Initial Application Part I

Received: **03/25/2019**

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

MAR 25 2019 AM10:17

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
3/25/2019		SWD	pMAM1908[illegible] 34167

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: Trove Energy and Water, LLC **OGRID Number:** 372488
Well Name: WLC-M Federal SWD No.4 **API:** 30-025-xxxxx
Pool: Proposed: SWD; Devonian-Silurian **Pool Code:** 97869

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.

Ben Stone
Print or Type Name

Ben Stone
Signature

3/22/2019
Date

903-488-9850
Phone Number

ben@sosconsulting.us
e-mail Address

March 22, 2019

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

Attn: Mr. Gabriel Wade Acting Director

Re: Application of Trove Energy and Water, LLC to permit for salt water disposal the proposed WLC Mid Federal SWD No.4, to be located in Section 17, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico.

Dear Mr. Wade,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request for salt water disposal. The well will be operated as a commercial endeavor offering operators in the area additional options for produced water disposal.

Trove Energy and Water is a developing salt water disposal services to operators in southeast New Mexico and seeks to optimize efficiency, both economically and operationally, of all its operations. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

This application for a proposed Devonian SWD interval includes the currently mandated increased One-Mile Area of Review including pertinent and available seismic information for the area and region. Published legal notice ran March 14, 2018 in the Hobbs News-Sun and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included with this application. The application also includes a wellbore schematic, area of review maps, affected party plat and other required information for a complete Form C-108. The well is located on federal surface and minerals and the Bureau of Land Management CFO and offset operators have been notified of this application. State minerals offset as well and the Oil and Gas Division of the State land Office were noticed.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

Ben Stone, Partner
SOS Consulting, LLC
Agent for Trove Energy and Water, LLC

Cc: Application attachment and file

C-108 - Items III, IV, V

Item III - Subject Well Data

Wellbore Diagram - PROPOSED

Item IV – Tabulation of AOR Wells

NO wells penetrate the proposed injection interval.

Item V – Area of Review Maps

1. Two Mile AOR Map with One-Mile Fresh Water Well Radius

2. One-Half Mile AOR Map

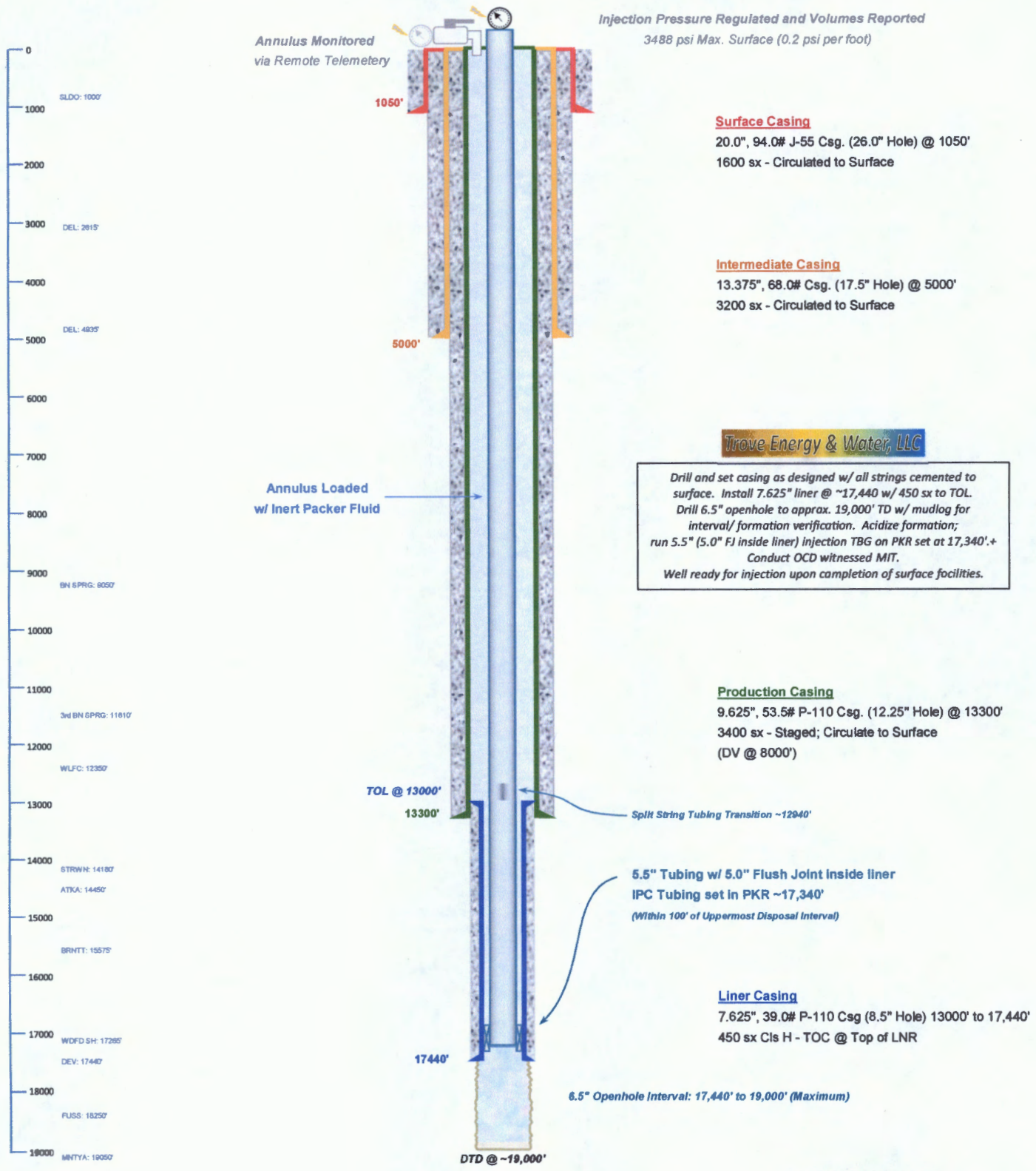
All Above Exhibits follow this page.

WELL SCHEMATIC - PROPOSED
WLC Mid Federal SWD Well No.4

TROVE ENERGY and WATER

API 30-025-xxxxx
1470' FSL & 1170' FEL, SEC. 17-T25S-R33E
LEA COUNTY, NEW MEXICO

SWD; Devonian-Silurian (97869)
Spud Date: 11/01/2019
SWD Config Dt: 12/15/2019



Surface Casing
20.0", 94.0# J-55 Csg. (26.0" Hole) @ 1050'
1600 sx - Circulated to Surface

Intermediate Casing
13.375", 68.0# Csg. (17.5" Hole) @ 5000'
3200 sx - Circulated to Surface

Trove Energy & Water, LLC

Drill and set casing as designed w/ all strings cemented to surface. Install 7.625" liner @ ~17,440 w/ 450 sx to TOL. Drill 6.5" openhole to approx. 19,000' TD w/ mudlog for interval/ formation verification. Acidize formation; run 5.5" (5.0" FJ inside liner) injection TBG on PKR set at 17,340'.+ Conduct OCD witnessed MIT. Well ready for injection upon completion of surface focilities.

Production Casing
9.625", 53.5# P-110 Csg. (12.25" Hole) @ 13300'
3400 sx - Staged; Circulate to Surface
(DV @ 8000')

Split String Tubing Transition ~12940'

5.5" Tubing w/ 5.0" Flush Joint inside liner
IPC Tubing set in PKR ~17,340'
(Within 100' of Uppermost Disposal Interval)

Liner Casing
7.625", 39.0# P-110 Csg (8.5" Hole) 13000' to 17,440'
450 sx Cls H - TOC @ Top of LNR

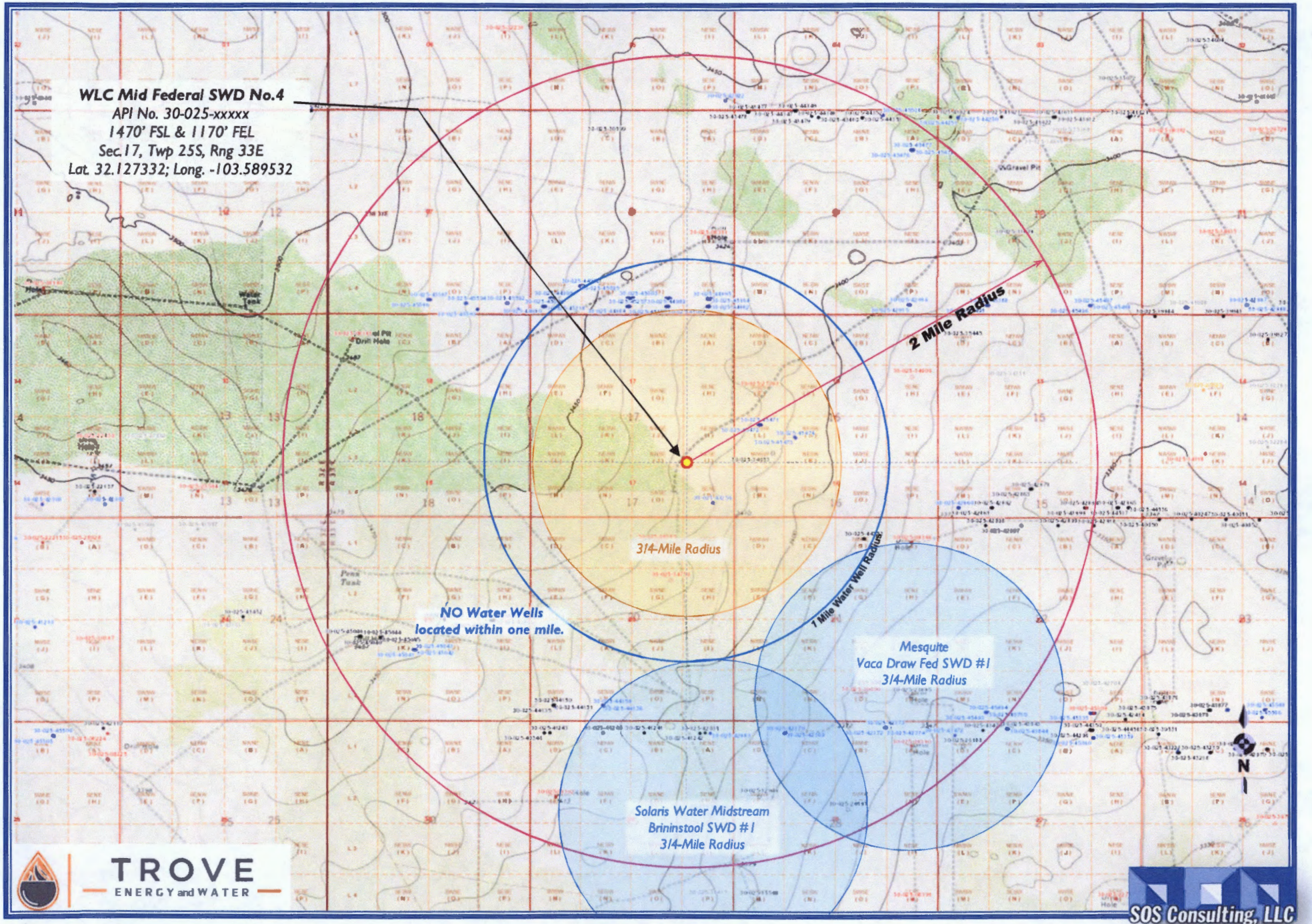
6.5" Openhole Interval: 17,440' to 19,000' (Maximum)

Drawn by: Ben Stone, 3/18/2019

SOS Consulting, LLC

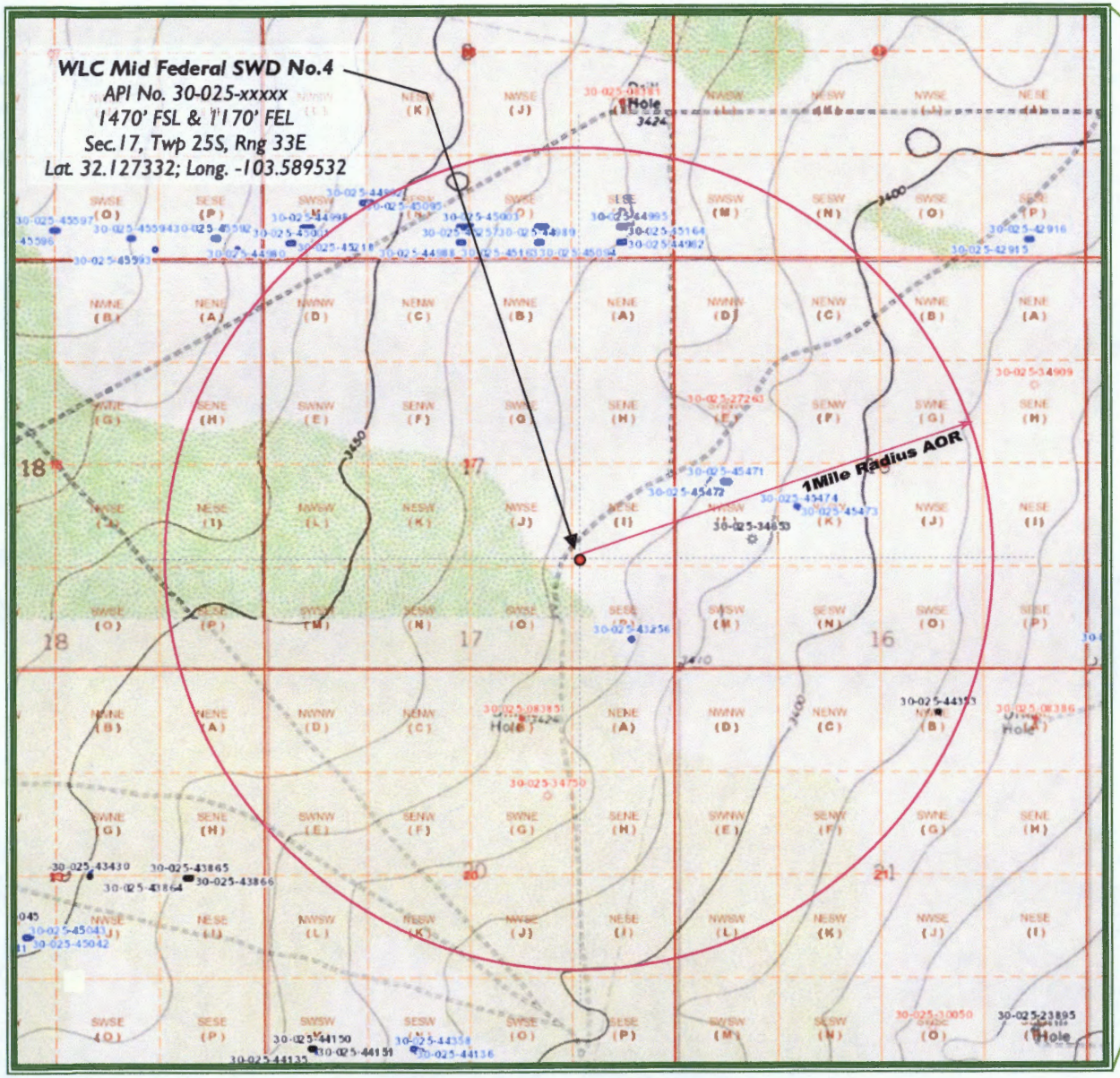
WLC Mid Federal SWD No.4 - Area of Review / 2 Miles

(Attachment to NMOCD Form C-108 - Item V)



WLC Mid Federal SWD Well No.4 – One Mile Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



23.2 miles West of Jal, NM

Lea County, New Mexico

TROVE ENERGY and WATER

SOS Consulting, LLC

C-108 ITEM X

LOGS and AVAILABLE TEST DATA

A Standard Suite of Logs will be run after drilling the well and submitted to the Division.

C-108 ITEM VII – PROPOSED OPERATION

Trove WLC Mid Federal SWD #4

Commercial SWD Facility

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but at a different location from the well. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

Operational Summary

The SWD facility will not be fenced so that trucks may access for load disposal 24/7.

Future plans would include tying the SWD into a pipeline so the well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

The facility and tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 30,000 bpd and an average of 17,500 bpd at a maximum surface injection pressure of 3488 psi (.2 psi/ft gradient – maximum pressure will be adjusted If the top of interval is modified after well logs are run).

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC; as necessary and appropriate and OCD form C-141 will be submitted promptly.

C-108 ITEM VII – PRODUCED WATER ANAYLSES

Item VII.4 – Water Analysis of Source Zone Water

Delaware
Bone Spring
Wolfcamp

Item VII.5 – Water Analysis of Disposal Zone Water

Devonian

Water Analyses follow this page.

C-108 Item VII.5 - Produced Water Data

Trove Energy & Water, LLC - WLC Mid Federal Project Area

SOURCE ZONE

DELAWARE

Lab ID

Sample ID 5532

API No 3001510181

Well Name SUPERIOR STATE 002

Sample No

Location ULSTR 08 25 S 30 E **Lat / Long** 32.14281 -103.89616

1980 S 660 E **County** Eddy

Operator (when sampled)

Field CORRAL CANYON Unit I

Sample Date Analysis Date

Sample Source SWAB Depth (if known)

Water Typ

ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	155173	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	92820	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	122
iron_mgL		sulfate_mgL	133
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)

SOS Consulting, LLC

C-108 Item VII.5 - Produced Water Data

Trove Energy & Water, LLC - WLC Mid Federal Project Area

SOURCE ZONE

BONE SPRING

Lab ID

Sample ID 6681

API No 3002533529

Well Name THYME APY FEDERAL 002

Sample No

Location ULSTR 01 23 S 32 E **Lat / Long** 32.33657 -103.62470

1650 N 1650 E **County** Lea

Operator (when sampled)

Field RED TANK Unit G

Sample Date 11/27/2001 Analysis Date

Sample Source

Water Typ

Depth (if known)

ph	6.1	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.15	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	172896	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	104976	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL	0	bicarbonate_mgL	781
iron_mgL	0	sulfate_mgL	1150
barium_mgL	0	hydroxide_mgL	
magnesium_mgL	2025	h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)

SOS Consulting, LLC

C-108 Item VII.5 - Produced Water Data

Trove Energy & Water, LLC - WLC Mid Federal Project Area

SOURCE ZONE

WOLFCAMP

Lab ID

Sample ID 5096

Sample No

API No 3002501678

Well Name LAGUNA PLATA FEDERAL UNIT 001

Location ULSTR 22 19 S 33 E **Lat / Long** 32.64341 -103.64461

1980 S 710 E **County** Lea

Operator (when sampled)

Field TONTO Unit I

Sample Date Analysis Date

Sample Source DST

Water Typ

Depth (if known)

ph		alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	46915	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	27270	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	714
iron_mgL		sulfate_mgL	1116
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)

SOS Consulting, LLC

C-108 Item VII.5 - Produced Water Data

Trove Energy Water, LLC - WLC Mid Federal Project Area

DISPOSAL ZONE

DEVONIAN

Lab ID

Sample ID 5720

API No 3002521082

Sample No

Well Name ANTELOPE RIDGE UNIT 003

Location ULSTR 34 23 S 34 E **Lat / Long** 32.25922 -103.46068

1980 S 1650 W **County** Lea

Operator (when sampled)

Field ANTELOPE RIDGE Unit K

Sample Date 11/14/1967 Analysis Date

Sample Source UNKNOWN Depth (if known)

Water Typ

ph	6.9	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	80187	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	47900	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	476
iron_mgL		sulfate_mgL	900
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	

Remarks

(Produced water data courtesy of NMT Octane NM WAIDS database.)

SOS Consulting, LLC

C-108 – Item VIII

Geologic Information

The Devonian and Silurian consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are believed present within the subject formations in the area. Depth control data was inferred from deep wells to the south and east. If the base of Devonian and top of Silurian rocks come in as expected the well will only be drilled deep enough for adequate logging rathole.

At a proposed depth of 19,000' BGL (Below Ground Level) the well will TD approximately 1,560' below the estimated top of the Devonian. Mud logging through the interval will ensure the target interval remains in Devonian and Silurian. Once Devonian is determined, the casing shoe depth will be set at an approximate maximum upper depth of 17,440' BGL. Injection will occur through the resulting openhole interval. Should mud or other logs indicate depth adjustment is required to exploit the desired formation as described; sundries with appropriate data will be filed with the OCD.

The Devonian is overlain by the Woodford Shale and Mississippian Lime and underlain by the Middle and Lower Ordovician; Simpson, McKee and Ellenburger.

Fresh water in the area is generally available from the Rustler and Santa Rosa formations. State Engineer's records show water wells in the area with a depth to groundwater of 90 to 185 feet and an average depth of 142 feet.

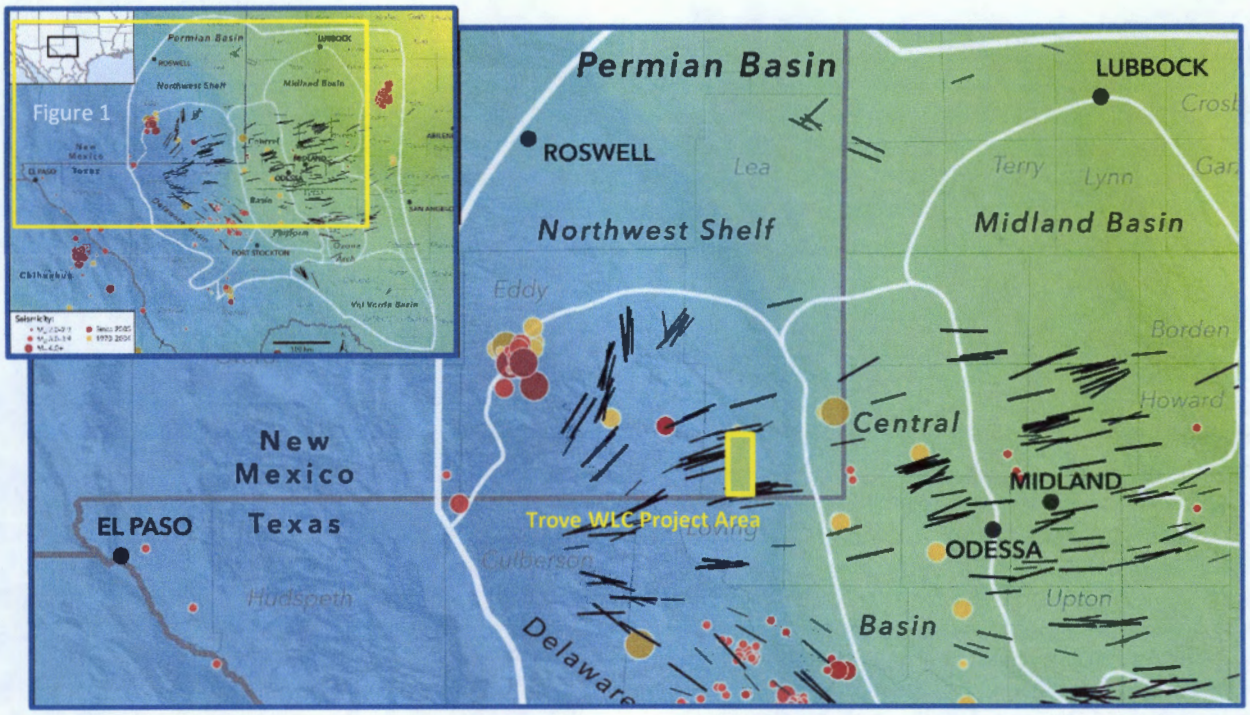
There are NO water wells located within one mile of the proposed SWD however; a representative analysis of area fresh water is included in this application.

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT

Map Source: State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity (Figure 1); Jens-Erik Lund Snee/ Mark Zoback, February 2018



TROVE PSE PROJECT VICINITY

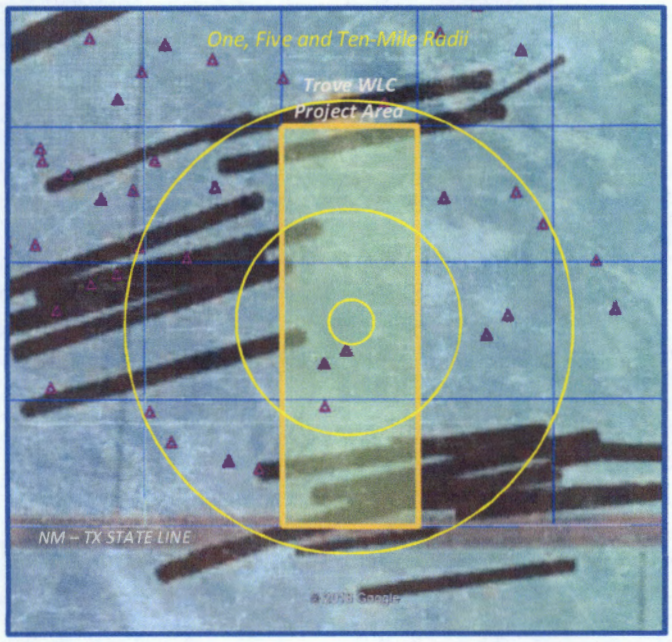


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress (SHmax), with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the Aφ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

C-108 - Item VIII

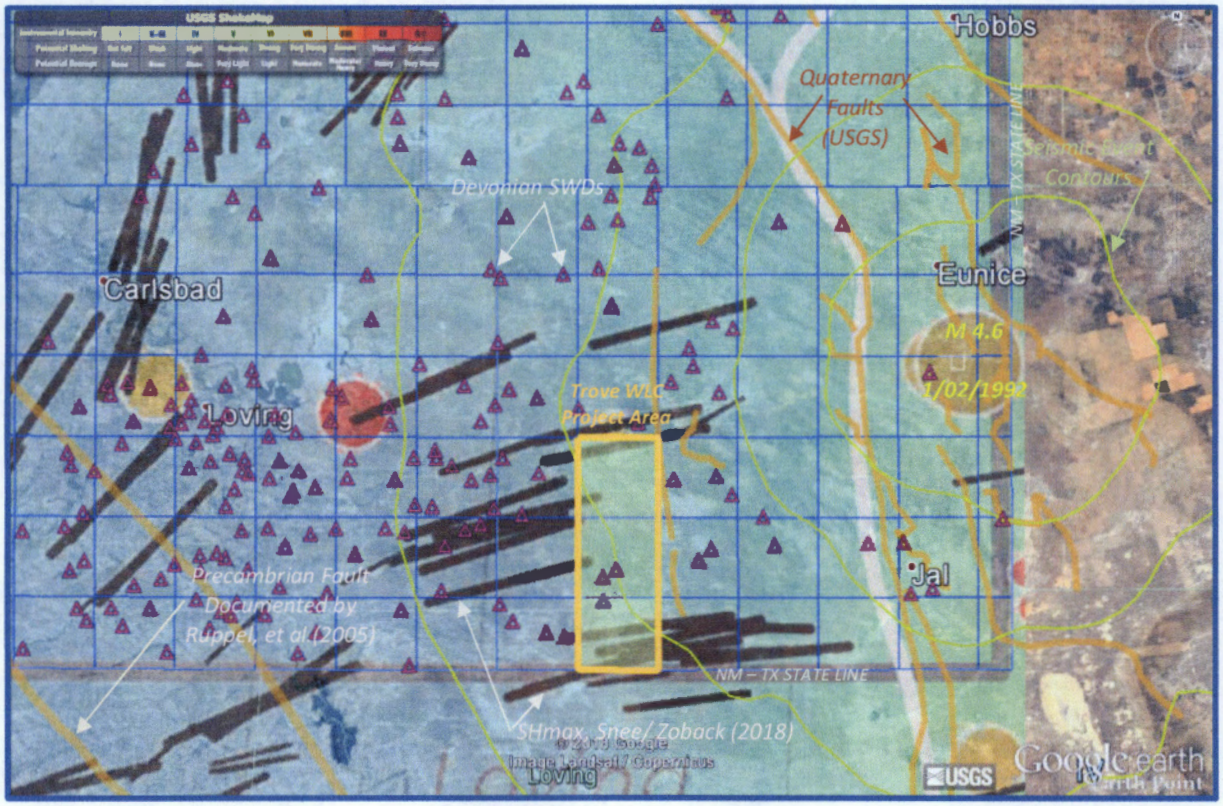
Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

In the following map, a layer with USGS historical earthquake data is overlaid and, a layer showing lines to represent Precambrian faults as documented by Ruppel, et al. (2005). Finally, a layer showing all currently permitted SWDs completed or proposed to be completed in the Devonian (Silurian) formation.

The USGS earthquakes shown are well known to the area. The 2012 quake located approximately 13 miles due east of Loving is also shown (22.4 miles). This was perhaps the most significant of the area in recent years but was determined to not be related to oil and gas activity. The best known and largest in recent history was the 1992, 4.6 magnitude quake centered south of Eunice, NM (29.5 miles).

The Precambrian faults and existing Devonian SWDs are discussed in more detail on the next page.



REGIONAL VIEW - DEVONIAN SWD LOCATIONS, PRECAMBRIAN FAULTS, S_{Hmax}, USGS MAGNITUDE

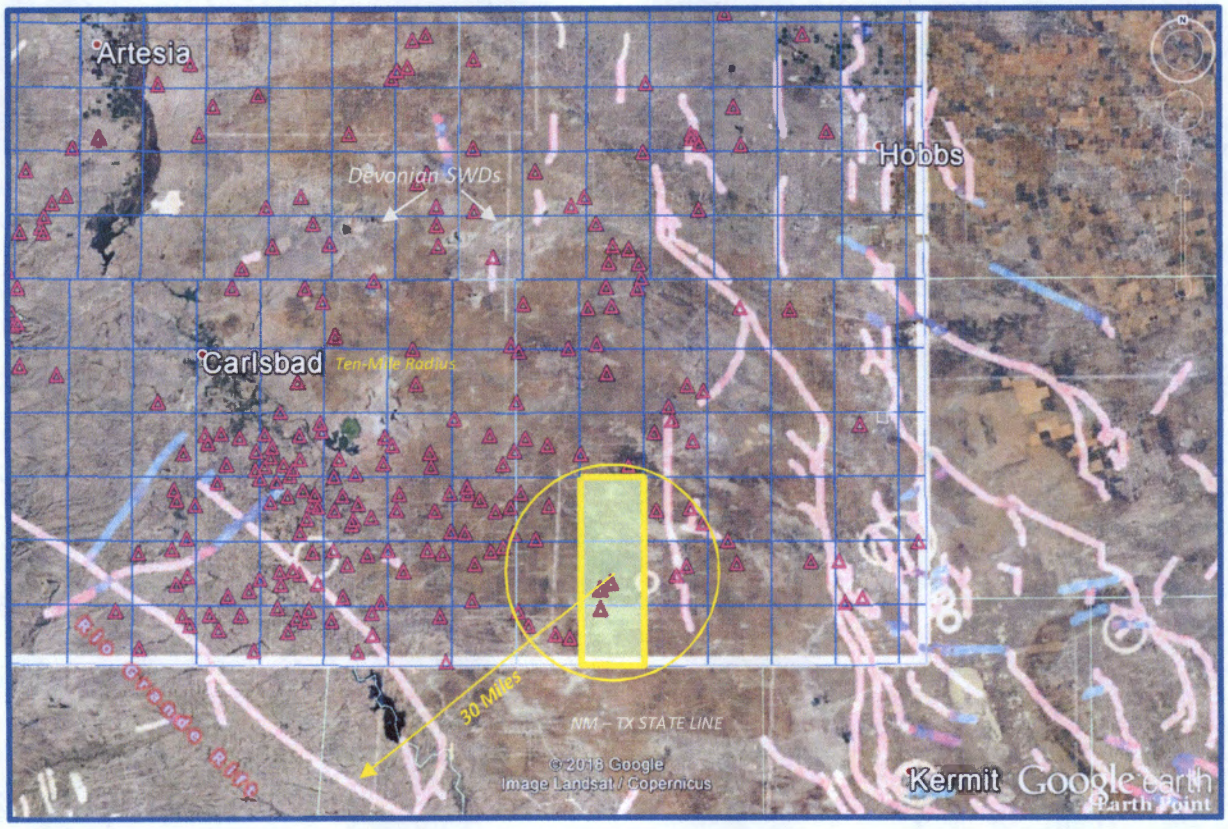
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

The primary Precambrian faults in the area as documented by Ruppel, et al. (2005) is represented on this map by the thick, pink colored lines. The most significant of these is the fault associated with the Rio Grande Rift, running southeast to northwest and, runs adjacent to a portion of Hwy 285 however; only a small portion the associated fault which runs parallel approximately 15 miles northeast is depicted below. The Trove WLC Project SWD Area is located some 30 miles from the fault. Other documented faults (USGS, 2000) are shown for eastern Lea County and extending into west Texas. Other Devonian SWDs in the area are also shown (small purple triangles) completed or proposed to be completed in the Devonian (Silurian) formation.

The previously referenced study by Snee and Zoback (shown on previous exhibits) evaluated the strike-slip probability using probabilistic FSP (Fault Slip Potential) analysis of known faults in the Permian Basin. The study predicts that the Precambrian fault shown here has less than a 10% probability of being critically stressed to the point of creating an induced seismicity event. The main reason for the low probability is due to the relationship of the strike of the fault to the regional S_{Hmax} orientation; the proposed SWD being well removed from the area.

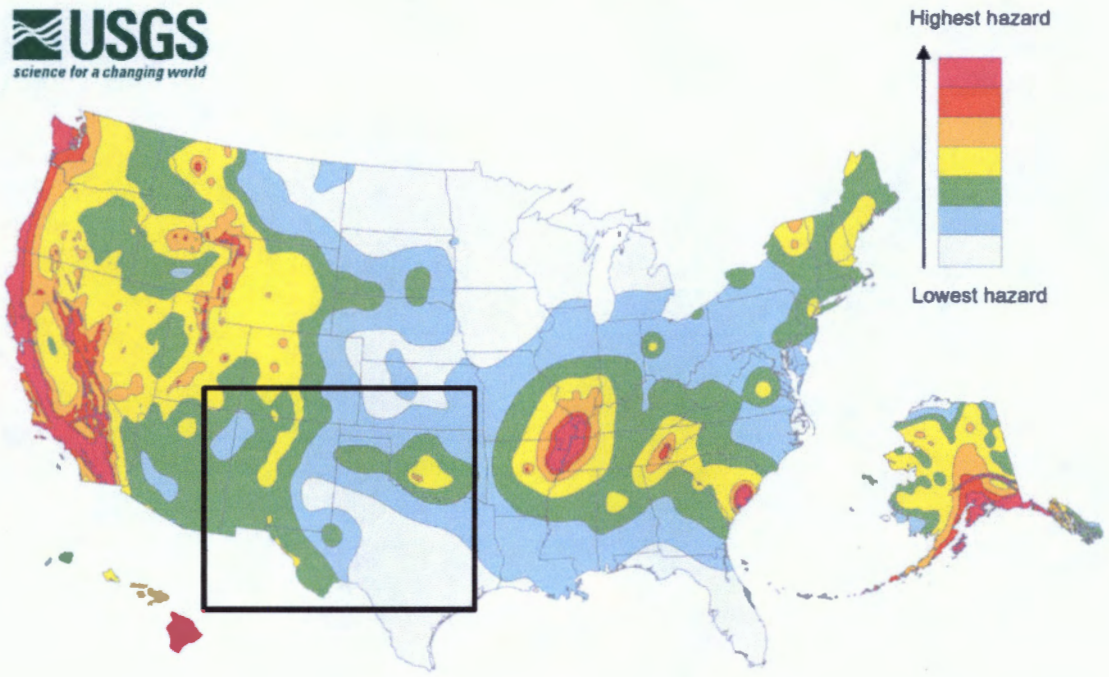


VICINITY - PERMITTED DEVONIAN SWDS, COMPOSITE FAULTS

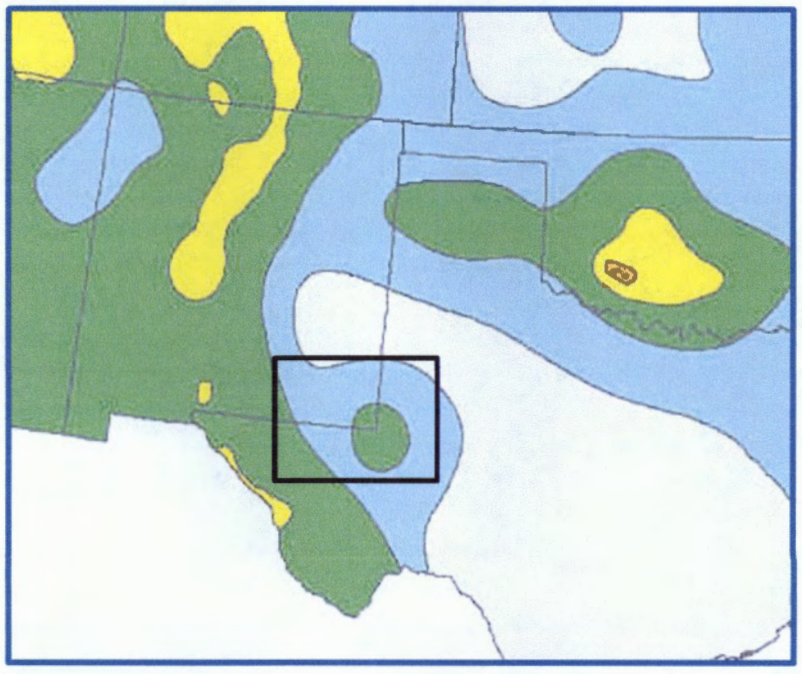
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)



2014 map data: The USGS notes in its report that fracking may be to blame for a sizeable uptick in earthquakes in places like Oklahoma. "Some states have experienced increased seismicity in the past few years that may be associated with human activities such as the disposal of wastewater in deep wells," the report says. USGS hopes to use that data in future maps but it isn't included in this one. "Injection-induced earthquakes are challenging to incorporate into hazard models because they may not behave like natural earthquakes and their rates change based on man-made activities," the report says.

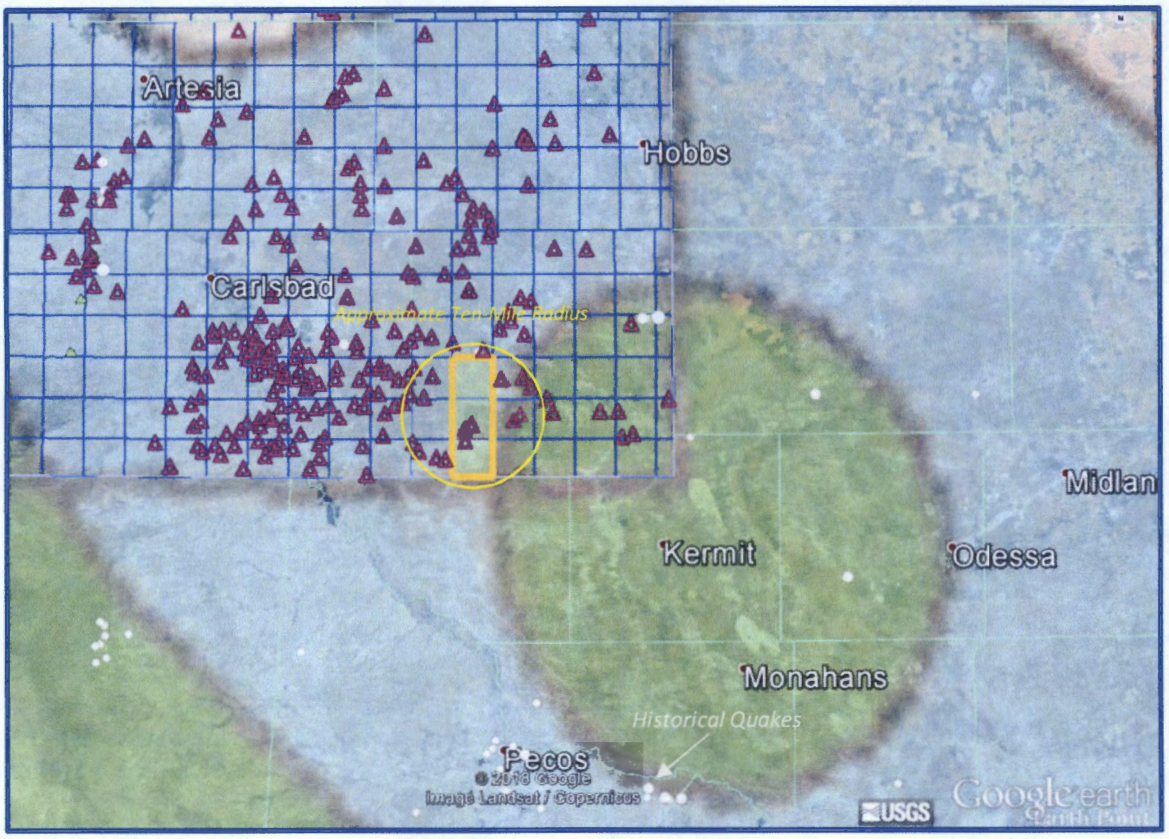


C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2014 REGIONAL MAP DATA OVERLAY IN GOOGLE EARTH W/ HISTORICAL EARTHQUAKES



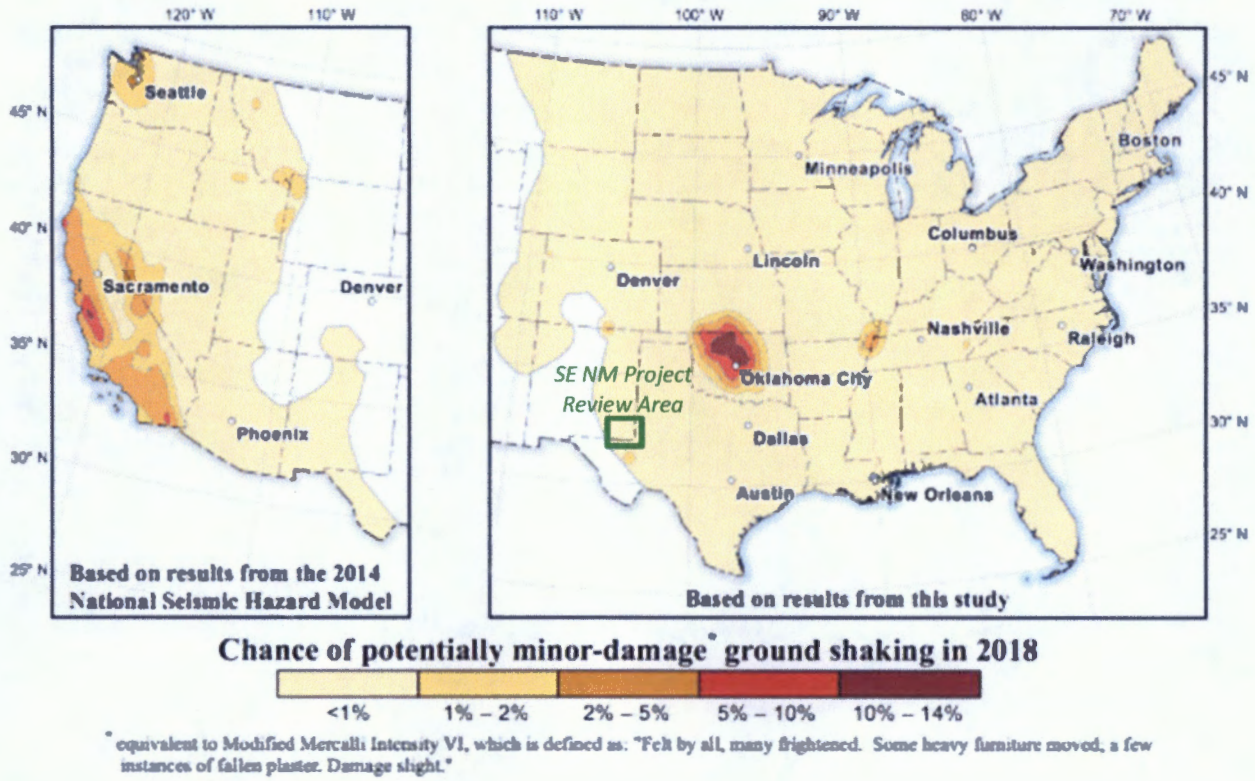
An updated USGS map for 2018 is on the next page. While methodology remained essentially the same according to USGS, the interpreted results and color-coding did have some modification. However, the subject area in southeast New Mexico on both maps remains very low and on the 2018 map, the area is assigned a value of <1% of "potentially minor-damage ground shaking".

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2018 ONE-YEAR MODEL



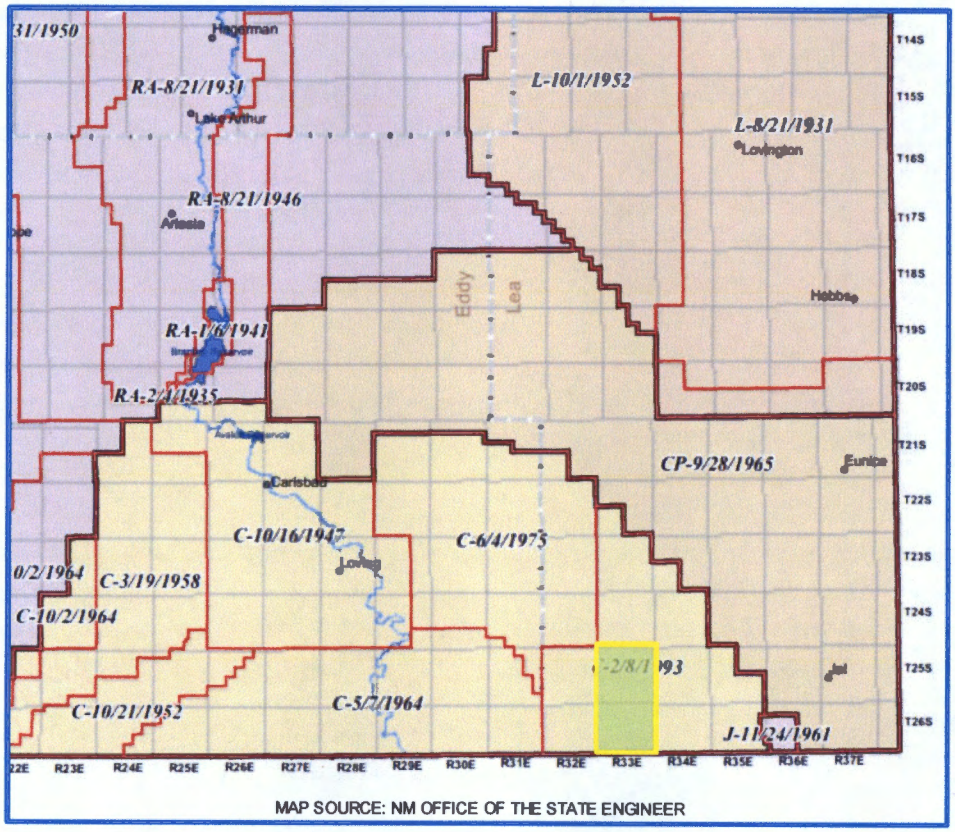
Map showing chance of damage from an earthquake in the Central and Eastern United States during 2018. Percent chances are represented as follows: pale yellow, less than 1 percent; dark yellow, 1 to 2 percent; orange, 2 to 5 percent; red, 5 to 10 percent; dark red, 10 to 12 percent. See Hazard from the western United States from the 2014 National Seismic Hazard Maps (Petersen et al., 2014) for comparison.

The USGS has produced the 2018 one-year probabilistic seismic hazard forecast for the central and eastern United States from induced and natural earthquakes. For consistency, the updated 2018 forecast is developed using the same probabilistic seismicity-based methodology as applied in the two previous forecasts.

Based on publicly available data for the subject area, it is reasonable to believe the risk of induced seismic activity due to disposal injection into this well is extremely low.

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available from the Rustler and Santa Rosa formations. State Engineer's records show water wells in the area with a depth to groundwater of 90 to 185 feet and an average depth of 142 feet.

There are NO water wells located within one mile of the proposed SWD.

SOS Consulting, LLC

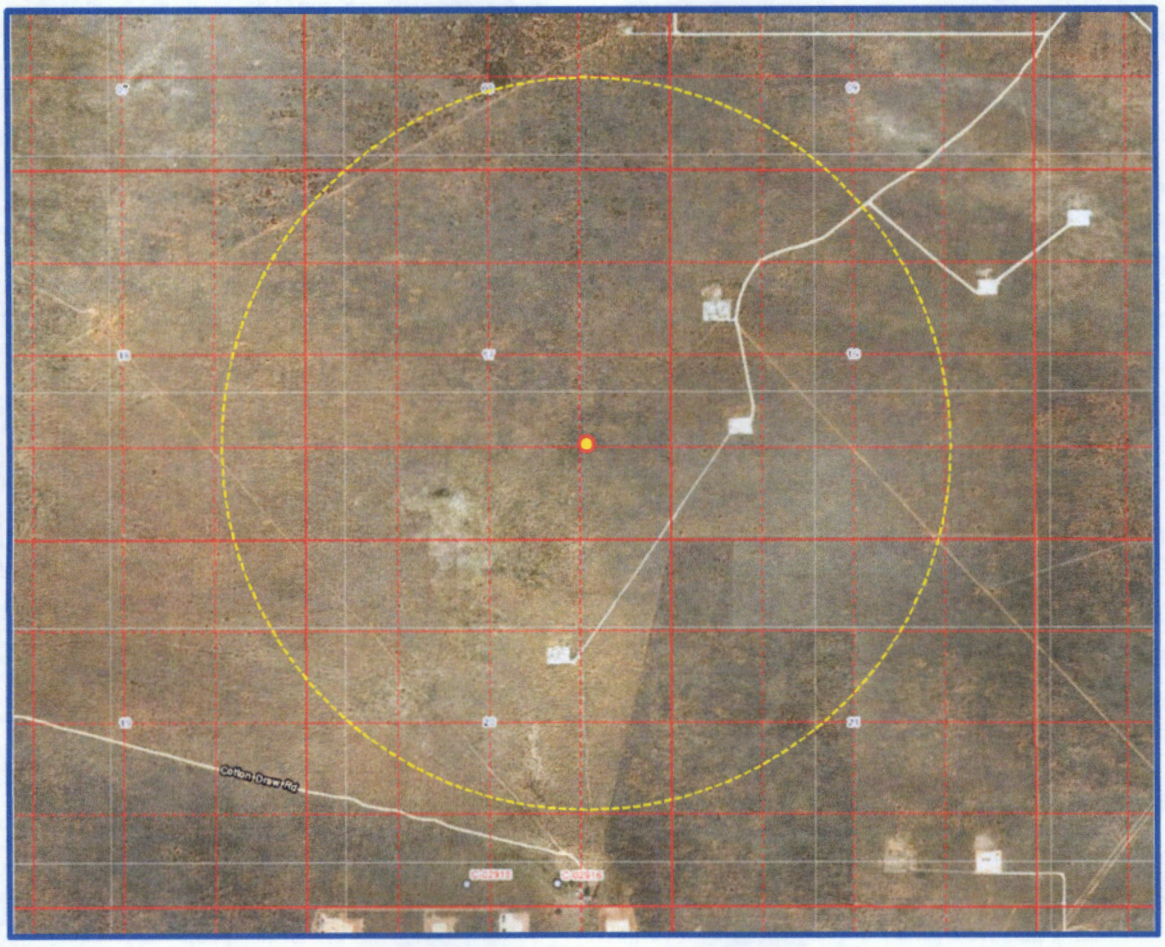
C-108 Item XI

Water Wells Within One Mile

WLC Mid Federal SWD No.4 - Water Well Locator Map

There are NO water wells/ PODs within a one-mile radius of the proposed SWD.

Representative analyses of wells with similar depth are included.



Data from NM Office of the State Engineer displayed in OSE-GIS System.

SOS Consulting, LLC

C-108 ITEM XII

Geologic Affirmation

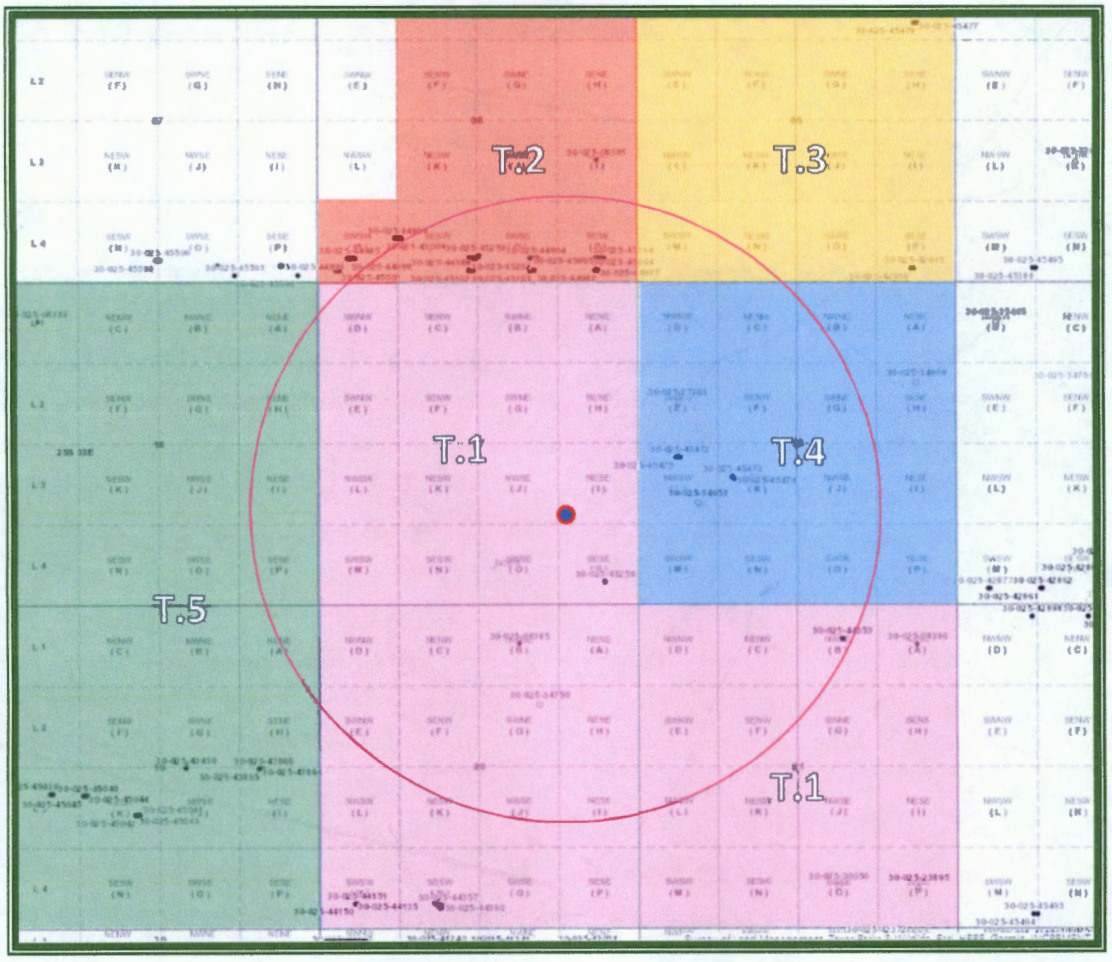
We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.

Ben Stone, Partner
SOS Consulting, LLC

Project: Trove Energy and Water, LLC
WLC Mid Project Area
Reviewed 3/5/2019

WLC Mid Federal SWD Well No.4 – Affected Parties Plat

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



TROVE
ENERGY and WATER

LEGEND

T.1 – NMNM-026394 – EOG Resources, Inc.

T.2 – NMNM-097151 – Devon Energy Prod. Co., LP

T.3 – NMNM-118726 – EOG Resources, Inc.

T.4 – VB-4422-0001 – Energen Resources, Inc.

T.5 – NMNM-110838 – EOG Resources, Inc.

SOS Consulting, LLC

C-108 ITEM XIII – PROOF OF NOTIFICATION

IDENTIFICATION AND NOTIFICATION OF INTERESTED PARTIES

Exhibits for Section

Affected Parties Map

List of Interested Parties

Notification Letter to Interested Parties

Proof of Certified Mailing

Published Legal Notice

C-108 ITEM XIII – PROOF OF NOTIFICATION
AFFECTED PARTIES LIST

SOS Consulting is providing electronic delivery of C-108 applications.
ALL APPLICABLE AFFECTED PARTIES ARE PROVIDED A LINK IN THE NOTICE LETTER TO A SECURE SOS/ CITRIX SHAREFILE® SITE TO VIEW AND DOWNLOAD A FULL COPY OF THE SUBJECT C-108 APPLICATION IN PDF FORMAT.

"AFFECTED PERSON" MEANS THE DIVISION DESIGNATED OPERATOR; IN THE ABSENCE OF AN OPERATOR, A LESSEE WHOSE INTEREST IS EVIDENCE BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILES THE APPLICATION; OR IN THE ABSENCE OF AN OPERATOR OR LESSEE, A MINERAL INTEREST OWNER WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILED THE APPLICATION FOR PERMIT TO INJECT.; PER OCD RULES NMAC 19.15.26.7, A. AND 19.15.26.8, B.2.

SURFACE OWNER

1 U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7018 0360 0001 8569 7023

OFFSET MINERALS LESSEES and OPERATORS (All Notified via USPS Certified Mail)

BLM Lease NMNM-026394, 118729, 110838 (T.1, T.3 and T.5 on Map)
Lessee & Operator
2 EOG RESOURCES, INC.
105 S. 4th St.
Artesia, NM 88210
Certified: 7018 0360 0001 8569 7016

BLM Lease NMNM-019859 (T.2 on Map)
Lessee & Operator
3 DEVON ENERGY PRODUCTION CO., LP
333 W. Sheridan Avenue
OKC, OK 73102-5010
Certified: 7018 0360 0001 8569 7009

State Lease VB-4422-0002 (T.4 on Map)
Lessee
DIAMONDBACK ENERGY, INC.
ENERGEN RESOURCES, INC.
500 West Texas Ave, Suite 1200
Midland, TX 79701

Operator
EOG RESOURCES, INC.
105 S. 4th St.
Artesia, NM 88210

C-108 ITEM XIII – PROOF OF NOTIFICATION
AFFECTED PARTIES LIST (cont.)

OFFSET MINERALS OWNERS (Notified via USPS Certified Mail)

U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220

4 STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504
Certified: 7018 0360 0001 8569 6996

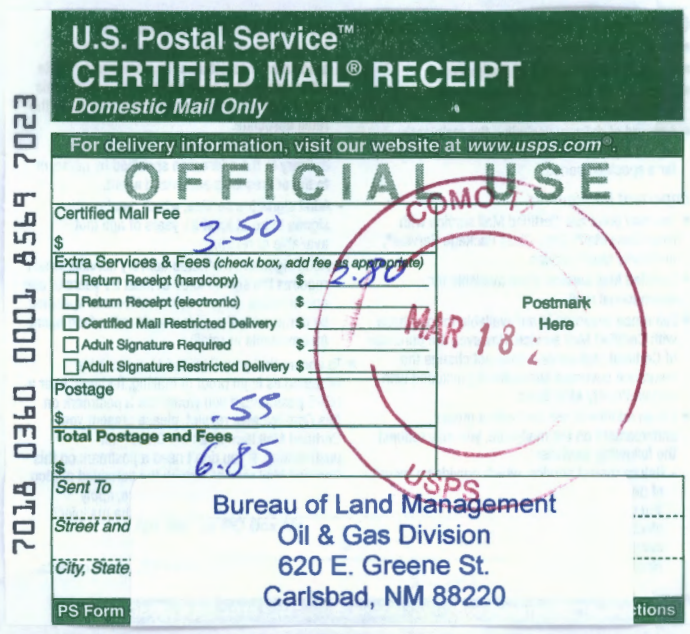
REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
1625 N. French Drive
Hobbs, NM 88240

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)



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- Adult Signature Restricted Delivery $

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City, State,

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Oil & Gas Division
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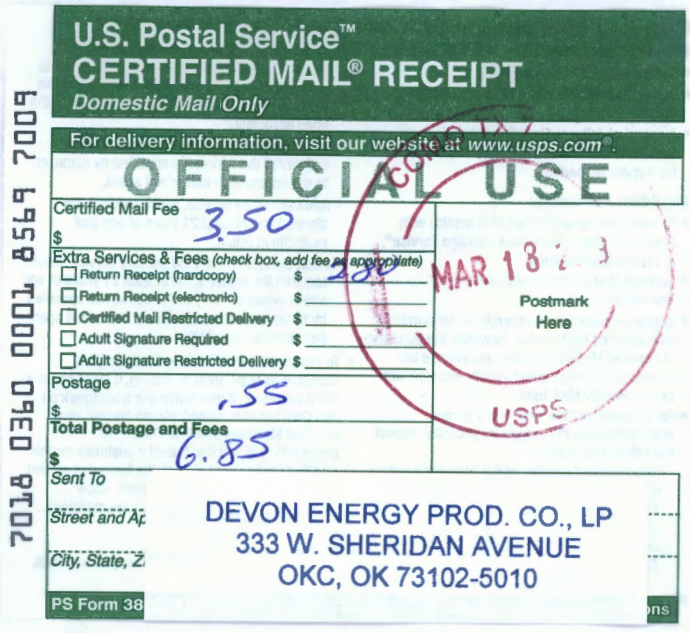
105 S. 4th St.
Artesia, NM 88210

PS Form

7018 0360 0001 8569 7016



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DEVON ENERGY PROD. CO., LP
333 W. SHERIDAN AVENUE
OKC, OK 73102-5010

PS Form 38

7018 0360 0001 8569 7009

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Postage $ .55
Total Postage and Fees $ 6.85

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City, Stat

STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

PS Form

7018 0360 0001 8569 6996

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
March 14, 2019
and ending with the issue dated
March 14, 2019.

Publisher

Sworn and subscribed to before me this
14th day of March 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
MARCH 14, 2019

Trove Energy and Water, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the WLC Mid Federal SWD Well No.4 will be located 1470' FSL & 1170' FEL, Section 17, Township 25 South, Range 33 East, Lea County, New Mexico; approximately 23.2 miles west of Jal, NM.

Produced water from area production will be commercially disposed into the Devonian, Silurian and Fusselman formations at a maximum interval depth of 17,440' to 19,000' at a maximum surface pressure of 3488 psi and a rate limited only by such pressure. Mudlogging and e-logs will confirm final interval depths.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.
#33881

67104420 00225809

BEN STONE
SOS CONSULTING, LLC.
P.O. BOX 300
COMO, TX 75431