

# Additional Information

Submitted 10/26/2021

## Rose-Coss, Dylan H, EMNRD

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**From:** Rose-Coss, Dylan H, EMNRD  
**Sent:** Friday, November 5, 2021 10:22 AM  
**To:** Travis Hahn  
**Cc:** Velez, Nelson, EMNRD  
**Subject:** FW: [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

Travis,

After taking a closer look at the open incident associated with the Centerpoint SWD (ID: NCS1805448077), it appears that the proper documentation (C-141) was never submitted. Additionally, since this incident occurred the "Release Rule" has changed and there is no written approved work plan on file. Therefore, the release is subject to the current regulations. At this point, to close the incident a new C-141 will need to be filed within the OCD permitting portal and the applicable rules under 19.15.29 NMAC will need to be adhered to.

Should you have questions regarding the new requirements and remediating the release, you may contact Nelson Velez ( [nelson.velez@state.nm.us](mailto:nelson.velez@state.nm.us) ) out of the Aztec office for further assistance.

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** Rose-Coss, Dylan H, EMNRD  
**Sent:** Thursday, November 4, 2021 12:13 PM  
**To:** Travis Hahn <thahn@maralexinc.com>  
**Cc:** Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Murphy, Kathleen A, EMNRD

<KathleenA.Murphy@state.nm.us>

**Subject:** RE: [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

Travis,

I reviewed the supplemental material and it does not satisfy the previous requests (see responses in red). Please be sure to verify that the request is fully satisfied before resubmitting any additional material.

- A wellbore history including any leaks and corresponding repairs previously made and specifically what was used to repair the well
  - Provide description of well repairs
- A record of Env compliance; all releases must be closed or in process
  - Correspondence re: closure report acceptance/denial/additional work
- Notice in the paper see requirement in NMAC 19.15.26 (C)
  - Evidence that the requirement was accomplished was not provided
- AOR wells that penetrate injection interval, and schematics of plugged wells
  - Not included
  - List in application only includes one well and does not indicate if penetrates injection interval
  - Review of OCD data indicates there are 7 wells within ½ mi AOR
- Source water analysis, and fresh water analysis
  - No source water analysis in app, or supplemental material
  - No statement regarding fresh water sampling,
    - Use OSE records to complete well search
    - List wells in AOR and depth to GW,
- List of affected parties that require notice
  - BLM or SLO or tribal notice
    - BLM does not appear to be noticed
    - No map supplied to identify land/lease ownership to verify notice
- Statement from qualified person endorsing application
  - Submit as PDF

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** Travis Hahn <[thahn@maralexinc.com](mailto:thahn@maralexinc.com)>  
**Sent:** Wednesday, October 27, 2021 3:39 PM  
**To:** Rose-Coss, Dylan H, EMNRD <[DylanH.Rose-Coss@state.nm.us](mailto:DylanH.Rose-Coss@state.nm.us)>  
**Subject:** RE: [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

Thank you Dylan, I completely understand on the timeline.  
Travis

On Wed, 27 Oct 2021 20:46:15 +0000, "Rose-Coss, Dylan H, EMNRD" <[DylanH.Rose-Coss@state.nm.us](mailto:DylanH.Rose-Coss@state.nm.us)> wrote:

Thanks Travis,

I'll take a look. Could take me a few days, but I'll let you know if it checks out.

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*

Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** Engineer, OCD, EMNRD <[OCD.Engineer@state.nm.us](mailto:OCD.Engineer@state.nm.us)>  
**Sent:** Wednesday, October 27, 2021 1:43 PM  
**To:** Rose-Coss, Dylan H, EMNRD <[DylanH.Rose-Coss@state.nm.us](mailto:DylanH.Rose-Coss@state.nm.us)>  
**Subject:** FW: [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

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**From:** Travis Hahn <[thahn@maralexinc.com](mailto:thahn@maralexinc.com)>  
**Sent:** Wednesday, October 27, 2021 1:12 PM  
**To:** Engineer, OCD, EMNRD <[OCD.Engineer@state.nm.us](mailto:OCD.Engineer@state.nm.us)>  
**Subject:** RE: [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

Good afternoon Dylan, my week has been extremely busy it makes time fly by!

Good deal on the process, as long as I have a starting point. Thank you very much for helping me get the application complete. Attached is what I could find saved on this computer that looks like it might complete the Admin Checklist besides the newspaper notice. On the newspaper notice does it have to be a specific one?

Thank you again for your help with this application.

Travis Hahn  
Maralex Resources

Office: 970-563-4000

Cell: 575-640-9586

On Wed, 27 Oct 2021 17:41:35 +0000, "Engineer, OCD, EMNRD" <[OCD.Engineer@state.nm.us](mailto:OCD.Engineer@state.nm.us)> wrote:

Hi Travis,

Yes, I'm having a good week. How about yourself?

In terms of the Centerpoint SWD application, you will have to update me on the status. I do not have record of any additional information from the application since the last correspondence. Had everything on the Admin Checklist and the list from the email been taken care of on your end and the only thing left was the newspaper notice? I don't have any additional material on my end.

Not sure if that helps, but let me know if you have any additional questions and we can work through them to get the application complete.

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*

Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

C: (505) 372-8687



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**From:** Travis Hahn <[thahn@maralexinc.com](mailto:thahn@maralexinc.com)>  
**Sent:** Tuesday, October 26, 2021 11:18 AM  
**To:** Engineer, OCD, EMNRD <[OCD.Engineer@state.nm.us](mailto:OCD.Engineer@state.nm.us)>  
**Subject:** [EXTERNAL] Fwd: Centerpoint SWD application [pBL1932954303] SWD-2320

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning Dylan, I hope you are having a good week.

I have taken over for Jordan at Maralex Resources and just trying to get up to date on everything. May I ask where we are on the Centerpoint SWD #1 ([pBL 1932954303] SWD - 2320) application? I was thinking Jordan mention we only need to put a notice in the local paper?

Thank you for all of your help,

Travis Hahn  
Maralex Resources, Inc.  
Office: 970-563-4000  
Cell: 575-640-9586

----- Forwarded message -----

**From:** Engineer, OCD, EMNRD <[OCD.Engineer@state.nm.us](mailto:OCD.Engineer@state.nm.us)>  
**Date:** Thu, Jan 16, 2020 at 10:18 AM

Subject: Centerpoint SWD application [pBL1932954303] SWD-2320

To: [maralextech@gmail.com](mailto:maralextech@gmail.com) <[maralextech@gmail.com](mailto:maralextech@gmail.com)>

To whom it may concern,

After initial review of the Centerpoint SWD #1 ([pBL1932954303] SWD-2320) application, it has been determined that the Division will need the following information to consider the application complete:

- A wellbore history including any leaks and corresponding repairs previously made and specifically what was used to repair the well
- A record of Env compliance; all releases must be closed or in process
- Notice in the paper see requirement in NMAC 19.15.26 (C)
- AOR wells that penetrate injection interval, and schematics of plugged wells
- Source water analysis, and fresh water analysis
- List of affected parties that require notice
  - 
  - 
  - BLM or SLO or tribal notice
- Statement from qualified person endorsing application

Thanks and let me know if you have any questions,

Regards,

**Dylan Rose-Coss**

*Petroleum Specialist*

Oil Conservation Division

1220 South St. Francis Drive



Santa Fe, New Mexico 87505

(505) 476-3477



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**Jordan Reid**

Maralex Resources, Inc.

(970) 563-4000



P.O. Box 338  
Ignacio, Colorado 81137  
(970) 563-4000  
FAX (970) 563-4116

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State of New Mexico  
Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: Centerpoint SWD - Application for Authorization to Inject  
PO Number: UFY9G-191113-C-1080  
Admin. App. No.: pBL1932954303

**Affirmation Statement**

To whom it may concern:

Complete inspection of this application to inject into the Centerpoint SWD (API 05-045-33464) located in Unit P, Section 24, Township 31N, Range 11W has resulted in my endorsement of the application as complete and within the rules and regulations of the permit. As a result, I (A.M. O'Hare) endorse this application as a petroleum engineer and certified professional engineer as complete.

Sincerely,

A.M. O'Hare, PE  
Manager



P.O. Box 338  
Ignacio, Colorado 81137  
(970) 563-4000  
FAX (970) 563-4116

ATTN: Cory Smith  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, NM 87410

Re: Closure Request  
Centerpoint SWD (API 05-045-33464)  
Maralex Disposal, LLC  
Incident Number NCS  
San Juan County, New Mexico

Dear Mr. Smith,

Maralex Disposal, LLC. present the following report detailing remediation of the impacted area located at Unit P, Section 24, Township 31N, Range 11W in San Juan County, New Mexico. The purpose of the soil sampling and remediation activities were to address impacts of the soil after a release of produced water from a workover rig into a temporary containment berm around the wellhead.

On February 23, 2018 Maralex Disposal (MDL) had a workover rig completing workover operations testing tubing integrity when a valve and nipple failed to hold back pressure during the procedure. Approximately 15 BBLS was released and contained within a temporary secondary berm constructed around the workover rig and wellhead. New Mexico Oil Conservation Division was notified in person and via email and MDL received the incident number NCS 1805448077. Based on the soil sampling results and remediation, MDL is requesting no further action on this release.

#### Background

MDL characterized the release according to Table 1, *Closure Criteria for Soils Impacted by a Release*, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). The nearest fresh water well is located 1,115.7 feet from the Centerpoint wellhead with a depth of 43 feet and a depth to water level of 24 feet. The nearest watercourse is located 0.375 miles North of the Centerpoint impact area. The nearest United States Geological Survey (USGS) groundwater monitoring well is located approximately 15 miles northwest of the Centerpoint impact area and reported a depth to water level in 2014 to be 290 feet (closest measurement prior to the release). The impacted site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet any occupied structure or wetland.



The NMOCD Table 1 closure criteria for soil sampling apply and all concentrations for BTEX and hydrocarbons were found to be below the required concentrations.

#### Sampling

Sampling occurred after the workover rig had completed its operations. A five spot pattern in the impacted area of approximately 3000 square feet and a background sample was taken with NMOCD representatives present during the entire sampling activity.

#### Remediation

The impacted area was all within the well pad and contained specifically around the wellhead with a temporary berm that was constructed to contain any potential release during operations. After operations and sampling commenced the impact area was remediated by removing any vegetation and removing any stained gravel and soil that was present.

#### Conclusion

MDL is requesting that this release be closed because of the soil sampling testing in the concentrations allowed by NMOCD and the remediation activities to bring the well pad back into compliance.

Sincerely,

Maralex Disposal, LLC.

A handwritten signature in blue ink, appearing to read "Jordan Reid", is written over a horizontal line.

Jordan Reid  
Production Technician

Attachments:

Figure 1: Site Map

Figure 2: Site Map – Sampling Sites

Figure 3: Centerpoint Water Sources Map

Figure 4: National Wetlands Map

Attachment 1: USGS Groundwater Watch Report

Attachment 2: Green Analytica Sampling Report

Figure 1

**Site Map**

Centerpoint SWD  
05-045-33464  
P-S24-T31N-R11W NM/PM  
Maralex Disposal, LLC.

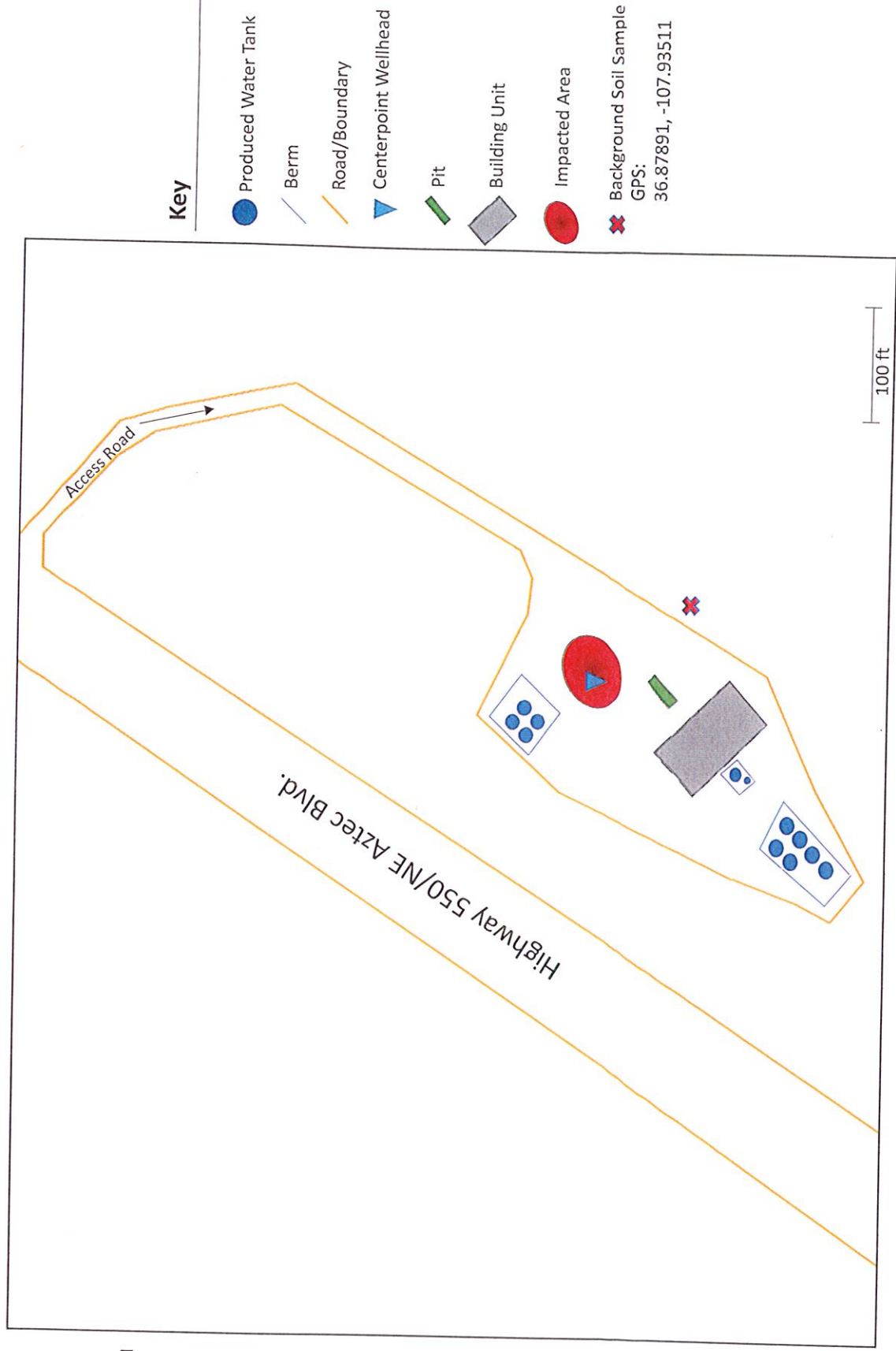


Figure 2

**Site Map - Sampling**  
Centerpoint SWD  
05-045-33464  
P-S24-T31N-R11W NMPM  
Maralex Disposal, LLC.

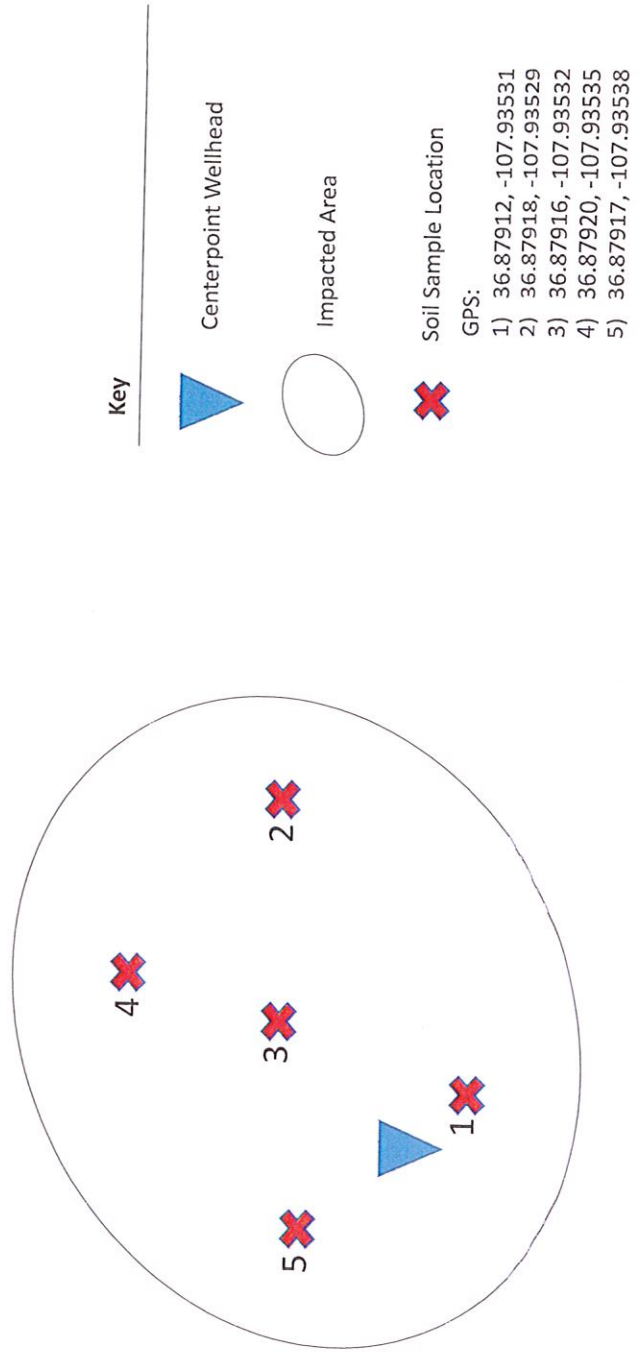
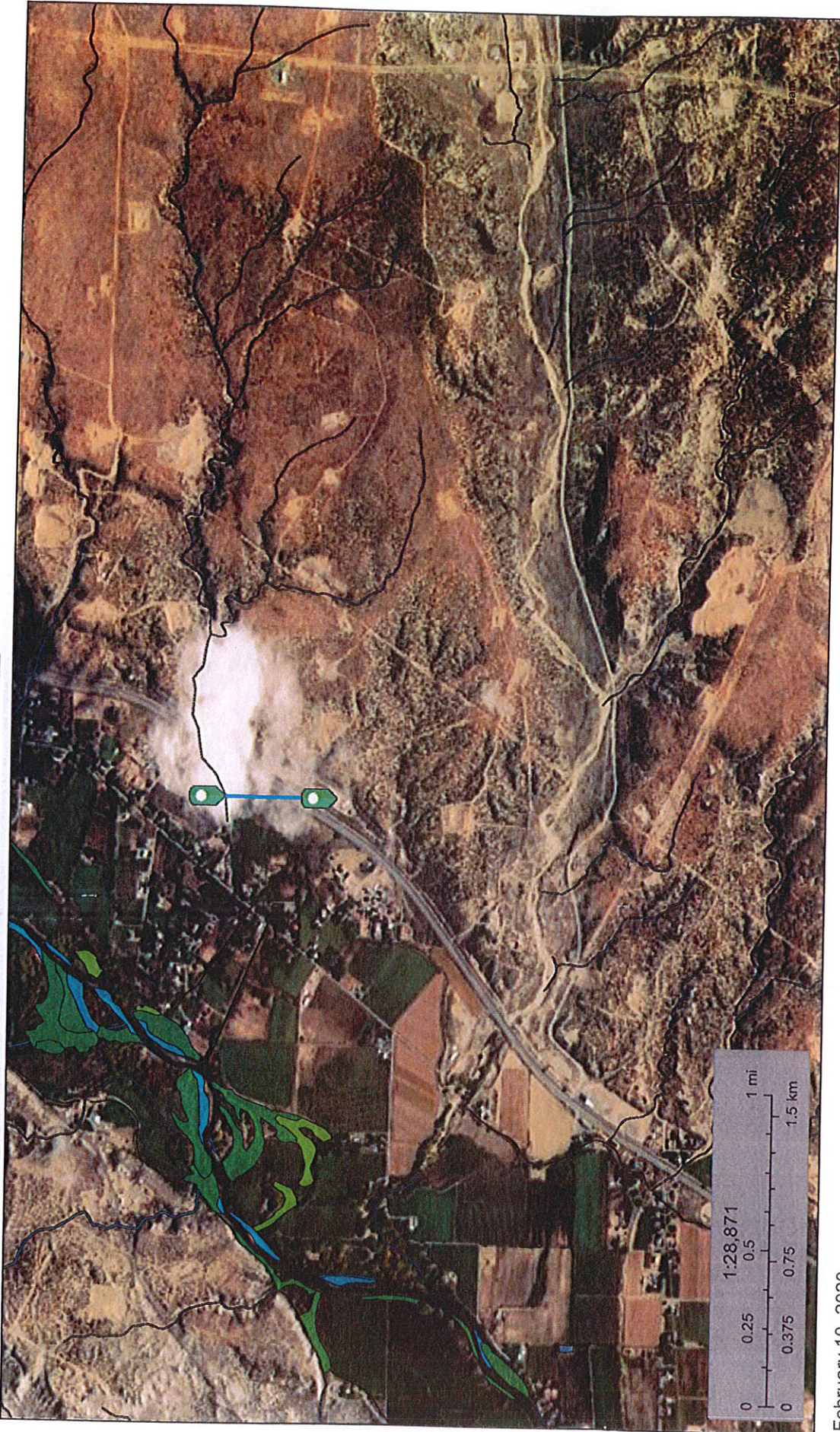


Figure 3

# Centerpoint 1/2 mile Water Sources



U.S. Fish and Wildlife Service  
National Wetlands Inventory



February 10, 2020

### Wetlands

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

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

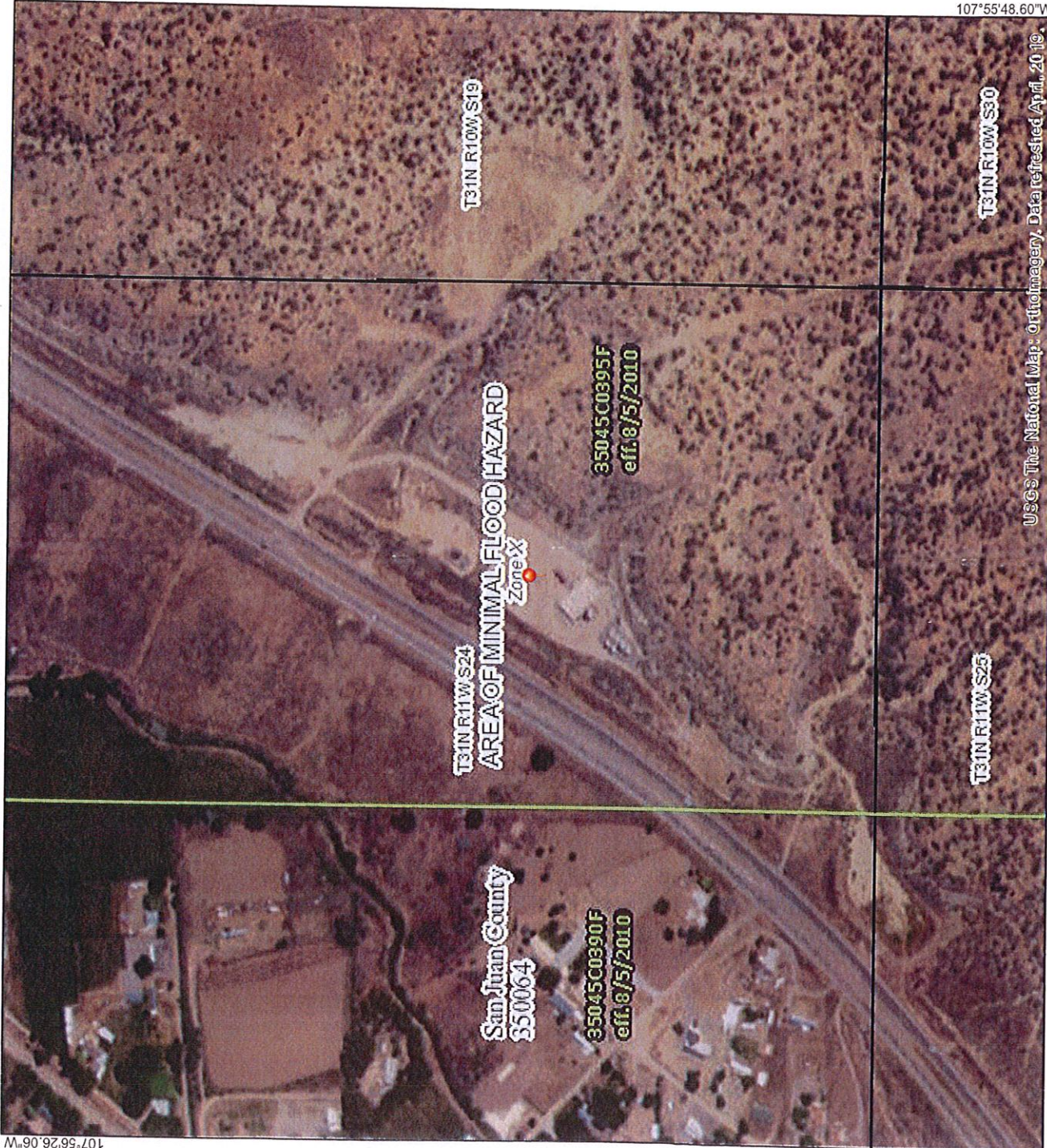


# National Flood Hazard Layer FIRMette



36°52'59.30"N

107°56'26.06"W



107°55'48.60"W

USGS The National Map: Orthoimagery, Data refreshed April 2019  
36°52'30.52"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**



Without Base Flood Elevation (BFE)  
Zone A, V, A99  
With BFE or Depth Zone AE, AO, AH, VE, AR  
Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee, See Notes, Zone X
- Area with Flood Risk due to Levee Zone D



Area of Minimal Flood Hazard Zone X  
Effective LOMRS  
Area of Undetermined Flood Hazard Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature



Digital Data Available  
No Digital Data Available  
Unmapped

**MAP PANELS**

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/11/2020 at 4:54:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Site Number: 365719108125101 - 32N12WS28 334 BDMKPC1



**DESCRIPTION:**

Latitude 36°57'18.50", Longitude 108°12'51.30" NAD83  
 San Juan County, New Mexico, Hydrologic Unit 14080105  
 Well depth: 324.4 feet  
 Land surface altitude: 6,043.26feet above NAVD88.  
 Well completed in "Pictured Cliffs Sandstone" (211PCCF)  
 local aquifer

**AVAILABLE DATA:**

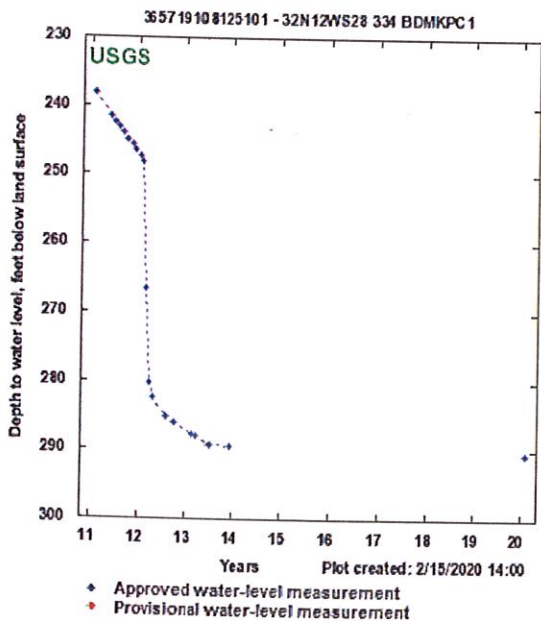
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	2011-01-26	2020-01-29	20

**OPERATION:**

Record for this site is maintained by the USGS New Mexico Water Science Center  
 Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](mailto:New Mexico Water Science Center Water-Data Inquiries)

[Groundwater Watch Help Page](#)

Periodic Groundwater Data



**Summary for Period of Record Periodic Water Levels**

Depth to water level, feet below land surface

Approved Periodic Water Level Values

Begin Date	End Date	Number of Values	
01/26/11	01/29/20	20	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
238.04	01/26/11	290.5	01/29/20

[Groundwater Levels Options](#)

[View latest data on NWISWeb](#)

[Download groundwater levels in text format](#)

[Return to Groundwater Watch](#)

[Return to County Page](#)

[Return to State Page](#)

\*References to non-Department of the Interior (DOI) products do not constitute an endorsement by the DOI.

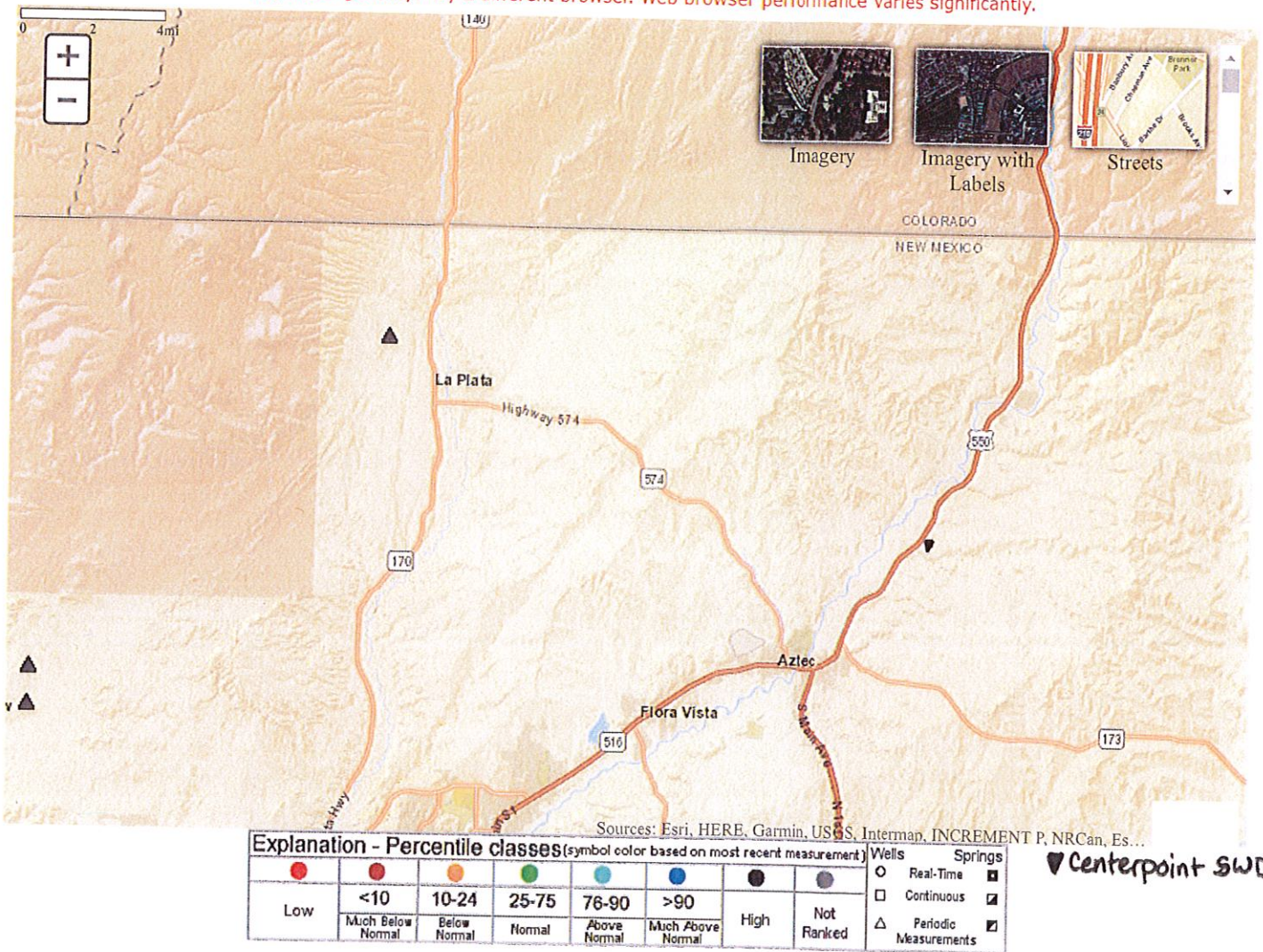


In cooperation with...



## New Mexico Active Water Level Network

Click site symbol to open information pop-up. Click Station ID in pop-up for county information and site selection.  
 Map loading slowly? Try a different browser. Web browser performance varies significantly.



Map generated 2/13/2020 11:07:48 AM

[Groundwater Watch Help Page](#)

[Download Google Earth Version](#)

[Download New Mexico water-level data](#) **NEW**

New Mexico Counties depicted on the state location map with active wells and springs

Counties	Total Sites	Real-Time	Continuous	Periodic	Springs
Bernalillo County	164	-	62	102	-
Catron County	41	-	-	41	-
Chaves County	1	-	-	1	-
Cibola County	4	-	-	4	-
Cofax County	1	-	-	1	-

Curry County	135	-	-	135	-
De Baca County	5	-	-	5	-
Dona Ana County	225	11	7	207	-
Eddy County	1	-	1	-	-
Guadalupe County	4	1	-	3	-
Harding County	1	-	-	1	-
Lea County	2	2	-	-	-
Lincoln County	1	1	-	-	-
McKinley County	28	-	-	28	-
Mora County	2	-	-	2	-
Otero County	1	-	-	-	1
Quay County	14	-	-	14	-
Roosevelt County	15	-	-	15	-
Sandoval County	27	1	7	19	-
San Juan County	15	-	-	15	-
San Miguel County	14	2	-	12	-
Santa Fe County	34	2	22	10	-
Sierra County	28	1	2	25	-
Socorro County	35	-	-	35	-
Taos County	9	-	1	8	-
Torrance County	2	-	-	2	-
Union County	5	-	-	5	-
Valencia County	17	3	2	12	-
<hr/>					
Number of active NM wells & springs:	831	24	104	702	1

[Return to National Page](#)

\*References to non-Department of the Interior (DOI) products do not constitute an endorsement by the DOI.  
By viewing the Google Maps API on this web site the user agrees to these [TERMS](#).

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U.S. Department of the Interior | U.S. Geological Survey

URL: <https://groundwaterwatch.usgs.gov/StateMap.asp>

Page Contact Information: [Contact the GroundWater Watch Support Team](#)

Last update: Tuesday, September 24, 2019 at 09:01





75 Suttle Street  
Durango, CO 81303  
970.247.4220 Phone  
970.247.4227 Fax  
[www.greenanalytical.com](http://www.greenanalytical.com)

27 June 2018

Jordan Reid  
Maralex  
PO Box 338  
Ignacio, CO 81137  
RE: BTEX/TPH & CI

Enclosed are the results of analyses for samples received by the laboratory on 06/15/18 15:20. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

If you any any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Debbie Zufelt". The signature is written in a cursive, flowing style.

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



Maralex PO Box 338 Ignacio CO, 81137	Project: BTEX/TPH & CI Project Name / Number: [none] Project Manager: Jordan Reid	Reported: 06/27/18 16:29
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Site	1806147-01	Solid	06/15/18 14:15	06/15/18 15:20
Background	1806147-02	Solid	06/15/18 14:25	06/15/18 15:20

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



Maralex PO Box 338 Ignacio CO, 81137	Project: BTEX/TPH & CI Project Name / Number: [none] Project Manager: Jordan Reid	Reported: 06/27/18 16:29
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Site

1806147-01 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

**Inorganic Compounds**

Chloride	768	16.0		mg/kg	4	06/20/18	4500-Cl-B		HM
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	06/21/18	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	06/21/18	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	06/21/18	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	06/21/18	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	06/21/18	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID)		113 %	69.8-142			06/21/18	8021B		MS
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	06/21/18	8015B		MS
DRO >C10-C28*	624	10.0	1.56	mg/kg	1	06/21/18	8015B		MS
EXT DRO >C28-C36	386	10.0	1.56	mg/kg	1	06/21/18	8015B		MS

Surrogate: 1-Chlorooctane		83.0 %	41-142			06/21/18	8015B		MS
Surrogate: 1-Chlorooctadecane		91.2 %	37.6-147			06/21/18	8015B		MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.





Maralex  
PO Box 338  
Ignacio CO, 81137

Project: BTEX/TPH & CI  
Project Name / Number: [none]  
Project Manager: Jordan Reid

Reported:  
06/27/18 16:29

**Background**

**1806147-02 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories

**Inorganic Compounds**

Chloride	<16.0	16.0		mg/kg	4	06/20/18	4500-Cl-B		HM
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	06/21/18	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	06/21/18	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	06/21/18	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	06/21/18	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	06/21/18	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID)			113 %	69.8-142		06/21/18	8021B		MS
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	06/26/18	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	06/26/18	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	06/26/18	8015B		MS

Surrogate: 1-Chlorooctane			85.9 %	41-142		06/26/18	8015B		MS
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Surrogate: 1-Chlorooctadecane			76.4 %	37.6-147		06/26/18	8015B		MS
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*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: BTEX/TPH & CI  
Project Name / Number: [none]  
Project Manager: Jordan Reid

Reported:  
06/27/18 16:29

**Inorganic Compounds - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8062001 - 1:4 DI Water</b>										
<b>Blank (8062001-BLK1)</b> Prepared & Analyzed: 06/20/18										
Chloride	ND	16.0	mg/kg							
<b>LCS (8062001-BS1)</b> Prepared & Analyzed: 06/20/18										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (8062001-BSD1)</b> Prepared & Analyzed: 06/20/18										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8062101 - Volatiles</b>										
<b>Blank (8062101-BLK1)</b> Prepared & Analyzed: 06/21/18										
Surrogate: 4-Bromofluorobenzene (PID)	0.104		mg/kg	0.100		104	69.8-142			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
<b>LCS (8062101-BS1)</b> Prepared & Analyzed: 06/21/18										
Surrogate: 4-Bromofluorobenzene (PID)	0.102		mg/kg	0.100		102	69.8-142			
Benzene	2.21	0.050	mg/kg	2.00		110	74.5-124			
Ethylbenzene	2.18	0.050	mg/kg	2.00		109	78.6-122			
Toluene	2.19	0.050	mg/kg	2.00		110	78.8-122			
Total Xylenes	6.83	0.150	mg/kg	6.00		114	79.7-123			
<b>LCS Dup (8062101-BSD1)</b> Prepared & Analyzed: 06/21/18										
Surrogate: 4-Bromofluorobenzene (PID)	0.0998		mg/kg	0.100		99.8	69.8-142			
Benzene	2.30	0.050	mg/kg	2.00		115	74.5-124	4.29	15.2	
Ethylbenzene	2.28	0.050	mg/kg	2.00		114	78.6-122	4.52	15.4	
Toluene	2.28	0.050	mg/kg	2.00		114	78.8-122	4.11	15.1	
Total Xylenes	7.09	0.150	mg/kg	6.00		118	79.7-123	3.67	15.2	

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: BTEX/TPH & CI  
Project Name / Number: [none]  
Project Manager: Jordan Reid

Reported:  
06/27/18 16:29

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 8062003 - General Prep - Organics**

**Blank (8062003-BLK1)**

Prepared & Analyzed: 06/20/18

Surrogate: 1-Chlorooctadecane	39.6		mg/kg	50.0		79.2	37.6-147			
Surrogate: 1-Chlorooctane	44.1		mg/kg	50.0		88.2	41-142			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							

**LCS (8062003-BS1)**

Prepared & Analyzed: 06/20/18

Surrogate: 1-Chlorooctadecane	43.3		mg/kg	50.0		86.6	37.6-147			
Surrogate: 1-Chlorooctane	46.8		mg/kg	50.0		93.5	41-142			
DRO >C10-C28	200	10.0	mg/kg	200		99.8	72.9-138			
GRO C6-C10	189	10.0	mg/kg	200		94.7	76.5-133			
Total TPH C6-C28	389	10.0	mg/kg	400		97.3	78-132			

**LCS Dup (8062003-BSD1)**

Prepared & Analyzed: 06/20/18

Surrogate: 1-Chlorooctadecane	43.2		mg/kg	50.0		86.5	37.6-147			
Surrogate: 1-Chlorooctane	48.1		mg/kg	50.0		96.3	41-142			
DRO >C10-C28	194	10.0	mg/kg	200		97.1	72.9-138	2.78	20.6	
GRO C6-C10	188	10.0	mg/kg	200		94.0	76.5-133	0.775	20.6	
Total TPH C6-C28	382	10.0	mg/kg	400		95.6	78-132	1.80	18	

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: BTEX/TPH & CI  
Project Name / Number: [none]  
Project Manager: Jordan Reid

Reported:  
06/27/18 16:29

**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis  
\*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)
- RL Report Limit
- MDL Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**  
 FORM-006  
 COC - Revision 5.0

service@greenanalytical.com or dzufelt@greenanalytical.com  
 75 Suttle St Durango, CO 81303

(970) 247-4220  
 Fax: (970) 247-4227

Company or Client: Maralex Disposal  
 Address: PO BOX 338  
 City: Ignacio State: CO Zip: 81137  
 Phone #: (970) 563-4000  
 Contact Person: Jordan Reid  
 Email Report to: maralextech@gmail.com  
 Project Name (optional):  
 Sampler Name (Print):

Bill to (if different):

P.O. #:  
 Company:  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:  
 Phone #:  
 Email:

For Lab Use	Sample Name or Location	Collected		Matrix (check one)	# of containers	ANALYSIS REQUEST
		Date	Time			
1806-149-01	Site	6/15/18	2:15	GROUNDWATER	1	8015 TPH Deg. Grey, Muc 8001 BTEX Chlorides (YSO oky) (percent)
-02	Background	6/15/18	2:25	SOIL	1	
				WASTEWATER		
				PRODUCEWATER		
				DRINKING WATER		
				OTHER:		
				No preservation (generally)		
				HNO <sub>3</sub>		
				HCl		
				H <sub>2</sub> SO <sub>4</sub>		
				Other		
				Other		

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of title, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder.

Relinquished By: [Signature] Date: 6/15/18 Time: 15:20  
 Relinquished By: Chantaw Clark Date: 6/18/18 Time: 16:55  
 Relinquished By: Kangaroo Express Date: 6/19/18 Time: 08:47  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: Chantaw Clark  
 Received By: Kangaroo Express  
 Received By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

Report to State? (Circle)  
 Yes: \_\_\_\_\_ No: \_\_\_\_\_

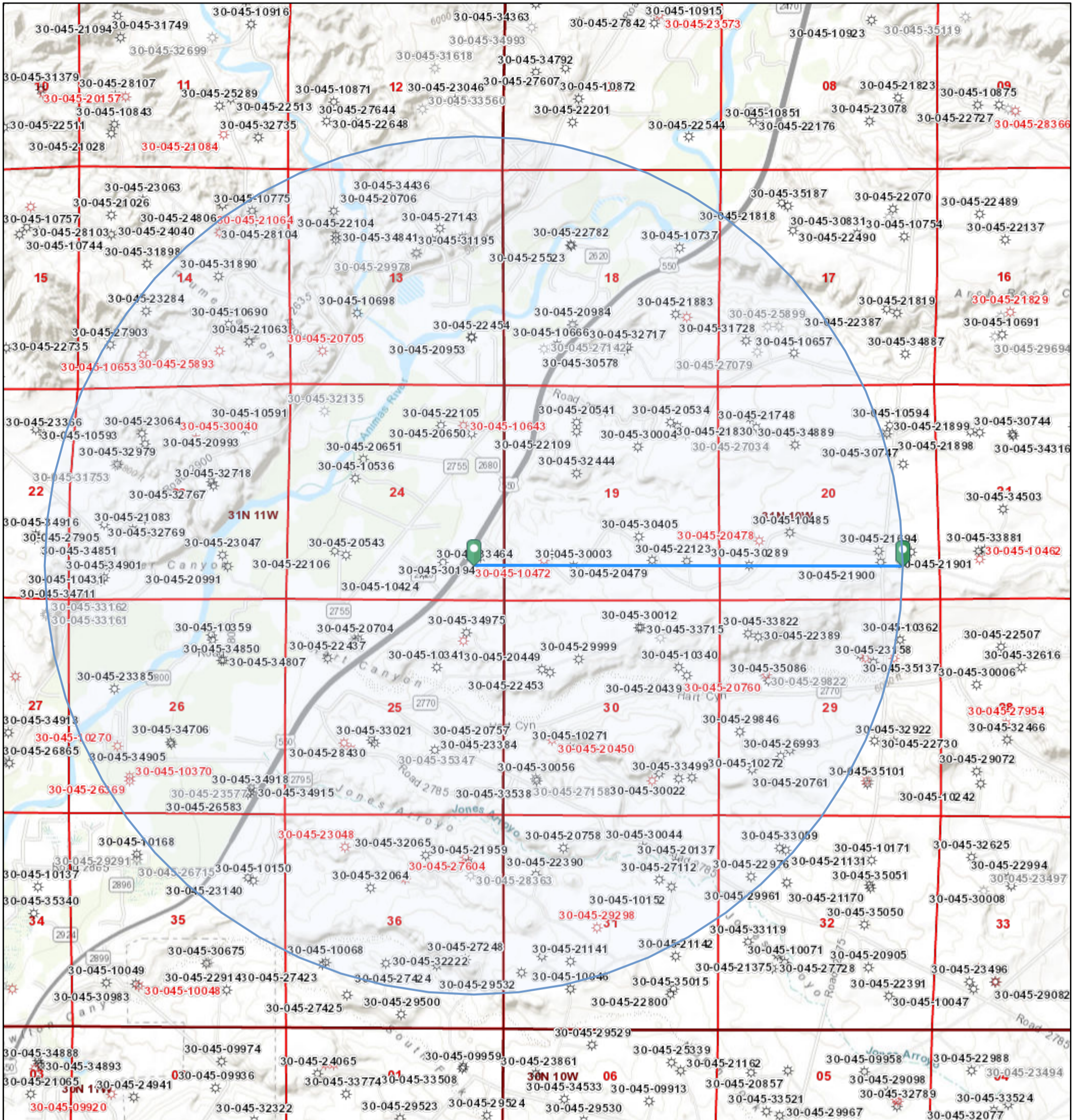
Temperature at receipt: 19.4 C  
 CHECKED BY: [Signature]

\* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

**Centerpoint Wellbore History**

<b>Date</b>	<b>Activity</b>
4/30/2006	- Spud
11/28/2006	- Mechanical Integrity Test (passed)
11/30/2006	- Injection approval granted
12/1/2006	- Begin injection
5/9/2009	- Pressure tests - wellhead, tubing, on/off tool, and packer (passed)
8/13/2009	- Bradenhead test (passed)
2/19/2014	- Perforations - 8028' - 8050' with 4 JSPF and 90° phasing
11/25/2014	- Mechanical Integrity Test (passed)
11/30/2017	- Pressure tests - NMOCD witnessed and greenlight to continue injection
12/1/2017	- Well workover - bailing
12/6/2017	- Well workover - fishing packer and tubing
1/10/2018	- Well workover - milling out tight spot
1/26/2018	- Well workover - pulled fish
2/7/2018	- Well workover - packer set
2/13/2018	- Well workover - finding hole, found
2/14/2018	- Filed cement program to NMOCD, approved
2/16/2018	- Executed cementing program
2/26/2018	- Bradenhead test (passed)
8/13/2018	- Mechanical Integrity Test (passed)

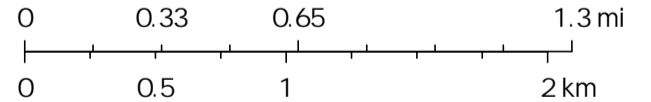
# OCD Well Locations



9/3/2019, 1:55:26 PM

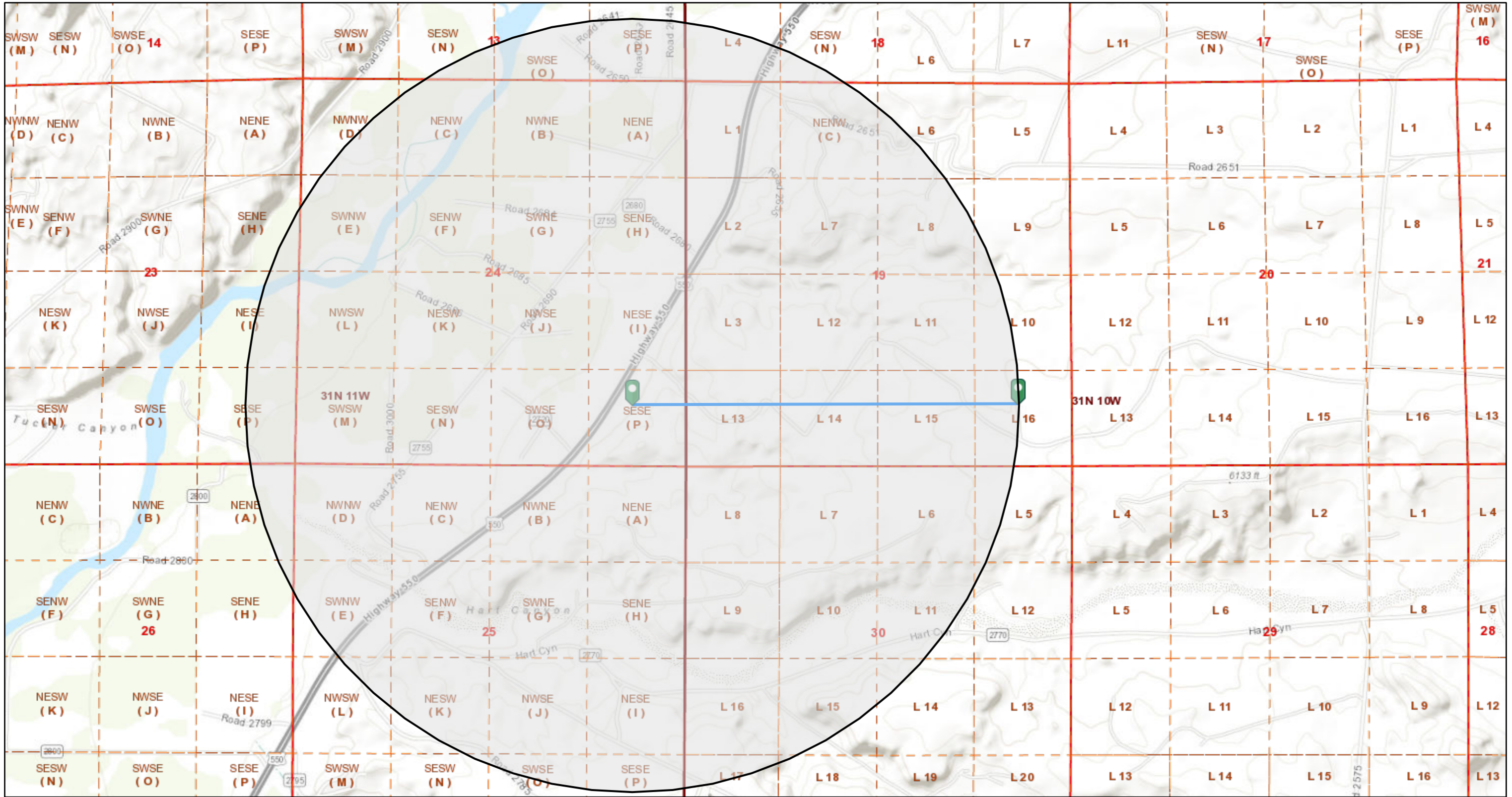
1:36,112

- Override 1
- \* Gas Active
- \* Gas, Cancelled, Never Drilled
- \* Gas, New
- \* Gas, Plugged
- \* Gas, Temporarily Abandoned
- \* Injection, Active
- \* Injection, Cancelled
- \* Injection, New
- \* Injection, Plugged
- \* Injection, Temporarily Abandoned
- \* Oil, Active
- \* Oil, Cancelled
- \* Oil, New
- \* Oil, Plugged
- \* Oil, Temporarily Abandoned
- \* Salt Water Injection, Active
- \* Salt Water Injection, Cancelled
- \* Salt Water Injection, New
- \* Salt Water Injection, Plugged
- \* Salt Water Injection Temporarily Abandoned
- \* Water, Active
- \* Water, Cancelled
- \* Water, New
- \* Water, Plugged
- \* Water, Temporarily Abandoned
- PLSS First Division



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, OCD,

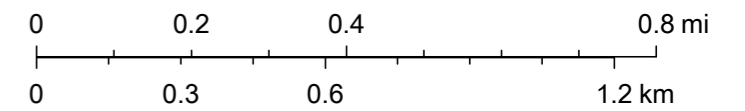
# Water Wells - 1 Mile Radius



1/20/2020, 11:41:42 AM

1:19,611

- |                     |                            |                                  |                              |   |
|---------------------|----------------------------|----------------------------------|------------------------------|---|
| Override 1          | CO2, Plugged               | Gas, Temporarily Abandoned       | Oil, Active                  | Salt Water Injection, Cancelled             |
| Wells - Large Scale | CO2, Temporarily Abandoned | Injection, Active                | Oil, Cancelled               | Salt Water Injection, New                   |
| undefined           | Gas, Active                | Injection, Cancelled             | Oil, New                     | Salt Water Injection, Plugged               |
| Miscellaneous       | Gas, Cancelled             | Injection, New                   | Oil, Plugged                 | Salt Water Injection, Temporarily Abandoned |
| CO2, Active         | Gas, New                   | Injection, Plugged               | Oil, Temporarily Abandoned   | Water, Active                               |
| CO2, Cancelled      | Gas, Plugged               | Injection, Temporarily Abandoned | Salt Water Injection, Active | Water, Cancelled                            |
| CO2, New            |                            |                                  |                              |   |



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI,