UICI - 005

PERMIT APPLICATIONS, RENEWALS & MODS

2022

From:	Chavez, Carl J, EMNRD
To:	Wunder, Matthew, DGF; ddapr@nmda.nmsu.edu; Richard, StephanieGarcia; James_Amos@blm.gov; psisneros@nmag.gov; r@rthicksconsult.com; sric.chris@earthlink.net; nmparks@state.nm.us; Tom.Blaine@state.nm.us; marieg@nmoga.org; william.fetner@state.nm.us; lazarus@glorietageo.com; perry@glorietageo.com; cjoyner@fs.fed.us; kevin.pierard@state.nm.us; bsg@garbhall.com; claudette.horn@pnm.com; dortiz@montand.com; pam@ipanm.org; Kautz, Paul, EMNRD; Robinson, Gary, EMNRD; Kerry EMNRD Fortner (Kerry.Fortner@state.nm.us); Adrienne EMNRD Sandoval (Adrienne.Sandoval@state.nm.us); Richard, StephanieGarcia; Cordero, Gilbert, EMNRD
Cc:	Goetze, Phillip, EMNRD; Powell, Brandon, EMNRD; Wrinkle, Justin, EMNRD
Bcc:	Philana Thompson; Jeff Davis; Darr Angell; Laura Angell; Gary Schubert; Ben Donahue; Marcus, Ramona, EMNRD; Tulk, Laura, EMNRD
Subject:	NM Oil Conservation Division- OCD WQCC UIC Class I (Non-hazardous) Injection Well & Class III (Solution Mining- Brine) Injection Well Discharge Permit Public Notices
Date:	Friday, July 29, 2022 2:52:00 PM

Ladies and Gentlemen:

Please find below the New Mexico Oil Conservation Division (OCD) initial Public Notices for the above subject Underground Injection Control (UIC) Class I (Non-hazardous) Injection Well (San Juan County) and Class III (Solution Mining- Brine) Injection Well (Lea County) Facilities.

The OCD Public Notices are scheduled to be posted in the Albuquerque Journal and Hobbs-Sun News on Sunday, July 31, 2022.

The OCD Draft Website for public notice information and updated postings is at https://www.emnrd.nm.gov/ocd/permitting-resources-how-tos/ (see “Discharge Plans” section).

WQCC Public Notices

Discharge Permit Application – Agua Moss, LLC. (7/29/2022):
Discharge Permit (UICI-5/Facility ID# fCJC2115960695)
The Underground Injection Control (UIC) Class I (Non-hazardous) Injection Well “Sunco Disposal Well No. 1- WDW-1″ (API No. 30-045-28653) is located at UL: E, Section 2, Township 29 North, Range 12 West, 1,595 FNL, 1,005 FWL, Latitude: N 36.75737º Longitude: W -108.07279°, NMPM, San Juan County. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Roads 3500 and 3773.
Administratively Complete (7/29/2022)
Application (6/6/2022)
Discharge Permit (7/31/2022)
Public Notice (Estimated OCD Post Date: Sunday 7/31/2022)

Discharge Permit Application – Llano Disposal, LLC (7/29/2022):
Discharge Permit (BW-35/Facility ID# fCJC2134952911)
The Underground Injection Control (UIC) Class III Solution Mining Well “Siringo ACS State Well No. 1” (API# 30-025-30701) is located at UL: D, Section 26, Township 17 South, Range 36 East, Latitude: N 32.81150º Longitude: W -103.33178°, NMPM, Lea County. The injection well is located approximately 8.3 miles south of Lovington, or 1.1 miles east of the intersection of Hwy-483 (Arkansas Jct.) and Hwy-50 (Buckeye Rd.).
Administratively Complete (7/29/2022)
Application (6/14/2022)
Discharge Permit (7/31/2022)

Public Notice (Estimated OCD date: Sunday 7/31/2022)

Discharge Permit Application – H.R.C., Inc. (7/29/2022):
Discharge Permit (BW-36/Facility ID# fCJC2116031873)
The Underground Injection Control (UIC) Class III Brine or Solution Mining Injection Well "Schubert Farms Brine Well No.1" (API No. 30-025-37548) is located at UL: B, Section 25 Township 19 South, Range 38 East, 330 FNL, 1650 FEL, Lat. 32.63760°, Long. -103.09880°, NMPM, Lea County, New Mexico. The injection well is located approximately 1.9 miles E-NE of Nadine, NM or 1.7 miles E of the intersection of Hwy- 18 (S. Eunice Hwy.) and 0.95-mile N of Hwy- 56.
Administratively Complete (7/29/2022)
Application (5/26/2022)
Discharge Permit (7/31/2022)
Public Notice (Estimated OCD date: Sunday 7/31/2022

Please share this message with others and contact me if you have questions. Thank you.

Carl J. Chavez ● UIC Group
Engineering Bureau
EMNRD - Oil Conservation Division
5200 Oakland Avenue, N.E. Suite 100 | Albuquerque, NM 87113
505.660.7923
www.emnrd.nm.gov

Discharge Permit (UICI-5/Facility ID# fCJC2115960695) Agua Moss, LLC, (07/29/2022):
The Underground Injection Control (UIC) Class I (Non-hazardous) Injection Well "Sunco Disposal Well No. 1- WDW-1 (API No. 30-045-28653) is located at UL: E, Section 2, Township 29 North, Range 12 West, 1,595 FNL, 1,005 FWL, Latitude: N 36.75737º Longitude: W -108. 07279°, NMPM, San Juan County. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Roads 3500 and 3773.

Administratively Complete (7/29/2022)
Application (6/6/2022)
Discharge Permit (7/31/2022)
Public Notice (Estimated OCD Post Date: Sunday 7/31/2022)

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham A
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Director
Oil Conservation Division

By Electronic Mail Only

JULY 29, 2022

Ms. Philana Thompson
Agua Moss, LLC
P.O. Box 600
Farmington, New Mexico 87499

Re: Discharge Permit (UICI-005/Facility ID# fCJC2115960695) Agua Moss, LLC
UIC Class I (Non-hazardous) Disposal Well
Sunco Disposal Well No. 1 (WDW-1)- API No. 30-045-28653
UL: E, Section 2 Township 29 North, Range 12 West, 1,595 FNL 1,005 FWL
(Lat. 36.75737, Long. -108.07279) NMPM, San Juan County, New Mexico

Ms. Thompson:

The New Mexico Oil Conservation Division (OCD) is in receipt of Agua Moss, LLC' s discharge permit new application for WDW-1 a UIC Class I non-hazardous waste injection well. After review, OCD has determined that the application is *"administratively complete"* pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3108 NMAC).

Agua Moss, LLC must now provide public notice and demonstrate that it has done so to OCD in a timely manner. OCD will also provide notice to various governmental groups. Depending upon the level of public interest, a hearing may be scheduled on this matter. OCD will continue our review of the application and may request additional technical information during the application review process.

If you have any questions, please do not hesitate to contact me by phone at (505) 660-7923, mail at the address below, or email at CarlJ.Chavez@state.nm.us . On behalf of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review process.

Sincerely,

Carl J. Chavez
Engineering Bureau

cc: Phillip Goetze
Northern District Office

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

Discharge Permit Application for Class I Non-Hazardous Sunco Disposal Well #1

Data obtained from original permits 1996, 2002, 2007

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-486-1171

Contents

Applications

Attachments

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: AGUA MOSS LLC **OGRID Number:** 247130
Well Name: SUNCO DISPOSAL #1 **API:** 30-045-28653
Pool: SWD-MV **Pool Code:** 96160

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☐ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ☒ Application requires published notice
D. ☐ Notification and/or concurrent approval by SLO
E. ☐ Notification and/or concurrent approval by BLM
F. ☐ Surface owner
G. ☐ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

PHILANA tHOMPSON
Print or Type Name

Signature

xxxxxxx 4/28/2022
~~4/6/2017~~
Date

505-486-1171
Phone Number

pthompson@merrion.bz
e-mail Address

2022 C108

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

C108 Application for Authorization to Inject
Sunco Disposal Well #1
Data obtained from original permits 1996, 2002, 2007,2012, 2017

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-324-5336

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance X Disposal _____Storage
Application qualifies for administrative approval? xx Yes _____No

II. OPERATOR: Agua Moss, LLC.

ADDRESS: PO Box 600 Farmington, NM 87499

CONTACT PARTY: Philana Thompson PHONE: 505-486-1171

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes xx No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Philana Thompson TITLE: Regulatory Compliance Specialist

SIGNATURE: Philana Thompson DATE: 6/2/2022

E-MAIL ADDRESS: pthompson@merrion.bz

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: Original permit dated 8/26/1996, 2002, 2007, 2012 & 2017

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Discharge Permit Application for UIC-CLI005
Sunco Disposal Well #1
30-045-28653

VII. Discharge Operations

1. Proposed average and maximum daily rate and volume of fluids to be injected (based on historical data see attachment 8)
    a. Average Flow (gpm) 24
    b. Maximum Flow (gpm) 98
    c. Average Volume (bpd) 850
    d. Maximum Volume (bpd) 3100
2. The Sunco Disposal #1 is a open system
3. Proposed average and maximum injection pressure (based on previously approved modification 1/17/2008 and historical data see attachment 8)
    a. Average injection pressure (psig) 1716
    b. Maximum injection pressure permitted is **2400 psig**, historical 2250 psig
4. Water sources shall include oil & gas produced Class I non-hazardous RCRA exempt. See attachment 5 for most recent analysis of injected fluids.
5. Injection zone does not produce oil and gas. A chemical analysis was provided from the McGrath #4 well in 1996. It had an estimated TDS of 17,180 mg/l.

VIII. Geologic data: see historical permitting 2012,2007,2002 & 1996

IX. Stimulation Program: NA

X. Logging and test data: see historical permitting 2012,2007,2002 & 1996

XI. Chemical Analysis: see historical permitting 2017,2012,2007,2002 & 1996

1. See Attachment 6 Monitor Well

XII. Agua Moss, LLC has examined available geological and engineering data and find no evidence of open faults or any other hydrological connection between the disposal zone and any underground resources of drinking water.

XIII. Proof of Notice:

1. See Attachment 7
2. Proof of Notice Public Notice: The legal advertisements will be submitted to the Farmington Daily Times, in English and Spanish, a public notice will also be posted at the facility on the main entrance and at the Farmington Museum, upon notification from NMOCD of administrative completeness of application.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

1. Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
    a. Lease Name: Sunco Disposal #1
    b. Location: S2, T29N R12W; 1595' FNL & 1005' FWL
2. Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

Hole Size	Casing Size	Depth Set	Cement
12 1/2"	8 5/8", 24#, J-55	200'	150 sks cl A cement with 2% CaCl2 and 1/4# Flocel per sack (Circ to surface)
7 7/8"	5 1/2", 15.5#, J-55	4760'	2 stage job w/stage tool at 2250' 1st stage: 191 sks 65:35 Poz w/6% gel, 5# gilsonite /sk and 1/4# Flocele/sk, 263 sks cl B cem w/5# gil-sonite/sk and 1/4# Flocele sk 2nd stage: 368 sks 65:35 Poz w/6% gel, 5# gilsonite /sk, 1/4# Flocele/sk and 2% CaCl2 followed by 60 sks Cl B cem w/2% CaCl2 (Circ to surface)

3. A description of the tubing to be used including its size, lining material, and setting depth.

    2 7/8", 6.5#, J-55, EUE plastic lined tubing

4. The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

    Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

1. The name of the injection formation and, if applicable, the field or pool name.
    i. The point Lookout section of the Mesa Verde formation
2. The injection interval and whether it is perforated or open-hole.
    i. 4380' to 4480'

3. State if the well was drilled for injection or, if not, the original purpose of the well.
    i. The well was drilled for injection purposes
4. Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
    i. No other zones were perforated
5. Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.
    i. Depth of next higher oil and gas zone: 2285 (bottom of Pictured Cliffs formation)
    ii. Depth of next lower oil and gas zone: 6550 (top of the Dakota formation)

XIV. PROOF OF NOTICE **See Attachment 7**

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location. Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- The name, address, phone number, and contact party for the applicant;
- The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- The formation name and depth with expected maximum injection rates and pressures; and,
- A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 day

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Agua Moss, LLC

WELL NAME & NUMBER: Sunco Disposal Well #1

WELL LOCATION: 1595 FNL & 1005 FWL | E | 2 | 29N | 12W

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

See attached Wellbore diagram

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 1/4 Casing Size: 8.625

Cemented with: 150 sx. ***or*** _____ ft^3

Top of Cement: 0 Method Determined: circ

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: _____ Casing Size: 5.5

Cemented with: 1010 sx. ***or*** _____ ft^3

Top of Cement: 0 Method Determined: circ

Total Depth: 4760

Injection Interval

perf 4350' feet to 4460'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: _____

Type of Packer: Arrow XL retrievable seal bore

Packer Setting Depth: 4282'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes X No

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Point Lookout Sandstone of the MV group

3. Name of Field or Pool (if applicable): Point Lookout

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____

   No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

   The depth of the next higher producing zone is the pictured cliffs at 2285',

   the lower is the top of the dakota at 6550'

Agua Moss, LLC

Wellbore Schematic

Sunco No. 1, SWD

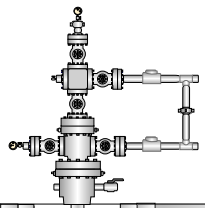
Current Wellbore Configuration

Location: 1595' fnl & 1005' 'fwl
Sec 2, T29N, R12W
San Juan Co, New Mexico

December 19th, 2018 RD

Elevation: 5,859' GL
5,872' RKB

By: J. Ryan Davis



Tertiary

Cretaceous

Top of Cmt @ Surface

Bit Size - 12 1/4"

8 5/8" 24# K55 Surface Csg @ 209' KB w/ 150sx; circ to surf

DV tool @ 2244' KB.

2 7/8", 6.5#/ft EUE Internally Plastic Coated Tubing to 4282' KB
w/ Arrow XL-W retrievable seal bore @4282' KB
X Profile nipple (1.87" ID) @ 4269' KB
X Profile nipple (1.87" ID) @ 4278' KB

Mesaverde - 4046'

Pt. Lookout Perfs:
4350' - 4460' 2 spf
(Acidized w/ 2000 gal 15% HCL on 9/1993 , Frac w/ 100,000# 20/40)

Fill @ 4387' GL (4400' KB).

TD @ 4760'KB
PBTD @ 4706'KB

5.50" 15.5# K55 Csg @ 4750'
Stage 1: 230 sx
Stage 2: 515 sx
Circ 25 sx to surf

Discharge Plan

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

Ground Water Discharge Application/Plan
Sunco Disposal Well #1
Data obtained from original permits 1996, 2002, 2007

Agua Moss, LLC
PO Box 600
Farmington, NM 87499
Attn: Philana Thompson
Phone: 505-486-1171

Table of Contents

I. Facility Description

a. Mailing Address of Parent Company
    i. PO Box 600, Farmington, NM 87499
b. Point of Contacts
    i. Philana Thompson, HSE & Regulatory Compliance
        - pthompson@merrion.bz
        - 505-486-1171
    ii. Jeff Davis, Operations Supervisor
        - jdaquamoss@hotmail.com
        - 505-330-1617
    iii. William Clayton, Onsite Supervisor
        - wclaytonaguamoss@gmail.com
        - 505-716-2988
    iv. Ryan Davis, Engineering
        - rdavis@merrion.bz
        - 505-215-3292
c. Surface Owner
    i. Private Surface owned by Aqua Moss, LLC
d. Operator OGRID
    i. 310033
e. Describe type of facility
    i. Commercial UIC Class I (Non-hazardous) Disposal Well
f. Facility Location
    i. UL: E, Section 2, Township 29 North, Range 12 West, 1,595 FNL & 1,005 FWL
    ii. Lat. 36.75737, Long -108.07279 NAD 83
    iii. San Juan County, New Mexico
    iv. 345 Road 350, Farmington, NM 87401
g. Facility map(s) and diagram(s) indicating location of fences, pits, berms, tanks, loading areas, storage facilities, disposal facilities, processing facilities, wastewater treatment facilities, monitoring wells, and facility/property boundaries.
    i. Attachment 1

II. Site Characteristics

a. Attachment 2
    i. General description of topography, elevations, and vegetation types;
    ii. Soil type(s), (sand, clay, loam, caliche);
    iii. Name, description, and location of any bodies of water, streams (indicate perennial or intermittent), or other watercourses (arroyos, canals, drains, etc.) and ground water discharge sites (seeps, springs, marshes, swamps) within one mile of the outside perimeter of the facility;
    iv. Location of monitoring wells (existing and proposed) within and outside of the facility boundary;
    v. Location of water wells within one-quarter mile of the outside perimeter of the facility, specify use of water (e.g., public supply, domestic, stock, etc.);

- No groundwater discharge sites have been drilled since the original permit that are within one mile of the existing location. Only one water well within 1 mile of this facility was drilled in Section 34, T30N, R12W in 1977 and was capped with a steel plate welded over the casing. It is not producing.

vi. Name of aquifer(s), including composition of aquifer material (e.g., alluvium, sandstone, basalt, etc.);

vii. Depth to and lithological description of rock at base of alluvium below the discharge site (if available);

b. Flooding potential of the site:
   i. The location is in Zone X; Areas of of 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas proteced by levees from 1% annual chance of flooding.
c. Depth to and TDS concentration of the ground water most likely to be affected by the discharge:
   i. Ground water most likely to be affected by any accidental discharge is at a depth from 78 to 90 feet and has a total dissolved solids concentration of approximatley 450 mg/l.

III. Potential and Intentional Discharges & Collection and Storage Systems

a. See Attachment 1 for Tanks & Pipe layout
b. See Attachment 5 for Analysis of Injection Fluids
c. The entire tank area is bermed and lined to hold at least 1 + 1/3 volume of all tanks. The interconnected tanks are set within bermed area on top of liner. The area for the Vacuum tank & Solids is bermed & lined to hold at least 1 + 1/3 volume of the tanks.
d. **Tanks:** The settling tanks hold produced water & oil, Vacuum Tank & Solids Pit will hold solids until they are removed and disposed of.
   i. The 9 tanks currently on location are in the bermed area.
   ii. Vacuum Tank, 130 bbl. lay down tank 5'x36' ¼" steel (insulated) used to remove solids from settling tanks into Solids Pit.
   iii. Solids Pit, 480 bbl. 9'x40' 8' tall ¼" steel w/ expanded metal cover and walkways.
e. **Pipes:** The facility has both above ground pipes & below
   i. The unloading lines and lines connecting the tanks are above ground steel pipe.
   ii. The remaining lines that connect to the injection facility are below ground plastic pipe.
f. On-Site disposal- None
g. Off-site disposal- Tank Bottoms are tested and taken to the Envirotech Inc. facility Permit #NM-01-0011
h. Commingled Waste Streams- NA
i. Groundwater contamination- To date no known ground water impacts have been found at the site or related to the site.
j. Location and design of site and methods available for sampling, and for measurement or calculation of flow
   i. The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.

ii. Analysis of injected RCRA (non-hazardous) waste water will be conducted quartly and reported annually. Exceedances of the RCRA Characteristically Hazardous Criteria, listed below, will be reported to the NMOCD within 24 hours after having knowledge of any such exceedence. All testing shall be in accordance with the current discharge permit and with compliance criterion for hazardous waste concentrations.

- RCRA Characteristically Hazardous Waste Criterion or Parameters:
    1. Ignitability (defined by 40 CFR, Subpart C, Section 261.21)
    2. Corrosivity (defined by 40 CFR, Subpart C, Section 261.22)
    3. Reactivity (defined by 40 CFR, Subpart C, Section 261.23)

k. The injection zone is the Point Lookout Sandstone of the mesa verde group. The Point Lookout is a light to medium gray, angular to subangular very fine grained, well cemented sandstone with laminations of light to dark gray carbonaceous shale. Well logs reviewed at the time of the original permit indicated a maximum porosity of 13 to 14% with an average of 10%. The average thickness of the injection interval is 100' and is at a depth of 4380' to 4480'. Underground water sources are the Nacimiento which is exposed at the surface and the Ojo Alamo which occurs from 500' to 700'. There are no known water sources immediately underlying the injection zone.

l. Quantity, quality and flow characteristics of the discharge:
    i. Flow rate and volume of fluid injected at a daily rate of 2000 to 4000 bbl. per day.
    ii. This disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation. The total dissolved solids conentration of the injection water is approximately 24,000 mg/l. The total dissolved solids concentration of the formation fluids is approximately 14,000 mg/l.
    iii. Injected oil field exempt/non-exempt non-hazardous wastes shall be injected into the Point Lookout formation. The formation interval is from 4380' to 4480', the injection interval is perforated from 4350' to 4460' with 2 spf and 220 holes.
    iv. The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.

m. See Attachment 4 Contingency Plan for potential spills and/or releases

IV. Inspections, Maintenance, and Reporting

a. Fluids and Pressures:
    i. Agua Moss will track on a quartlery basis its disposal, operation and well workovers. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt non-hazardous waste) injected will be recorded monthly and submitted to the NMOCD Santa Fe office on a annual basis.
    ii. The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.

b. Contingency plans (Attachment 4):
    i. All spills will be reported pursuant to NMOCD Rule 19 Chapter 15 part 29.

ii. Agua Moss will maintain spill cleanup equipment on site that will allow for swift response to any spills or leaks that could occur at the facility.

c. MIT monitoring plans:
   i. Mechanical Integrity Test (MIT) will be performed annually before September 30th.
   ii. Agua Moss will pump up the annulus to 350 psig, put on a chart with 1000# range, with a one-hour clock.
   iii. The chart recorder will be calibrated before test.
   iv. The pump cut-off switch will be checked
   v. Bradenhead test will be performed
   vi. The NMOCD will be notified of the date of the test

d. Fall Off Test:
   i. Shall be conducted annually and will follow OCD's NMOCD UIC Class I Well Fall-off test guidance when conducting a FOT. The results shall be submitted within 30 days of completion.

e. Additional Fluid monitoring plans:
   i. Analysis of injected fluids will be submitted quarterly to the NMOCD as outlined in reporting procedures.
   ii. Continuous monitoring devices are utilized to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

f. Inspection, Maintenance, Sampling and Reporting:
   i. The entire system is visually inspected at least six times each day. This inspection includes the unloading area, settling tanks, injection pump, well and all interconnecting piping. Pump and wellhead pressures and injection volumes are recorded and stored at the facility.
   ii. Analysis of injected fluids will be conducted on a quarterly basis and submitted no later than 45 days following the end of each quarter.
   iii. The following characteristics will be analyzed:

- If waste is "oilfield non-exempt", the operator shall ensure that the generator waste has been satisfactorily tested and documented to be non-hazardous by "Characteristically Hazardous Waste Testing" for Ignitability, Corrosivity, and Reactivity) under 40 CFR 261 Subpart C sections 261.21 – 261.23, July 1, 1992;
- If waste is "oilfield exempt", the operator shall ensure that the generator waste has been satisfactorily documented to be oilfield exempt waste before accepting waste for disposal and documentation on a C-138 Form or equivalent for record keeping. There is no hazardous waste testing requirement for oilfield exempt wastes.
- If oilfield non-exempt waste is mixed with oilfield exempt waste at the facility, the operator shall ensure that the waste has been satisfactorily tested and documented to be non-hazardous by "Characteristically Hazardous Waste Testing" for Ignitability, Corrosivity, and Reactivity) under 40 CFR 261 Subpart C sections 261.21 – 261.23, July 1, 1992.
    1. RCRA Metals
    2. pH

3. Eh
4. Specific conductance
5. Specific gravity
6. Temperature

- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified at 40 CFR 136.3.

g. Agua Moss shall analyze the injected fluids quarterly for the constituents identified in the Quarterly Monitoring List (below) to demonstrate that the injected fluids do not exhibit the characteristics of toxicity using the toxicity characteristic leaching procedure, EPA SW-846 test method 1311 (see Table 1, 40 CFR 261.24 (b)).

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[4] 200.0
D024	m-Cresol	108-39-4	[4] 200.0
D025	p-Cresol	106-44-5	[4] 200.0
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[3] 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[3] 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

1 Hazardous waste number, 2 Chemical abstracts service number, 3 Quantitation limits is greater than the calculated regulatory level. The quantitation limit therefore becomes regulatory level, 4 If 0-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

h. **RECORD KEEPING:** *Agua Moss, LLC* shall maintain records of all well related information and inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD. Well records shall be sufficient

for OCD to successfully complete audits of all incoming generator oilfield exempt and non-exempt wastes disposed at the facility. ·

i. **QUARTERLY REPORTS:** *Agua Moss, LLC* shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD's Environmental Bureau within 45 days of the end of the quarter. The quarterly reports shall include the following:
j. The physical, chemical and other relevant characteristics of injection fluids;
k. Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and
l. The results of monitoring prescribed under Section 20.6.2.5207B NMAC.
m. **Annual Reports:** Agua Moss, LLC shall submit the annual report by June 1st of the following year. The annual report shall contain:
n. Cover sheet marked as "Annual Class I Sunco Disposal #1, Agua Moss, LLC, UICI-005, 30-045-28653, date of report, and submitting person;
o. Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103(s);
p. Copy of Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
q. Maximum and average injection pressures;
r. Copy of the quarterly chemical analyses shall be included with data summary and all *QAQC* and DQO associated information;
s. Copy of any mechanical integrity test (MIT) chart(s), including the type of test, *i.e.,* duration, gauge pressure, etc. unless OCD has approved Monthly Continuous Monitoring Charts for MITs in lieu of individual MITs;
t. Copy of Fall-Off Test charts;
u. Summary tables listing environmental analytical laboratory data for quarterly waste fluid samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. Agua Moss, LLC shall include copies of the most recent year's environmental analytical laboratory data sheets with *QAQC* summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;
v. Brief explanation describing deviations from the normal injection operations;
w. Results of any leaks and spill reports (include any C-141 reports);
x. Area of Review (AOR) annual update summary with any new wells penetrating the injection zone within a 1-mile radius from the Sunco Disposal #1;
y. Summary with interpretation of MITs, Fall-Off Tests, Bradenhead Tests, *etc.,* with conclusion(s) and recommendation(s);
z. Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
aa. Summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
bb. Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

V. Proposed Modifications

Agua Moss, LLC shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in

Permit Conditions, or process modification that would result in any significant modification in the discharge of water contaminants (see 20.6.2.3107C NMAC). The OCD Director may require the Agua Moss, LLC to submit a Discharge Permit modification application pursuant to 20.6.2.3 l09E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978. OCD may issue administrative amendments to the permit if the amendments do not qualify as a permit modification(s) under the regulations.

VI. Spill and Release Procedures

See attachment 4 contingency plan

VII. PUBLIC NOTICE AND PARTICIPATION (20.6.2.3108)

Once this application is deemed administratively complete by the department, Agua Moss, LLC shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC.

VIII. Other Information

Agua Moss does not foresee in the present or reasonably foreseeable future that the discharge permit will result in concentrations in excess of the standards of Section 20.6.2.3103 NMOAC or the presence of any toxic pollutant at any place of withdrawal of water.

IX. Facility Closure Plan

See attachment 3 Facility Closure Plan

X. Ground Water Discharge Plan Fee

The **$100.00** filing fee will be made payable to Water Quality Management Fund and sent to the address below. Upon notification from the department that a discharge permit can be issued Agua Moss, LLC will make payable to the Water Quality Management fund the associated fee of **$4500.00** for this Class I well.

Water Quality Management Fund Oil Conservation Division

Attn: Leigh Barr 1220 South St. Francis Dr.

Santa Fe, NM 87505.

UIC Class I Haz Well Application

Hobbs Office
1625 N. French Dr., Hobbs, NM 88240
Artesia Office
To be Announced, Artesia, NM 88210
Aztec Office
1000 Rio Brazos Road, Aztec, NM 87410
Santa Fe
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

Feb 01, 2022

Submit Original
Plus 1 Copy to
Engineering Bureau
1 Copy to
Appropriate
Field Supervisor

DISCHARGE PERMIT APPLICATION FOR CLASS I WASTE INJECTION WELL FACILITY
(Contact the OCD Engineering Bureau for assistance in completing this application)

☐ Hazardous ☒ Non-hazardous ☒ New ☐ Renewal ☐ Well Conversion

I. Facility Name: Sunco Disposal Well #1

II. Operator: Agua Moss, LLC

Address: PO Box 600 Farmington, NM 87499

Contact Person: Philana Thompson Phone: 505-486-1171

III. Location: SW /4 NW /4 Section 2 Township 29 North Range 12 West

Submit U.S.G.S. 7.5 & 15 Minute Quadrangle Topographic Maps with well location and NAD83 Decimal Lat./Long.

IV. Attach the name and address of the landowner of the facility site. See the attached discharge plan

V. Attach a description of the types and quantities of fluids at the facility. See the attached discharge plan

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities. See the attached discharge plan

VII. Attach a description of underground facilities (well diagrams etc. including a C-101 or C-103, and C-108). See the attached C108

VIII. Attach a contingency plan for reporting and clean-up of spills or releases. See attachment 4

IX. Attach geological/hydrological evidence demonstrating that operations will not adversely impact fresh water. See the attached C108

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. Attach completed Form C-108 with geologic/hydrogeologic/well design and construction evidence demonstrating that well operations will not adversely impact fresh water. See the attached C108

XII. Attach copies of Waste Analysis Plan (40 C.F.R. 146.68), AoR Corrective Action Plan (20.6.2.5354 NMAC), Closure Plan (40 C.F.R. 146.71), Post-Closure Plan (20.6.2.5362 NMAC, 40 § C.F.R. 146.72 and 40 § C.F.R. 261), Completion Report (20.6.2.5360B NMAC), Public Notice (20.6.2.3108 NMAC) and Waste Minimization & Practicability Certification (20.6.2.5360D NMAC). See attachment 5

XIII. Attach copy of EPA Region 6 (Dallas, TX) "No Migration Petition" submittal (20.6.2.5360B(9) NMAC) if application is for a hazardous injection well. Final permit approval is contingent on EPA approval of the petition. All variances to regulations must be approved by the EPA. All hazardous well permits shall comply with 20.6.2.5360 NMAC. NA

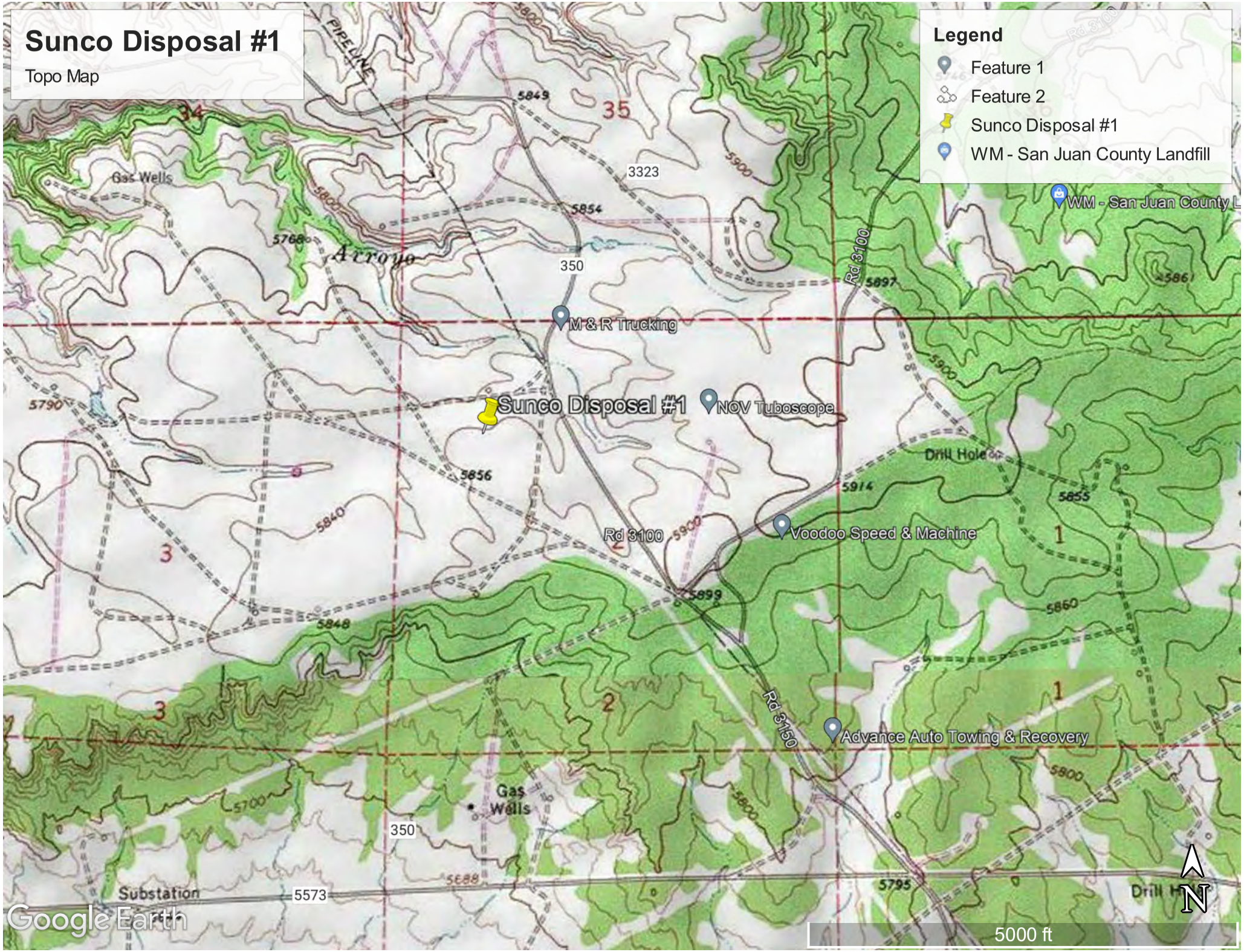
XIV. CERTIFICATION:

I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Philana Thompson Title: HSE & Regulatory Compliance

Signature: Philana Thompson Date: 6/4/2022

Attachment 1 Facility Maps


Sunco Disposal #1
Topo Map
Legend
Feature 1
Feature 2
Sunco Disposal #1
WM - San Juan County Landfill
PIPELINE
Gas Wells
Arroyo
M & R Trucking
Sunco Disposal #1
NOV Tuboscope
Drill Hole
Voodoo Speed & Machine
Rd 3100
Rd 3150
Advance Auto Towing & Recovery
Gas Wells
Substation
350
3323
5573
5849
5854
5768
5897
5861
5790
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5800
Google Earth
5000 ft
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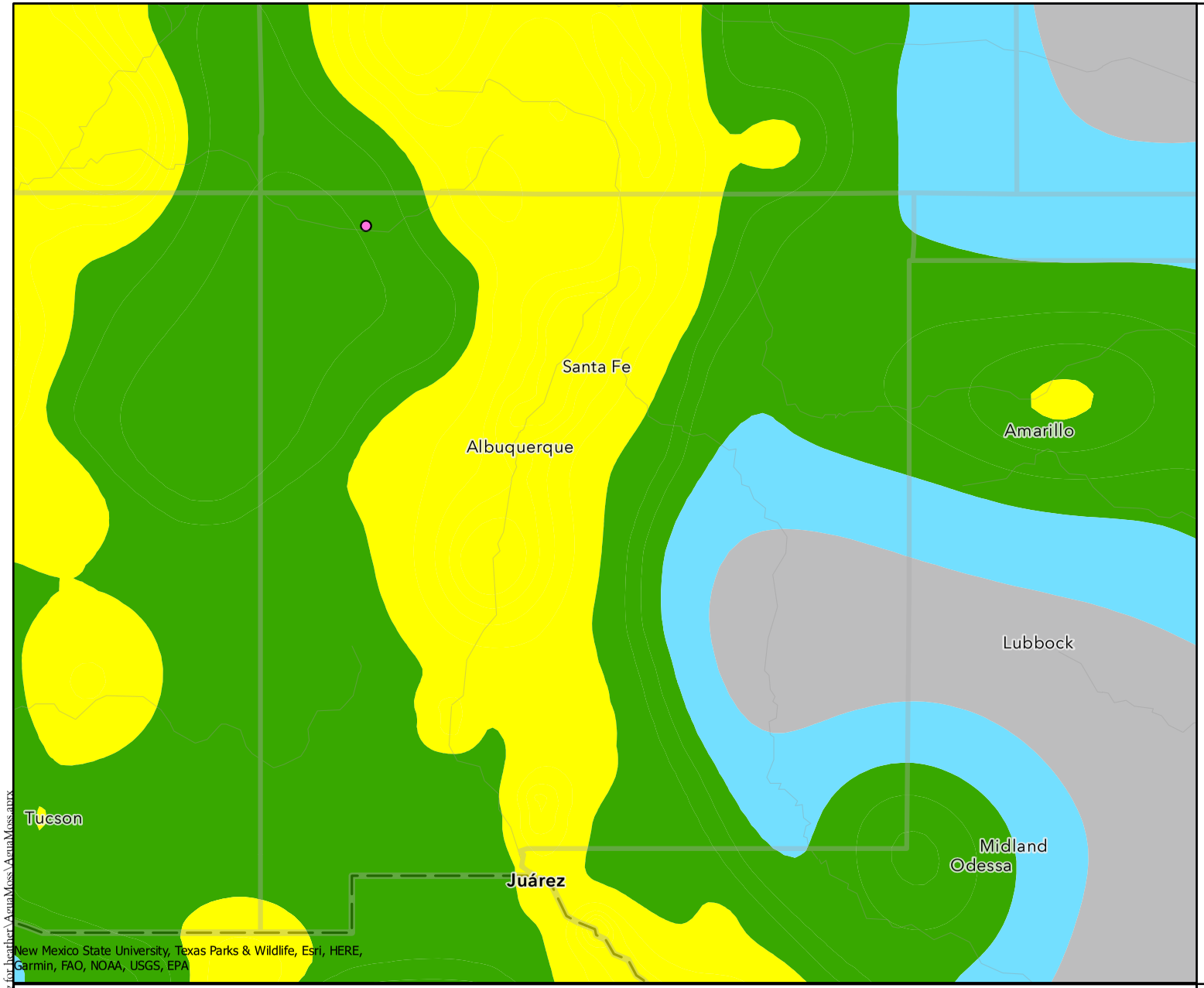

Legend

- Facility

Expected # of Earthquake Occurences

- <2
- 2-4
- 4-10
- 10-20
- 20-50
- 50-100
- 100-250
- >250

0 40 80 160 Miles

Scale: 1:6,033,176

N

Coordinates of Facility:
-108.073388W 36.757958N

Seismic Hazard Map
Sunco Disposal #1- Agua Moss, LLC
S: 2 T: 29N R: 12W, San Juan County, New Mexico

Revisions
By: Date: Descr:
By: Date: Descr:

Date Saved: 4/28/2022

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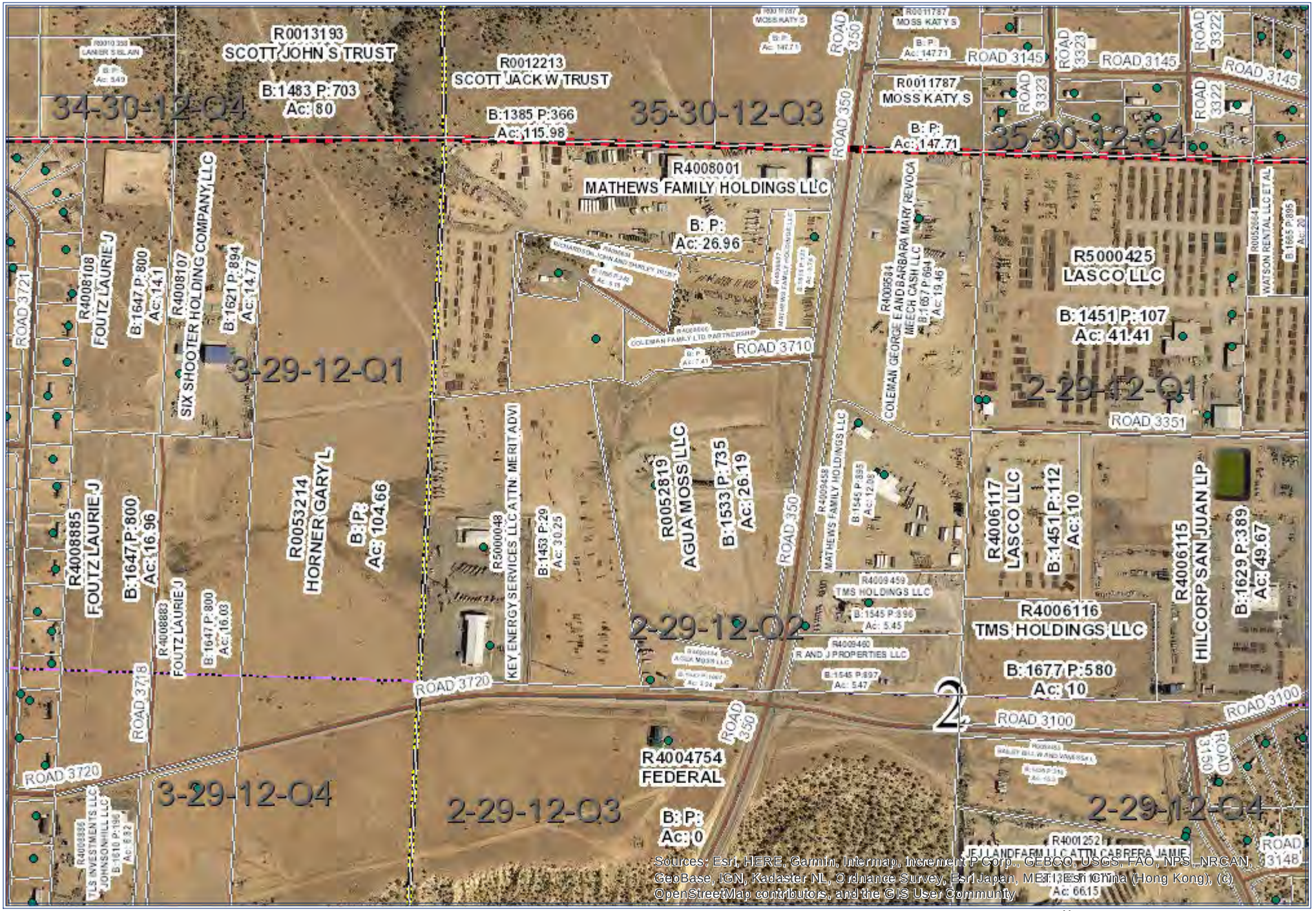
Drawn Sarahmay Schlea
Date 6/14/2022
Checked
Approved

201 South Halagueno Street
Carlsbad, New Mexico 88221
(575) 689.7040
Serving the Southwest & Rocky Mountains

C:\Users\ss\Desktop\GIS\something for heather\AguaMoss\AguaMoss.aprx



The San Juan County Assessor's Office assumes no liability for the accuracy of the information provided and it is not intended to be used as a survey.

The data contained herein was derived from the most current information available at the time of publishing. While the San Juan County Assessor's Office makes every effort to provide accurate and complete information, the data contained on this map is subject to change.

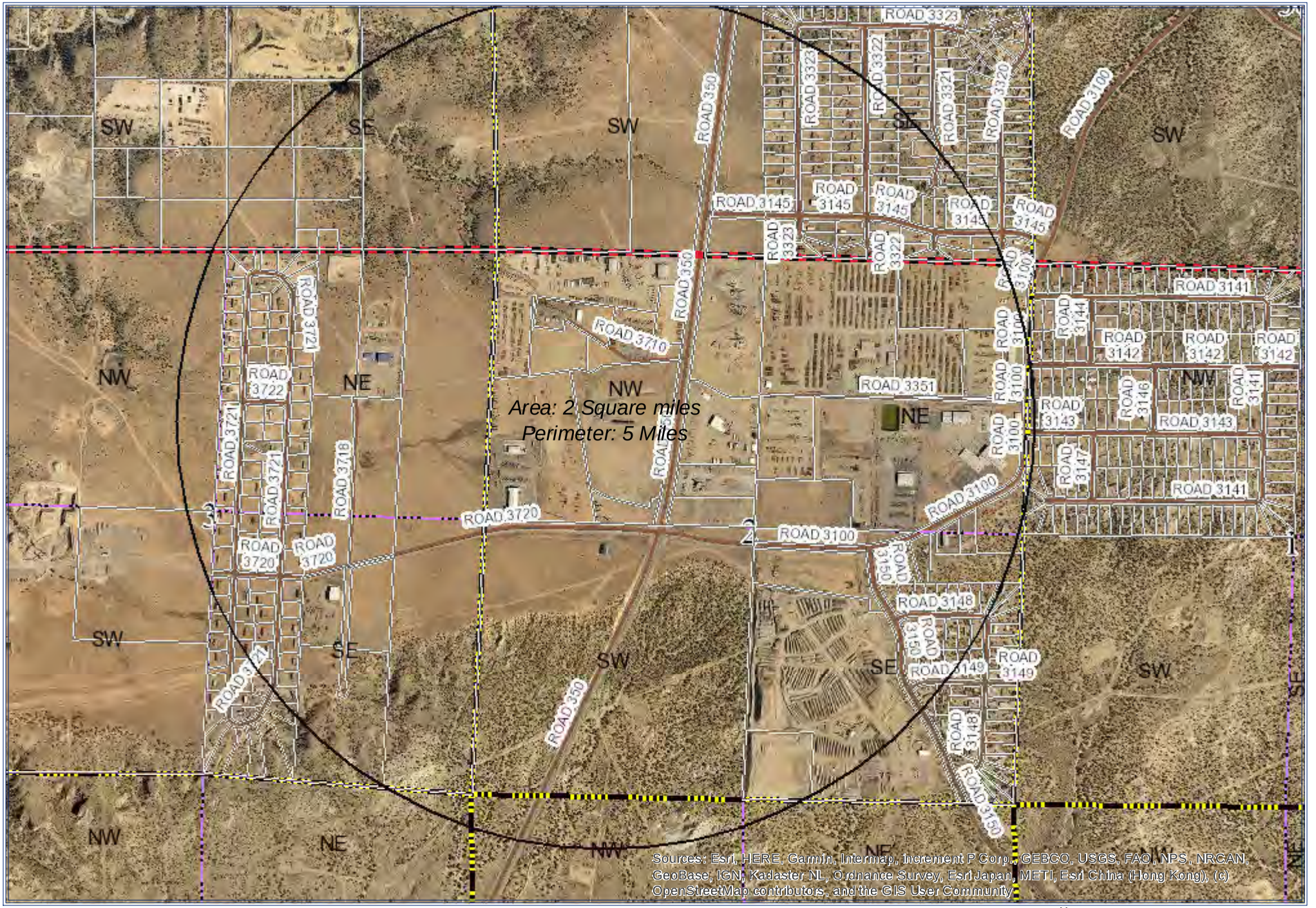
The San Juan County Assessor's Office provides no warranty, expressed or implied, as to the accuracy , reliability or completeness of the furnished data.

Date: 4/26/2022

0.1 0.05 0 0.1 mi

N W E S

San Juan County Assessor's Office
100 S. Oliver Dr.
Aztec, NM 87410
505-334-6157



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Date: 4/26/2022

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N W E S

San Juan County Assessor's Office
100 S. Oliver Dr.
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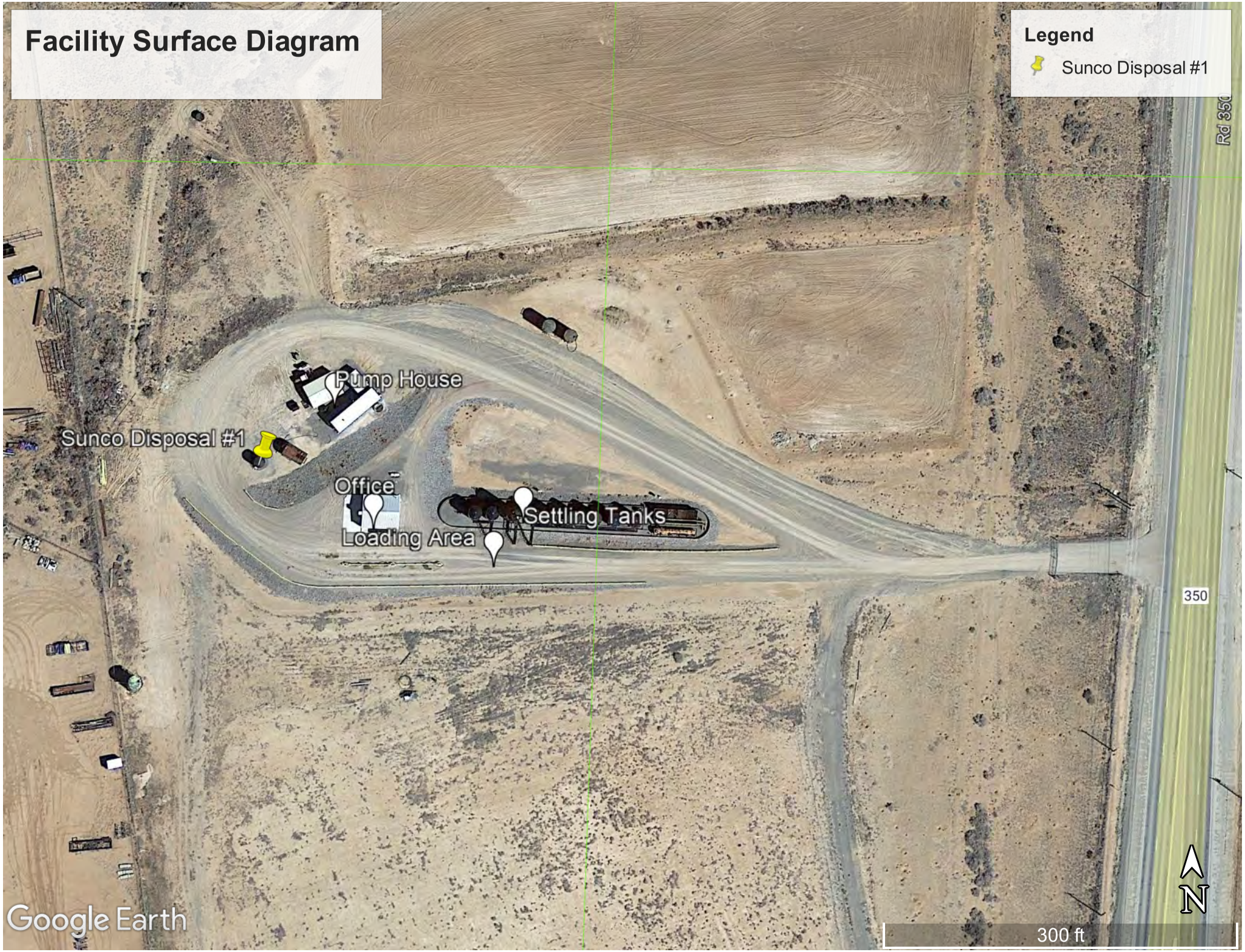
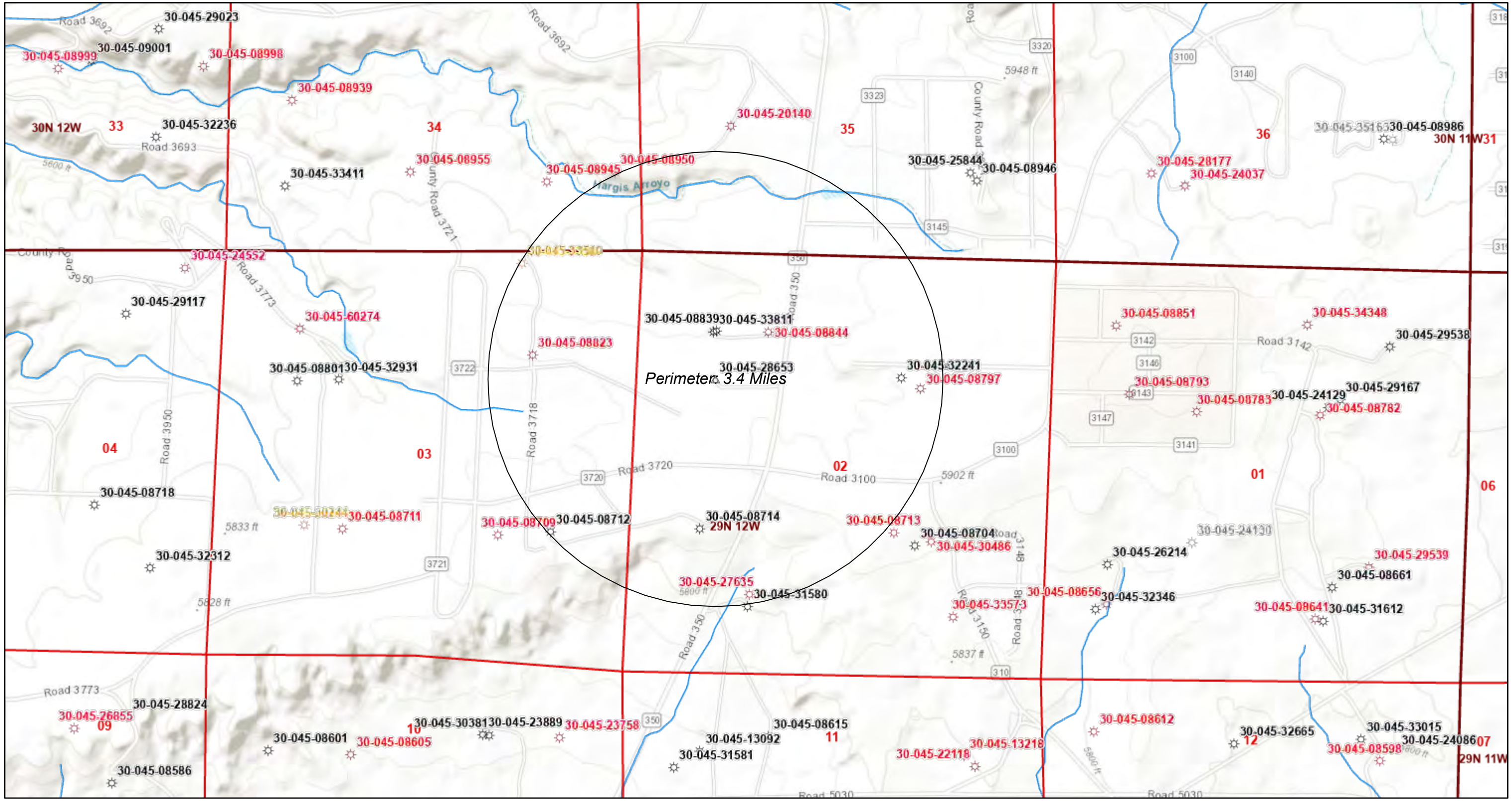

Facility Surface Diagram
Legend
Sunco Disposal #1
Pump House
Sunco Disposal #1
Office
Settling Tanks
Loading Area
350
N
Google Earth
300 ft

OCD Well Locations



6/2/2022, 11:50:31 PM

1:18,056

Override 1

Wells - Large Scale

Gas, Active

Gas, Cancelled

Gas, Plugged

Gas, Temporarily Abandoned

Salt Water Injection, Active

PLSS First Division

PLSS Townships

OSE Streams

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

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

OCD Facility Inspection (12/2/2014)

Looking SW away from filling dock

Looking W off facility property at Key Tanks

Looking S at office and filling dock

Looking South at tanks and filling dock

Looking E at Accumulator Tank

Looking E at Bulk Storage Tank

Looking SE at Tanks in series feeding into

Solids Holding Tank at S End of Tank Battery

Looking E at Produced Water Holding Tanks

Looking N-NW at Central Tank Battery

Looking E at Solids Holding Tank and Pit

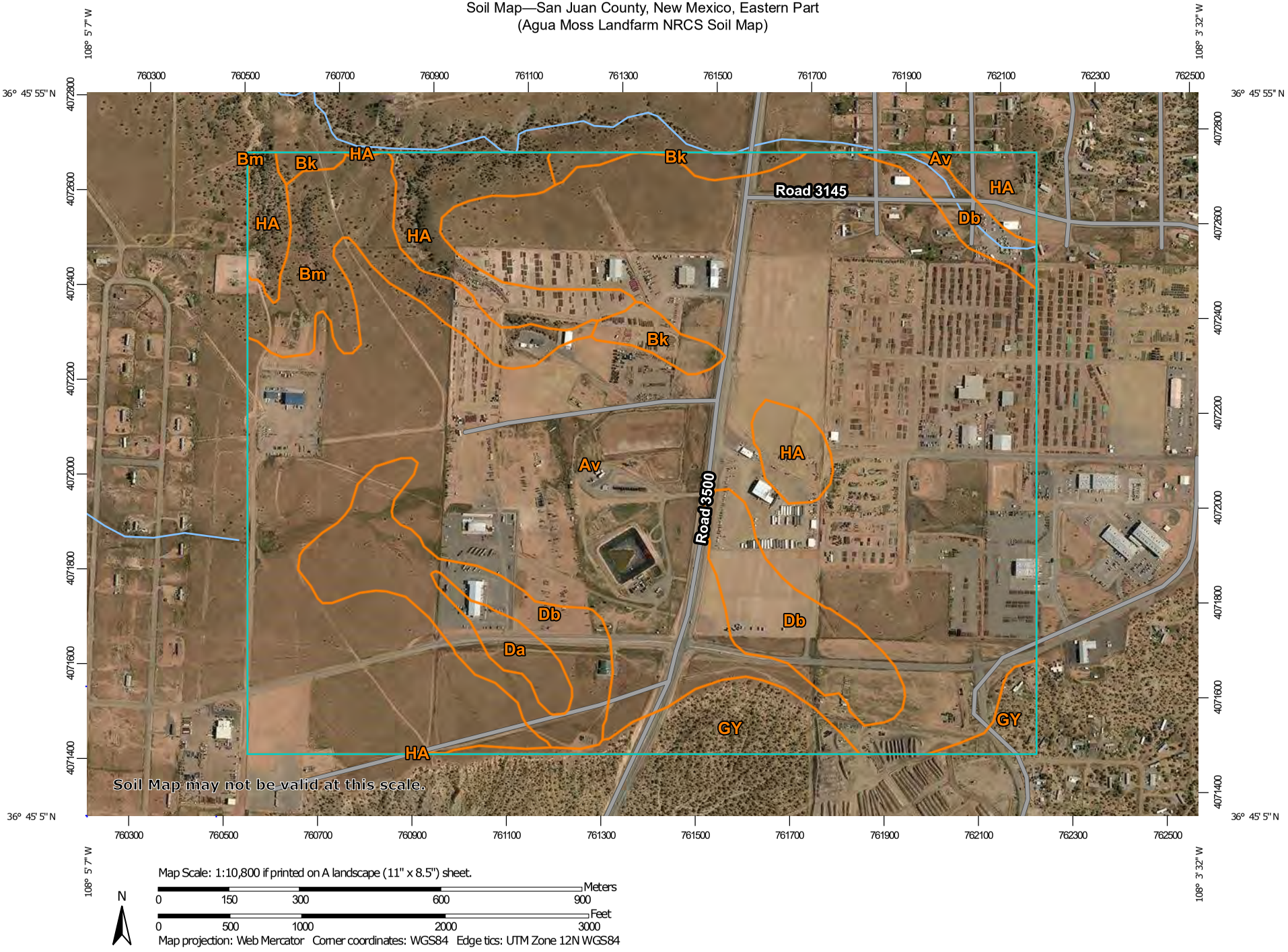
Looking E-NE at Fresh Water Holding Tanks

Looking SE at Solids Holding Tank and Pit

Looking NW at Office

Attachment 2 Site Characteristics

Soil Map—San Juan County, New Mexico, Eastern Part
(Agua Moss Landfarm NRCS Soil Map)



Map Scale: 1:10,800 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:63,400.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Juan County, New Mexico, Eastern Part
Survey Area Data: Version 15, Sep 15, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2015—May 30, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Av	Avalon sandy loam, 2 to 5 percent slopes	367.9	69.9%
Bk	Blackston loam, 0 to 3 percent slopes	10.4	2.0%
Bm	Blackston gravelly loam, 3 to 8 percent slopes	27.9	5.3%
Da	Doak loam, 0 to 1 percent slopes	6.4	1.2%
Db	Doak loam, 1 to 3 percent slopes	56.3	10.7%
GY	Gypsiorthids-Badland-Stumble complex, moderately steep	20.0	3.8%
HA	Haplargids-Blackston-Torriorthents complex, very steep	37.2	7.1%
Totals for Area of Interest		**526.1**	**100.0%**

Attachment 3 Closure Plan

A-PLUS WELL SERVICE

P.O. Box 1979, Farmington, NM 87499
(505) 325-2627

Date: 04/11/2017

MERRION OIL & GAS CORP

610 Reilly Ave
Farmington, NM 87401
505-324-5335

Well: SUNCO Disposal #1
API: 30-045-28653
State & County: NM, San Juan
Billing Region: San Juan
Service: P & A

Cost Estimate

Code	Qty	Cost	Total
Well Servicing Rigs & Equipment:			
1100 P & A Double Drum / Double/Triple Rig, 4 man crew	40.00	240 per hr	9,600.00
1800 Crew Travel Time, includes vehicle mileage	6.00	150 per hr	900.00
		Subtotal	**$10,500.00**
Cementing Services (When at an A-Plus Rig) and Pump:			
2160 If above Triplex is a Pump Truck, then Mileage:	16.00	3.2 per mile	51.20
2200 Cement Pump Charge - plugging	4.00	430 per plug	1,720.00
2400 Surface top-off, fill bradenhead annulus and/or casing	1.00	190 per event	190.00
2500 Class B Cement or ATM Type II Cement	188.00	15 per sack	2,820.00
		Subtotal	**$4,781.20**
Supervision of Rig & Cementing Operations:			
3200 Cementer	4.00	630 per day	2,520.00
3600 Travel for above persons in pickup	64.00	1 per mile	64.00
		Subtotal	**$2,584.00**
Wireline Services:			
4100 Wireline Operator on location	1.00	225 per day	225.00
4150 Wireline Rigger on location	4.00	28 per hr	112.00
4200 Travel for wireline operator or rigger in pickup	16.00	1 per mile	16.00
4320 Move to and from location: Wireline Unit Standard	16.00	3 per mile	48.00
4600 Cement Bond Log Charge:	1.00	1100 per run	1,100.00
4620 CBL Depth Charge:	4,300.00	0.2 per foot	860.00
		Subtotal	**$2,361.00**
Downhole Tools:			
5225 Cement Retainers, WD - Tubing Set: 5-1/2"	1.00	1180 each	1,180.00
6100 Casing Scraper (4-1/2" & 5-1/2"), A+ owned	1.00	350 per run	350.00
		Subtotal	**$1,530.00**
Transportation, Backhoe and Welder Services:			
3300 Route Survey before moving equipment	1.00	62 per hr	62.00
3400 Pilot Car and driver moving equipment	2.00	62 per hr	124.00
7000 Tandem Rig Up Truck and Driver	20.00	110 per hr	2,200.00
7040 Helper / Swamper or Laborer	20.00	28 per hr	560.00
7060 Water Truck Body Load (80 bbl., vacuum) with Driver	10.00	70 per hr	700.00
7070 Water Charge 80 BBL	5.00	34 per load	170.00
7160 Tandem Trailer; with hand rails:	4.00	50 per day	200.00
7500 Four Gas Monitor with bump gas test	1.00	40 per day	40.00
		Subtotal	**$4,056.00**
Miscellaneous Items:			
8100 Well Analysis and suggested procedure	1.00	500 per loc.	500.00
8300 P&A Marker, 4"x 4` above ground	1.00	135 each	135.00
8600 Rental: 2-3/8" EUE, J-55 Tubing workstring,	4,300.00	0.4 Ft.	1,720.00
		Subtotal	**$2,355.00**

A-PLUS WELL SERVICE

P.O. Box 1979, Farmington, NM 87499
(505) 325-2627

Date: 04/11/2017

MERRION OIL & GAS CORP

610 Reilly Ave
Farmington, NM 87401
505-324-5335

Well: SUNCO Disposal #1
API: 30-045-28653
State & County: NM, San Juan
Billing Region: San Juan
Service: P & A

Cost Estimate

Rental Equipment:

9420	Water Storage Tank, 210, 300 or 400 barrel capacity	4.00	40 per day	160.00
9460	Medium Steel Waste Fluid Pit, 85 bbl. capacity	8.00	65 per day	520.00
9520	Certified Rig Base Beam, 6` X 40`	4.00	100 per day	400.00
9660	Portable Toilet rental	4.00	25 per day	100.00
9680	Geronimo tie down pad, rental	4.00	25 per day	100.00
9720	Stripping Rubbers, Supreme: 2-3/8",	1.00	150 each	150.00
9740	Pipe Wiper Rubber: 2-3/8",	1.00	27 each	27.00
9900	Cut Off Operator, pneumatic saw & welding work	5.00	68 per hr	340.00
9920	Air Compressor rental	1.00	125 per job	125.00
9940	Pneumatic Powered Saw	1.00	100 per job	100.00
9960	Jack Hammer	1.00	100 per job	100.00
9980	Blade for pneumatic saw	1.00	25 each	25.00

Subtotal **$2,147.00**

Reclamation (3rd Party Vendor) **Subtotal** **$8,000.00**
Surface reclamation & Tank cleaning/removal

Total $38,314.20
NM Sales Tax $2,921.46
Grand Total $41,235.66

PLUG AND ABANDONMENT CLOSURE PLAN

April 11, 2017

Sunco No. SWD

Flora Vist Mesaverde
1595' FNL / 1005' FWL Section 2, T-29-N, R-12-W
San Juan County, NM, API #30-045-28653

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

1. This project requires a NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.

2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.

3. Rods: Yes____ , No__X_, Unknown _____.
   Tubing: Yes __X_ , No ____, Unknown_____ , Size ___2.875"__ , Length __4282'____.
   Packer: Yes__X__ , No____, Unknown___ Type Arrow XL – W Retrievable Seal Bore at 4282'

   If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.
   This well may require a CBL log to determine TOC. Plugs will be modified if necessary based on CBL log.

4. **Plug #1 (Mesaverde interval, 4300' – 3996'):** Round trip 5.5" gauge ring or scraper. TIH and set 5.5" cement retainer at 4300'. Pressure test tubing to 1000#. Load casing with water and circulate well clean. Pressure test casing to 1000#. *If casing does not test, then spot or tag subsequent plugs as appropriate.* Mix 41 sxs cement and spot a balanced plug inside casing above the CR to isolate the Mesaverde interval. PUH

6. **Plug #2 (Chacra top, 3542' – 3442'):** Mix 17 sxs Class B cement and spot a balanced plug inside casing to cover the Chacra top. PUH.

8. **Plug #3 (Pictured Cliffs and Fruitland tops, 2520' – 2034'):** Mix 61 sxs Class B cement and spot a balanced plug inside casing to cover the PC and Fruitland tops. TOH and LD tubing.

9. **Plug #4 (Kirtland and Ojo Alamo tops, 8-5/8" casing shoe and surface, 414' – 0'):** Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 50 sxs cement and spot a balanced plug from 414' to surface, circulate good cement out casing valve. TOH and LD tubing. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 414' and the annulus from the squeeze holes to surface. Shut in well and WOC.

10. ND BOP and cut off wellhead below surface casing. Install P&A marker to comply with regulations. RD, MOL, and cut off anchors.

SUNCO Disposal #1

Proposed P&A

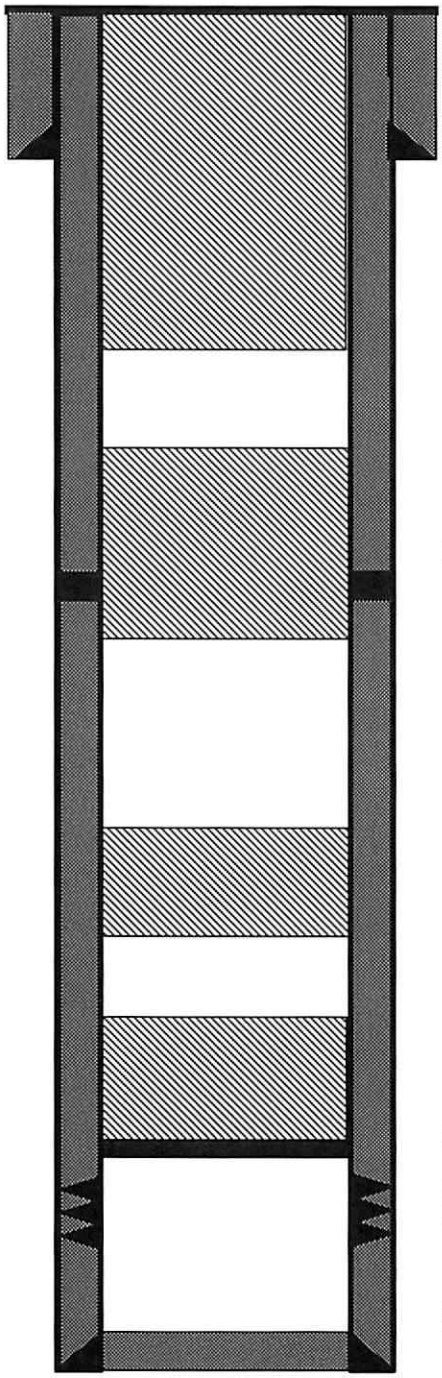
Flora Visa Mesaverde

1595' FNL / 1005' FWL Section 2, T-29-N, R-12-W

San Juan County, NM, / API #30-045-28653

Lat: / Long:

Today's Date: 4/11/17
Completed: 2/24/92
Elev: 5859' Gl
5872' KB



7" TOC @ TOL (CBL)

12.25" hole

8-5/8", 24#, K-55 casing @ 209'
Cemented with 250 sxs, circulated

Ojo Alamo @ 283'

Plug #4: 414' – 0'
Class B cement, 50 sxs

Kirtland @ 364'

Fruitland @ 2084'

Plug #3: 2520' - 2034'
Class B cement, 61 sxs

DV Tool @ 2244' (KB)
Stage #1: 515 sxs,
Circulated 25 sxs to surface

Pictured Cliffs @ 2470'

Chacra @ 3492'

Plug #2: 3542' – 3442'
Class B cement, 17 sxs

Mesaverde @ 4046'

Plug #1: 4300' – 3996'
Class B cement, 41 sxs

Set CR @ 4300'

Pt. Lookout Perforations:
4350' – 4460' 2 spf

5.5" 15.5# K-55 casing set @ 4760'
Cement with 230 sxs

7.875" hole

TD 4760' KB
PBTD 4706' KB

Attachment 4 Contingency Plan

Contingency Plan

Spill and Release Procedures

If a spill and/or release should occur at the Sunco Disposal #1 facility, the Yard Manager, Facility Manager, or designated supervisor will notify the Regulatory Compliance Specialist and coordinate with the facility employees to implement the following spill and/or release procedures:

1. Evacuate the area if necessary
2. Call emergency response personnel, if necessary
3. Stop operation of equipment that is the source of the release or spill, including closing valves, stopping pumps, etc.
4. Contain the spill using absorbent booms, a trench dug in the soil surrounding the spill, etc.
5. Deploy absorbent materials to soak up spilled material.
6. Once spill is contained and area where spill or release occurred has been secured, the yard manager or facility manager will gather information required for notifications and reports as required by the New Mexico OCD:
    a. 19.15.29.9 Release Notification
        i. Agua Moss shall notify the division of any unauthorized releases occurring during operations in accordance with the requirements of 19.15.29 NMAC
        ii. Agua Moss shall notify the division in accordance with the 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminants, in such quantity as may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC.
    b. 19.15.29.10 Reporting Requirements
        i. Agua Moss shall report a major release (defined as unauthorized release of a volume, excluding gases, in excess of 25 barrels. An unauthorized release of volume that results in fire, will reach a water course, endanger public health or damage property or the environment. Unauthorized release of gases in excess of 500 MCF or a release of volume that may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC) by giving both immediate verbal notice and timely written notice pursuant to Subsections A of 19.15.29.10 NMAC

ii. Agua Moss shall report a minor release (defined as an unauthorized release of volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gasses) by giving timely written notice pursuant to Subsections B of 19.15.29.10 NMAC.

c. 19.15.29.10 Contents of Notification

i. Agua Moss shall provide immediate verbal notification within 24 hours of discovery to the Aztec NMOCD. In addition, Agua Moss shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.

ii. Agua Moss shall provide written timely notification within 15 days to the Aztec NMOCD by completing and filing form C-141. In addition, Agua Moss shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsection A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

7. The regulatory Compliance Specialist will submit an appropriate remediation plan as required per rule 19.15.29.12 Corrective Action, for approval before remediation is started. Remediation plans will be written in accordance with the NMOCD Rule 19.15.30.8 -19.15.30.21.

Attachment 5 Waste Analysis

Souder, Miller & Associates ♦ 401 West Broadway ♦ Farmington, NM 87401
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

May 16, 2022 SMA Project No. 5129666

Ms. Philana Thompson
Agua Moss LLC
P.O. Box 600
Farmington, NM 87499
pthompson@merrion.bz
(505) 324-5300

RE: Sunco Disposal #1 Injection Water Monitoring – 1st Quarter 2022

Dear Ms. Thompson:

This report summarizes sample collection, field screening, and laboratory analysis of the injection water at the Agua Moss LLC Sunco Disposal #1 well for the 1st Quarter 2022. Injection water of the Class I/II Sunco Disposal #1 well is assessed on a quarterly basis in accordance with Paragraph (1) of Subsection B of 20.6.2.5207 New Mexico Administrative Code (NMAC).

Field Activities
Souder, Miller & Associates (SMA) personnel collected one injection water sample, S-21, from the process line inside the pump building on March 29, 2022. The injection water was discharged directly from the process line into laboratory sample containers and a clean container for field screening.

Sample Collection and Field Screening Procedures
The injection water sample (S-21) was field screened for time sensitive parameters including pH, temperature, reduction potential, specific conductance, and total dissolved solids. Field screening was conducted utilizing a handheld water quality meter calibrated on the day of use with laboratory-grade standards.

The sampled injection water was placed into laboratory supplied containers, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

Field Screening and Laboratory Analytical Results
The field screening and laboratory analytical results are summarized in the attached Table 1.

QA/QC Considerations
Field measurements for time sensitive parameters including pH, temperature, reduction potential, and specific conductance more accurately reflect the characteristics of the injection water than laboratory results for these parameters due to their rapidly changing nature when exposed to environmental factors. The hold time qualifier is indicated on the laboratory report for pH as the hold time of 15 minutes from collection was exceeded during transport prior to analysis. Similarly, the hold time was exceeded for corrosivity by pH.

A dilution due to matrix qualifier is indicated on the laboratory report for total dissolved solids.

Due to a laboratory error, the sample was not able to be analyzed for reduction potential, however the sample was field screened for reduction potential as normal.

Data Evaluation

Laboratory analytical and field screening results report all applicable constituent concentrations below the maximum toxicity characteristic concentrations per 40 Code of Federal Regulation (CFR) 261.24 Table 1.

Closure and Limitations

This report is prepared for the exclusive use of Agua Moss LLC and is subject to the terms, conditions, and limitations stated in SMA's Master Professional Services Agreement with Agua Moss LLC. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Souder, Miller & Associates appreciates the opportunity to provide services to Agua Moss LLC. If you have any questions, please contact me at (505) 325-7535.

Sincerely,

MILLER ENGINEERS, INC. d/b/a
SOUDER, MILLER & ASSOCIATES

Heather M. Woods, P.G.
Project Geoscientist
Heather.Woods@soudermiller.com

Attachments:
Table 1. Summary of Field Screening and Laboratory Analytical Results
Laboratory Analytical Reports (Hall 2203F61)

Table 1:
Summary of Field Screening and Laboratory Analytical Results

Sample ID	S-21			
Collection Date	3/29/2022			
Analyte	Field Results	Laboratory Results	Units	Toxicity Characteristic Concentrations
Arsenic	--	<0.15	mg/L	5.0 mg/L
Barium	--	4.1	mg/L	100.0 mg/L
Benzene	--	0.94	mg/L	0.5 mg/L
Cadmium	--	<0.010	mg/L	1 mg/L
Carbon tertachloride	--	<0.50	mg/L	0.5 mg/L
Chlordane	--	<0.030	mg/L	0.03 mg/L
Chlorobenzene	--	<100	mg/L	100.0 mg/L
Chloroform	--	<6.0	mg/L	6.0 mg/L
Chromium	--	<0.030	mg/L	5.0 mg/L
o-Cresol	--	--	mg/L	200.0 mg/L
m+p-Cresol	--	--	mg/L	200.0 mg/L
Cresol	--	<200	mg/L	200.0 mg/L
1,4-Dichlorobenzene	--	<7.5	mg/L	7.5 mg/L
1,2-Dichloroethane	--	<0.50	mg/L	0.5 mg/L
1,1-Dichloroethylene	--	<0.70	mg/L	0.7 mg/L
2,4-Dinitrotoluene	--	<0.13	mg/L	0.13 mg/L
Hexachlorobenzene	--	<0.13	mg/L	0.13 mg/L
Hexachlorobutadiene	--	<0.50	mg/L	0.5 mg/L
Hexachloroethane	--	<3.0	mg/L	3.0 mg/L
Lead	--	<0.10	mg/L	5.0 mg/L
Mercury	--	<0.0010	mg/L	0.2 mg/L
Methyl ethyl ketone	--	<200	mg/L	200.0 mg/L
Nitrobenzene	--	<2.0	mg/L	2.0 mg/L
Pentachlorophenol	--	<100	mg/L	100.0 mg/L
Pyridine	--	<5.0	mg/L	5.0 mg/L
Selenium	--	0.37	mg/L	1.0 mg/L
Silver	--	0.093	mg/L	5.0 mg/L
Tetrachloroethylene	--	<0.70	mg/L	0.7 mg/L
Trichloroethylene	--	<0.50	mg/L	0.5 mg/L
2,4,5-Trichlorophenol	--	<400	mg/L	400.0 mg/L
2,4,6-Trichlorophenol	--	<2.0	mg/L	2.0 mg/L
Vinyl chloride	--	<0.20	mg/L	0.2 mg/L
Reactive sulfide	--	<0.0500	mg/L	
Reactive cyanide	--	<0.00500	mg/L	
Corrosivity by pH	--	5.64 H	s.u.	
Ignitability	--	DNF at 170	deg F	
Specific conductance	110,800	160,000	µmhos/cm	
Specific gravity	--	1.052		
ORP	-66.3	--	mV	
Fluoride	--	<0.50	mg/L	
Calcium	--	8,300	mg/L	
Potassium	--	850	mg/L	
Magnesium	--	590	mg/L	
Bicarbonate (as CaCO3)	--	215.6	mg/L Ca	
Carbonate (as CaCO3)	--	<2.000	mg/L Ca	
Chloride	--	46,000	mg/L	
Sulfate	--	380	mg/L	
Total dissolved solids	10,200	92,400 D	mg/L	
pH	6.50	5.54 H		
Bromide	--	110	mg/L	
Temperature	19.2	--	deg C	

Notes: ORP - oxidation reduction potential
mg/L - milligrams per liter
s.u. - standard units
µmhos/cm - micromhos per centimeter
deg F - degrees Fahrenheit
deg C - degrees Celsius
mV - millivolts
DNF - does not flash

Qualifiers: D - sample diluted due to matrix
H - hold time for preparation or analysis exceeded
S - laboratory control spike recovery low

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 12, 2022

Heather Woods

Souder, Miller and Associates
401 W. Broadway
Farmington, NM 87401
TEL: (505) 325-5667
FAX (505) 327-1496

RE: Agua Moss Sunco 1 OrderNo.: 2203F61

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/30/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Case Narrative

WO#: **2203F61**
Date: **5/12/2022**

CLIENT: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Analytical Comments for ORP:
Sub lab was unable to analyze for ORP due to lab error.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: S-21 (03/29/22)
Project: Agua Moss Sunco 1
Collection Date: 3/29/2022 9:20:00 AM
Lab ID: 2203F61-001 **Matrix:** AQUEOUS **Received Date:** 3/30/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8081: PESTICIDES TCLP						Analyst:	**JME**
Chlordane	ND	0.030		mg/L	1	4/8/2022 12:33:47 PM	66537
Surr: Decachlorobiphenyl	88.3	73-119		%Rec	1	4/8/2022 12:33:47 PM	66537
Surr: Tetrachloro-m-xylene	76.1	36.6-84.1		%Rec	1	4/8/2022 12:33:47 PM	66537
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	4/14/2022 12:38:02 AM	66542
3+4-Methylphenol	ND	200		mg/L	1	4/14/2022 12:38:02 AM	66542
2,4-Dinitrotoluene	ND	0.13		mg/L	1	4/14/2022 12:38:02 AM	66542
Hexachlorobenzene	ND	0.13		mg/L	1	4/14/2022 12:38:02 AM	66542
Hexachlorobutadiene	ND	0.50		mg/L	1	4/14/2022 12:38:02 AM	66542
Hexachloroethane	ND	3.0		mg/L	1	4/14/2022 12:38:02 AM	66542
Nitrobenzene	ND	2.0		mg/L	1	4/14/2022 12:38:02 AM	66542
Pentachlorophenol	ND	100		mg/L	1	4/14/2022 12:38:02 AM	66542
Pyridine	ND	5.0		mg/L	1	4/14/2022 12:38:02 AM	66542
2,4,5-Trichlorophenol	ND	400		mg/L	1	4/14/2022 12:38:02 AM	66542
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	4/14/2022 12:38:02 AM	66542
Cresols, Total	ND	200		mg/L	1	4/14/2022 12:38:02 AM	66542
Surr: 2-Fluorophenol	52.2	15-118		%Rec	1	4/14/2022 12:38:02 AM	66542
Surr: Phenol-d5	40.1	15-92.9		%Rec	1	4/14/2022 12:38:02 AM	66542
Surr: 2,4,6-Tribromophenol	64.1	15-150		%Rec	1	4/14/2022 12:38:02 AM	66542
Surr: Nitrobenzene-d5	64.7	15-136		%Rec	1	4/14/2022 12:38:02 AM	66542
Surr: 2-Fluorobiphenyl	54.3	15-134		%Rec	1	4/14/2022 12:38:02 AM	66542
Surr: 4-Terphenyl-d14	71.6	15-168		%Rec	1	4/14/2022 12:38:02 AM	66542
SPECIFIC GRAVITY						Analyst:	**CAS**
Specific Gravity	1.052	0			1	4/11/2022 4:41:00 PM	R87156
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Fluoride	ND	50		mg/L	500	4/14/2022 6:10:48 PM	R87274
Chloride	46000	2500	*	mg/L	5E+	4/18/2022 1:21:40 PM	R87334
Bromide	110	5.0		mg/L	50	4/14/2022 6:23:39 PM	R87274
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	3/31/2022 1:24:30 AM	R86850
Sulfate	380	10	*	mg/L	20	3/31/2022 1:24:30 AM	R86850
Nitrate+Nitrite as N	ND	40		mg/L	200	4/14/2022 9:10:56 PM	R87274
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	**CAS**
Conductivity	160000	500		µmhos/c	50	4/6/2022 2:20:47 PM	R87087
SM2320B: ALKALINITY						Analyst:	**LRN**
Bicarbonate (As CaCO3)	215.6	20.00		mg/L Ca	1	4/5/2022 2:26:56 PM	R87028
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/5/2022 2:26:56 PM	R87028
Total Alkalinity (as CaCO3)	215.6	20.00		mg/L Ca	1	4/5/2022 2:26:56 PM	R87028

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: S-21 (03/29/22)
Project: Agua Moss Sunco 1
Collection Date: 3/29/2022 9:20:00 AM
Lab ID: 2203F61-001 **Matrix:** AQUEOUS **Received Date:** 3/30/2022 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	92400	1000	*D	mg/L	1	4/7/2022 11:38:00 AM	66619
SM4500-H+B / 9040C: PH						Analyst: **LRN**	
pH	5.54		H	pH units	1	4/5/2022 2:26:56 PM	R87028
EPA METHOD 7470A: MERCURY						Analyst: **VP**	
Mercury	ND	0.0010		mg/L	5	4/18/2022 1:34:29 PM	66897
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **JLF**	
Calcium	8300	100		mg/L	100	4/5/2022 7:20:10 PM	A87057
Magnesium	590	10		mg/L	10	4/5/2022 5:42:27 PM	A87057
Potassium	850	10		mg/L	10	4/5/2022 5:42:27 PM	A87057
Sodium	20000	1000		mg/L	1E+	4/8/2022 12:55:25 PM	A87128
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Arsenic	ND	0.15		mg/L	5	4/6/2022 2:54:20 PM	66512
Barium	4.1	0.010		mg/L	5	4/5/2022 3:18:21 PM	66512
Cadmium	ND	0.010		mg/L	5	4/5/2022 3:18:21 PM	66512
Chromium	ND	0.030		mg/L	5	4/5/2022 3:18:21 PM	66512
Lead	ND	0.10		mg/L	5	4/5/2022 3:18:21 PM	66512
Selenium	0.37	0.25		mg/L	5	4/5/2022 3:18:21 PM	66512
Silver	0.093	0.025		mg/L	5	4/5/2022 3:18:21 PM	66512
TCLP VOLATILES BY 8260B						Analyst: **CCM**	
Benzene	0.94	0.50		mg/L	200	4/6/2022 10:00:00 PM	T87039
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	200	4/6/2022 10:00:00 PM	T87039
2-Butanone	ND	200		mg/L	200	4/6/2022 10:00:00 PM	T87039
Carbon Tetrachloride	ND	0.50		mg/L	200	4/6/2022 10:00:00 PM	T87039
Chloroform	ND	6.0		mg/L	200	4/6/2022 10:00:00 PM	T87039
1,4-Dichlorobenzene	ND	7.5		mg/L	200	4/6/2022 10:00:00 PM	T87039
1,1-Dichloroethene	ND	0.70		mg/L	200	4/6/2022 10:00:00 PM	T87039
Tetrachloroethene (PCE)	ND	0.70		mg/L	200	4/6/2022 10:00:00 PM	T87039
Trichloroethene (TCE)	ND	0.50		mg/L	200	4/6/2022 10:00:00 PM	T87039
Vinyl chloride	ND	0.20		mg/L	200	4/6/2022 10:00:00 PM	T87039
Chlorobenzene	ND	100		mg/L	200	4/6/2022 10:00:00 PM	T87039
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	200	4/6/2022 10:00:00 PM	T87039
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	200	4/6/2022 10:00:00 PM	T87039
Surr: Dibromofluoromethane	106	70-130		%Rec	200	4/6/2022 10:00:00 PM	T87039
Surr: Toluene-d8	97.0	70-130		%Rec	200	4/6/2022 10:00:00 PM	T87039

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

ANALYTICAL REPORT

April 05, 2022

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

Hall Environmental Analysis Laboratory

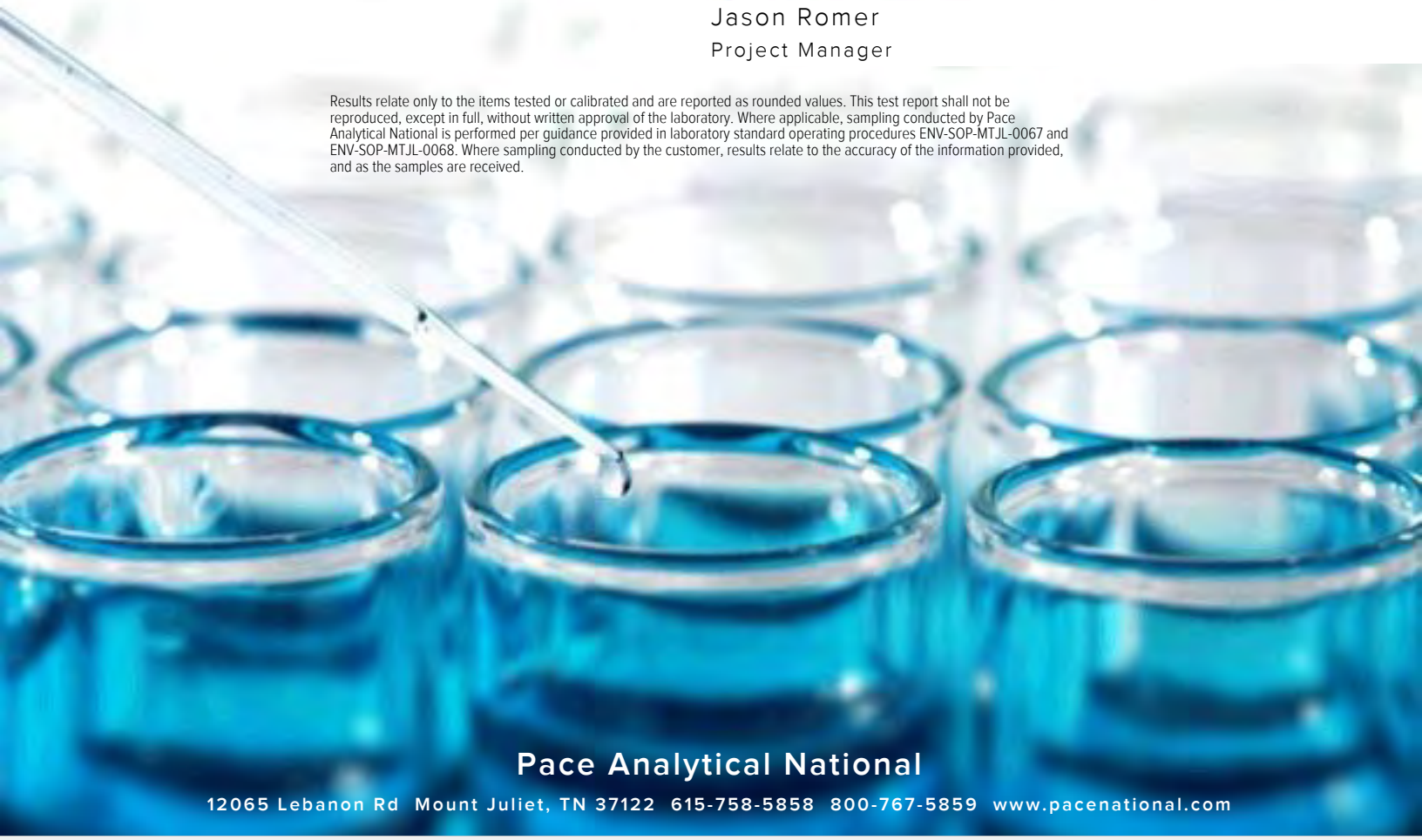
Sample Delivery Group:	L1477305
Samples Received:	03/31/2022
Project Number:	
Description:	

Report To: Andy Freeman
4901 Hawkins NE
Albuquerque, NM 87109

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

SAMPLE SUMMARY

2203F61-001FGHI S-21 (03/29/22) L1477305-01 GW

	Collected by	Collected date/time	Received date/time
		03/29/22 09:20	03/31/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500 CN E-2016	WG1841516	1	04/03/22 21:12	04/05/22 11:24	LDT	Mt. Juliet, TN
Wet Chemistry by Method 4500 S2 D-2011	WG1841651	1	04/01/22 20:48	04/01/22 20:48	TWF	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG1841727	1	04/01/22 10:15	04/01/22 10:15	EPW	Mt. Juliet, TN
Wet Chemistry by Method D93/1010A	WG1842591	1	04/04/22 01:00	04/04/22 01:00	WOS	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

Project Narrative

All Reactive Cyanide results reported in the attached report were determined as totals using method 4500 CN E-2016.
All Reactive Sulfide results reported in the attached report were determined as totals using method 4500 S2 D-2011.

Sample Delivery Group (SDG) Narrative

Analysis was performed from an improper container for the following samples.

Lab Sample ID	Project Sample ID	Method
L1477305-01	2203F61-001FGHI S-21 (03/29/22)	4500 CN E-2016

Wet Chemistry by Method 4500 CN E-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Reactive Cyanide	ND		0.00500	1	04/05/2022 11:24	WG1841516

Wet Chemistry by Method 4500 S2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Reactive Sulfide	ND		0.0500	1	04/01/2022 20:48	WG1841651

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
Corrosivity by pH	5.64	T8	1	04/01/2022 10:15	WG1841727

Sample Narrative:

L1477305-01 WG1841727: 5.64 at 17.2C

Wet Chemistry by Method D93/1010A

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	deg F			date / time	
Flashpoint	DNF at 170		1	04/04/2022 01:00	WG1842591

QUALITY CONTROL SUMMARY

L1477305-01

Method Blank (MB)

(MB) R3777668-1 04/05/22 10:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Reactive Cyanide	U		0.00180	0.00500

L1476135-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1476135-01 04/05/22 10:56 • (DUP) R3777668-3 04/05/22 10:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Reactive Cyanide	ND	ND	1	0.000		20

L1476156-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1476156-02 04/05/22 11:08 • (DUP) R3777668-6 04/05/22 11:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Reactive Cyanide	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3777668-2 04/05/22 10:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Reactive Cyanide	0.100	0.0978	97.8	87.1-120	

L1476135-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476135-02 04/05/22 10:58 • (MS) R3777668-4 04/05/22 10:59 • (MSD) R3777668-5 04/05/22 11:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Reactive Cyanide	0.100	0.00562	0.0955	0.103	89.9	97.4	1	90.0-110	J6		7.56	20

L1477288-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1477288-01 04/05/22 11:20 • (MS) R3777668-7 04/05/22 11:21 • (MSD) R3777668-8 04/05/22 11:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Reactive Cyanide	0.100	ND	0.0702	0.0897	70.2	89.7	1	90.0-110	J6	J3 J6	24.4	20

Method Blank (MB)

(MB) R3776799-1 04/01/22 20:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Reactive Sulfide	U		0.0250	0.0500

Laboratory Control Sample (LCS)

(LCS) R3776799-2 04/01/22 20:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Reactive Sulfide	0.500	0.510	102	85.0-115	

L1477305-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1477305-01 04/01/22 10:15 • (DUP) R3776830-3 04/01/22 10:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
Corrosivity by pH	5.64	5.62	1	0.355		1

Sample Narrative:

OS: 5.64 at 17.2C

DUP: 5.62 at 17.6C

Laboratory Control Sample (LCS)

(LCS) R3776830-1 04/01/22 10:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
Corrosivity by pH	10.0	9.95	99.5	99.0-101	

Sample Narrative:

LCS: 9.95 at 19.7C

L1476287-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1476287-02 04/04/22 01:00 • (DUP) R3777412-3 04/04/22 01:00

Analyte	Original Result deg F	DUP Result deg F	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Flashpoint	130	136	1	4.52		10

L1477305-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1477305-01 04/04/22 01:00 • (DUP) R3777412-4 04/04/22 01:00

Analyte	Original Result deg F	DUP Result deg F	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Flashpoint	DNF at 170	DNF at 170	1	0.000		10

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3777412-1 04/04/22 01:00 • (LCSD) R3777412-2 04/04/22 01:00

Analyte	Spike Amount deg F	LCS Result deg F	LCSD Result deg F	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Flashpoint	126	130	128	103	101	96.0-104			1.55	10

GLOSSARY OF TERMS

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

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	LAO000356
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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

G125

SUB CONTRATOR:	Pace TN	COMPANY: PACE TN	PHONE: (800) 767-5859	FAX: (615) 758-5859	
ADDRESS:	12065 Lebanon Rd		ACCOUNT #:	EMAIL:	
CITY, STATE, ZIP:	Mt. Juliet, TN 37122				

L1477305

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2203F61-001F	S-21 (03/29/22)	500HDPE	Aqueous	3/29/2022 9:20:00 AM	1	RCI
2	2203F61-001G	S-21 (03/29/22)	500PLNAOH ZNAC	Aqueous	3/29/2022 9:20:00 AM	1	RCI
3	2203F61-001H	S-21 (03/29/22)	500PL-NaOH	Aqueous	3/29/2022 9:20:00 AM	1	RCI
4	2203F61-001I	S-21 (03/29/22)	125HDP	Aqueous	3/29/2022 9:20:00 AM	1	ORP

-01

5528 5947 9569

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

BAAG
5.7 to = 5.7 / 4

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 3/30/2022	Time: 8:42 AM	Received By:	Date: 3/31/22	Time: 9:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED

☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of samples _____ °C Attempt to Cool ? _____

Comments: _____

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R86850**	RunNo: **86850**							
Prep Date:	Analysis Date: **3/30/2022**	SeqNo: **3069045**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R86850**	RunNo: **86850**							
Prep Date:	Analysis Date: **3/30/2022**	SeqNo: **3069046**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R87274**	RunNo: **87274**							
Prep Date:	Analysis Date: **4/14/2022**	SeqNo: **3086299**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R87274**	RunNo: **87274**							
Prep Date:	Analysis Date: **4/14/2022**	SeqNo: **3086300**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Bromide	2.5	0.10	2.500	0	99.8	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R87334**	RunNo: **87334**							
Prep Date:	Analysis Date: **4/18/2022**	SeqNo: **3088780**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R87334**	RunNo: **87334**							
Prep Date:	Analysis Date: **4/18/2022**	SeqNo: **3088781**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **MB-66537**	SampType: **MBLK**	TestCode: **EPA Method 8081: Pesticides TCLP**							
Client ID: **PBW**	Batch ID: **66537**	RunNo: **87097**							
Prep Date: **3/31/2022**	Analysis Date: **4/8/2022**	SeqNo: **3080552**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Surr: Decachlorobiphenyl	0.0028		0.002500		113	73	119			
Surr: Tetrachloro-m-xylene	0.0019		0.002500		75.6	36.6	84.1			

Sample ID: **MB-66537**	SampType: **MBLK**	TestCode: **EPA Method 8081: Pesticides TCLP**							
Client ID: **PBW**	Batch ID: **66537**	RunNo: **87097**							
Prep Date: **3/31/2022**	Analysis Date: **4/8/2022**	SeqNo: **3080553**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlordane	ND	0.030								
Surr: Decachlorobiphenyl	0.0029		0.002500		118	73	119			
Surr: Tetrachloro-m-xylene	0.0019		0.002500		76.7	36.6	84.1			

Sample ID: **LCS-66537**	SampType: **LCS**	TestCode: **EPA Method 8081: Pesticides TCLP**							
Client ID: **LCSW**	Batch ID: **66537**	RunNo: **87097**							
Prep Date: **3/31/2022**	Analysis Date: **4/8/2022**	SeqNo: **3080554**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0029		0.002500		115	73	119			
Surr: Tetrachloro-m-xylene	0.0015		0.002500		60.8	36.6	84.1			

Sample ID: **LCS-66537**	SampType: **LCS**	TestCode: **EPA Method 8081: Pesticides TCLP**							
Client ID: **LCSW**	Batch ID: **66537**	RunNo: **87097**							
Prep Date: **3/31/2022**	Analysis Date: **4/8/2022**	SeqNo: **3080555**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0030		0.002500		119	73	119			
Surr: Tetrachloro-m-xylene	0.0016		0.002500		63.5	36.6	84.1			

Sample ID: **2203F61-001BMS**	SampType: **MS**	TestCode: **EPA Method 8081: Pesticides TCLP**							
Client ID: **S-21 (03/29/22)**	Batch ID: **66537**	RunNo: **87097**							
Prep Date: **3/31/2022**	Analysis Date: **4/8/2022**	SeqNo: **3080563**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0022		0.002500		86.9	73	119			
Surr: Tetrachloro-m-xylene	0.0018		0.002500		70.4	36.6	84.1			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **2203F61-001BMSD** SampType: **MSD** TestCode: **EPA Method 8081: Pesticides TCLP**
Client ID: **S-21 (03/29/22)** Batch ID: **66537** RunNo: **87097**
Prep Date: **3/31/2022** Analysis Date: **4/8/2022** SeqNo: **3080564** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.0027		0.002500		109	73	119	0	0	
Surr: Tetrachloro-m-xylene	0.0020		0.002500		81.9	36.6	84.1	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **100ng 624 lcs** SampType: **LCS** TestCode: **TCLP Volatiles by 8260B**
Client ID: **LCSW** Batch ID: **T87039** RunNo: **87039**
Prep Date: Analysis Date: **4/6/2022** SeqNo: **3077978** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50	0.02000	0	105	70	130			
1,1-Dichloroethene	ND	0.70	0.02000	0	101	70	130			
Trichloroethene (TCE)	ND	0.50	0.02000	0	101	70	130			
Chlorobenzene	ND	100	0.02000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.010		0.01000		101	70	130			
Surr: 4-Bromofluorobenzene	0.010		0.01000		104	70	130			
Surr: Dibromofluoromethane	0.010		0.01000		101	70	130			
Surr: Toluene-d8	0.0099		0.01000		98.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **mb-66542**	SampType: **MBLK**	TestCode: **EPA Method 8270C TCLP**
Client ID: **PBW**	Batch ID: **66542**	RunNo: **87231**
Prep Date: **4/1/2022**	Analysis Date: **4/13/2022**	SeqNo: **3084458** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.11		0.2000		55.0	15	118			
Surr: Phenol-d5	0.082		0.2000		41.0	15	92.9			
Surr: 2,4,6-Tribromophenol	0.13		0.2000		62.7	15	150			
Surr: Nitrobenzene-d5	0.065		0.1000		65.3	15	136			
Surr: 2-Fluorobiphenyl	0.052		0.1000		51.8	15	134			
Surr: 4-Terphenyl-d14	0.075		0.1000		74.5	15	168			

Sample ID: **lcs-66542**	SampType: **LCS**	TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSW**	Batch ID: **66542**	RunNo: **87231**
Prep Date: **4/1/2022**	Analysis Date: **4/13/2022**	SeqNo: **3084459** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.056	0.00010	0.1000	0	55.8	19	106			
3+4-Methylphenol	0.11	0.00010	0.2000	0	53.3	16.3	112			
2,4-Dinitrotoluene	0.034	0.00010	0.1000	0	34.3	15	99.6			
Hexachlorobenzene	0.052	0.00010	0.1000	0	52.4	41.8	111			
Hexachlorobutadiene	0.042	0.00010	0.1000	0	41.6	15	91.5			
Hexachloroethane	0.046	0.00010	0.1000	0	46.3	15	87.5			
Nitrobenzene	0.059	0.00010	0.1000	0	59.3	19.3	114			
Pentachlorophenol	0.057	0.00010	0.1000	0	56.7	29	103			
Pyridine	0.039	0.00010	0.1000	0	39.3	15	92.6			
2,4,5-Trichlorophenol	0.052	0.00010	0.1000	0	51.7	25.2	114			
2,4,6-Trichlorophenol	0.053	0.00010	0.1000	0	52.9	25.7	112			
Cresols, Total	0.16	0.00010	0.3000	0	54.1	15	145			
Surr: 2-Fluorophenol	0.092		0.2000		45.9	15	118			
Surr: Phenol-d5	0.071		0.2000		35.3	15	92.9			
Surr: 2,4,6-Tribromophenol	0.12		0.2000		61.6	15	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **lcs-66542** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**
Client ID: **LCSW** Batch ID: **66542** RunNo: **87231**
Prep Date: ***4/1/2022*** Analysis Date: ***4/13/2022*** SeqNo: **3084459** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	0.058		0.1000		58.5	15	136			
Surr: 2-Fluorobiphenyl	0.051		0.1000		50.8	15	134			
Surr: 4-Terphenyl-d14	0.077		0.1000		77.0	15	168			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **lcs-1 100.2uS eC**	SampType: **lcs**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R87087**	RunNo: **87087**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3078666** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	100.2	0	101	85	115			

Sample ID: **lcsd-1 100.2uS eC**	SampType: **lcsd**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSS02**	Batch ID: **R87087**	RunNo: **87087**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3078667** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	100.2	0	101	85	115	0.295	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **MB-66897**	SampType: **MBLK**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **PBW**	Batch ID: **66897**	RunNo: **87314**
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3087633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: **LCSLL-66897**	SampType: **LCSLL**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **BatchQC**	Batch ID: **66897**	RunNo: **87314**
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3087634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020	0.0001500	0	95.6	50	150			

Sample ID: **LCS-66897**	SampType: **LCS**	TestCode: **EPA Method 7470A: Mercury**
Client ID: **LCSW**	Batch ID: **66897**	RunNo: **87314**
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3087635** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A87057**	RunNo: **87057**
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3077196** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A87057**	RunNo: **87057**
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3077198** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	55	1.0	50.00	0	111	80	120			
Magnesium	53	1.0	50.00	0	107	80	120			
Potassium	53	1.0	50.00	0	106	80	120			

Sample ID: **LCSD-A**	SampType: **LCSD**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSS02**	Batch ID: **A87057**	RunNo: **87057**
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3077199** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	56	1.0	50.00	0	112	80	120	0.933	20	
Magnesium	54	1.0	50.00	0	108	80	120	0.834	20	
Potassium	53	1.0	50.00	0	107	80	120	0.832	20	

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A87128**	RunNo: **87128**
Prep Date:	Analysis Date: **4/8/2022**	SeqNo: **3080438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A87128**	RunNo: **87128**
Prep Date:	Analysis Date: **4/8/2022**	SeqNo: **3080440** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	48	1.0	50.00	0	95.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **MB-66512** SampType: **MBLK** TestCode: **EPA 6010B: Total Recoverable Metals**

Client ID: **PBW** Batch ID: **66512** RunNo: **86886**

Prep Date: **3/30/2022** Analysis Date: **3/31/2022** SeqNo: **3069692** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.030								
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.020								
Selenium	ND	0.050								
Silver	ND	0.0050								

Sample ID: **LCS-66512** SampType: **LCS** TestCode: **EPA 6010B: Total Recoverable Metals**

Client ID: **LCSW** Batch ID: **66512** RunNo: **86886**

Prep Date: **3/30/2022** Analysis Date: **3/31/2022** SeqNo: **3069694** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.52	0.030	0.5000	0	105	80	120			
Barium	0.51	0.0020	0.5000	0	102	80	120			
Cadmium	0.51	0.0020	0.5000	0	102	80	120			
Chromium	0.52	0.0060	0.5000	0	103	80	120			
Lead	0.51	0.020	0.5000	0	101	80	120			
Selenium	0.51	0.050	0.5000	0	103	80	120			
Silver	0.10	0.0050	0.1000	0	105	80	120			

Sample ID: **LCSD-66512** SampType: **LCSD** TestCode: **EPA 6010B: Total Recoverable Metals**

Client ID: **LCSS02** Batch ID: **66512** RunNo: **86886**

Prep Date: **3/30/2022** Analysis Date: **3/31/2022** SeqNo: **3069695** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.52	0.030	0.5000	0	103	80	120	1.87	20	
Barium	0.51	0.0020	0.5000	0	102	80	120	0.468	20	
Cadmium	0.51	0.0020	0.5000	0	102	80	120	0.199	20	
Chromium	0.51	0.0060	0.5000	0	103	80	120	0.663	20	
Lead	0.50	0.020	0.5000	0	101	80	120	0.444	20	
Selenium	0.52	0.050	0.5000	0	104	80	120	0.693	20	
Silver	0.10	0.0050	0.1000	0	102	80	120	2.15	20	

Sample ID: **MB-66512** SampType: **MBLK** TestCode: **EPA 6010B: Total Recoverable Metals**

Client ID: **PBW** Batch ID: **66512** RunNo: **87086**

Prep Date: **3/30/2022** Analysis Date: **4/6/2022** SeqNo: **3078545** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.030								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **LCS-66512**	SampType: **LCS**	TestCode: **EPA 6010B: Total Recoverable Metals**
Client ID: **LCSW**	Batch ID: **66512**	RunNo: **87086**
Prep Date: **3/30/2022**	Analysis Date: **4/6/2022**	SeqNo: **3078547** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.49	0.030	0.5000	0	97.7	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**

12-May-22

Client: Souder, Miller and Associates

Project: Agua Moss Sunco 1

Sample ID: **mb-1 alk**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R87028**	RunNo: **87028**							
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3075482**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-1 alk**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R87028**	RunNo: **87028**							
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3075483**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	73.64	20.00	80.00	0	92.0	90	110			

Sample ID: **mb-2 alk**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R87028**	RunNo: **87028**							
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3075505**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-2 alk**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R87028**	RunNo: **87028**							
Prep Date:	Analysis Date: **4/5/2022**	SeqNo: **3075506**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	73.84	20.00	80.00	0	92.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F61**
12-May-22

Client: Souder, Miller and Associates
Project: Agua Moss Sunco 1

Sample ID: **MB-66619**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **66619**	RunNo: **87066**
Prep Date: **4/5/2022**	Analysis Date: **4/7/2022**	SeqNo: **3077588** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-66619**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **66619**	RunNo: **87066**
Prep Date: **4/5/2022**	Analysis Date: **4/7/2022**	SeqNo: **3077589** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Souder, Miller and Associates | Work Order Number: 2203F61 | RcptNo: 1

Received By: Tracy Casarrubias 3/30/2022 7:55:00 AM

Completed By: Tracy Casarrubias 3/30/2022 8:27:50 AM

Reviewed By: DAD 3/30/22

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐ JR 3/30/22
8. Was preservative added to bottles? Yes ☑ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☑ No ☐
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
    # of preserved bottles checked for pH: 3 2 (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐ Adjusted? yes
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐ Checked by: JR 3/30/22

Special Handling (if applicable)

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

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

16. Additional remarks: Poured off 125ml from sample 001C. For ovp analysis. 0.4ml of HNO3 was added to sample 001D for ph<2. JR 3/30/22.

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes			

Chain-of-Custody Record

Client: Souder, Miller & Associates

Mailing Address: 401 West Broadway
Farmington, NM 87401

Phone #: (505) 325-7535

email or Fax#: Heather.Woods@soudermiller.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
Aqua Moss Sunco #1

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.2 - 0.3 = 0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2203F61	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Analysis Request: See Attached Sheet (2 pg)
3/29/22	0920	Aq	S-21 (3/29/22)	(5) 1L Amber	Non												X
				(2) 500mL Plastic	Non												
				(1) 500mL Plastic	Zinc acetate / NaOH												
				(1) 125mL Plastic	Filtered HNO_3												
				(1) 125mL Plastic	H_2SO_4												
				(1) 250mL Plastic	HNO_3												
				(1) 250mL Plastic	NaOH												
				(3) 40mL VOA	HCl												

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3/29/22	1702	Heather M. Woods	Mustin Waeka		3/29/22	1702
3/29/22	1803	Mustin Waeka		Courier	3/30/22	7:55

Remarks:
Direct Bill to Aqua Moss
Rates per Andy
Reporting Limits per Attached Sheet (2 pg)

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Characteristic of toxicity using the Toxicity Characteristic Leaching Procedure, EPA SW-846 Test Method 1311 (see Table 1, 40 CFR 261.24(b)).

QUARTERLY MONITORING LIST			
EPA HW No.	Contaminant	SW-846 Methods	Regulatory Level (mg/L)
D004	Arsenic	1311	5.0
D005	Barium	1311	100.0
D018	Benzene	8021B	0.5
D006	Cadmium	1311	1.0
D019	Carbon tetrachloride	8021B 8260B	0.5
D020	Chlordane	8081A	0.03
D021	Chlorobenzene	8021B 8260B	100.0
D022	Chloroform	8021B 8260B	6.0
D007	Chromium	1311	5.0
D023	o-Cresol	8270D	200.0
D024	m-Cresol	8270D	200.0
D025	p-Cresol	8270D	200.0
D026	Cresol	8270D	200.0
D027	1,4-Dichlorobenzene	8021B 8121 8260B 8270D	7.5
D028	1,2-Dichloroethane	8021B 8260B	0.5
D029	1,1-Dichloroethylene	8021B 8260B	0.7
D030	2,4-Dinitrotoluene	8091 8270D	0.13
D032	Hexachlorobenzene	8121	0.13
D033	Hexachlorobutadiene	8021B 8121 8260B	0.5
D034	Hexachloroethane	8121	3.0
D008	Lead	1311	5.0
D009	Mercury	7470A 7471B	0.2
D035	Methyl ethyl ketone	8015B 8260B	200.0

D036	Nitrobenzene	8091 8270D	6.0
D037	Pentrachlorophenol	8041	100.0
D038	Pyridine	8260B 8270D	5.0
D010	Selenium	1311	1.0
D011	Silver	1311	5.0
D039	Tetrachloroethylene	8260B	0.7
D040	Trichloroethylene	8021B 8260B	0.5
D041	2,4,5-Trichlorophenol	8270D	400.0
D042	2,4,6-Trichlorophenol	8041A 8270D	2.0
D043	Vinyl chloride	8021B 8260B	0.2

If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/L.
If the quantitation limit is greater than the regulatory level, then the quantitation limit becomes the regulatory level.
If metals (dissolved), the EPA 1311 TCLP Laboratory Method is required with the exception of Mercury (total).

ADDTIONALLY:

RCI, specific conductance, specific gravity, ORP, and general water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide) using the methods specified at 40 CFR 136.3.

Attachment 6 Monitor Well

February 18, 2020

Ms. Shacie Murray
Agua Moss LLC
P.O. Box 600
Farmington, New Mexico 87499

Re: Sunco Disposal #1
Monitoring Well Sampling – January 2020

Dear Ms. Murray:

This report summarizes the sample collection, field screening, and laboratory analysis of groundwater collected from the monitoring well (MW-1) at the Agua Moss LLC Sunco Disposal #1 facility on January 20, 2020.

Field Activities
Rule Engineering, LLC (Rule) personnel collected one groundwater sample from monitoring well MW-1 on January 20, 2020. The sample was collected utilizing a disposable bailer after purging approximately six gallons of water from the well.

Sample Collection and Field Screening Procedures
The groundwater sample was field screened for time sensitive parameters including pH, temperature, reduction potential, specific conductance, and total dissolved solids. Field screening was conducted utilizing a handheld water quality meter calibrated on the day of use with laboratory grade standards.

Groundwater collected for analysis was placed directly into laboratory supplied containers, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

Field Screening and Laboratory Analytical Results
The field screening and laboratory analytical results are summarized in the attached Table 1.

QA/QC Considerations
Field measurements for time sensitive parameters including pH, temperature, reduction potential, and specific conductance more accurately reflect the characteristics of the groundwater than laboratory results for these parameters due to their rapidly changing nature when exposed to variable temperatures, pressures, and atmospheric gases. The hold time qualifier is indicated on the laboratory report for pH. A dilution due to matrix qualifier is indicated on the laboratory report for total dissolved solids.

Closure and Limitations

This report is prepared for the exclusive use of Agua Moss LLC and is subject to the terms, conditions, and limitations stated in Rule's report and Service Agreement with Agua Moss LLC. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Rule Engineering appreciates the opportunity to provide services to Agua Moss LLC. If you have any questions, please contact me at (505) 325-1055.

Sincerely,
Rule Engineering, LLC

Heather M. Woods, P.G.
Area Manager/Geologist

Attachments:

Table 1. Summary of Field Screening and Laboratory Analytical Results
Laboratory Analytical Reports (Hall: 2001766)

Table 1. Summary of Field Screening and Laboratory Analytical Results

Sample ID	MW-1			
Collection Date	1/20/2020		Units	WQCC Groundwater Standards*
Analyte	Laboratory Results	Field Results		
pH	7.09 H	7.52	su	6 to 9 su
Temperature	--	13.1	°C	
Reduction Potential		-186.3	mV	
Specific Conductance	4,000	1,620	µmhos/cm	
Total Dissolved Solids	3,460 D	2,982	mg/L	1,000.0 mg/L
Bicarbonate (As $CaCO_3$)	539.2		mg/L	
Carbonate (As $CaCO_3$)	<2.000		mg/L	
Fluoride	<0.50		mg/L	1.6 mg/L
Chloride	35		mg/L	250.0 mg/L
Bromide	<0.50		mg/L	
Phosphorus, Orthophosphate	<2.5		mg/L	
Sulfate	2,200		mg/L	600.0 mg/L
Nitrogen, Nitrate (as N)	<0.50			10.0 mg/L
Nitrogen, Nitrite (as N)	<0.50		mg/L	1.0 mg/L
Calcium	630		mg/L	
Magnesium	61		mg/L	
Potassium	7.7		mg/L	
Sodium	440		mg/L	
Benzene	<1.0		µg/L	5 µg/L
Toluene	<1.0		µg/L	1,000 µg/L
Ethylbenzene	<1.0		µg/L	700 µg/L
Methyl tert-butyl ether	<1.0		µg/L	100 µg/L
1,2,4-Trimethylbenzene	<1.0		µg/L	
1,3,5-Trimethylbenzene	<1.0		µg/L	
1,2-Dichloroethane	<1.0		µg/L	5 µg/L
1,2-Dibromoethane	<1.0		µg/L	0.05 µg/L
Napthalene	<2.0		µg/L	30 µg/L
1-Methylnaphthalene	<4.0		µg/L	
2-Methylnaphthalene	<4.0		µg/L	
Acetone	<10		µg/L	
Bromobenzene	<1.0		µg/L	
Bromodichloromethane	<1.0		µg/L	
Bromoform	<1.0		µg/L	
Bromomethane	<3.0		µg/L	
2-Butanone	<10		µg/L	
Carbon disulfide	<10		µg/L	
Carbon tetrachloride	<1.0		µg/L	5 µg/L
Chlorobenzene	<1.0		µg/L	
Chloroethane	<2.0		µg/L	
Chloroform	<1.0		µg/L	100 µg/L
Chloromethane	<3.0		µg/L	
2-Chlorotoluene	<1.0		µg/L	
4-Chlorotoluene	<1.0		µg/L	
cis-1,2-DCE	<1.0		µg/L	70 µg/L
cis-1,3-Dichloropropene	<1.0		µg/L	
1,2-Dicbbromo-3-chloropropane	<2.0		µg/L	
Dibromochloromethane	<1.0		µg/L	
Dibromomethane	<1.0		µg/L	
1,2-Dichlorobenzene	<1.0		µg/L	600 µg/L
1,3-Dichlorobenzene	<1.0		µg/L	

Sample ID	MW-1			
Collection Date	1/20/2020		Units	WQCC Groundwater Standards*
Analyte	Laboratory Results	Field Results		
1,4-Dichlorobenzene	<1.0		µg/L	75 µg/L
Dichlorodifluoromethane	<1.0		µg/L	
1,1-Dichloroethane	<1.0		µg/L	25 µg/L
1,1-Dichloroethene	<1.0		µg/L	
1,2-Dichloropropane	<1.0		µg/L	5 µg/L
1,3-Dichloropropane	<1.0		µg/L	
2,2-Dichloropropane	<2.0		µg/L	
1,1-Dichloropropene	<1.0		µg/L	
Hexachlorobutadiene	<1.0		µg/L	
2-Hexanone	<10		µg/L	
Isopropylbenzene	<1.0		µg/L	
4-isopropyltoluene	<1.0		µg/L	
4-Methyl-2-pentanone	<10		µg/L	
Methylene chloride	<3.0		µg/L	5 µg/L
n-Butylbenzene	<3.0		µg/L	
n-Propylbenzene	<1.0		µg/L	
sec-Buytlbenzene	<1.0		µg/L	
Styrene	<1.0		µg/L	100 µg/L
tert-Buytlbenzene	<1.0		µg/L	
1,1,1,2-Tetrachloroethane	<1.0		µg/L	
1,1,2,2-Tetrachloroethane	<2.0		µg/L	10 µg/L
Tetrachloroethene	<1.0		µg/L	5 µg/L
trans-1,2-DCE	<1.0		µg/L	100 µg/L
trans-1,3-Dichloropropene	<1.0		µg/L	
1,2,3-Trichlorobenzene	<1.0		µg/L	
1,2,4-Trichlorobenzene	<1.0		µg/L	70 µg/L
1,1,1-Trichloroethane	<1.0		µg/L	200 µg/L
1,1,2-Trichloroethane	<1.0		µg/L	5 µg/L
Trichloroethene	<1.0		µg/L	5 µg/L
Trichlorofluoromethane	<1.0		µg/L	
1,2,3-Trichloropropane	<2.0		µg/L	
Vinyl chloride	<1.0		µg/L	2 µg/L
Xylenes,total	<1.5		µg/L	620 µg/L

Notes: su - standard units
°C - degrees Celcius
°F - degrees Farenheit
mV - millivolts
µmhos/cm - micromohs per centimeter
mg/L - milligrams per liter
µg/L - micrograms per liter
H - Holding times for preparation or analysis exceeded
D - Sample diluted due to matrix
WQCC - Water Quality Control Commission
*Per 20.6.3103 NMAC

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 31, 2020

Heather Woods

Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Sunco Disposal 1 OrderNo.: 2001766

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/21/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: MW-1 (01/20/20)
Project: Sunco Disposal 1
Collection Date: 1/20/2020 3:05:00 PM
Lab ID: 2001766-001 **Matrix:** AQUEOUS **Received Date:** 1/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Fluoride	ND	0.50		mg/L	5	1/21/2020 10:35:51 PM	R65967
Chloride	35	2.5		mg/L	5	1/21/2020 10:35:51 PM	R65967
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	1/21/2020 10:35:51 PM	R65967
Bromide	ND	0.50		mg/L	5	1/21/2020 10:35:51 PM	R65967
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	1/21/2020 10:35:51 PM	R65967
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	1/21/2020 10:35:51 PM	R65967
Sulfate	2200	25	*	mg/L	50	1/22/2020 8:30:21 PM	R65999
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	**JRR**
Conductivity	4000	5.0		µmhos/c	1	1/27/2020 12:35:42 PM	R66118
SM2320B: ALKALINITY						Analyst:	**JRR**
Bicarbonate (As CaCO3)	539.2	20.00		mg/L Ca	1	1/27/2020 12:35:42 PM	R66118
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	1/27/2020 12:35:42 PM	R66118
Total Alkalinity (as CaCO3)	539.2	20.00		mg/L Ca	1	1/27/2020 12:35:42 PM	R66118
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**JMT**
Total Dissolved Solids	3460	100	*D	mg/L	1	1/23/2020 5:15:00 PM	49970
SM4500-H+B / 9040C: PH						Analyst:	**JRR**
pH	7.09		H	pH units	1	1/27/2020 12:35:42 PM	R66118
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	**ELS**
Calcium	630	10		mg/L	10	1/22/2020 11:44:21 AM	A65977
Magnesium	61	1.0		mg/L	1	1/22/2020 11:06:58 AM	A65977
Potassium	7.7	1.0		mg/L	1	1/22/2020 11:06:58 AM	A65977
Sodium	440	5.0		mg/L	5	1/22/2020 11:14:35 AM	A65977
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Toluene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Ethylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Naphthalene	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1-Methylnaphthalene	ND	4.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
2-Methylnaphthalene	ND	4.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Acetone	ND	10		µg/L	1	1/24/2020 6:17:50 AM	W66039
Bromobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: MW-1 (01/20/20)
Project: Sunco Disposal 1
Collection Date: 1/20/2020 3:05:00 PM
Lab ID: 2001766-001 **Matrix:** AQUEOUS **Received Date:** 1/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Bromodichloromethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Bromoform	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Bromomethane	ND	3.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
2-Butanone	ND	10		µg/L	1	1/24/2020 6:17:50 AM	W66039
Carbon disulfide	ND	10		µg/L	1	1/24/2020 6:17:50 AM	W66039
Carbon Tetrachloride	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Chlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Chloroethane	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Chloroform	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Chloromethane	ND	3.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
2-Chlorotoluene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
4-Chlorotoluene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
cis-1,2-DCE	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Dibromochloromethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Dibromomethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1-Dichloroethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1-Dichloroethene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2-Dichloropropane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,3-Dichloropropane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
2,2-Dichloropropane	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1-Dichloropropene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Hexachlorobutadiene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
2-Hexanone	ND	10		µg/L	1	1/24/2020 6:17:50 AM	W66039
Isopropylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
4-Isopropyltoluene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
4-Methyl-2-pentanone	ND	10		µg/L	1	1/24/2020 6:17:50 AM	W66039
Methylene Chloride	ND	3.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
n-Butylbenzene	ND	3.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
n-Propylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
sec-Butylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Styrene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
tert-Butylbenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: MW-1 (01/20/20)
Project: Sunco Disposal 1
Collection Date: 1/20/2020 3:05:00 PM
Lab ID: 2001766-001 **Matrix:** AQUEOUS **Received Date:** 1/21/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
trans-1,2-DCE	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Trichlorofluoromethane	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Vinyl chloride	ND	1.0		µg/L	1	1/24/2020 6:17:50 AM	W66039
Xylenes, Total	ND	1.5		µg/L	1	1/24/2020 6:17:50 AM	W66039
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	1/24/2020 6:17:50 AM	W66039
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	1/24/2020 6:17:50 AM	W66039
Surr: Dibromofluoromethane	120	70-130		%Rec	1	1/24/2020 6:17:50 AM	W66039
Surr: Toluene-d8	97.0	70-130		%Rec	1	1/24/2020 6:17:50 AM	W66039

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**

31-Jan-20

Client: Rule Engineering LLC

Project: Sunco Disposal 1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R65967**	RunNo: **65967**
Prep Date:	Analysis Date: **1/21/2020**	SeqNo: **2265825** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R65967**	RunNo: **65967**
Prep Date:	Analysis Date: **1/21/2020**	SeqNo: **2265826** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.9	0.50	5.000	0	98.4	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.3	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R65999**	RunNo: **65999**
Prep Date:	Analysis Date: **1/22/2020**	SeqNo: **2266840** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R65999**	RunNo: **65999**
Prep Date:	Analysis Date: **1/22/2020**	SeqNo: **2266841** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.6	0.50	10.00	0	96.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **mb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W66039**	RunNo: **66039**
Prep Date:	Analysis Date: **1/23/2020**	SeqNo: **2267796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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D	Sample Diluted Due to Matrix
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S	% Recovery outside of range due to dilution or matrix
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RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**

31-Jan-20

Client: Rule Engineering LLC

Project: Sunco Disposal 1

Sample ID: **mb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W66039**	RunNo: **66039**
Prep Date:	Analysis Date: **1/23/2020**	SeqNo: **2267796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.0	70	130			
Surr: Dibromofluoromethane	12		10.00		115	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID: **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W66039**	RunNo: **66039**
Prep Date:	Analysis Date: **1/23/2020**	SeqNo: **2267797** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	18	1.0	20.00	0	91.8	70	130			
Chlorobenzene	17	1.0	20.00	0	85.5	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW** Batch ID: **W66039** RunNo: **66039**
Prep Date: Analysis Date: **1/23/2020** SeqNo: **2267797** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		96.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **lcs-1 99.9uS eC**	SampType: **lcs**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R66118**	RunNo: **66118**
Prep Date:	Analysis Date: **1/27/2020**	SeqNo: **2271282** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.90	0	100	85	115			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A65977**	RunNo: **65977**
Prep Date:	Analysis Date: **1/22/2020**	SeqNo: **2266136** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 6010B: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A65977**	RunNo: **65977**
Prep Date:	Analysis Date: **1/22/2020**	SeqNo: **2266137** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	52	1.0	50.00	0	103	80	120			
Magnesium	52	1.0	50.00	0	103	80	120			
Potassium	50	1.0	50.00	0	101	80	120			
Sodium	51	1.0	50.00	0	102	80	120			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **mb-1 alk**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R66118**	RunNo: **66118**							
Prep Date:	Analysis Date: **1/27/2020**	SeqNo: **2271310**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-1 alk**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R66118**	RunNo: **66118**							
Prep Date:	Analysis Date: **1/27/2020**	SeqNo: **2271312**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	75.64	20.00	80.00	0	94.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2001766**
31-Jan-20

Client: Rule Engineering LLC
Project: Sunco Disposal 1

Sample ID: **MB-49970**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **49970**	RunNo: **66035**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-49970**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **49970**	RunNo: **66035**
Prep Date: **1/22/2020**	Analysis Date: **1/23/2020**	SeqNo: **2267728** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	997	20.0	1000	0	99.7	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **2001766** RcptNo: **1**

Received By: **Desiree Dominguez** **1/21/2020 8:00:00 AM** DD

Completed By: **Isaiah Ortiz** **1/21/2020 8:38:51 AM** I.O.

Reviewed By: DAD 1/21/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 2
(<2 or >12 unless noted)
Adjusted? NO
Checked by: IO 1/21/2020

Special Handling (if applicable)

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

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Not Present			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush_____

Project Name: Sunco Disposal #1

Project #:

Project Manager: Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.1 +0.2=2.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 20017606
1/20/20	1505	H_2O	MW-1 (01/20/20)	(3) 40mL VOA	HCl_2	-001
				(1) 500mL Plastic	Non	
				(1) 125mL Plastic	HNO_3 Filtered	
				(1) 500mL Plastic	H_2SO_4	
				(1) 250mL Plastic	HNO_3	

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	See CoC
										X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
1/20/20	1726	Heather M. Woods	Christine Walt		1/20/20	1726
1/20/20	1814	Christine Walters		Courier	1/21/20	8:00

Remarks: Direct Bill to Agua Moss - Rates per Andy
pH, VOCs, major cations and anions - see attached page

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Attachment 7 Proof of Notice

Aviso de publicación
Propuesta

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial yacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l).La concentración de TDS del agua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / l. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.

Prensa propuesta de publicación:
1. The Daily Times-Farmington, NM
2. Se publicará en ubicaciones y en el Museo de Farmington.
3. Será publicada en Inglés y Español es un anuncio de pantalla de al menos 2 NO x 3 pulgadas en la sección de aviso clasificado o jurídica del periódico de la duración de 1 día.

Notice of Publication

Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005). The well is located in Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial oil field disposal well injects oilfield exempt and non-exempt, non-hazardous oil field into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls and a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

Proposed Newspapers of publication:

1. The Daily Times- Farmington, NM
2. Will be posted on location and at the Farmington Museum
3. Will be published in English and Spanish is a display ad at least 2 x 3 inches NOT in the classified or legal notice section of the newspaper for 1-day duration.

Attachment 8 Injection Well Reports

Total Injected	Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow		Avg Vol	Avg Flow
1/1/21			2/1/21	1146	33.425	3/1/21	1074	31.325	4/1/2021	1465	42.72916667	5/1/2021			6/1/2021			7/1/2021			8/1/2021			9/1/2021	469	13.67916667	10/1/2021	943	27.50416667	11/1/2021			12/1/2021	1566	45.675
1/2/21			2/2/21	2156	62.88333333	3/2/21	864	25.2	4/2/2021	1670	48.70833333	5/2/2021			6/2/2021			7/2/2021			8/2/2021			9/2/2021			10/2/2021			11/2/2021	476	13.88333333	12/2/2021	1511	44.07083333
1/3/21			2/3/21	1402	40.89166667	3/3/21	2001	58.3625	4/3/2021	913	26.62916667	5/3/2021			6/3/2021			7/3/2021			8/3/2021			9/3/2021			10/3/2021			11/3/2021	461	13.44583333	12/3/2021	1765	51.47916667
1/4/21			2/4/21	2235	65.1875	3/4/21	1640	47.83333333	4/4/2021			5/4/2021			6/4/2021			7/4/2021			8/4/2021			9/4/2021			10/4/2021			11/4/2021			12/4/2021	935	27.27083333
1/5/21			2/5/21	2011	58.65416667	3/5/21	1558	45.44166667	4/5/2021	699	20.3875	5/5/2021			6/5/2021			7/5/2021			8/5/2021			9/5/2021			10/5/2021			11/5/2021			12/5/2021		
1/6/21			2/6/21	1178	34.35833333	3/6/21			4/6/2021	1144	33.36666667	5/6/2021			6/6/2021			7/6/2021			8/6/2021			9/6/2021			10/6/2021			11/6/2021			12/6/2021	1164	33.95
1/7/21			2/7/21	931	27.15416667	3/7/21	885	25.8125	4/7/2021	1242	36.225	5/7/2021			6/7/2021			7/7/2021			8/7/2021			9/7/2021	390	11.375	10/7/2021			11/7/2021			12/7/2021	902	26.30833333
1/8/21			2/8/21	1494	43.575	3/8/21	1155	33.6875	4/8/2021	662	19.30833333	5/8/2021			6/8/2021			7/8/2021			8/8/2021			9/8/2021			10/8/2021			11/8/2021			12/8/2021	193	5.629166667
1/9/21			2/9/21	1316	38.38333333	3/9/21	903	26.3375	4/9/2021	587	17.12083333	5/9/2021			6/9/2021			7/9/2021			8/9/2021			9/9/2021			10/9/2021			11/9/2021			12/9/2021		
1/10/21			2/10/21	1512	44.1	3/10/21	1980	57.75	4/10/2021	670	19.54166667	5/10/2021			6/10/2021			7/10/2021			8/10/2021	502	14.64166667	9/10/2021			10/10/2021			11/10/2021			12/10/2021		
1/11/21			2/11/21	2104	61.36666667	3/11/21	1524	44.45	4/11/2021	1167	34.0375	5/11/2021			6/11/2021			7/11/2021			8/11/2021	355	10.35416667	9/11/2021			10/11/2021			11/11/2021			12/11/2021		
1/12/21			2/12/21	2352	68.6	3/12/21	1801	52.52916667	4/12/2021	261	7.6125	5/12/2021			6/12/2021			7/12/2021			8/12/2021			9/12/2021			10/12/2021			11/12/2021			12/12/2021		
1/13/21			2/13/21	559	16.30416667	3/13/21	1157	33.74583333	4/13/2021			5/13/2021			6/13/2021			7/13/2021			8/13/2021			9/13/2021			10/13/2021			11/13/2021			12/13/2021		
1/14/21			2/14/21	260	7.583333333	3/14/21	357	10.4125	4/14/2021			5/14/2021			6/14/2021			7/14/2021			8/14/2021			9/14/2021			10/14/2021			11/14/2021			12/14/2021		
1/15/21			2/15/21	1210	35.29166667	3/15/21	1557	45.4125	4/15/2021	1001	29.19583333	5/15/2021			6/15/2021			7/15/2021			8/15/2021			9/15/2021			10/15/2021			11/15/2021			12/15/2021		
1/16/21			2/16/21	659	19.22083333	3/16/21	1297	37.82916667	4/16/2021	701	20.44583333	5/16/2021			6/16/2021			7/16/2021			8/16/2021			9/16/2021			10/16/2021			11/16/2021			12/16/2021		
1/17/21			2/17/21	1605	46.8125	3/17/21	841	24.52916667	4/17/2021			5/17/2021			6/17/2021			7/17/2021			8/17/2021			9/17/2021			10/17/2021			11/17/2021			12/17/2021		
1/18/21	407	11.87083333	2/18/21	1461	42.6125	3/18/21	2433	70.9625	4/18/2021	793	23.12916667	5/18/2021			6/18/2021			7/18/2021			8/18/2021			9/18/2021			10/18/2021			11/18/2021			12/18/2021		
1/19/21	1163	33.92083333	2/19/21	1287	37.5375	3/19/21	1652	48.18333333	4/19/2021	1020	29.75	5/19/2021			6/19/2021			7/19/2021			8/19/2021			9/19/2021			10/19/2021			11/19/2021			12/19/2021		
1/20/21	987	28.7875	2/20/21	490	14.29166667	3/20/21	374	10.90833333	4/20/2021	685	19.97916667	5/20/2021			6/20/2021			7/20/2021			8/20/2021			9/20/2021			10/20/2021			11/20/2021			12/20/2021		
1/21/21	1648	48.06666667	2/21/21			3/21/21	303	8.8375	4/21/2021	595	17.35416667	5/21/2021			6/21/2021			7/21/2021			8/21/2021			9/21/2021			10/21/2021			11/21/2021			12/21/2021		
1/22/21	2151	62.7375	2/22/21	1003	29.25416667	3/22/21	801	23.3625	4/22/2021			5/22/2021			6/22/2021			7/22/2021			8/22/2021			9/22/2021			10/22/2021			11/22/2021			12/22/2021		
1/23/21	828	24.15	2/23/21	2264	66.03333333	3/23/21	1755	51.1875	4/23/2021			5/23/2021			6/23/2021			7/23/2021			8/23/2021			9/23/2021			10/23/2021			11/23/2021			12/23/2021		
1/24/21	501	14.6125	2/24/21	653	19.04583333	3/24/21	918	26.775	4/24/2021			5/24/2021			6/24/2021			7/24/2021			8/24/2021			9/24/2021			10/24/2021			11/24/2021			12/24/2021		
1/25/21	763	22.25416667	2/25/21	1497	43.6625	3/25/21	1524	44.45	4/25/2021			5/25/2021	0	0	6/25/2021			7/25/2021			8/25/2021			9/25/2021			10/25/2021			11/25/2021	772	22.51666667	12/25/2021		
1/26/21	1223	35.67083333	2/26/21	1967	57.37083333	3/26/21	802	23.39166667	4/26/2021			5/26/2021			6/26/2021			7/26/2021			8/26/2021			9/26/2021			10/26/2021			11/26/2021	1142	33.30833333	12/26/2021		
1/27/21	1231	35.90416667	2/27/21	1857	54.1625	3/27/21	538	15.69166667	4/27/2021			5/27/2021			6/27/2021			7/27/2021			8/27/2021			9/27/2021	1410	41.125	10/27/2021			11/27/2021			12/27/2021		
1/28/21	2143	62.50416667	2/28/21	991	28.90416667	3/28/21	466	13.59166667	4/28/2021			5/28/2021			6/28/2021			7/28/2021	546	15.925	8/28/2021			9/28/2021			10/28/2021			11/28/2021			12/28/2021		
1/29/21	1244	36.28333333				3/29/21	928	27.06666667	4/29/2021			5/29/2021			6/29/2021			7/29/2021			8/29/2021			9/29/2021			10/29/2021			11/29/2021	918	26.775	12/29/2021		
1/30/21	1184	34.53333333				3/30/21	1142	33.30833333	4/30/2021			5/30/2021			6/30/2021	16	0.466666667	7/30/2021			8/30/2021			9/30/2021			10/30/2021			11/30/2021	1419	41.3875	12/30/2021		
1/31/21	536	15.63333333				3/31/21	1454	42.40833333				5/31/2021						7/31/2021			8/31/2021						10/31/2021						12/31/2021		
AVG	1143.5	33.35208333		1392.592593	40.61728395		1189.466667	34.69277778		898.5294118	26.20710784		0	0		16	0.466666667		546	15.925		428.5	12.49791667		756.3333	22.05972222		943	27.50416667		864.6667	25.21944444		1148	33.48333333
MAX	2151	62.7375		2352	68.6		2433	70.9625		1670	48.70833333		0	0		16	0.466666667		546	15.925		502	14.64166667		1410	41.125		943	27.50416667		1419	41.3875		1765	51.47916667
MIN	407	11.8708333		260	7.5833333		303	8.8375000		261	7.6125000		0	0.0000000		16	0.4666667		546	15.9250000		355	10.3541667		390	11.3750000		943	27.5041667		461	13.4458333		193	5.6291667
Total for mont	16009			37600			35684			15275			0			16			546			857			2269			943			5188			8036	

UICI-5-0
Agua Moss, LLC
Sunco Disposal #1 30-045-28653

2021

Quarterly
Injection Report

	Average Pressure (psig)	Maximum Pressure (psig)	Minimum Pressure (psig)	Average Flow (gpm)	Maxium Flow (gpm)	Minimum Flow (gpm)	Average Annular Pressure (psig)	Maximum Annular Pressure (psig)	Minimum Annular Pressure (psig)	Average Volume (bpd)	Maximum Volume (bpd)	Minimum Volume (bpd)	Volume (barrels)	Total Cumulative Volume (barrels)	
													Previous year	15182756	
Jan-2020	1620	1850	1250	33.35208333	62.7375	11.8708333	0	0	0	1143.5	2151	407	16009	15198765	
Feb-2020	1896.429	2350	1750	40.61728395	68.6	7.58333333	0	0	0	1392.592593	2352	260	37600	15236365	
Mar-2020	1917.742	2150	1850	34.69277778	70.9625	8.8375	0	0	0	1189.466667	2433	303	35684	15272049	
													Previous Quarter	15272049	
Apr-2020	0	0	0	26.20710784	48.70833333	7.6125	0	0	0	898.5294118	1670	261	15275	15287324	
May-2020	1873.684	2150	1750	0	0	0	0	0	0	0	0	0	0	15287324	
Jun-2020	1495	1520	1450	0.466666667	0.466666667	0.46666667	0	0	0	16	16	16	16	15287340	
													Previous Quarter	15287340	
Jul-20	1423.333	1720	1275	15.925	15.925	15.925	0	0	0	546	546	546	546	15287886	
Aug-20	1396.667	1740	1200	12.49791667	14.64166667	10.3541667	0	0	0	428.5	502	355	857	15288743	
Sep-20	1210	1250	1200	22.05972222	41.125	11.375	0	0	0	756.3333333	1410	390	2269	15291012	
													Previous Quarter	15291012	
Oct-2020	1250	1250	1250	27.50416667	27.50416667	27.5041667	0	0	0	943	943	943	943	15291955	
Nov-2020	1267.857	1450	1150	25.21944444	41.3875	13.4458333	0	0	0	864.6666667	1419	461	5188	15297143	
Dec-2020	1584.375	1700	1300	33.48333333	51.47916667	5.62916667	0	0	0	1148	1765	193	8036	15305179	
												Total for year	**122423**	**15427602**	**Life Of well injected**

	WH	AP
1/1/21		0
1/2/21		
1/3/21		
1/4/21		
1/5/21		
1/6/21		
1/7/21		
1/8/21		
1/9/21		
1/10/21		
1/11/21		
1/12/21		
1/13/21		
1/14/21		
1/15/21	1250	
1/16/21		
1/17/21		
1/18/21	1250	
1/19/21	1400	
1/20/21	1550	
1/21/21	1600	
1/22/21	1700	
1/23/21	1750	
1/24/21	1700	
1/25/21	1400	
1/26/21	1700	
1/27/21	1750	
1/28/21	1800	
1/29/21	1850	
1/30/21	1800	
1/31/21	1800	
	1620	**0**	**AVG**
	1250	**0**	**MIN**
	1850	**0**	**MAX**

	WH	AP
2/1/21	1750	0
2/2/21	1800	
2/3/21	1850	
2/4/21	1850	
2/5/21	1900	
2/6/21	2350	
2/7/21	1850	
2/8/21	1850	
2/9/21	1800	
2/10/21	1900	
2/11/21	1900	
2/12/21	1900	
2/13/21	1900	
2/14/21	1850	
2/15/21	1800	
2/16/21	1850	
2/17/21	1800	
2/18/21	1800	
2/19/21	1800	
2/20/21	1900	
2/21/21	1750	
2/22/21	1750	
2/23/21	2075	
2/24/21	1900	
2/25/21	2100	
2/26/21	2100	
2/27/21	2100	
2/28/21	1925	
	1896.429	**0**	**AVG**
	1750	**0**	**MIN**
	2350	**0**	**MAX**

	WH	AP
3/1/21	1900	0
3/2/21	1900	
3/3/21	1900	
3/4/21	1900	
3/5/21	1900	
3/6/21	1950	
3/7/21	1850	
3/8/21	1900	
3/9/21	1900	
3/10/21	1925	
3/11/21	1925	
3/12/21	1950	
3/13/21	1950	
3/14/21	1900	
3/15/21	1850	
3/16/21	1900	
3/17/21	1950	
3/18/21	2150	
3/19/21	1950	
3/20/21	1950	
3/21/21	1850	
3/22/21	1850	
3/23/21	1950	
3/24/21	1850	
3/25/21	1850	
3/26/21	1950	
3/27/21	1950	
3/28/21	1850	
3/29/21	1950	
3/30/21	2000	
3/31/21	1900	
	1917.742	**0**	**AVG**
	1850	**0**	**MIN**
	2150	**0**	**MAX**

	WH	AP
4/1/21	0	0
4/2/21		
4/3/21		
4/4/21		
4/5/21		
4/6/21		
4/7/21		
4/8/21		
4/9/21		
4/10/21		
4/11/21		
4/12/21		
4/13/21		
4/14/21		
4/15/21		
4/16/21		
4/17/21		
4/18/21		
4/19/21		
4/20/21		
4/21/21		
4/22/21		
4/23/21		
4/24/21		
4/25/21		
4/26/21		
4/27/21		
4/28/21		
4/29/21		
4/30/21		
	0	**0**	**AVG**
	0	**0**	**MIN**
	0	**0**	**MAX**

	WH	AP
5/1/21	1900	0
5/2/21	1950	
5/3/21	1950	
5/4/21	1900	
5/5/21	1850	
5/6/21	1850	
5/7/21	1900	
5/8/21	1900	
5/9/21	1900	
5/10/21	2150	
5/11/21	1850	
5/12/21	1850	
5/13/21		
5/14/21		
5/15/21	1850	
5/16/21	1850	
5/17/21	1750	
5/18/21	1750	
5/19/21	1800	
5/20/21	1800	
5/21/21	1850	
5/22/21		
5/23/21		
5/24/21		
5/25/21		
5/26/21		
5/27/21		
5/28/21		
5/29/21		
5/30/21		
5/31/21		
	1873.684	**0**	**AVG**
	1750	**0**	**MIN**
	2150	**0**	**MAX**

	WH	AP
6/1/21	1500	0
6/2/21		
6/3/21		
6/4/21		
6/5/21		
6/6/21		
6/7/21		
6/8/21	1500	
6/9/21		
6/10/21		
6/11/21		
6/12/21		
6/13/21		
6/14/21		
6/15/21		
6/16/21	1500	
6/17/21	1500	
6/18/21		
6/19/21		
6/20/21		
6/21/21		
6/22/21		
6/23/21		
6/24/21		
6/25/21		
6/26/21		
6/27/21		
6/28/21		
6/29/21	1450	
6/30/21	1520	
	1495	**0**	**AVG**
	1450	**0**	**MIN**
	1520	**0**	**MAX**

	WH	AP
7/1/21		0
7/2/21		
7/3/21		
7/4/21		
7/5/21		
7/6/21		
7/7/21		
7/8/21		
7/9/21		
7/10/21		
7/11/21		
7/12/21		
7/13/21		
7/14/21		
7/15/21		
7/16/21		
7/17/21		
7/18/21		
7/19/21		
7/20/21		
7/21/21	1275	
7/22/21		
7/23/21	1275	
7/24/21		
7/25/21		
7/26/21		
7/27/21		
7/28/21	1720	
7/29/21		
7/30/21		
7/31/21		
	1423.333	**0**	**AVG**
	1275	**0**	**MIN**
	1720	**0**	**MAX**

	WH	AP
8/1/21		0
8/2/21		
8/3/21		
8/4/21	1250	
8/5/21		
8/6/21		
8/7/21		
8/8/21		
8/9/21		
8/10/21	1740	
8/11/21	1200	
8/12/21		
8/13/21		
8/14/21		
8/15/21		
8/16/21		
8/17/21		
8/18/21		
8/19/21		
8/20/21		
8/21/21		
8/22/21		
8/23/21		
8/24/21		
8/25/21		
8/26/21		
8/27/21		
8/28/21		
8/29/21		
8/30/21		
8/31/21		
	1396.667	**0**	**AVG**
	1200	**0**	**MIN**
	1740	**0**	**MAX**

	WH	AP
9/1/21	1250	0
9/2/21		
9/3/21		
9/4/21		
9/5/21		
9/6/21		
9/7/21	1200	
9/8/21		
9/9/21		
9/10/21		
9/11/21		
9/12/21		
9/13/21		
9/14/21		
9/15/21	1200	
9/16/21		
9/17/21		
9/18/21		
9/19/21		
9/20/21		
9/21/21		
9/22/21	1200	
9/23/21		
9/24/21		
9/25/21		
9/26/21		
9/27/21	1200	
9/28/21		
9/29/21		
9/30/21		
	1210	**0**	**AVG**
	1200	**0**	**MIN**
	1250	**0**	**MAX**

	WH	AP
10/1/21	1250	0
10/2/21		
10/3/21		
10/4/21		
10/5/21		
10/6/21		
10/7/21		
10/8/21		
10/9/21		
10/10/21		
10/11/21		
10/12/21		
10/13/21		
10/14/21		
10/15/21		
10/16/21		
10/17/21		
10/18/21		
10/19/21		
10/20/21		
10/21/21		
10/22/21		
10/23/21		
10/24/21		
10/25/21		
10/26/21		
10/27/21		
10/28/21		
10/29/21		
10/30/21		
10/31/21		
	1250	**0**	**AVG**
	1250	**0**	**MIN**
	1250	**0**	**MAX**

	WH	AP
11/1/21		0
11/2/21	1150	
11/3/21	1300	
11/4/21		
11/5/21		
11/6/21		
11/7/21		
11/8/21		
11/9/21		
11/10/21	1150	
11/11/21		
11/12/21		
11/13/21		
11/14/21		
11/15/21		
11/16/21		
11/17/21		
11/18/21		
11/19/21		
11/20/21		
11/21/21		
11/22/21		
11/23/21		
11/24/21		
11/25/21	1150	
11/26/21	1400	
11/27/21		
11/28/21		
11/29/21	1275	
11/30/21	1450	
	1267.857	**0**	**AVG**
	1150	**0**	**MIN**
	1450	**0**	**MAX**

	WH	AP
12/1/21	1550	0
12/2/21	1600	
12/3/21	1650	
12/4/21	1700	
12/5/21		
12/6/21	1575	
12/7/21	1650	
12/8/21	1650	
12/9/21		
12/10/21		
12/11/21		
12/12/21		
12/13/21		
12/14/21		
12/15/21		
12/16/21		
12/17/21		
12/18/21		
12/19/21		
12/20/21		
12/21/21		
12/22/21	1300	
12/23/21		
12/24/21		
12/25/21		
12/26/21		
12/27/21		
12/28/21		
12/29/21		
12/30/21		
12/31/21		
	1584.375	**0**	**AVG**
	1300	**0**	**MIN**
	1700	**0**	**MAX**

Attachment 9 AOR

2022 AREA OF REVIEW
UNIT LETTERS ENCOMPASSED BY THE 2-MILE AOR

Sec	TWN	RNG	UL	
1	29N	12W	ALL	
2	29N	12W	ALL	
3	29N	12W	ALL	
4	29N	12W	ACFJKNP	
9	29N	12W	ABH	
10	29N	12W	ABCDIJN	
11	29N	12W	ACDGHILOP	
12	29N	12W	AEFKM	
25	30N	12W	EMN	
26	30N	12W	FGLNOP	
27	30N	12W	LMP	
28	30N	12W	O	
33	30N	12W	GHIJK	
34	30N	12W	ALL	
35	30N	12W	ALL	
36	30N	12W	AEIMN	

Radius expanded to 2 miles for permit renewal requirements.

													Surface Casing			*INT Casing*			*Production Casing*					
API	Well Name	Well #	Current Operator	Type	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Plugged	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		3/27/2018
30-045-26214	ALLEN A	#001E	SIMCOE LLC	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-08661	Dudley Cornell A	#001	SIMCOE LLC	Gas	Federal	Active	1	29N	12W	O	11/15/1960	6730	9.625	263	200 surf				4.5	6707	300 surf	6434-6587		
30-045-24129	Dudley Cornell A	#001E	SIMCOE LLC	Gas	Federal	Active	1	29N	12W	G	4/28/1980	6722	9.625	348	250 surf				4.5	6710	180 surf	6496-6629		
30-045-34348	Allen Com	#100	Burlington	Gas	Federal	Plugged	1	29N	12W	B	10/22/2007	138												1/22/2009
30-045-08782	Cornell	5	Burlington	Gas	Federal	Plugged	1	29N	12W	G	9/30/1955	99999												4/28/1994
30-045-29167	Hike	1	Dugan Production	Gas	Federal	Active	1	29N	12W	G	7/10/1994	3840	8.625	260	175 surf				4.5	3820	595 surf	3710-3718	3710	
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	M	10/2/1955	1996												9/15/2005
30-045-29539	Cornell	3R	Epic Energy	Gas	Federal	Plugged	1	29N	12W	I	10/7/1955	0	7	131	45-53				3.5	2193	434-741	1991-2041		7/13/2018
30-045-29538	Cornell	5R	HilCorp	Gas	Federal	Active	1	29N	12W	A	4/14/1998	2225	7	131	45-53				3.5	2215	434-741	2029-2059		
30-045-08783	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Private	Plugged	1	29N	12W	F	7/9/2003	2090												12/31/1901
30-045-08641	PRE-ONGARD WELL	#003	Pre Ongard	Gas	Federal	Plugged	1	29N	12W	O	4/11/1998	2203												11/16/1981
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125												3/16/1948
30-045-32346	CORNELL	#002R	Southland Royalty	Gas	Federal	Active	1	29N	12W	M	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-31612	Cornell	2S	Southland Royalty	Gas	Federal	Active	1	29N	12W	O	7/27/1957	0	7	136	56 surf				4.5	2058	225 surf	1725-1921		
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-33573	CORNELL COM	#500S	Burlington	Gas	Private	Plugged	2	29N	12W	P	3/18/2006	2210	7	132	34 surf	6.25	2210		4.5	2198	279 surf	1754-1939 1743-1924		1/23/2013
30-045-08844	KATTLER	#001	Burlington	Gas	Private	Plugged	2	29N	12W	C	1/26/1945	2069	10	846	surf	5.5	1960		3.5	2050	205 surf	1961-2007		5/26/2012
30-045-08713	McGrath SRC	#001	Burlington	Gas	Private	Plugged	2	29n	12w	j	7/7/1973	2136												1998
30-045-30486	MCGRATH SRC	#001R	Burlington	Gas	Private	Plugged	2	29N	12W	J	3/23/2001	2235												6/25/2010
30-045-32241	BECK	#001R	HilCorp	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-33811	BECK	#001S	HilCorp	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		
30-045-31580	CORNELL COM	#500	HilCorp	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126		4.5	2126	258 surf	1658-1878		
30-045-08714	CORNELL SRC	#007	HilCorp	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978		3.5	2106	250 surf	1976-2010		

30-045-08704	MCGRATH B	#001	HilCorp	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf				4.5	1865	1065 surf	6489-6596		
30-045-08839	YOUNG	#001	HilCorp	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf				4.5	6739	700 surf	6446-6644		
30-045-08797	**Pre-Ongard**		**Southland**	**Gas**	**Private**	**Plugged**	**2**	**29n**	**12w**	**g**	**4/14/1948**	**2125**												**2/23/1984**
30-045-27635	**PRE-ONGARD WELL**	**#500**		**Gas**	**Federal**	**Plugged**	**2**	**29N**	**12W**	**M**														**12/31/1901**
30-045-08709	**MCGRATH**	**#003**	**Burlington**	**Gas**	**Private**	**Plugged**	**3**	**29N**	**12W**	**J**	**3/4/1945**	**2040**												**3/1/2013**
30-045-60274	**WALKER 2**	**#002**	**Burlington**	**Gas**	**Private**	**Plugged**	**3**	**29N**	**12W**	**D**	**1/8/1945**	**1974**												**7/24/1998**
30-045-08823	**Walker SRC**	**1**	**Burlington**	**Gas**	**Private**	**Plugged**	**3**	**29N**	**12W**	**G**	**2/25/1943**	**2050**												**10/12/2009**
30-045-33580	MCGRATH	#003S	HilCorp	Gas	Private	TA'd	3	29N	12W	B	7/13/2007	2132	7	218	150 surf				4.5	2112	289 surf	1692-1904		**TA'd 10/23/2009**
30-045-08712	MCGRATH A	#001	HilCorp	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf				4.5	6688	500 surf	6432-6524		
30-045-32931	WALKER	#100S	HilCorp	Gas	Private	Active	3	29N	12W	F	8/14/2005	2120	7	144	61 surf				4.5	2117	238 surf	1621-1885		
30-045-08801	WALKER 1	#001	HilCorp	Gas	Private	Active	3	29N	12W	E	4/12/1960	6620	8.625	232	150 surf				4.5	6620	300 surf	6546-6556		
30-045-30244	WALKER 100	#100	HilCorp	Gas	Private	TA'd	3	29N	12W	L	3/30/2001	1948	7	126	140-168				4.5	1940	219-399	1659-1872	1597 CIBP@1609	**Tad**
30-045-08711	**Pre-Ongard**		**Union Texas**	**Gas**	**Private**	**Plugged**	**3**	**29N**	**12W**	**K**	**6/25/1955**	**1940**												**11/10/1964**
30-045-29117	RIGGS	#001	Enduring Resources	Gas	Private	Active	4	29N	12W	A	6/24/1994	1900												
30-045-29118	**RIGGS**	**#002**	**Enduring Resources**	**Gas**	**Private**	**Plugged**	**4**	**29N**	**12W**	**N**	**6/28/1994**	**1890**												**5/8/2017**
30-045-32239	RIGGS	#003	Enduring Resources	Gas	Private	Active	4	29N	12W	C	2/21/2005	1906												
30-045-32312	RIGGS	#004	Enduring Resources	Gas	Private	Active	4	29N	12W	P	3/20/2005	2002												
30-045-08718	STANDARD	#001	HilCorp	Gas	Federal	Active	4	29N	12W	J	11/3/1960	6600	8.625	236	175 surf				4.5	6600	250 surf	6356-6510		
30-045-08720	DEVONIAN FEDERAL	#001	Holcomb Oil & Gas	Gas	Federal	Active	4	29N	12W	K	6/23/1959	6538												
30-045-24552	**PRE-ONGARD WELL**	**#001**	**Pre Ongard**	**Gas**	**Federal**	**Plugged**	**4**	**29N**	**12W**	**A**	**5/29/1981**	**0**												**12/7/1995**
30-045-08804	**FEDERAL**	**#001**	**Riggs Oil & Gas**	**Gas**	**Federal**	**Plugged**	**4**	**29N**	**12W**	**F**	**5/29/1959**	**1856**												**2/9/2017**
30-045-08586	FLORANCE GAS COM B	#001	SIMCOE LLC	Gas	Federal	Active	9	29N	12W	H	1/20/1964	6470												
30-045-28824	ROPCO FEE FC 9	#002	HilCorp	Gas	Private	Active	9	29N	12W	A	11/25/1992	1975												
30-045-26855	**PRE-ONGARD WELL**	**#001**	**Pre Ongard**	**Gas**	**Private**	**Plugged**	**9**	**29N**	**12W**	**B**	**3/18/1988**	**0**												**3/9/1989**
30-045-08601	CORNELL A	#001	SIMCOE LLC	Gas	Federal	Active	10	29N	12W	D	12/28/1960	6510												
30-045-24132	**CORNELL A**	**#001E**	**BP America**	**Gas**	**Federal**	**Plugged**	**10**	**29N**	**12W**	**N**	**4/4/1980**	**6350**												**1/24/2018**

30-045-08605	CORNELL	#007	Burlington	Gas	Federal	Plugged	10	29N	12W	C	4/20/1956	1807													7/18/1996
30-045-23889	BECK A	#001E	HilCorp	Gas	Federal	Active	10	29N	12W	B	1/5/1981	6514	8.625	240	150 surf				4.5	6514	765 surf	6277-6454			
30-045-08517	BECK A	#001	HilCorp	Gas	Private	Active	10	29N	12W	J	6/12/1962	6410													
30-045-30381	CORNELL	#100	HilCorp	Gas	Federal	Active	10	29N	12W	B	1/7/2003	1968	7	147	55 surf				4.5	1959	229 surf	1543-1704 1744-1800			
30-045-08523	PRE-ONGARD WELL	#001	Pre Ongard	Water	Private	Permanently	10	29N	12W	J	8/21/1946	1871													10/31/1977
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	A	12/19/1980	1870													2/10/1984
30-045-34452	BECK 29 12 10	#108	Synergy	Gas	Federal	Plugged	10	29N	12W	N	2/21/2008	1865													4/27/2020
30-045-13092	CORNELL C	#001	SIMCOE LLC	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf				4.5	6604	300 surf	6298-6483			
30-045-08615	CORNELL	#006	Epic Energy	Gas	Federal	Active	11	29N	12W	C	11/7/1955	1839	8.625	106	70 surf	5.5	1811		3.5	2022	181 surf	1811-1839			
30-045-31581	CORNELL	#101	HilCorp	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf				4.5	2000	270 surf	1726-1764			
30-045-24447	FEDERAL PRI	#001E	HilCorp	Gas	Federal	Active	11	29N	12W	H	10/9/1980	6581													
30-045-29945	PAYNE	#001R	Mcelvain Energy	Gas	Federal	Active	11	29N	12W	H	10/27/1999	2050													
30-045-32667	PRI	#003	Mcelvain Energy	Gas	Federal	Active	11	29N	12W	I	2/27/2005	1960													
30-045-13218	PRE-ONGARD WELL	#010	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	A		0													12/31/1901
30-045-08558	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	G	1/1/1940	0													4/16/1976
30-045-08515	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Private	Plugged	11	29N	12W	L	11/25/1932	0													12/13/1982
30-045-20067	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	O	5/5/1967	0													4/18/1986
30-045-08475	CARROLL CORNELL	#012	Producing Royalties	Gas	Federal	Plugged	11	29N	12W	P	11/22/1953	1895													6/13/1979
30-045-22118	PAYNE	#001	Producing Royalties	Gas	Federal	Plugged	11	29N	12W	A	7/31/1976	2060													2/13/2002
30-045-24086	CORNELL D	#001E	SIMCOE LLC	Gas	Federal	Active	12	29N	12W	A	5/22/1980	6635													
30-045-24283	CORNELL E	#001E	SIMCOE LLC	Gas	Federal	Active	12	29N	12W	F	5/12/1980	6609													
30-045-08444	CORNELL E	#001	BP America	Gas	Federal	Plugged	12	29N	12W	M	9/28/1962	6562													6/27/2017
30-045-08528	CORNELL SRC	#004	Burlington	Gas	Federal	Plugged	12	29N	12W	K	5/25/1941	1970													3/29/2017
30-045-22119	PAYNE	#002	Mcelvain Energy	Gas	Federal	Plugged	12	29N	12W	F	7/22/1976	2062													10/30/2010
30-045-22962	PAYNE	#002J	RIM Operating	Gas	Federal	Active	12	29N	12W	E	6/12/1978	2026													
30-045-33015	PRI	#001S	RIM Operating	Gas	Federal	Active	12	29N	12W	A	9/20/2005	2057													

30-045-32665	PRI	#001	RIM Operating	Gas	Federal	Active	12	29N	12W	E	2/17/2005	2090													
30-045-32666	PRI	#002	RIM Operating	Gas	Federal	Active	12	29N	12W	M	2/8/2005	2010													
30-045-09117	PRE-ONGARD WELL	#001	ONGARD WELL OPERATOR	Gas	Private	Plugged	25	30N	12W	M	4/13/1953	0													5/26/1958
30-045-26121	ROWLAND GAS COM	#001E	HilCorp	Gas	Private	Active	25	30N	12W	M	3/19/1985	6560													
30-045-29707	RUBY CORSCOT A	#001	HilCorp	Gas	Private	Active	25	30N	12W	N	9/25/1999	2007													
30-045-31641	RUBY CORSCOT A	#002	HilCorp	Gas	Private	Active	25	30N	12W	E	6/2/2003	2076													
30-045-30456	KATY COM	#002	[14634] MERRION OIL & GAS CORP	Gas	Private	Plugged	26	30N	12W	P	4/27/2001	2028													8/10/2015
30-045-09177	PAUL PALMER	#001	[14634] MERRION OIL & GAS CORP	Gas	Private	Plugged	26	30N	12W	L	9/13/1961	3509													8/14/2015
30-045-29414	PRE-ONGARD WELL	#001	ONGARD WELL OPERATOR	Gas	Private	Plugged	26	30N	12W	G	6/21/1953	0													12/31/1901
30-045-09130	PRE-ONGARD WELL	#003	ONGARD WELL OPERATOR	Gas	Private	Plugged	26	30N	12W	O		0													3/12/1954
30-045-09165	PAUL PALMER D	#001	[5073] CONOCO INC	Gas	Private	Plugged	26	30N	12W	L	10/11/1961	99999													3/17/1995
30-045-30027	PADILLA	#001	HilCorp	Gas	Private	Active	26	30N	12W	F	1/15/2004	1953													
30-045-32243	PADILLA	#002	HilCorp	Gas	Private	Active	26	30N	12W	N	5/13/2004	2153													
30-045-09200	PRE-ONGARD WELL	#001	ONGARD WELL OPERATOR	Gas	Private	Plugged	27	30N	12W	L	3/30/1947	0													3/17/1959
30-045-13120	DUFF GAS COM B	#001	AMERICA PRODUCTION	Gas	Private	Plugged	27	30N	12W	P	2/28/1962	1950													5/30/1996
30-045-30544	DUFF GAS COM	#003	HilCorp	Gas	Private	Active	27	30N	12W	P	4/1/2001	5167													
30-045-09134	DUFF GAS COM C	#001	HilCorp	Gas	Private	Active	27	30N	12W	M	1/30/1964	6365													
30-045-26076	DUFF GAS COM C	#001E	HilCorp	Gas	Private	Active	27	30N	12W	P	9/20/1984	6500													
30-045-29664	DUFF GAS COM C	#002	HilCorp	Gas	Private	Active	27	30N	12W	M	10/16/1998	1856													
30-045-31284	DUFF GAS COM C	#004	HilCorp	Gas	Private	Active	27	30N	12W	P	1/27/2003	1996													
30-045-34235	GILBREATH	#002	Enduring Resources	Gas	Private	Active	28	30N	12W	O	4/30/2008	2170													
30-045-09037	HARGIS	#001	MCGEE OIL & GAS ONSHORE LP	Gas	Private	Plugged	33	30N	12W	G	9/15/1944	1808													2/23/1994
30-045-08999	PRE-ONGARD WELL	#002	ONGARD WELL OPERATOR	Gas	Private	Plugged	33	30N	12W	J	7/10/1946	0													6/4/1982
30-045-08998	JULANDER	#002	PRODUCTION CORP	Gas	Private	Plugged	33	30N	12W	I	4/1/1946	1936													4/12/1999
30-045-29023	REDFERN	#002	Enduring Resources	Gas	Private	Active	33	30N	12W	H	12/5/1993	1950													
30-045-32236	REDFERN	#003	Enduring Resources	Gas	Private	Active	33	30N	12W	I	3/8/2005	1993													

30-045-28912	SHIOTANI	#007	Enduring Resources	Gas	Private	Active	33	30N	12W	K	12/31/1992	1782												
30-045-09001	MADDOX	#001	HilCorp	Gas	Private	Active	33	30N	12W	J	9/21/1961	6400												
30-045-25923	MCGRATH	#004	BURLINGTON RESOURCES OIL &	Salt Water Disposal	Federal	Plugged	34	30N	12W	B	9/4/1984	4700												7/25/2013
30-045-09052	PRE-ONGARD WELL	#001	ONGARD WELL OPERATOR	Gas	Federal	Plugged	34	30N	12W	F	9/11/1945	0												1/22/1964
30-045-08939	PRE-ONGARD WELL	#001	ONGARD WELL OPERATOR	Gas	Private	Plugged	34	30N	12W	L	1/1/1945	0												6/4/1982
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	30N	12W	P	7/17/1946	2137												9/26/2008
30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	p	2/7/1963	6637												4/29/2009
30-045-26141	DUFF GAS COM	#001E	HilCorp	Gas	Federal	TA'd	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf				4.5	6608	1000 surf	6396-6576 04'RC to FC 1492-1870		TA'd 3/5/14
30-045-09071	DUFF GAS COM	#001	HilCorp	Gas	Private	Active	34	30N	12W	D	1/30/1962	6425												
30-045-31756	JULANDER	#100	HilCorp	Gas	Private	Shut In	34	30N	12W	D	7/13/2005	1895												
30-045-33411	JULANDER	#100S	HilCorp	Gas	Federal	Shut In	34	30N	12W	M	3/7/2006	2075												
30-045-31355	CARNAHAN COM	#001Y	HOLCOMB OIL & GAS INC	Gas	Private	Active	35	30N	12W	A	2/15/2003	2150												
30-045-11770	HUDSON J	#003	HilCorp	Gas	Federal	TA'd	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf				4.5	6750	750 surf	6460-6680 01' RC to FC 1784-1994		
30-045-08946	CARNAHAN COM	#001	Holcomb Oil & Gas	Gas	Private	Active	35	30N	12W	P	12/19/1960	6778	8.625	301	200 surf				4.5	6760	445 surf	6521-6708 94 RC to FC 1824-2037		
30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	P	6/15/1984	6780	8.625	230	170 surf				4.5	6777	1425 surf	6529-6714		
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH												6/9/1982
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Plugged	36	30N	12W	M	10/9/1990	6608												3/26/2013
30-045-12188	NEW MEXICO COM N	#001	HilCorp	Gas	State	Active	36	30N	12W	E	1/2/1966	6562												
30-045-31074	NEW MEXICO COM N	#100	HilCorp	Gas	State	Shut In	36	30N	12W	A	8/29/2002	2135												
30-045-08986	STATE COM AH	#030	HilCorp	Gas	State	Active	36	30N	12W	I	6/14/1961	6645												
30-045-24037	STATE COM AH	#030E	HilCorp	Gas	State	Plugged	36	30N	12W	N	8/10/1980	6620												4/28/2016

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-045-08851

5. Indicate Type of Lease
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Allen A

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number
1

2. Name of Operator
BP America Production Company- L48

9. OGRID Number
000778

3. Address of Operator
1515 Arapahoe St, Tower 1, Suite 700
Denver, CO 80202

10. Pool name or Wildcat
Basin Dakota

4. Well Location
Unit Letter D : 790 feet from the North line and 790 feet from the West line
Section 01 Township 29N Range 12W NMPM San Juan County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5906'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please see the attached P&A operations performed March 2018.

Approved for plugging of wellbore only. Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms www.emnrd.state.us/ocd

NMOCD
APR 26 2018
DISTRICT III

Spud Date: 03/12/1961

PNR only

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Toya Colvin TITLE Regulatory Analyst DATE 4/24/2018

Type or print name Toya Colvin E-mail address: Toya.Colvin@bp.com PHONE: 281-892-5369

For State Use Only

APPROVED BY: Brandon Powell TITLE Deputy Oil & Gas Inspector, District #3 DATE 5/3/18

Conditions of Approval (if any):

AV

5

Printed on 3/29/2018

BP AMERICA
PRODUCTION
COMPANY

Name: Allen A #1
API:30-045-08851, 03/29/2018

Well Plugging Report

Notification - Notify on 3/13/18 NMOCD @3:18 PM, BLM @3:20 PM

Work Detail

PUX	Activity
03/14/2018	
P	Rode rig and equip to location. Spot equipment.
P	RU pulling unit, unload BOP, spot in and RU pumping equip.
P	Secure location, SDFD.
03/15/2018	
P	S & S rig and equip., fill out JSA, held safety mtg.
P	Check PSI on Well, 2 3/8" tbg-50 PSI, 4 1/2" csg-40 PSI, BH-0 PSI, break down WH, RU A-plus valves, relief lines, blow Well down to 0 PSI.
P	ND WH, NU BOP, RU work-floor, tbg equip.
P	Attempt to work and pull tbg hanger, pulling 40K turned to the right, dragging tbg, LD tbg hanger. Work tbg.
	TOOH slowly and tally 102 stds, 8 jnts, SN, 6' MA, (212 jnts total) 2 3/8" tbg, EUE, EOT @6600' DRAGGED HALF WAY OUT.
	RU A-plus W/L, attempt to RIH w/ gauge ring hit tight spot unable to get pass 4311' attempt to work through, POOH LD gauge ring, RD W/L.
X	PU 4 1/2" string mill TIH to 4311' stacked out.
X	Work string mill to 4342' w/ tbg tongs,
X	TOOH, LD stinger, SIW, secure location, SDFD.
03/16/2018	
P	S & S rig and equip., fill out JSA, held safety mtg.
P	Check PSI on Well, no tbg, 4 1/2" csg-135 PSI, BH-0 PSI, RU relief lines blow Well down to 0 PSI.
X	PU 4 1/2" string mill, TIH to 4342'
X	PU and RU Power-swivel pump load and get circ w/ 90 BBLs
X	Drill and work string mill through from 4342' to 4460' felt free.
X	RD power-swivel.
P	TIH to 6500' attempt to TOOH started dragging
X	RU pump to tbg pump 120 BBLs.
P	TOOH LD string mill, (still dragged from 6500' to 4460')
P	SIW, drain up, secure location, SDFD.
03/19/2018	
P	S & S rig and equip, fill out JSA, held safety mtg.
P	Check PSI on Well, no tbg, 4 1/2" csg-325 PSI, BH-0 PSI, RU relief lines attempt to blow Well down unable to RU pump to csg pump 40 BBLs kill Well
P	RU A-plus W/L. RIH w/ 4 1/2" gauge ring to 6480', RIH w/ 4 1/2" CIBP to 6468' set POOH, RD W/L.
P	TIH to 6468', w/ 2 3/8" tbg.
P	RU pump to tbg load and est circ w/ 50 BBLs pumped 105 BBLs, attempt to PT csg to 800 PSI, got a rate of 1 BPM @900 PSI, no test.
P	TOOH w/ tbg, RU pump to csg load w/ 10 BBLs.

X	RU W/L, Attempt to run CBL, unable to pass 4173', WOO, Run CBL from 4173' to surface.
P	SIW, drain up, secure location, SDFD.
03/20/2018	
P	S & S rig and equip., fill out JSA, held safety mtg.
P	PU plugging sub, TIH to 6468', RU pump to tbg load and est circ w/ 1 BBLs
P	**Pumped Plug #1 – (Dakota) Mix & pump 20sxs Class C cmt (26.4 cu/ft, 15.0#) from 6468' to 6330'.**
P	LD tbg. PUH to 4935'
P	WOC
P	TIH and tag Plug #1 @6330' tag good.
P	TOOH w/ tbg.
P	SIW, drain up, secure location, SDFD.
03/21/2018	
P	HSM on JSA. S & S equipment. Check well PSI no Tbg, 0 PSI Csg, 0 PSI BH. RU relief - open to pit.
X	PU HSC gun RIH to 5774'. Perf 6 holes POOH, PU W/L. RIH w/ 4.5" CR set at 5756' POOH LD setting tool.
P	PU W/L stinger. TIH w/tbg. Tag CR. RU pump and est. circ. w/ 5 BBLS. SI csg pump and est. rate of 1 BBL a min. at 900 PSI, sting into CR pump and est. rate of 1.5 BBL a min. at 1400 PSI.
X	**Pumped Plug #2 - (Gallup) Mix & pump 57sxs Class C cmt (75.24 cf, 1.32 yield, 15.1 PPG) from 5776' to 5285' w/ 35sxs outside/ 2sxs below/ 20sxs above.**
X	TOOH, EOT at 4671" TOC. SIW Drain pump lines secure location. SDFD.
03/22/2018	
P	HSM on JSA. S & S equipment. Check well PSI no Tbg, 0 PSI Csg, 0 PSI BH. RU relief -open to pit. TIH & Tag TOC at 5285' RU to tbg pump and est. circ. w/ 4 BBLS. SI csg pump and est. rate of 1 BBL a min at 1000 PSI. TOOH. LD stinger.
X	PU HSC gun. RIH perf 4 HSC holes at 4833', PU W/L. RIH w/ 4.5" CR set at 4804'.
P	PU W/L stinger. TIH w/ tbg. Tag CR. RU pump, est. circ. Attempt PT csg - no test leak off 300 PSI in 6 min. Sting into CR pump and est rate of 1 BBL a min at 800 PSI.
X	**Pumped Plug #3 – (Mancos) Mix & pump 57sxs Class C cmt (1.32 yield, 14.9 PPG) from 4833' to 4458' w/ 35sxs outside/2sxs below/ 20sxs above.**
P	POOH w/ tbg. WOC overnight. SIW drain pump and lines secure location SDFD.
03/23/2018	
P	HSM on JSA. S & S equipment. Check well PSI no Tbg, 0 PSI Csg, 0 PSI BH. RU relief - open to pit. TIH & Tag TOC at 4458'. EOT at 3736' pump and est. circ. w/ 1 BBL SI csg. Attempt PT csg - NO TEST. Lost 200 PSI in 3 min. Pre mix 2% cal. chlor. for 20 sxs.
P	**Pumped Plug #4 - (MV) Mix & pump 20sxs Class C cmt w/ 2% CACL (1.32 yield, 15.0 PPG) from 3736' to 3402'.** WOC.
X	TIH & tag TOC at 3402' RU pump and est. circ. w/ 1 BBL PT csg to 1000 PSI PT good. TOOH w/ tbg.
P	PU Perf gun. RIH & perf 4 HSC holes @ 3150'. POOH, pump and est. rate of 1.5 BBLS a min at 600 PSI.
P	RIH w/ CR set @ 3100'. PT tbg to 1000 PSI good pump and est. circ. w/ 1 bbl sting into CR.
P	**Pumped Plug #5 - (Chacra) Mix & pump 52sxs Class G cmt (1.15 yield, 15.8 ppg) from 3150' to 2999' w/ 40sxs outside/ 4sxs below/ 8sxs above..**
P	TOOH w/ tbg.
X	PU HSC gun RIH & perf 4 HSC holes @ 2108'. POOH LD gun, Pump and est. rate of 2 BBLS a min at 400 PSI.

X		RIH w/ 4.5" CR set @ 2058'. Sting into CR.
P		Pumped **Plug #6 - (PC) Mix & pump 52sxs Class G cmt (1.15 yield, 15.9 ppg) from 2108' to 1937' W/ 40sxs outside/ 4sxs below/ 8sxs above..** POOH w/ tbg.
P		SIW drain pump and Equipment. SDFD.
03/26/2018		
P		S & S rig and equip., fill out JSA, held safety mtg.
P		Check PSI on Well, no tbg-0 PSI, 4 1/2" csg-0 PSI, BH-0 PSI, open Well, WOO. NMOCD (John Durham) Requested Tag Plug #6.
P		TIH tag Plug #6 @1937' tag good, LD, TOOH.
P		RU A-plus W/L, RIH w/ 3 1/8" HSC to 1787' perf 3 holes, POOH, RU pump to csg attempt to get a rate pressured up to 1200#, bleed down to 800 PSI, (NMOCD request balanced plug WOC and tag) RD W/L.
P		PU plugging sub TIH to 1937', RU pump to tbg load and est circ. w/ 1 BBL.
P		Pumped **Plug #7 – (Fruitland Top) Mix & pump 24sxs Class G cmt w/ 2% CACL (27.6 cu/ft, 15.8#) from 1837' to 1534'.** TOOH w/ tbg. WOC.
P		TIH tag Plug #7 @1534' tag good. TOOH, load csg w/ 3.5 BBLs.
P		RU W/L, RIH w/ 3 1/8" HSC to 875' perf 3 holes, POOH, got a rate of 1.5 BPM @400 PSI, RD W/L.
P		RIH w/ CR set @ 825'. Release and sting out. Load and est circ w/ 1 BBL, sting in got a rate of 1 BPM @500 PSI.
P		Pumped **Plug #8 – (Kirtland/Ojo Alamo) Mix & pump 159sxs Class G cmt (182.85 cu/ft, 15.6#) from 875' to 498' w/ 129sxs outside/ 4sxs below/ 26sxs above..** TOOH w/ tbg.
P		RU W/L, RIH w/ 3 1/8" HSC to 314' perf 3 holes, POOH got a rate of 1.5 BPM @200 PSI, RD W/L.
P		RIH w/ CR set @ 264'. Release and sting out load and est circ w/ 1 BBL, sting in got a rate of 1 BPM @400 PSI.
P		Pumped **Plug #9 – (Csg Shoe) Mix & pump 54sxs Class G cmt (65.1 cu/ft, 15.6#) from 314' to 68' w/ 42sxs outside/ 4sxs below/ 8sxs above.**
P		TOH LD setting tool, SIW, secure location, SDFD.
03/27/2018		
P		S & S rig and equip., fill out JSA, held safety mtg.
P		Check PSI on Well, no tbg-0 PSI, 4 1/2" csg-0 PSI, BH-0 PSI, open Well,
P		Tag TOC at 68', RIH w/ 3 1/8" HSC & Perf 3 holes at 60'. Approved by NMOCD (Monica Kuehling) on location. Est. circ. out BH & circ. clean.
P		RD floor. ND BOP. NU WH.
P		Re-est. circ. Pumped **Plug # 10 – (Surface) Mix & pump 34sxs Class G cmt (38.64 cf, 6.88 bbls, slurry 1.15 yield, 15-8#) from 60'- surface.** Circ. good cement out BH & SIW (NMOCD requiring 3 hrs. WOC)
P		RD PT & load BOP, RD rig.
P		Finish digging out WH, JSEA. Cut off WH w/air saw, Tag TOC in 4.5 csg @ 4',weld on cap & DHM (found TOC in 4.5 & annulus down 6",OK'd by NMOCD rep.), clean up location. RD. MOL
		COORDINATES - LONG. -108.056240 LAT.+36.760000

* P - Procedure Planned; U - Unplanned A+ issue; X - COA, Well Conditions

On Site Reps:

Name	Association	Notes
John Durham	NMOCD	on location
Monica Kuehling	NMOCD	on location

Allen A #1

As Plugged

Basin Dakota

P&A'd: 3/27/2018

790' FNL, 790' FWL, Section 1, T-29-N, R-12-W, San Juan County, NM

Spud: 3/13/61
Completion: 5/22/61

API #30-045-08851

Elevation: 5905' GL

12.25" hole

8.625", 24#, Casing set @ 264'
Cement with 200 sxs, circulate to surface

Ojo Alamo @ 625'

Kirtland @ 825'

Fruitland @ 1475'

Csg leak @ 1720'; squeezed with 75sx (1993)

Pictured Cliffs @ 2058'

Csg leak @ 2060'; squeezed with 75sx (1993)

Chacra @ 3376'

Csg leak @ 4055'; squeezed with 150sx (1993)

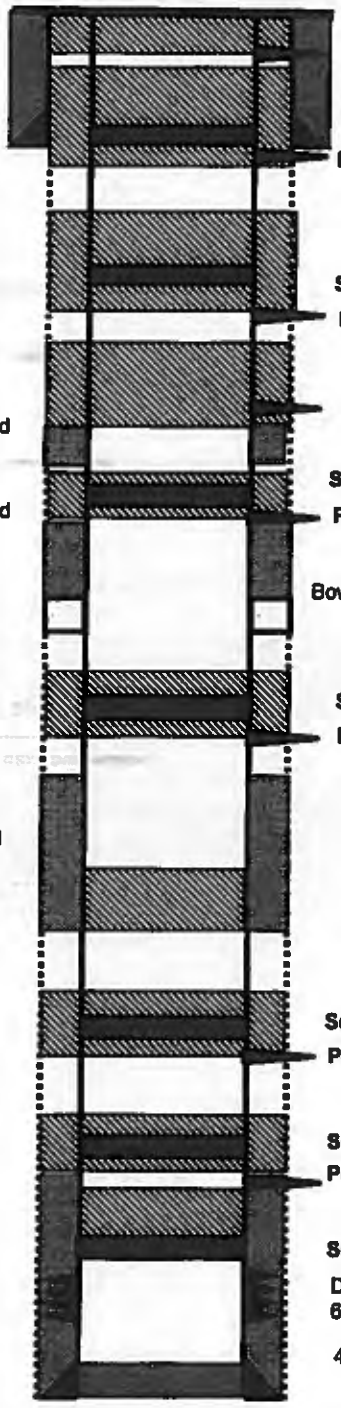
Mesaverde @ 4110'

Mancos @ 4735'

Gallup @ 5726'

Dakota @ 6516'

7-7/8" Hole



Perforate @ 60'

Set CR @ 264'

Perforate @ 314'

Set CR @ 825'

Perforate @ 875'

Perforate @ 1787'

Set CR @ 2058'

Perforate @ 2108'

Bowen Casing Patch @ 2320'
Cemented with 100 sxs

Set CR @ 3100'

Perforate @ 3150'

Set CR @ 4804'

Perforate @ 4833'

Set CR @ 5756'

Perforate @ 5774'

Set CR @ 6468'

Dakota Perforations:
6518' – 6718'

4.5" 9.5#, casing set @ 6780'
Stage 1: Cemented 250 sxs

TD 6786'
PBTD 6750'

Plug #10: 60' – 0'
34sxs Class G cmt

Plug #9: 314' – 68'
54sxs Class G cmt (42sxs outside/4sxs below/8sxs above) TOC @ 68'

Plug #8: 875' - 498'
159sxs Class G cmt (129sxs outside/4sxs below/26sx above)

Plug #7: 1837' – 1534'
24sxs Class G cmt w/ 2% CACL. TOC @ 1534'

Plug #6: 2108' – 1937'
52sxs Class G cmt (40sxs outside/4sxs below/8sxs above) TOC @ 1937'

Plug #5: 3150' – 2999'
52sxs Class G cmt (40sxs outside / 4sxs below/8sxs above)

Plug #4: 3736' – 3402'
20sxs Class C cmt w/ 2% CACL. TOC @ 3402'

Plug #3: 4833' – 4458'
57sxs Class C cmt (35sxs outside/2sxs below/20sxs above). TOC @ 4458'

Plug #2: 5776' – 5285'
57sxs Class C cmt (35sxs outside/2sxs inside/20sxs above). TOC @ 5285'

Plug #1: 6468' – 6330'
20sxs Class C cmt
TOC @ 6330'

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS JUL 23 2018

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

Bureau of Land Management

SUBMIT IN TRIPLICATE – Other instructions on reverse side

5. Lease Serial No: SF-065557-A
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA/Agreement, Name and/or N:

1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other
2. Name of Operator: Epic Energy, LLC
3a. Address: 7415 East Main, Farmington, NM 87402
3b. Phone No. *(include area code)*: 505-327-4892
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*: 1450' FSL & 1190' FEL, Section 1, T29N, R12W
8. Well Name and No.: Cornell #3R
9. API Well No: 30-045-29539
10. Field and Pool, or Exploratory Area: Fulcher Kutz, Pictured Cliffs
11. County or Parish, State: San Juan County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposal or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days Following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Epic Energy, LLC, permanently plugged and abandoned the Cornell #3R on July 13, 2018 as follows:

Removed rods/pump and tubing from wellbore. Established injection rate w/ 20 bbls of water. Pumped a total of 240 sx (283 cf) of Class B cement. After pumping the 1st bbl of cement, dropped 36 ea. 1.3 SG ball sealers with the following 5 bbls of cement. Filled casing from perforations to surface. Pressured up to max of 500 psi. Bled off pressure and cut off well head. Topped [illegible] with ~ 2 sx (2.36 cf) Class B cement. Welded on P&A marker and placed additonal 3 sx (3.54 cf) of Class B around 7" casing and P&A marker. Removed all surface equipment. Location ready for reclamation.

Note: P&A job witnessed by Mr. Casey w/ BLM

ACCEPTED FOR RECORD
AUG 06 2018
FARMINGTON FIELD OFFICE
By:

14. I hereby certify that the foregoing is true and correct

Name *(Printed/Typed)*: John C. Thompson
Title: VP of Engineering & Operations
Signature: John C. Thompson
Date: May 29, 2018

THIS SPACE FOR FEDERAL OR STATE USE

Approved by
Title
Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Office

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. 30-045-29118
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Riggs
1. Type of Well: Oil Well ☐ Gas Well ☐ Other
8. Well Number 2
2. Name of Operator: Four Star Gas & Oil Company
9. OGRID Number 131994
3. Address of Operator: ATTN: Regulatory Specialist 332 Road 3100 Aztec, New Mexico 87410
10. Pool name or Wildcat: Blanco Fruitland Coal

4. Well Location
Unit Letter N : 1175 feet from the S line and 16401 feet from the W line
Section 4 Township 29N Range 12W NMPM County San Juan

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 5732'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

5/4/2017
Check well pressures: 2 3/8in tbg-0 psi, 5.5in csg-10 psi, BH-0 psi. Open well. RD tbg equip. RU rod equip. Unseat rod pump; LD polish rod. TOOH, LD 68 3/4in rods, 2in sinker bars, 4ft guided pony- rod pump. SWIFN.

5/5/2017
ND wellhead. NU BOP, install 2 3/8in sub, PT 2 3/8in pipe rams to 800#, test good.
Pull tbg hanger, found a chemical liner. Got a pair of clippers for bands; company rep request to cut in 10ft sections, LD.
TOOH, LD chemical line. Tally 67 jts tbg w 6ft sub, SN and MA. Round trip 5.5in string mill to 1708ft.
PU 5 1/2in CR and TIH; set CR at 1695ft. Load tbg w 6 BBLs, PT tbg to 1000#; test good. Release, sting out of CR. Est circ w 35 BBLs; pumped 45 BBLs total. PT csg to 800#; test good.
Plug 1 - PC- FRLD tops, with CR at 1695ft mix, pump 29 sxs, (34.22 cu/ft, 15.7#), Class B cement 1695ft to 1439ft TOC.
LD tbg to 584ft, est circ w 2 BBLs.
Plug 2 - Kirtland, Surface Csg. Shoe, Ojo Alamo tops, spot 47 sxs, (55.46 cu/ft, 15.6#), Class B cement 584ft to 169ft TOC.
LD remaining tbg. SWIFN.

OIL CONS. DIV DIST. 3
MAY 23 2017

5/8/2017
RU WL. Perf 3 squeeze holes @ 100ft. Est circ out BH w 1 BBL; pump 5 BBLs total. RD WL. RD tbg equip. ND BOP. NU WH.
Plug 3 - Surface, mix and pump 45 sxs, (53.1 cu/ft, 15.5#), Class B cement 100ft to 0ft, w/12 sxs csg, 33 sxs annulus, good cement returns out BH. RDMO.

Spud Date:

Rig Release Date: PNR only

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE April E. Pohl TITLE Permitting Specialist DATE 5/23/2017

Type or print name April E. Pohl E-mail address: April.Pohl@chevron.com PHONE: 505-333-1941

For State Use Only
APPROVED BY: TITLE Deputy Oil & Gas Inspector, District #3 DATE 9/15/17
Conditions of Approval (if any): AV

Riggs #2

As Plugged 5/8/17

Basin Fruitland Coal

1175' FSL, 1640' FWL, Section 4N, T-29-N, R-12-W

San Juan County, NM, API #30-045-29118

Today's Date: 1/20/17
Spud: 6/28/94
Completed: 6/30/94
Elevation: 5732' GL
5747' KB

Plug #3: 100' – 0'
Class B cement, 45 sxs

Perforate @ 100'

2013 Workover: Cut 31' of 6.5" and replaced casing and inserted patch

TOC @ 150' ('94 CBL)

12 25" hole

8-5/8" 24#, J-55 Casing set @ 270'
Cement with total 210 sxs, circulated

Ojo Alamo @ 410'

Kirtland @ 530'

Plug #2: 584' – 169'
Class B cement, 47 sxs

Plug #1: 1695' – 1439'
Class B cement, 29 sxs

Fruitland @ 1544'

Set cement retainer @ 1695'

Fruitland Coal Perforations
1745' – 1780'

Pictured Cliffs @ 1794'

7.875" hole

5.5", 15.5#, J-55 Casing set @ 1882'
Cement with 265 sxs

TD 1890'
PBTD 1842'

RECEIVED

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 28 2017

Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

OIL CONS. DIV DIST. 3

APR 03 2017

1. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other	5. Lease Serial No. NM014375
2. Name of Operator: Riggs Oil and Gas Corp.	6. If Indian, Allottee or Tribe Name
3a. Address: 1690 N. Butler Ave, Farmington, NM 87401	3b. Phone No. *(include area code)*: 505-324-9881
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*: 1870 FNL & 1890 FWL Sec 24 T29N R11W	7. If Unit of CA/Agreement, Name and/or No.
	8. Well Name and No. Federal #1
	9. API Well No. 30-045-08804
	10. Field and Pool or Exploratory Area: Fulcher Kutz PC/FtC
	11. Country or Parish, State: San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☑ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Riggs Oil & Gas has plugged this well per the attached sheet

ACCEPTED FOR RECORD
MAR 29 2017
FARMINGTON FIELD OFFICE
BY: [signature]

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*: Thomas J. Smith — Title: Agent

Signature: Thomas J. Smith — Date: 03/28/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

3

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Riggs Oil & Gas Corp.
Federal #1

February 9, 2017

1670' FNL and 1690' FWL, Section 4, T-29-N, R-12-W
San Juan County, NM
Lease Number: NM-014375
API #30-045-08804

Plug and Abandonment Report
Notified NMOCD and BLM on 2/6/17

Plug and Abandonment Summary:

Plug #1 Pictured Cliffs and Fruitland tops and perforations, below CR at 1180', with 152 sxs Class B cement (15.4 ppg, 179.36 cf) from 1788' to 1180'; no tag required, no cement above CR.
Plug #2 Ojo Alamo and Kirtland tops, with SQZ holes at 562' and CR at 512', mix and pump 164 sxs Class B cement (15.6 ppg, 193.52 cf), from 562' to 202', with 122 sxs in annulus, 6 sxs below CR and 36 sxs above CR.
Plug #3 Surface casing shoe, with SQZ holes at 152', inside outside, with 73 sxs Class B cement (15.5 ppg, 86.14 cf) from 152' to surface with 18 sxs in 5-1/2" casing and 55 sxs in annulus; install P&A marker with coordinates Long: 36° 45.466' N / Lat: 108° 6.404' W.

Plugging Work Details:

2/6/17 MIRU. Check well pressures: SITP (1") 90 PSI, SITP (1-1/4") 90 PSI, SICP 90 PSI, SIBHP 0 PSI. Blow down well. Work wellhead cap loose. Attempt to pull on 1" string unable to pull slips, work 1" slips cap free. Pulled 1" tubing found the tubing was hanging up, worked tubing free. Strip on and NU BOP. TOH and LD 75 jnts, 1" line tubing, last joint had parted pin on bottom. SIFN.

2/7/17 Check well pressures: SITP 85 PSI, SICP 85 PSI, SIBHP 0 PSI. Blow down well. RU 2-3/8" sub to tubing hanger. Pull 1-1/4" tubing to 8K attempt to release packer, leave 8K pulled on packer for 45 minutes. Attempt to work packer free, unable. *Note:* Tom Smith, Riggs O&G, received approval from BLM and NMOCD on procedure change. RU A-Plus wireline. Attempt to RIH with 1-1/4" GR, unable to pass to 1033'. POH. Pumped 10 bbl. water down 1-1/4" tubing while pulling 5K tension. Leave in tension. Attempt to RIH with 1" bar, unable to get passed 1365'. POH. Wait on orders. *Note:* Tom Smith, Riggs O&G, received approval from BLM and NMOCD on procedure change. RIH with 1-1/4" jet to 1180', cut tubing, ROH. Pull tubing hanger. TOH and LD 3 - 3' and 1 - 4' sub, 38 jnts, and 25' cut jnt of 1-1/4" tubing IJ. SIFN.

2/8/17 Check well pressures: no tubing, SICP 85 PSI, SIBHP 0 PSI. Blow well down. Tally A-Plus 2-3/8" tubing workstring. PU 5-1/2" WD CR and set at 1180'. Pressure test tubing to 1000 PSI, OK. Circulate casing clean with 40 bbl. water. Pressure test casing to 800 PSI, OK. **Spot plug #1** with calculated TOC at 1180'. RU A-Plus wireline. Run CBL from 1180' to surface, found TOC at 982'. *Note:* Tom Smith, Riggs O&G, received approval from BLM and NMOCD on procedure change. RU A-Plus wireline. Perforate squeeze holes at 562'. Pump down casing and establish circulation out bradenhead valve at a rate of 2.5 BPM at 500 PSI. PU 5-1/2" WD CR and set at 512'. **Spot plug #2** with calculated TOC at 202'. *Note:* During plug circulation out bradenhead slowly started dying down to a stream; when 130 sxs pumped away, Darrin Halliburton with BLM approved to stop plug and cover the Ojo Alamo and Kirtland. TOH. SI well. SIFN.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (continued):

2/9/17 Check well pressures; no tubing, 0 SICP, bradenhead on vacuum. RU A-Plus wireline. RIH and perforate 4 HSC squeeze holes at 152'. Pump down casing with fresh water and establish circulation out bradenhead valve. ND BOP, NU WH. Re-establish circulation. **Spot plug #3** with TOC at surface. Dig out wellhead. *Note:* Darren Halliburton, BLM, request to WOC surface. RU A-Plus cut off. Cut off wellhead. Found cement down 2' in 5-1/2" casing and in 5-1/2" x 8-5/8" annulus. *Note:* Darren Halliburton, BLM, approved to weld on casing cap and P&A marker. Install P&A marker with coordinates 36° 45.466' N / 108° 6.404' W. RD and MOL.

Tom Smith, Riggs O&G representative, was on location.
Darren Halliburton, BLM representative, was on location.

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM014375

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
14080018221

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
CORNELL A 1E

2. Name of Operator
BP AMERICA PRODUCTION COMPANY
Contact: TOYA COLVIN
E-Mail: Toya.Colvin@bp.com

9. API Well No.
30-045-24132-00-S1

3a. Address
501 WESTLAKE PARK BLVD. THREE ELDRIGE PLACE
HOUSTON, TX 77079

3b. Phone No. (include area code)
Ph: 281 892 5369

10. Field and Pool or Exploratory Area
BASIN DAKOTA

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 10 T29N R12W SESW 0910FSL 1760FWL
36.736191 N Lat, 108.088867 W Lon

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
BP	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Please see the attached P&A operations performed on the subject well January 2018.

14080018221

OIL CONS. DIV DIST. 3

FEB 13 2018

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #402766 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington
Committed to AFMSS for processing by JACK SAVAGE on 02/07/2018 (17AE0306SE)

Name *(Printed/Typed)* TOYA COLVIN — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 01/31/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — Title JACK SAVAGE PETROLEUM ENGINEER — Date 02/07/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Farmington

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOCD PV

6

BP America Production Co.

Plug And Abandonment End Of Well Report

Cornell A 1E

910' FSL & 1760' FWL, Section 10, T29N, R12W

San Juan County, NM / API 30-045-24132

Work Summary:

1/12/18	Made BLM, and NMOCD P&A operations notifications at 9:00 AM MST.
1/15/18	MOL and R/U P&A unit. Checked well pressures: Tubing: N/A, Casing: 10 psi, Bradenhead: 80 psi. Blew down well. N/D wellhead and N/U BOP. P/U 3500' of tubing with casing scraper and bit off of tubing float. Shut-in well for the day.
1/16/18	Checked well pressures: Tubing 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Blew down well. TIH with casing scraper to 5960' and tagged hard scale. Rotated through 20' of scale and stopped making headway with casing scraper. TOH and P/U string mill. TIH and swivel-up to start milling tight spot on 1-17-18.
1/17/18	Milled 90' of hard scale down to top perforation at 6127'. Circulated bottoms up and TOH with mill. **P/U CR, TIH and set at 6077'.** Loaded tubing with 25 bbl of fresh water and pressure tested to 1000 psi in which it successfully held pressure. Stung out of CR and circulated hole with 100 bbl fresh water until returns were clean. Attempted to pressure test casing to 800 psi in which it failed to hold adequate pressure. R/U cementing services and pumped balanced **Plug #1: (Dakota Perforations and Formation Top 6077'-5846', 24 Sacks Class B Cement)** Mixed 24 sx Class B cement and spotted a balanced plug to cover Dakota perforations and formation top. R/D cementing services and shut-in well for the day. WOC overnight. Ron Chavez was BLM inspector on location.

1/18/18 TOH, L/D stinger and P/U cementing sub. TIH with cementing sub and tagged plug #1 top at 5846'. Pressure tested casing to 800 psi in which it failed to hold adequate pressure. Pumped plug #2 at 5330' **Plug #2: (Gallup Formation Top 5330'-5066', 20 Sacks Class B Cement)** Mixed 20 sx Class B cement and spotted a balanced plug to cover Gallup formation top. WOC 4 hours. TIH and tagged plug #2 top at 5066'. PUH and pumped plug #3 at 4418'. **Plug #3: (Mancos and Pt. Lookout Formation Tops 4418'-3907', 52 Sacks Class B Cement)** Mixed 52 sx Class B cement and spotted a balanced plug to cover Mancos and Pt. Lookout formation top. Shut-in well for the day. WOC overnight. Ron Chavez was BLM inspector on location.

1/19/18 TIH and tagged plug #3 top at 3907'. TOH with tubing and R/U wireline services. Ran CBL from top of plug #3 at 3907' to surface. CBL results showed no cement behind casing from 3675' to surface. R/U wireline services. RIH and perforated squeeze holes at 3294'. TIH with CR and set at 3244'. Stung out of CR and pressure tested casing to 800 psi in which it failed to hold pressure. **Plug #4: (Mesa Verde(Cliffhouse)Formation Top 3294'-3074', 66 Sacks Class B Cement)** RIH with 4-1/2" CR and set at 3244'. Mix 66 sx Class B cement. Squeezed 50 sx outside casing leaving 16 sx inside casing to cover Mesa Verde(Cliffhouse) formation top. TOH with tubing. Shut-in well for the day. WOC overnight. Ron Chavez was BLM inspector on location.

1/22/18 TIH with cementing sub and tagged cement at 3074'. TOH and R/U wireline services. RIH and perforated squeeze holes at 2705'. P/U CR, TIH and set at 2655'. Stung out of CR and pressure tested casing to 800 psi in which it failed to hold pressure. **Plug #5: (Chacra Formation Top 2705'-2553', 50 Sacks Class B Cement)** Mix 50 sx Class B cement. Squeezed 43 sx outside casing leaving 7 sx inside casing to cover Chacra formation top . WOC 4 hours. TIH with cementing sub and tagged cement at 2553'. Pressure tested casing to 800 psi in which it successfully held pressure. Pressure test witnessed by BLM inspector Ron Chavez. Shut-in well for the day.

1/23/18 TOH with tubing. R/U wireline services. RIH and perforated squeeze holes at 1773'. P/U CR, TIH and set at 1722'. R/U cementing services for 1-24-18. Shut-in well for the day.

1/24/18 R/U cementing services and pumped **Plug #6: (Pictured Cliffs Formation Top 1773'-1573', 74 Sacks Class B Cement)** RIH and perforate 3 squeeze holes at 1773'. RIH with 4-1/2" CR and set at 1722'. Mix 74 sx Class B cement. Squeezed 62 sx outside casing leaving 12 sx inside casing to cover Pictured Cliffs formation top. R/U wireline services. RIH and perforated squeeze holes at 1339'. P/U CR, TIH and set at 1286'. R/U cementing services and pumped **Plug #7:**

(Fruitland Formation Top 1339'-1189', 77 Sacks Class B Cement). RIH with 4-1/2" CR and set at 1286'. Mix 77 sx Class B cement. Squeezed 65 sx outside casing leaving 12 sx inside casing to cover Fruitland formation top. Put pressure gauge on Bradenhead and monitored for 2 hours. R/U wireline services. RIH and perforated at 467'. Circulated 54 bbls of cement around Bradenhead and got good cement returns to surface. N/D BOP and cut-off wellhead. Ran tally tape down hole and tagged cement at 11' inside surface casing, and 45' down in production casing. RIH with 1" poly pipe and topped well off with 36 sx of cement- **Plug #8: (Kirtland, Ojo Alamo Formation Tops, Surface Shoe 467'-surface, 90 Sacks Class B Cement, 36 Sacks for top-off)** Installed P&A marker per BLM regulations. Ron Chavez was BLM inspector on location. R/D MOL.

Wellbore Diagram

Cornell A 1E
API #: 3004524132
San Juan, New Mexico

Plug 8
467 feet - Surface
467 feet plug
90 sacks of Class B Cement
(Top off with 36 sacks)

Plug 7
1339 feet - 1189 feet
150 feet plug
Squeeze 65 sacks through perfs
Leave 12 sacks in casing

Plug 6
1773 feet - 1573 feet
200 feet plug
Squeeze 62 sacks through perfs
Leave 12 sacks in casing

Plug 5
2705 feet - 2553 feet
152 feet plug
Squeeze 43 sacks through perfs
Leave 7 sacks in casing

Plug 4
3294 feet - 3074 feet
220 feet plug
Squeeze 50 sacks through perfs
Leave 16 sacks in casing

Plug 3
4418 feet - 3907 feet
511 feet plug
52 sacks of Class B Cement

Plug 2
5330 feet - 5066 feet
264 feet plug
20 sacks of Class B Cement

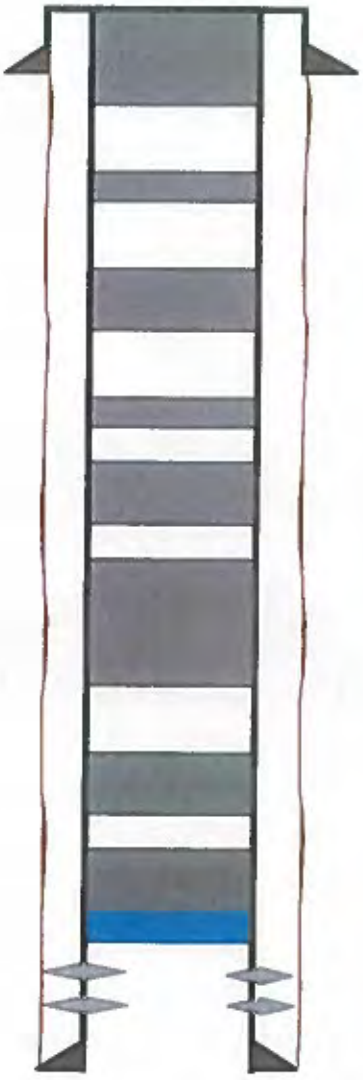
Plug 1
6077 feet - 5846 feet
231 feet plug

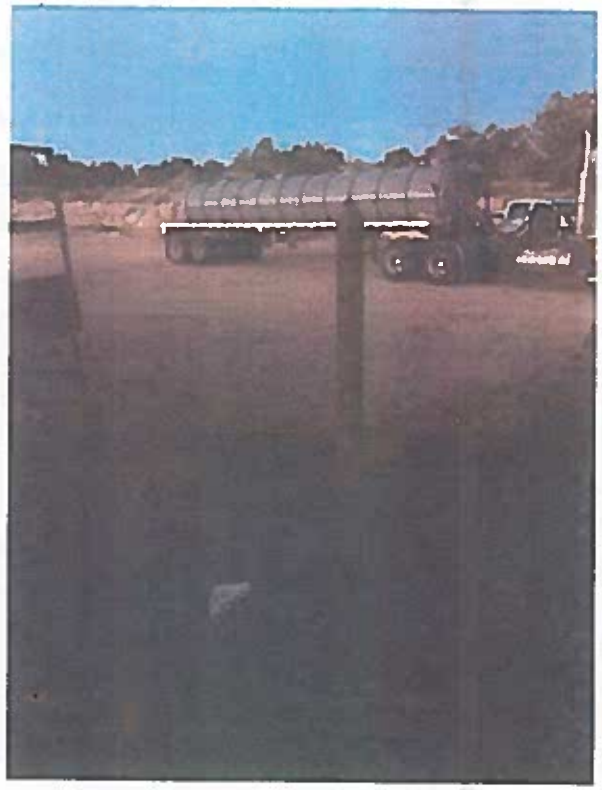
Surface Casing
8.625" 24# @ 300 ft

Formation
Ojo Alamo - 300 feet
Pictured Cliffs - 1660 feet
Lewis - 1840 feet
Cliffhouse -3250 feet
Menefee - 3320 feet
Point Lookout -402 feet
Mancos - 4400 feet
Gallup - 5300 feet
Greenhorn - 6060 feet
Dakota - 6170 feet

Retainer @ 6077 feet

Production Casing
4.5" 10.5# @ 6370 ft





OCD Received
6/25/2020

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM014375

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM121816

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: COAL BED METHANE

8. Well Name and No.
BECK 29-12-10 108

2. Name of Operator
SYNERGY OPERATING, LLC
Contact: GLEN PAPP
E-Mail: gpapp@synergyoperating.com

9. API Well No.
30-045-34452-00-S1

3a. Address
FARMINGTON, NM 87499

3b. Phone No. (include area code)
Ph: 505-599-4908 Ext: 1582
Fx: 505-599-4900

10. Field and Pool or Exploratory Area
BASIN FRUITLAND COAL

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 10 T29N R12W SESW 1165FSL 1510FWL
36.737107 N Lat, 108.090304 W Lon

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
BP	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Synergy Operating LLC has completed the plugging of the wellbore.

Attached in a separate file are the follow documents:

1) Daily reports of the downhole plugging operations
2) An as plugged wellbore schematic

The surface production facilities belonging to Synergy Operating have also been removed. Synergy is waiting on Enterprise Products to remove their meter run in order to begin the surface reclamation operations.

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #515895 verified by the BLM Well Information System
For SYNERGY OPERATING, LLC, sent to the Farmington
Committed to AFMSS for processing by JOE KILLINS on 05/28/2020 (20AMW0114SE)

Name *(Printed/Typed)* GLEN PAPP — Title OPERATIONS MANAGER / PARTNER

Signature (Electronic Submission) — Date 05/19/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — JOE KILLINS Title ENGINEER — Date 05/28/2020

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office Farmington

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

AV

Synergy Operating, LLC

Beck 29-12-10 # 108
1165' FSL & 1510' FWL, Section 10
T29N, R12W, San Juan County, NM

Notified BLM & NMOCD (Brandon Powell) prior to MIRU

April 23, 2020

MIRU A Plus Rig #9. Spot plugging equipment.

April 24, 2020

TOOH & LD 3/4" rods and pump. ND WH, NU BOPE & Function Test. TOOH tallying 2-3/8" tbg. TIH w/ 2-3/8" tbg to 1715'. Est. circ w/ 45-Bbls FW. Mix & pump **Plug #1**, 1715'-1450', 30-sxs Cl 'G' cmt w/ 2% $CaCl_2$ @ 15.8 PPG, 1.15-ft^3/sx, 34.5-ft^3, 6.1-Bbls slurry & displace w/ FW. TOOH. WOC. PT BH - failed. TIH & tag TOC @ 1450'. Est. circ w/ 5-Bbls FW. PT 5-1/2" csg to 500# - failed. PUH to 1266'. Mix & pump **Plug #2**, 1266'-1050', 32-sxs Cl 'G' cmt w/ 2% $CaCl_2$ @ 15.8 ppg, 1.15-ft^3/sx, 36.8-ft^3, 6.5-Bbls slurry & displace w/ FW. TOOH w/ 2-3/8" tbg. SI well & WOC over weekend.

April 27, 2020

TIH & tag TOC @ 1050'. Est circ w/ 3-Bbls FW. PT 5-1/2" csg for 30-minutes-PT held. Attempt to PT BH, had small leakoff. BLM/NMOCD decided not to shoot perfs but rather top off BH w/ cmt using 1" polypipe. Mix & pump **Plug #3**, 550' - 73', 55-sxs Cl 'G' cmt @ 15.8 PPG, 1.15 ft^3/sx, 63.25-ft^3, 11.26-Bbls slurry. TOOH laying down all 2-3/8" tbg. ND BOP. Cut-off WH. Run 1' polypipe inside 5-1/2" csg & find TOC @ 80', run 1" polypipe in 8-5/8" x 5-1/2" annulus and find TOC @ 75'. Install dry hole marker. Mix & pump **Plug #4**, 40-sxs Cl 'G' cmt @ 15.8 PPG, 1.15-ft^3/sx, 46-ft^3, 8.2-Bbls slurry (10-sxs inside 5-1/2" csg, 16-sxs in 8-5/8" x 5-1/2" annulus, 14-sxs in cellar). RD A Plus rig #9.

See attached post plugging wellbore diagram.

BLM Representative on location: Jimmie Dobson

Beck 29-12-10 #108

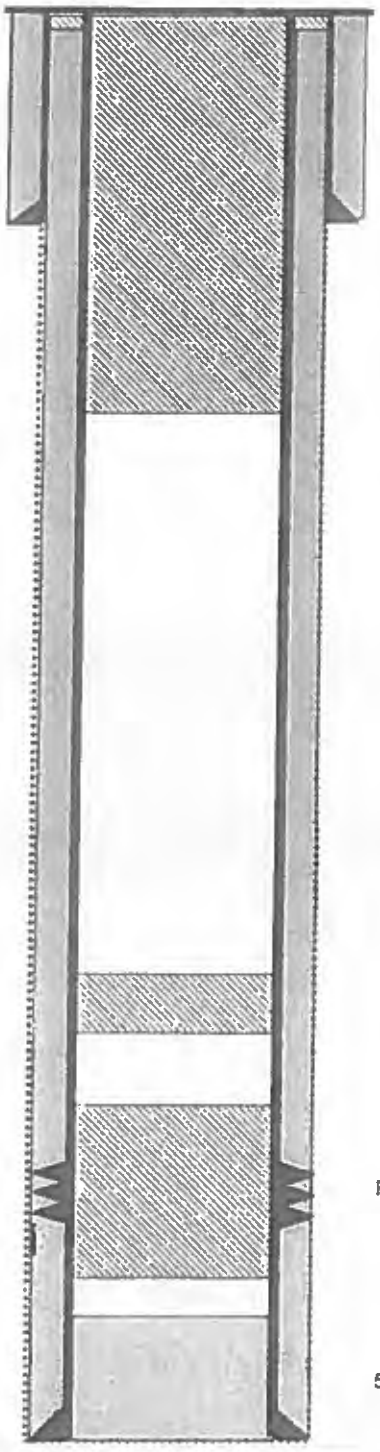
As Plugged 4/27/20

Basin FtC

1165' FSL & 1510' FWL, Section 10, T29N, R12W

San Juan County, NM, API #30-045-34452

Today's Date: 11/15/19
Spud: 2/20/08
Completed: 5/20/08
Elevation: 5603' GL



12-1/4" hole

8-5/8" 24# K-55 Casing set @ 208'
Cement with 142 sxs, circulated to surface.

Plug #4: 80' – 0'
Class G cement, 40 sxs

Plug #3: 550' – 73'
Class G cement, 55 sxs
Tag TOC @ 80 in 5.5"
And 75' in 8-5/8"

Ojo Alamo @ 329'

Kirtland @ 410

Fruitland @ 1124'

Plug #2: 1266' – 1000'
Class G cement,32 sxs
w/2% CaCl2
Tag TOC @ 1050'

Plug #1: 1715' – 1457'
Class G cement, 30 sxs
w/2% CaCl2
Tag TOC @ 1450'

Fruitland Coal Perforations:
1622' – 1657'

Pictured Cliffs @ 1660'

5 5",15.5#, J-55 Casing set @ 1853'
Cement with 280 sxs, circulated

7-7/8" hole

TD 1865'
PBTD 1832'

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMSF065557A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
SW97

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
CORNELL E 1

2. Name of Operator
BP AMERICA PRODUCTION COMPANY
Contact: TOYA COLVIN
E-Mail: Toya.Colvin@bp.com

9. API Well No.
30-045-08444-00-S1

3a. Address
501 WESTLAKE PARK BLVD. THREE ELDRIGE PLACE
HOUSTON, TX 77079

3b. Phone No. (include area code)
Ph: 281.892.5369

10. Field and Pool or Exploratory Area
BASIN DAKOTA

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 12 T29N R12W SWSW 0790FSL 0900FWL
36.735352 N Lat, 108.055862 W Lon

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Please see the attached P&A operations performed on the subject well June 2017.

OIL CONS. DIV DIST. 3

JUL 20 2017

14. I hereby certify that the foregoing is true and correct
Electronic Submission #381260 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington
Committed to AFMSS for processing by ABDELGADIR ELMADANI on 07/18/2017 (17AE0211SE)

Name *(Printed/Typed)* TOYA COLVIN — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 07/13/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — ABDELGADIR ELMANDANI, Title PETROLEUM ENGINEER — Date 07/18/2017

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office Farmington

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOCD

5

BP AMERICA
PRODUCTION
COMPANY

Cornell E #1
API:30-045-08444

Well Plugging Report

Work Detail

06/15/2017

Travel to location.
Service and start equipment. Held JESA.
LOTO with Ernie Cardin, BP representative. Spot in and RU rig. Check pressures: SITP 40#, SICP #160, SIBHP 25#.
Lay out relief lines to pit and blow well down. Note: casing and tubing blew down immediately; then tubing starting flowing back heavy drilling mud. Pump 30 bbls down tubing and casing started flowing after pumping 1 bbl.
ND WH. NU BOP and tongs.
PU on tubing and TOH with total 204 joints 2-3/8" EUE tubing, 2 - 6' and 1-8' subs. Total tally 6356'. Note: first 30 stands flowing water; used witches hat to catch the water.
PU 4.5" string mill and TIH to 4000'. SI well. SDFD. Secure location.
Travel back to yard.

06/16/2017

Travel to location.
Service and start equipment. Held JESA.
Check well pressures: SITP and SICP 160#,SIBHP 15#. Well blew down immediately. Function test pipe rams. Finish TIH w/mill to 6300'. TOH and LD mill.
PU 4.5 WD cement retainer and TIH; set at 6288'. P/T tbg to 1500#,held OK. Sting out of CR. Circulate casing clean with 120 bbls of water. Note: circulated drilling mud in returns. Attempt to P/T 4.5" csg; bled down from 750-500 in 2 minutes. Establish injection rate 1.5 bpm at 750#.
Plug #1 with CR at 6288' spot 14 sxs (16.52 cf) Class B cement 15.6# from 6288 to 6160 to cover the Dakota perforations and top. TOH with tubing and LD setting tool.
Held JSEA. Run CBL from 6050 to surface; send to all appropriate personnel.

06/21/2017

Rode rig and spot equipment to location.
JSEA. RU rig and equipment.
Check well pressures: SITP 460#,SICP 420# SIBHP 15#. Lay out relief lines to pit and blow down well in 1 minute. NU BOP and floor. TIH with tubing and tag Plug #1 low at 6253' (Note: CR set at 6288').
Pump 20 bbls ahead. Pump Plug #1a with 14 sxs 15.6# Class B cement (16.52 cf) from 6253-6153; estimated TOC 6072'.
TOH with tubing. SI well and WOC overnight.
Travel back to yard.

06/22/2017

Travel to location
Service and start rig, JSEA

Check well pressures: SITP 500#,SICP 400# SIBHP 15#. Blow down in about 30 seconds. TIH and tag plug #1a low at 6253'. Plug #1b with 32 sxs (37.76 cf) with 2 % calc. 15. 6# Class B cement from 6253 to 5839'.
TOH with tubing. SIW and WOC.
TIH and tag plug #1b at 5990'. Attempt to PSI test casing, same bleed off. TOH with tubing.
JSEA. Perforate 3 3-1/" HSC squeeze holes at 5534'.
PU WD 4.5" cement retainer; TIH and set CR at 5484'. Sting out. Load csg with 1 bbl. Attempt to PSI test casing; established injection rate 1.5 bpm at 750 psi. Sting in and establish injection rate 1.5 bpm at 1000 psi.
Plug #2 (Gallup) with 51 sxs (60.18 cf) 15.6# Class B cement from 5534' – 5362'; squeeze 39 sxs outside, 4 sxs below CR and 8 sxs above . TOH and WOC overnight.
Travel back to yard.

06/23/2017

Travel to loc.
Service and start equipment. JSEA.
Check well pressures: SICP 430#,SITP 480#,SIBHP 15#. Blow down well to pit. TIH with tbg and tag TOC at 5362'. LD tubing. Attempt to pressure test csg, test failed. TOH.
JSEA. Perforate 3 3-1/8" squeezes holes at 4630'.
PU 4.5" WD cement retainer and TIH; set CR at 4577'. Sting out and attempt to pressure test casing; same leak. Sting in and establish rate 1.5 BPM at 750#.
Plug #3 (Mancos) with 51 sxs (60.18 cf) with 2% CaCl2 15.6# Class B cement from 4630'-4473'; squeeze 39 sxs outside,4 sxs below CR,8 sxs on top. PUH. SI well. WOC (cut and slip tubing line).
TIH and tag Plug #3 at 4473'. Attempt to pressure test casing, same leak. PUH. Perforate 3 3-1/8" HSC squeeze holes at 3500'.
PU WD 4.5"cement retainer and TIH; set CR at 3457'. Attempt to pressure test csg above CR; same leak. Sting in and establish rate 1.5 BPM at 750#. Plug #4 (Mesaverde) with 51 sxs (60.18 cf) 15.6# Class B cement 3500'-3336'. TOH. SIW and WOC over weekend. Secure well.
Travel back to yard

06/26/2017

Travel to location.
Check well pressures: Tbg and Csg 0# and bradenhead 15#. TIH and tag cement at 3336'. Pressure test 4.5 csg to 800#, held OK. TOH and LD setting tool.
JSEA. Perforate 3 3-1/8" HSC squeeze holes at 2946'. Establish injection rate 1.5 BPM at 900#
PU 4.5" WD CR and TIH; set CR at 2895'. Plug #5 (Chacra) mix 51 sxs (60.18 cf) 15.6# Class B cement from 2946' to 2846'; squeeze 39 sxs outside, 4 sxs below CR and 8 sxs on top.
LD tbg to 1930'. Plug #6 (PC) spot 39 sxs (46.02 cf) 15. 6# Class B cement from 1930' to 1427'. LD tbg to 1427'and reverse circulate csg clean w/15 bbls.
POOH w/22 stands and LD setting tool
JSEA. Perf 3 3-1/8" at 1405'. Establish injection rate 2BPM at 750#.
PU WD CR and TIH; set at 1365'. Plug #6A (Fruitland) mix 51 sxs (60.18 cf) 15.6# Class B cement from 1405'-1305'; squeeze 39 sxs, outside,4 sxs below CR,8 sxs on top.
TOH and LD setting tool. JSEA. Perforate 3 3-1/8" HSC squeeze holes at 750'. Establish rate 2 BPM at 500#.
PU 4.5" WD CR and TIH; set at 700'. Plug #7 (Kirtland and Ojo Alamo tops) mix 134 sxs (158.12 cf) 15.6# Class B cement from 750' to 470'; Squeeze 108 sxs outside,4 sxs below CR,22 sxs on top.
TOH and LD setting tool.
JSEA. Perforate 3 3-1/8" HSC squeeze holes at 301'. Establish circulation and

circulate clean with 25 bbls.
ND BOP. NU wellhead. Plug #8 (Surface) mix 105 sxs (123.9 cf) 15.6# Class B cement from 301 to surface; circulate good cement out bradenhead. SI BH and squeeze 10 sxs. SI well with 500# pressure. Wash up equipment and WOC overnight.
Travel back to yard.

06/27/2017

Service and start equipment. JSEA. Open up well; no pressures. RD Floor. ND wellhead and tag TOC in 4.5 csg at 9'. Dig out wellhead.
JSEA. Monitor wellhead. Write Hot Work Permit. Cut off wellhead with air saw. Tag TOC in 4.5 at 6' and in annulus at 5'. No top-off required per John Hagstrom, BLM representative on location. Weld on plate and P&A Marker.
Rig down Pump Truck and Rig. Clean up location. MOL.

Darrell Priddy and John Hagstrom, BLM representatives, were on location and approved all procedure changes.

Cornell E 001
Proposed P&A

Basin Dakota

790' FSL & 900' FWL, Section 12M, T-29-N, R-12-W , San Juan County, NM

API 30-045-08444

Today's Date: 1/31/17

Spud: 9/28/62
Comp: 10/11/62
Elevation: 5689' GI
5701' KB

12-1/4" hole

8-5/8", 24#, J-55 Casing set @ 251'
Cement with 200 sxs, circulated

Perforate @ 301'

Plug #8: 301' – 0'
Class B cement, 105 sxs, 123.9 cf, 15.6#. Squeeze 10 sxs. Tag 6' insdide and 5' in annulus.

Ojo Alamo @ 585'

Kirtland @ 700'

Set CR @ 700'

Perforate @ 750'

Plug #7: 750' – 470'
Class B cement, 134 sxs, 158.12 cf, 15.6#. 108 sxs outside, 4 sxs below, 22 sxs above

Set CR @ 1365'

Perforate @ 1405'

Plug #6a: 1405' – 1305'
Class B cement, 51 sxs, 60.18 cf, 15.6#. 39 sxs outside, 4 sxs below, 8 sxs above

TOC unknown, did not circulate

Plug #6: 1930' – 1427'
Class B cement, 39 sxs, 46.02 cf

Fruitland @ 1355'

Pictured Cliffs @ 1865'

DV Tool @ 1957'
2nd Stage: Cement with 50 sxs

Set CR @ 2895'

Perforate @ 2946'

Plug #5: 2946' – 2846'
Class B cement, 51 sxs, 60.18 cf, 15.6#. 39 sxs outside, 4 sxs below, 8 sxs above.

Chacra @ 2896'

Set CR @ 3457'

Perforate @ 3500'

Plug #4: 3500' - 3336'
Class B cement, 51 sxs, 60.18 cf, 15.6#. 39 sxs outside, 4 sxs below, 8 sxs above. Tag 3336'.

Mesaverde @ 3450'

Set CR @ 4577'

Perforate @ 4630'

Plug #3: 4630' – 4473'
Class B cement, 51 sxs, 60.18 cf, 15.6#. 39 sxs outside, 4 sxs below, 8 sxs above. Tag 4473'

Mancos @ 4580'

Set CR @ 5484'

Perforate @ 5534'

Plug #2: 5534' – 5362'
Class B cement, 51 sxs, 60.18 cf, 15.6#. 39 sxs outside, 4 sxs below, 8 sxs above. Tag 5362'

Gallup @ 5484'

7.875" hole

TOC unknown, did not circulate

Set CR @ 6288'

Plug #1b: 6253' – 5990'
Class B cement, 32 sxs, 37.76 cf, 15.6#. Tag TOC at 5990'

Dakota @ 6210'

Dakota Perforations:
6338' – 6446'

Plug #1a: 6253' – 6253'
Class B cement, 14 sxs, 16.52 cf, 15.6#

Plug #1: 6288' – 6253'
Class B cement, 14 sxs, 16.52 cf, 15.6#

TD 6110'
PBTD 6073'

4.5", 9.5#, J-55 Casing set @ 6546'
1st Stage: Cement with 60 sxs

RECEIVED
MAY 03 2017
Farmington Field Office
Bureau of Land Management

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

5. Lease Serial No.: **SF-076465**

6. If Indian, Allottee or Tribe Name:

7. If Unit of CA/Agreement, Name and/or No.:

1. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other

8. Well Name and No: **Cornell SRC 4**

2. Name of Operator: **Burlington Resources Oil & Gas Company LP**

9. API Well No: **30-045-08528**

3a. Address: **PO Box 4289, Farmington, NM 87499**

3b. Phone No. (include area code): **(505) 326-9700**

10. Field and Pool or Exploratory Area: **Fulcher Kutz Pictured Cliffs**

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*: **Surface Unit K (NESW), 2200' FSL & 1980' FWL, Sec. 12, T29N, R12W**

11. Country or Parish, State: **San Juan, New Mexico**

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[ ] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
[X] Subsequent Report	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[ ] Change Plans	[X] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation. Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

3/22/2017 - Contacted AG/BLM & Brandon Powell/OCD to update that the 3 1/2" csg can not be pulled per procedure as it appears to be welded inside the 4 1/2" WH. The 3 1/2"x5 1/2" annulus was hot-tapped 3/21/17 & there is no pressure.
3/24/2017 #1- Contacted Brandon Powell/OCD to request permission to decrease excess to 50%. Rec'vd verbal OK.
3/24/2017 #2 - Contacted Jack Savage/BLM & Brandon Powell/OCD re tagged plug, TOC @ 672'. Propose to D/O to approx. 780'; perf @ 770'. Rec'vd verbal OK.
3/29/2017 - Contacted Brandon Powell/OCD re tagged top of Ojo plug @ 510', proposed not topping it off. Rec'vd verbal OK.

The subject well was P&A'd on 3/30/2017 per the notifications above and the attached report.

OIL CONS. DIV DIST. 3

MAY 18 2017

ACCEPTED FOR RECORD

MAY 15 2017

FARMINGTON FIELD OFFICE

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*: **Dollie L. Busse**

Title: **Regulatory Technician**

Signature: Dollie L. Busse

Date: 4/28/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCD

Printed on 4/7/2017

PLUS WELL SERVICE SINCE 1992

P.O. Box 1979, Farmington, NM 87499
(505) 325-2627

Burlington Resources
P.O. Box 2200
Bartlesville, OK 74005

Name: Cornell SRC 4
API:30-045-08528

Well Plugging Report

Cement Summary

Plug #1 - (PC) with CIBP at 1855' spot 12 sxs (14.16 cf 15.7 PPG) Class B cement inside casing from 1855' to 1477' TOC. (Rev. TOC @ 1621') (BT #221=12sk)
Plug #2 - (Ft) mix and pump 50 sxs (59 cf 15.7 PPG) Class B cement; squeeze 32 sxs outside casing and leave 18 sxs inside casing from 1593' to 1026' TOC. (BT #221=50sk)
Plug #3 - (Kt) (Kt) mix and pump 91 sxs (107.38 cf 15.7 PPG) Class B cement, squeeze 84 sxs outside casing and leave 7 sxs inside casing from 770' to 600'. (BT #221=91sk)
Plug #3A - (Kt) Spot 12 sxs (14.16 cf 15.5 PPG) Class B cement inside casing from 723' to 433' TOC. (BT #221)
Plug #4 - (Ojo Alamo) spot 154 sxs (181.72 cf 15.8 PPG) Class B cement inside casing from 612' to 443' TOC. SI w/ 400# PSI and WOC overnight.
Plug #5 - (Surface) MSurface) spot 16 sxs (18.88 cf 15.7 PPG) Class B cement from 130' to 0' good cmt returns out casing valve. (BT #221=16sk)
P&A marker - mix and pump 40 sxs (47.2 cf) to top off casings and set P&A marker. (BT #221=40sk)

Work Detail

PUX	Activity
03/22/2017	
P	Rode rig and equipment to location.
P	Spot in rig and equipment on location. Note: small location.
P	RU day light pulling unit. Perform Start Well/LOTO. Spot in equipment.
P	Check well pressures: tubing and casing 22 psi, intermediate casing 0 PSI. Note: No valve on B.H. RU relief lines and blow down well.
P	ND companion flange. NU WSI companion flange and BOP. Change over to 2 1/6" tubing equipment. Pull tubing hanger.
P	SI well. Secure location. Debrief. SDFD.
P	Travel back to yard.
03/23/2017	
P	Travel to location.
P	HSM on JSA. Service and start equipment.
P	Check well pressures: casing and tubing 22 psi, intermediate casing 0 PSI. Note: No valve on B.H. RU relief lines and blow well down.
P	TOOH and tally 56 joints 2 1/6" IJ tubing, 1842'.
P	Round trip 3.5" GR to 1865'. PU 3.5" W.L. CIBP and RIH; set @ 1855'.
P	TIH open ended to CIBP at 1855'. Establish circulation and circulate well clean with total 34 bbls of water. Pressure test casing to 800 PSI for 30 minutes; PT good.
P	Plug #1 (PC) with CIBP at 1855' spot 12 sxs (14.16 cf 15.7 PPG) Class B cement inside casing from 1855' to 1477' TOC. (Rev. TOC @ 1621')

P	PUH to 1621'. Reverse circulate well clean. TOOH with tubing.
P	Perforate 4 bi-wire squeeze holes at 1593'. Establish injection rate 2.5 bpm @ 800 PSI. J. Morales got approval not to run CR. Bullhead Plug #2 and WOC overnight with tag in a.m.
P	Plug #2 (Ft) mix and pump 50 sxs (59 cf 15.7 PPG) Class B cement; squeeze 32 sxs outside casing and leave 18 sxs inside casing from 1593' to 1026' TOC.
P	SI well. Drain pump and lines. Debrief. SDFD.
P	Travel back to yard.
03/24/2017	
P	Travel to location.
P	HSM on JSA. Service and start equipment.
P	Open up well; no tubing or pressure. RU relief lines.
P	TIH and tag cement high at 645'. W.O.O. COP requested attempt to work down. Unable to get past 673'. W.O.O. COP requested to drill out to 780'.
P	Wait on drilling equipment.
P	Spot in drilling equipment. Tally A Plus 1 1/4" EUE tubing workstring. PU 2 3/4" 3 Blade bit, B.S., PU 22 joints and tag up at 776'. RU drilling equipment.
P	Drill from 776' to 783' and circulate well clean w/ 10 bbls of water. RD drilling equipment.
P	TOH with tubing and LD BHA.
P	Perforate 4 bi-wire squeeze holes at 770'. Establish injection rate of 1 bpm at 1500 PSI. W.O.O. COP requested run W.L. CR. PU 3.5" W.L. CR and RIH to 608'; unable to get deeper. Attempt to work past; unable to. POOH LD CR. PU 3.8" GR and attempt make past 608'; could not work past 608'. POOH and LD GR. RD W.L.
P	SI well. Secure loc. Debrief. SDFD.
P	Travel back to yard.
03/27/2017	
P	Travel to location.
P	HSM on JSA. Service start equipment.
P	Open up well; no pressures. Note: no B.H. valve. Layout relief lines. Perform BOP function test.
P	W.O.O. J. Morales received approval not to use a CR on Plug #3. Note: NMOCD requires 50% excess in annulus due to Ojo Alamo formation.
P	Plug #3 (Kt) mix and pump 91 sxs (107.38 cf 15.7 PPG) Class B cement, squeeze 84 sxs outside casing and leave 7 sxs inside casing from 770' to 600'.
P	W.O.C. Per sample. Cement sample still green; J. Morales, COP representative required W.O.C. over night.
P	Secure location. Debrief. SDFD.
P	Travel back to yard.
03/28/2017	
P	Travel to location.
P	HSM on JSA. Service and start equipment.
P	Open up well; no pressures. Note: B.H. does not have a valve. RU relief lines. Perform BOP function test.
P	TIH with tubing and tag TOC at 723'. Establish circulation w/ 2 bbls of water. Attempt to PT casing; bled down to 100 PSI in 1 minute.
P	Plug #3A (Kt) Spot 12 sxs (14.16 cf 15.5 PPG) Class B cement inside casing from 723' to 433' TOC.
P	PUH to 630'. Reverse circulate well to TOC @ 630'. TOH with tubing. SI well.
P	W.O.C. per cement sample.
P	TIH with tubing and tag TOC at 630'. TOH and LD tubing. load casing w/ 2 bbls of water.
P	Perforate 4 bi wire squeeze holes at 612'. SI well for 30 minutes. Check PSI: no

	PSI on Csg. or B.H. Establish injection rate 4 bpm at 750 PSI. J. Morales received approval not to run CR on Plug #4.
P	Plug #4 (Ojo Alamo) spot 154 sxs (181.72 cf 15.8 PPG) Class B cement inside casing from 612' to 443' TOC. SI w/ 400# PSI and WOC overnight.
P	SI Well. Debrief. SDFD.
P	Travel back to yard.
03/29/2017	
P	Travel to location.
P	HSM on JSA. Service and start equipment.
P	Open up well; no pressures. RU relief line to pit. Perform BOP function test.
P	TIH and tag TOC at 510'; good tag. TOH and LD tubing.
P	W.O.O. COP request run CBL from 500' to surface. Call for W.L.
P	HSM w/ W.L. Run CBL from 500' to surface. Engineers to determine TOC. W.O.O. NMOCD request perforate 1 hole @ 50' and attempt to establish injection rate not going over 100 PSI.
P	Perforate 1 bi-wire squeeze hole at 50'. Attempt to establish injection rate; pressured up to 100 PSI and bled down to 30 PSI in 5 minutes. J. Morals received approval to go 50' below perforations and circulate cement out casing valve and WOC.
P	PU 4 joint tubing and TIH to 130'. Establish circulation with .5 bbls of water.
P	Plug #5 (Surface) spot 16 sxs (18.88 cf 15.7 PPG) Class B cement from 130' to 0' good cmt returns out casing valve.
P	TOH and LD tubing. RD tubing and work floor. ND BOP. NU W.H.
P	SI well. Debrief. SDFD.
P	Travel to yard.
03/30/2017	
P	Travel to location.
P	HSM on JSA. Service and start equipment.
P	Open up well; no pressures. RU relief lines to pit.
P	Dig out W.H. Perform Hot Work Oermit. Cutoff W.H. and found down 2' in casing and down 6' in annulus. Mix and pump 40 sxs (47.2 cf) to top off casings and set P&A marker.
P	RD Daylight pulling unit. Secure location. MOL.

* P - Procedure Planned; U - Unplanned A+ issue; X - COA, Well Conditions

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Jun 19, 2008

WELL API NO. 30-045-08844
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. FEE

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Kattler
1. Type of Well: Oil Well ☐ Gas Well ☒ Other P&A
8. Well Number 1
2. Name of Operator: Burlington Resources Oil Gas Company LP
9. OGRID Number: 14538
3. Address of Operator: P.O. Box 4289, Farmington, NM 87499-4289
10. Pool name or Wildcat: Fulcher Kutz PC

4. Well Location
Unit Letter C : 990 feet from the North line and 1650 feet from the West line
Section 2 Township 29N Range 12W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5855' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☒	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

5/24/12 Notified Brandon Powell/OCD that we ran CBL which indicated cmt between 3/12" & 5 ½" was not good. Unable to squeeze. Verbal approval received to proceed.

The subject well was P&A'd per the notification above and the attached report.
5-29-12

Approved for plugging of wellbore only
Liability under bond is retained pending
Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms
www.emnrd.state.us/ocd

Spud Date: Rig Released Date: PNR only

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Dollie L Busse TITLE Staff Regulatory Technician DATE 6/22/12

Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104

For State Use Only

APPROVED BY: Brandon Powell TITLE Deputy Oil & Gas Inspector, District #3 DATE 6/25/12

Conditions of Approval (if any):

PV

RCVD JUN 25 '12
OIL CONS. DIV.
DIST. 3

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Burlington Resources
Kattler #1

May 29, 2012

990' FNL and 1650' FWL, Section 2, T-29-N, R-12-W
San Juan County, NM
Lease Number: FEE
API #30-045-08844

Plug and Abandonment Report
Notified NMOCD and BLM on 5/18/12

Plug and Abandonment Summary:

Plug #1 with CIBP at 1911' pump 8 sxs (9.44 cf) Class B cement inside casing from 1911' to 1728' to cover the Pictured Cliffs interval.
Plug #2 pump 10 sxs (11.8 cf) Class B cement with 2% CaCl inside casing from 1500' to 1271' to cover the Fruitland top.
Plug #3 with CR at 594' pump 118 sxs (139.24 cf) Class B cement 111 sxs (130.98 cf) in annulus 2 sxs below cement retainer, 5 sxs (5.9 cf) above cement retainer leaves TOC at 594' to cover the Kirtland top.
Plug #4 pump 154 sxs (181.72 cf) Class B cement 146 sxs (172.28 cf) in annulus, 2 sxs (2.36 cf) below cement retainer 6 sxs (7.08 cf) above cement retainer leaves TOC at 371' to cover the Ojo Alamo top.
Plug #5 pump 222 sxs (261.96 cf) Class B cement down 3.5" casing from 97' to surface; circulate good cement returns out casing and bradenhead.
Plug #6 pump 31 sxs (36.58 cf) Class B cement to top off casing and annulus; then install P&A marker.

Plugging Work Details:

5/21/12 MOL and RU. SDFD.

5/22/12 Check well pressures: casing 50 psi, tubing 11 psi. Fill out Hot Work Permit and weld 2" collar on 5-1/2" casing. Hot tap with 2" valve 0 psi and no cement. ND wellhead and NU companion flange. NU kill spool. NU BOP; unable to test due to style of donut. SI well. SDFD.

5/23/12 Check well pressures: tubing 0 psi, casing 50 psi and bradenhead 0 psi. Pull hanger; found tubing 1-1/2". Change out tubing equipment to 1-1/2" equipment and wait on 1-1/2" pipe rams. TOH and tally 61 joints 1-1/2" with 10' sub. RU A-Plus Wireline. Found trip 3.5" gauge ring to 1931'. RIH with 3-1/2 wireline CIBP and set at 1911'. TIH with tubing and tag CIBP at 1911'. RU pump to tubing. Load and establish circulation with 15 bbls of fresh water. Shut in casing. Pressure test casing to 800 psi. Spot Plug #1. PUH. SD due to high winds. SI well. SDFD.

5/24/12 Open up well; no pressures. Finish TOH. RU Blue Jet Wireline. Run CBL from 1800' to surface. Found cement between 5-1/2 x 3-1/2 but spotty to surface. B. Powell, NMOCD, approved to follow procedure as approved. RU A-Plus Wireline. Perforate 6 bi-wire squeeze holes at 1450'. Attempt to establish rate into squeeze holes; pressured up to 1200#. B.

Powell, NMOCD, approved procedure change. Spot Plug #2. PUH and WOC. TI Hand tag cement at 1320'. Perforate 6 bi-wire squeeze holes at 750'. Load casing with 5 bbls of water and establish rate 2 bpm at 250#. PU 3.5" wireline cement retainer and RIH; set at 708'. TIH with tubing and tag CR at 594'. Establish injection rate. Spot Plug #3. TOH and LD tubing. SI well. SDFD.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (cont'd):

5/25/12 Open up well; no pressures. Perforate 6 bi-wire squeeze holes at 550'. RIH with wireline CR. Before setting CR establish rate into squeeze holes 2 bpm at 250#. Set CR at 508'. Sting into CR and establish rate 2 bpm at 250#. Spot Plug #4. TOH with tubing. Perforate 6 bi-wire squeeze holes at 97'. ND BOP. ND kill spool. Break out wellhead. Too windy to rig down. SI well. SDFD.

5/29/12 Open up well; no pressures. Dig out wellhead with backhoe to expose 15" hole. RU pump to 3-1/2" casing and establish circulation out 15" hole with 10 bbls of water. Spot Plug #5. WOC. Issue Hot Work Permit. Cut off wellhead. Spot Plug #6. Install P&A marker. RD and MOL.

John Durham, NMOCD representative, was on location.
Jimmy Morris, MVCI representative, was on location.

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Jun 19, 2008

WELL API NO.	30-045-33573
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	FEE

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other P&A	7. Lease Name or Unit Agreement Name: Cornell Com
	8. Well Number 500S
2. Name of Operator: Burlington Resources Oil Gas Company LP	9. OGRID Number: 14538
3. Address of Operator: P.O. Box 4289, Farmington, NM 87499-4289	10. Pool name or Wildcat: Basin FC / South Crouch Mesa FS

4. Well Location
Unit Letter P : 760 feet from the South line and 1135 feet from the East line
Section 2 Township 29N Range 12W NMPM San Juan County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 5845' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The subject well was P&A'd on 1/23/13 per the attached report.

RCVD FEB 15 '13
OIL CONS. DIV.
DIST. 3

Spud Date: PNR Only

Approved for plugging of wellbore only. Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms www.emnrd.state.us/ocd ☐

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Dollie L Busse TITLE Staff Regulatory Technician DATE 2/14/13

Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104

For State Use Only

APPROVED BY: [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE 2-20-13

Conditions of Approval (if any):

AV

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Burlington Resources
Cornell Com 500S

January 23, 2013

760' FSL and 1135' FEL, Section 2, T-29-N, R-12-W
San Juan County, NM
Lease Number: FEE
API #30-045-33573

Plug and Abandonment Report
Notified NMOCD and BLM on 1/16/13

Plug and Abandonment Summary:

Plug #1 with 12 sxs (14.16 cf) Class B cement inside casing from 2024' to 1866' to cover the Pictured Cliffs top.

Plug #2 with 16 sxs (18.88 cf) Class B cement from 1681' to 1471' to cover the Fruitland top.

Plug #3 with 33 sxs (38.94 cf) Class B cement with 2% CaCl from 814' to 379' to cover the Ojo Alamo and Kirtland tops.

Plug #4 with 24 sxs (28.32 cf) Class B cement inside casing from 189' to surface to cover the surface casing shoe.

Plug #5 with 28 sxs Class B cement found cement to surface in 4.5" casing and install P&A marker.

Plugging Work Details:

1/17/13 Road rig and equipment to location. Spot in and RU. Check well pressures: tubing 90 PSI, casing 90 PSI and bradenhead 0 PSI. RU relief lines and blow well down. ND wellhead. NU BOP. RU tubing equipment for 1-1/4". TOH and LD tally 1-1/4" 1 joint tubing 2', 8', 62 joints, jet pump nozzle EOT at 2030'. SI well. SDFD.

1/18/13 Check well pressures: tubing 0 PSI, casing 90 PSI and bradenhead 0 PSI. Change out tubing equipment and rams to 2-7/8" equipment. RU sub. Pull 2-7/8" tubing hanger and install stripping rubber and wiping rubber. TOH and LD tally 61 joints of 2-7/8" UFJ 6.4#, Jet pump EOT at 2023'. Pressure test pipe rams to 250 PSI for 15 minutes and 1500 PSI for 15 minutes, OK. PU and tally 65 joints (A-Plus) J 55 4.7# to EOT at 2024'. RU sand line. RIH with sinker bar found fluid level at 1900'. POH. Spot plug #1 with estimated TOC at 1866'. SI well. SDFD.

1/21/13 Check well pressures: no tubing, casing 130 PSI and bradenhead 0 PSI. PU 4.5" string mill. TIH with 30 stands (60 joints) 2-3/8" tubing. PU 2 joints tag cement at 1888'. LD 8 joints. TOH with 27 stands (54 joints) LD string mill. PU 4.5" DHS CR. TIH and set CR at 1681'. Pressure test tubing to 1000 PSI. Establish circulation. Attempt to pressure test unable to bleed down from 800 PSI to 600 PSI in 2 minutes, no test. TOH with 6' sub 27 stands (54 joints) LD setting tool. RU Blue Jet Wireline. Ran CBL from 1681' to surface, good cement from 1681' to 1370' and from 1100' to 40'. PU 4' tag sub TIH with 27 stands (54 joints) to 1681'. Spot plug #2 with estimated TOC at 1471'. SI well. SDFD.

1/22/13 Open up well; no pressures. TIH and tag cement at 1477'. Attempt pressure test to 800 PSI, bleed down to 600 PSI in 5 minutes, no test. Spot plug #3 with estimated TOC at 379'. SI well and WOC. TIH and tag cement at 392'. Pressure test to 300 PSI, OK. Attempt pressure test casing to 800 PSI and bleed down to 600 PSI in 5 minutes, no test. Spot plug #4 with estimated TOC at surface. SI well. SDFD.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (continued):

1/23/13 Open up well; no pressures. Tag top of cement at surface. ND BOP and kill spool. Dig out wellhead. Fill out and perform Hot Work Permit. Cut off wellhead. Found cement at surface in 4.5" casing. Spot plug #5 and install P&A marker. RD & MOL.

Jim Morris, MVCI representative, was on location.

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Jun 19, 2008

WELL API NO. 30-045-08709

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No. FEE

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: McGrath

1. Type of Well: Oil Well ☐ Gas Well ☒ Other P&A

8. Well Number 3

2. Name of Operator: Burlington Resources Oil Gas Company LP

9. OGRID Number 14538

3. Address of Operator: P.O. Box 4289, Farmington, NM 87499-4289

10. Pool name or Wildcat: Basin Fruitland Coal

4. Well Location

Unit Letter J : 1650 feet from the South line and 1650 feet from the East line

Section 3 Township 29N Range 12W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5845' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

2/27/13 Notified Brandon Powell/OCD re Plug 2. Perf'd @ 1510', couldn't pump into. PT to 1000#. Verbal approval to POOH, & perf @ 1475'.

The subject well was P&A'd on 3/1/13 per the notification above and the attached report.

RCVD MAR 28 '13
OIL CONS. DIV.
DIST. 3

Spud Date: PNR ONLY Rig Released Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Dollie L Busse TITLE Staff Regulatory Technician DATE 3/25/13

Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104

For State Use Only

APPROVED BY: Monica Kuehling TITLE Deputy Oil & Gas Inspector, District #3 DATE 4-1-13

Conditions of Approval (if any):

Approved for plugging of wellbore only. Liability under bond is retained pending. Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms www.emnrd.state.us/ocd

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Burlington Resources
McGrath #3

March 1, 2013

1650' FSL and 1650' FEL, Section 3, T-29-N, R-12-W
San Juan County, NM
Lease Number: FEE
API #30-045-08709

Plug and Abandonment Report
Notified NMOCD and BLM on 2/25/13

Plug and Abandonment Summary:

Plug #1 with 8 sxs (9.44 cf) Class B cement inside casing from 1837' to 1654' to cover the Fruitland Coal and Pictured Cliffs tops.

Plug #2 with 43 sxs (50.74 cf) Class B cement 39 sxs (46.02 cf) in annulus, 2 sxs (2.36 cf) below CR, 2 sxs (2.36 cf) above CR leaves TOC at 1414' to cover the Intermediate Shoe.

Plug #2a with 44 sxs (51.92 cf) Class B cement 39 sxs (46.02 cf) in annulus, 2 sxs (2.36 cf) below CR, 3 sxs (3.54 cf) above CR leaves TOC at 1392' to cover the Intermediate Shoe.

Plug #3 with 8 sxs (9.44 cf) Class B cement inside casing from 1345' to 1162' to cover the Fruitland top.

Plug #4 with 74 sxs (87.32 cf) Class B cement 62 sxs (73.16 cf), 2 sxs (2.36 cf) below CR, 10 sxs (11.8 cf) above CR leaves TOC at 461' to cover the Ojo Alamo and Kirtland tops.

Plug #5 with 278 sxs (328.04 cf) Class B cement in annulus displace to perf at 100' no circulation.

Plug #5a with 200 sxs (236 cf) Class B cement, 4 sxs (4.72 cf) in 3.5" casing, 196 sxs (231.28 cf) in annulus from 100' to 0' to cover the surface casing shoe.

Plug #6 with 16 sxs Class B cement found cement in 3.5" casing down 15' and install P&A marker.

Plugging Work Details:

2/25/13 Rode rig and equipment to location. Spot in and RU. Check well pressures: tubing 50 PSI and casing 40 PSI. RU A-Plus valves blow well down. ND wellhead. Strip on kill spool and BOP. X-over tubing equipment to 1.5" equipment and handrails. SI well. SDFD.

2/26/13 Check well pressures: tubing 50 PSI and casing 50 PSI. Blow well down. Function test BOP. TOH and tally 29 stands, LD 2 joints, SN, 1 joint sawtooth collar (61 joints total) of 1.5" tubing, EOT at 1896'. Round trip 3.5" gauge ring to 1850'. TIH with 3.5" CIBP to 1837', set CIBP. Establish circulation. Pressure test casing to 800 PSI, OK. Spot plug #1 with estimated TOC at 1654'. TOH. SI well. Fill out and Perform Hot Work Permit. Perform Hot tap on 5.5" casing 0 PSI, no gas. SI well. SDFD due to windy conditions.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (continued):

2/27/13 Open up well; no pressures. No tubing. TIH with 1-11/16" bi-wire and perforate 3 holes at 1510'. Attempt to establish rate in squeeze holes pressured up to 1000 PSI then bled down to 600 PSI in 2 minutes. Note: B. Powell, NMOCD and J. Morris, MVCI approved procedure change. TIH with 1-11/16" bi-wire and perforate 3 holes at 1475'. Establish rate of 2 bpm at 800 PSI. TIH with 3.5" DHS CR and set at 1460'. TIH and tag CR at 1460'. Establish rate of 2 bpm at 800 PSI. Spot plug #2 with estimated TOC at 1414'. WOC. Attempt to pressure test casing, leak sting into CR, 2 bpm at 200 PSI. TIH and attempt to tag TOC, no tag. Note: called NMOCD to re-do plug #2. Establish circulation 2 bpm at 800 PSI. Spot plug #2a with estimated TOC at 1392'. SI well. SDFD.

2/28/13 Open up well; no pressures. TIH with wireline bar and tag TOC at 1345'. Note: B. Powell, NMOCD approved procedure change. TIH with bi-wire and perforate 3 holes at 1343'. Attempt to establish rate, pressured up to 1000 PSI. Note: M. Keuhling, NMOCD approved to spot balanced plug. Spot plug #3 with estimated TOC at 1162'. TIH with bi-wire and perforate 3 holes at 729'. Establish rate 2.5 bpm at 800 PSI. TIH with DHS CR and set CR at 690'. Establish circulation. Sting into CR and establish rate 2 bpm at 800 PSI. Spot plug #4 with estimated TOC at 461'. TIH with bi-wire and perforate 3 holes at 100'. ND BOP and kill spool. Dig out wellhead. Attempt to find 8-5/8" casing, dug down 20', no casing. Attempt to establish circulation, no circulation. Spot plug #5. SI well. SDFD.

3/1/13 Open up well, no pressures. Establish circulation out surface in hole around wellhead. Wait on water truck. Spot plug #5a with estimated TOC at surface. WOC. Check cement fell 1' on backside. Found cement in 3.5" casing down 15'. Spot plug #6 and install P&A marker. SI well. SDFD.

Monica Keuhling, NMOCD representative, was on location.
Paul Weibe, NMOCD representative, was on location.
Jim Morris, MVCI representative, was on location.

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-045-30456

5. Indicate Type of Lease
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Katy Com

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number #2

2. Name of Operator
Merrion Oil & Gas Corporation

9. OGRID Number 14634

3. Address of Operator
610 Reilly Ave Farmington, NM 87401

10. Pool name or Wildcat
Aztec PC/Basin FC

4. Well Location
Unit Letter P : 1199 feet from the South line and 1263 feet from the East line
Section 26 Township 30N Range 12W NMPM San Juan County

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*)
5686

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☒	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Merrion Oil & Gas Corporation P&Ad the above mentioned well on 8/10/2015. Please see attached PA report.

OIL CONS. DIV DIST. 3
SEP 08 2015

Approved for plugging of wellbore only. Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms www.emnrd.state.us/ocd

PNR only

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Regulatory Compliance Specialist DATE 8/31/2015

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-324-5336

For State Use Only

APPROVED BY: [signature] TITLE DEPUTY OIL & GAS INSPECTOR DISTRICT #3 DATE 9/24/15

Conditions of Approval (if any): AV

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

OIL CONS. DIV DIST. 3
SEP 0 8 2015

Merrion O&G Corporation
Katy Com #2

August 10, 2015

1199' FSL and 1263' FEL, Section 26, T-30-N, R-12-W
San Juan County, NM
Lease Number: FEE
API #30-045-30456

Plug and Abandonment Report
Notified NMOCD and BLM on 8/5/15

Plug and Abandonment Summary:

Plug #1 with CR at 1850' spot 24 sxs (28.32 cf) Class B cement from 1850' to 1533' to cover the Pictured Cliffs interval and Fruitland perfs. Tag TOC at 1588'.
Plug #2 with 12 sxs (14.16 cf) Class B cement from 1475' to 1316' to cover the Fruitland Coal tops.
Plug #3 with 24 sxs (28.32 cf) Class B cement from 572' to 255' to cover the Kirtland and Ojo Alamo tops.
Plug #4 with squeeze holes at 177' and 127' spot 48 sxs (56.64 cf) Class B cement from 228' to surface good cement returns with 18 in and 15 out.
Plug #5 with 16 sxs Class B cement top off casings and install P&A marker with coordinates N 36° 46' 46.5852" / W 108° 3' 46.8792".

Plugging Work Details:

8/5/15 Rode rig and equipment to location. SDFD.

8/6/15 Check well pressures: tubing TSTM, casing 40 PSI and bradenhead 0 PSI. Spot in rig and RU. Perform start well. X-over to rod equipment. Unseat pump and LD polish rod. LD 1-2', 3 6', 1-4' pony rod, 74 ¾" rods, pump onto gooseneck trailer. ND wellhead and NU BOP. Function test BOP. RU and x-over tubing equipment. LD 58 jnts, SN, 16' MA tail. Round trip A-Plus 4-1/2" string mill to 1890'. PU 4-1/2" DHS CR and set at 1850'. Pressure test tubing to 1000 PSI, OK. Establish circulation. Spot plug #1 with calculated TOC at 1533'. SI well. SDFD.

8/7/15 Open up well; no pressures. RU relief lines. TIH and tag TOC at 1588'. Attempt to pressure test bradenhead, no test 300 PSI to 0 PSI. Note: M. Keuhling, NMOCD approved procedure change. Establish circulation. Pressure test casing to 800 PSI, OK. Spot plugs #2 and #3. RU A-Plus wireline. Perforate 4 HSC squeeze holes at 177'. Attempt to circulate. Bradenhead pressured up to 500 PSI to 0 PSI in 20 seconds. Wait on orders. Perforate 4 HSC squeeze holes at 127'. Establish circulation. Spot plug #4 with TOC at surface. SI well. SDFD.

8/10/15 Open up well; no pressures. ND BOP. Dig out wellhead. Write Hot Work Permit. Cut off wellhead. Found cement in casing at surface and down 2.5' on backside. Spot plug #5 top off casings and install P&A marker with coordinates N 36° 46' 46.5852" / W 108° 3' 46.8792". RD and MOL.

Shacie Murray, Merrion Oil & Gas representative was on location.
John Durham, NMOCD representative was on location.

8-6-15

OIL CONS. DIV DIST. 3

SEP 08 2015

To: Mewbourne Oil Co.

Re: Katy 2 Fence

I see you are plugging the Katy 2.

I would like you to please leave the

fence up.

Thank You

Glenn Spencer

Glen Spencer

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. ~~30-039-08089~~ 30-045-09177
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Paul Palmer
1. Type of Well: Oil Well ☐ Gas Well ☒ Other
8. Well Number: #1
2. Name of Operator: Merrion Oil & Gas Corporation
9. OGRID Number: 14634
3. Address of Operator: 610 Reilly Ave, Farmington NM 87401
10. Pool name or Wildcat: Flora Vista MV
4. Well Location
Unit Letter J : 2360 feet from the South line and 830 feet from the West line
Section 26 Township 30N Range 12W NMPM San Juan County
11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 5630

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☒	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☒
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Merrion Oil & Gas Corporation plugged the above mentioned well on 8/14/2015. Please see attached plugging procedure.

Approved for plugging of wellbore only. Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms www.emnrd.state.us/ocd

OIL CONS. DIV DIST. 3
SEP 25 2015

PNR only

Spud Date: 9/13/1961

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Regulatory Compliance Specialist DATE 9/23/2015

Type or print name Philana Thompson E-mail address: pthompson@merrion.bz PHONE: 505-324-5336

For State Use Only

APPROVED BY: _____ TITLE DEPUTY OIL & GAS INSPECTOR DISTRICT #3 DATE 10/14/15

Conditions of Approval (if any): AV

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Merrion O&G Corporation
Paul Palmer #1

August 14, 2015

2360' FSL and 830' FWL, Section 26, T-30-N, R-12-W
San Juan County, NM
Lease Number: FEE
API #30-045-09177

Plug and Abandonment Report
Notified NMOCD and BLM on 8/10/15

Plug and Abandonment Summary:

Plug #1 with 32 sxs (37.76 cf) Class B cement from 3425' to 3003' to cover the Mesaverde top and fish. Tag TOC at 3332'.
Plug #2 (combined #3) with bi-wire holes at 2990 and CR at 1918' spot 516 sxs (608.88 cf) Class B cement from 2990' to 1192' with 82 sxs under, 55 sxs above and 379 sxs outside to cover the Chacra, Pictured Cliffs and Fruitland Coal.
Plug #4 with squeeze holes at 530' spot 175 sxs (206.5 cf) Class B cement from 530' to surface. Tag TOC at 25'.
Plug #5 with 36 sxs Class B cement top off casings and install P&A marker with coordinates N 36° 46' 58.44" / W 108° 04' 24.78".

Plugging Work Details:

8/10/15 Rode rig and equipment to location. Spot in and RU. Check well pressures: tubing 50 PSI, casing 100 PSI and bradenhead 0 PSI. RU relief lines. Perform start well. ND wellhead. NU BOP. Pull tubing hanger. Tubing hung up. Wait on weight indicator. SI well. SDFD.

8/11/15 Travel to location. Perform Hot Work Permit. Repair rig. RU and attempt to pull tubing. Could not work free. Pulling to 2700' approximately. PU Sandline tools with tools, sinker bar and jars and no-go. Check with depth meter, estimated at 3400'. LD tools. Attempt to work tubing free, unable. Note: P. Weibe, NMOCD and T. Saylers, BLM approved procedure change. RU A-Plus wireline. RIH with 2-3/8" GR to 3443'. Tight spot at 2600'. POH and LD GR. PU 2-3/8" tubing jet cutter RIH to 3401'. PU tubing 5k over cut tubing at 3401'. LD cutter. Free tubing and LD 31 jnts with 2 subs. Tubing and collars pitted as more LD. Shut down to get 2-3/8" MYT. LD 78 jnts collars on tubing. Look better had flat bottom for elevator. PU 4-1/2" GR to 1919' could not work past. SI well. SDFD.

8/12/15 Check well pressures: no tubing, casing 128 PSI and bradenhead 0 PSI. RU relief lines. Round trip 4-1/2" string mill to 1919', attempt to work past unable. Attempt to work past call for power swivel. RU pump attempt to mill fish. Pump total 60 bbls, no circulation. Attempt to work for 1 hr. RD power swivel. RU tubing. PU 2-3/8" SN and tag fish at 3425'. Establish circulation. Spot plug #1 with calculated TOC at 3003'. Note: P. Wiebe, NMOCD approved procedure change. TH with tubing. Establish circulation. SI well. SDFD.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (continued):

8/13/15 Open up well; no pressures. RU relief lines. Tag TOC at 3332'. Note: P. Wiebe, NMOCD and B. Powell approved procedure change Plug #2. Pressure test casing to 800 PSI, OK. RU A-Plus wireline. RIH with 3-1/8" gun to 1919', could not get past. Wait on bi-wire gun. Perforate 4 bi-wire holes at 2990'. Establish rate of 3.5 bpm at 750 PSI. PU 4-1/2" wireline CR and set at 1918'. TIH with tubing and stinger, sting into CR. Establish circulation, found leaking in 9-5/8" casing through ground. Spot plug #2 combined #3 with calculated TOC at 1192'. RU A-Plus wireline. Perforate 3 HSC squeeze holes at 530'. Establish circulation. Found leak in 9-5/8" casing. Wait on water truck to vacuum cellar while pumping clean returns. Pump total 200 bbls of water. Circulate well. Note: B. Powell, NMOCD approved procedure change. Spot plug #3. SI well and WOC. SDFD.

8/14/15 Open up well; no pressures. RU relief lines. Tag TOC at 25'. Chip out cement behind blind rams. ND BOP. Dig out wellhead. Perform Hot Work Permit. Cut off wellhead. Found cement down 4' in 9-5/8" x 4-1/2" casing. Spot plug #5 top off casings and install P&A marker with coordinates N 36° 46' 58.44" / W 108° 04' 24.78". RD and MOL.

Shacie Murray, Merrion O&G representative was on location.
Paul Weibe, NMOCD representative was on location.

RECEIVED

Form 3160-5
(August 2007)

AUG 22 2013

Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

5. Lease Serial No.: SF-077922

6. If Indian, Allottee or Tribe Name:

7. If Unit of CA/Agreement, Name and/or No.:

1. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other

8. Well Name and No.: McGrath SWD 4

2. Name of Operator: Burlington Resources Oil & Gas Company LP

9. API Well No.: 30-045-25923

3a. Address: PO Box 4289, Farmington, NM 87499

3b. Phone No. (include area code): (505) 326-9700

10. Field and Pool or Exploratory Area: Mesaverde SWD

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*: Surface Unit B (NWNE), 800' FNL & 1730' FEL, Sec.34, T30N, R12W

11. Country or Parish, State: San Juan , New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[ ] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
[X] Subsequent Report	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[ ] Change Plans	[X] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

7/12/13 The 4197' packer in procedure is not holding, asked permission to pump plug from 4374' to end of tbg @ 4213'. Called Steve Masonw/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.
7/16/13 The packer in hole was supposed to shut off water, asked approval to shoot tbg off @ 3896' & set 150' plug on top of it. Called Steve Masonw/ BLM & Charlie Perrin w/ OCD. Both gave verbal approval.
7/19/13 Plug 4&5 need to be combined as there is only 120' between them. Bill Diers on site w/ BLM, Called Brandon Powell w/ Ocd and got verbal approval.
7/19/2013 2nd call. Surface perfs @ 281' PT to 1000#-OK. Tied onto Bradenhead & pumped 5 bbl's water down (145') PT to 500# and test was good. Bill Diers on site w/ BLM wants to perf @ 125', run in tbg and circ to surface inside and in annulus. Called Brando Powell w/ OCD & got verbal approval.

The subject well was P&A'd on 7/25/13 per the above notifications and the attached reports.

RCVD AUG 26 '13
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*: Kenny Davis

Title: Staff Regulatory Technician

Signature:

Date: 8/22/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date: AUG 22 2013

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office: FARMINGTON FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCD

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Burlington Resources
McGrath SWD 4

July 22, 2013

800' FNL and 1730' FEL, Section 34, T-30-N, R-12-W
San Juan County, NM
Lease Number: SF-077922
API #30-045-25923

Plug and Abandonment Report
Notified NMOCD and BLM on 7/8/13

Plug and Abandonment Summary:

Plug #1 with 40 sxs (47.2 cf) Class B cement inside casing to 4212'. Tag TOC at 3896'.
Plug #2 with 17 sxs (20.06 cf) Class B cement with 2% CaCl inside casing from 3893' to 3743' disp with 13.8# mud to cover the Mesaverde top.
Plug #2a with 23 sxs (27.14 cf) Class B cement inside casing from 3893' to 3690' disp with 13.8# mud to cover the Mesaverde top.
Plug #2b with CR at 3485' spot 88 sxs (103.84 cf) Class B cement inside casing with 59 sxs in annulus, 6 sxs below CR , 23 sxs above CR TOC at 3282' to cover the Mesaverde top.
Plug #3 with CR at 2594' spot 48 sxs (56.64 cf) Class B cement inside casing from 2644' to 2489', 30 sxs in annulus, 6 sxs below CR, 12 sxs above CR TOC at 2489' to cover the Chacra top.
Plug #4 (original plug #3 and plugs 4&5 combined) with 49 sxs (57.82 cf) Class B cement inside casing from 1940' to 1508' to cover the Pictured Cliffs, Fruitland Coal tops.
Plug #6 with 36 sxs (42.48 cf) Class B cement inside casing from 628' to 311' to cover the Kirtland and Ojo Alamo tops.
Plug #7 with 37 sxs (43.66 cf) Class B cement inside casing from 281' to surface to cover the surface casing shoe.
Plug #8 with 30 sxs Class B cement top off casings and install P&A marker.

Plugging Work Details:

7/10/13 Rode rig equipment to location. Spot in. Bump test H2S equipment. Check well pressures: tubing 600 PSI, casing 160 PSI and bradenhead TSTM. RU relief lines and blow well down. ND wellhead. NU BOP and noticed tubing started blowing. Shut in tubing. Pressured up to 1000 PSI. Attempt to blow well down. Wait on Phoenix. RU Phoenix and retrieve plug in tubing. RIH and set another plug at 4212'. Pressure still at 1000 PSI. Wait on orders. RIH and retrieve plug at 4212'. RIH and set another plug on/off tool at 4198'. Pressure still the same. SI well. SDFD. Note: Procedure change approved BLM/ NMOCD.

7/11/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. RU relief lines attempt to blow well down. SI well and wait on orders. RU Phoenix and RIH retrieve plug. Pump 80 bbls of water establish a rate of 2 bpm at 1200 PSI, SI tubing. Wait on acid. RU Baker Petrolite. Pump 500 gals acid with 1 bbl flush. RU pump to tubing and pump 24 bbls to spot acid at 2800'. SI tubing. Wait 30 minutes and pump 2 bbls to 3130'. SI well. SDFD.

7/12/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. Pump 10 bbls flush acid past packer and SI well. RU Phoenix. RIH and set plug at 4212' below packer. POH. Open tubing still flowing. SI pressure at 1040 PSI. Note: Procedure change approved BLM/NMOCD. Spot plug #1a with estimated TOC at 4212'. SI well. SDFD.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Plugging Work Details (continued):

7/15/13 Bump test H2S equipment. Check well pressures: tubing 420 PSI, casing and bradenhead 0 PSI. RU relief lines tubing blew right down. SI for an hour and 0 PSI. Start mixing gel to VISC at 13.8#. Check pressure on tubing 0 PSI. Attempt to release off packer at 4196' unable to release. Wait on orders to jet cut tubing. SI well. SDFD.

7/16/13 Bump test H2S equipment. Open up well; no pressures. RU relief lines. RU Wireline Specialties. Tag TOC at 3896'. Note: Procedure change approved BLM/ NMOCD. RIH and cut tubing at 3893'. Pull tubing hanger. Establish circulation. Pump 60 bbls 13.8# mud. SI casing attempt to pressure test pump 4 bbls no pressure, pulled 1 joint discover need slip grip elevators. Wait on elevators. Regulator broken. SI well. SDFD.

7/17/13 Bump test H2S equipment. Open up well; no pressures. Establish circulation. Spot plug #1 with estimated TOC at 3743'. LD 1 joint, 2-6' subs, 2-4' sub, LD 118 joints (119 joints total) EUE 9.3# 3-1/2" at 3893'. Tally 124 joints 2-3/8" tubing, EUE 4.7#, A-Plus tubing. Tag top of 3.5" cut at 3893'. Establish circulation. SI casing attempt to pressure test to 820 PSI bled down to 780 PSI. Spot plug #1a with estimated TOC at 3690'. SI well. SDFD.

7/18/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 3781'. RIH with 5.5" GR to 1362' unable to get down. Perforate 3 HSC squeeze holes at 3535'. Attempt to get rate, pumped 35 bbls 13.8# mud, no pressure. TIH with 5.5" string mill to 3507'. TIH with 5.5" DHS CR and set at 3485'. Pressure test tubing to 1000 PSI. Reverse circulate with 96 bbls till clean returns. Establish rate of 1.5 bpm at 900 PSI. Pressure test casing to 800 PSI, OK. Spot plug #2 with estimated TOC at 3282'. Reverse circulate from 3254' to 2644'. SI well. SDFD.

7/19/13 Bump test H2S equipment. Open up well; no pressures. Perforate 3 HSC squeeze holes at 2644'. Establish rate of 1 bpm at 1100 PSI. TIH with 5.5" DHS CR and set at 2594'. Establish circulation. Spot plug #3 with estimated TOC at 2489'. Reverse circulate 11 bbls from 2470' to 1960'. Establish circulation. Note: Procedure change approved BLM/NMOCD. Spot plug #4 (combined 4&5) with estimated TOC at 1508'. Reverse circulate with 8 bbls from 1471' to 620'. Spot plug #6 with estimated TOC at 311'. Perforate 3 HSC squeeze holes at 281'. Attempt to get circulation pressured up to 1000 PSI. Bradenhead pressured to 500 PSI. Note: Procedure change approved BLM/ NMOCD. Perforate 3 HSC squeeze holes at 125'. Establish circulation. Spot plug #7 with estimated TOC at surface. SI well. SDFD.

7/22/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 8'. ND BOP and dig out wellhead. RU High Desert. Cut off wellhead. Top off casings. Spot plug #6 and install P&A marker. RD and MOL.

Jim Morris, MVCI representative, was on location.
Bill Diers, BLM representative, was on location.

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Jun 19, 2008

WELL API NO.	30-045-28177
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	B-11303-10
7. Lease Name or Unit Agreement Name	FC State Com
8. Well Number	24
9. OGRID Number	217817
10. Pool name or Wildcat	Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other P&A

2. Name of Operator
ConocoPhillips Company

3. Address of Operator
P.O. Box 4289, Farmington, NM 87499-4289

4. Well Location
Unit Letter M : 1140 feet from the South line and 1220 feet from the West line
Section 36 Township 30N Range 12W NMPM San Juan County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5819' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☒
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The subject well was P&A'd on 3/26/13 per the attached report.

RCVD APR 24 '13
OIL CONS. DIV.
DIST. 3

Spud Date: Rig Released Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Dollie L Busse TITLE Staff Regulatory Technician DATE 4/24/13

Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104

For State Use Only

APPROVED BY: Bob Bell TITLE Deputy Oil & Gas Inspector, District #3 DATE 4/26/13

Conditions of Approval (if any):

Approved for plugging of wellbore only.
Liability under bond is retained pending
Receipt of C-103 (Subsequent Report of Well
Plugging) which may be found @ OCD web page
under forms.
www.emnrd.state.us/ocd

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 *fax: 505-325-1211

Conoco Phillips
FC State Com #24

March 26, 2013

1140' FSL and 1220' FWL, Section 36, T-30-N, R-12-W
San Juan County, NM
Lease Number: B-11303-10
API #30-045-28177

Plug and Abandonment Report
Notified NMOCD on 3/22/13 and BLM on 3/21/13

Plug and Abandonment Summary:

Plug #1 pump 16 sxs (18.88 cf) Class B cement inside casing from 2044' to 1900' to cover the Pictured Cliffs top.

Plug #2 with 49 sxs (57.82 cf) Class B cement inside casing from 1684' to 1241' to cover the Fruitland Coal top.

Plug #3 with 43 sxs (50.74 cf) Class B cement inside casing from 809' to 421' to cover the Ojo Alamo and Kirtland tops.

Plug #4 with 45 sxs (53.1 cf) Class B cement from 289' to surface to cover the surface casing shoe.

Plug #5 with 40 sxs Class B cement found cement in 5.5" casing at surface and 9-5/8" x 5.5" casing 29' from surface and install P&A marker.

Plugging Work Details:

3/22/13 Road rig and equipment to location and RU. Open up well; no pressures. X-over to rod equipment. Pressure test tubing to 1000 PSI, OK. Unseat pump and LD polish rod with stuffing box, 72 – ¾, 32' ¾", 6 S. Balls and pump on Double S Hot Shot Float. Pump 10 bbls to kill well. ND wellhead. NU BOP and perform function test. Pressure test BOP to 1000 PSI and 500 PSI for 10 minutes. Pressure test bradenhead to 300 PSI for 10 minutes. Tally and TOH with 1 joint, 20 ' subs, 63 joints, f-nipple, MA total tally 2023' of tubing 4.7# EUE. SI well. SDFD.

3/25/13 Check well pressures: no tubing, casing 50 PSI and bradenhead 0 PSI. RU relief lines. TIH with 65 joints to 2044'. Tag fluid level at 1500'. Spot plug #1 with estimated TOC at 1900'. Round trip 5.5" string mill to 1700'. TIH with 5.5" DHS CR and set at 1684'. Establish circulation. Pressure test casing to 800 PSI, bled off. Spot plugs #2, #3 and #4. Dig out wellhead. SI well. SDFD.

3/26/13 Open up well; no pressures. ND BOP. RU High Desert perform Hot Work Permit. Cut off wellhead with air saw. Found cement in 5.5" casing at surface and 9-5/8" x 5.5" casing 29' from surface. Spot plug #5 and install P&A marker. RD & MOL.

Vic Montoya, MVCI representative, was on location.
Monica Kuehling, NMOCD representative, was on location.

Attachment 10 Bonds

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION (OCD)
WATER QUALITY CONTROL COMMISSION (WQCC) OCD DISCHARGE PERMIT

ASSIGNMENT OF CASH COLLATERAL

BOND NO. OCD 247130
OCD PERMIT 247130
AMOUNT OF BOND $101,680.00

File with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505

KNOW ALL MEN BY THESE PRESENTS:

That Agua Moss, LLC, (an individual – **if dba must read – Example: John Doe dba ABC Services**) (a general partnership) (a corporation), (limited liability company) (limited partnership) organized in the State of New Mexico, and authorized to do business in the State of New Mexico, as ("OPERATOR"), has deposited with Four Corners Community Bank (name of federally insured state or national bank or savings association) of 500 West Main, Farmington, NM 87401, (address) ("FINANCIAL INSTITUTION"), the sum of One Hundred One Thousand Six Hundred Eighty dollars ($ 101,680.00 in Certificate of Deposit or Savings Account No. 3099505 ("FUND").

To comply with NMSA 1978, Sections 74-6-1 et seq., as amended, and all applicable rules under the Water Quality Act, including, but not limited to 20.6.2.3107.A(11) NMAC, 20.6.2.5006 NMAC, 20.6.2.5006 NMAC, 20.6.2.5302.F NMAC, and 20.6.2.5431 NMAC, OPERATOR hereby assigns all right, title and interest in the FUND, except as otherwise provided, to the Oil Conservation Division of the Energy, Minerals and Natural Resources Department (or successor agency) of the State of New Mexico ("DIVISION").

OPERATOR and FINANCIAL INSTITUTION agree that as to the FUND:

a. The DIVISION acquires by this assignment the entire beneficial interest in the FUND with the right to order the FINANCIAL INSTITUTION in writing to distribute the FUND to persons determined by the DIVISION to be entitled thereto, including the DIVISION itself, in amounts determined by the DIVISION, without further consent by the OPERATOR. FINANCIAL INSTITUTION hereby acknowledges that the DIVISION is FINANCIAL INSTITUTION's customer with respect to the FUND.

b. OPERATOR retains no legal or beneficial interest in the FUND except the right to interest, if any, thereon, and to return of the FUND upon written order of the DIVISION following final disposition, or plugging and abandonment and surface restoration in accordance with all Water Quality Control Commission rules and/or orders of the DIVISION, of the well.

c. OPERATOR agrees to take all measures necessary, as required by the DIVISION, pursuant to 20.6.2 NMAC, as such rules may now exist or may hereafter be amended, to prevent contamination of groundwater having 10,000 milligrams per liter (mg/l) or less concentration of total dissolved solids, including, but not limited to, surface and groundwater restoration, if applicable, and post-operational monitoring; the FUND may be used by the DIVISION if OPERATOR fails to perform any of the obligations set forth herein.

d. FINANCIAL INSTITUTION agrees that the FUND may not be assigned, transferred, pledged or distributed except upon written order of the DIVISION or of a court order entered in a proceeding in which the DIVISION is a party. FINANCIAL INSTITUTION waives all statutory or common law liens or rights of set-off or recoupment against the FUND by reason of indebtedness or obligation of OPERATOR to FINANCIAL INSTITUTION now existing or hereafter incurred.

e. OPERATOR agrees that FINANCIAL INSTITUTION may deduct, solely from interest due OPERATOR, any costs or attorney fees incurred by FINANCIAL INSTITUTION arising from OPERATOR'S business. FINANCIAL INSTITUTION agrees that no such costs or fees shall be deducted from the principal of the FUND prior to final release thereof to OPERATOR by the DIVISION.

This agreement shall be governed by the laws of the State of New Mexico.

Agua Moss, LLC
Operator

By: _____
(Signature of Operator)

Ryan G. Merrion, Manager
Title

Four Corners Community Bank
Financial Institution

By: _____
(Signature of Authorized Officer)

CHIEF LENDING OFFICER
Title

NOTE: **If the officer executing this instrument on behalf of the Financial Institution is not the President, a Vice President or a branch manager, attach a copy of certified resolution of the Board of Directors evidencing such officer's authority.**

INDIVIDUAL ACKNOWLEDGMENT: (If individual is dba, must read – Example: John Doe dba ABC Services)

State of New Mexico
County of _____.

This instrument was acknowledged before me on this _____day of _____20____,

by_____
(Individual Operator)

_____
(Notary Public)

SEAL

My Commission Expires:

ACKNOWLEDGMENT FOR PARTNERSHIP, CORPORATION OR LIMITED LIABILITY COMPANY:

State of New Mexico
County of San Juan

This instrument was acknowledged before me on this 31 day of ~~July~~ August 20 20,
by Ryan G. Merrion
(Name of Person(s) Signing)
as Manager of Agua Moss, LLC,
(Capacity, e.g., Partner, President, etc.) (Name of Operator)
a Limited Liability Company.
(Partnership, Corporation or Limited Liability Company)

OFFICIAL SEAL
Isaiah Urioste
NOTARY PUBLIC State of New Mexico
My Commission Expires 3/28/2023

_____
(Notary Public)

SEAL

My Commission Expires:

FINANCIAL INSTITUTION ACKNOWLEDGMENT:

State of New Mexico
County of San Juan

This Instrument was acknowledged before me on this 31 day of ~~July~~ August 20 20,
by Roger LeHart
as Chief Lending Officer of Four Corners Community Bank.
(Title) (Name of Officer) (Name of Financial Institution)

_____
(Notary Public)

OFFICIAL SEAL
Isaiah Urioste
NOTARY PUBLIC State of New Mexico
My Commission Expires 3/28/2023

SEAL

My Commission Expires:

_____

Certificate of Deposit Copy and Certificate of Deposit Signature Card

Date Opened: 08/28/2020 Term: 24 Months Tax ID: 20-5470195 Number: _____

Dollar Amount of Deposit: Jumbo 24 Month CD — One Hundred One Thousand Six Hundred Eighty Dollars And No Cents — $101,680.00

Account Number: 3099505
3099505

This Time Deposit is Issued to:

AGUA MOSS LLC
281 RD 350
FARMINGTON, NM 87401

Issuer:

Four Corners Community Bank
500 West Main Street
Suite 101
Farmington, NM 87401

Not Negotiable - Not Transferable - Additional terms are below.

By CERTIFICATE COPY

Additional Terms and Disclosures

This form contains the terms for your time deposit. It is also the Truth-in-Savings disclosure for those depositors entitled to one. There are additional terms and disclosures on page two of this form, some of which explain or expand on those below. You should keep one copy of this form.

Maturity Date. This account matures 08/28/2022 _____ (See below for renewal information.)

Rate Information. The interest rate for this account is 1.2500 % with an annual percentage yield of 1.25 %. This rate will be paid until the maturity date specified above. Interest begins to accrue on the business day you deposit any noncash item (for example, a check).

Interest will be compounded Annually.

Interest will be credited Annually by deposit to this account.

☒ The annual percentage yield assumes that interest remains on deposit until maturity. A withdrawal of interest will reduce earnings.

☐ If you close your account before interest is credited, you will not receive the accrued interest.

The **Number of Endorsements** needed for withdrawal or any other purpose is: 1.

Minimum Balance Requirement. You must make a minimum deposit to open this account of $ 100,000.00.

☒ You must maintain this minimum balance on a daily basis to earn the annual percentage yield disclosed.

Withdrawals of Interest. Interest ☒ accrued ☐ credited during a term can be withdrawn: before maturity

Early Withdrawal Penalty. If we consent to a request for a withdrawal that is otherwise not permitted you may have to pay a penalty. The penalty will be an amount equal to: 180 days _____ interest on the amount withdrawn.

Renewal Policy

☐ **Single Maturity.** If checked, this account will not automatically renew. Interest ☐ will ☐ will not accrue after maturity.

☒ **Automatic Renewal.** If checked, this account will automatically renew on the maturity date. (see page two for terms)
Interest ☒ will ☐ will not accrue after final maturity.

Account Ownership (Select One and Initial)

☐ Single Party Account _____
☐ Multiple Party Account _____
☐ Trust - Separate Agreement dated: _____. _____
☒ LLC _____. _____

Rights at Death (Select One and Initial)

☐ Single Party Account _____
☐ Multiple Party Account with Right of Survivorship _____
☐ Multiple Party Account without Right of Survivorship _____
☐ Single Party Account with Pay on Death _____
☐ Multiple Party Account with Right of Survivorship and Pay on Death _____

Pay On Death Beneficiaries. To add Pay-On-Death Beneficiaries' name one or more:

Backup Withholding Certifications
(If not a "U.S. Person", certify foreign status separately)

☒ **Taxpayer I.D. Number - TIN:** 20-5470195
The Taxpayer Identification Number (TIN) shown is my correct taxpayer identification number.

☒ **Backup Withholding.** I am not subject to backup withholding either because I have not been notified that I am subject to backup withholding as a result of a failure to report all interest or dividends, or the Internal Revenue Service has notified me that I am no longer subject to backup withholding.

FATCA Code. The FATCA code entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Signature. I certify under penalties of perjury that the statements made in this section are true and that I am a U.S. citizen or other U.S. person (as defined in the instructions)

X Butch Mat 8/28/20
(Date)

Signatures. I agree to the terms stated on page one and page two.

X Butch Mat
BUTCH E MATHEWS

X Kim Gregory Mat
KIM GREGORY MATHEWS

X _____

Definitions. "We," "our," and "us" mean the issuer of this account and "you" and "your" mean the depositor(s). "Account" means the original certificate of deposit as well as the deposit it evidences.

Transfer. "Transfer" means any change in ownership, withdrawal rights, or survivorship rights, including (but not limited to) any pledge or assignment of this account as collateral. You cannot transfer this account without our written consent.

Primary Agreement. You agree to keep your funds with us in this account until the maturity date. (An automatically renewable account matures at regular intervals.) You may not transfer this account without first obtaining our written consent. You must present this certificate when you request a withdrawal or a transfer.

This account is void if the deposit is made by any method requiring collection (such as a check) and the deposit is not immediately collected in full. If the deposit is made or payable in a foreign currency, the amount of the deposit will be adjusted to reflect final exchange into U.S. dollars.

We may change any term of this agreement. Rules governing changes in interest rates have been provided. For other changes we will give you reasonable notice in writing or by any other method permitted by law.

If any notice is necessary, you all agree that the notice will be sufficient if we mail it to the address listed on page one of this form. You must notify us of any change. Deposits will be repaid to depositors under regulations adopted by our board of directors from time to time. These regulations will be available for inspection by you upon your request.

Withdrawals and Transfers. Only those of you who sign the permanent signature card may withdraw funds from this account. (In appropriate cases, a court appointed representative, a beneficiary of a trust or pay-on-death account whose right of withdrawal has matured, or a newly appointed and authorized representative of a legal entity may also withdraw from this account.) The specific number of you who must agree to any withdrawal is written on page one in the section bearing the title *Number of Endorsements*. This means, for example, that if two of you sign the signature card but only one endorsement is necessary for withdrawal then either of you may request withdrawal of the entire account at any time. Unless otherwise specified in writing, only one endorsement is required to withdraw funds from this account.

These same rules apply to define the names and the number of you who can request our consent to a transfer.

Pledges. Any pledge of this account (to which we have agreed), must first be satisfied before the rights of any joint account survivor, pay-on-death beneficiary or trust account beneficiary become effective. For example, if one joint tenant pledges the account for payment of a debt and then dies, the surviving joint tenant's rights in this account are subject first to the payment of the debt.

Account Ownership. You intend these rules to apply to this account depending on the form of ownership and beneficiary designation, if any, specified on page 1. We make no representations as to the appropriateness or effect of the ownership and beneficiary designations, except as they determine to whom we pay the account funds.

Single-Party Account. Such an account is owned by one party.

Multiple-Party Account. Parties own account in proportion to net contributions unless there is clear and convincing evidence of a different intent.

Trust Account Subject to Separate Agreement. We will abide by the terms of any separate agreement which clearly pertains to this certificate and which you file with us. Any additional consistent terms stated on this form will also apply.

Rights at Death

Single-Party Account. At death of party, ownership passes as part of party's estate.

Multiple-Party Account with Right of Survivorship. At death of party, ownership passes to surviving parties. If two or more parties survive and one is the surviving spouse of the deceased party, the amount to which the deceased party, immediately before death, was beneficially entitled by law belongs to the surviving spouse. If two or more parties survive and none is the spouse of the decedent, the amount to which the deceased party, immediately before death, was beneficially entitled by law belongs to the surviving parties in equal shares.

Multiple-Party Account without Right of Survivorship. At death of party, deceased party's ownership passes as part of deceased party's estate.

Single-Party Account with POD (Pay-On-Death) Designation. At death of party, ownership passes to POD beneficiaries and is not part of party's estate.

Multiple-Party Account with Right of Survivorship and POD (Pay-on-Death) Designation. At death of last surviving party, ownership passes to POD beneficiaries and is not part of last surviving party's estate.

Set-Off. You each agree that we may (without prior notice and when permitted by law) set off the funds in this account against any due and payable debt owed to us now or in the future, by any of you having the right of withdrawal, to the extent of such person's or legal entity's right to withdraw. If the debt arises from a note, "any due and payable debt" includes the total amount of which we are entitled to demand payment under the terms of the note at the time we set off, including any balance the due date for which we properly accelerate under the note. This right of set-off does not apply to this account if: (a) it is an Individual Retirement Account or other tax-deferred retirement account, or (b) the debt is created by a consumer credit transaction under a credit card plan, or (c) the debtor's right of withdrawal arises only in a representative capacity. You agree to hold us harmless from any claim arising as a result of our exercise of our right of set-off.

Balance Computation Method. We use the daily balance method to calculate the interest on this account. This method applies a daily periodic rate to the principal in the account each day.

Transaction Limitations. You cannot make additional deposits to this account during a term (other than credited interest). You cannot withdraw principal from this account without our consent except on or after maturity. (For accounts that automatically renew, there is a grace period after each renewal date during which withdrawals are permitted without penalty.)

In certain circumstances, such as the death or incompetence of an owner, the law permits, or in some cases requires, the waiver of the early withdrawal penalty. Other exceptions may also apply, for example, if this is part of an IRA or other tax-deferred savings plan.

For Accounts that Automatically Renew. Each renewal term will be 24 months, beginning on the maturity date (unless we notify you, in writing, before a maturity date, of a different term for renewal).

You must notify us in writing before, or within a ten calendar day grace period after, the maturity date if you do not want this account to automatically renew.

Interest earned during one term that is not withdrawn during or immediately after that term is added to principal for the renewal term.

The rate for each renewal term will be determined by us on or just before the renewal date. You may call us on or shortly before the maturity date and we can tell you what the interest rate will be for the next renewal term. On accounts with terms of longer than one month we will remind you in advance of the renewal and tell you when the rate will be known for the renewal period.

See your plan disclosure if this account is part of an IRA or Keogh.

Attachment 11 PA & Reclamation Estimates

3D SERVICES
#64 CR 4995
Bloomfield, NM 87413
505-330-4089
505-330-4311

Estimate

Date	Estimate #
5/24/2022	22-188

Bill To:

Merrion Oil & Gas
610 Reilly Ave.
Farmington, NM 87401

Foreman	Location
Ryan Davis	Agua Moss Sunco

Date	Item	Equipment/Labor Description	HRS	Rate	Total
		Bid estimate for facility closure and reclamation of Agua Moss Sunco Class 1 facility			
05/24/22	22	12 Yard Dump Truck #22	12	115.00	1,380.00T
	ET	Equipment Trailer	8	45.00	360.00T
	BH	4x4 Backhoe	45	115.00	5,175.00T
	EL	Electrician: Disconnect electricity from buildings and facility	8	175.00	1,400.00T
	MT	Materials: Torch / day rate	5	125.00	625.00T
	50CR	50 Ton Crane	30	400.00	12,000.00T
	TP	Transport:	25	150.00	3,750.00T
		Break out and move 1 septic tank, containment ring, 11 production tanks, with cat walkand landing. 1 vacuum tank, 1 pit, 1 pump house, 1 electric / control building,1 storage building, piping and guard rails. Move and stack out all equipment buildings and piping in south yard.			
	22	12 Yard Dump Truck #22	2	115.00	230.00T
	ET	Equipment Trailer	2	45.00	90.00T
	BH	4x4 Backhoe	15	115.00	1,725.00T
	MT	Materials: torch / day rate		125.00	125.00T
	50CR	50 Ton Crane	17	400.00	6,800.00T
	TP	Transport:	17	150.00	2,550.00T
		Disconnect and moveoffice building to south yard.			
	TP	Transport: MOB dozer in and out	4	150.00	600.00T
	DZ	Dozer: Push existing elevated site north into low lying area.	70	175.00	12,250.00T
		Fuel surcharge when aplicable			

All estimates and bids are valid for only 30 days form issue.

SALES TAX (6.6875%)	$3,280.89
TOTAL	$52,340.89

A-PLUS WELL SERVICE

P.O. Box 1979, Farmington, NM 87499
(505) 325-2627

Revised 5/24/22

MERRION OIL & GAS CORP

610 Reilly Ave
Farmington, NM 87401
505-324-5335

Well: SUNCO Disposal #1
API: 30-045-28653
State & County: NM, San Juan
Billing Region: San Juan
Service: P & A

Cost Estimate

Code		Qty		Cost	Total
Well Servicing Rigs & Equipment:					
1100	P & A Double Drum / Double/Triple Rig, 4 man crew	40.00	$	280.00	11,200.00
1800	Crew Travel Time, includes vehicle mileage	6.00	$	200.00	1,200.00
			Subtotal		**12,400.00**
Cementing Services (When at an A-Plus Rig) and Pump:					
2160	If above Triplex is a Pump Truck, then Mileage:	16.00	$	5.00	80.00
2200	Cement Pump Charge - plugging	4.00	$	750.00	3,000.00
2400	Surface top-off, fill bradenhead annulus and/or casing	1.00	$	500.00	500.00
2500	Class B Cement or ATM Type II Cement	188.00	$	28.00	5,264.00
			Subtotal		**$8,844.00**
Supervision of Rig & Cementing Operations:					
3200	Cementer	4.00	$	800.00	3,200.00
3600	Travel for above persons in pickup	64.00	$	2.00	128.00
			Subtotal		**$3,328.00**
Wireline Services:					
4100	Wireline Operator on location	1.00	$	600.00	600.00
4150	Wireline Rigger on location	4.00	$	65.00	260.00
4200	Travel for wireline operator or rigger in pickup	16.00	$	2.00	32.00
4320	Move to and from location: Wireline Unit Standard	16.00	$	5.00	80.00
4600	Cement Bond Log Charge:	1.00	$	2,600.00	2,600.00
4620	CBL Depth Charge:	4,300.00	$	0.25	1,075.00
			Subtotal		**$4,647.00**
Downhole Tools:					
5225	Cement Retainers, WD - Tubing Set: 5-1/2"	1.00	$	1,500.00	1,500.00
6100	Casing Scraper (4-1/2" & 5-1/2"), A+ owned	1.00	$	500.00	500.00
			Subtotal		**$2,000.00**
Transportation, Backhoe and Welder Services:					
3300	Route Survey before moving equipment	1.00	$	85.00	85.00
3400	Pilot Car and driver moving equipment	2.00	$	85.00	170.00
7000	Tandem Rig Up Truck and Driver	20.00	$	130.00	2,600.00
7040	Helper / Swamper or Laborer	20.00	$	65.00	1,300.00
7060	Water Truck Body Load (80 bbl., vacuum) with Driver	10.00	$	95.00	950.00
7070	Water Charge 80 BBL	5.00	$	65.00	325.00
7160	Tandem Trailer; with hand rails:	4.00	$	65.00	260.00
7500	Four Gas Monitor with bump gas test	1.00	$	45.00	45.00
			Subtotal		**$5,735.00**
Miscellaneous Items:					
8100	Well Analysis and suggested procedure	1.00	$	500.00	500.00
8300	P&A Marker, 4"x 4` above ground	1.00	$	225.00	225.00
8600	Rental: 2-3/8" EUE, J-55 Tubing workstring,	4,300.00	$	0.75	3,225.00

A-PLUS WELL SERVICE

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(505) 325-2627

Revised 5/24/22

MERRION OIL & GAS CORP

610 Reilly Ave
Farmington, NM 87401
505-324-5335

Well: SUNCO Disposal #1
API: 30-045-28653
State & County: NM, San Juan
Billing Region: San Juan
Service: P & A

Cost Estimate

			Subtotal		**$3,950.00**
Rental Equipment:					
9420	Water Storage Tank, 210, 300 or 400 barrel capacity	4.00	$ 40.00		160.00
9460	Medium Steel Waste Fluid Pit, 85 bbl. capacity	8.00	$ 75.00		600.00
9520	Certified Rig Base Beam, 6` X 40`	4.00	$ 100.00		400.00
9660	Portable Toilet rental	4.00	$ 35.00		140.00
9680	Geronimo tie down pad, rental	4.00	$ 25.00		100.00
9720	Stripping Rubbers, Supreme: 2-3/8",	1.00	$ 200.00		200.00
9740	Pipe Wiper Rubber: 2-3/8",	1.00	$ 50.00		50.00
9900	Cut Off Operator, pneumatic saw & welding work	5.00	$ 250.00		1,250.00
9920	Air Compressor rental	1.00	$ 200.00		200.00
9940	Pneumatic Powered Saw	1.00	$ 100.00		100.00
9960	Jack Hammer	1.00	$ 100.00		100.00
9980	Blade for pneumatic saw	1.00	$ 25.00		25.00
			Subtotal		**$3,325.00**
	Reclamation (3rd Party Vendor)		**Subtotal**		**$14,000.00**
				Total	**$58,229.00**

DISCHARGE PERMIT UICI-5 (WDW-1)

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the New Mexico Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-5/Facility ID# fCJC2115960695 (Discharge Permit) to Agua Moss, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well "Waste Disposal Well No. 1 (WDW-1) API No. 30-045-28653, located 1,595 FNL 1,005 FWL, Unit Letter "E", Section 2, Township 29 North, Range 12 West, (Lat. 36.75795, Long. -108.07343), NMPM, San Juan County, New Mexico. WDW-1 is located approximately 6 miles southwest of Aztec at the intersection of CR-3500 and CR-3773.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA non-exempt non-hazardous) oil field waste fluids into WDW-1. Groundwater that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 83 to 98 feet below ground surface and has a total dissolved solids (TDS) concentration of approximately 3,460 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells (see Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (see 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well (WDW-1) is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil field waste, other than non-hazardous oil field waste fluids into its Class I non-hazardous waste injection well (WDW-1), including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, and wash-down water. The Permittee may not dispose of any industrial waste fluid that is not oil field waste that is generated at its refinery. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all industrial fluids that are not generated in the oil field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

1. The injection of fluids into a motor vehicle waste disposal well is prohibited.

2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified in 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified in 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject waste fluids into ground water containing 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (see Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT: This Discharge Permit (UICI-5) is a UIC Class I (non-hazardous) Renewal Discharge Permit due to the expiration of the existing permit and continued use of the well.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has

already received the required $100.00 filing fee. The Permittee shall submit the final $4,500.00 permit fee for a Class I non-hazardous waste injection well to OCD with a check made payable to "Water Quality Management Fund" no later than thirty days after the date that this permit is issued.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit is effective immediately or until the permit is terminated or expires. This Discharge Permit will **expire on July 31, 2027.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (see Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Engineering Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2, or process modification that would result in any significant modification in the discharge of water contaminants (see 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978 and 20.6.2.3109E and 20.6.2.5101I NMAC.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well (WDW-1) that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

   a. Noncompliance by Permittee with any condition of this Discharge Permit; or,
   b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,
   c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (see 20.6.2.5101I NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

b. Violation of any applicable state or federal effluent regulations or limitations; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (see Section 74-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

a. The OCD Director receives written notice 30 days prior to the transfer date; and

b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgment that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility;

b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

c. Include information related to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (see Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in District Court for appropriate relief, including injunctive relief (see Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement,

representa- tion, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (see Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELL: The Permittee shall properly conduct waste management injection operations at its facility by injecting only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil field waste fluids. Injected waste fluids shall not exhibit the RCRA characteristics, i.e., ignitability, reactivity, corrosivity, or toxicity under 40 CFR 261 Subpart "C" 261.21 – 261.24 (July 1, 1992), at the point of injection into WDW-1, based upon environmental analytical laboratory testing and/or monitoring. Pursuant to 20.6.2.5207B, the Permittee shall provide analyses of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee shall also analyze the injected fluids quarterly for the following characteristics:

- pH (Method 9040),
- Eh,
- Specific conductance,
- Specific gravity,
- Temperature,
- Major dissolved cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, bromide, total dissolved solids, and cation/anion balance using the methods specified in 40 CFR 136.3; and,
- EPA RCRA Characteristics for Ignitability (ASTM Methods); Corrosivity (SW-846) and Reactivity (determined through Permittee's application of knowledge or generating process).

The Permittee shall analyze the injected fluids quarterly for the constituents identified in the Quarterly Monitoring List (below) to demonstrate that the injected fluids do not exhibit the characteristic of toxicity using the Toxicity Characteristic Leaching Procedure, EPA SW-846 Test Method 1311 (see Table 1, 40 CFR 261.24(b)).

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QUARTERLY MONITORING LIST			
EPA HW No.	**Contaminant**	**SW-846 Methods**	**Regulatory Level (mg/L)**
D004	Arsenic	1311	5.0
D005	Barium	1311	100.0
D018	Benzene	8021B	0.5
D006	Cadmium	1311	1.0
D019	Carbon tetrachloride	8021B 8260B	0.5
D020	Chlordane	8081A	0.03
D021	Chlorobenzene	8021B 8260B	100.0
D022	Chloroform	8021B 8260B	6.0
D007	Chromium	1311	5.0
D023	o-Cresol	8270D	200.0
D024	m-Cresol	8270D	200.0
D025	p-Cresol	8270D	200.0
D026	Cresol	8270D	200.0
D027	1,4-Dichlorobenzene	8021B 8121 8260B 8270D	7.5
D028	1,2-Dichloroethane	8021B 8260B	0.5
D029	1,1-Dichloroethylene	8021B 8260B	0.7
D030	2,4-Dinitrotoluene	8091 8270D	0.13
D032	Hexachlorobenzene	8121	0.13
D033	Hexachlorobutadiene	8021B 8121 8260B	0.5
D034	Hexachloroethane	8121	3.0
D008	Lead	1311	5.0
D009	Mercury	7470A 7471B	0.2
D035	Methyl ethyl ketone	8015B 8260B	200.0
D036	Nitrobenzene	8091 8270D	2.0
D037	Pentrachlorophenol	8041	100.0
D038	Pyridine	8260B 8270D	5.0

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D010	Selenium	1311	1.0
D011	Silver	1311	5.0
D039	Tetrachloroethylene	8260B	0.7
D040	Trichloroethylene	8021B 8260B	0.5
D041	2,4,5-Trichlorophenol	8270D	400.0
D042	2,4,6-Trichlorophenol	8041A 8270D	2.0
D043	Vinyl chloride	8021B 8260B	0.2

If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/L.
If the quantitation limit is greater than the regulatory level, then the quantitation limit becomes the regulatory level.
If metals (dissolved), the EPA 1311 TCLP Laboratory Method is required with the exception of Mercury (total).
Updated environmental analytical methods are allowed where SW-846 and EPA QA/QC and DQOs do not exceed State and Federal RLs.

1. Monitor and Piezometer Wells: Groundwater with a total dissolved solids concentration of less than 10,000 mg/L occurs at an estimated depth of approximately 83 - 98 ft. below ground surface at the WDW-1 well (hereafter, "uppermost water-bearing unit"). A groundwater monitoring well with groundwater sampling capability shall be installed proximal to and hydrogeologically downgradient from WDW-1 to monitor the uppermost water-bearing unit. The monitoring well shall be screened (15 ft. screen with top of screen positioned 5 ft. above water table or as approved by the OCD) into the uppermost water-bearing unit. The Permittee shall propose a monitoring frequency with chemical monitoring parameters to detect potential groundwater contamination either associated with or not associated with WDW-1.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: The Permittee has submitted, and OCD has approved, a closure plan which includes a plan for the plugging and abandonment of WDW-1 (Closure Plan). The Permittee shall plug and abandon and close WDW-1 pursuant to 20.6.2.5209 NMAC and as specified in Closure Plan.

1. Pre-Closure Notification: Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Engineering Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of WDW-1. Pursuant to 20.6.2.5005B NMAC, OCD's Engineering Bureau must approve all proposed well closure activities before the Permittee may implement its proposed closure plan.

2. Required Information: The Permittee shall provide OCD's Engineering Bureau with the following information in the pre-closure notification specified in Permit Condition 2.C.1:

- Name of facility;

- Address of facility;
- Name of Permittee (and owner or operator, if appropriate);
- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.,* sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, *etc.*);
- Proposed date of well closure;
- Name of Preparer; and
- Date.

3. Closure Plan: OCD may require the Permittee to revise or update the Closure Plan prior to closure. **The obligation to implement the Closure Plan as well as the requirements of the Plan survives the termination or expiration of this Discharge Permit.**

2.D. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.E. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified in 20.6.2.3103 NMAC, then it shall report a release to OCD's Engineering Bureau.

1. Oral Notification: As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Engineering Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;

- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and
- Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. Written Notification: Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use C-141 Form with attachments) to OCD's Engineering Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Engineering Bureau.

2.F. OTHER REQUIREMENTS:

1. Inspection and Entry: Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;
- Inspect and copy records required by this Discharge Permit;
- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. Advance Notice: The Permittee shall provide OCD's Engineering Bureau and Aztec Office with at least five (5) working days' advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well subsurface work, i.e., Mechanical Integrity Testing, well plugging, abandonment or decommissioning of any equipment associated with WDW-1.

3. Environmental Monitoring: The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and EPA laboratory Quality Assurance/Quality Control (QA/QC) and Data Quality Objectives (DQOs) documentation to comply with OCD environmental sampling and analytical laboratory methods and data reporting requirements in New Mexico.

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2.G. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee has submitted and will maintain financial assurance in the amount of $ 95,000.00 to demonstrate the ability of Permittee to undertake the measures provided in the Closure Plan. The Permittee shall review the financial assurance each time the Closure Plan is revised or updated and prior to any renewal of this Discharge Permit to determine if the amount of financial assurance is adequate. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective action(s).

2.H. REPORTING:

1. Quarterly Reports: The Permittee shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD's Engineering Bureau no later than 45 days following the end of each calendar quarter. The quarterly reports shall include the following:

a. Physical, chemical and other relevant characteristics of injection fluids;

b. Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure with any exceedances identified;

c. Results of monitoring prescribed under Section 20.6.2.5207B NMAC with any exceedances of Permit Condition 2.A;

d. Piezometer and monitor well information from Permit Condition 2.A.1; and

e. Continuous monitoring chart(s) and information from Permit Condition 3.C.

2. Annual Report: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Engineering Bureau by **March 31**st of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well (WDW-1), Name of Permittee, Discharge Permit Number, API number of well, date of report, and person submitting report;
- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103(s);
- Copy of Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- Copy of the quarterly chemical analyses shall be included with data summary and all QA/QC and DQO associated information;

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- Copy of any mechanical integrity test (MIT) chart(s), including the type of test, *i.e.,* duration, gauge pressure, etc. unless OCD has approved Monthly Continuous Monitoring Charts for MITs in lieu of individual MITs;
- Copy of Fall-Off Test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluid samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. The Permittee shall include copies of the most recent year's environmental analytical laboratory data sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports (include any C-141 reports);
- Area of Review (AOR) annual update summary with any new wells penetrating the injection zone within a 1-mile radius from WDW-1;
- Summary with interpretation of MITs, Fall-Off Tests, Bradenhead Tests, *etc.*, with conclusion(s) and recommendation(s);
- Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- Summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
- Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Engineering Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206B NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that WDW-1 is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1, then the Permittee shall cease operations until proper repairs are made, notify the OCD's Engineering Bureau and Aztec Office within 24 hours, and shall not resume injection until the Permittee has received approval from the OCD.

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3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone.

4. The annulus between the injection tubing and the long string of injection casing shall be filled with a fluid approved by the OCD Director with an annulus pressure also approved rework by the OCD Director.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval (Zone) and Waste Fluids: The Permittee shall inject only non-hazardous (RCRA exempt and/or RCRA non-exempt) oil field waste fluids into the formations estimated to exist from ~ 4,380 to 4,480 feet below ground level (bgl) at WDW-1. The conductor casing is set at 209 feet. The production casing is set at 4,750 feet. The injection tubing will be set in the injection packer at approximately 4,282 feet, which isolates WDW-1 into the perforated injection interval estimated to be between 4,350 - 4,460 feet bgl. The Permittee shall ensure that the injected non-hazardous waste fluids enter perforations only within the specified injection interval and are not permitted to escape into other formations or onto the land surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum allowable surface injection pressure on WDW-1 shall not exceed 2,400 psig and the injection flow rate shall not exceed 4,000 barrels per day (168,000 gallons per day). A Step-Rate Test (SRT) shall be performed and submitted to OCD under Sundry before approval of any increase in the injection pressure. The Permittee shall inspect and monitor the pressure-limiting device daily and shall report any pressure exceedances within 24 hours of detection to OCD's Engineering Bureau and Aztec Office.

3. Pressure-Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a pressure limiting device, or equivalent (i.e., Murphy switch), in working condition which shall at all times limit surface injection pressure to the maximum allowable surface injection pressure limit.

The Permittee shall inspect and monitor the pressure-limiting device daily and shall report any pressure exceedances within 24 hours of detection to OCD's Engineering Bureau and Aztec Office. The Permittee shall take all steps necessary to ensure that the injected waste fluids enter only the permitted injection interval and not escape to other formations or onto the ground surface. The Permittee shall report to OCD's Engineering Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated under operational conditions, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize an increase in maximum surface injection pressure if the Permittee demonstrates that higher pressure will not result in migration of the injected fluid from the designated injection zone or interval using a valid Step-Rate Test (SRT) run preferably in coordination with a Fall-Off Test (FOT). Any increase in MSIP following

testing shall not exceed the formation parting pressure, as determined from any OCD approved testing, which shall initiate fractures or propagate existing fractures in the injection zone.

3.C. CONTINUOUS MONITORING DEVICE: The Permittee shall continue to use a continuous monitoring device in advance of injection that records the monthly (hourly basis) real-time injection pressure, injection rate, injection volume, and pressure on the annulus between the injection tubing and the long string of casing. When changing charts, the Permittee shall utilize a procedure that depressurizes and properly re-aligns the pens on the chart scale during changing to prevent anomalous pressure noise, i.e., MIT annulus pressure, etc. The Permittee shall notify OCD within 24 hours after having knowledge of the MIT failure. The Permittee shall not resume injection operations until approved by OCD.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall conduct a mechanical integrity test (MIT) for WDW-1 at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. In addition, an annual Bradenhead test shall be performed. The Permittee shall also demonstrate mechanical integrity for WDW-1 by completing an MIT after well workovers, including when it pulls the tubing or reseats the packer. The Permittee shall request MIT approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Engineering Bureau and Aztec Office. The Permittee shall notify OCD's Engineering Bureau 5 working days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

The Permittee shall conduct a casing-tubing annulus MIT from the surface to the approved injection packer depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface. The Permittee shall follow OCD's 2004 *New Mexico Oil Conservation Division Underground Injection Control Program Manual* guidance when conducting a MIT. The Permittee shall submit the results of its MIT to OCD's Engineering Bureau and Aztec Office within 30 days of completion. If any remedial work or any other workover operations are necessary, the Permittee shall comply with Permit Condition 3.F.

2. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure, and no detectable conduit for fluid movement out of the injection zone through the well bore, or vertical channels adjacent to the well bore, which the OCD considers to be significant. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. The MIT passes if there is zero bleed-off during the test;

b. The MIT passes if there is a less than a 10% change in the final test pressure compared to the starting pressure, if approved by OCD;

c. The MIT fails if there is more than a 10% reduction in the final pressure compared to the starting pressure or that the pressure does not stabilize within 10% of the starting pressure before the end of the MIT. The Permittee shall immediately shut-in the well and investigate for leaks in accordance with Permit Conditions 3.B, 3.C, 3.D, and 3.F. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall immediately shut-in the well and investigate for leaks in accordance with Permit Conditions 3.C, 3.D, and 3.F. The Permittee shall notify OCD within 24 hours after having knowledge of the MIT failure. The Permittee shall not resume injection operations until approved by OCD.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry. When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts an MIT.

3.E. FALL-OFF TEST: The Permittee shall submit an initial C-103 (Sundry Notice) form for the annually required Fall-Off Test (FOT). The minimum FOT frequency shall be at least annually before September 30th and comply with OCD's 2007 *New Mexico Oil Conservation Division UIC Class I Well Fall-Off Test Guidance* for conducting a FOT and for reporting FOT results. Historical FOT results shall be included with the FOT results to monitor injection zone characteristics over time. The Permittee shall submit the FOT results to the OCD Engineering Bureau and Aztec Office within 60 days of FOT completion.

3.F. WELL WORKOVER OPERATIONS: The Permittee shall pursuant to 20.6.2.5205A (5) NMAC, provide notice to and shall obtain approval from the OCD Aztec Office prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) sent to the OCD Aztec Office with copies sent to the OCD's Engineering Bureau. After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run an MIT in accordance with Permit Condition 3.D to verify that the remedial work has successfully repaired any problems.

3.G. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers. The Permittee shall record the minimum, maximum, and average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD on a quarterly basis and in the annual report. The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch or equivalent, as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.H. AREA OF REVIEW (AOR): The Permittee shall report to OCD's Engineering Bureau within 72 hours of discovery of any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well. Any un-cemented wells within the injection interval shall be identified by the Permittee and reported to OCD for further instruction.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.,* septic systems, leach fields, dry wells, *etc*.) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. QUARTERLY AND ANNUAL REPORTS: The Permittee shall submit its quarterly and annual reports to OCD as specified in Permit Condition 2.H.

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NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3108 NMAC), the following discharge permit application has been submitted to the Engineering Bureau Underground Injection Control Group Manager of the New Mexico Oil Conservation Division ("OCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 660-8274 or E-mail: Phillip.Goetze@state.nm.us.

(UICI-5/Facility ID# fCJC2115960695) Agua Moss, LLC, Philana Thompson, Regulatory Compliance Specialist, P.O. Box 600, Farmington, New Mexico 87499, at (505) 486-1171 has submitted a new application for a Commercial Underground Injection Control (UIC) Class I (Non-Hazardous) Injection Well Discharge Permit for the Sunco Waste Disposal Well No. 1 (API# 30-045-28653) located 1595 FNL and 1005 FWL in Unit E of Section 2, Township 29 North, Range 12 West (latitude 36.75795, and longitude 108.07343) NMPM, San Juan County, New Mexico. The injection well is located approximately 6 miles southwest of Aztec at the intersection of CR-3500 and CR-3773.

Oilfield exempt and non-exempt non-hazardous wastewater is disposed via a 2 7/8-inch coated tubing into the Point Lookout Sandstone Formation at a perforated injection interval from 4,350 ft. to 4,460 ft. below ground level (bgl) at a daily rate not to exceed 4,000 barrels per day and at a maximum surface injection pressure of 2,400 psig. The injection fluid contains approximately 31,000 ppm total dissolved solids (TDS). Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of about 83-98 ft. bgl with a TDS concentration of approximately 3,460 ppm. Water quality in the injection zone is approximately 17,200 ppm TDS. The discharge permit addresses well construction, operation, monitoring, associated surface units, financial assurance, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges to protect fresh water.

OCD has determined that the application is administratively complete and has prepared a draft permit. OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact the OCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit renewal based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 505-629-6116).

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 31st day of July 2022.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Adrienne Sandoval, Director