

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NCS1805448077
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Maralex Disposal, LLC	OGRID	193838
Contact Name	Diane Togstad	Contact Telephone	(970) 563-4000
Contact email	diane.togstad@edkt-llc.com	Incident # (assigned by OCD)	NCS1805448077
Contact mailing address	P.O. Box 338, Ignacio, CO 81137		

Location of Release Source

Latitude 36.879138 Longitude -107.935344
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Centerpoint SWD 001	Site Type	Disposal Well
Date Release Discovered	February 23, 2018	API# (if applicable)	30-045-33464

Unit Letter	Section	Township	Range	County
P	24	31N	11W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: Maralex Disposal LLC)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release On February 23, 2018 a workover rig during tubing integrity testing had 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 at grade.

Incident ID	NCS1805448077
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) **Bermed area at ground surface, used aerial map.**
- ☒ 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: Diane Togstad Title: Regulatory Tech
Signature: *Diane Togstad* Date: 6/01/2022
email: diane.togstad@dkl-llc.com Telephone: 970-563-4000

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: *Nelson Velez* Date: 06/01/2022
Printed Name: Nelson Velez Title: Environmental Specialist - Adv



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', 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

From: Smith, Cory, EMNRD

Sent: Friday, February 23, 2018 1:29 PM

To: 'Production Technician' <maralextech@gmail.com>

Cc: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>

Subject: ATTN Jordan Reid Centepoint SWD Produce Water Release.

Jordan,

As discussed the OCD has received Maralex Disposal initial C-141 on February 20, 2018 for a produce water spill that occurred on February 9, 2018 at the Centerpoint SWD (30-045-33464). The OCD has approved the C-141 with the attached and following conditions of approval:

- Maralex will sample and/or start remediation of the release area no later than May 9, 2018
- Maralex will sample for TPH, BTEX, Benzene and Chlorides
- Maralex will schedule with OCD District III Environmental for any confirmation sampling for both the excavation and/or release area with at least 24 hour notice.

If you have any questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Production Technician <maralextech@gmail.com>

Sent: Wednesday, June 6, 2018 2:43 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>

Subject: Sample collection

Hi Cory,

I apologize for getting back to you late. There was a rig on Centerpoint SWD for a while after the spill and you didn't want the samples taken when there was a rig on location. I have contacted Green Analytical for the testing and will pick up sample containers this week. Do you know how many samples need to be taken and who do I contact to have come out and witness the sampling?

Thanks,

Jordan Reid
Maralex Resources
maralextech@gmail.com
(970) 563-4000

From: [Smith, Cory, EMNRD](#)
Sent: Wednesday, June 6, 2018 3:53 PM
To: [Production Technician](#)
Cc: [Fields, Vanessa, EMNRD](#)
Subject: RE: Sample collection

Hello,

I do not know how many samples as I do not know the impacted size from the release.

I would like to witness the sampling when were you planning on going out I am covered up pretty much the rest of the week.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Production Technician <maralextech@gmail.com>
Sent: Monday, June 11, 2018 10:41 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: RE: Sample collection

Hi Cory,

Sorry about getting back to you late, I had to be in the field the later part of last week. The area affected is about 3000 square feet. If you let me know how many samples are required I can pick up the correct number of containers and I am available almost anytime this week to meet with you for recovering samples.

Thanks,

Jordan Reid
Maralex Resources
maralextech@gmail.com
(970) 563-4000

From: Production Technician <maralextech@gmail.com>
Sent: Friday, August 3, 2018 12:55 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: CenterPoint soil samples results

Hi Cory,

My apologies for the late response, got lost in the shuffle after my vacation. Attached are the results from Green Analytica on the Centerpoint spill.

Please let me know if anything else is needed.

Thanks,

Jordan Reid
Maralex Resources
maralextech@gmail.com
(970) 563-4000

From: Smith, Cory, EMNRD
Sent: Friday, August 3, 2018 2:25 PM
To: 'Production Technician' <maralextech@gmail.com>
Cc: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: RE: CenterPoint soil samples results

Jordan,

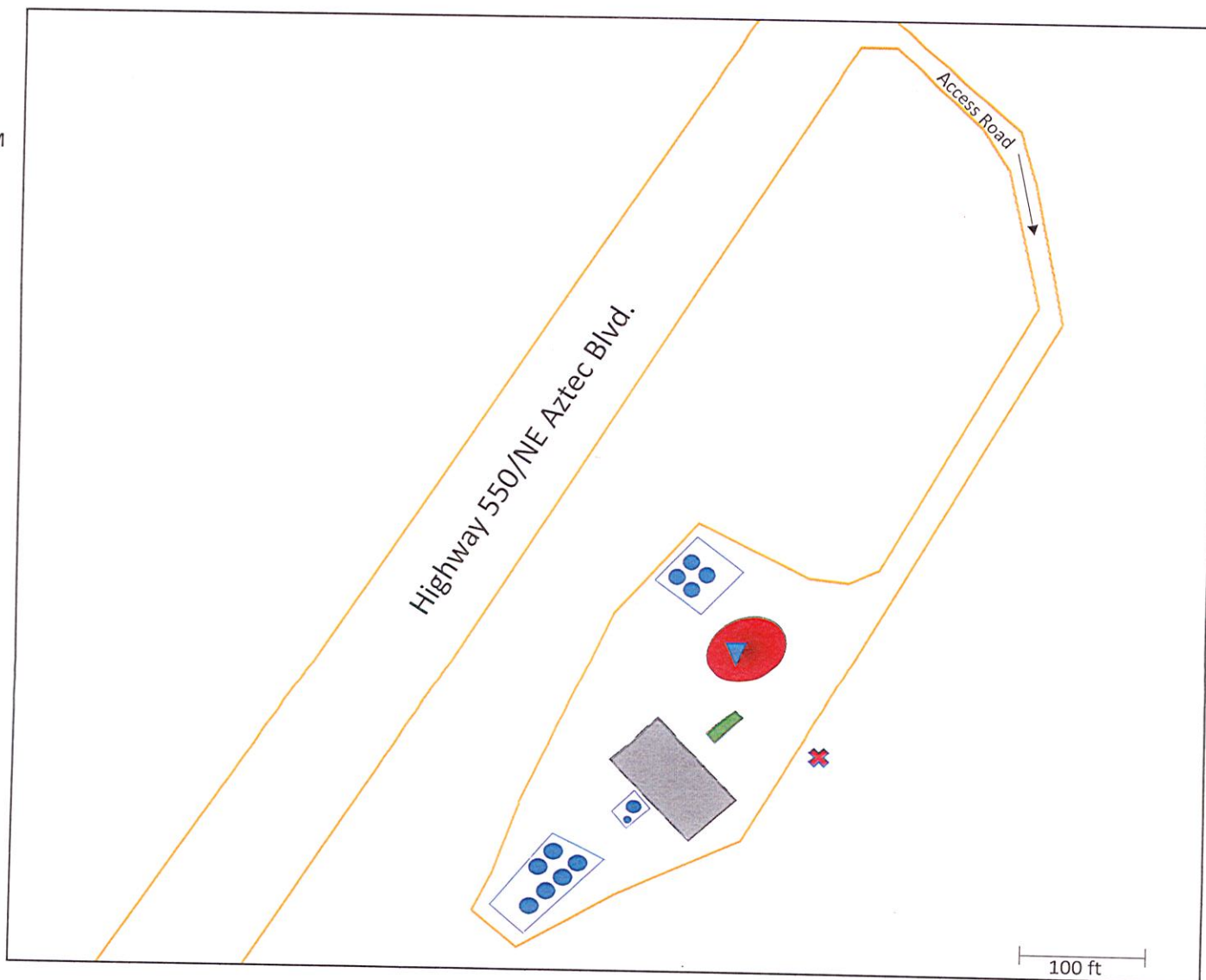
Thank you, looks like the release is below the closure standards. I would recommend raking any surface oil stains like mentioned to avoid any future issues. Please send in the Final C-141 with all the required attachments no later than August 31, 2018.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

Site Map

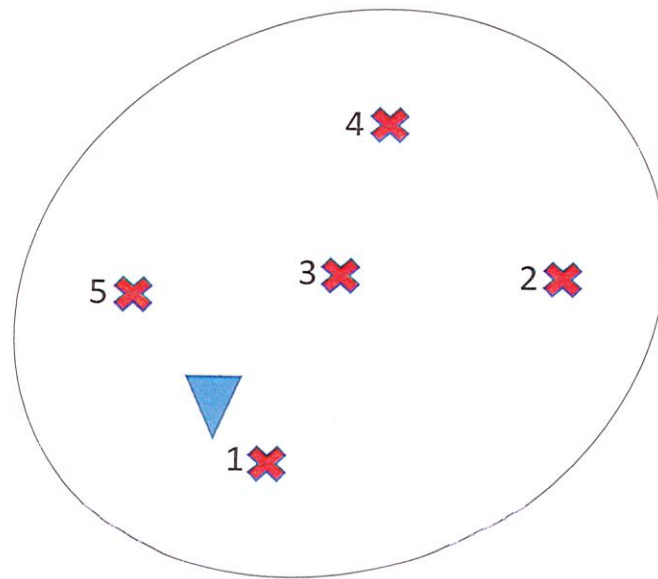
Centerpoint SWD
05-045-33464
P-S24-T31N-R11W NMPPM
Maralex Disposal, LLC.



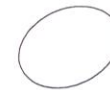
Key

- Produced Water Tank
- / Berm
- Road/Boundary
- ▼ Centerpoint Wellhead
- ▬ Pit
- ▭ Building Unit
- Impacted Area
- ✕ Background Soil Sample
GPS:
36.87891, -107.93511

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

**Key**

Centerpoint Wellhead



Impacted Area

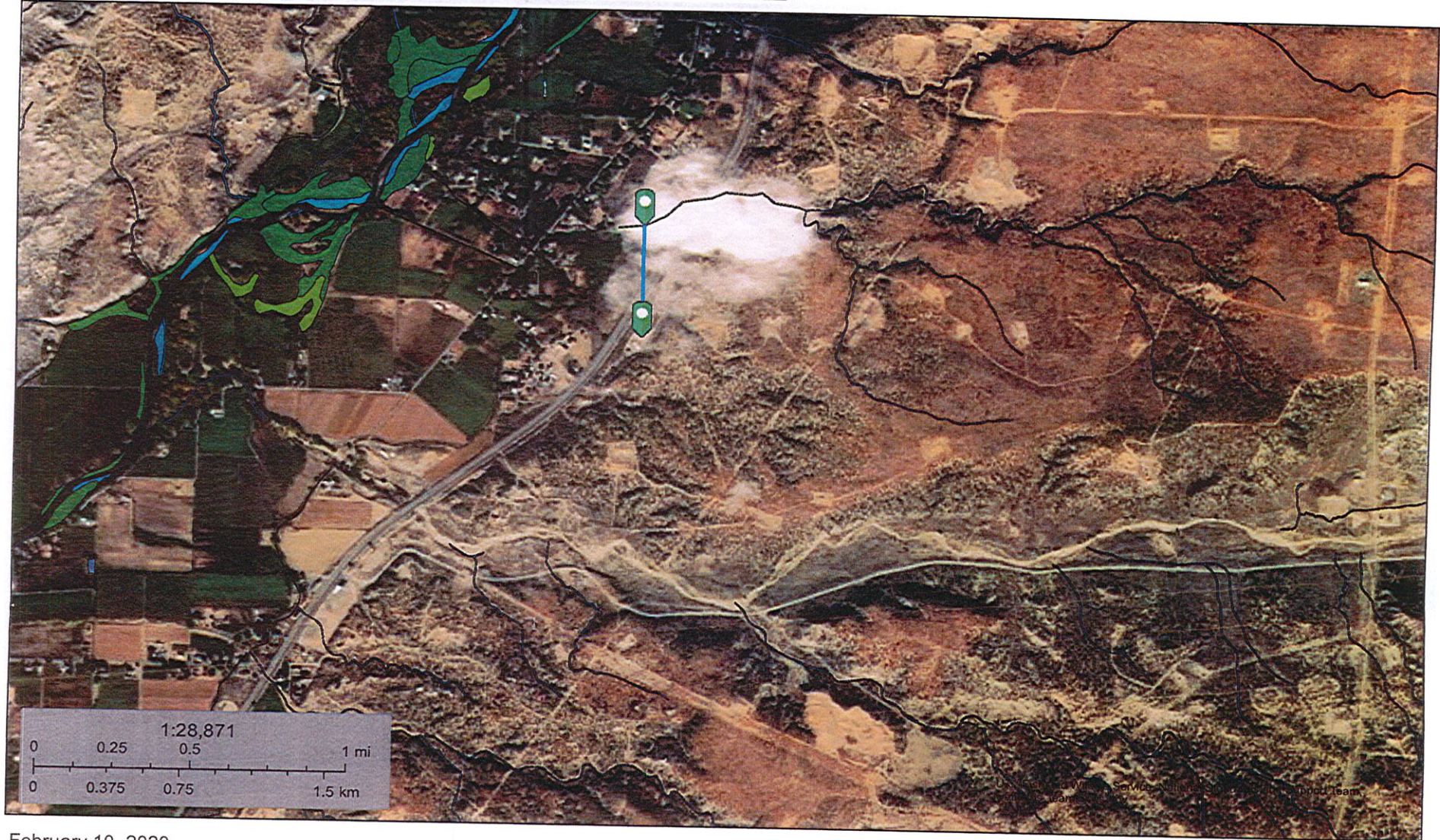


Soil Sample Location

GPS:

- 1) 36.87912, -107.93531
- 2) 36.87918, -107.93529
- 3) 36.87916, -107.93532
- 4) 36.87920, -107.93535
- 5) 36.87917, -107.93538

Centerpoint 1/2 mile Water Sources



February 10, 2020

Wetlands

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

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

National Flood Hazard Layer FIRMette



36°52'59.30"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, Area 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

OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		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

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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 1:54:32 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.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

36°52'30.52"N

107°55'48.60"W

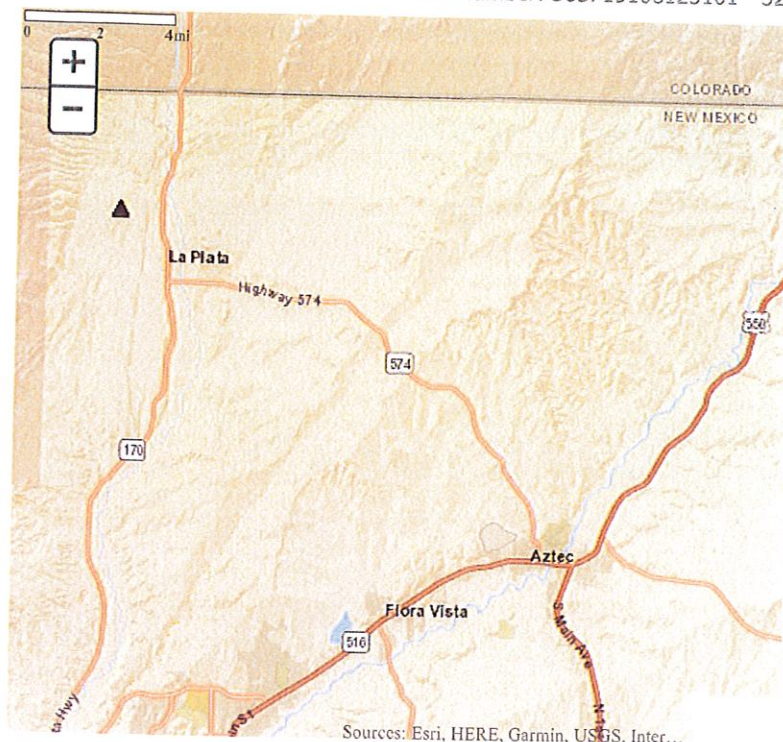


Groundwater Watch

USGS Home
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Latest News...

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:

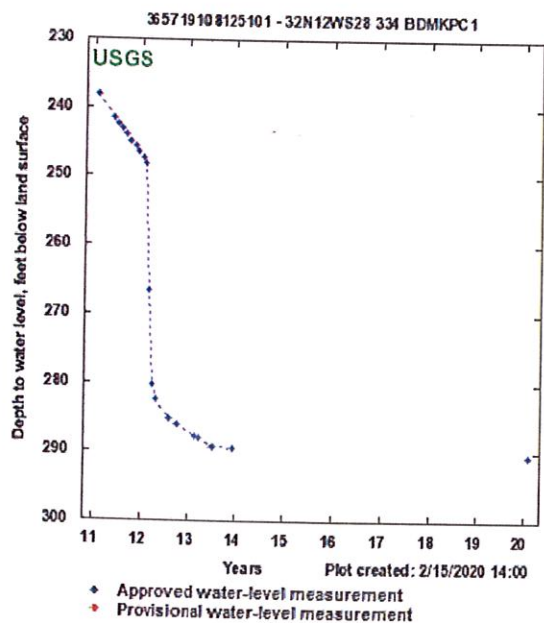
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	2011-01-26	2020-01-29	20

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](#)

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

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

Page Contact Information: Contact the GroundWater Watch Support Team
Last update: Thursday, September 26, 2019 at 13:24



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Groundwater Watch

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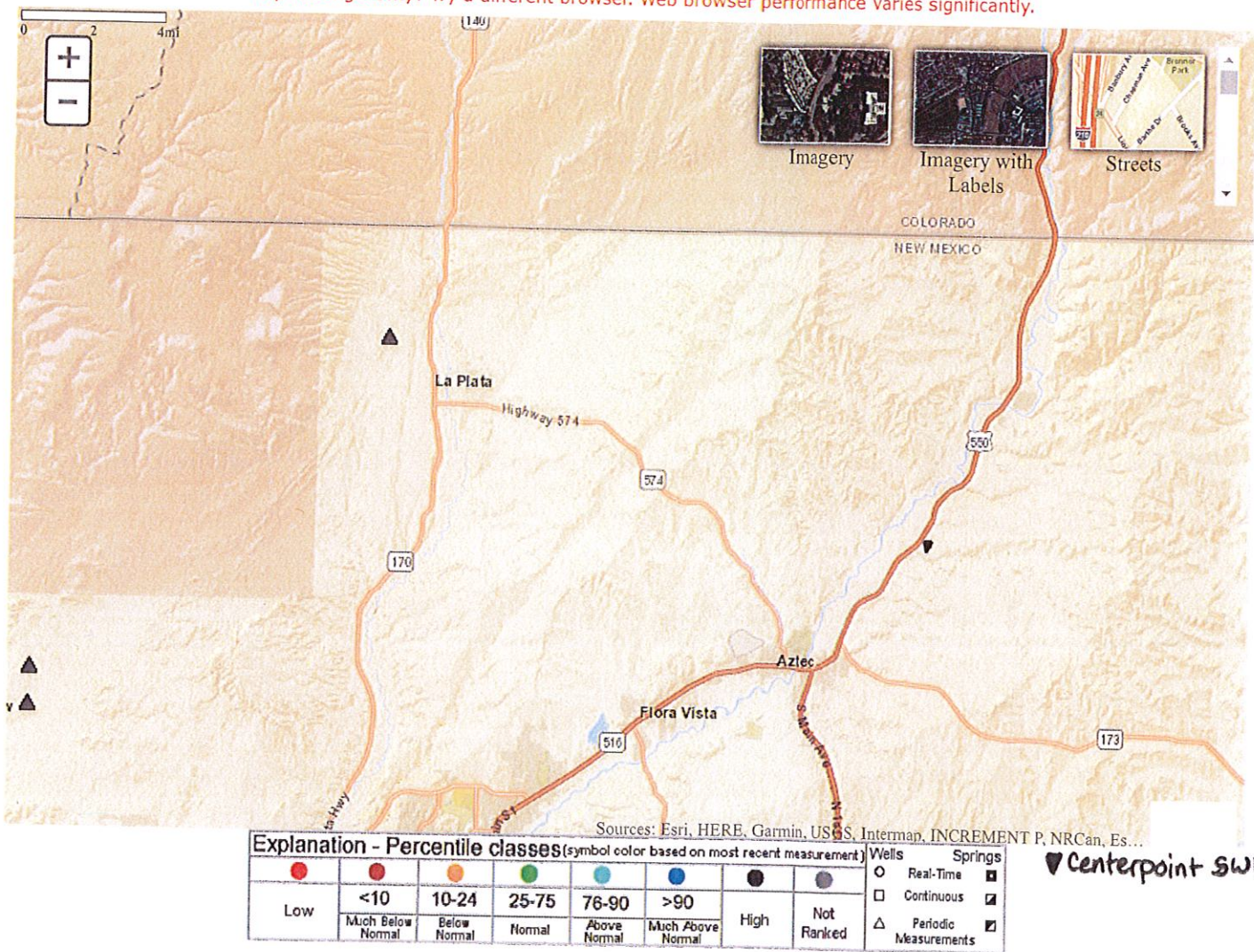
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In cooperation with...



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.



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	-
Colfax 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	-
Number of active NM wells & springs:	831	24	104	702	1

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

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

Page displayed in 47,702.160 seconds.





75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
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'.

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.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

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

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

A handwritten signature in black ink that reads '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.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

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

Site

1806147-01 (Solid)

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

Subcontracted -- Cardinal Laboratories

Inorganic Compounds

Chloride	768	16.0		mg/kg	4	06/20/18	4500-Cl-B		HM
----------	-----	------	--	-------	---	----------	-----------	--	----

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

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, Reports Manager

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

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
----------	-------	------	--	-------	---	----------	-----------	--	----

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

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
Surrogate: 1-Chlorooctadecane			76.4 %	37.6-147		06/26/18	8015B		MS

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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
Batch 8062001 - 1:4 DI Water										
Blank (8062001-BLK1)										
Chloride	ND	16.0	mg/kg							Prepared & Analyzed: 06/20/18
LCS (8062001-BS1)										
Chloride	416	16.0	mg/kg	400		104	80-120			Prepared & Analyzed: 06/20/18
LCS Dup (8062001-BS1)										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	Prepared & Analyzed: 06/20/18

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
Batch 8062101 - Volatiles										
Blank (8062101-BLK1)										
Surrogate: 4-Bromofluorobenzene (PID)	0.104		mg/kg	0.100		104	69.8-142			Prepared & Analyzed: 06/21/18
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							
LCS (8062101-BS1)										
Surrogate: 4-Bromofluorobenzene (PID)	0.102		mg/kg	0.100		102	69.8-142			Prepared & Analyzed: 06/21/18
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			
LCS Dup (8062101-BS1)										
Surrogate: 4-Bromofluorobenzene (PID)	0.0998		mg/kg	0.100		99.8	69.8-142			Prepared & Analyzed: 06/21/18
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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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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Debbie Zufelt, Reports Manager

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Project: BTEX/TPH & CI
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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

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt, Reports Manager

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COC - Revision 5.0

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

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

CONDITIONS

Action 112569

CONDITIONS

Operator: MARALEX RESOURCES INC P.O. Box 338 Ignacio, CO 81137	OGRID: 13998
	Action Number: 112569
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	6/1/2022