

## **AE Order Number Banner**

---

**Application Number: pMSG2323043390**

**SWD-2554**

**Permian Oilfield Partners, LLC [328259]**

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: Permian Oilfield Partners, LLC. OGRID Number: 328259  
 Well Name: Thompson 35 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

- ☐ Notice Complete
- ☐ 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

7-17-2023

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: 7-17-2023  
E-MAIL ADDRESS: **spuryear@popmidstream.com**
- \* 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 13,445'

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 2,689 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.

| <b>GEOLOGY PROGNOSIS</b>       |                   |                      |                         |
|--------------------------------|-------------------|----------------------|-------------------------|
| <b>FORMATION</b>               | <b><u>TOP</u></b> | <b><u>BOTTOM</u></b> | <b><u>THICKNESS</u></b> |
|                                | KB TVD (ft)       | KB TVD (ft)          | (ft)                    |
| <b>Rustler</b>                 | 684               | 1044                 | 360                     |
| <b>Salado</b>                  | 1044              | 1281                 | 237                     |
| <b>Tansill</b>                 | 1281              | 1422                 | 141                     |
| <b>Yates</b>                   | 1,422             | 1,812                | 390                     |
| <b>Capitan Reef</b>            | 2,760             | 3,223                | 463                     |
| <b>Delaware</b>                | 3,223             | 6,454                | 3,231                   |
| <b>Bone Spring</b>             | 6,454             | 9,750                | 3,296                   |
| <b>Wolfcamp</b>                | 9,750             | 10,383               | 633                     |
| <b>Lwr. Mississippian</b>      | 12,922            | 13,346               | 424                     |
| <b>Woodford</b>                | 13,346            | 13,445               | 99                      |
| <b>Devonian</b>                | 13,445            | 14,056               | 611                     |
| <b>Fusselman (Silurian)</b>    | 14,056            | 14,300               | 244                     |
| <b>Montoya (U. Ordovician)</b> | 14,300            | 14,573               | 273                     |
| <b>Simpson (M. Ordovician)</b> | 14,573            | 14,973               | 400                     |

- Regional shallow fresh water in the Quaternary is known to exist at depths less than 260'. See attached OSE Water Column Depth table for the region. Depth from the bottom of this USDW to the injection zone is 13,185'. There is a deeper potential USDW in the Capitan Reef formation. Depth from the bottom of this potential USDW to the injection zone is 10,222'. 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 is 1 fresh water POD within the proposed well's one-mile area of review. See table below for POD status, and attached 1 mile AOR water well map showing location of POD in the AOR.

| Well Name     | Formation Name | Top Depth | Bottom Depth | Thickness | Status          |
|---------------|----------------|-----------|--------------|-----------|-----------------|
| CP 01202 POD1 | Quaternary     | 158       | 173          | 15        | Sample Attached |

- XII:** Hydrologic affirmative statement attached.
- XIII:** Proof of notice and proof of publication attached.

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 Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |  |   |  |   |  |
|---|--|---|--|---|--|
| <sup>1</sup> API Number                 |  | <sup>2</sup> Pool Code<br><b>97869</b>                              |  | <sup>3</sup> Pool Name<br><b>SWD; DEVONIAN-SILURIAN</b> |  |
| <sup>4</sup> Property Code              |  | <sup>5</sup> Property Name<br><b>THOMPSON 35 FEDERAL SWD</b>        |  |   | <sup>6</sup> Well Number<br><b>1</b>   |
| <sup>7</sup> OGRID NO.<br><b>328259</b> |  | <sup>8</sup> Operator Name<br><b>PERMIAN OILFIELD PARTNERS, LLC</b> |  |   | <sup>9</sup> Elevation<br><b>3354'</b> |

<sup>10</sup> Surface Location

|                           |                      |                        |                     |         |                              |                                  |                             |                               |                       |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|
| UL or lot no.<br><b>P</b> | Section<br><b>35</b> | Township<br><b>20S</b> | Range<br><b>29E</b> | Lot Idn | Feet from the<br><b>1043</b> | North/South line<br><b>SOUTH</b> | Feet From the<br><b>400</b> | East/West line<br><b>EAST</b> | County<br><b>EDDY</b> |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|

<sup>11</sup> Bottom Hole Location If Different From Surface

|                               |         |                               |       |                                  |               |                         |               |                |        |
|-------------------------------|---------|-------------------------------|-------|----------------------------------|---------------|-------------------------|---------------|----------------|--------|
| UL or lot no.                 | Section | Township                      | Range | Lot Idn                          | Feet from the | North/South line        | Feet from the | East/West line | County |
| <sup>12</sup> Dedicated Acres |         | <sup>13</sup> Joint or Infill |       | <sup>14</sup> Consolidation Code |               | <sup>15</sup> Order No. |               |                |        |

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

|  |  |   |  |
|--|--|---|--|
| <p>(B) S 89°54'13" W 2638.67'</p> <p>(C) S 89°59'58" W 2651.09'</p> <p>(D)</p> |  | <p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature <i>Gary Fisher</i> Date <b>7/11/2023</b></p> <p>Printed Name <b>Gary Fisher</b></p> <p>E-mail Address <b>gfisher@popmidstream.com</b></p> |  |
| <p>(A) N 00°07'51" W 5286.23'</p> <p>(F)</p> <p>(E)</p>                        |  | <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p><b>03/15/22</b></p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>19680</b></p> <p>Certificate Number</p>  |  |
| <p>S 89°55'51" W 2647.23'</p> <p>S 89°53'08" W 2642.86'</p>                    |  | <p>Job No.: LS22020097</p>  |  |

III (A)

**WELL CONSTRUCTION DATA**

Permian Oilfield Partners, LLC.  
 Thompson 35 Federal SWD #1  
 1043' FSL, 400' FEL  
 Sec. 35, T20S, R29E, Eddy Co. NM  
 Lat 32.5254787° N, Lon 104.0384574° W  
 GL 3354', RKB 3384'

**Surface - (Conventional)**

Hole Size: 26" Casing: 20" - 94# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 709'  
 Cement: 642 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #1 - (Conventional)**

Hole Size: 18.5" Casing: 16" - 75# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 2710'  
 Cement: 834 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #2 - (Conventional)**

Hole Size: 14.75" Casing: 13.375" - 54.5# J-55 FJ Casing  
 Depth Top: Surface  
 Depth Btm: 3248' ECP/DV Tool: 2810'  
 Cement: 510 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #3 - (Conventional)**

Hole Size: 12.25" Casing: 9.625" - 40# HCL-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 9800' ECP/3348'  
 Cement: 1640 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #4 - (Liner)**

Hole Size: 8.5" Casing: 7.625" - 39# HCL-80 FJ Casing"  
 Depth Top: 9600'  
 Depth Btm: 13480'  
 Cement: 250 sks - Class H + Additives  
 Cement Top: 9600' - Circulate, then Bond Log when well @ TD

**Intermediate #5 - (Open Hole)**

Hole Size: 6.5" Depth: 14275'  
 Inj. Interval: 13480' - 14275' (Open-Hole Completion)

**Tubing - (Tapered)**

Tubing Depth: 13435' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 X/O Depth: 9600'  
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 Packer Depth: 13445' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)  
 Packer Fluid: 8.4 ppg FW + Additives

## III (A)

**WELLBORE SCHEMATIC**

Permian Oilfield Partners, LLC.

Thompson 35 Federal SWD #1

1043' FSL, 400' FEL

Sec. 35, T20S, R29E, Eddy Co. NM

Lat 32.5254787° N, Lon 104.0384574° W

GL 3354', RKB 3384'

**Surface - (Conventional)**

Hole Size: 26"  
 Casing: 20" - 94# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 709'  
 Cement: 642 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #1 - (Conventional)**

Hole Size: 18.5"  
 Casing: 16" - 75# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 2710'  
 Cement: 834 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #2 - (Conventional)**

Hole Size: 14.75"  
 Casing: 13.375" - 54.5# J-55 FJ Casing  
 Depth Top: Surface  
 Depth Btm: 3248'  
 Cement: 510 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)  
 ECP/DV Tool: 2810'

**Intermediate #3 - (Conventional)**

Hole Size: 12.25"  
 Casing: 9.625" - 40# HCL-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 9800'  
 Cement: 1640 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)  
 ECP/DV Tool: 3348'

**Intermediate #4 - (Liner)**

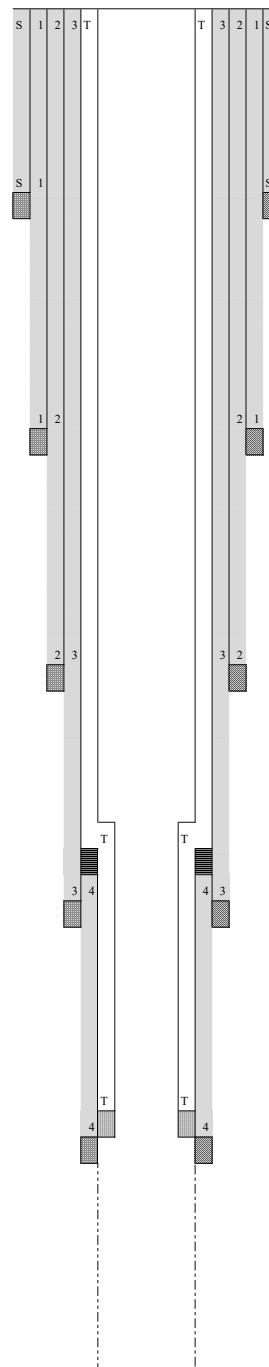
Hole Size: 8.5"  
 Casing: 7.625" - 39# HCL-80 FJ Casing"  
 Depth Top: 9600'  
 Depth Btm: 13480'  
 Cement: 250 sks - Class H + Additives  
 Cement Top: 9600' - Circulate, then Bond Log when well @ TD

**Intermediate #5 - (Open Hole)**

Hole Size: 6.5"  
 Depth: 14275'  
 Inj. Interval: 13480' - 14275' (Open-Hole Completion)

**Tubing - (Tapered)**

Tubing Depth: 13435'  
 Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 X/O Depth: 9600'  
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 Packer Depth: 13445'  
 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  
 Thompson 35 Federal SWD #1  
 1043' FSL & 400' FEL  
 Sec 35, T20S, R29E  
 Eddy County, NM

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

| Thompson 35 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 |
| Bureau Of Land Management  | 620 E Greene St.        | Carlsbad, NM 88220             | USPS    | 9414 8118 9956 2029 0429 16 | 7/21/2023    |
| COG OPERATING LLC  | 600 W Illinois Ave      | Midland, TX 79701              | USPS    | 9414 8118 9956 2029 0429 92 | 7/21/2023    |
| CONCHO OIL & GAS LLC   | 600 W Illinois Ave      | Midland, TX 79701              | USPS    | 9414 8118 9956 2029 0426 57 | 7/21/2023    |
| DEVON ENERGY CO LP   | 333 West Sheridan Ave.  | Oklahoma City, OK 73102        | USPS    | 9414 8118 9956 2029 0426 64 | 7/21/2023    |
| EOG RESOURCES INC  | P.O. Box 2267           | Midland, TX 79702              | USPS    | 9414 8118 9956 2029 0426 88 | 7/21/2023    |
| EOG Y RESOURCES, INC.  | 104 South 4th Street    | Artesia, NM 88210-2123         | USPS    | 9414 8118 9956 2029 0426 71 | 7/21/2023    |
| JUDAH OIL LLC  | P.O. Box 568            | Artesia, NM 88211              | USPS    | 9414 8118 9956 2029 0421 69 | 7/21/2023    |
| MARATHON OIL PERMIAN LLC   | 990 Town & Country Blvd | Houston, TX 77024              | USPS    | 9414 8118 9956 2029 0421 07 | 7/21/2023    |
| MEWBOURNE OIL CO   | P.O. Box 5270           | Hobbs, NM 88241                | USPS    | 9414 8118 9956 2029 0421 45 | 7/21/2023    |
| MRC PERMIAN CO   | 5400 LBJ Fwy, Ste 1500  | Dallas, TX 75240               | USPS    | 9414 8118 9956 2029 0423 12 | 7/21/2023    |
| New Mexico State Land Office   | 310 Old Santa Fe Trail  | Santa Fe, NM 87501             | USPS    | 9414 8118 9956 2029 0423 67 | 7/21/2023    |
| OXY Y-1 CO   | 5 Greenway Plaza        | Houston, TX                    | USPS    | 9414 8118 9956 2029 0423 05 | 7/21/2023    |
| PENROC OIL CORP  | PO Box 2769             | Hobbs, NM 88241                | USPS    | 9414 8118 9956 2029 0420 15 | 7/21/2023    |
| VYXOIL LLC   | P.O. Box 5492           | Santa Barbara, CA 93150        | USPS    | 9414 8118 9956 2029 0420 91 | 7/21/2023    |
| YATES INDUSTRIES LLC   | 403 W San Francisco St  | Santa Fe, NM 87501             | USPS    | 9414 8118 9956 2029 0420 84 | 7/21/2023    |

Sean Puryear  
 Permian Oilfield Partners, LLC  
[spuryear@popmidstream.com](mailto:spuryear@popmidstream.com)

Date: 7/21/2023



ARTICLE NUMBER: 9414 8118 9956 2029 0429 16

## ARTICLE ADDRESSED TO:

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

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0426 57

## ARTICLE ADDRESSED TO:

Concho Oil & Gas LLC  
600 W ILLINOIS AVE  
MIDLAND TX 79701-4882

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0426 88

## ARTICLE ADDRESSED TO:

EOG Resources, Inc.  
PO BOX 2267  
MIDLAND TX 79702-2267

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023

ARTICLE NUMBER: 9414 8118 9956 2029 0429 92

## ARTICLE ADDRESSED TO:

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

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0426 64

## ARTICLE ADDRESSED TO:

Devon Energy Production Co., LP  
333 W SHERIDAN AVE  
OKLAHOMA CITY OK 73102-5010

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0426 71

## ARTICLE ADDRESSED TO:

EOG Y Resources, Inc.  
104 S 4TH ST  
ARTESIA NM 88210-2123

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.990  
4.350  
9.340

Postmark  
Here

JUL 21 2023



ARTICLE NUMBER: 9414 8118 9956 2029 0421 69

## ARTICLE ADDRESSED TO:

Judah Oil LLC  
PO BOX 568  
ARTESIA NM 88211-0568

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



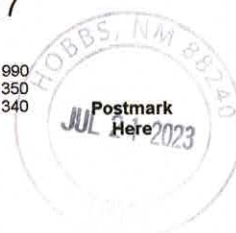
ARTICLE NUMBER: 9414 8118 9956 2029 0421 07

## ARTICLE ADDRESSED TO:

Marathon Oil Permian LLC  
990 TOWN AND COUNTRY BLVD  
HOUSTON TX 77024-2217

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0421 45

## ARTICLE ADDRESSED TO:

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

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0423 12

## ARTICLE ADDRESSED TO:

MRC Permian Company  
5400 LYNDON B JOHNSON FWY STE 1500  
DALLAS TX 75240-1017

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0423 67

## ARTICLE ADDRESSED TO:

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

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

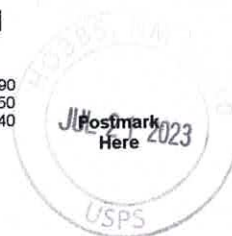
ARTICLE NUMBER: 9414 8118 9956 2029 0423 05

## ARTICLE ADDRESSED TO:

Oxy Y-1 Company  
5 GREENWAY PLZ STE 110  
HOUSTON TX 77046-0521

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0420 15

## ARTICLE ADDRESSED TO:

Penroc Oil Corp.  
PO BOX 2769  
HOBBS NM 88241-2769

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0420 91

## ARTICLE ADDRESSED TO:

VYXOIL LLC  
PO BOX 5492  
SANTA BARBARA CA 93150-5492

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |



## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0420 84

## ARTICLE ADDRESSED TO:

Yates Industries LLC  
403 W SAN FRANCISCO ST  
SANTA FE NM 87501-1836

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.990 |
| Certified Fee         | 4.350   |
| Total Postage & Fees: | 9.340   |

Postmark  
Here

JUL 21 2023



Affidavit of Publication

No. 26178

|   |                                   |
|---|-----------------------------------|
| State of New Mexico                                       | Publisher                         |
| County of Eddy:   |                                   |
| Danny Scott   | Publisher                         |
| being duly sworn says that he is the                      |                                   |
| 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 June 2022

day of June 2022

STATE OF NEW MEXICO  
NOTARY PUBLIC  
Latisha Romine  
Commission Number 1076338  
My Commission Expires May 12, 2023

Latisha Romine

Latisha Romine  
Notary Public, Eddy County, New Mexico

Copy of Publication:

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 Thompson 35 Federal SWD #1, and is located 1043' FSL & 400' FEL, Unit P, Section 35, Township 20 South, Range 29 East, NMPM, approximately 12 mi NE of Carlsbad, NM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 13,445 feet to 14,300 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 2,689 psi.

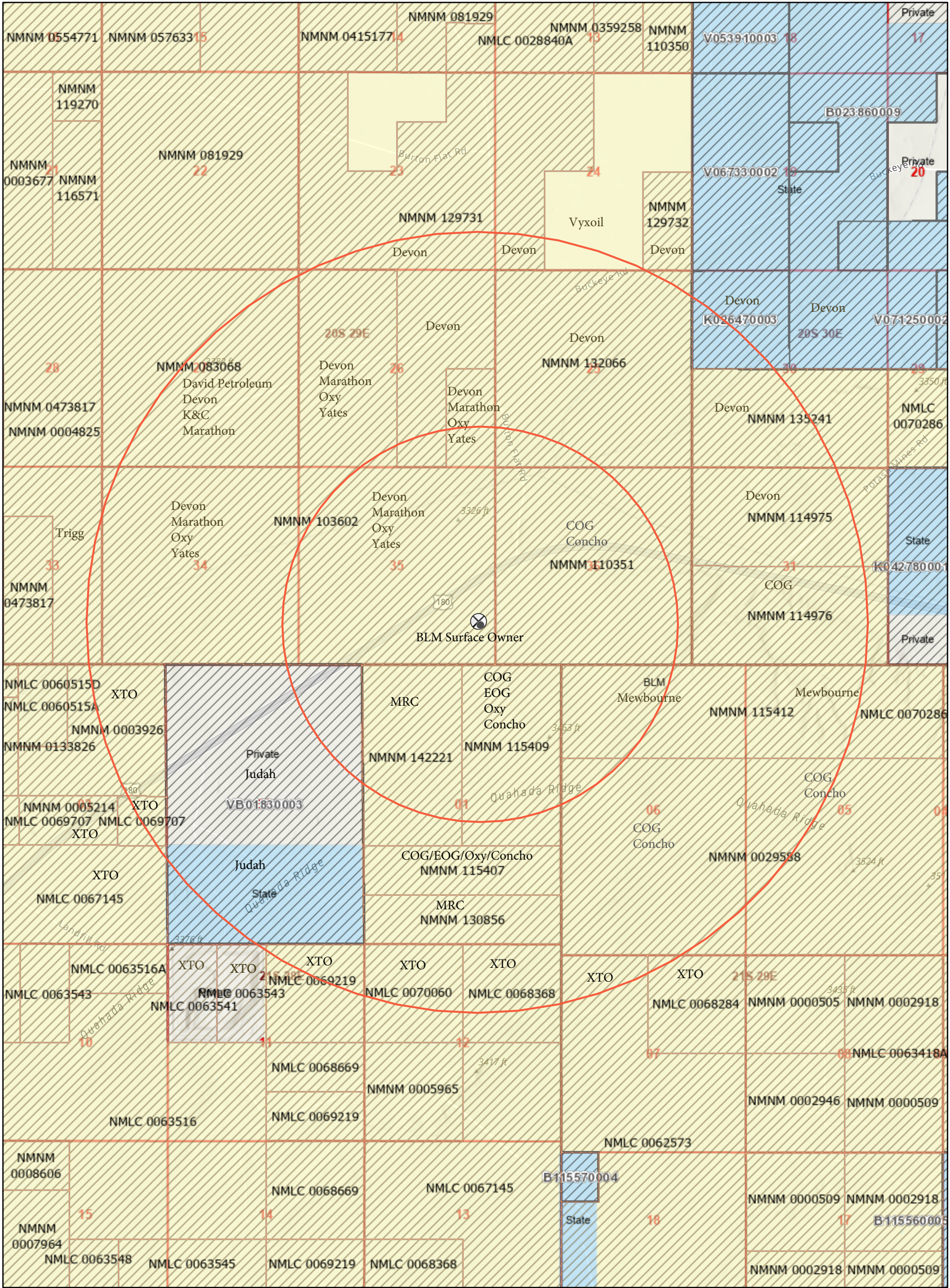
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.

Published in the Artesia Daily Press, Artesia, N.M., June 16, 2022 Legal No. 26178.



V (a)

Thompson 35 Federal SWD #1, 1 & 2 Mi AOR, Leases



7/12/2023, 6:55:05 PM

Override 1

Oil and Gas Leases

S

Override 1

Land Ownership

PLSS First Division

Authorized

BLM

PLSS Townships

P

1:36,112

00.330.651.3

mi

00.512

km

U.S. BLM

U.S. Department of Interior, Bureau of Land Management (BLM)

Esri, NASA, NGA, USGS, FEMA

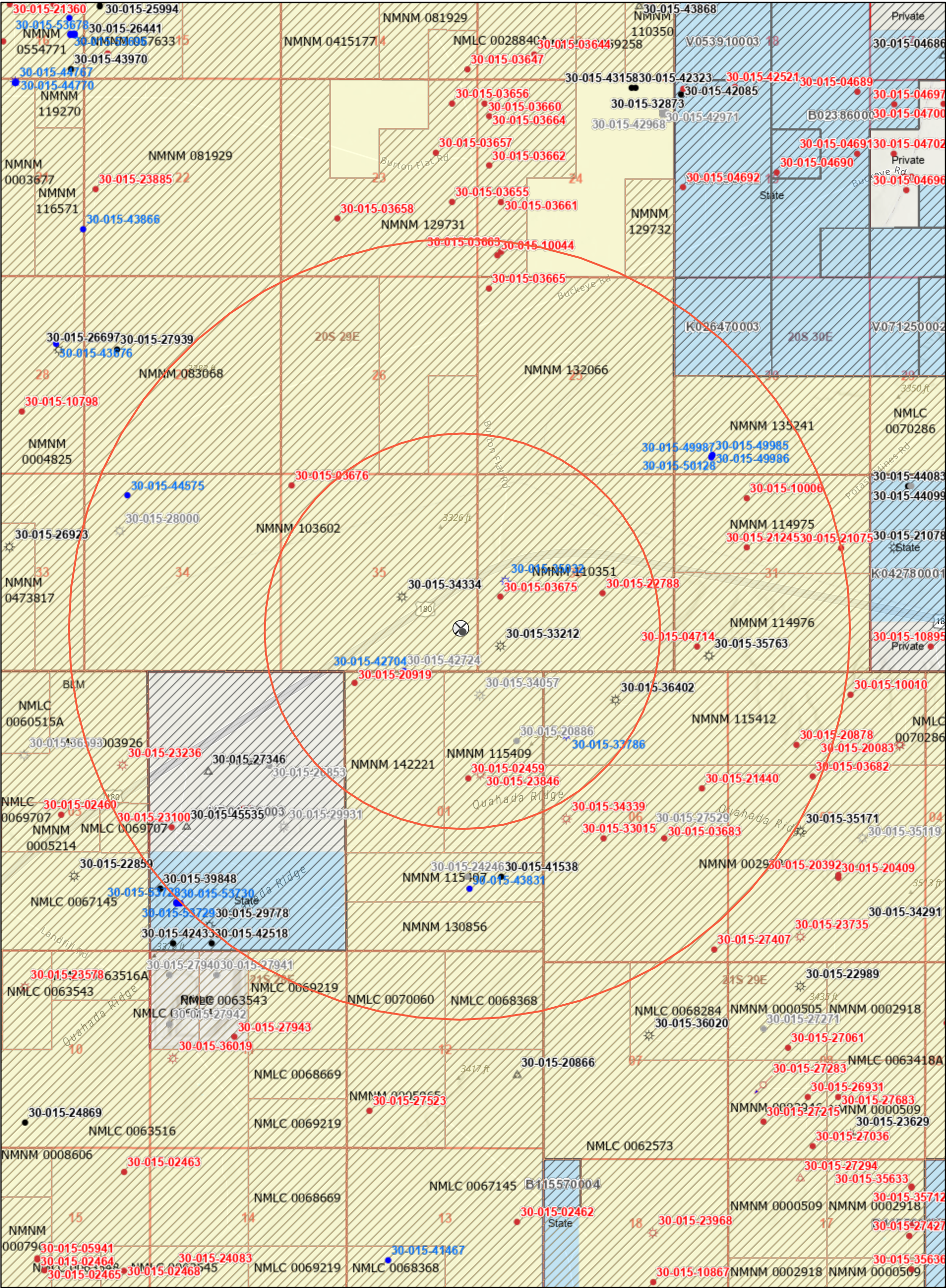
BLM

New Mexico Oil Conservation Division

Released to Imaging: 8/18/2023 12:07:05 PM



V (b) Thompson 35 Federal SWD #1, 1 & 2 Mi AOR, Wells



7/12/2023, 7:34:28 PM

- Override 1

Override 1

Wells - Large Scale

Gas, Active

Gas, Cancelled

Gas, New

Gas, Plugged

Injection, Plugged

Oil, Active

Oil, Cancelled

Oil, New

Oil, Plugged

Salt Water Injection, Active

Salt Water Injection, Plugged

Water, Active

Authorized

Oil and Gas Leases

Land Ownership

BLM

P

S

PLSS First Division

PLSS Townships
- 1:36,112

0

0.33

0.65

1.3 mi

0

0.5

1

2 km

U.S. BLM

U.S. Department of Interior, Bureau of Land Management (BLM)

Esri, NASA, NGA, USGS, FEMA

Oil Conservation Division of the New Mexico Energy, Minerals and

New Mexico Oil Conservation Division

Released to Imaging: 8/18/2023 12:07:05 PM

V (c)

| Thompson 35 Federal SWD #1 - Wells Within 1 Mile 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    |
| 30-015-36402  | MEWBOURNE OIL CO            | DOS HERMANOS 6 FEDERAL  | #001        | Gas       | Vertical       | Active                  | 6       | T21S     | R28E  | 3               | 3-06-21S-29E     | 770 FNL       | 1980 FWL | C-06-21S-29E        | 770 FNL         | 1980 FWL | Morrow      | 1,800  | 12,800 |
| 30-015-20919  | PRE-ONGARD WELL OPERATOR    | PRE-ONGARD WELL         | #002        | Oil       | Vertical       | Plugged (site released) | 1       | T21S     | R28E  | D               | D-01-21S-28E     | 330 FNL       | 330 FWL  | D-01-21S-28E        | 330 FNL         | 330 FWL  | Yates       | 1,800  | 1,800  |
| 30-015-42704  | EOG RESOURCES INC           | BOLSA BR F FEDERAL COM  | #001H       | Oil       | Horizontal     | New                     | 1       | T21S     | R28E  | C               | C-01-21S-28E     | Lot: 3 20 FNL | 1650 FWL | K-01-21S-28E        | 1650 FSL        | 1650 FWL | Bone Spring | 14,108 | 8,523  |
| 30-015-42724  | EOG Y RESOURCES, INC.       | SOBER BEZ FEDERAL       | #004H       | Oil       | Horizontal     | Cancelled               | 35      | T20S     | R29E  | O               | O-35-20S-29E     | 10 FSL        | 1930 FEL | B-35-20S-29E        | 330 FNL         | 1930 FEL | Bone Spring | 13,227 | 8,468  |
| 30-015-34334  | DEVON ENERGY PRODUCTION COM | SOBER BEZ FEDERAL       | #001        | Gas       | Vertical       | Active                  | 35      | T20S     | R29E  | J               | J-35-20S-29E     | 1980 FSL      | 1980 FEL | J-35-20S-29E        | 1980 FSL        | 1980 FEL | Morrow      | 12,500 | 12,500 |
| 30-015-40943  | EOG Y RESOURCES, INC.       | SOBER BEZ FEDERAL       | #002H       | Oil       | Horizontal     | Cancelled               | 35      | T20S     | R29E  | P               | P-35-20S-29E     | 200 FSL       | 660 FEL  | I-26-20S-29E        | 2130 FSL        | 660 FEL  | Bone Spring | 15,494 | 8,487  |
| 30-015-02459  | PRE-ONGARD WELL OPERATOR    | PRE-ONGARD WELL         | #001        | Oil       | Vertical       | Plugged (site released) | 1       | T21S     | R28E  | J               | J-01-21S-28E     | 4620 FSL      | 1980 FEL | J-01-21S-28E        | 4620 FSL        | 1980 FEL | n/a         | n/a    | n/a    |
| 30-015-34057  | MEWBOURNE OIL CO            | QUAHADA RIDGE 1 FEDERAL | #001C       | Gas       | Vertical       | Cancelled               | 1       | T21S     | R28E  | 2               | 2-01-21S-28E     | 660 FNL       | 1650 FEL | 2-01-21S-28E        | 660 FNL         | 1650 FEL | Morrow      | 12,600 | 12,600 |
| 30-015-23846  | PENROC OIL CORP             | GOLDEN LANE 1 FEDERAL   | #001        | Gas       | Vertical       | Plugged (site released) | 1       | T21S     | R28E  | J               | J-01-21S-28E     | 4720 FSL      | 1650 FEL | J-01-21S-28E        | 4720 FSL        | 1650 FEL | Atoka       | 12,650 | 12,650 |
| 30-015-03675  | PRE-ONGARD WELL OPERATOR    | PRE-ONGARD WELL         | #001        | Oil       | Vertical       | Plugged (site released) | 36      | T20S     | R29E  | L               | L-36-20S-29E     | 1980 FSL      | 660 FWL  | L-36-20S-29E        | 1980 FSL        | 660 FWL  | Yates       | 2,000  | 2,000  |
| 30-015-33212  | COG OPERATING LLC           | LOTSAWHISKEY FEDERAL    | #001        | Gas       | Vertical       | Active                  | 36      | T20S     | R29E  | M               | M-36-20S-29E     | 660 FSL       | 660 FWL  | M-36-20S-29E        | 660 FSL         | 660 FWL  | Morrow      | 12,600 | 12,600 |
| 30-015-35032  | COG OPERATING LLC           | MUCHO CERVEZA FEDERAL   | #001        | Gas       | Vertical       | New                     | 36      | T20S     | R29E  | L               | L-36-20S-29E     | 2400 FSL      | 790 FWL  | L-36-20S-29E        | Lot: E 1980 FNL | 660 FWL  | Morrow      | 12,700 | 12,700 |
| 30-015-20886  | PRE-ONGARD WELL OPERATOR    | PRE-ONGARD WELL         | #001        | Oil       | Vertical       | Cancelled               | 1       | T21S     | R28E  | H               | H-01-21S-28E     | 1886 FNL      | 660 FEL  | H-01-21S-28E        | 1886 FNL        | 660 FEL  | Yates       | 1,800  | 1,800  |
| 30-015-33786  | COG OPERATING LLC           | HUNT FEDERAL            | #001        | Gas       | Vertical       | New                     | 6       | T21S     | R29E  | 5               | 5-06-21S-29E     | 1730 FNL      | 660 FWL  | 5-06-21S-29E        | 1730 FNL        | 660 FWL  | Morrow      | 12,700 | 12,700 |
| 30-015-22788  | PRE-ONGARD WELL OPERATOR    | PRE-ONGARD WELL         | #001        | Oil       | Vertical       | Plugged (site released) | 36      | T20S     | R29E  | J               | J-36-20S-29E     | 2080 FSL      | 1880 FEL | J-36-20S-29E        | 2080 FSL        | 1880 FEL | Morrow      | 13,000 | 13,000 |

## VII (4)

Permian Oilfield Partners, LLC.  
 Thompson 35 Federal SWD #1  
 1043' FSL, 400' FEL  
 Sec. 35, T20S, R29E, Eddy Co. NM  
 Lat 32.5254787° N, Lon 104.0384574° W  
 GL 3432', RKB 3462'

| Regional Source Water Analysis |                                   |                              |                         |                            |
|--------------------------------|-----------------------------------|------------------------------|-------------------------|----------------------------|
| Well Name                      | INDIAN FLATS BASS<br>FEDERAL #002 | COOTER 16 STATE<br>COM #006H | DIAMOND PWU 22<br>#005H | ZINNIA BKC<br>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<br>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                     |                            |



VII (5)

Permian Oilfield Partners, LLC.  
 Thompson 35 Federal SWD #1  
 1043' FSL, 400' FEL  
 Sec. 35, T20S, R29E, Eddy Co. NM  
 Lat 32.5254787° N, Lon 104.0384574° W  
 GL 3432', RKB 3462'

| Devonian Injection Zone Water Analysis |                       |                  |                 |
|--|-----------------------|------------------|-----------------|
| Well Name                              | LEONARD ST 1 (A) #001 | BIG EDDY UT #001 | FED UNION #001  |
| API                                    | 3001503537            | 3001502475       | 3001502416      |
| Latitude                               | 32.6839676            | 32.4421539       | 32.5527229      |
| Longitude                              | -104.0347595          | -104.0423050     | -104.1623917    |
| Sec                                    | 1                     | 36               | 22              |
| Township                               | 19S                   | 21S              | 20S             |
| Range                                  | 29E                   | 28E              | 28E             |
| Unit                                   | M                     | C                | O               |
| Ftg NS                                 | 610S                  | 660N             | 330S            |
| Ftg EW                                 | 660W                  | 1980W            | 1650E           |
| County                                 | EDDY                  | EDDY             | EDDY            |
| State                                  | NM                    | NM               | NM              |
| Field                                  | N/A                   | N/A              | N/A             |
| Formation                              | DEVONIAN              | DEVONIAN         | DEVONIAN        |
| Sample Source                          | DRILL STEM TEST       | DRILL STEM TEST  | DRILL STEM TEST |
| pH                                     | N/A                   | N/A              | 6.8             |
| TDS mgL                                | 29,011                | 19,941           | 39,605          |
| Chloride mgL                           | 16,000                | 10,700           | 22,620          |
| Bicarbonate mgL                        | 520                   | 640              | 810             |
| Sulfate mgL                            | 1,500                 | 1,130            | 1,618           |





**Attachment to C-108  
Permian Oilfield Partners, LLC  
Thompson 35 Federal SWD #1  
1043' FSL & 400' FEL  
Sec 35, T20S, R29E  
Eddy County, NM**

July 17, 2023

**STATEMENT REGARDING SEISMICITY**

Examination of the USGS and NMTSO seismic activity databases shows no 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 an M2.0 event recorded 7.9 mi NE in December 2019, and an M2.1 event recorded 8.1 mi SW of the proposed well in April 2020. 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 1.8 miles away from the nearest active or permitted Devonian disposal well, the Shinnery Oak SWD #3, SWD-1881.

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.

The distance from the proposed injection well to the nearest known fault is approximately 10 mi (16 km). This known fault is too far away to be affected by this well, so a pseudo fault was modeled at a distance of 1 mile from the proposed well, in the direction of the regional horizontal stress.

1. Permian Oilfield Partners ran modeling to check for fault slip assuming that the pseudo fault would 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-1641-A | Outer Banks SWD #1      | 13-20S-29E | 32.5715830 | -104.0230560 | 6,120          |
| SWD-1533   | Shinnery Oak Fed SWD #1 | 12-21S-28E | 32.4929428 | -104.0336914 | 2,963          |
| SWD-1881   | Shinnery Oak Fed SWD #3 | 2-21S-28E  | 32.5112091 | -104.0625410 | 11,048         |
| SWD-2186   | Jim Pat SWD #4          | 4-21S-28E  | 32.5122335 | -104.0940847 | 21,193         |

3. The probability of an induced seismic event in the pseudo fault is calculated to be 6% after 30 years as per the FSP results screenshots below.

#### Input assumptions:

|                                     |           |
|-------------------------------------|-----------|
| Thompson 35 Fed SWD rate (BBL/day)  | 50000     |
| Interval height (ft)                | 795       |
| Average Porosity (%)                | 5.4       |
| Vert stress gradient (psi/ft)       | 1.00      |
| Hor stress direction (deg N)        | 10        |
| Fault dip (deg)                     | 75        |
| Ref depth (ft)                      | 13480     |
| 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 Thompson 35 Fed SWD #1

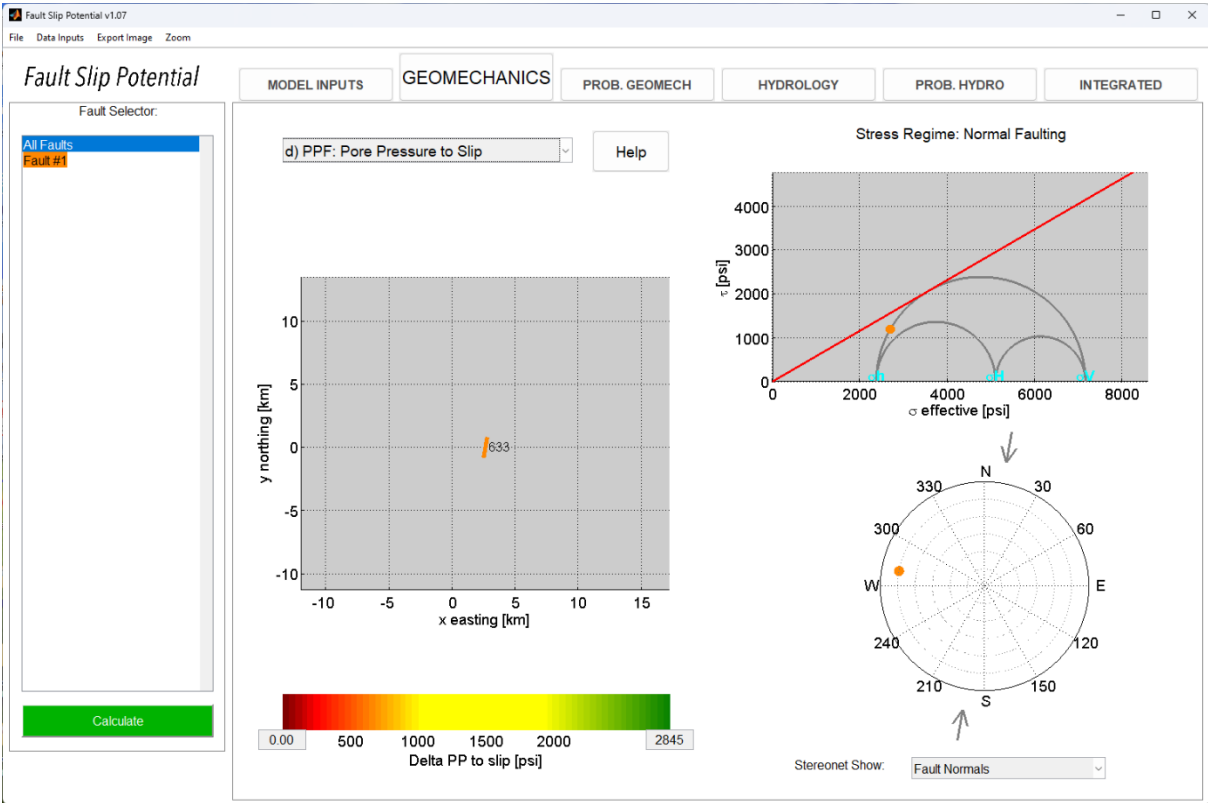
Injection Well #2: Outer Banks SWD #1

Injection Well #3: Shinnery Oak Fed SWD #1

Injection Well #4: Shinnery Oak Fed SWD #3

Injection Well #5: Jim Pat SWD #4

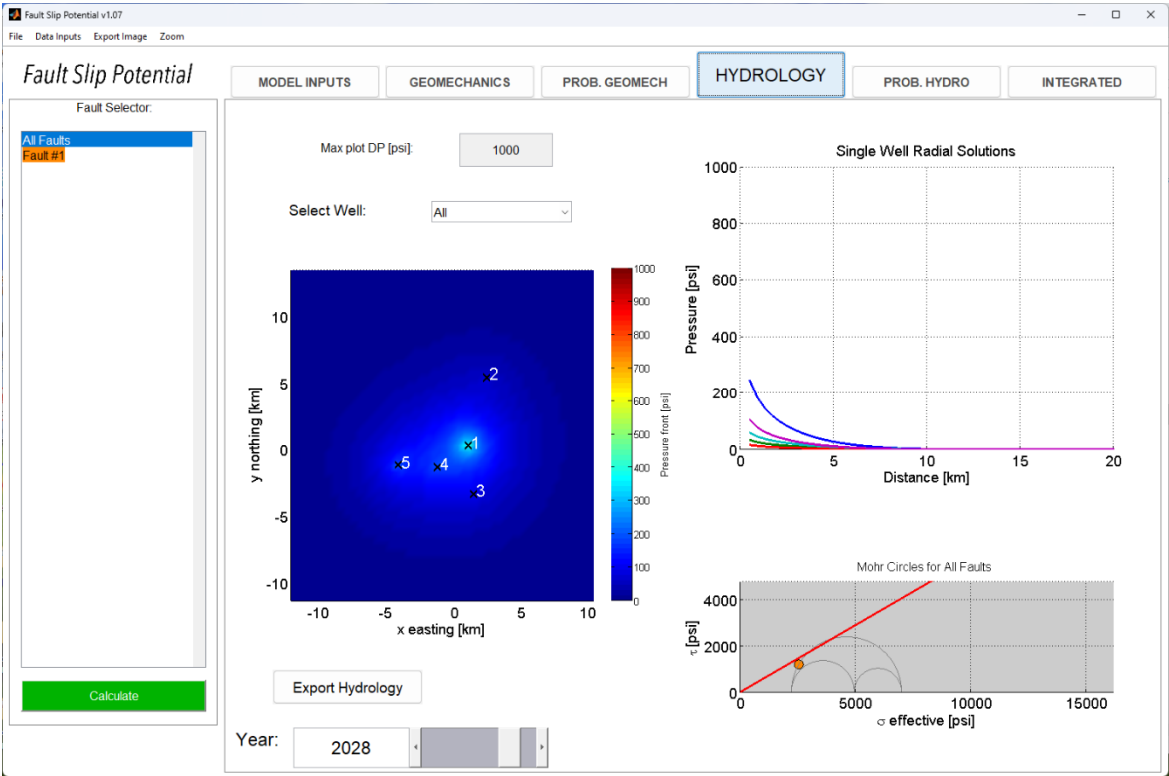
Geomechanics Pore Pressure to Slip



Geomechanics Variability



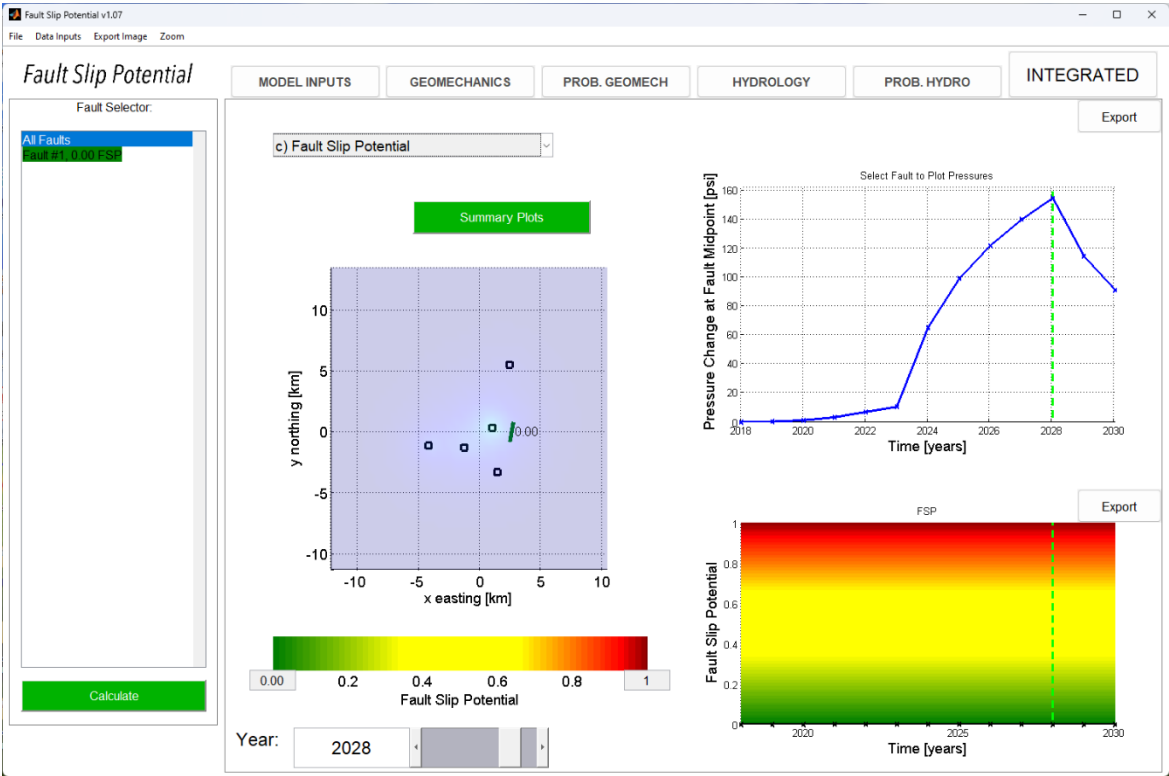
Year 5 Hydrology



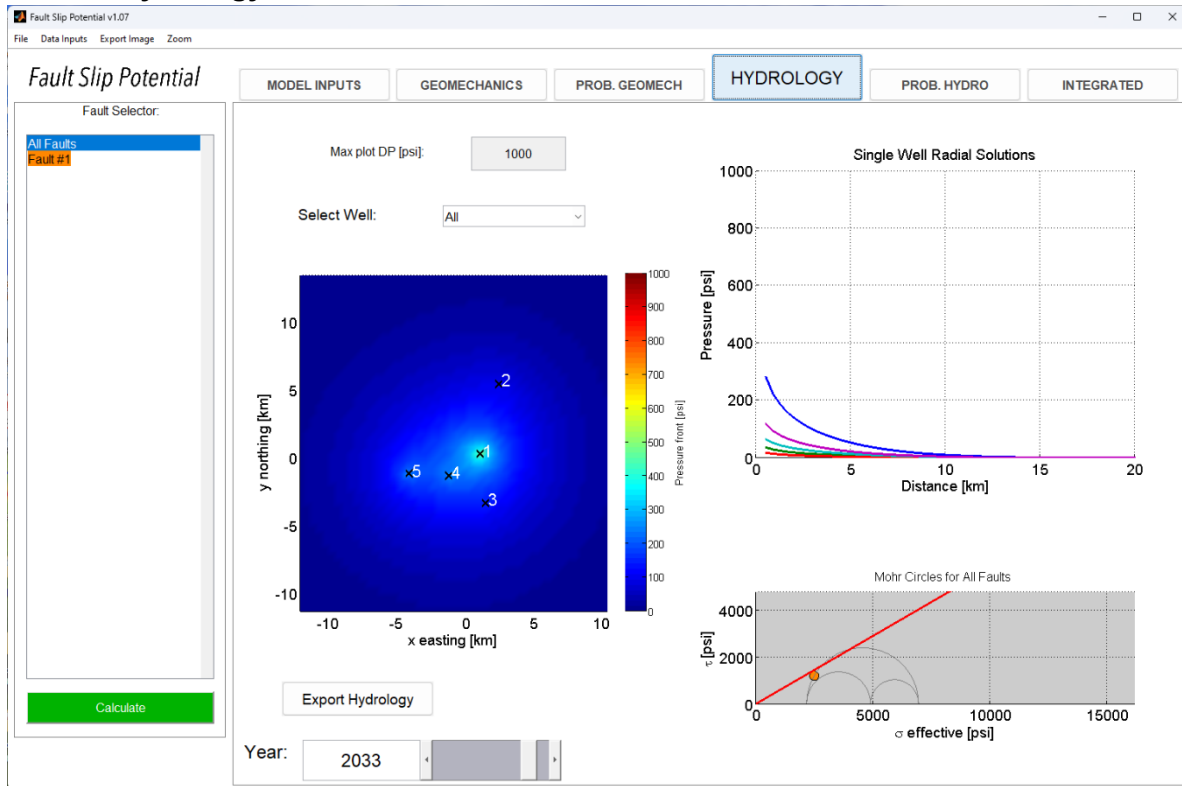
Year 5 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



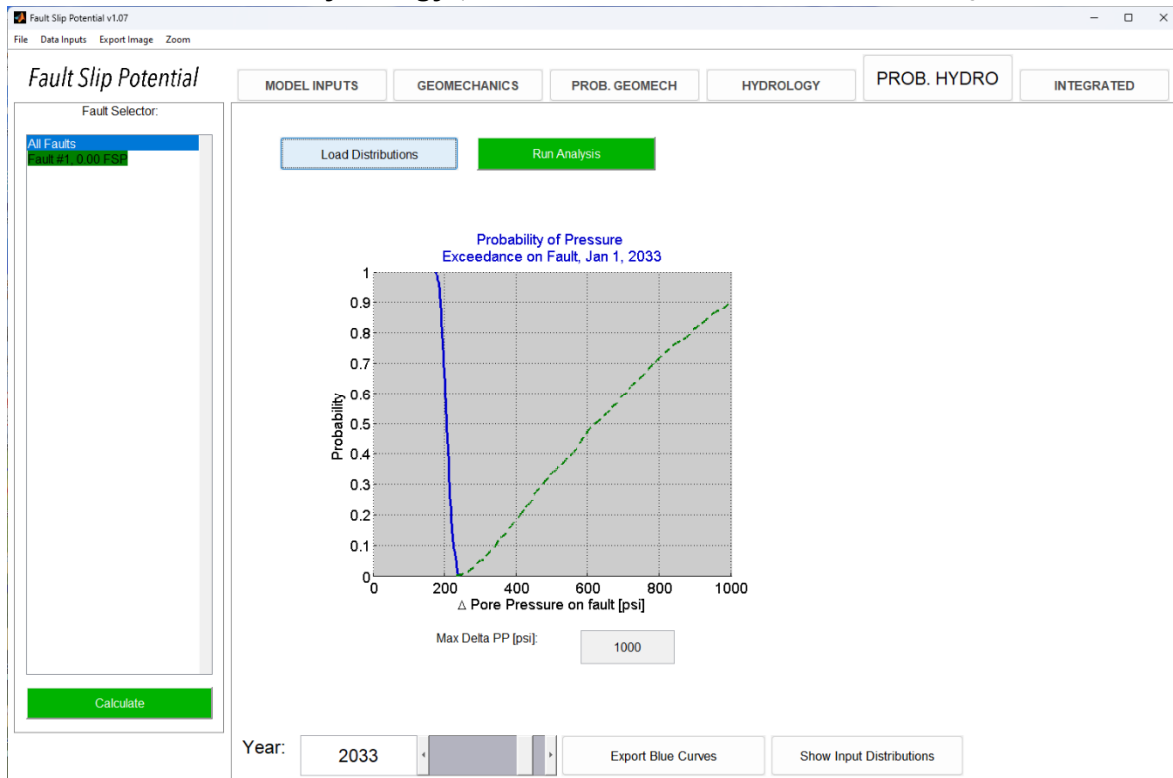
Year 5 Fault Slip Probability (0% after 5 years)



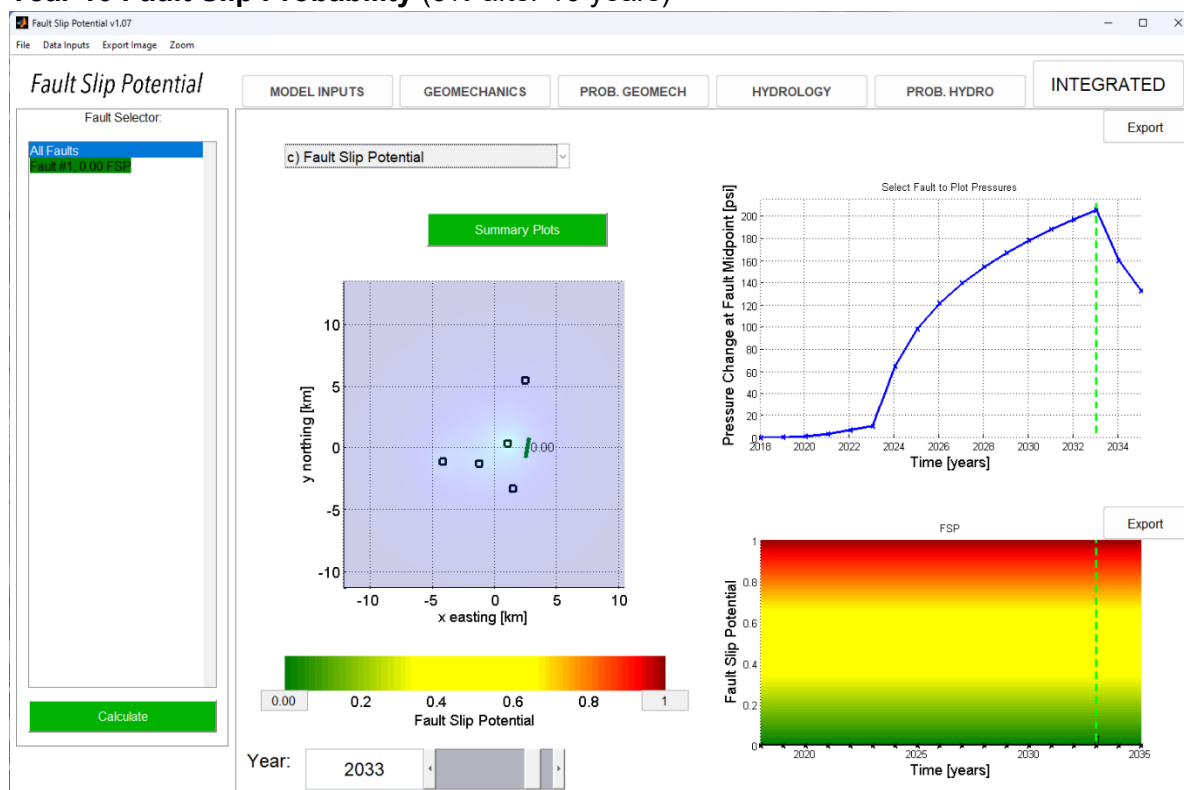
## Year 10 Hydrology



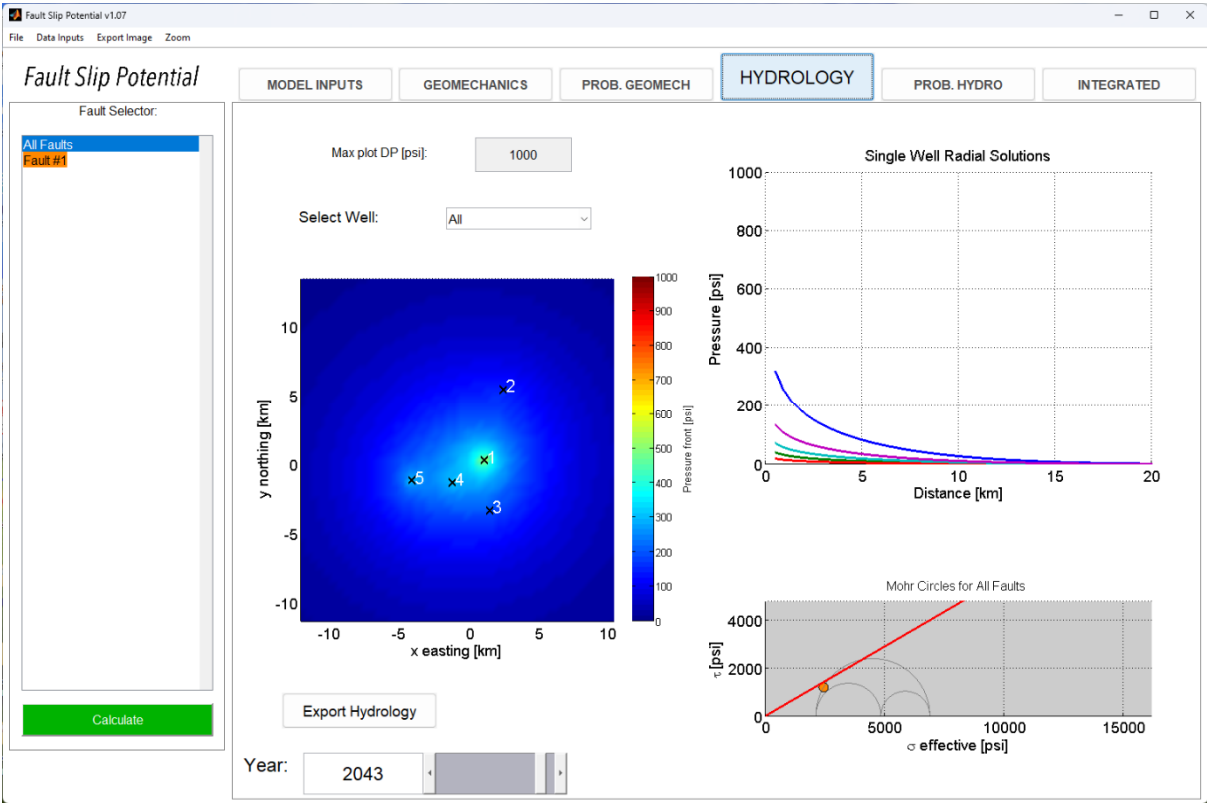
## Year 10 Probabilistic Hydrology (note no crossover between blue delta-press. &amp; green fault slip press.)



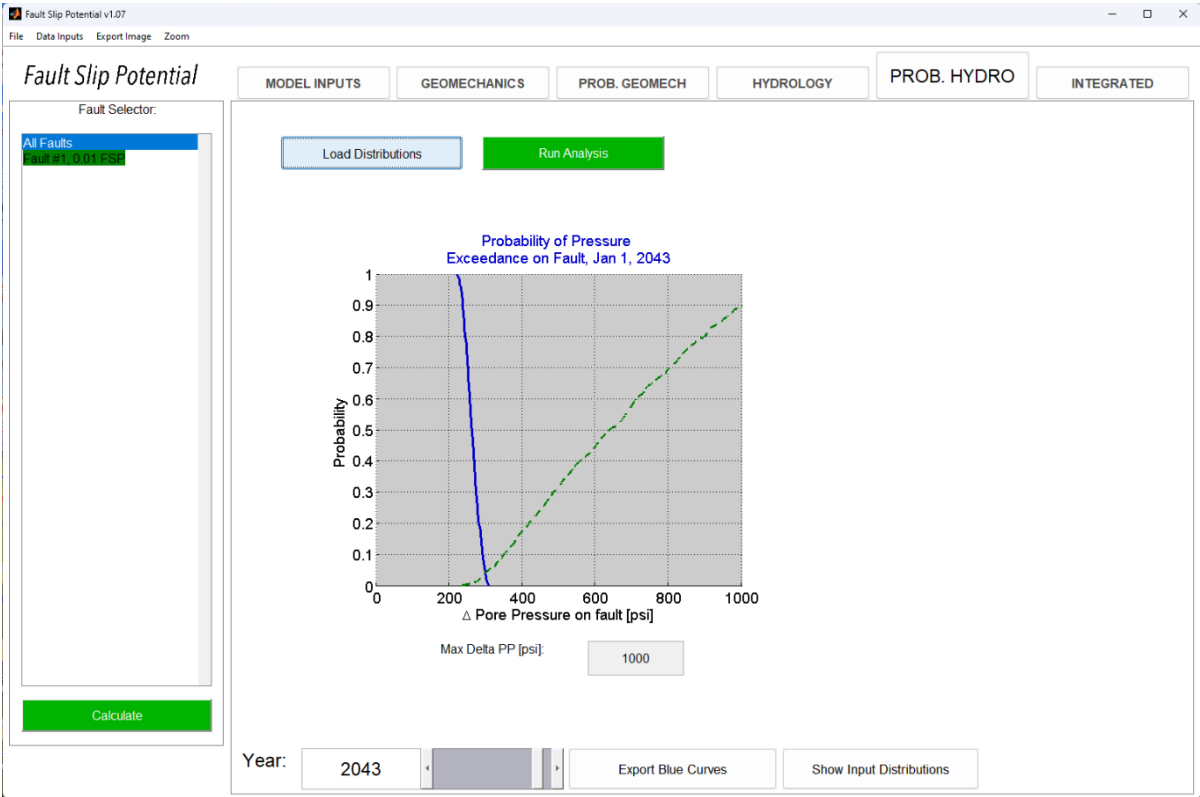
## Year 10 Fault Slip Probability (0% after 10 years)



Year 20 Hydrology

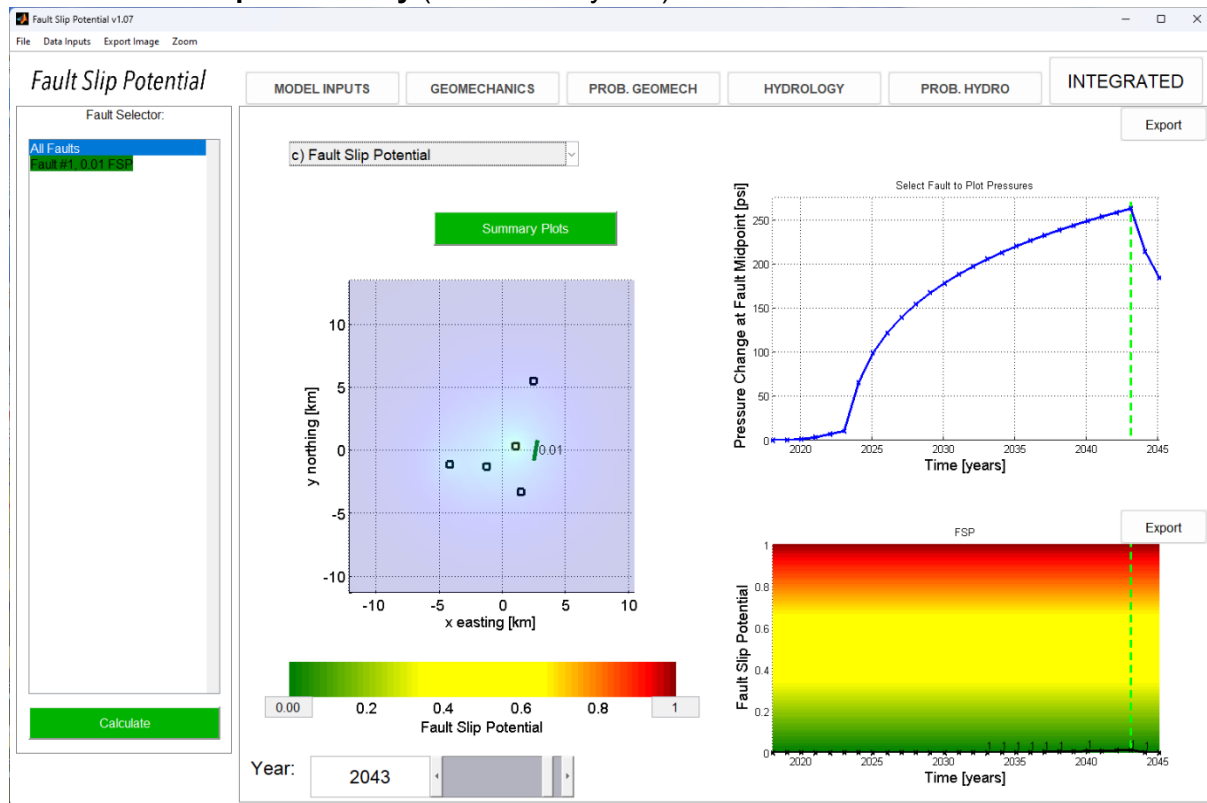


Year 20 Probabilistic Hydrology

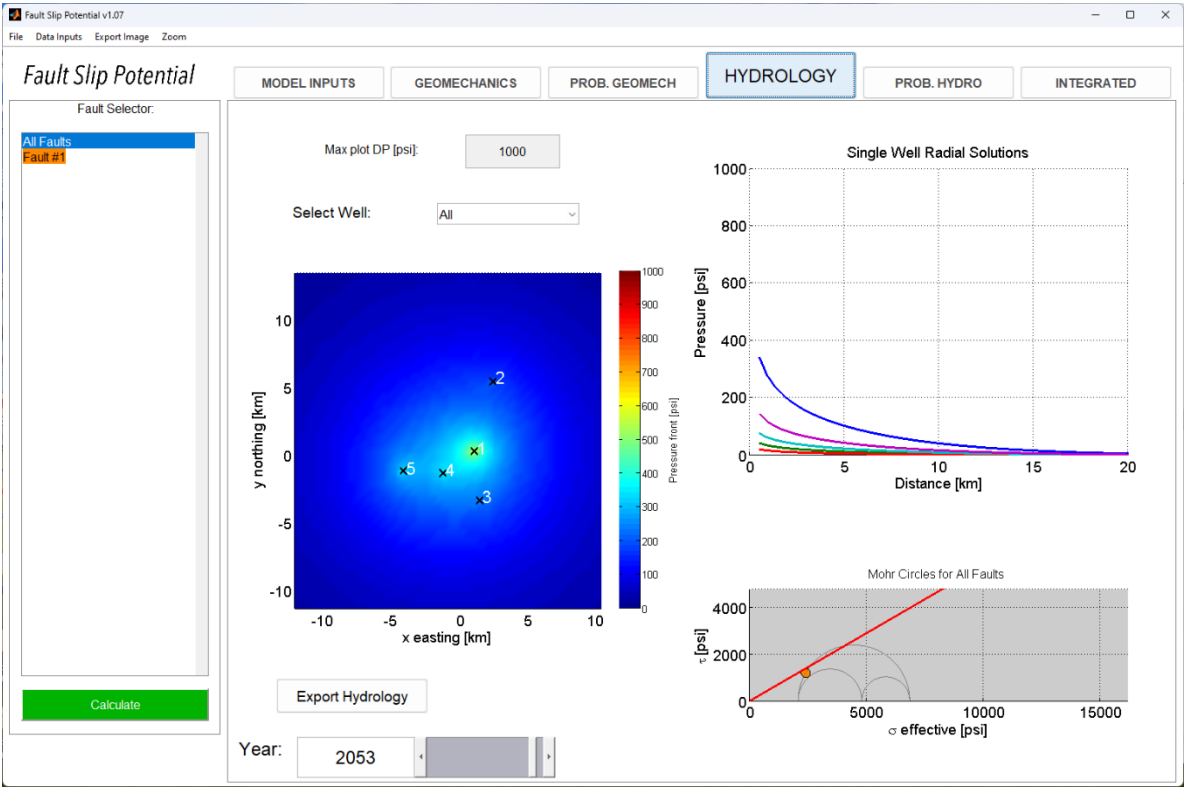




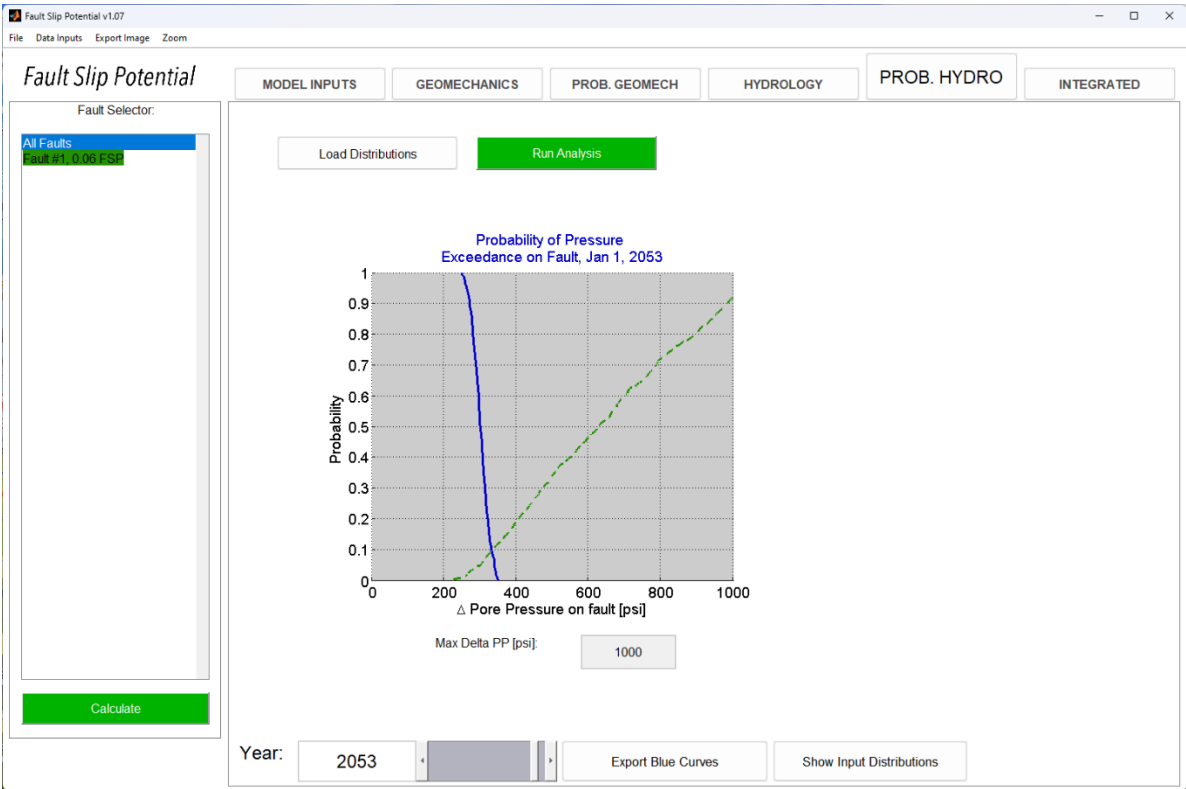
## Year 20 Fault Slip Probability (1% after 20 years)

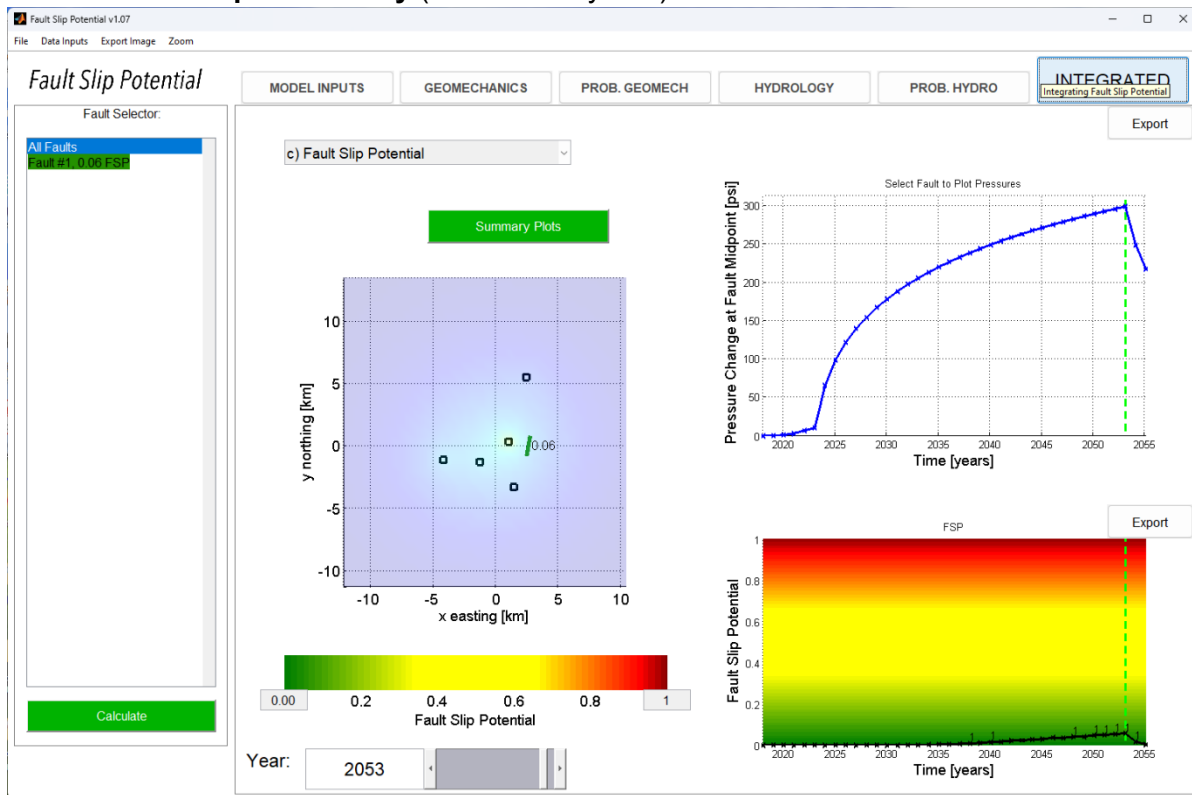


Year 30 Hydrology



Year 30 Probabilistic Hydrology



**Year 30 Fault Slip Probability (6% after 30 years)**[gfisher@popmidstream.com](mailto:gfisher@popmidstream.com)

(817) 606-7630



**Item XII. Affirmative Statement**

Re: C-108 Application for Authorization to Inject  
Permian Oilfield Partners, LLC  
Thompson 35 Federal SWD #1  
1043' FSL & 400' FEL  
Sec 35, T20S, 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: 7/17/2023



# 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                    | Code | POD Sub-basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng    | X        | Y        | DepthWell | DepthWater | Water Column |
|-------------------------------|------|---------------|--------|------|------|-----|-----|-----|--------|----------|----------|-----------|------------|--------------|
| <a href="#">C_03265 POD1</a>  |      | CUB           | ED     | 1    | 1    | 3   | 20  | 20S | 29E    | 584052   | 3602648* | 89        | 52         | 37           |
| <a href="#">CP_00698 POD1</a> |      | CP            | ED     | 3    | 1    | 03  | 20S | 29E | 587393 | 3608010  |          |           |            |              |
| <a href="#">CP_00740</a>      |      | CP            | ED     | 2    | 3    | 3   | 12  | 20S | 29E    | 590669   | 3605509* | 150       |            |              |
| <a href="#">CP_00743 POD1</a> |      | CP            | ED     | 2    | 4    | 05  | 20S | 29E | 585319 | 3607382* |          | 160       |            |              |
| <a href="#">CP_00745 POD1</a> |      | CP            | ED     | 4    | 1    | 3   | 12  | 20S | 29E    | 590653   | 3605782  | 232       |            |              |
| <a href="#">CP_00752 POD1</a> |      | CP            | ED     | 1    | 3    | 15  | 20S | 29E | 587293 | 3604181  |          | 2567      |            |              |
| <a href="#">CP_00759</a>      |      | CP            | ED     | 4    | 2    | 28  | 20S | 29E | 586984 | 3601360* |          | 205       | 90         | 115          |
| <a href="#">CP_00830 POD1</a> |      | CP            | LE     | 2    | 1    | 04  | 20S | 29E | 586118 | 3608193* |          | 120       |            |              |
| <a href="#">CP_00831 POD1</a> |      | CP            | LE     | 2    | 2    | 10  | 20S | 29E | 588548 | 3606605* |          | 100       |            |              |
| <a href="#">CP_00832 POD1</a> |      | CP            | LE     | 2    | 3    | 12  | 20S | 29E | 590971 | 3605815* |          | 200       |            |              |
| <a href="#">CP_00833 POD1</a> |      | CP            | LE     | 1    | 2    | 16  | 20S | 29E | 586548 | 3604978* |          | 100       |            |              |
| <a href="#">CP_00936 POD1</a> |      | CP            | ED     | 3    | 4    | 2   | 30  | 20S | 29E    | 583661   | 3601238* | 70        | 52         | 18           |
| <a href="#">CP_01201 POD1</a> |      | CP            | ED     | 2    | 2    | 1   | 18  | 20S | 29E    | 582983   | 3605121  | 140       | 100        | 40           |
| <a href="#">CP_01202 POD1</a> |      | CP            | ED     | 4    | 4    | 3   | 26  | 20S | 29E    | 589569   | 3600512  | 173       | 158        | 15           |
| <a href="#">CP_01866 POD1</a> |      | CP            | ED     | 2    | 3    | 3   | 20  | 20S | 29E    | 584324   | 3602154  | 52        | 44         | 8            |
| <a href="#">CP_01908 POD1</a> |      | CP            | ED     | 4    | 4    | 3   | 26  | 20S | 29E    | 589592   | 3600462  | 707       | 260        | 447          |

Average Depth to Water: **108 feet**

Minimum Depth: **44 feet**

Maximum Depth: **260 feet**

**Record Count:** 16

**PLSS Search:**

**Township:** 20S **Range:** 29E

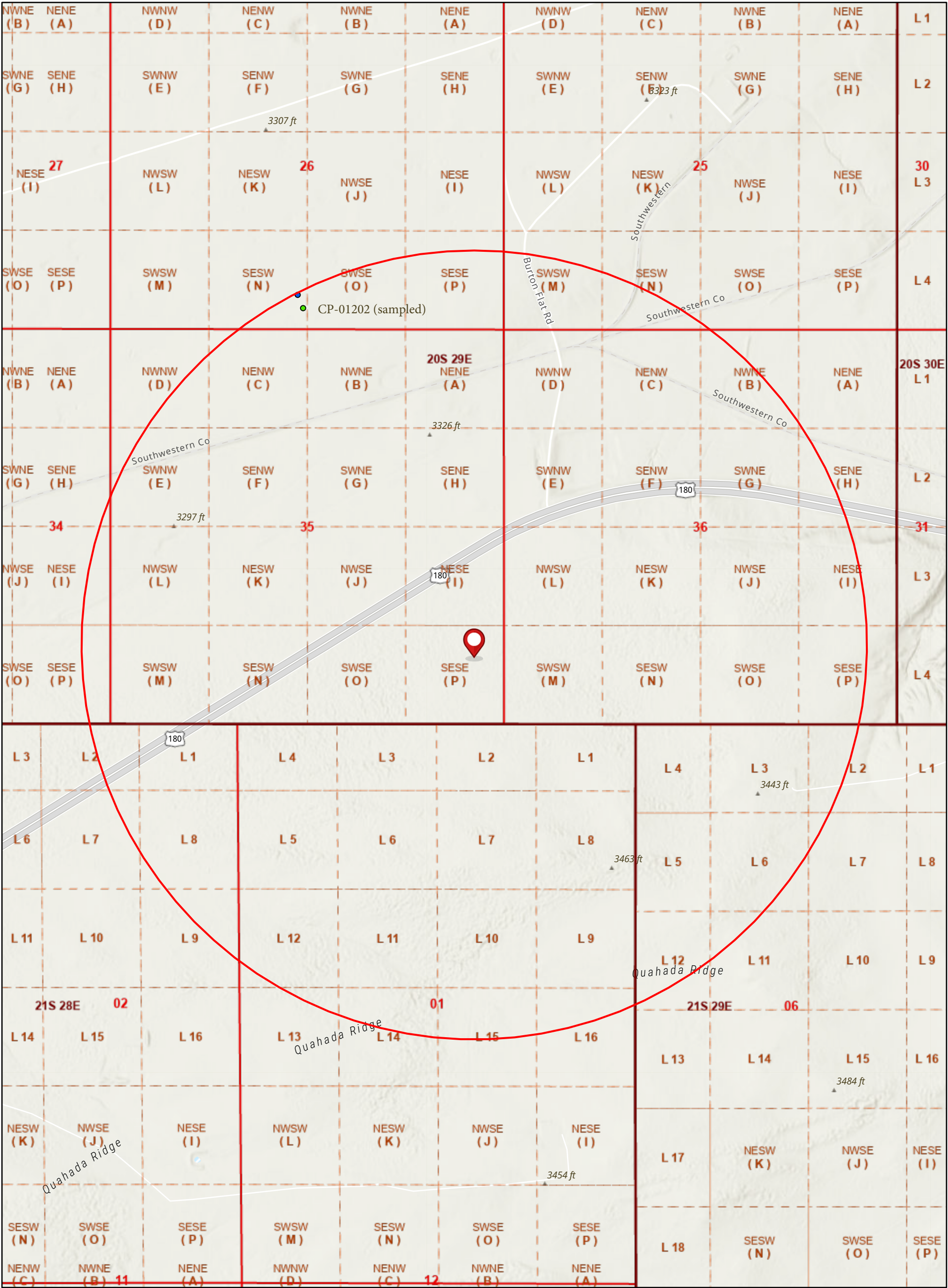
\*UTM location was derived from PLSS - see Help

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.

7/12/23 6:48 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

# Thompson 35 Federal SWD #1 Water Wells in 1mi Radius



5/24/2023, 1:15:07 PM

OSE Water PODs

Active

Pending

PLSS Second Division

PLSS First Division

PLSS Townships

1:18,056

00.150.30.6

00.250.51

mi

km


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 Office of the State Engineer

## Point of Diversion Summary

|                                |                    |  |     |    |     |                           |               |                       |   |
|--------------------------------|--------------------|--|-----|----|-----|---------------------------|---------------|-----------------------|---|
| <div>x</div>                   |                    |  |     |    |     |                           |               |                       |   |
| Well Tag                       | POD Number         | (quarters are 1=NW 2=NE 3=SW 4=SE)<br>(quarters are smallest to largest) |     |    |     |                           |               | (NAD83 UTM in meters) |   |
|                                |                    | Q64  | Q16 | Q4 | Sec | Tws                       | Rng           | X                     | Y   |
|                                | CP 01202 POD1      | 4  | 4   | 3  | 26  | 20S                       | 29E           | 589569                | 3600512  |
| <div>x</div>                   |                    |  |     |    |     |                           |               |                       |   |
| Driller License:               | 1348               | Driller Company:   |     |    |     | TAYLOR WATER WELL SERVICE |               |                       |   |
| Driller Name:                  | TAYLOR, CLINTON E. |  |     |    |     |                           |               |                       |   |
| Drill Start Date:              | 11/21/2013         | Drill Finish Date:   |     |    |     | 12/02/2013                |               | Plug Date:            |   |
| Log File Date:                 | 01/23/2014         | PCW Rcv Date:  |     |    |     |                           |               | Source:               | Shallow   |
| Pump Type:                     |                    | Pipe Discharge Size:   |     |    |     |                           |               | Estimated Yield:      | 100 GPM   |
| Casing Size:                   | 6.00               | Depth Well:  |     |    |     | 173 feet                  |               | Depth Water:          | 158 feet  |
| <div>x</div>                   |                    |  |     |    |     |                           |               |                       |   |
| Water Bearing Stratifications: |                    |  |     |    | Top | Bottom                    | Description   |                       |   |
|                                |                    |  |     |    | 158 | 173                       | Other/Unknown |                       |   |
| <div>x</div>                   |                    |  |     |    |     |                           |               |                       |   |
| Casing Perforations:           |                    |  |     |    | Top | Bottom                    |               |                       |   |
|                                |                    |  |     |    | 153 | 173                       |               |                       |   |
| <div>x</div>                   |                    |  |     |    |     |                           |               |                       |   |

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.

5/24/23 12:51 PM

POINT OF DIVERSION SUMMARY



---

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

August 25, 2022

JUSTIN ROBERTS

DIAMONDBACK DISPOSAL SERVICE INC.

P. O. BOX 2491

HOBBS, NM 88241

RE: PERMIAN OIL FIELD WELL TESTING

Enclosed are the results of analyses for samples received by the laboratory on 08/12/22 15:47.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                                |
|------------------|--------------------------------|
| Method EPA 552.2 | Total Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM)   |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)    |

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

|                  |   |
|------------------|---|
| Method SM 9223-B | Total Coliform and E. coli (Colilert MMO-MUG)   |
| Method EPA 524.2 | Regulated VOCs and Total Trihalomethanes (TTHM) |
| Method EPA 552.2 | Total Haloacetic Acids (HAA-5)                  |

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

DIAMONDBACK DISPOSAL SERVICE INC.  
P. O. BOX 2491  
HOBBS NM, 88241

Project: PERMIAN OIL FIELD WELL TESTIN  
Project Number: NONE GIVEN  
Project Manager: JUSTIN ROBERTS  
Fax To: (575) 392-9376

Reported:  
25-Aug-22 13:16

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|--------------|---------------|
|-----------|---------------|--------|--------------|---------------|

|               |            |       |                 |                 |
|---------------|------------|-------|-----------------|-----------------|
| CP01202 POD 1 | H223697-01 | Water | 12-Aug-22 14:37 | 12-Aug-22 15:47 |
|---------------|------------|-------|-----------------|-----------------|

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

DIAMONDBACK DISPOSAL SERVICE INC.  
P. O. BOX 2491  
HOBBS NM, 88241

Project: PERMIAN OIL FIELD WELL TESTIN  
Project Number: NONE GIVEN  
Project Manager: JUSTIN ROBERTS  
Fax To: (575) 392-9376

Reported:  
25-Aug-22 13:16

**CP01202 POD 1**  
**H223697-01 (Water)**

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Analyst | Analyzed | Method | Notes |
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|

**Cardinal Laboratories****Inorganic Compounds**

|                         |       |  |       |                 |    |         |    |           |           |  |
|-------------------------|-------|--|-------|-----------------|----|---------|----|-----------|-----------|--|
| Alkalinity, Bicarbonate | 112   |  | 5.00  | mg/L            | 1  | 2081107 | AC | 15-Aug-22 | 310.1     |  |
| Alkalinity, Carbonate   | <1.00 |  | 1.00  | mg/L            | 1  | 2081107 | AC | 15-Aug-22 | 310.1     |  |
| Chloride*               | 268   |  | 4.00  | mg/L            | 1  | 2081001 | AC | 15-Aug-22 | 4500-Cl-B |  |
| Conductivity*           | 3610  |  | 1.00  | umhos/cm @ 25°C | 1  | 2081234 | AC | 12-Aug-22 | 120.1     |  |
| pH*                     | 8.09  |  | 0.100 | pH Units        | 1  | 2081234 | AC | 12-Aug-22 | 150.1     |  |
| Temperature °C          | 20.6  |  |       | pH Units        | 1  | 2081234 | AC | 12-Aug-22 | 150.1     |  |
| Sulfate*                | 1550  |  | 500   | mg/L            | 50 | 2081501 | AC | 15-Aug-22 | 375.4     |  |
| TDS*                    | 3160  |  | 5.00  | mg/L            | 1  | 2081633 | AC | 18-Aug-22 | 160.1     |  |
| Alkalinity, Total*      | 92.0  |  | 4.00  | mg/L            | 1  | 2081107 | AC | 15-Aug-22 | 310.1     |  |

**Green Analytical Laboratories****Total Recoverable Metals by ICP (E200.7)**

|            |      |  |       |      |   |         |     |           |          |  |
|------------|------|--|-------|------|---|---------|-----|-----------|----------|--|
| Calcium*   | 572  |  | 0.500 | mg/L | 5 | B222295 | AES | 24-Aug-22 | EPA200.7 |  |
| Magnesium* | 94.9 |  | 0.500 | mg/L | 5 | B222295 | AES | 24-Aug-22 | EPA200.7 |  |
| Potassium* | 9.97 |  | 5.00  | mg/L | 5 | B222295 | AES | 24-Aug-22 | EPA200.7 |  |
| Sodium*    | 143  |  | 5.00  | mg/L | 5 | B222295 | AES | 24-Aug-22 | EPA200.7 |  |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

DIAMONDBACK DISPOSAL SERVICE INC.  
P. O. BOX 2491  
HOBBS NM, 88241

Project: PERMIAN OIL FIELD WELL TESTIN  
Project Number: NONE GIVEN  
Project Manager: JUSTIN ROBERTS  
Fax To: (575) 392-9376

Reported:  
25-Aug-22 13:16

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2081001 - General Prep - Wet Chem****Blank (2081001-BLK1)**

Prepared &amp; Analyzed: 11-Aug-22

|          |    |      |      |
|----------|----|------|------|
| Chloride | ND | 4.00 | mg/L |
|----------|----|------|------|

**LCS (2081001-BS1)**

Prepared &amp; Analyzed: 11-Aug-22

|          |     |      |      |     |     |        |
|----------|-----|------|------|-----|-----|--------|
| Chloride | 100 | 4.00 | mg/L | 100 | 100 | 80-120 |
|----------|-----|------|------|-----|-----|--------|

**LCS Dup (2081001-BSD1)**

Prepared &amp; Analyzed: 11-Aug-22

|          |     |      |      |     |     |        |      |    |
|----------|-----|------|------|-----|-----|--------|------|----|
| Chloride | 104 | 4.00 | mg/L | 100 | 104 | 80-120 | 3.92 | 20 |
|----------|-----|------|------|-----|-----|--------|------|----|

**Batch 2081107 - General Prep - Wet Chem****Blank (2081107-BLK1)**

Prepared &amp; Analyzed: 11-Aug-22

|                         |      |      |      |
|-------------------------|------|------|------|
| Alkalinity, Carbonate   | ND   | 1.00 | mg/L |
| Alkalinity, Bicarbonate | 5.00 | 5.00 | mg/L |
| Alkalinity, Total       | 4.00 | 4.00 | mg/L |

**LCS (2081107-BS1)**

Prepared &amp; Analyzed: 11-Aug-22

|                         |     |      |      |     |      |        |
|-------------------------|-----|------|------|-----|------|--------|
| Alkalinity, Carbonate   | ND  | 2.50 | mg/L |     |      | 80-120 |
| Alkalinity, Bicarbonate | 292 | 12.5 | mg/L |     |      | 80-120 |
| Alkalinity, Total       | 240 | 10.0 | mg/L | 250 | 96.0 | 80-120 |

**LCS Dup (2081107-BSD1)**

Prepared &amp; Analyzed: 11-Aug-22

|                         |     |      |      |     |     |        |      |    |
|-------------------------|-----|------|------|-----|-----|--------|------|----|
| Alkalinity, Carbonate   | ND  | 2.50 | mg/L |     |     | 80-120 |      | 20 |
| Alkalinity, Bicarbonate | 305 | 12.5 | mg/L |     |     | 80-120 | 4.18 | 20 |
| Alkalinity, Total       | 250 | 10.0 | mg/L | 250 | 100 | 80-120 | 4.08 | 20 |

**Batch 2081234 - General Prep - Wet Chem****LCS (2081234-BS1)**

Prepared &amp; Analyzed: 12-Aug-22

|              |       |  |          |       |      |        |
|--------------|-------|--|----------|-------|------|--------|
| Conductivity | 49900 |  | uS/cm    | 50000 | 99.8 | 80-120 |
| pH           | 7.09  |  | pH Units | 7.00  | 101  | 90-110 |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

DIAMONDBACK DISPOSAL SERVICE INC.  
P. O. BOX 2491  
HOBBS NM, 88241

Project: PERMIAN OIL FIELD WELL TESTIN  
Project Number: NONE GIVEN  
Project Manager: JUSTIN ROBERTS  
Fax To: (575) 392-9376

Reported:  
25-Aug-22 13:16

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

**Batch 2081234 - General Prep - Wet Chem**

|                                 |                           |       |                    |                                |      |  |  |       |     |  |
|---------------------------------|---------------------------|-------|--------------------|--------------------------------|------|--|--|-------|-----|--|
| <b>Duplicate (2081234-DUP1)</b> | <b>Source: H223663-01</b> |       |                    | Prepared & Analyzed: 12-Aug-22 |      |  |  |       |     |  |
| Conductivity                    | 4020                      | 1.00  | umhos/cm @<br>25°C |                                | 3550 |  |  | 12.4  | 20  |  |
| pH                              | 8.03                      | 0.100 | pH Units           |                                | 8.01 |  |  | 0.249 | 20  |  |
| Temperature °C                  | 19.1                      |       | pH Units           |                                | 19.1 |  |  | 0.00  | 200 |  |

**Batch 2081501 - General Prep - Wet Chem**

|                               |                                |      |      |      |  |     |        |      |    |  |
|-------------------------------|--------------------------------|------|------|------|--|-----|--------|------|----|--|
| <b>Blank (2081501-BLK1)</b>   | Prepared & Analyzed: 15-Aug-22 |      |      |      |  |     |        |      |    |  |
| Sulfate                       | ND                             | 10.0 | mg/L |      |  |     |        |      |    |  |
| <b>LCS (2081501-BS1)</b>      | Prepared & Analyzed: 15-Aug-22 |      |      |      |  |     |        |      |    |  |
| Sulfate                       | 21.9                           | 10.0 | mg/L | 20.0 |  | 109 | 80-120 |      |    |  |
| <b>LCS Dup (2081501-BSD1)</b> | Prepared & Analyzed: 15-Aug-22 |      |      |      |  |     |        |      |    |  |
| Sulfate                       | 20.4                           | 10.0 | mg/L | 20.0 |  | 102 | 80-120 | 6.91 | 20 |  |

**Batch 2081633 - Filtration**

|                                 |   |      |      |      |      |      |        |      |    |  |
|---------------------------------|---|------|------|------|------|------|--------|------|----|--|
| <b>Blank (2081633-BLK1)</b>     | Prepared: 17-Aug-22 Analyzed: 18-Aug-22 |      |      |      |      |      |        |      |    |  |
| TDS                             | ND                                      | 5.00 | mg/L |      |      |      |        |      |    |  |
| <b>LCS (2081633-BS1)</b>        | Prepared: 17-Aug-22 Analyzed: 18-Aug-22 |      |      |      |      |      |        |      |    |  |
| TDS                             | 833                                     |      | mg/L | 1000 |      | 83.3 | 80-120 |      |    |  |
| <b>Duplicate (2081633-DUP1)</b> | Prepared: 17-Aug-22 Analyzed: 18-Aug-22 |      |      |      |      |      |        |      |    |  |
| TDS                             | 3090                                    | 5.00 | mg/L |      | 3160 |      |        | 2.21 | 20 |  |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

DIAMONDBACK DISPOSAL SERVICE INC.  
P. O. BOX 2491  
HOBBS NM, 88241

Project: PERMIAN OIL FIELD WELL TESTIN  
Project Number: NONE GIVEN  
Project Manager: JUSTIN ROBERTS  
Fax To: (575) 392-9376

Reported:  
25-Aug-22 13:16

**Total Recoverable Metals by ICP (E200.7) - Quality Control****Green Analytical Laboratories**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

**Batch B222295 - Total Recoverable by ICP****Blank (B222295-BLK1)**

Prepared: 22-Aug-22 Analyzed: 24-Aug-22

|           |    |       |      |  |  |  |  |  |  |
|-----------|----|-------|------|--|--|--|--|--|--|
| Magnesium | ND | 0.100 | mg/L |  |  |  |  |  |  |
| Potassium | ND | 1.00  | mg/L |  |  |  |  |  |  |
| Calcium   | ND | 0.100 | mg/L |  |  |  |  |  |  |
| Sodium    | ND | 1.00  | mg/L |  |  |  |  |  |  |

**LCS (B222295-BS1)**

Prepared: 22-Aug-22 Analyzed: 24-Aug-22

|           |      |       |      |      |  |     |        |  |  |
|-----------|------|-------|------|------|--|-----|--------|--|--|
| Magnesium | 10.2 | 0.100 | mg/L | 10.0 |  | 102 | 85-115 |  |  |
| Potassium | 4.15 | 1.00  | mg/L | 4.00 |  | 104 | 85-115 |  |  |
| Sodium    | 1.67 | 1.00  | mg/L | 1.62 |  | 103 | 85-115 |  |  |
| Calcium   | 2.06 | 0.100 | mg/L | 2.00 |  | 103 | 85-115 |  |  |

**LCS Dup (B222295-BSD1)**

Prepared: 22-Aug-22 Analyzed: 24-Aug-22

|           |      |       |      |      |  |     |        |         |    |
|-----------|------|-------|------|------|--|-----|--------|---------|----|
| Calcium   | 2.11 | 0.100 | mg/L | 2.00 |  | 106 | 85-115 | 2.39    | 20 |
| Sodium    | 1.65 | 1.00  | mg/L | 1.62 |  | 102 | 85-115 | 1.22    | 20 |
| Magnesium | 10.2 | 0.100 | mg/L | 10.0 |  | 102 | 85-115 | 0.587   | 20 |
| Potassium | 4.15 | 1.00  | mg/L | 4.00 |  | 104 | 85-115 | 0.00892 | 20 |

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



---

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

### Notes and Definitions

|     |  |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| RPD | Relative Percent Difference  |
| **  | Samples not received at proper temperature of 6°C or below.  |
| *** | Insufficient time to reach temperature.  |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in cursive script, appearing to read "Celey D. Keene", written in black ink.

---

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: DiamondBack Disposals

## BILL TO

## ANALYSIS REQUEST

Project Manager: Justin Roberts

P.O. #:

Address: 2525 NW County RD

DiamondBack

City: Hobbs

State: NM ZIP: 88240

Attn: Veronica

Phone #: (575)-392-9996

Address:

Project #:

City:

Project Name: Permian Oil Field Well Testin

State: Zip:

Project Location:

Phone #:

Sampler Name: Jason Owsley

Fax #:

Lab I.D.

Sample I.D.

HQ31097

cp01202 POD 1

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :  
ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

CL

EXT  
TPH

BTEX

Cation / Anions

NOTE: Liability and Damages. Cardinal's liability and damages are limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date:

Received By:

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Relinquished By:

Date:

Received By:

REMARKS:

Delivered By: (Circle One)  
Sampler - UPS - Bus - Other:

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool Intact  
☐ Yes ☒ No

CHECKED BY:  
(Initials)

Turnaround Time: Standard ☐ Bacteria (only) Sample Condition  
Rush ☐ Cool Intact Observed Temp. °C

Thermometer ID #113  
Correction Factor -0.5°C

☐ Yes ☐ No  
☐ Yes ☐ No  
Corrected Temp. °C

**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 254164

CONDITIONS

|   |  |
|---|--|
| Operator:<br>Permian Oilfield Partners, LLC<br>PO Box 3329<br>Hobbs, NM 88241 | OGRID:<br>328259   |
|   | Action Number:<br>254164                                       |
|   | Action Type:<br>[IM-SD] Admin Order Support Doc (ENG) (IM-AAO) |

CONDITIONS

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