

AE Order Number Banner

Application Number: pMSG2323040020

SWD-2552

Permian Oilfield Partners, LLC [328259]

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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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: Permian Oilfield Partners, LLC. OGRID Number: 328259
 Well Name: Ruger 31 Federal SWD #1 API: 30-015-Pending
 Pool: 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

- 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

FOR OCD ONLY	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	Application Content Complete

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.

Sean Puryear

Print or Type Name

Signature

7-14-2023

Date

817-600-8772

Phone Number

spuryear@popmidstream.com

e-mail Address

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: **Disposal**
Application qualifies for administrative approval? **Yes**
- II. OPERATOR: **Permian Oilfield Partners, LLC.**
ADDRESS: **P.O. Box 3329, Hobbs, NM 88241**
CONTACT PARTY: **Sean Puryear** PHONE: **(817) 600-8772**
- 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? **No.**
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-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: **Sean Puryear** TITLE: **Manager**
SIGNATURE:  DATE: 7-14-2023
E-MAIL ADDRESS: **spuryear@popmidstream.com**
- XV. 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: _____

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.

III A: See attached wellbore diagram.

III B:

1. Is this a new well drilled for injection?
Yes
2. Name of the Injection Formation:
Devonian: Open Hole Completion
3. Name of Field or Pool (if applicable):
SWD; Devonian-Silurian
4. Has the well ever been perforated in any other zone(s)?
No: New Drill for Injection of Produced Water
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Overlying Potentially Productive Zones:

Delaware, Bone Spring, Wolfcamp, Strawn, Atoka & Morrow Tops all above 12,063'

Underlying Potentially Productive Zones:

None

IV: Is this an expansion of an existing project? No.

V: See attached Area of Review Analysis.

VI: There are no wells within the proposed wells area of review that penetrate the Devonian Formation.

VII:

1. The average injected volume anticipated is 40,000 BWPD. The maximum injected volume anticipated is 50,000 BWPD.
2. Injection will be through a closed system.
3. The average injection pressure anticipated is 2,000 psi. The proposed maximum injection pressure is 2,413 psi.
4. Disposal sources will be produced waters from surrounding wells in the Delaware, Avalon, Bone Spring and Wolfcamp formations. These formation waters are known to be compatible with Devonian formation water. Representative area produced water analyses were sourced from the NMT Go-Tech website. See attached Fluid Analyses.
5. Devonian water analyses from the area of review are unavailable. Representative water analyses were sourced from the NMT Go-Tech website. See attached Fluid Analyses.

VIII:

- Fluid injection will take place in the Devonian-Silurian formations. This sequence is bounded above by the Upper Devonian Woodford shale. Underlying the Woodford is the first injection formation, the Devonian, consisting of dolomitic and limestone carbonates & chert, followed by the Silurian Fusselman dolomite. The lower bound of the injection interval is the limestone of the Upper Ordovician Montoya. This proposed well will TD above the top of the Montoya, and will not inject fluids into the Montoya itself, in order to provide a sufficient barrier to preclude fluid injection into the Middle Ordovician Simpson, the Lower Ordovician Ellenburger, the Cambrian, and the PreCambrian below.

Injection zone porosities are expected to range from 0% to a high of 10%, with the higher ranges being secondary porosity in the form of vugs & fractures due to weathering effects, with occasional interbedded shaly intervals. Permeabilities in the 2-3% porosity grainstone intervals are estimated to be in the 10-15 mD range, with the higher porosity intervals conservatively estimated to be in the 40-50 mD range. It is these intervals of high secondary porosity and associated high permeability that are expected to take the majority of the injected water.

The Devonian-Silurian sequence is well suited for SWD purposes, with a low permeability shale barrier overlying the injection interval to prevent upward fluid migration to USDW's, a low permeability carbonate barrier underlying the injection interval to prevent downward fluid migration, sufficient permeabilities and porosities in zone, and multiple formations available over a large depth range. This large injection depth range means there is a large injection surface area available, allowing for low injection pressures at high injection rates.

GEOLOGY PROGNOSIS			
FORMATION	TOP	BOTTOM	THICKNESS
	KB TVD (ft)	KB TVD (ft)	(ft)
Rustler	362	415	53
Salt	415	1,111	696
Yates	1,111	1,543	432
Seven Rivers	1,543	2,105	562
San Andres	2,685	3,633	948
Leonard	3,633	8,707	5,074
Wolfcamp	8,707	9,825	1,118
Lwr. Mississippian	11,571	12,006	435
Woodford	12,006	12,063	57
Devonian	12,063	12,466	403
Fusselman (Silurian)	12,466	12,834	368
Montoya (U. Ordovician)	12,834	13,081	247
Simpson (M. Ordovician)	13,081	13,261	180

- Regional shallow fresh water in the Quaternary is known to exist at depths less than 320'. See attached OSE Water Column Depth table for the region. Depth from the bottom of this USDW to the injection zone is 11,743'. There is no USDW present below the injection interval.

IX: Formation chemical stimulation with 40,000 gals of 15% Hydrochloric Acid is planned after well completion.

- X:** A compensated neutron/gamma ray log will be run from surface to TD upon well completion. All logs will be submitted to the NMOCD upon completion.
- XI:** According to the New Mexico Office of the State Engineer, there are 0 fresh water PODs within the proposed well's one-mile area of review. See attached 1 mile AOR water well map showing location of PODs in the AOR.
- XII:** Hydrologic affirmative statement attached.
- XIII:** Proof of notice and proof of publication attached.

III (A)

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
 Ruger 31 Federal SWD #1
 1430' FNL, 205' FEL
 Sec. 31, T18S, R29E, Eddy Co. NM
 Lat 32.7072357° N, Lon -104.1061586° W
 GL 3432', RKB 3462'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# J-55 BTC Casing
 Depth Top: Surface
 Depth Btm: 387'
 Cement: 816 sks - Class C + Additives (100% Excess)
 Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5" Casing: 13.375" - 54.5# J-55 BTC Casing
 Depth Top: Surface
 Depth Btm: 1493'
 Cement: 639 sks - Class C + Additives
 Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)

Hole Size: 12.25" Casing: 9.625" - 40# HCL-80 BTC Casing
 Depth Top: Surface
 Depth Btm: 8757'
 Cement: 1291 sks - Class C + Additives
 Cement Top: Surface - (Circulate)

Intermediate #3 - (Liner)

Hole Size: 8.75" Casing: 7.625" - 39# HCL-80 FJ Casing
 Depth Top: 8557'
 Depth Btm: 12098'
 Cement: 217 sks - Class H + Additives
 Cement Top: 8557' - (Circulate & Bond Log)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 12809'
 Inj. Interval: 12098' - 12809' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 12053' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 X/O Depth: 8557'
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 Packer Depth: 12063' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)
 Packer Fluid: 8.4 ppg FW + Additives

III (A)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
 Ruger 31 Federal SWD #1
 1430' FNL, 205' FEL
 Sec. 31, T18S, R29E, Eddy Co. NM
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 Depth Top: Surface
 Depth Btm: 8757'
 Cement: 1291 sks - Class C + Additives
 Cement Top: Surface - (Circulate)

Intermediate #3 - (Liner)

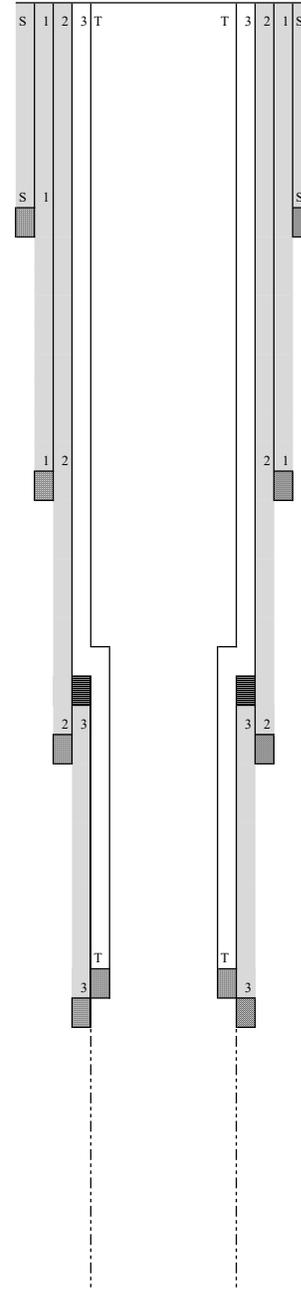
Hole Size: 8.75"
 Casing: 7.625" - 39# HCL-80 FJ Casing
 Depth Top: 8557'
 Depth Btm: 12098'
 Cement: 217 sks - Class H + Additives
 Cement Top: 8557' - (Circulate & Bond Log)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
 Depth: 12809'
 Inj. Interval: 12098' - 12809' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 12053'
 Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 X/O Depth: 8557'
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 Packer Depth: 12063'
 Packer: 5.5" - Perma-Pak or Equivalent (Inconel)
 Packer Fluid: 8.4 ppg FW + Additives



XIII.



Statement of Notifications

Re: C-108 Application for SWD Well
 Permian Oilfield Partners, LLC
 Ruger 31 Federal SWD #1
 1430' FNL & 205' FEL
 Sec 31, T18S, R29E
 Eddy County, NM

Permian Oilfield Partners, LLC has mailed notifications to affected persons as per the following list:

Ruger 31 Federal SWD #1 - Affected Persons within 1 Mile Area of Review					
Notified Name	Notified Address	Notified City, State, ZIP Code	Shipper	Tracking No.	Mailing Date
1119 OIL & GAS LLC	P.O. Box 101265	Fort Worth, TX 76185	USPS	9414 8118 9956 2029 0999 65	7/21/2023
Bureau Of Land Management	620 E Greene St.	Carlsbad, NM 88220	USPS	9414 8118 9956 2029 0753 89	7/21/2023
BURLINGTON RESOURCES OIL & GAS LP	P.O. Box 2197	Houston, TX 77252	USPS	9414 8118 9956 2029 0753 72	7/21/2023
CALM FORT WORTH VENTURES LLC	139 Sheridan	Winnetka, IL 60093	USPS	9414 8118 9956 2029 0750 51	7/21/2023
CHEVRON USA INC	6301 Deauville	Midland, TX 79706	USPS	9414 8118 9956 2029 0750 99	7/21/2023
CIMAREX ENERGY CO. OF COLORADO	600 N. Marienfeld Street, Suite 600	Midland, TX 79701	USPS	9414 8118 9956 2029 0750 82	7/21/2023
COG OPERATING LLC	600 W Illinois Ave	Midland, TX 79701	USPS	9414 8118 9956 2029 0754 57	7/21/2023
EARTHSTONE OPERATING, LLC	1400 Woodloch Forest, Suite 300	The Woodlands, TX 77380	USPS	9414 8118 9956 2029 0754 02	7/21/2023
FREEDOM ENERGY LLC	R649 N 13th Street	Lake Arthur, NM 88253	USPS	9414 8118 9956 2029 0754 95	7/21/2023
GOLDFINGER OIL & GAS LLC	420 Throckmorton St, Ste 1000	Fort Worth, TX 76102	USPS	9414 8118 9956 2029 0754 40	7/21/2023
LEGACY RESERVES OPERATING, LP	15 Smith Road, Suite 3000	Midland, TX 79705	USPS	9414 8118 9956 2029 0754 88	7/21/2023
MATADOR PRODUCTION COMPANY	5400 LBJ Freeway, Ste 1500	Dallas, TX 75240	USPS	9414 8118 9956 2029 0754 33	7/21/2023
MEWBOURNE OIL COMPANY	P.O. Box 5270	Hobbs, NM 88241	USPS	9414 8118 9956 2029 0755 63	7/21/2023
MRC DELAWARE RESOURCES LLC	5400 LBJ Freeway, Ste 1500	Dallas, TX 75240	USPS	9414 8118 9956 2029 0755 94	7/21/2023
NEARBUG PRODUCING CO.	P.O. Box 823085	Dallas, TX 75382	USPS	9414 8118 9956 2029 0755 87	7/21/2023
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414 8118 9956 2029 0755 70	7/21/2023
READ AND STEVENS INC	1001 17th St, Ste 1800	Denver, CO 80202	USPS	9414 8118 9956 2029 0722 58	7/21/2023
SIVLEY TRUST	P.O. Box 840738	Dallas, TX 75284	USPS	9414 8118 9956 2029 0722 65	7/21/2023
SNW PERMIAN LLC	1613 Western Avenue	Fort Worth, TX 76107	USPS	9414 8118 9956 2029 0722 27	7/21/2023
SOUTHWEST ROYALTIES INC	P.O. BOX 53570	Midland, TX 79710	USPS	9414 8118 9956 2029 0722 41	7/21/2023
TRIGG FAMILY TRUST	P.O. Box 520	Roswell, NM 88202	USPS	9414 8118 9956 2029 0722 72	7/21/2023
YATES DRILLING CO.	105 South 4th Street	Artesia, NM 88210	USPS	9414 8118 9956 2029 0728 69	7/21/2023

Sean Puryear
 Permian Oilfield Partners, LLC
spuryear@popmidstream.com

Date: 7/21/2023

U.S. Postal Service Certified Mail Receipt

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0999 65

ARTICLE NUMBER: 9414 8118 9956 2029 0753 89

ARTICLE ADDRESSED TO:

ARTICLE ADDRESSED TO:

1119 Oil & Gas LLC
PO BOX 101265
FORT WORTH TX 76185-1265

Bureau of Land Management
620 E GREENE ST
CARLSBAD NM 88220-6292

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



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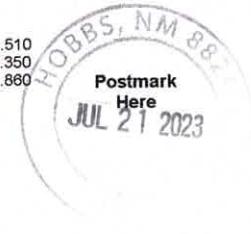
ARTICLE ADDRESSED TO:

Burlington Resources Oil & Gas LP
PO BOX 2197
HOUSTON TX 77252-2197

Calm Fort Worth Ventures LLC
139 SHERIDAN RD
WINNETKA IL 60093-1539

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860

FEES
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Certified Fee 4.350
Total Postage & Fees: 8.860



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ARTICLE NUMBER: 9414 8118 9956 2029 0750 99

ARTICLE NUMBER: 9414 8118 9956 2029 0750 82

ARTICLE ADDRESSED TO:

ARTICLE ADDRESSED TO:

Chevron USA
6301 DEAUVILLE
MIDLAND TX 79706-2964

Cimarex Energy Co. of Colorado
600 N MARIENFELD ST STE 600
MIDLAND TX 79701-4405

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



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ARTICLE NUMBER: 9414 8118 9956 2029 0754 57

ARTICLE ADDRESSED TO:

COG Operating LLC
600 W ILLINOIS AVE
MIDLAND TX 79701-4882

FEES
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Certified Fee 4.350
Total Postage & Fees: 8.860



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ARTICLE NUMBER: 9414 8118 9956 2029 0754 02

ARTICLE ADDRESSED TO:

Earthstone Operating, LLC
1400 WOODLOCH FOREST DR STE 300
THE WOODLANDS TX 77380-1197

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



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ARTICLE NUMBER: 9414 8118 9956 2029 0754 95

ARTICLE ADDRESSED TO:

Freedom Energy LLC
R649 N 13TH STREET
LAKE ARTHUR NM 88253-0000

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Certified Fee 4.350
Total Postage & Fees: 8.860



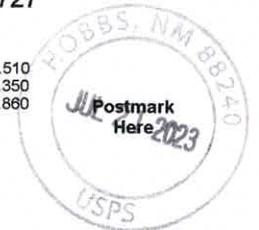
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ARTICLE NUMBER: 9414 8118 9956 2029 0754 40

ARTICLE ADDRESSED TO:

Goldfinger Oil & Gas LLC
420 THROCKMORTON ST STE 1000
FORT WORTH TX 76102-3727

FEES
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Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0754 88

ARTICLE ADDRESSED TO:

Legacy Reserves Operating LP
15 SMITH RD STE 3000
MIDLAND TX 79705-5461

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Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0754 33

ARTICLE ADDRESSED TO:

Matador Production Company
5400 LYNDON B JOHNSON FWY STE 1500
DALLAS TX 75240-1017

FEES
Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0755 63

ARTICLE ADDRESSED TO:

Mewbourne Oil Co.
PO BOX 5270
HOBBS NM 88241-5270

FEEES

Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0755 94

ARTICLE ADDRESSED TO:

MRC Delaware Resources LLC
5400 LYNDON B JOHNSON FWY STE 1500
DALLAS TX 75240-1017

FEEES

Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0755 87

ARTICLE ADDRESSED TO:

Nearburg Producing Co.
PO BOX 823085
DALLAS TX 75382-3085

FEEES

Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0755 70

ARTICLE ADDRESSED TO:

New Mexico State Land Office
310 OLD SANTA FE TRL
SANTA FE NM 87501-2708

FEEES

Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0722 58

ARTICLE ADDRESSED TO:

Read & Stevens Inc.
1001 17TH ST STE 1800
DENVER CO 80202-2058

FEEES

Postage Per Piece \$4.510
Certified Fee 4.350
Total Postage & Fees: 8.860



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0722 65

ARTICLE ADDRESSED TO:

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1613 WESTERN AVE
FORT WORTH TX 76107-3821

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ARTICLE ADDRESSED TO:

Southwest Royalties Inc.
PO BOX 53570
MIDLAND TX 79710-3570

FEES	
Postage Per Piece	\$4.510
Certified Fee	4.350
Total Postage & Fees:	8.860



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ARTICLE ADDRESSED TO:

Trigg Family Trust
PO BOX 520
ROSWELL NM 88202-0520

FEES	
Postage Per Piece	\$4.510
Certified Fee	4.350
Total Postage & Fees:	8.860



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ARTICLE NUMBER: 9414 8118 9956 2029 0728 69

ARTICLE ADDRESSED TO:

Yates Drilling Co.
105 S 4TH ST
ARTESIA NM 88210-2177

FEES	
Postage Per Piece	\$4.510
Certified Fee	4.350
Total Postage & Fees:	8.860



Affidavit of Publication

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Page 16 of 35

Copy of Publication:

No. 26176

State of New Mexico
 County of Eddy: 
 Denny Scott
 being duly sworn says that he is the
 Publisher
 of the Artesia Daily Press, a daily newspaper of General
 circulation, published in English at Artesia, said county
 and date, and that the hereto attached

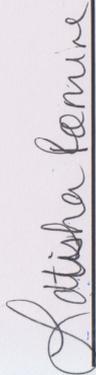
Legal Ad

was published in a regular and entire issue of the said
 Artesia Daily Press, a daily newspaper duly qualified
 for that purpose within the meaning of Chapter 167 of
 the 1937 Session Laws of the state of New Mexico for

1	Consecutive weeks/day on the same
day as follows:	
First Publication	June 16, 2022
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	
Sixth Publication	
Seventh Publication	

Subscribed and sworn before me this
 16th day of June 2022

STATE OF NEW MEXICO
 NOTARY PUBLIC
 Latisha Romine
 Commission Number 10768338
 My Commission Expires May 12, 2023



Latisha Romine
 Notary Public, Eddy County, New Mexico

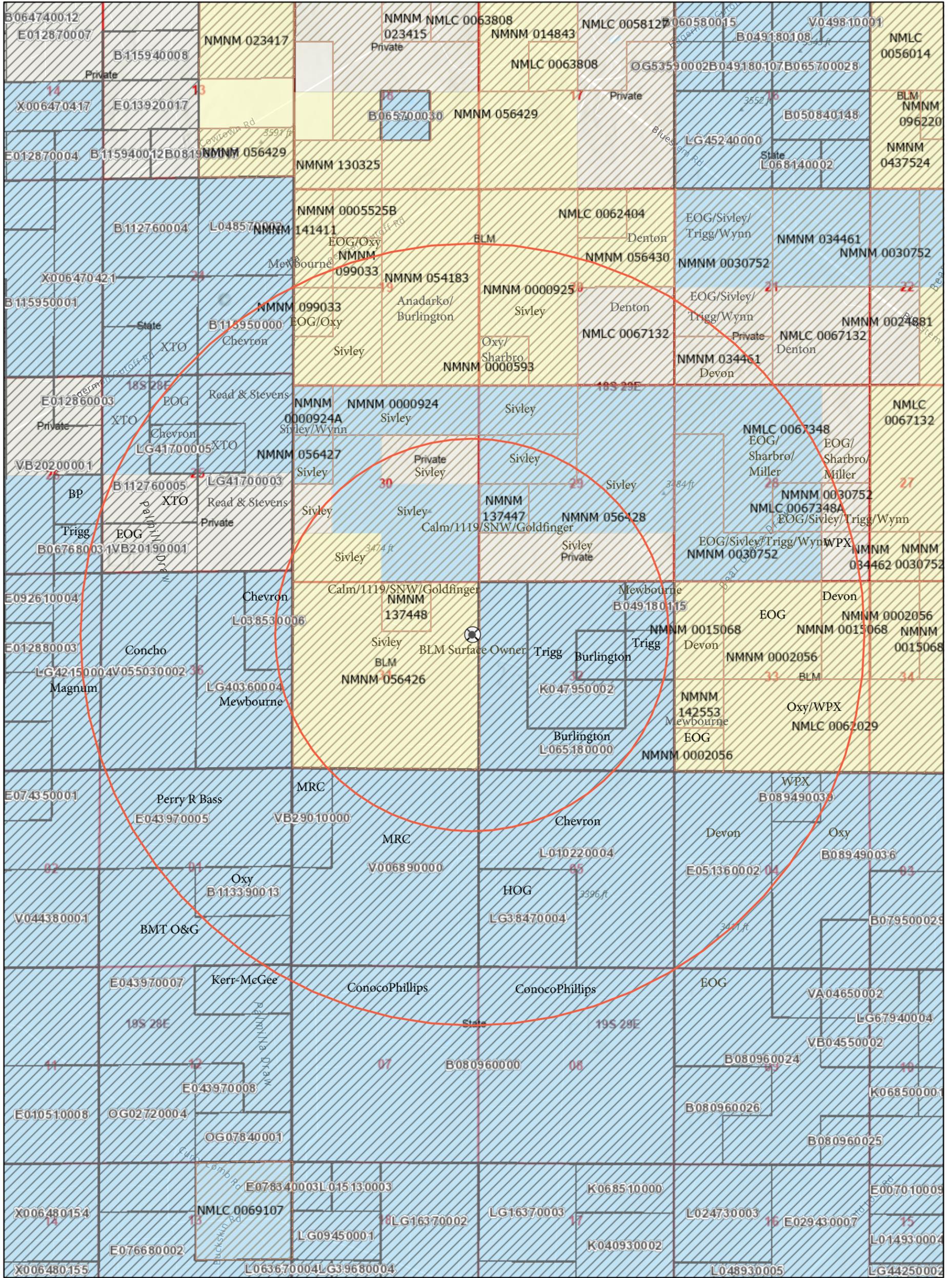
Legal Notice

Permian Oilfield Partners, LLC, PO Box 3329, Hobbs, NM 88241, phone (817)606-7630, attn. Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Eddy County, New Mexico. The well is the Ruger 31, Federal SWD #1, and is located 1430 FNL & 205' FEL, Unit H, Section 31, Township 18 South, Range 29 East, NMPM, approximately 10 mi SW of Loco Hills, NM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 12,063 feet to 12,834 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 2,413 psi.

Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

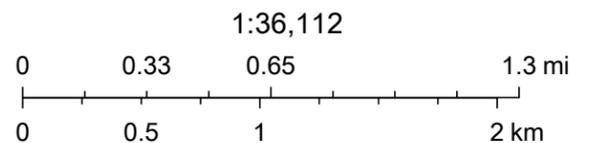
Published in the Artesia Daily Press, Artesia, N.M., June 16, 2022 Legal No. 26176.

V (a) Ruger 31 Federal SWD #1, 1 & 2 Mile AOR, Leases



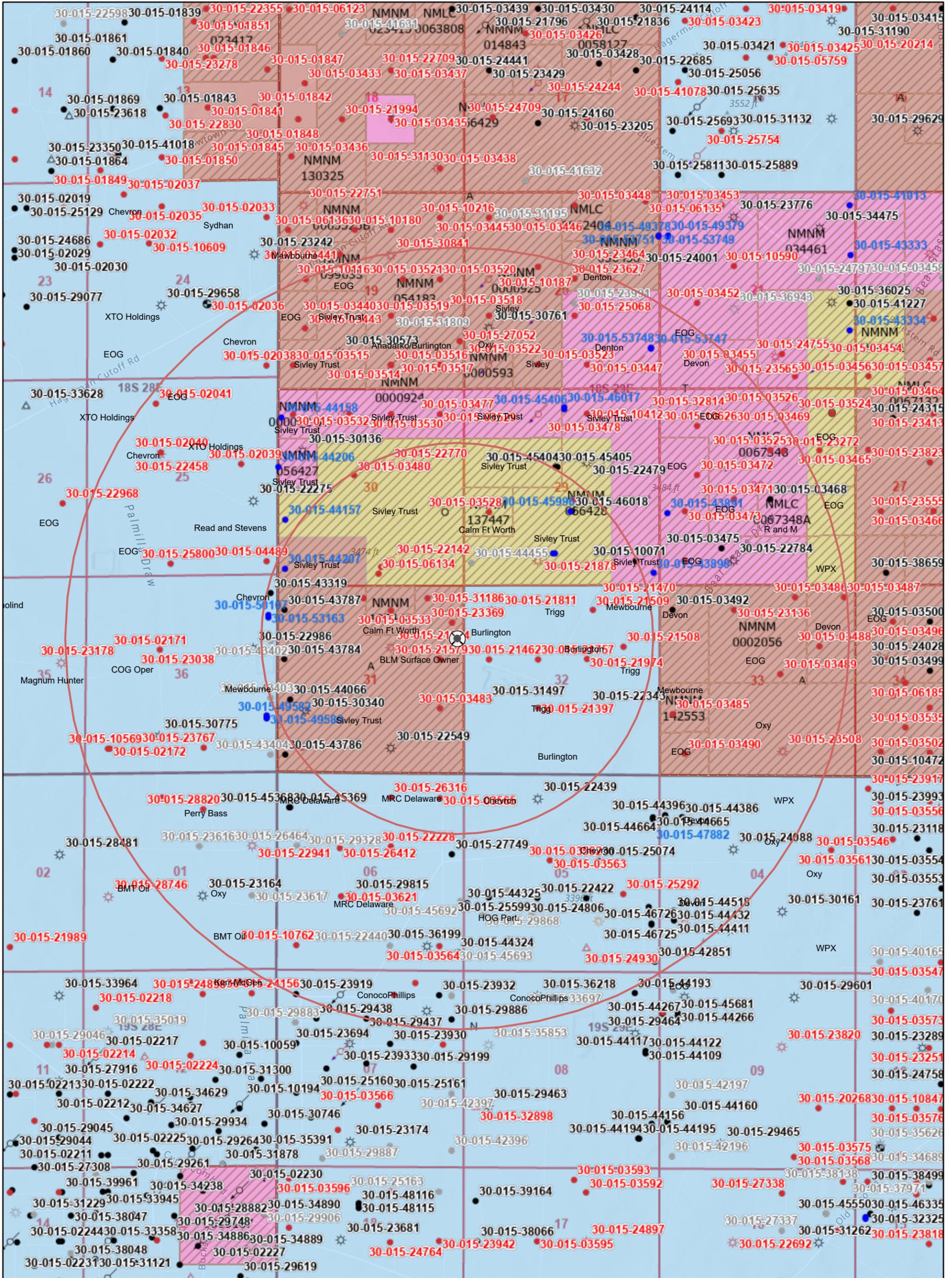
7/12/2023, 10:20:35 AM

- Override 1
- Oil and Gas Leases
- S
- Land Ownership
- PLSS First Division
- BLM
- PLSS Townships
- Authorized



U.S. BLM
 U.S. Department of Interior, Bureau of Land Management (BLM)
 Esri, NASA, NGA, USGS, FEMA
 BLM

Ruger 31 Federal SWD #1, 1 & 2 Mile AOR, Wells



5/25/2023, 10:23:08 AM

Override 1	Injection, Active	undefined	1:36,112
Override 1	Injection, Plugged	Authorized	0 0.33 0.65 1.3 mi
Wells - Large Scale	Oil, Active	Mineral Ownership	0 0.5 1 2 km
Miscellaneous	Oil, Cancelled	A-All minerals are owned by U.S.	U.S. BLM
Gas, Active	Oil, New	N-No minerals are owned by the U.S.	U.S. Department of Interior, Bureau of Land Management (BLM)
Gas, Cancelled	Oil, Plugged	O-Only oil and gas are owned by the U.S.	Esri, NASA, NGA, USGS, FEMA
Gas, Plugged	Salt Water Injection, Active	T-Other minerals are owned by the U.S.	Oil Conservation Division of the New Mexico Energy, Minerals and
Gas, Temporarily Abandoned	Salt Water Injection, Plugged	PLSS First Division	

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-ernrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division

V (c)

Ruger 31 Federal SWD #1 - Wells Within 1mi Area of Review															
API Number	Current Operator	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-015-43402	MEWBOURNE OIL COMPANY	WILD TURKEY 36 35 B2HG STATE COM	#001C	Oil	Horizontal	Cancelled App	36	T18S	R28E	H	H-36-18S-28E 1801 FNL 185 FEL	G-35-18S-28E 1800 FNL 2310 FEL	BONE SPRING	14550	n/a
30-015-43403	MEWBOURNE OIL COMPANY	WILD TURKEY 36 35 B2U STATE COM	#001C	Oil	Horizontal	Cancelled App	36	T18S	R28E	I	I-36-18S-28E 1981 FSL 185 FEL	J-35-18S-28E 1980 FNL 2310 FEL	BONE SPRING	14550	n/a
30-015-43319	MEWBOURNE OIL COMPANY	WILD TURKEY 36 35 B2AB STATE COM	#001H	Oil	Horizontal	Active	36	T18S	R28E	A	A-36-18S-28E 500 FNL 185 FEL	B-35-18S-28E 433 FNL 2306 FEL	BONE SPRING	14480	7372
30-015-43787	MEWBOURNE OIL COMPANY	PAVO MACHO 31 32 B2DA FEDERAL COM	#001H	Oil	Horizontal	Active	31	T18S	R29E	D	D-31-18S-29E Lot: 1 660 FNL 185 FWL	A-32-18S-29E 896 FNL 335 FEL	BONE SPRING	17345	7687
30-015-43784	MEWBOURNE OIL COMPANY	PAVO MACHO 31 32 B2EH FEDERAL COM	#001H	Oil	Horizontal	Active	31	T18S	R29E	E	E-31-18S-29E Lot: 2 1980 FNL 185 FWL	H-32-18S-29E 2299 FNL 333 FEL	BONE SPRING	17170	7700
30-015-44207	EARTHSTONE OPERATING, LLC	NEPTUNE 30 FEDERAL COM	#002H	Oil	Horizontal	New	30	T18S	R29E	M	M-30-18S-29E Lot: 4 450 FSL 185 FWL	P-30-18S-29E 450 FSL 330 FWL	BONE SPRING	11795	7601
30-015-44066	MEWBOURNE OIL COMPANY	PAVO MACHO 31 B2LI FEDERAL COM	#001H	Oil	Horizontal	Active	31	T18S	R29E	L	L-31-18S-29E Lot: 3 1980 FSL 185 FWL	I-31-18S-29E 1825 FSL 334 FEL	BONE SPRING	12075	7671
30-015-03484	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	M	M-31-18S-29E 660 FSL 660 FWL	M-31-18S-29E 660 FSL 660 FWL	SAN ANDRES	2900	2900
30-015-30340	EARTHSTONE OPERATING, LLC	NEPTUNE 31 FEDERAL	#001	Gas	Vertical	Active	31	T18S	R29E	L	L-31-18S-29E Lot: 3 1650 FSL 767 FWL	L-31-18S-29E Lot: 3 1650 FSL 767 FWL	MORROW	11220	11220
30-015-26457	MATADOR PRODUCTION COMPANY	SST	#003	Oil	Vertical	Plugged, Not Released	06	T19S	R29E	C	C-06-19S-29E Lot: 3 660 FNL 1747 FWL	C-06-19S-29E Lot: 3 660 FNL 1747 FWL	BONE SPRING	7845	7845
30-015-03480	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	30	T18S	R29E	J	J-30-18S-29E 2970 FSL 2970 FEL	J-30-18S-29E 2970 FSL 2970 FEL	GRAYBURG	3095	3095
30-015-03482	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	C	C-31-18S-29E 330 FNL 2310 FWL	C-31-18S-29E 330 FNL 2310 FWL	GRAYBURG	2736	2736
30-015-06134	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	30	T18S	R29E	O	O-30-18S-29E 330 FSL 2310 FEL	O-30-18S-29E 330 FSL 2310 FEL	n/a	n/a	n/a
30-015-03479	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	30	T18S	R29E	O	O-30-18S-29E 506 FSL 2240 FEL	O-30-18S-29E 506 FSL 2240 FEL	GRAYBURG	2322	2322
30-015-22770	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	30	T18S	R29E	G	G-30-18S-29E 1980 FNL 1980 FEL	G-30-18S-29E 1980 FNL 1980 FEL	MORROW	11350	11350
30-015-22549	MEWBOURNE OIL COMPANY	ALSCOTT FEDERAL	#003	Gas	Vertical	Active	31	T18S	R29E	O	O-31-18S-29E Lot: 6 660 FSL 1980 FEL	O-31-18S-29E Lot: 6 660 FSL 1980 FEL	MORROW	11300	11300
30-015-21804	SOUTHWEST ROYALTIES INC	ALSCOTT FEDERAL COM	#001	Gas	Vertical	Plugged, Site Released	31	T18S	R29E	G	G-31-18S-29E 1650 FNL 1980 FEL	G-31-18S-29E 1650 FNL 1980 FEL	MORROW	11311	11311
30-015-22142	SOUTHWEST ROYALTIES INC	ALSCOTT FEDERAL	#002	Gas	Vertical	Plugged, Site Released	30	T18S	R29E	O	O-30-18S-29E 660 FSL 1980 FEL	O-30-18S-29E 660 FSL 1980 FEL	MORROW	11270	11270
30-015-26316	MATADOR PRODUCTION COMPANY	SST	#002	Oil	Vertical	Plugged, Site Released	06	T19S	R29E	B	B-06-19S-29E Lot: 2 660 FNL 1980 FEL	B-06-19S-29E Lot: 2 660 FNL 1980 FEL	BONE SPRING	8438	8438
30-015-03533	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	B	B-31-18S-29E 660 FNL 1980 FEL	B-31-18S-29E 660 FNL 1980 FEL	GRAYBURG	2910	2910
30-015-03481	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	A	A-31-18S-29E 330 FNL 990 FEL	A-31-18S-29E 330 FNL 990 FEL	GRAYBURG	2507	2507
30-015-03483	COG OPERATING LLC	ALSCOTT FEDERAL	#001	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	I	I-31-18S-29E 1752 FSL 660 FEL	I-31-18S-29E 1752 FSL 660 FEL	GRAYBURG	2880	2880
30-015-21579	LEGACY RESERVES OPERATING, LP	ALSCOTT FEDERAL	#002	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	H	H-31-18S-29E 1980 FNL 660 FEL	H-31-18S-29E 1980 FNL 660 FEL	SAN ANDRES	3538	3538
30-015-03565	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	06	T19S	R29E	A	A-06-19S-29E 660 FNL 660 FEL	A-06-19S-29E 660 FNL 660 FEL	SAN ANDRES	2875	2875
30-015-23369	LEGACY RESERVES OPERATING, LP	SIVLEY FEDERAL	#001	Oil	Vertical	Plugged, Site Released	31	T18S	R29E	A	A-31-18S-29E 990 FNL 330 FEL	A-31-18S-29E 990 FNL 330 FEL	SAN ANDRES	3000	3000
30-015-44455	MEWBOURNE OIL COMPANY	PAVO FRIO 29 28 B2MP FEDERAL COM	#001H	Oil	Horizontal	New	29	T18S	R29E	M	M-29-18S-29E 506 FSL 185 FWL	P-28-18S-29E 330 FSL 330 FEL	BONE SPRING	17556	7837
30-015-03528	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	29	T18S	R29E	L	L-29-18S-29E 1980 FSL 660 FWL	L-29-18S-29E 1980 FSL 660 FWL	GRAYBURG	2800	2800
30-015-31497	CIMAREX ENERGY CO. OF COLORADO	PALMILLO STATE COM	#004	Oil	Horizontal	Active	32	T18S	R29E	L	L-32-18S-29E 1980 FSL 660 FWL	M-32-18S-29E 330 FSL 330 FWL	BONE SPRING	9245	7704
30-015-21462	LEGACY RESERVES OPERATING, LP	RV STATE	#001	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	E	E-32-18S-29E 1980 FNL 660 FWL	E-32-18S-29E 1980 FNL 660 FWL	SAN ANDRES	2951	2951
30-015-31186	NEARBUG PRODUCING CO.	ENTERPRISE 32 STATE COM	#001	Gas	Vertical	Plugged, Site Released	32	T18S	R29E	D	D-32-18S-29E 660 FNL 740 FWL	D-32-18S-29E 660 FNL 740 FWL	MORROW	11422	11422
30-015-21811	LEGACY RESERVES OPERATING, LP	RV STATE	#002	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	D	D-32-18S-29E 660 FNL 990 FWL	D-32-18S-29E 660 FNL 990 FWL	SAN ANDRES	3485	3485
30-015-21878	SOUTHWEST ROYALTIES INC	WRIGHT FEDERAL COM	#001	Gas	Vertical	Plugged, Site Released	29	T18S	R29E	N	N-29-18S-29E 660 FSL 1980 FWL	N-29-18S-29E 660 FSL 1980 FWL	MORROW	11390	11390
30-015-21757	LEGACY RESERVES OPERATING, LP	S & T STATE	#004	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	F	F-32-18S-29E 1980 FNL 1980 FWL	F-32-18S-29E 1980 FNL 1980 FWL	SAN ANDRES	3500	3500
30-015-22439	MEWBOURNE OIL COMPANY	STATE EC	#001	Gas	Vertical	Active	05	T19S	R29E	C	C-05-19S-29E Lot: 3 660 FNL 1980 FWL	C-05-19S-29E Lot: 3 660 FNL 1980 FWL	MORROW	11436	11436
30-015-21397	LEGACY RESERVES OPERATING, LP	S & T STATE	#001	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	K	K-32-18S-29E 1782 FSL 1980 FWL	K-32-18S-29E 1782 FSL 1980 FWL	SAN ANDRES	2914	2914
30-015-45994	MEWBOURNE OIL COMPANY	PAVO FRIO 29 28 B3OP FEDERAL COM	#002H	Oil	Horizontal	New	29	T18S	R29E	N	N-29-18S-29E 850 FSL 2435 FWL	P-28-18S-29E 500 FSL 100 FEL	BONE SPRING	15520	7843
30-015-45995	MEWBOURNE OIL COMPANY	PAVO FRIO 29 30 B3NM FEDERAL COM	#001H	Oil	Horizontal	New	29	T18S	R29E	N	N-29-18S-29E 850 FSL 2385 FWL	M-30-18S-29E Lot: 4 660 FSL 100 FWL	BONE SPRING	14806	7600
30-015-45996	MEWBOURNE OIL COMPANY	PAVO FRIO 29 28 B3OP FEDERAL COM	#001H	Oil	Horizontal	New	29	T18S	R29E	J	J-29-18S-29E 1980 FSL 2435 FEL	P-28-18S-29E 500 FSL 101 FEL	BONE SPRING	15266	7598
30-015-46018	MEWBOURNE OIL COMPANY	PAVO FRIO 29 28 B3JI FEDERAL COM	#001H	Oil	Horizontal	Active	29	T18S	R29E	J	J-29-18S-29E 1980 FSL 2385 FEL	I-28-18S-29E 1980 FSL 100 FEL	BONE SPRING	16133	8672
30-015-22309	CIMAREX ENERGY CO. OF COLORADO	PALMILLO STATE COM	#001	Gas	Vertical	Plugged, Site Released	32	T18S	R29E	G	G-32-18S-29E 1731 FNL 2310 FEL	G-32-18S-29E 1731 FNL 2310 FEL	MORROW	11303	11303
30-015-03476	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	29	T18S	R29E	J	J-29-18S-29E 2310 FSL 2310 FEL	J-29-18S-29E 2310 FSL 2310 FEL	GRAYBURG	2508	2508
30-015-22343	CIMAREX ENERGY CO. OF COLORADO	PALMILLO STATE COM	#002	Gas	Vertical	Active	32	T18S	R29E	J	J-32-18S-29E 1796 FSL 1980 FEL	J-32-18S-29E 1796 FSL 1980 FEL	BONE SPRING	11307	11307
30-015-21974	COG OPERATING LLC	RV STATE	#003	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	G	G-32-18S-29E 1980 FNL 1980 FEL	G-32-18S-29E 1980 FNL 1980 FEL	SAN ANDRES	3130	3130
30-015-21509	COG OPERATING LLC	S & T STATE	#003	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	B	B-32-18S-29E 660 FNL 1815 FEL	B-32-18S-29E 660 FNL 1815 FEL	SAN ANDRES	3025	3025
30-015-10071	FREEDOM ENERGY LLC	INTERNATIONAL FEDERAL	#001	Oil	Vertical	Active	29	T18S	R29E	P	P-29-18S-29E 660 FSL 660 FEL	P-29-18S-29E 660 FSL 660 FEL	SAN ANDRES	2916	2916
30-015-21470	YATES DRILLING CO.	TURKEY STATE	#001	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	A	A-32-18S-29E 330 FNL 990 FEL	A-32-18S-29E 330 FNL 990 FEL	QUEEN	2010	2010
30-015-21508	COG OPERATING LLC	S & T STATE	#002	Oil	Vertical	Plugged, Site Released	32	T18S	R29E	H	H-32-18S-29E 1650 FNL 990 FEL	H-32-18S-29E 1650 FNL 990 FEL	SAN ANDRES	3225	3225
30-015-50107	MEWBOURNE OIL COMPANY	WILD TURKEY 36 35 B3AB STATE COM	#001H	Oil	Horizontal	New	36	T18S	R28E	A	A-36-18S-28E 1100 FNL 260 FEL	D-35-18S-28E 500 FNL 2510 FEL	BONE SPRING	18474	8269
30-015-53163	MEWBOURNE OIL COMPANY	WILD TURKEY 36 35 B3HE STATE COM	#001H	Oil	Horizontal	New	36	T18S	R28E	A	A-36-18S-28E 1160 FNL 260 FEL	E-35-18S-28E 1850 FNL 100 FWL	BONE SPRING	18501	8304

VII (4)

Permian Oilfield Partners, LLC.
 Ruger 31 Federal SWD #1
 1430' FNL, 205' FEL
 Sec. 31, T18S, R29E, Eddy Co. NM
 Lat 32.7072357° N, Lon 104.1061586° W
 GL 3432', RKB 3462'

Regional Source Water Analysis				
Well Name	INDIAN FLATS BASS FEDERAL #002	COOTER 16 STATE COM #006H	DIAMOND PWU 22 #005H	ZINNIA BKC FEDERAL #001
API	3001521715	3001537876	3001540822	3001527939
Latitude	32.438549	32.123642	32.6514969	32.5462379
Longitude	-104.0594788	-103.9862061	-104.0702057	-104.0686035
Sec	35	16	22	27
Township	21S	25S	19S	20S
Range	28E	29E	29E	29E
Unit	F	O	D	E
Ftg NS	1980N	330S	725N	1980N
Ftg EW	1980W	1650E	330W	910W
County	EDDY	EDDY	EDDY	EDDY
State	NM	NM	NM	NM
Field				
Formation	DELAWARE	AVALON UPPER	BONE SPRING 1ST SAND	WOLFCAMP
pH	6.9	7	6.44	5.7
TDS_mgL	149252	193732	208209	189739
Sodium_mgL	48324.5	74027.8	75383.5	
Calcium_mgL	9906.47	513	3145.4	23920
Iron_mgL	3.285	104	35.2	0.3
Magnesium_mgL	2856.86	118	657.5	963.2
Manganese_mgL		1		
Chloride_mgL	99299	113441	127594	116724
Bicarbonate_mgL	267.18	1830		427
Sulfate_mgL	2081.59	2665	556.9	750
CO2_mgL	54.75	700	390	



**Attachment to C-108
Permian Oilfield Partners, LLC
Ruger 31 Federal SWD #1
1430' FNL & 205' FEL
Sec 31, T18S, R29E
Eddy County, NM**

July 13, 2023

STATEMENT REGARDING SEISMICITY

Examination of the USGS and NMTSO seismic activity databases shows minimal historic seismic activity >M2.0 in the area of interest (< 5.64 mile radius, 25 sq. mi.) of the proposed above referenced SWD well. There was one M2.6 event recorded 4.6 mi W of the proposed well in March 2022. This proposed well is not located within any current Seismic Response Area.

As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 3.8 miles away from the nearest active or permitted Devonian disposal well, the Guerrero 34 State #1, 30-015-30366.

Permian Oilfield Partners does not own any 2D or 3D seismic data in the area of this proposed SWD well. Our fault interpretations are based on well to well correlations and publicly available data and software as follows:

1. USGS Quaternary Fault & Fold database shows no quaternary faults in the nearby area.
2. Basement faults are documented in the Snee & Zoback paper, "State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity", published in the February 2018 issue of the SEG journal, The Leading Edge, along with a method for determining the probability of fault slip in the area.
3. Fault data was also correlated to the publicly available USGS GIS geologic units & structural features database, the NMOCD SWD Applications & Fault Map dated 02/14/2022, to the B3 Insights proprietary faults database, and to fault maps as published in the New Mexico Geological Society Special Publication 13A, "Energy and Mineral Resources of New Mexico: Petroleum Geology," by R. F. Broadhead, 2017.

There are no known faults within the area of interest (< 5.64 mile radius, 25 sq. mi.) of the proposed above referenced SWD well. The distance from the proposed injection well to the nearest known fault is approximately 6.1 mi (9.8 km) WSW. A presumed extension to this known fault was added for modeling purposes to include the area of the seismic event from March 2022.

1. Permian Oilfield Partners ran modeling to check for fault slip assuming that any known faults penetrate the Devonian-Silurian injection zone. Software as discussed in #3 from the Stanford Center for Induced and Triggered Seismicity, "FSP 1.0: A program for probabilistic estimation of fault slip potential resulting from fluid injection", was used to calculate the probability of the fault being stressed so as to create an induced seismic event.
2. Permitted and/or active offset Devonian wells as noted in the table below are included in the FSP analysis.

UIC Order	Well Name	PLSS	Lat	Lon	Rate (bbl/day)
SWD-838-B	Duke AGI #1	7-18S-28E	32.7579231	-104.2125015	440
SWD-2351	State 19 #2	19-19S-28E	32.6409608	-104.2171088	20,000
SWD-2004	McCrae SWD #1	33-19S-28E	32.6236820	-104.1760940	17,244
SWD-2028	Northcott 24 SWD #1	24-19S-28E	32.6479840	-104.1287440	14,219
SWD-1419	Parkway West SWD #1	27-19S-29E	32.6354904	-104.0698929	7,060
SWD-1470	Santo Nino 29 Fed SWD #1	29-18S-30E	32.7204323	-103.9918213	3,792
SWD-2246	Guerrero 34 State #1	34-18S-28E	32.6996956	-104.1713104	11,000

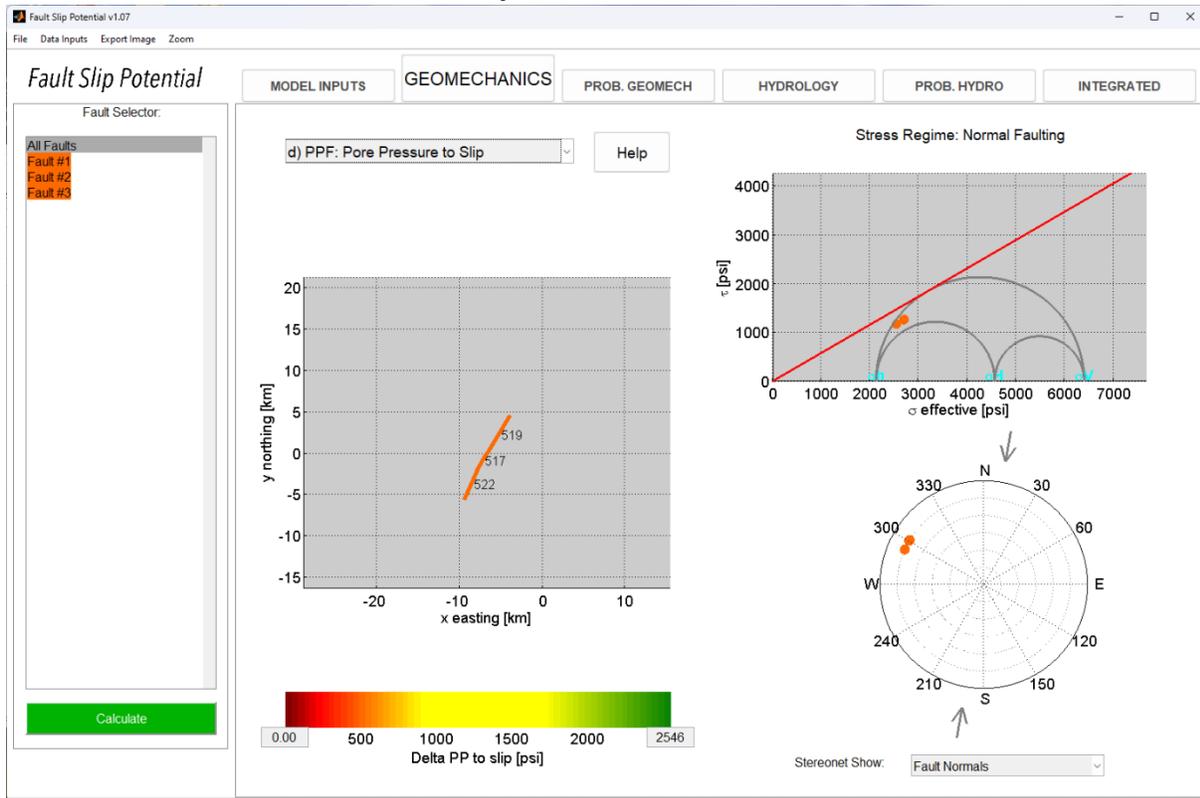
3. The probability of an induced seismic event is calculated to be 0% after 30 years as per the FSP results screenshots below.

Input assumptions:

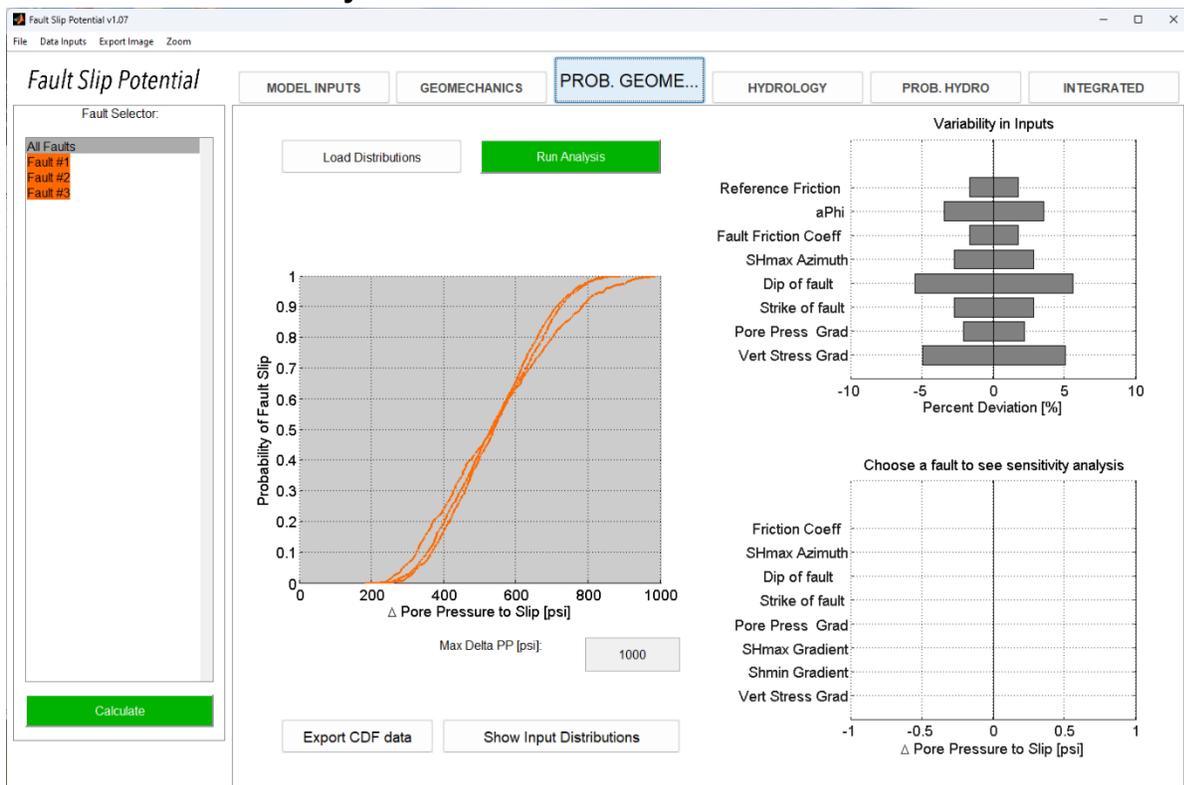
Ruger 31 Fed SWD rate (BBL/day)	50000
Interval height (ft)	771
Average Porosity (%)	5.4
Vert stress gradient (psi/ft)	1.00
Hor stress direction (deg N)	10
Fault dip (deg)	75
Ref depth (ft)	12063
Initial res press gradient (psi/ft)	0.47
A phi	0.57
Friction coefficient	0.58
Weighted Average perm (mD)	25
Fluid density (kg/m3)	1100
Dynamic viscosity (Pa-s)	0.0003
Fluid compressibility (/Pa)	4 e-10
Rock compressibility (/Pa)	1.08 e-09

Note: In screenshots below,
Injection Well #1: Proposed Ruger 31 SWD #1
Injection Well #2: Duke AGI #1
Injection Well #3: State 19 #2
Injection Well #4: McCrae SWD #1
Injection Well #5: Northcott 24 SWD #1
Injection Well #6: Parkway West SWD #1
Injection Well #7: Santo Nino 29 Fed SWD #1
Injection Well #8: Guerrero 34 State #1

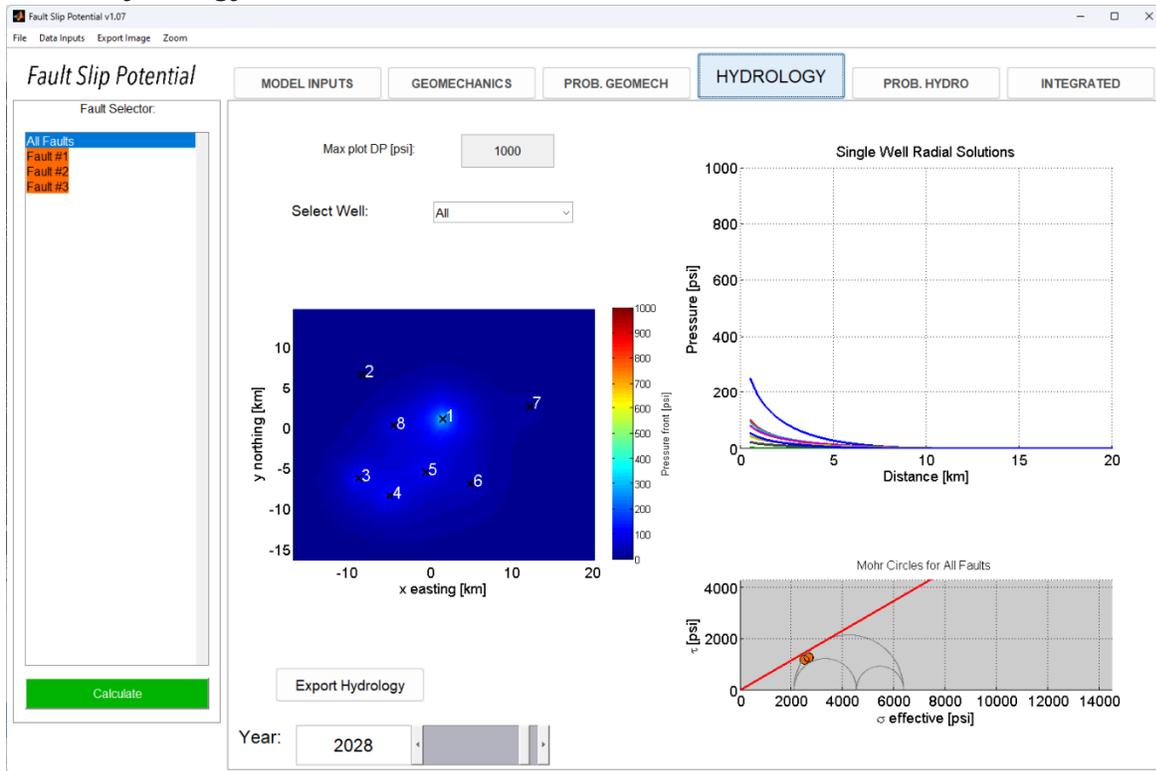
Geomechanics Pore Pressure to Slip



GeoMechanics Variability



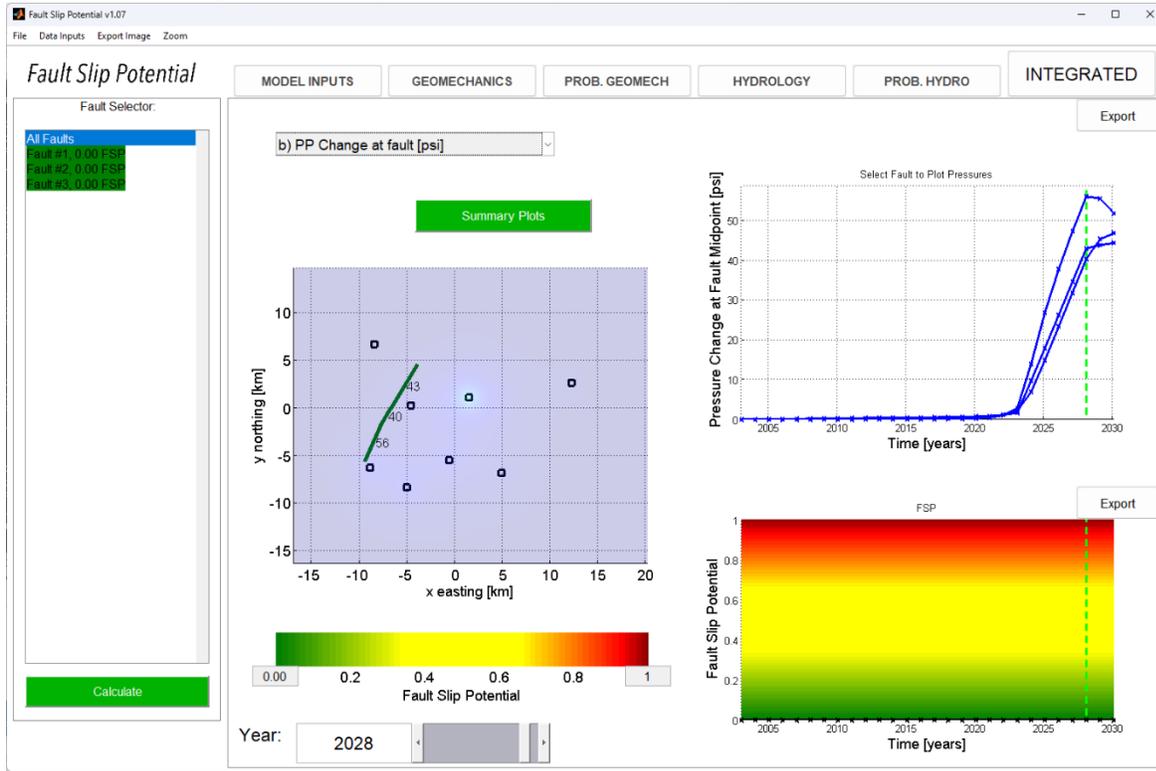
Year 5 Hydrology



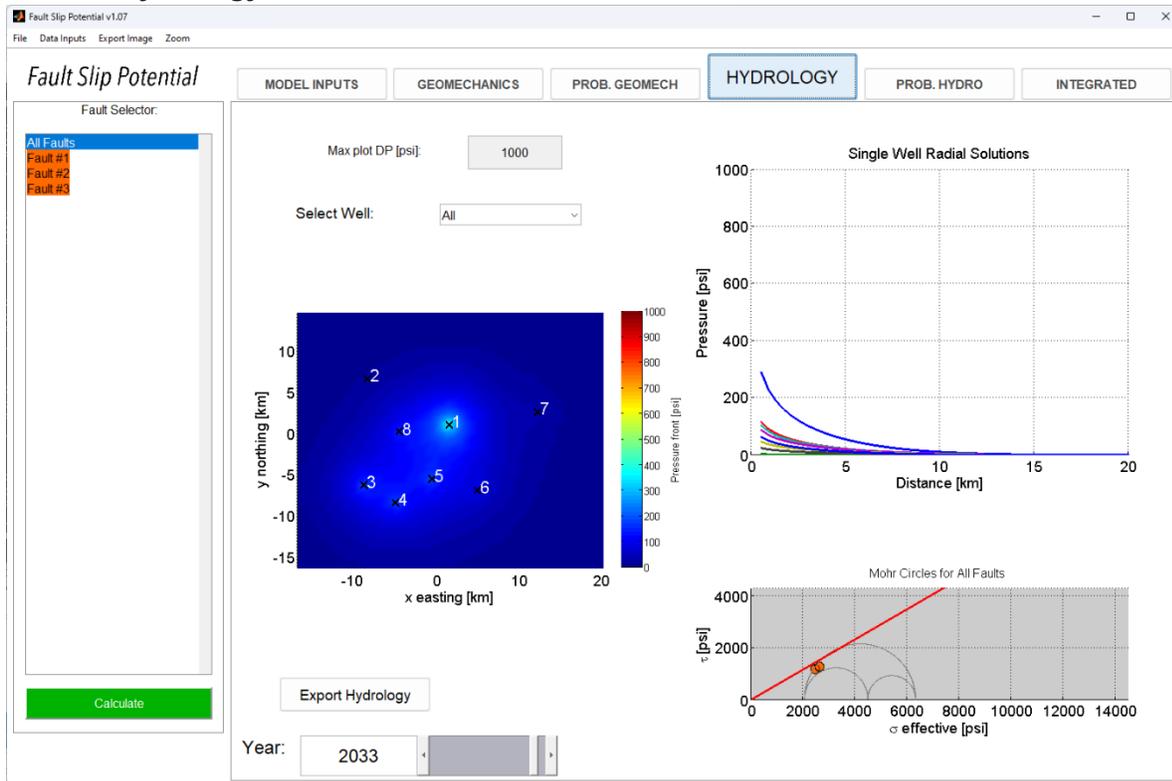
Year 5 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



Year 5 Fault Slip Probability (0% after 5 years)



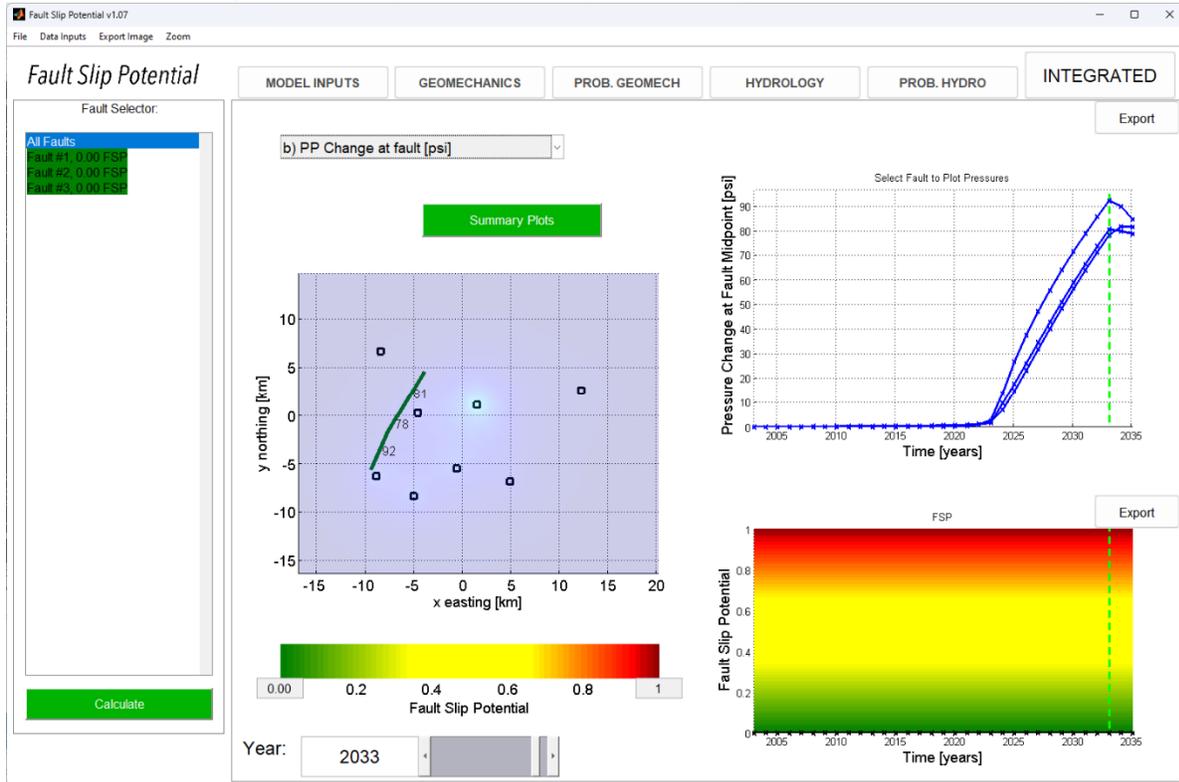
Year 10 Hydrology



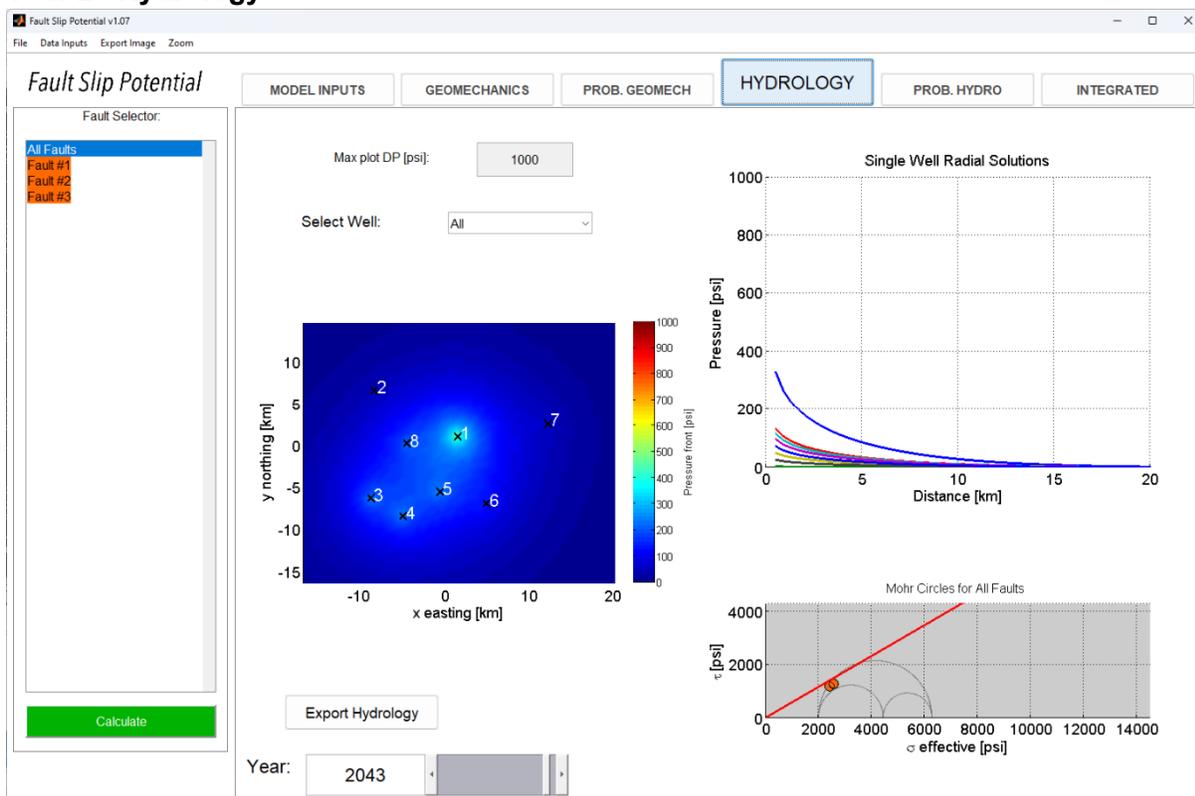
Year 10 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



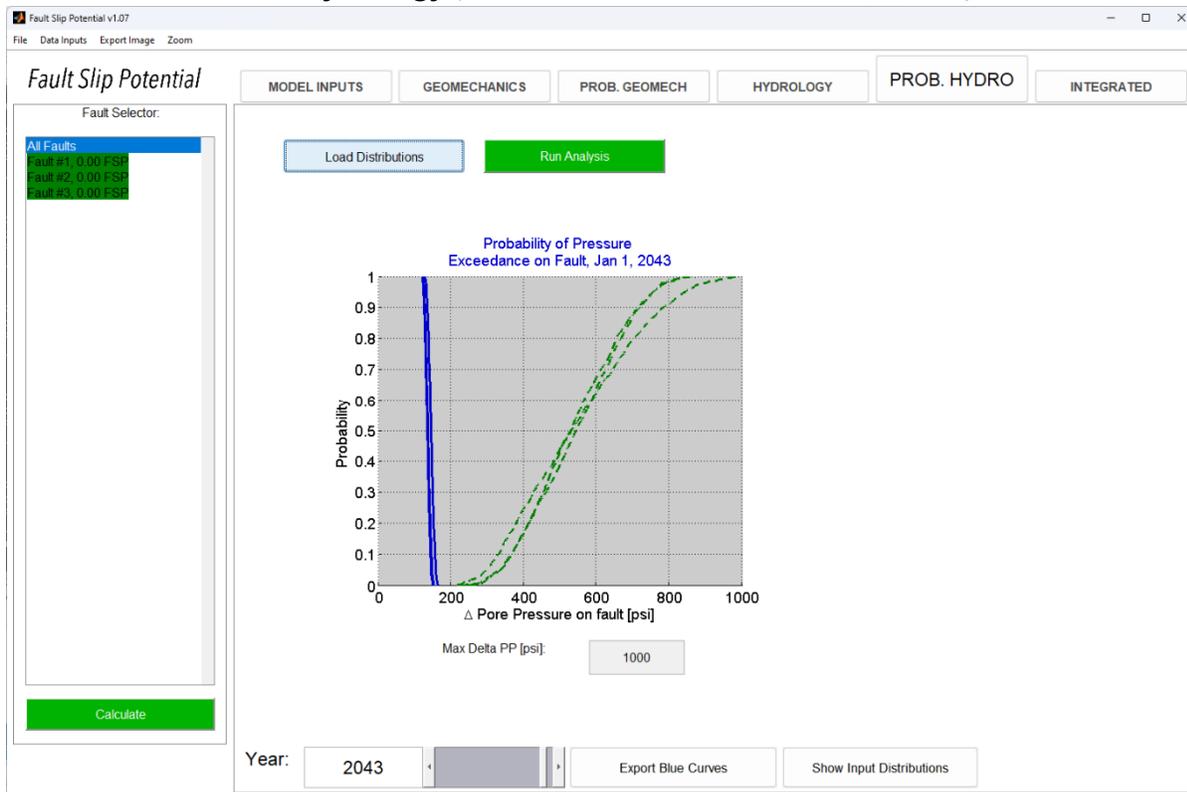
Year 10 Fault Slip Probability (0% after 10 years)



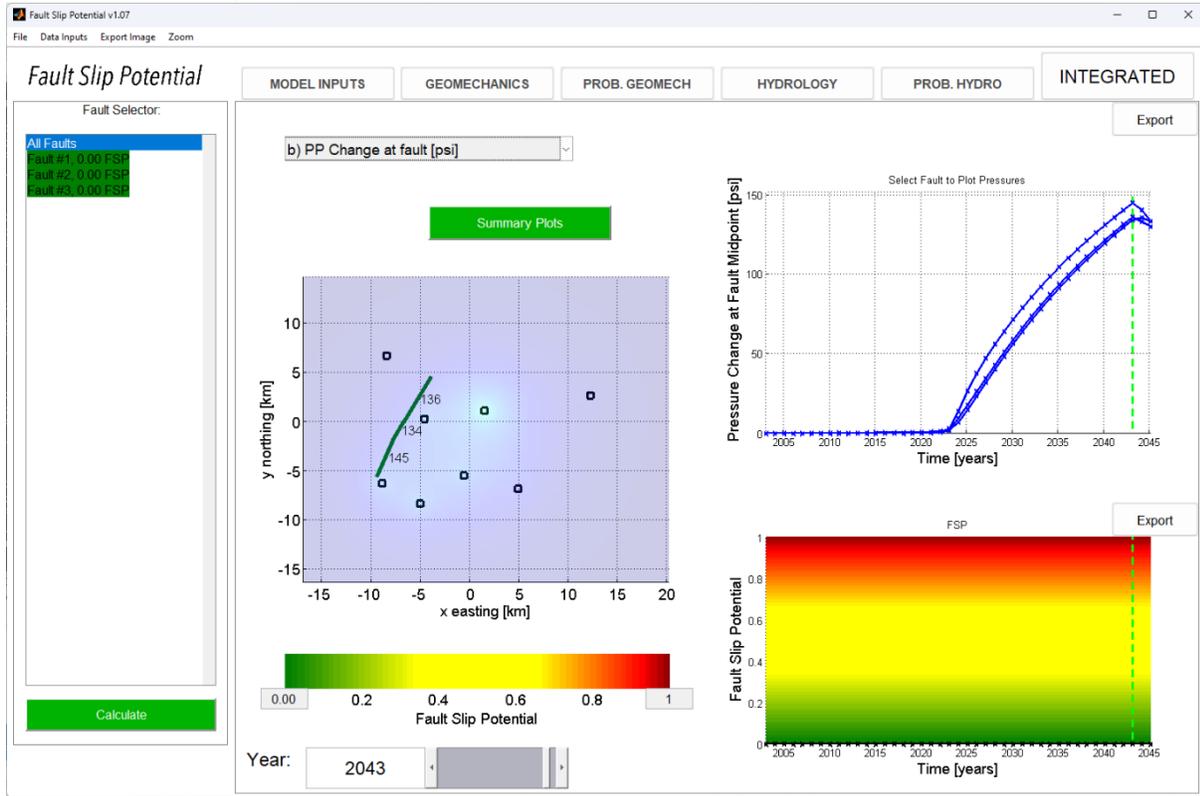
Year 20 Hydrology



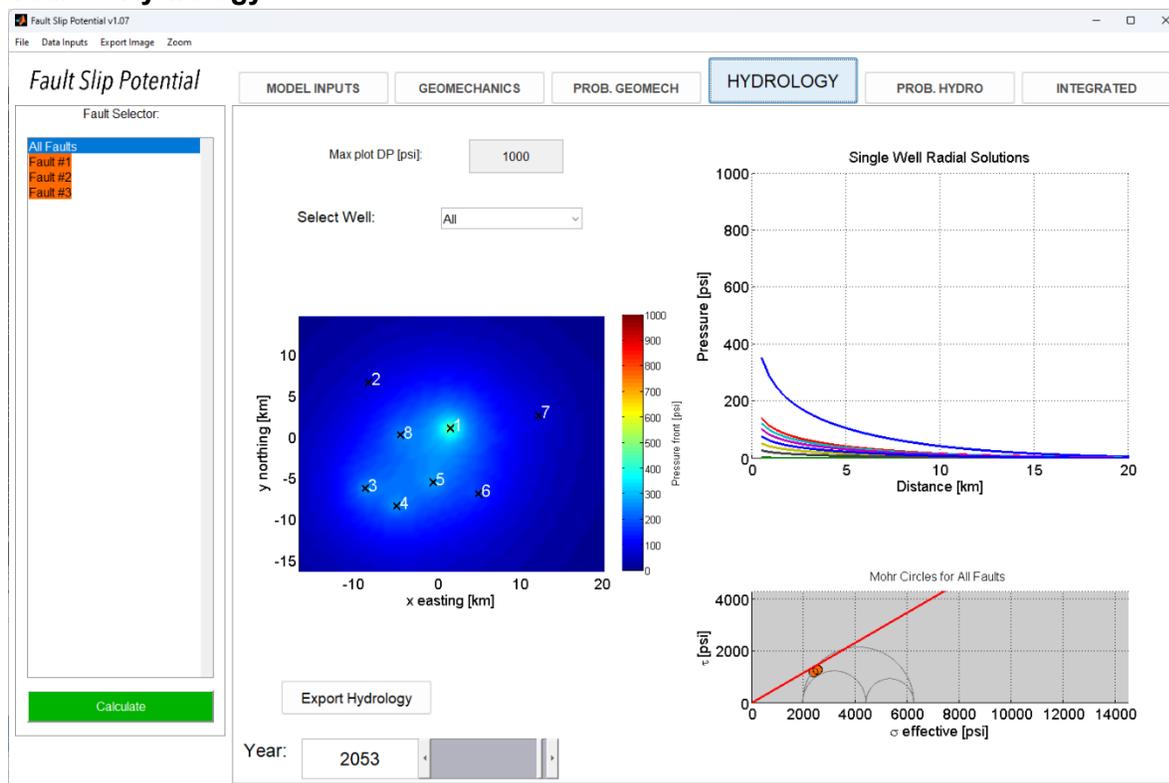
Year 20 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



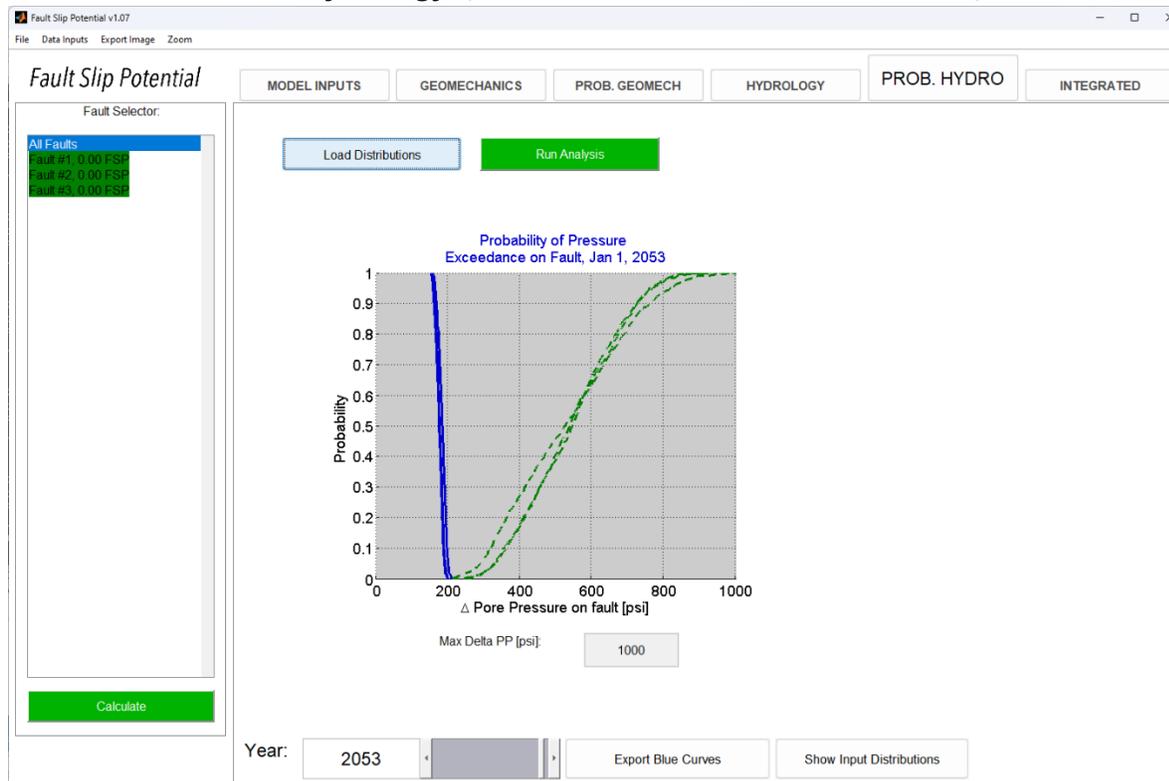
Year 20 Fault Slip Probability (0% after 20 years)



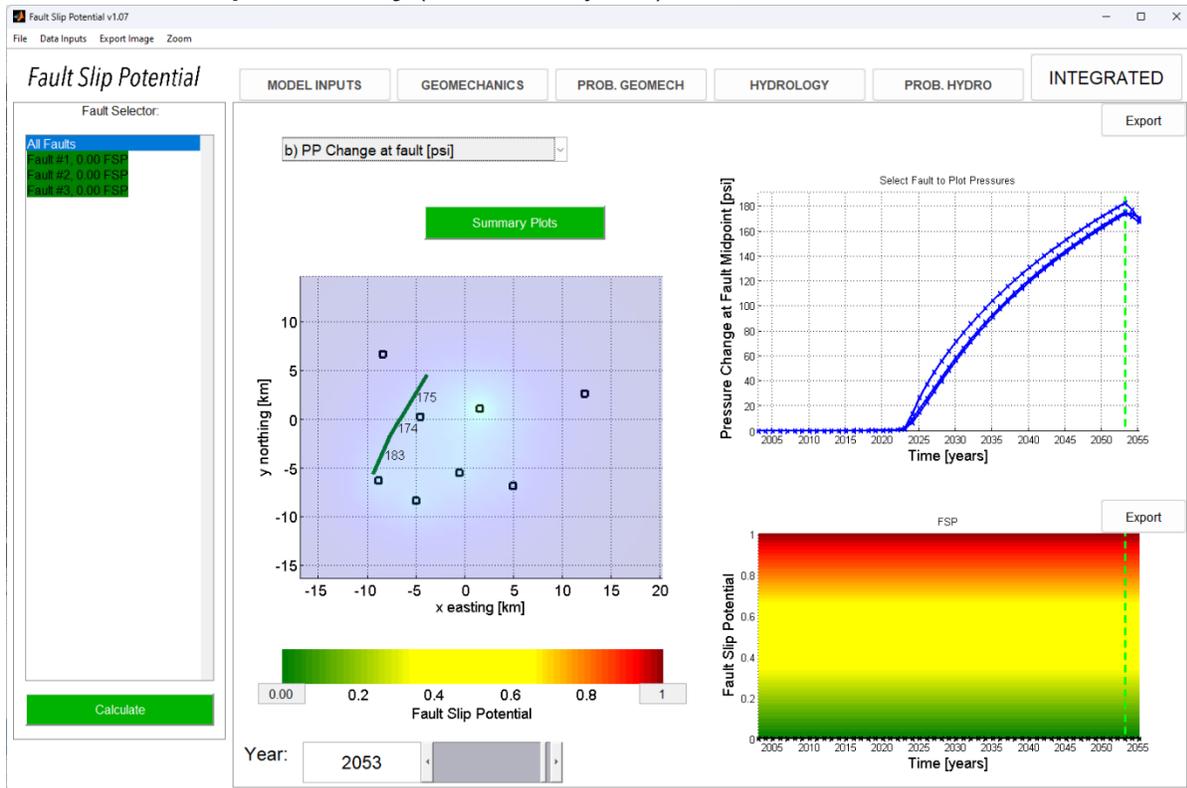
Year 30 Hydrology



Year 30 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



Year 30 Fault Slip Probability (0% after 30 years)



gfisher@popmidstream.com

(817) 606-7630



Item XII. Affirmative Statement

Re: C-108 Application for Authorization to Inject
Permian Oilfield Partners, LLC
Ruger 31 Federal SWD #1
1430' FNL & 205' FEL
Sec 31, T18S, R29E
Eddy County, NM

Permian Oilfield Partners, LLC. has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

A handwritten signature in black ink, appearing to read "Gary Fisher".

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 7/11/2023



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
CP 00582 POD1	CP	ED	ED				24	18S	29E	591048	3622096*	150		
CP 00863	CP	ED	ED	1	4	2	27	18S	29E	588341	3620768*	320		
CP 01618 POD1	CP	ED	ED	3	4	2	29	18S	29E	585120	3620554	240	180	60

Average Depth to Water: **180 feet**

Minimum Depth: **180 feet**

Maximum Depth: **180 feet**

Record Count: 3

Basin/County Search:

County: Eddy

PLSS Search:

Township: 18S **Range:** 29E

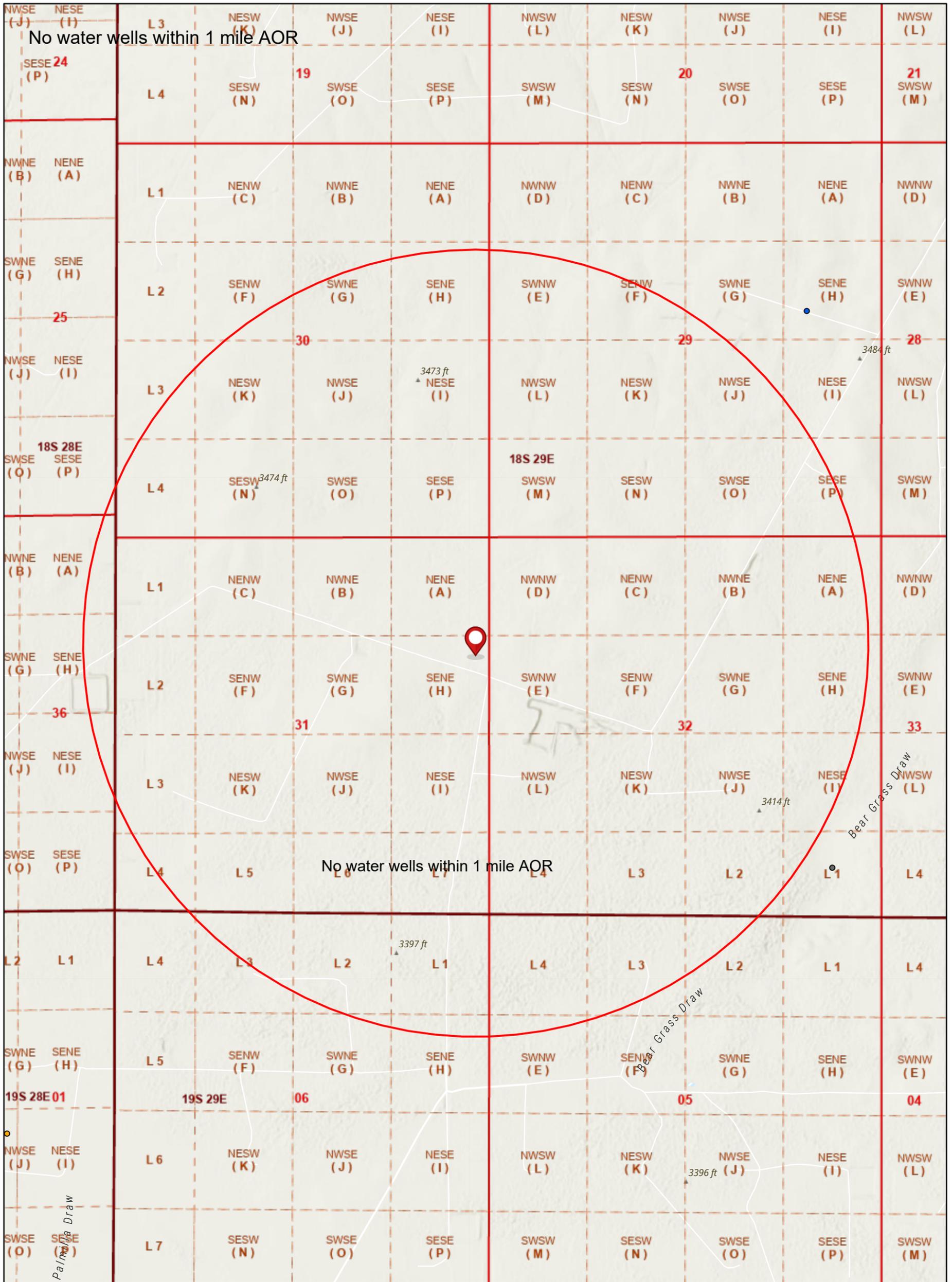
*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/11/23 1:54 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

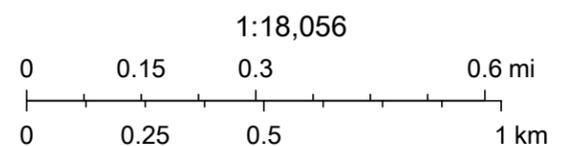
Ruger 31 Federal SWD #1 Water Wells in 1mi Radius



5/24/2023, 1:10:07 PM

OSE Water PODs PLSS Second Division

- Active
- Plugged
- Unknown
- PLSS First Division
- PLSS Townships



Esri, NASA, NGA, USGS, FEMA
 Esri Community Maps Contributors, New Mexico State University,
 Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph,
 GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb98f35ca75>: New Mexico Oil Conservation Division

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 254120

CONDITIONS

Operator: Permian Oilfield Partners, LLC PO Box 3329 Hobbs, NM 88241	OGRID: 328259
	Action Number: 254120
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	8/18/2023