GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	3.17	20.6	
DRO >C10-C28	183	10.0	mg/kg	200		91.5	72.9-138	0.0634	20.6	
Total TPH C6-C28	385	10.0	mg/kg	400		96.3	78-132	1.62	18	
<i>Surrogate: 1-Chlorooctane</i>	54.9		mg/kg	50.0		110	41-142			
<i>Surrogate: 1-Chlorooctadecane</i>	53.8		mg/kg	50.0		108	37.6-147			

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Notes and Definitions

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

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101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etched Environmental P.O. #: 606
 Project Manager: Seel Lower Company: _____
 Address: 3160 Plains Hwy Attn: _____
 City: Lovington State: NM Zip: 88260
 Phone #: 532-440-4420 Fax #: _____
 Project #: Wild Cap State Project Owner: Col City: _____
 Project Name: Wild Cap State: _____ Zip: _____
 Project Location: Eddy Co, New Mexico Phone #: _____
 Sampler Name: Margel Ramirez Fax #: _____
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	ANALYSIS REQUEST					
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					ACID/BASE:	ICE / COOL	OTHER :	Chloride	TPH	BTEX 8021
<u>HD00219</u>																			
	<u>1 SP1 @ 3'</u>		<u>2</u>																
	<u>2 NW</u>		<u>1</u>																

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Relinquished By: _____ Date: 1-29-20 Received By: _____
 Relinquished By: _____ Date: 2:00 Received By: _____
 Time: _____

Delivered By: (Circle One) _____
 Sampler - UPS - Bus - Other: #113 1.6c
 Sample Condition: Cool Intact
 Yes No Yes No
 CHECKED BY: _____ (Initials)
 REMARKS: email results to joel@etchedenv.com
10ars@etchedenv.com
Push!!

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476
 Form-075 R 2.0

Appendix D

Photographic Log

Photographic Log

Photo Number: 1
Photo Direction: North
Photo Description: View of Surface Staining from the Initial Release.



Photo Number: 2
Photo Direction: Northeast
Photo Description: View of Surface Staining from the Initial Release.



Photographic Log

Photo Number: 3	
Photo Direction: North	
Photo Description: View of Excavation Activities.	

Photo Number: 4	
Photo Direction: Southwest	
Photo Description: View of Excavation Activities.	

Photographic Log

Photo Number: 5	
Photo Direction: East	
Photo Description: View of the affected area after remediation activities.	

Photo Number: 6	
Photo Direction: Southeast	
Photo Description: View of the affected area after remediation activities.	