Armando Martinez
Operations Lead, Portfolio Operations Central

VIA ELECTRONIC MAIL

January 10, 2023

New Mexico Oil Conservation Division, District II
811 S. First Ct
Artesia, NM 88210

Re: SCB 5B to Candelario 4-inch Polyline
2022 Soil Assessment Report
2RP-4737
Eddy County, New Mexico

Dear whom it concerns,

Please find enclosed for your filed, copies of the following:

- SCB 5B to Candelario 4-inch Polyline – 2022 Soil Assessment Report

The 2022 Soil Assessment Report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC).

Please do not hesitate to call Sarah Johnson with Arcadis at 432.227.0266 or myself at 575.586.7639, should you have any questions.

Sincerely,

Armando Martinez

Encl. SCB 5B to Candelario Polyline 4-inch Polyline, 2RP-4737 2022 Soil Assessment Report

cc. Amy Barnhill, Chevron/MCBU

Armando Martinez
Operations Lead Central
Portfolio Operations - Central
354 State Highway 38, Questa, NM 87556-0469
Tel 575 586 7639 Mobile 505 690 5408 Fax 575 586 0811
amarti@chevron.com

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	NAB1813056113
District RP	2RP-4737
Facility ID	FAB1813055699
Application ID	pAB1813057038

Release Notification

Responsible Party

Responsible Party: Chevron USA Inc.	OGRID
Contact Name: Armando Martinez	Contact Telephone: 575.586.7639
Contact email: amarti@chevron.com	Incident # *(assigned by OCD)*: NAB1813056113
Contact mailing address: P.O. Box 469 Questa, NM 87564	

Location of Release Source

Latitude 32.294911 Longitude -104.043545
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: SCB 5B to Candelario 24-1 SWD 4-Inch Polyline	Site Type: Produced Water Transfer Line
Date Release Discovered: April 6, 2018	API# *(if applicable)*: N/A

Unit Letter	Section	Township	Range	County
C	24	23S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* Mosaic Company)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) ~7.2 bbls	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) ~720 bbls	Volume Recovered (bbls) ~385 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: A third party drove over the 4-inch diameter polyline that transfers produced water from SCB 5B to the Candelario SWD #1 disposal well which caused a failure in the line. The landowner, Mosaic Company (Mosaic), used clamps to pinch the polyline on both sides of the damaged area, however the clamps reportedly disengaged over the weekend while unsupervised causing a subsequent release.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1813056113
District RP	2RP-4737
Facility ID	FAB1813055699
Application ID	pAB1813057038

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release was greater than 25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, Josh Turner contacted Mike Bratcher on April 30, 2018 by an unknown means.

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Armando Martinez Title: Project Manager

Signature: Armando Martinez Date: 1-10-2023

email: amarti@chevron.com Telephone: 575.586.7639

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1813056113
District RP	2RP-4737
Facility ID	FAB1813055699
Application ID	pAB1813057038

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

State of New Mexico
Oil Conservation Division

Incident ID	NAB1813056113
District RP	2RP-4737
Facility ID	FAB1813055699
Application ID	pAB1813057038

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: Armando Martinez Title: Project Manager

Signature:  Date: 1-10-2023

email: amarti@chevron.com Telephone: 575.586.7639

OCD Only

Received by: Jocelyn Harimon Date: 01/30/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAB1813056113
District RP	2RP-4737
Facility ID	FAB1813055699
Application ID	pAB1813057038

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.

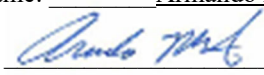
☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

*Deferral is being requested for the area located along the southern perimeter of the road previously determined to have soil exceedances that are currently encapsulated by concrete from previous road construction 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.

Printed Name: Armando Martinez Title: Project Manager

Signature:  Date: 1-10-2023

email: amarti@chevron.com Telephone: 575.586.7639

OCD Only

Received by: Jocelyn Harimon Date: 01/30/2023

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

Signature: _____ Date: _____

ARCADIS

Chevron Environmental Management Company

2022 Soil Assessment Report

SCB 5B to Candelario 4-inch Polyline

NMOCD Case No. 2RP-4737

January 10, 2023

2022 Soil Assessment Report

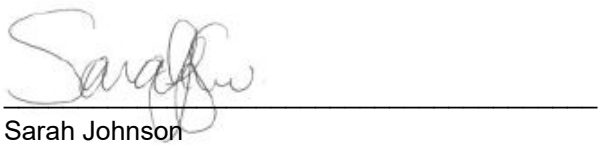
SCB 5B to Candelario 4-inch Polyline
NMOCD Case No. 2RP-4737

January 10, 2023

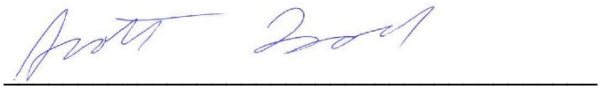
Prepared By:
Arcadis U.S., Inc.
10205 Westheimer Road, Suite 800
Houston
Texas 77042
Phone: 713 953 4800
Fax: 713 977 4620

Prepared For:
Armando Martinez
Operations Lead Central
CEMC
P.O. Box 469
Questa, NM 87564

Our Ref:
30133896



Sarah Johnson
Certified Project Manager



Scott Foord, P.G.
Program Manager

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Appendices

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this 2022 Soil Assessment Report (Report), on behalf of Chevron Environmental Management Company (CEMC), summarizing soil assessment activities for the South Culebra Bluff (SCB) 5B to Candelario 4-inch Polyline (Site) release.

The Site is located approximately 1.5 miles northeast of Loving in Bureau of Land Management (BLM) legal description Unit C, Section 24, Township 23 South, Range 28 East, Eddy County, New Mexico. The release Site is located approximately 2,951 feet above mean sea level. Arcadis monitors a nearby monitoring well with a recorded depth to groundwater of 25.28 feet below ground surface (bgs) at the Site. The Site is adjacent to the Pecos River. A Site map is presented in **Figure 1**.

2 Project Summary

File information indicates that on April 26, 2018, a third-party driver drove over the 4-inch diameter polyline that transfers produced water from SCB 5B to the Candelario SWD #1 disposal well which caused a failure in the line. The landowner, Mosaic Company (Mosaic), used clamps to pinch the polyline on both sides of the damaged area, however the clamps reportedly disengaged over the following weekend causing a subsequent release. Upon determining the ownership of the line, Mosaic notified Rockcliff Energy, LLC (Rockcliff) on April 30, 2018.

The release path extended from the polyline across Fisherman's Lane and split into two separate paths. One path flowed over the edge of the ravine to the northeast, diverging and then merging before entering the river. The secondary path flowed down the south side of Fisherman's Lane, downhill towards the low water crossing, eventually pooling between the forms of a formerly active county roadworks project and spreading to the north where much of the release pooled.

According to the New Mexico Oil Conservation Division (NMOCD) Initial C-141 Form dated April 26, 2018, the release was approximately 720 barrels (bbls) of produced water and 7.2 bbls of crude oil. A summary of the initial release response activities and the initial C-141 Form are provided in **Appendix A**.

3 2022 Soil Assessment

Following the 2021 soil sampling event (further discussed in **Appendix A**), Arcadis and Ms. Terry Gregston with the BLM discussed the path forward on a phone call on June 27, 2022. In agreement with the BLM, Arcadis proposed the collection of additional soil samples within the release area in order to further delineate chloride horizontally and vertically.

On July 11-14, 2022, Arcadis personnel collected 38 soil samples from 18 locations (SB-1 through SB-18) approved by the BLM within the release area. Soil sample locations are presented in **Figure 2**. The soil samples were collected with a hand auger at depths ranging from the surface to 6 feet bgs. Shallow bedrock refusal was encountered at all locations completed to depths less than 6 feet bgs. Soil boring logs are presented in **Appendix B**. The soil samples were collected in four-ounce jars provided by Pace Analytical Laboratory (Pace) located in Mount Juliet, Tennessee and shipped overnight to Pace via FedEx. Upon receival by the laboratory, the soil samples were analyzed for chloride by United States Environmental Protection Agency (USEPA) Method 300.

4 Soil Analytical Results

The soil sample analytical results were evaluated and compared to the New Mexico Administration Code (NMAC) screening levels for chloride for a site with a depth to groundwater less than 50 feet bgs specified in Table 1 within revised Rule 19.15.29. A summary of the soil sample analytical results is presented in the attached **Table 1**. Copies of the certified analytical reports and chain-of-custody documentation from Pace are presented in **Appendix C**. The soil analytical map is presented in **Figure 3**. Cumulative soil analytical results are presented in **Appendix D**. A photograph log is presented in **Appendix E**.

4.1 Chloride Results

Chloride exceeded the NMAC screening level of 600 milligrams per kilogram (mg/kg) in the following 14 of the 38 samples collected:

SB-03-S-0-.5-220711 – 2,720 mg/kg

SB-03-S-2-4-220711 – 3,250 mg/kg

SB-05-S-0-.5-220711 – 645 mg/kg

SB-14-S-0-.5-220712 – 819 mg/kg

SB-15-S-0-.5-220712 – 9,990 mg/kg

SB-16-S-0-.5-220712 – 2,140 mg/kg

SB-18-S-0-.5-220712 – 10,700 mg/kg

SB-23-S-0-.5-220712 – 613 mg/kg

SB-25-S-0-.5-220712 – 4,180 mg/kg

SB-26-S-0-.5-220714 – 41,000 mg/kg

SB-27-S-0-.5-220714 – 1,820 mg/kg

SB-28-S-0-.5-220714 – 12,700 mg/kg

SB-29-S-0-.5-220714 – 2,340 mg/kg

SB-30-S-0-.5-220714 – 2,800 mg/kg

5 Recommendations

Analytical results associated with the recent soil assessment activities conducted in 2022 indicate that the horizontal and vertical extent of chloride impact in soil has not been fully delineated below the NMAC screening level of 600 mg/kg. Additional soil assessment will be required.

Given the shallow depth of bedrock in the area of the release near the Pecos River, it is recommended that the portion of the release area located north of the road with chloride concentrations exceeding 600 mg/kg be excavated of impacted soil down to the bedrock, followed by hydro-excavation to remove any remnant chloride impacts.

At the request of NMOCD during the virtual meeting held on September 14, 2022, CEMC will request deferral for the remaining areas located along the southern perimeter of the road previously determined to have soil exceedances that are currently encapsulated by concrete from previous road construction activities.

Tables

Table 1
2022 Soil Analytical Results
Chevron Environmental Management Company
SCB-5B to Candelario Polyline
Eddy County, New Mexico

Sample I.D. No.	Sample Depth (feet bgs)	Date	Chloride (mg/Kg)
NMAC Standards			600
Units			mg/kg
SB-01-S-0-.5-220711	0 - 0.5	07/11/22	<10.4
SB-01-S-2-4-220711	2 - 4	07/11/22	21.9 J
SB-01-S-4-6-220711	4 - 6	07/11/22	30.6
SB-02-S-0-.5-220711	0 - 0.5	07/11/22	<10.3
SB-02-S-2-4-220711	2 - 4	07/11/22	52.6
SB-02-S-4-6-220711	4 - 6	07/11/22	114
SB-03-S-0-.5-220711	0 - 0.5	07/11/22	***2,720***
SB-03-S-2-4-220711	2 - 4	07/11/22	***3,250***
SB-04-S-0-.5-220711	0 - 0.5	07/11/22	<10.4
SB-05-S-0-.5-220711	0 - 0.5	07/11/22	***645***
SB-06-S-0-.5-220711	0 - 0.5	07/11/22	460
SB-07-S-0-.5-220711	0 - 0.5	07/11/22	15.0 J P1
SB-08-S-0-.5-220712	0 - 0.5	07/12/22	<12.7
SB-09-S-0-.5-220712	0 - 0.5	07/12/22	38.4
SB-10-S-0-.5-220712	0 - 0.5	07/12/22	91.4
SB-11-S-0-.5-220712	0 - 0.5	07/12/22	<11.0
SB-12-S-0-.5-220711	0 - 0.5	07/11/22	68.7
SB-13-S-0-.5-220712	0 - 0.5	07/12/22	527
SB-14-S-0-.5-220712	0 - 0.5	07/12/22	***819***
SB-15-S-0-.5-220712	0 - 0.5	07/12/22	***9,990***
SB-16-S-0-.5-220712	0 - 0.5	07/12/22	***2,140***
SB-17-S-0-.5-220712	0 - 0.5	07/12/22	354
SB-18-S-0-.5-220712	0 - 0.5	07/12/22	***10,700***
SB-19-S-0-.5-220713	0 - 0.5	07/13/22	256
SB-20-S-0-.5-220713	0 - 0.5	07/13/22	143
SB-21-S-0-.5-220713	0 - 0.5	07/13/22	404
SB-22-S-0-.5-220713	0 - 0.5	07/13/22	490
SB-23-S-0-.5-220713	0 - 0.5	07/13/22	***613***
SB-24-S-0-.5-220713	0 - 0.5	07/13/22	539
SB-25-S-0-.5-220714	0 - 0.5	07/14/22	***4,180***
SB-26-S-0-.5-220714	0 - 0.5	07/14/22	***41,000***
SB-27-S-0-.5-220714	0 - 0.5	07/14/22	***1,820***
SB-28-S-0-.5-220714	0 - 0.5	07/14/22	***12,700***
SB-29-S-0-.5-220714	0 - 0.5	07/14/22	***2,340***
SB-30-S-0-.5-220714	0 - 0.5	07/14/22	***2,800***
SB-31-S-0-.5-220714	0 - 0.5	07/14/22	523
SB-32-S-0-.5-220714	0 - 0.5	07/14/22	186
SB-33-S-0-.5-220714	0 - 0.5	07/14/22	317

Legend:
Bold/Italics = Analytes exceed NMAC Standards
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: milligram per kilogram
NMAC : New Mexico Administration Code
J: The compound was positively identified; however, the associated numerical value is an estimated concentration only.
P1: RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Notes:
1. Chloride were analyzed by USEPA Method 300.0
2. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures

Legend

- Berm
- Pipelines & Flowlines
- Booms
- Spill Path

Notes:
1. Datum: D_WGS_1984
2. Site Location: 32.295202, -104.043007

N

0 37.5 75 150 Feet

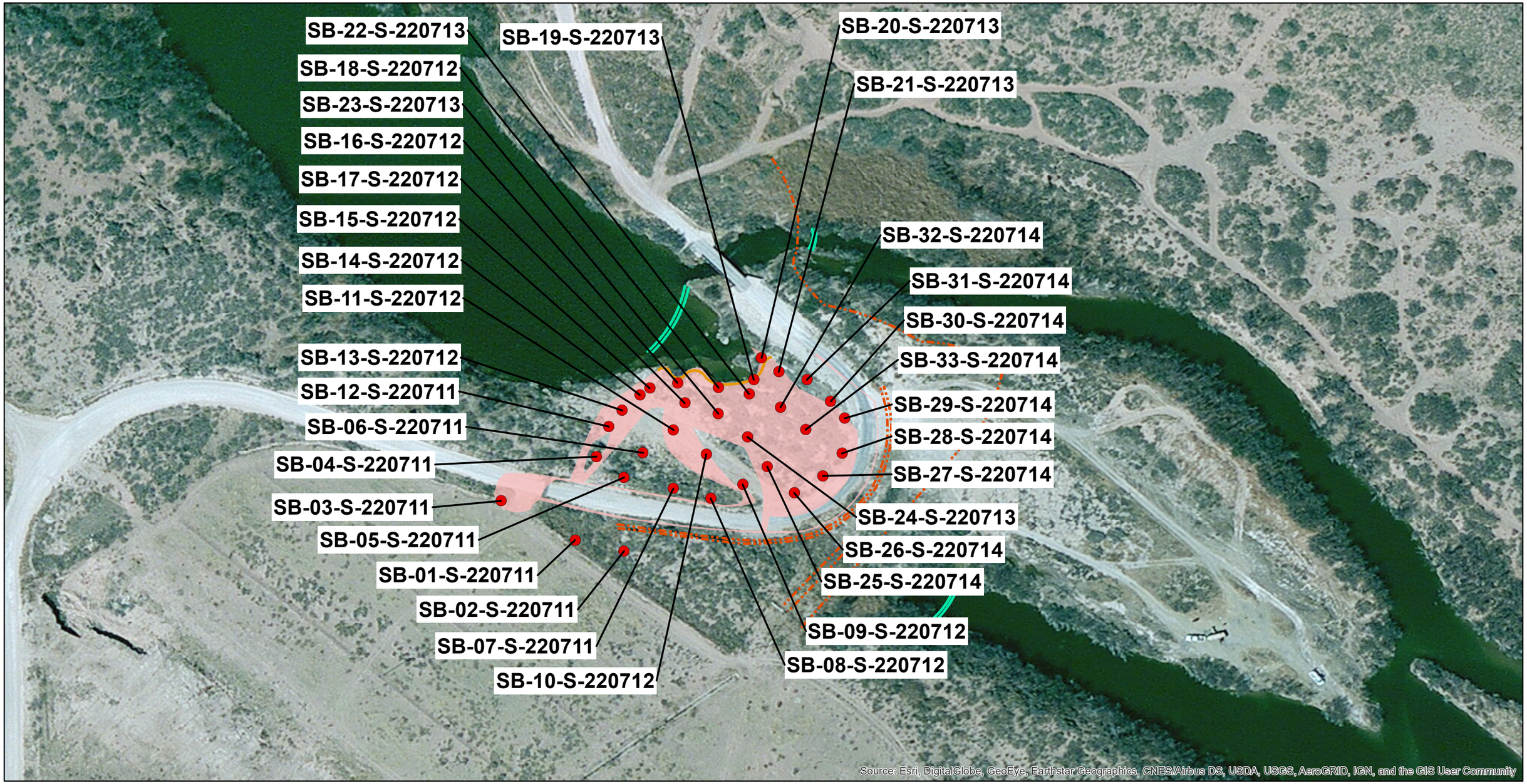
Chevron Environmental Management Company
Candelario 4 Polyline - 2RP-4737
Eddy County, New Mexico

SITE LOCATION MAP

ARCADIS

FIGURE 1

Document Path: \\arcadis-us\officedata\Houston-TX\ENV\Chevron Texaco TX8\HES Transfer\01 Project Management\20192_SOW Proposal\Scope & Budget\Candelario Polyline\GIS - Candelario 4\
Figure 1 Site Details Map 01.16.2020



Legend

- Soil Sample location
- Berm
- Booms
- Pipelines & Flowlines
- Spill Path

Notes:
1. Datum: D_WGS_1984
2. Site Location: 32.295210, -104.042780

N

0 62.5 125 250 Feet

Chevron Environmental Management Company
Candelario 4 Polyline - 2RP-4737
Eddy County, New Mexico

SOIL SAMPLE LOCATION MAP

ARCADIS

FIGURE 2

Document Path: T:_ENV\Chevron_Candelario Polyline_UEM-206\MXD\2022\Figure 2 - Soil Sample location map_V1.mxd

SB-15-S-220712	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/12/22
Chloride (mg/kg)	***9,990***

SB-16-S-220712	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/12/22
Chloride (mg/kg)	***2,140***

SB-23-S-220713	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/13/22
Chloride (mg/kg)	***613***

SB-18-S-220712	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/12/22
Chloride (mg/kg)	***10,700***

SB-14-S-220712	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/12/22
Chloride (mg/kg)	***819***

SB-30-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***2,800***

SB-29-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***2,340***

SB-05-S-220711	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/11/22
Chloride (mg/kg)	***645***

SB-28-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***12,700***

SB-03-S-220711		
Sample Depth (ft bgs)	0 - 0.5'	2' - 4'
Date	07/11/22	07/11/22
Chloride (mg/kg)	***2,720***	***3,250***

SB-27-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***1,820***

SB-26-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***41,000***

SB-25-S-220714	
Sample Depth (ft bgs)	0 - 0.5'
Date	07/14/22
Chloride (mg/kg)	***4,180***

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Soil Sample location
- Berm
- Booms
- Pipelines & Flowlines
- Spill Path

NOTES:

1. ***BOLD*** = Analytes exceeding NMAC standard.
2. '<' indicates the analyte was not detected at or above the Method Detection Limit.
3. mg/kg = Milligram per Kilogram.
4. NMAC = New Mexico Administration Code.
5. " ' " = Indicates one foot.
6. J: The compound was positively identified; however, the associated numerical value is an estimated concentration only.
7. SB = Soil Boring sample.
8. Chloride analyzed by United States Environmental Protection Agency Method 300.0.
9. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2).
10. P1 = RPD value not applicable for sample concentrations less than 5 times the reporting limit.

N

0 62.5 125 250 Feet

Chevron Environmental Management Company
Candelario 4 Polyline - 2RP-4737
Eddy County, New Mexico

SOIL ANALYTICAL EXCEEDANCES RESULTS MAP

ARCADIS

FIGURE 3

Document Path: T:_ENV\Chevron_Candelario Polyline_UEM-206\MXD\2022\Figure 3. Soil Sample Analytical Results Map_V2.mxd

Appendix A

Initial Release Response Activities and Initial C-141 Form

Initial Release Response Activities

According to available information, Souder Miller and Associates (SMA), on behalf of Rockcliff, mobilized to the Site to initiate emergency response activities. Talon LPE (Talon) was contacted to place booms in the river to provide containment around the two points of entry as well as downstream (three total). SMA worked with onsite teams to remove impacted material near the northern riverbank and collected soil confirmation samples for laboratory analysis. Surface water samples were also collected for laboratory analysis (SMA, July 2018). The Bureau of Land Management (BLM), the United States Army Corps of Engineers, the New Mexico Interstate Stream Commission, and the New Mexico Department of Game and Fish visited the Site to monitor first response efforts on April 30, 2018.

Between May 1 and 7, 2018, SMA monitored the removal of free-standing fluid and delineation activities associated with the release. SMA collected additional surface water samples, completed boom and berm inspections, and performed a biological survey. No evidence of impacted wildlife was observed (SMA, July 2018). Additional soil samples were also collected for laboratory analysis.

Road improvements along Fisherman's Lane were ongoing at the time of the release. According to file information (SMA, July 2018), the area surrounding the road was excavated and backfilled with clean material for the safety of the public and the construction company. On May 15, 2018, SMA met with Rockcliff, BLM, and Sedona Contracting, Inc. for a status update. While on-site, BLM reportedly gave verbal approval to pour concrete within the forms and continue road construction. Rockcliff obtained written correspondence from both the BLM and New Mexico Oil Conservation Division (NMOCD) stating that they agreed the county road construction project could continue.

Due to the varying geology of the area, a background sample was taken for each National Cooperative Soil Survey (NRCS) soil type represented in the release area in addition to the background samples collected relative to each group of samples. These release response activities were described in the SMA *Remediation Report* dated July 4, 2018. The report included a proposed remediation plan involving hydro excavation and/or excavation of remaining impacted areas. The work plan was conditionally approved by the BLM in email correspondence dated July 11, 2018.

In July 2018, SMA oversaw delineation and excavation efforts within the source area. Soil samples were collected. Following verbal approval from the BLM, the excavation was backfilled with clean material to restore the road and surrounding area to its previous contours (SMA, September 2018).

According to file information, SMA completed the hydro-excavation per the approved work plan in August 2018. SMA personnel and their contractors placed 50 feet of absorbent booms and re-established berms with clean soil around the work area ("cell") to prevent runoff into the river. A vacuum truck was placed at the lowest lying area of each boomed cell to collect residual fluids during hydro-excavating activities. According to the waste manifests, 1,196.48 tons of soil was excavated and disposed of at Lea Land, LLC. In Carlsbad, New Mexico.

SMA remediated/treated a total of five cells with hydro-excavation and collected composite bedrock samples from each cell following completion of hydro-excavation activities. Due to the varying geology in the area, SMA compared each sample result to its associated background sample (SMA, September 2018). Most of the field samples collected on August 23 and August 24, 2018, following the hydro-excavation

activities, showed a decrease in chloride concentrations compared to the initially reported action concentrations. Chloride concentrations in three of the five cells exhibited concentrations above background concentrations in the area and the natural chloride concentration of the Pecos River.

On August 27, 2019, Arcadis submitted a Site Status report to the NMOCD requesting a review and comment regarding the conclusions from the SMA reports. On September 19, 2019, Robert Hamlet with the NMOCD approved SMA's remediation report with conditions.

Per NMOCD requested conditions in an email response dated September 19, 2020, on March 23-25, 2020, Arcadis personnel installed four soil borings surrounding each historical soil sample location (SW-3, SW-5, SW-7, SW-9, SW-15, SW-17, SW-27, SW-29, and SW-30) with a hand auger to further horizontal delineation within the release areas. Soil samples were collected at depths ranging from the surface to 4 feet bgs. The soil samples were analyzed for chloride by United States Environmental Protection Agency (USEPA) Method 300. In addition, per NMOCD request, all samples collected surrounding SW-5 were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-GRO), TPH as diesel (TPH-DRO), and TPH as oil (TPH-ORO), by USEPA Method 8015.

Following the 2020 soil sampling event, Arcadis conducted a virtual meeting with the Bureau of Land Management (BLM) to discuss the potential path forward for the Site. In accordance with the BLM, Arcadis performed a background sampling event in order to determine if a Site-specific screening level for chloride could be proposed for BLM concurrence and use with future assessment activities at the Site.

On August 3-5, 2021, Arcadis personnel collected 61 soil samples from 15 locations (SB-1 through SB-15) approved by BLM outside of the release area to determine the naturally occuring background chloride concentrations in the soil. The soil samples were collected with a hand auger at depths ranging from the surface to 6 feet bgs. The soil samples were analyzed for chloride by USEPA Method 300.

RECEIVED

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

MAY 08 2018

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

DISTRICT II-ARTESIA O.C.D.

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

fAB1813055699
nAB1813056113

Release Notification and Corrective Action

#37115 OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Rockcliff Operating New Mexico LLC	Contact: John Turner
Address: 1301 McKinney St, Suite 1300, Houston, TX 77010	Telephone No.: 903-643-3791
Facility Name : SCB 5B to Candelario 24-1 SWD 4" Polyline SOUTH CULEBRA B 5B 4" POLYLINE	Facility Type: Produced Water Transfer Line

Surface Owner: The Mosaic Company	Mineral Owner: BLM	API No. NA

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	24	23s	28e					Eddy

Latitude 32.294911 **Longitude** -104.043545 NAD 83

NATURE OF RELEASE

Type of Release: Produced Saltwater/Oil	Volume of Release: PW ~720 bbls, Oil ~7.2 bbls	Volume Recovered: ~ 385 bbls
Source of Release: 4" Polyline – Produced Water Transfer Line	Date and Hour of Occurrence: 4/26/18	Date and Hour of Discovery 4/30/18, 0823hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher NMOCD & National Response Center	
By Whom? John Turner	Date and Hour: 4/30/18 0853 hrs	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. Unknown – but appears to be minimal	

If a Watercourse was Impacted, Describe Fully.*
Yes – Pecos River. Point of Release was approximately 150 feet from the river, on the west side of the bluff. Release fluids first pooled at the bottom of the bluff, then flowed toward the river.

Describe Cause of Problem and Remedial Action Taken.* On 4-26-18, it appears that a 3rd party ran over the 4" polyline that transfers produced water from the SCB #5B CTB to the Candelario 24-1 SWD disposal well and caused a failure in the line. The 3rd party notified The Mosaic Company, the landowner. The landowner responded to the notification believing it was one of their freshwater lines and used clamps to pinch the polyline on both sides of the damaged area to stop the release. Once the release was secured they left the jobsite for the weekend. Very little liquid was released at this time according to 3rd Party. 3rd Party returned to the job site on the morning of 4-30-18 and noticed the upstream clamp was gone and fluid was being released to the ground. 3rd Party notified the landowner again and landowner responded. The landowner determined this was not their line and notified Rockcliff's emergency number of a polyline leaking produced water between the SCB #5B CTB and Candelario SWD and that the water was going in the Pecos River. Rockcliff called Souder Miller & Associates to respond to the spill for assessment, cleanup, and remediation.

Describe Area Affected and Cleanup Action Taken.*
Initial emergency actions began with the construction of a large earthen berm to hinder fluid movement. After an emergency one call cleared, dirt work crews immediately began excavation of impacted material nearest to the river and a vac truck was called to remove all standing fluid. In addition, a hydro-excavator was called to remove impacted caliche in the road construction area. Absorbent boom was deployed across the pooled area and downstream of the point of entry.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: John Turner	OIL CONSERVATION DIVISION
Printed Name: John Turner	Approved by Environmental Specialist: Signed By Mike Bratcher
Title: Field Sr. Environmental Specialist	Approval Date: 5/9/18 Expiration Date: N/A
E-mail Address: jturner@rockcliffenergy.com	Conditions of Approval: See attached Attached ☒ 2RP-4737
Date: 5-8-18 Phone: 903-475-1865	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 5/8/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number JRP-4137 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 6/8/2018. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Bratcher, Mike, EMNRD

From: John Turner <John.Turner@Rockcliffenergy.com>
Sent: Tuesday, May 8, 2018 4:25 PM
To: Bratcher, Mike, EMNRD; Tucker, Shelly; Weaver, Crystal, EMNRD; Gregston, Terry; Holcomb, Sarah, NMENV; Ellington, Brent, OSE
Cc: Nick Koch; Mike Martin; Darrell Taylor; Brian Borque; Jamie Robinson; Greg McCain
Subject: SCB 5B to Candelario 24-1 SWD 4" Polyline C-141 Release Notification - Rockcliff Energy Operating New Mexico LLC
Attachments: SCB_5B_to_Candelarie_Polyline_Release_NMOCD_C-141_5-8-18.pdf

Please find attached the initial Form C-141, Release Notification and Corrective Action, for the release that occurred on Rockcliff Operating New Mexico LLC's 4" produced water transfer polyline near Fishermans Lane discovered on April 30, 2018.

If you have any questions or concerns please do not hesitate to contact me.

Thank you,

John Turner
Rockcliff Energy, LLC
Sr. Environmental Specialist
342 Johnny Clark Rd
Longview, TX 75603
O: (903) 475-1865
C: (903) 261-4673
jturner@rockcliffenergy.com

Appendix B

Boring Logs

Date Start/Finish: 7/11/2022 **Drilling Company:** N/A **Driller's Name:** N/A **Drilling Method:** Hand Auger **Sampling Method:** Discrete/Grab **Rig Type:** N/A	**Latitude:** N/A **Longitude:** N/A **Casing Elevation:** Not Surveyed **Borehole Depth:** 6' **Surface Elevation:** Not Surveyed **Descriptions By:** Daniel McGee	**Well/Boring ID:** SB-01 **Client:** Chevron Environmental Management Company **Location:** SCB 5B to Candelario Polyline Loving, NM

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0		0-0.5'	2		SP		Sand	
5		2-4'	2					
		4-6'	2				End of boring @ 6'	

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Infrastructure · Water · Environment · Buildings

Remarks: None

Project: 30133896.4 Template: LPTEMPLATE3.1 Page: 1 of 1
Data File: Candelario_SB-01 Date: 8/3/2022 Created/Edited by: Sheila Hernandez

Date Start/Finish: 7/11/2022 **Drilling Company:** N/A **Driller's Name:** N/A **Drilling Method:** Hand Auger **Sampling Method:** Discrete/Grab **Rig Type:** N/A	**Latitude:** N/A **Longitude:** N/A **Casing Elevation:** Not Surveyed **Borehole Depth:** 6' **Surface Elevation:** Not Surveyed **Descriptions By:** Daniel McGee	**Well/Boring ID:** SB-02 **Client:** Chevron Environmental Management Company **Location:** SCB 5B to Candelario Polyline Loving, NM

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
0		0-0.5'	2		SP		Sand	
5		2-4'	2					
		4-6'	2					
							End of boring @ 6'	

ARCADIS
Infrastructure · Water · Environment · Buildings

Remarks: None

Project: 30133896.4 Template: LPTEMPLATE3.1 Page: 1 of 1
Data File: Candelario_SB-02 Date: 8/3/2022 Created/Edited by: Sheila Hernandez

Appendix C

2022 Analytical Report

Pace Analytical®

ANALYTICAL REPORT

July 28, 2022

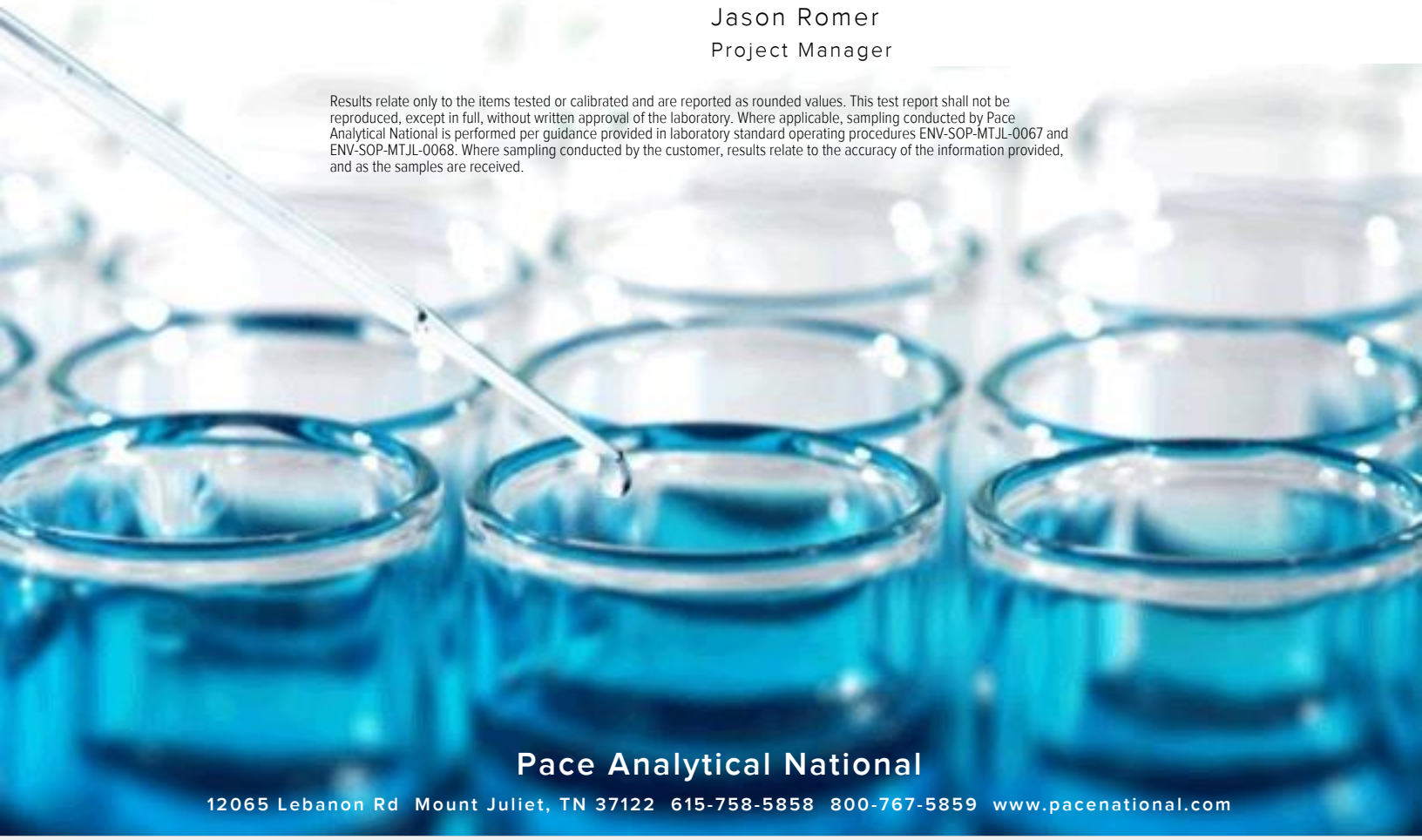
Arcadis - Chevron - NM

Sample Delivery Group:	L1515393
Samples Received:	07/15/2022
Project Number:	30133896
Description:	Candelario Polyline
Site:	CANDELARIO POLYLINE
Report To:	Sarah Johnson
	1004 N Big Spring Street
	Suite 121
	Midland, TX 79701

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SB-01-S-0-.5-220711 L1515393-01 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 12:55 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 19:46	LBR	Mt. Juliet, TN

SB-01-S-2-4-220711 L1515393-02 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 13:05 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 20:46	LBR	Mt. Juliet, TN

SB-01-S-4-6-220711 L1515393-03 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 13:10 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 21:31	LBR	Mt. Juliet, TN

SB-02-S-0-.5-220711 L1515393-04 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 13:25 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 21:46	LBR	Mt. Juliet, TN

SB-02-S-2-4-220711 L1515393-05 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 13:30 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 22:00	LBR	Mt. Juliet, TN

SB-02-S-4-6-220711 L1515393-06 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 13:35 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 22:15	LBR	Mt. Juliet, TN

SB-03-S-0-.5-220711 L1515393-07 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 14:50 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	5	07/21/22 12:19	07/21/22 22:30	LBR	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SB-03-S-2-4-220711 L1515393-08 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 15:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	5	07/21/22 12:19	07/21/22 22:45	LBR	Mt. Juliet, TN

SB-04-S-0-.5-220711 L1515393-09 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 15:15 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 23:00	LBR	Mt. Juliet, TN

SB-05-S-0-.5-220711 L1515393-10 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 15:25 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896157	1	07/18/22 08:56	07/18/22 09:04	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 23:15	LBR	Mt. Juliet, TN

SB-07-S-0-.5-220711 L1515393-11 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 15:30 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/21/22 23:30	LBR	Mt. Juliet, TN

SB-06-S-0-.5-220711 L1515393-12 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 16:15 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 00:32	LBR	Mt. Juliet, TN

SB-12-S-0-.5-220711 L1515393-13 Solid

Collected by: Daniel McGee | Collected date/time: 07/11/22 16:30 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 00:47	LBR	Mt. Juliet, TN

SB-08-S-0-.5-220712 L1515393-14 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 09:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 01:02	LBR	Mt. Juliet, TN

SB-09-S-0-.5-220712 L1515393-15 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 10:10 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 01:16	LBR	Mt. Juliet, TN

SB-10-S-0-.5-220712 L1515393-16 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 10:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 01:31	LBR	Mt. Juliet, TN

SB-11-S-0-.5-220712 L1515393-17 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 11:30 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 01:46	LBR	Mt. Juliet, TN

SB-13-S-0-.5-220712 L1515393-18 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 12:15 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 02:01	LBR	Mt. Juliet, TN

SB-15-S-0-.5-220712 L1515393-19 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 13:20 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	10	07/21/22 12:19	07/22/22 02:16	LBR	Mt. Juliet, TN

SB-14-S-0-.5-220712 L1515393-20 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 12:55 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896159	1	07/18/22 08:39	07/18/22 08:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899057	1	07/21/22 12:19	07/22/22 02:31	LBR	Mt. Juliet, TN

SB-16-S-0-.5-220712 L1515393-21 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 13:50 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1900713	5	07/26/22 12:02	07/27/22 22:20	LBR	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SB-17-S-0-.5-220712 L1515393-22 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 14:50 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/22/22 22:28	LBR	Mt. Juliet, TN

SB-18-S-0-.5-220712 L1515393-23 Solid

Collected by: Daniel McGee | Collected date/time: 07/12/22 15:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	100	07/22/22 16:55	07/22/22 22:37	LBR	Mt. Juliet, TN

SB-19-S-0-.5-220713 L1515393-24 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 10:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/22/22 22:47	LBR	Mt. Juliet, TN

SB-20-S-0-.5-220713 L1515393-25 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 10:25 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/22/22 22:56	LBR	Mt. Juliet, TN

SB-21-S-0-.5-220713 L1515393-26 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 11:15 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1.01	07/22/22 16:55	07/22/22 23:25	LBR	Mt. Juliet, TN

SB-22-S-0-.5-220713 L1515393-27 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 13:10 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/22/22 23:34	LBR	Mt. Juliet, TN

SB-23-S-0-.5-220713 L1515393-28 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 14:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/22/22 23:44	LBR	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SB-24-S-0-.5-220713 L1515393-29 Solid

Collected by: Daniel McGee | Collected date/time: 07/13/22 14:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1.03	07/22/22 16:55	07/22/22 23:53	LBR	Mt. Juliet, TN

SB-25-S-0-.5-220714 L1515393-30 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 09:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896160	1	07/18/22 08:23	07/18/22 08:36	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	5	07/22/22 16:55	07/23/22 00:03	LBR	Mt. Juliet, TN

SB-26-S-0-.5-220714 L1515393-31 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 10:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	100	07/22/22 16:55	07/23/22 00:12	LBR	Mt. Juliet, TN

SB-27-S-0-.5-220714 L1515393-32 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 10:30 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	5	07/22/22 16:55	07/23/22 00:31	LBR	Mt. Juliet, TN

SB-28-S-0-.5-220714 L1515393-33 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 11:00 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	100	07/22/22 16:55	07/23/22 00:41	LBR	Mt. Juliet, TN

SB-29-S-0-.5-220714 L1515393-34 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 11:20 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	5.05	07/22/22 16:55	07/23/22 00:50	LBR	Mt. Juliet, TN

SB-30-S-0-.5-220714 L1515393-35 Solid

Collected by: Daniel McGee | Collected date/time: 07/14/22 11:40 | Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	5	07/22/22 16:55	07/23/22 01:19	LBR	Mt. Juliet, TN

SB-31-S-0-.5-220714 L1515393-36 Solid

Collected by: Daniel McGee
Collected date/time: 07/14/22 12:40
Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/23/22 01:29	LBR	Mt. Juliet, TN

SB-32-S-0-.5-220714 L1515393-37 Solid

Collected by: Daniel McGee
Collected date/time: 07/14/22 13:00
Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1	07/22/22 16:55	07/23/22 01:38	LBR	Mt. Juliet, TN

SB-33-S-0-.5-220714 L1515393-38 Solid

Collected by: Daniel McGee
Collected date/time: 07/14/22 13:30
Received date/time: 07/15/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1896161	1	07/18/22 12:36	07/18/22 12:47	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1899386	1.03	07/22/22 16:55	07/23/22 01:48	LBR	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.7		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.4	22.5	1	07/21/2022 19:46	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.3		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	21.9	J	12.1	26.2	1	07/21/2022 20:46	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.0		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	30.6		11.1	24.1	1	07/21/2022 21:31	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.3	22.4	1	07/21/2022 21:46	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	52.6		10.5	22.8	1	07/21/2022 22:00	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.2		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	114		12.1	26.2	1	07/21/2022 22:15	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	2720		49.3	107	5	07/21/2022 22:30	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.7		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	3250		48.6	106	5	07/21/2022 22:45	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.7		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.4	22.5	1	07/21/2022 23:00	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	07/18/2022 09:04	WG1896157

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	645		11.4	24.8	1	07/21/2022 23:15	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.1		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	15.0	J P1	11.9	25.9	1	07/21/2022 23:30	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	460		9.59	20.9	1	07/22/2022 00:32	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	68.7		9.61	20.9	1	07/22/2022 00:47	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	72.3		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		12.7	27.7	1	07/22/2022 01:02	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	38.4		10.8	23.5	1	07/22/2022 01:16	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.8		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	91.4		11.1	24.1	1	07/22/2022 01:31	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.4		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		11.0	24.0	1	07/22/2022 01:46	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.0		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	527		10.8	23.5	1	07/22/2022 02:01	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.4		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	9990		110	240	10	07/22/2022 02:16	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	07/18/2022 08:47	WG1896159

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	819		11.0	23.9	1	07/22/2022 02:31	WG1899057

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.8		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	2140		60.7	132	5	07/27/2022 22:20	WG1900713

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.9		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	354		11.1	24.1	1	07/22/2022 22:28	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10700		1070	2320	100	07/22/2022 22:37	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.5		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	256		11.3	24.6	1	07/22/2022 22:47	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.7		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	143		11.3	24.5	1	07/22/2022 22:56	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	404		11.3	24.6	1.01	07/22/2022 23:25	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	490		10.9	23.8	1	07/22/2022 23:34	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.4		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	613		10.9	23.7	1	07/22/2022 23:44	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	539		11.1	24.0	1.03	07/22/2022 23:53	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.6		1	07/18/2022 08:36	WG1896160

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	4180		49.2	107	5	07/23/2022 00:03	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	41000		980	2130	100	07/23/2022 00:12	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	1820		52.8	115	5	07/23/2022 00:31	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	12700		998	2170	100	07/23/2022 00:41	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	2340		51.8	113	5.05	07/23/2022 00:50	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.0		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	2800		48.9	106	5	07/23/2022 01:19	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.6		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	523		9.93	21.6	1	07/23/2022 01:29	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.4		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	186		10.3	22.4	1	07/23/2022 01:38	WG1899386

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.6		1	07/18/2022 12:47	WG1896161

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	317		11.6	25.2	1.03	07/23/2022 01:48	WG1899386

Method Blank (MB)

(MB) R3816375-1 07/18/22 09:04

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1515393-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-05 07/18/22 09:04 • (DUP) R3816375-3 07/18/22 09:04

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.5	87.7	1	0.233		10

Laboratory Control Sample (LCS)

(LCS) R3816375-2 07/18/22 09:04

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3816372-1 07/18/22 08:47

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1515393-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-15 07/18/22 08:47 • (DUP) R3816372-3 07/18/22 08:47

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.1	83.5	1	1.85		10

Laboratory Control Sample (LCS)

(LCS) R3816372-2 07/18/22 08:47

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3816371-1 07/18/22 08:36

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1515393-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-25 07/18/22 08:36 • (DUP) R3816371-3 07/18/22 08:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.7	81.9	1	0.262		10

Laboratory Control Sample (LCS)

(LCS) R3816371-2 07/18/22 08:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3816421-1 07/18/22 12:47

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00300			

L1515393-35 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-35 07/18/22 12:47 • (DUP) R3816421-3 07/18/22 12:47

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.0	93.7	1	0.270		10

Laboratory Control Sample (LCS)

(LCS) R3816421-2 07/18/22 12:47

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.9	85.0-115	

Method Blank (MB)

(MB) R3818172-1 07/21/22 19:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1515393-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-01 07/21/22 19:46 • (DUP) R3818172-3 07/21/22 20:01

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1515393-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-11 07/21/22 23:30 • (DUP) R3818172-6 07/21/22 23:45

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.0	25.4	1	51.5	J P1	20

Laboratory Control Sample (LCS)

(LCS) R3818172-2 07/21/22 19:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	197	98.6	90.0-110	

L1515393-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515393-01 07/21/22 19:46 • (MS) R3818172-4 07/21/22 20:16 • (MSD) R3818172-5 07/21/22 20:31

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	564	U	559	551	99.1	97.7	1	80.0-120			1.44	20

Method Blank (MB)

(MB) R3818531-1 07/22/22 19:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1515393-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1515393-31 07/23/22 00:12 • (DUP) R3818531-6 07/23/22 00:22

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	41000	37200	100	9.56		20

Laboratory Control Sample (LCS)

(LCS) R3818531-2 07/22/22 20:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	208	104	90.0-110	

Method Blank (MB)

(MB) R3820224-1 07/27/22 21:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1515433-58 Original Sample (OS) • Duplicate (DUP)

(OS) L1515433-58 07/28/22 01:04 • (DUP) R3820224-3 07/28/22 01:19

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	75.8	63.5	1	17.6		20

L1515443-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1515443-04 07/28/22 04:18 • (DUP) R3820224-6 07/28/22 04:33

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	20.7	1	200	J P1	20

Laboratory Control Sample (LCS)

(LCS) R3820224-2 07/27/22 21:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	207	103	90.0-110	

L1515433-58 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1515433-58 07/28/22 01:04 • (MS) R3820224-4 07/28/22 01:34 • (MSD) R3820224-5 07/28/22 01:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	75.8	640	624	113	110	1	80.0-120			2.54	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Arcadis - Chevron - NM

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: Sarah Johnson

Email To: sarah.johnson@arcadis.com;william.foord@arc

Project Description: Candelario Polyline

City/State Collected: ~~Carlsbad~~ Loving, NM

Please Circle: PT MT CT ET

Phone: 432-687-5400

Client Project # 30133896

Lab Project # CHEVARCNM-CANDELARIO

Collected by (print): Daniel McCoe

Site/Facility ID # CANDELARIO POLYLINE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE-300,TS 4ozClr-NoPres									Remarks	Sample # (lab only)
SB-01-S-0-.5-220711	G	SS		7-11-22	1255	1	X										-01
SB-01-S-2-4-220711	G	SS		7-11-22	1305	1	X										-02
SB-01-S-4-6-220711	G	SS		7-11-22	1310	1	X										-03
SB-02-S-0-.5-220711	G	SS		7-11-22	1325	1	X										-04
SB-02-S-2-4-220711	G	SS		7-11-22	1330	1	X										-05
SB-02-S-4-6-220711	G	SS		7-11-22	1335	1	X										-06
SB-03-S-0-.5-220711	G	SS		7-11-22	1450	1	X										-07
SB-03-S-2-4-220711	G	SS		7-11-22	1500	1	X										-08
SB-04-S-0-.5-220711	G	SS		7-11-22	1515	1	X										-09
SB-05-S-0-.5-220711	G	SS		7-11-22	1525	1	X										-10

Analysis / Container / Preservative

Chain of Custody

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 151539 3
H175

Acctnum: CHEVARCNM
Template: T191937
Prelogin: P931864
PM: 526 - Chris McCord
PB: BF 6/25/22
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	7-14-22	1600		0	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 38	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Zac Parton	Date: 7-15-22 Time: 09:00	Hold: Condition: NCF / OK

Company Name/Address:
Arcadis - Chevron - NM

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: **Sarah Johnson**

Email To: sarah.johnson@arcadis.com;william.foord@arc

Project Description: **Candelario Polyline**

City/State Collected: Carlsbad, NM Loving

Please Circle: PT MT CT ET

Phone: **432-687-5400**

Client Project # 30133896

Lab Project # **CHEVARCNM-CANDELARIO**

Collected by (print): Daniel McGee

Site/Facility ID # **CANDELARIO POLYLINE**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard

Quote #

Analysis / Container / Preservative

Chain of Custody

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 151593

Table #

Acctnum: **CHEVARCNM**
Template: **T191937**
Prelogin: **P931864**
PM: **526 - Chris McCord**
PB: BF 6/25/22
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Nc. of Cntrs	CHLORIDE-300,TS 4ozClr-NoPres	Remarks	Sample # (lab only)
SB-07-S-0-.5-220711	G	SS		7-11-22	1530	1	X		-11
SB-06-S-0-.5-220711	G	SS		7-11-22	1615	1	X		-12
SB-12-S-0-.5-220711	G	SS		7-11-22	1630	1	X		-13
SB-08-S-0-.5-220712	G	SS		7-12-22	0940	1	X		-14
SB-09-S-0-.5-220712	G	SS		7-12-22	1010	1	X		-15
SB-10-S-0-.5-220712	G	SS		7-12-22	1040	1	X		-16
SB-11-S-0-.5-220712	G	SS		7-12-22	1130	1	X		-17
SB-13-S-0-.5-220712	G	SS		7-12-22	1215	1	X		-18
SB-15-S-0-.5-220712	G	SS		7-12-22	1320	1	X		-19
SB-14-S-0-.5-220712	G	SS		7-12-22	1255	1	X		-20

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	7-11-22	1600		0	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 38	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Zac Pacas	Date: 7-15-22 Time: 09:00	Hold: Condition: NCF / OK

Arcadis - Chevron - NM

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: Sarah Johnson

Email To: sarah.johnson@arcadis.com;william.foord@arc

Project Description: Candelario Polyline

City/State Collected: ~~Carlsbad~~, NM Loving

Please Circle: PT MT CT ET

Phone: 432-687-5400

Client Project # 30133896

Lab Project # CHEVARCNM-CANDELARIO

Collected by (print): Daniel Mcvee

Site/Facility ID # CANDELARIO POLYLINE

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE-300,TS 4ozClr-NoPres	Remarks	Sample # (lab only)
SB-16-S-0-.5-220712	G	SS		7-12-22	1350	1	X		-21
SB-17-S-0-.5-220712	G	SS		7-12-22	1420	1	X		-22
SB-18-S-0-.5-220712	G	SS		7-12-22	1540	1	X		-23
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		

Analysis / Container / Preservative

Chain of Custody

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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SDG # 1515393

Table #

Acctnum: CHEVARCNM

Template: T191937

Prelogin: P931864

PM: 526 - Chris McCord

PB: BF 6/25/22

Shipped Via: FedEx Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	7-14-22	1600		0
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 38
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7-15-22 Time: 09:00
			Zac Parra	Hold: Condition: NCF / OK

Arcadis - Chevron - NM

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: Sarah Johnson

Email To: sarah.johnson@arcadis.com;william.foord@arc

Project Description: Candelario Polyline

City/State Collected: Loving, NM

Please Circle: PT MT (CT) ET

Phone: 432-687-5400

Client Project # 30133826

Lab Project # CHEVARCNM-CANDELARIO

Collected by (print): Daniel McCue

Site/Facility ID # CANDELARIO POLYLINE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE-300,TS 4ozClr-NoPres									Remarks	Sample # (lab only)
SB-19-S-0-.5-220713	G	SS		7-13-22	1000	1	X										-24
SB-20-S-0-.5-220713	G	SS		7-13-22	1025	1	X										-25
SB-21-S-0-.5-220713	G	SS		7-13-22	1115	1	X										-26
SB-22-S-0-.5-220713	G	SS		7-13-22	1310	1	X										-27
SB-23-S-0-.5-220713	G	SS		7-13-22	1400	1	X										-28
SB-24-S-0-.5-220713	G	SS		7-13-22	1440	1	X										-29
SB-25-S-0-.5-220714	G	SS		7-14-22	0940	1	X										-30
SB-26-S-0-.5-220714	G	SS		7-14-22	1000	1	X										-31
SB-27-S-0-.5-220714	G	SS		7-14-22	1030	1	X										-32
SB-28-S-0-.5-220714	G	SS		7-14-22	1100	1	X										-33

Chain of Custody

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 515393

Table #

Acctnum: CHEVARCNM
Template: T191937
Prelogin: P931864
PM: 526 - Chris McCord
PB: BF 6/25/22

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS (FedEx) __ Courier ____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR	If preservation required by Login: Date/Time
	7-14-22	1600		0	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 38	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Zac Perez	Date: 7-15-22 Time: 09:00	Hold: Condition: NCF / (OK)

Arcadis - Chevron - NM

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: Sarah Johnson

Email To: sarah.johnson@arcadis.com;william.foord@arc

Project Description: Candelario Polyline

City/State Collected: Lea Co, NM

Please Circle: PT MT CT ET

Phone: 432-687-5400

Client Project # 30133896

Lab Project # CHEVARCNM-CANDELARIO

Collected by (print): Daniel McCoy

Site/Facility ID # CANDELARIO POLYLINE

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard

Quote #

Analysis / Container / Preservative

CHLORIDE-300,TS 4ozClr-NoPres

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs		Remarks	Sample # (lab only)
SB-29-S-0-.5-220714	G	SS		7-14-22	1120	1	X		-34
SB-30-S-0-.5-220714	G	SS		7-14-22	1140	1	X		-35
SB-31-S-0-.5-220714	G	SS		7-14-22	1240	1	X		-36
SB-32-S-0.5-220714	G	SS		7-14-22	1300	1	X		-37
SB-33-S-0-.5-220714	G	SS		7-14-22	1330	1	X		-38
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		
		SS				1	X		

Chain of Custody

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # 1515393

Table #

Acctnum: CHEVARCNM
Template: T191937
Prelogin: P931864
PM: 526 - Chris McCord
PB: BF 6/25/22
Shipped Via: FedEx Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Samples returned via: __ UPS FedEx __ Courier ____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	7-14-22	1600		No	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 38	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7-15-22 Time: 09:00	Hold: Condition: NCF / OK

L1515393

Tracking Numbers		Temperature
5719 6197 7421		1.1+0=1.1 RRA7
5719 6197 7432		0.4+0=0.4 JAA6

Appendix D

Cumulative Soil Analytical Results

Appendix D
Cumualtive Soil Analytical Results
Chevron Environmental Management Company
SCB 5B to Candelario Polyline
Eddy County, New Mexico

Sample I.D. No.	Sample Depth (feet bgs)	Date	Total TPH	Chloride
			(mg/Kg)	(mg/Kg)
NMAC Standards			100	600
Units			mg/kg	mg/kg
SW-3A	0"- 6"	03/24/20	NA	**1,950 B**
SW-3B	0"- 6"	03/24/20	NA	**916 B**
SW-3C	0"- 6"	03/24/20	NA	34.4
SW-3D	0"- 3"	03/24/20	NA	**1,790 B**
SW-5A	0"- 6"	03/24/20	59	**9,250**
SW-5B	0"- 6"	03/24/20	74	**1,450 B**
SW-5C	0"- 6"	03/24/20	70	144
SW-5D	0"-6"	03/24/20	73.1 J	194
SW-7A	0"- 6"	03/23/20	NA	**3,400**
SW-7B	0"- 6"	03/23/20	NA	509 J
SW-7C	0"- 6"	03/23/20	NA	258
SW-7D	0"- 6"	03/23/20	NA	599
SW-9A	0"-6"	03/23/20	NA	**2,800 J**
	2'	03/23/20	NA	438
SW-9B	0"-6"	03/23/20	NA	**1,340**
	2'	03/23/20	NA	**887**
	4'	03/23/20	NA	449
SW-9C	0"-6"	03/23/20	NA	**689**
	2'	03/23/20	NA	**621**
	4'	03/23/20	NA	**789**
SW-9D	0"-6"	03/23/20	NA	**2,200**
SW-15A	0"-6"	03/23/20	NA	**622**
	2'	03/23/20	NA	**1,590**
SW-15B	0"-6"	03/23/20	NA	**1,130**
	1'6"	03/23/20	NA	**2,090**
SW-15C	0"-6"	03/23/20	NA	568
	1'	03/23/20	NA	413
SW-15D	0"- 6"	03/24/20	NA	**7,020**
	2'	03/24/20	NA	**3,590**
	4'	03/24/20	NA	**1,690**
SW-17A	0"- 6"	03/24/20	NA	121
SW-17B	0"- 6"	03/24/20	NA	419 J
SW-17C	0"- 6"	03/24/20	NA	**981 B**
SW-17D	0"- 6"	03/24/20	NA	366
SW-27A	0"- 6"	03/25/20	NA	**3,520**
SW-27B	0"- 6"	03/25/20	NA	**10,900**
SW-27C	0"- 6"	03/25/20	NA	**6,930**
SW-27D	0"- 6"	03/25/20	NA	**28,700**
SW-29A	0"- 6"	03/25/20	NA	**16,400**
SW-29B	0"- 6"	03/25/20	NA	**6,240**
SW-29C	0"- 6"	03/25/20	NA	**1,020**
	1'6"	03/25/20	NA	**4,630 F1**
SW-29D	0"- 6"	03/25/20	NA	**2,910**
SW-30A	0"- 6"	03/24/20	NA	**22,800**
SW-30B	0"- 6"	03/24/20	NA	**13,400**
SW-30C	0"- 6"	03/24/20	NA	**8,200**
SW-30D	0"- 6"	03/24/20	NA	**4,730**
SB-01	0 - 0.5'	08/03/21	NA	**2,830**
	0.5' - 2'	08/03/21	NA	**2,220**
	2' - 4'	08/03/21	NA	**2,660**
	4' - 6'	08/03/21	NA	**2,290**
SB-02	0 - 0.5'	08/03/21	NA	32.2
	0.5' - 2'	08/03/21	NA	35.2

Appendix D
Cumualtive Soil Analytical Results
Chevron Environmental Management Company
SCB 5B to Candelario Polyline
Eddy County, New Mexico

Sample I.D. No.	Sample Depth (feet bgs)	Date	Total TPH	Chloride
			(mg/Kg)	(mg/Kg)
NMAC Standards			100	600
Units			mg/kg	mg/kg
SB-03	0 - 0.5'	08/03/21	NA	29.5 J
	0.5' - 2'	08/03/21	NA	16.9 J
	2' - 2.5'	08/03/21	NA	17.3 J
SB-04	0 - 0.5'	08/03/21	NA	<10.2
	0.5' - 2'	08/03/21	NA	26.3
	2' - 4'	08/03/21	NA	12.5 J
	4' - 6'	08/03/21	NA	77.3
SB-05	0 - 0.5'	08/03/21	NA	<10.3
	0.5' - 2'	08/03/21	NA	354
	2' - 4'	08/03/21	NA	242
	4' - 6'	08/03/21	NA	333
SB-06	0 - 0.5'	08/03/21	NA	221
	0.5' - 2'	08/03/21	NA	52
	2' - 4'	08/03/21	NA	220
	4' - 6'	08/03/21	NA	**845**
SB-07	0 - 0.5'	08/04/21	NA	<11.1
	0.5' - 2'	08/04/21	NA	<9.94
	2' - 4'	08/04/21	NA	<9.59
	4' - 6'	08/04/21	NA	<9.51
SB-08	0 - 0.5'	08/04/21	NA	12 J
	0.5' - 2'	08/04/21	NA	26.7
	2' - 4'	08/04/21	NA	24.4 J
	4' - 6'	08/04/21	NA	102
SB-08D	0 - 0.5'	08/04/21	NA	23.6 J
	0.5' - 2'	08/04/21	NA	<10.4
	2' - 4'	08/04/21	NA	59.4
	4' - 6'	08/04/21	NA	44.4
SB-09	0 - 0.5'	08/04/21	NA	<11.7
	0.5' - 2'	08/04/21	NA	<11.9
	2' - 4'	08/04/21	NA	<11.4
	4' - 6'	08/04/21	NA	16.4 J
SB-10	0 - 0.5'	08/04/21	NA	19.3 J
	0.5' - 2'	08/04/21	NA	19.4 J
	2' - 4'	08/04/21	NA	14.1 J
	4' - 6'	08/04/21	NA	9.96 J
SB-11	0 - 0.5'	08/04/21	NA	12.7 J
	0.5' - 2'	08/04/21	NA	307
	2' - 4'	08/04/21	NA	98.5
	4' - 6'	08/04/21	NA	**625**
SB-12	0 - 0.5'	08/04/21	NA	11.5 J
	0.5' - 2'	08/04/21	NA	<11.2
	2' - 4'	08/04/21	NA	34.8
	4' - 6'	08/04/21	NA	19.5 J
SB-13	0 - 0.5'	08/05/21	NA	22.4
	0.5' - 2'	08/05/21	NA	11.3 J
	2' - 4'	08/05/21	NA	42.3
	4' - 6'	08/05/21	NA	48.7
SB-14	0 - 0.5'	08/05/21	NA	<9.57
	0.5' - 2'	08/05/21	NA	17.6 J
	2' - 4'	08/05/21	NA	<9.29
	4' - 6'	08/05/21	NA	<9.33

Appendix D
Cumualtive Soil Analytical Results
Chevron Environmental Management Company
SCB 5B to Candelario Polyline
Eddy County, New Mexico

Sample I.D. No.	Sample Depth (feet bgs)	Date	Total TPH	Chloride
			(mg/Kg)	(mg/Kg)
NMAC Standards			100	600
Units			mg/kg	mg/kg
SB-15	0 - 0.5'	08/05/21	NA	31.5
	0.5' - 2'	08/05/21	NA	16.1 J
	2' - 4'	08/05/21	NA	10 J
	4' - 6'	08/05/21	NA	16.5 J
SB-01-S-0-.5-220711	0 - 0.5	07/11/22	NA	<10.4
SB-01-S-2-4-220711	2 - 4	07/11/22	NA	21.9 J
SB-01-S-4-6-220711	4 - 6	07/11/22	NA	30.6
SB-02-S-0-.5-220711	0 - 0.5	07/11/22	NA	<10.3
SB-02-S-2-4-220711	2 - 4	07/11/22	NA	52.6
SB-02-S-4-6-220711	4 - 6	07/11/22	NA	114
SB-03-S-0-.5-220711	0 - 0.5	07/11/22	NA	***2,720***
SB-03-S-2-4-220711	2 - 4	07/11/22	NA	***3,250***
SB-04-S-0-.5-220711	0 - 0.5	07/11/22	NA	<10.4
SB-05-S-0-.5-220711	0 - 0.5	07/11/22	NA	***645***
SB-06-S-0-.5-220711	0 - 0.5	07/11/22	NA	460
SB-07-S-0-.5-220711	0 - 0.5	07/11/22	NA	15.0 J P1
SB-08-S-0-.5-220712	0 - 0.5	07/12/22	NA	<12.7
SB-09-S-0-.5-220712	0 - 0.5	07/12/22	NA	38.4
SB-10-S-0-.5-220712	0 - 0.5	07/12/22	NA	91.4
SB-11-S-0-.5-220712	0 - 0.5	07/12/22	NA	<11.0
SB-12-S-0-.5-220711	0 - 0.5	07/11/22	NA	68.7
SB-13-S-0-.5-220712	0 - 0.5	07/12/22	NA	527
SB-14-S-0-.5-220712	0 - 0.5	07/12/22	NA	***819***
SB-15-S-0-.5-220712	0 - 0.5	07/12/22	NA	***9,990***
SB-16-S-0-.5-220712	0 - 0.5	07/12/22	NA	***2,140***
SB-17-S-0-.5-220712	0 - 0.5	07/12/22	NA	354
SB-18-S-0-.5-220712	0 - 0.5	07/12/22	NA	***10,700***
SB-19-S-0-.5-220713	0 - 0.5	07/13/22	NA	256
SB-20-S-0-.5-220713	0 - 0.5	07/13/22	NA	143
SB-21-S-0-.5-220713	0 - 0.5	07/13/22	NA	404
SB-22-S-0-.5-220713	0 - 0.5	07/13/22	NA	490
SB-23-S-0-.5-220713	0 - 0.5	07/13/22	NA	***613***
SB-24-S-0-.5-220713	0 - 0.5	07/13/22	NA	539
SB-25-S-0-.5-220714	0 - 0.5	07/14/22	NA	***4,180***
SB-26-S-0-.5-220714	0 - 0.5	07/14/22	NA	***41,000***
SB-27-S-0-.5-220714	0 - 0.5	07/14/22	NA	***1,820***
SB-28-S-0-.5-220714	0 - 0.5	07/14/22	NA	***12,700***
SB-29-S-0-.5-220714	0 - 0.5	07/14/22	NA	***2,340***
SB-30-S-0-.5-220714	0 - 0.5	07/14/22	NA	***2,800***
SB-31-S-0-.5-220714	0 - 0.5	07/14/22	NA	523
SB-32-S-0-.5-220714	0 - 0.5	07/14/22	NA	186
SB-33-S-0-.5-220714	0 - 0.5	07/14/22	NA	317

Appendix D
Cumualtive Soil Analytical Results
Chevron Environmental Management Company
SCB 5B to Candelario Polyline
Eddy County, New Mexico

Sample I.D. No.	Sample Depth (feet bgs)	Date	Total TPH	Chloride
			(mg/Kg)	(mg/Kg)
NMAC Standards			100	600
Units			mg/kg	mg/kg

Legend:
Bold/Italics = Analytes exceed NMAC Standards
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: milligram per kilogram
NMAC : New Mexico Administration Code
Total TPH: Total petroleum hydrocarbons [sum of gasoline range organics (C6-C10), diesel range organics (C10-C28), and C28-C36]
" ' " : Indicates one foot
" : Indicated inches
NA: Not analyzed
J: The compound was positively identified; however, the associated numerical value is an estimated concentration only.
B: The compound has been found in the sample as well as its associated blank, its presence in the sample may be a suspect.
F1: MS and/or MSD recovery exceeds control limits.
D: Duplicate Sample
P1: RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Notes:
1. Chloride were analyzed by USEPA Method 300.0
2. TPH were analyzed by USEPA Method 8015B
3. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Appendix E

Photograph Log

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 1

Date: 07-11-2022

Description:
Proposed locations

Location: Candelario Polyline

Direction:
South

Photo: 2

Date: 07-11-2022

Description:
Proposed locations

Location: Candelario Polyline

Direction:
North

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 3

Date: 07-11-2022

Description:
Proposed locations

Location: Candelario Polyline

Direction:
West

Photo: 4

Date: 07-11-2022

Description:
Proposed locations

Location: Candelario Polyline

Direction:
East

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 5

Date: 07-11-2022

Description:
SB-01

Location: Candelario Polyline

Direction:
South

Photo: 6

Date: 07-11-2022

Description:
SB-02

Location: Candelario Polyline

Direction:
South

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 7

Date: 07-11-2022

Description:
SB-03

Location: Candelario Polyline

Direction:
South

Photo: 8

Date: 07-11-2022

Description:
SB-04

Location: Candelario Polyline

Direction:
West

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 9

Date: 07-11-2022

Description:
SB-05

Location: Candelario Polyline

Direction:
South

Photo: 10

Date: 07-11-2022

Description:
SB-07

Location: Candelario Polyline

Direction:
South

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 11

Date: 07-11-2022

Description:
SB-06

Location: Candelario Polyline

Direction:
South

Photo: 12

Date: 07-11-2022

Description:
SB-12

Location: Candelario Polyline

Direction:
North

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 13

Date: 07-12-2022

Description:
SB-08

Location: Candelario Polyline

Direction:
Southwest

Photo: 14

Date: 07-12-2022

Description:
SB-09

Location: Candelario Polyline

Direction:
Southwest

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 15

Date: 07-12-2022

Description:
SB-10

Location: Candelario Polyline

Direction:
Southwest

Photo: 16

Date: 07-12-2022

Description:
SB-11

Location: Candelario Polyline

Direction:
East

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 17

Date: 07-12-2022

Description:
SB-13

Location: Candelario Polyline

Direction:
Northeast

Photo: 18

Date: 07-12-2022

Description:
SB-14

Location: Candelario Polyline

Direction:
Northeast

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 19

Date: 07-12-2022

Description:
SB-15

Location: Candelario Polyline

Direction:
Southeast

Photo: 20

Date: 07-12-2022

Description:
SB-16

Location: Candelario Polyline

Direction:
West

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 21

Date: 07-12-2022

Description:
Sb-17

Location: Candelario Polyline

Direction:
South

Photo: 22

Date: 07-12-2022

Description:
Sb-18

Location: Candelario Polyline

Direction:
North

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 23

Date: 07-13-2022

Description:
SB-19

Location: Candelario Polyline

Direction:
South

Photo: 24

Date: 07-13-2022

Description:
SB-20

Location: Candelario Polyline

Direction:
South

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 25

Date: 07-13-2022

Description:
SB-21

Location: Candelario Polyline

Direction:
South

Photo: 26

Date: 07-13-2022

Description:
SB-22

Location: Candelario Polyline

Direction:
Southeast

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 27

Date: 07-13-2022

Description:
SB-23

Location: Candelario Polyline

Direction:
South

Photo: 28

Date: 07-13-2022

Description:
SB-24

Location: Candelario Polyline

Direction:
West

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 29

Date: 07-13-2022

Description:
SB-25

Location: Candelario Polyline

Direction:
North

Photo: 30

Date: 07-13-2022

Description:
SB-26

Location: Candelario Polyline

Direction:
North

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 31

Date: 07-13-2022

Description:
SB-27

Location: Candelario Polyline

Direction:
East

Photo: 32

Date: 07-13-2022

Description:
SB-28

Location: Candelario Polyline

Direction:
East

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 33

Date: 07-13-2022

Description:
SB-29

Location: Candelario Polyline

Direction:
East

Photo: 34

Date: 07-13-2022

Description:
SB-30

Location: Candelario Polyline

Direction:
Northeast

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 35

Date: 07-13-2022

Description:
SB-31

Location: Candelario Polyline

Direction:
North

Photo: 36

Date: 07-13-2022

Description:
SB-32

Location: Candelario Polyline

Direction:
North

PROJECT PHOTOGRAPHS

Chevron USA Inc
New Mexico

Photo: 37

Date: 07-13-2022

Description:
SB-33

Location: Candelario Polyline

Direction:
North

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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 179780

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 179780
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	Thank you for the 2022 Soil Assessment Report. The report will be placed in the OCD Permitting Incident file for future reference. A remediation plan was approved for this incident on September 19th, 2019. Please refer to conditional approval and continue to remediate the site. Please contact the New Mexico OCD or the BLM If you have any questions.	5/24/2023