### **AE Order Number Banner**

**Application Number:** pMSG2325242316

SWD-2562

Permian Oilfield Partners, LLC [328259]

RECEIVED:	REVIEWER:	TYPE:	APP NO:				
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		CO OIL CONSERV		N Street OF NEW YORK			
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	1220 300111 31. Fr	ancis Drive, San	10 Fe, NM 8/503	3 CONSERVATION CONST			
		RATIVE APPLICAT					
THIS C	HECKLIST IS MANDATORY FOR A REGULATIONS WHICH RE	ll administrative applic Equire processing at th					
Applicant: Permian O	ilfield Partners, LLC.		00	GRID Number: 328259			
Well Name: Stoeger	33 Federal SWD #1			: 30-015-Pending			
Pool: SWD; Devonian-Si	lurian		Poo	ol Code: 97869			
SUBMIT ACCURA	TE AND COMPLETE IN	FORMATION REQUINDICATED BEL		S THE TYPE OF APPLICATION			
•	CATION: Check those - Spacing Unit – Simul		-				
	· · · ·		_	□SD			
B. Check or	ne only for [1] or [11]						
[1] Comr	ningling – Storage – N	Neasurement					
	DHC CTB P			von			
	tion – Disposal – Pressu WFX □PMX ■S		EOR PPR	very			
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•	REQUIRED TO: Check		y.	Notice Complete			
	operators or lease hol y, overriding royalty o		wners				
	ation requires publish		***************************************	Application Content			
	ation and/or concurr	,		Complete			
	ation and/or concurr	ent approval by B	BLM	Complete			
	e owner of the above, proof o	of notification or p	ublication is atta	ched and/or			
	rice required	. He missine in p					
•	: I hereby certify that approval is accurate			• •			
				quired information and			
	e submitted to the Div			qui da il il di			
No	te: Statement must be comple	eted by an individual wit	th managerial and/or s	supervisory capacity.			
C D			7-14-2023 Date				
Sean Puryear			Baio				
Print or Type Name			817-600-8772				
Semtu			Phone Numb	er			
Jam In	3						
0:			spuryear@popm				
Signature			e-mail Addres	SS			

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

PHONE: (817) 600-8772

### 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

- 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 Purvear

TITLE: Manager

SIGNATURE: Sem fing

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:

### 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 12,180'

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 2,436 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:

1. 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									
	<u>TOP</u>	<b>BOTTOM</b>	<b>THICKNESS</b>						
FORMATION	KB TVD (ft)	KB TVD (ft)	(ft)						
Rustler	354	400	46						
Salt	400	1,116	716						
Yates	1,116	1,537	421						
Seven Rivers	1,537	2,089	552						
San Andres	2,909	3,860	951						
Leonard	3,860	8,867	5,007						
Wolfcamp	8,867	9,967	1,100						
Lwr. Mississippian	11,686	12,131	445						
Woodford	12,131	12,180	49						
Devonian	12,180	12,566	386						
Fusselman (Silurian)	12,566	12,948	382						
Montoya (U. Ordovician)	12,948	13,192	244						
Simpson (M. Ordovician	13,192	13,368	176						

- 2. Regional shallow fresh water in the Quaternary is known to exist at depths less than <u>320'</u>. See attached OSE Water Column Depth table for the region. Depth from the bottom of this USDW to the injection zone is 11,860'. 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 <u>3</u> fresh water PODs within the proposed well's one-mile area of review. See table below for POD statuses, and attached 1 mile AOR water well map showing location of PODs in the AOR.

Well Name	Formation Name	Top Depth	<b>Bottom Depth</b>	Thickness	Status
CP 00626 POD1	Quaternary	247	286	39	No Access, No Sample
CP 00626 POD2	Quaternary	195	240	45	Sample Attached
CP 00924 POD1	Quaternary	Unknown	Unknown	Unknown	Not Found

**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

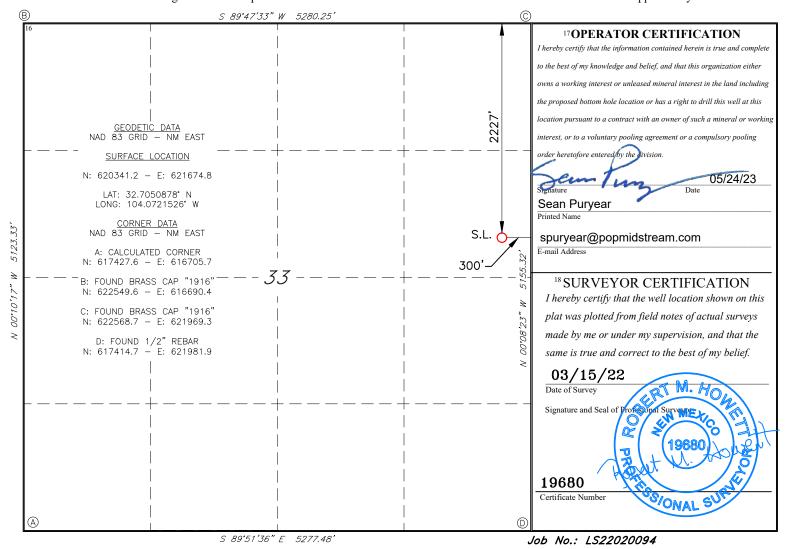
### WELL LOCATION AND ACREAGE DEDICATION PLAT

WEEE EGENTION AND MERENIGE BEDIEFINION LEAT										
<sup>1</sup> API Number		<sup>2</sup> Pool Code <b>97869</b>	<sup>3</sup> Pool Name SWD; DEVONIAN-SILU	.URIAN						
<sup>4</sup> Property Code			perty Name 3 FEDERAL SWD	<sup>6</sup> Well Number <b>1</b>						
<sup>7</sup> OGRID NO. 328259			erator Name ELD PARTNERS, LLC	<sup>9</sup> Elevation <b>3426</b>						

<sup>10</sup> Surface Location

Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
Н	33	18S	29E		2227	NORTH	300	EAST	EDDY
11 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
12 Dedicated Acres	13 Joint	or Infill 14	Consolidation	Code 15 (	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.



III (A)

### WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC. Stoeger 33 Federal SWD #1 2227' FNL, 300' FEL Sec. 33, T18S, R29E, Eddy Co. NM Lat 32.7050878° N, Lon -104.0721526° W GL 3426', RKB 3456'

### **Surface - (Conventional)**

Hole Size: 26" Casing: 20" - 94# J-55 BTC Casing

**Depth Top:** Surface **Depth Btm:** 379'

Cement: 802 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:** 1487'

Cement: 636 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:** 8917'

Cement: 1312 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: 8717'
Depth Btm: 12215'

Cement: 215 sks - Class H + Additives

Cement Top: 8717' - (Circulate & Bond Log)

### <u>Intermediate #4 - (Open Hole)</u>

**Hole Size:** 6.5" **Depth:** 12923'

Inj. Interval: 12215' - 12923' (Open-Hole Completion)

### **Tubing - (Tapered)**

**Tubing Depth:** 12170' **Tubing:** 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ

X/O Depth: 8717' Casing (Fiberglass Lined)

X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)

Packer Depth: 12180' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

Packer Fluid: 8.4 ppg FW + Additives

III (A)

### WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC. Stoeger 33 Federal SWD #1 2227' FNL, 300' FEL Sec. 33, T18S, R29E, Eddy Co. NM Lat 32.7050878° N, Lon -104.0721526° W GL 3426', RKB 3456'

### Surface - (Conventional)

Hole Size: 26'

**Casing:** 20" - 94# J-55 BTC Casing

**Depth Top:** Surface **Depth Btm:** 379'

Cement: 802 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:** 1487'

**Cement:** 636 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:** 8917'

**Cement:** 1312 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:** 8717' **Depth Btm:** 12215'

Cement: 215 sks - Class H + Additives Cement Top: 8717' - (Circulate & Bond Log)

### Intermediate #4 - (Open Hole)

**Hole Size:** 6.5" **Depth:** 12923'

Inj. Interval: 12215' - 12923' (Open-Hole Completion)

### Tubing - (Tapered)

Tubing Depth: 12170'

Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)

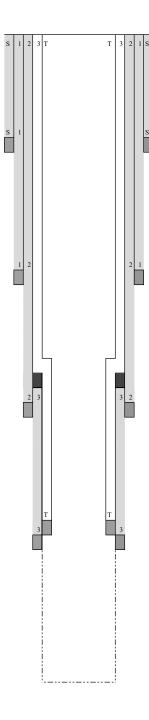
**X/O Depth:** 8717'

X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)

Packer Depth: 12180'

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 Stoeger 33 Federal SWD #1

2227' FNL & 300' FEL Sec 33, T18S, R29E Eddy County, NM

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

Stoeger 33 Fo	Stoeger 33 Federal SWD #1 - Affected Persons within 1 Mile Area of Review											
Notified Name	Notifed 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 0364 65	7/21/2023							
BURLINGTON RESOURCES OIL & GAS LP	P.O. Box 2197	Houston, TX 77252	USPS	9414 8118 9956 2029 0364 27	7/21/2023							
CIMAREX ENERGY CO. OF COLORADO	600 N. Marienfeld Street, Suite 600	Midland, TX 79701	USPS	9414 8118 9956 2029 0364 89	7/21/2023							
COG OPERATING LLC	600 W Illinois Ave	Midland, TX 79701	USPS	9414 8118 9956 2029 0365 19	7/21/2023							
DAVID G HAMMOND	P.O. Box 1538	Artesia, NM 88211	USPS	9414 8118 9956 2029 0365 26	7/21/2023							
DENTON OIL CO	P.O. Box 1252	Artesia, NM 88210	USPS	9414 8118 9956 2029 0365 95	7/21/2023							
EOG RESOURCES INC	P.O. Box 2267	Midland, TX 79702	USPS	9414 8118 9956 2029 0365 71	7/21/2023							
EOG Y RESOURCES, INC.	104 S 4th St	Artesia, NM 88210	USPS	9414 8118 9956 2029 0312 55	7/21/2023							
LEGACY RESERVES OPERATING, LP	15 Smith Road, Suite 3000	Midland, TX 79705	USPS	9414 8118 9956 2029 0312 62	7/21/2023							
MACK ENERGY CORP	P.O. Box 960, 11344 Lovington Hwy	Artesia, NM 88211	USPS	9414 8118 9956 2029 0312 93	7/21/2023							
MEWBOURNE OIL CO	P.O. Box 5270	Hobbs, NM 88241	USPS	9414 8118 9956 2029 0312 79	7/21/2023							
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414 8118 9956 2029 0318 66	7/21/2023							
OXY USA INC	P.O. Box 4294	Houston, TX 77210	USPS	9414 8118 9956 2029 0318 42	7/21/2023							
OXY USA WTP LIMITED PARTNERSHIP	P.O. Box 4294	Houston, TX 77210	USPS	9414 8118 9956 2029 0318 80	7/21/2023							
R & M Oil, LLC	PO Box 11, 132317 Lovington Hwy	Loco Hills, NM 88255	USPS	9414 8118 9956 2029 0318 73	7/21/2023							
REMNANT OIL OPERATING, LLC	P.O. Box 5375	Midland, TX 79704	USPS	9414 8118 9956 2029 0317 12	7/21/2023							
RODNEY B WEBB DBA WEBB OIL CO	P.O. Box 1124	Artesia, NM 88211	USPS	9414 8118 9956 2029 0317 98	7/21/2023							

Sean Puryear

Permian Oilfield Partners, LLC <a href="mailto:spuryear@popmidstream.com">spuryear@popmidstream.com</a>

Date: 7/21/2023

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0364 65

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece Certified Fee Total Postage & Fees: \$5,230 4.350 9 580

Postmark

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0364 27

ARTICLE ADDRESSED TO:

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

FEES Postage Per Piece Certified Fee Total Postage & Fees:

\$5.230 4.350 9.580

Postmark JHere 1 2023

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0364 89

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece Certified Fee Total Postage & Fees: \$5,230 4.350 9.580

J/ Postmark Here 2023

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0365 19

ARTICLE ADDRESSED TO:

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

**FEES** 

Postage Per Piece Certified Fee Total Postage & Fees: \$5.230 4.350 9.580

Postmark 1 2023 Here 2

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0365 26

ARTICLE ADDRESSED TO:

David G Hammond PO BOX 1538 ARTESIA NM 88211-1538

**FEES** 

Postage Per Piece Certified Fee Total Postage & Fees:

\$5.230 4.350 9.580

Postmark JULHere 2023

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0365 95

ARTICLE ADDRESSED TO:

Denton Oil Co PO BOX 1252 ARTESIA NM 88211-1252

FFFS

Postage Per Piece Certified Fee Total Postage & Fees: \$5.230 4 350

Postmark 2023 Here

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0365 71

ARTICLE ADDRESSED TO:

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

Postage Per Piece Certified Fee Total Postage & Fees: \$5.230 4.350 9,580

Postmark 2023 Here

### U.S. Postal Service Certified Mail Receipt of 34

ARTICLE NUMBER: 9414 8118 9956 2029 0312 55

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece Certified Fee Total Postage & Fees: \$5 230 9 580

JUL 2023

**Postmark** Here

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0312 62

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece Certified Fee Total Postage & Fees: \$5,230 4.350 9.580

JUL 21 2023

**Postmark** Here

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0312 93

ARTICLE ADDRESSED TO:

Mack Energy Corp PO BOX 960 ARTESIA NM 88211-0960

Postage Per Piece Certified Fee Total Postage & Fees: \$5.230 4.350 9.580

Postmark 2 1 2023 Here

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0312 79

ARTICLE ADDRESSED TO:

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

FEES

\$5 230 Postage Per Piece Certified Fee 4.350 Total Postage & Fees: 9.580

Postmark 2023 Here

### U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0318 66

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece Certified Fee Total Postage & Fees: \$5.230 9 580

Postmark Here

ARTICLE NUMBER: 9414 8118 9956 2029 0318 42

ARTICLE ADDRESSED TO:

Oxy USA PO BOX 4294 HOUSTON TX 77210-4294

FEES

Postage Per Piece Certified Fee Total Postage & Fees: 4.350 9,580

Postmark

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0318 80

ARTICLE ADDRESSED TO:

Oxy USA WTP LP PO BOX 4294 HOUSTON TX 77210-4294

**FEES** 

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# Affidavit of Publication

2617

Artesia Daily Press, a daily newspaper of General state, and that the hereto attached See of New Mexico County of Eddy:

Publisher orn sayes that he is

Publisher

Dulation, published in English at Artesia, said county

Legal Ad

for that purpose within the meaning of Chapter 167 of published in a regular and entire issue of the said sia Daily Press, a daily newspaper duly qualified

Consecutive weeks/day on the same

the 1937 Session Laws of the state of New Mexico for

day as follows:

First Publication

2022

June 16,

Second Publication Third Publication

Fourth Publication Fifth Publication

Seventh Publication Sixth Publication

day of

2022

June

before me this

Subscribed and sworn

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

Latisha Romine

Notary Public, Eddy County, New Mexico

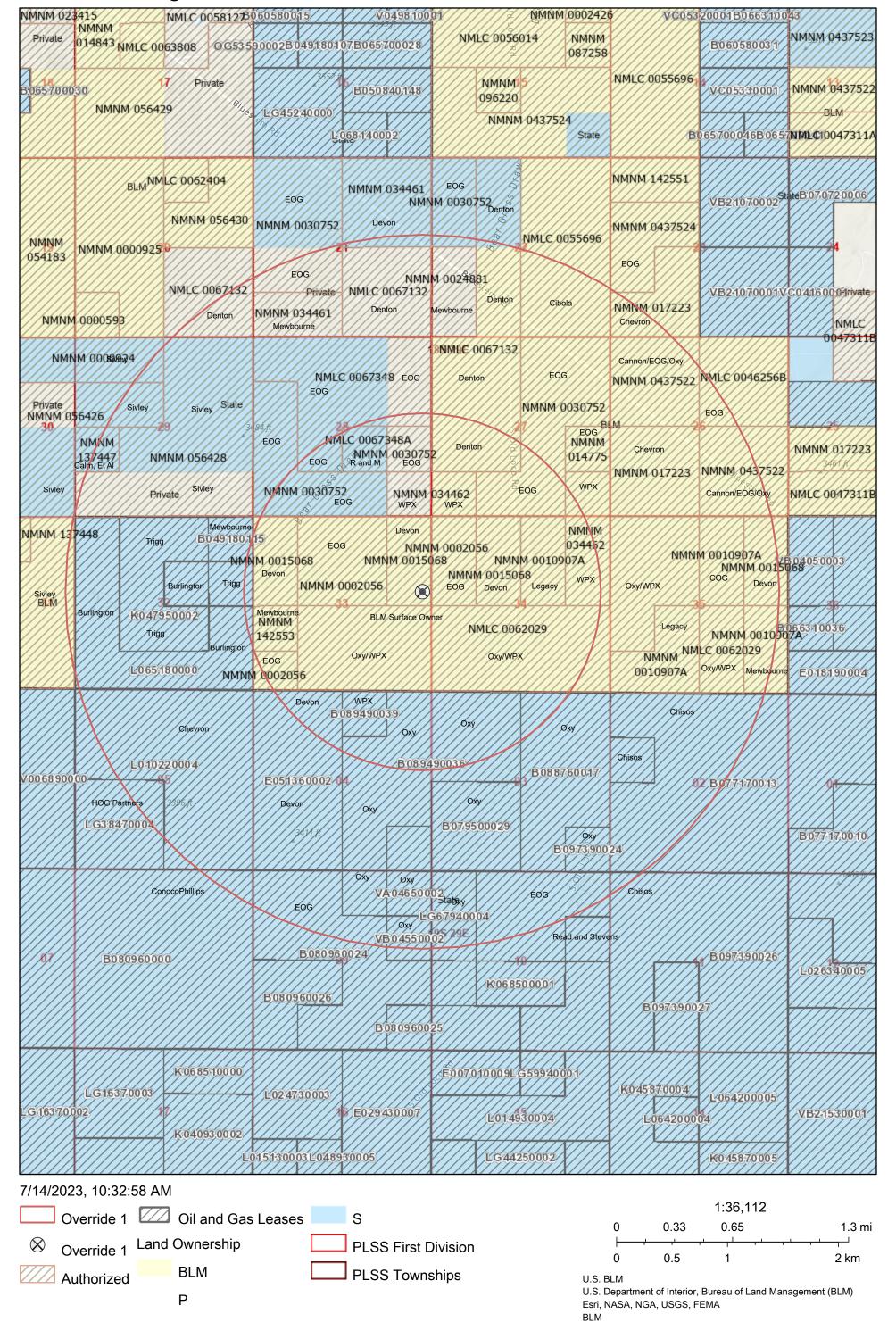
## Copy of Publication:

New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Eddy County, New Mexico. The well is the Stoeger 33 Federal SWD #1, and is located 2227 FNL & 300 FEL, Unit H, Section 33, Town-88241, phone (817)606-7630, attn. Gary Fisher, has filed forn C-108 (Application for Authorization for Injection) with the ship 18 South, Range 29 East, NMPM, approximately 9 mi SW of Loco Hills, NM. The well will dispose of water pro-duced from nearby oil and gas wells into the Devonian for-mation from a depth of 12,180 feet to 12,948 feet. The maxi-mum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 2,436 psi. PO Box 3329, Hobbs, NM

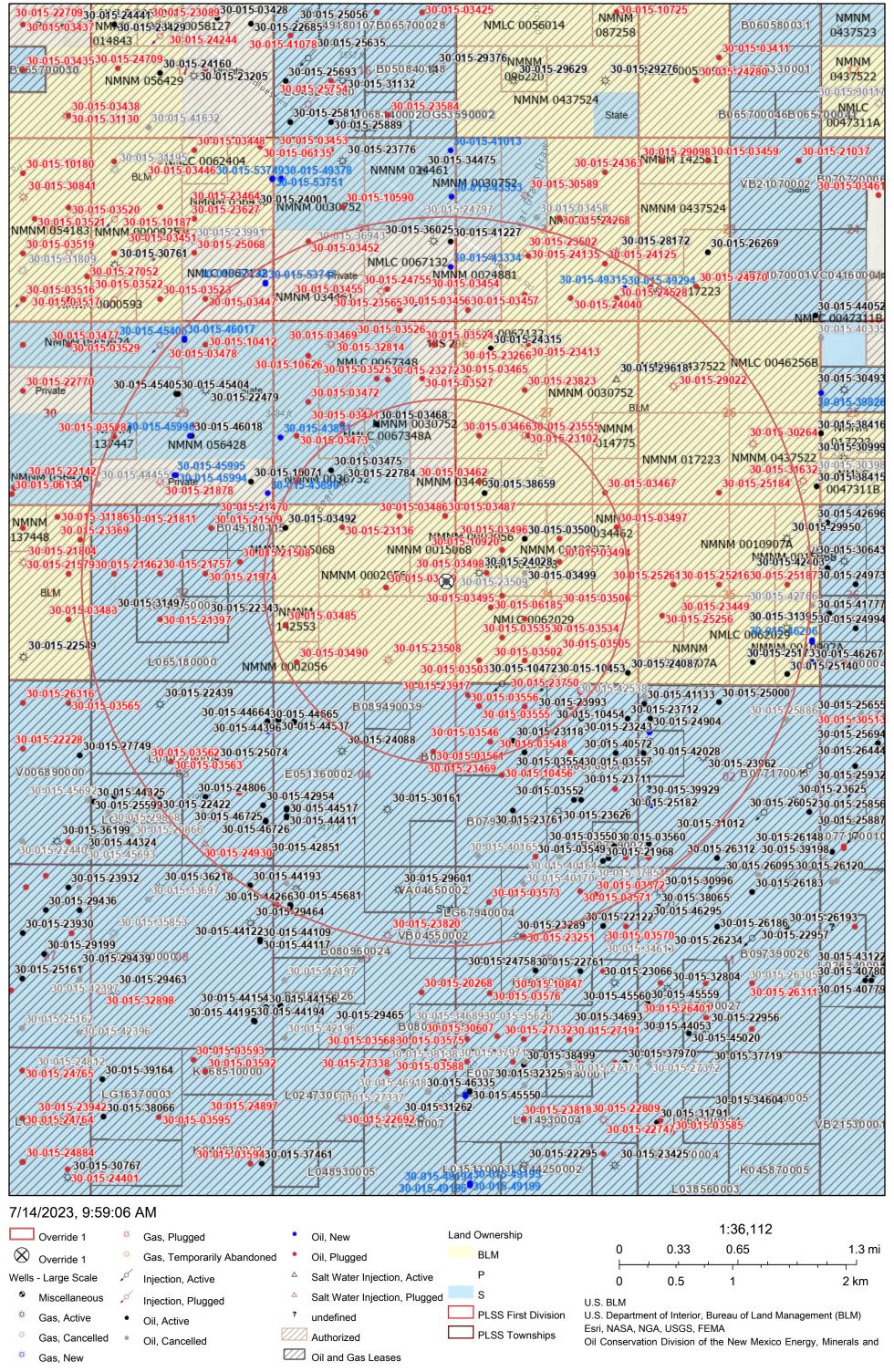
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15

Published in the Artesia Daily Press, Artesia, N.M., June16, 2022 Legal No. 26177.

### V (a) Stoeger 33 Federal SWD #1, 1 & 2 Mile AOR, Leases



### Stoeger 33 Federal SWD #1, 1 & 2 Mile AOR, Wells



### V (c)

			S	toeger	33 Fede	ral SWD #1 - \	Wells	Withi	n 1m	Area of	Review				
API Number	Current Operator	Well Name	Well Numbe	r Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-015-03485	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	L	L-33-18S-29E 1650 FSL 330 FWL	L-33-18S-29E 1650 FSL 330 FWL	Queen	2020	2020
30-015-03492	REMNANT OIL OPERATING, LLC	WILSON FEDERAL	#001	Oil	Vertical	Active	33	T18S	R29E	D	D-33-18S-29E 660 FNL 330 FWL	D-33-18S-29E 660 FNL 330 FWL	San Andres	2456	2456
30-015-03490	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	M	M-33-18S-29E 578 FSL 658 FWL	M-33-18S-29E 578 FSL 658 FWL	San Andres	3005	3005
30-015-03474	DAVID G HAMMOND	SIVLEY JENNINGS FEDERAL	#003	Oil	Vertical	Plugged, Site Released	28	T18S	R29E	M	M-28-18S-29E 660 FSL 660 FWL	M-28-18S-29E 660 FSL 660 FWL	Queen	1992	1992
30-015-03475	DAVID G HAMMOND	SIVLEY JENNINGS FEDERAL	#004	Oil	Vertical	Active	28	T18S	R29E	N	N-28-18S-29E 990 FSL 1650 FWL	N-28-18S-29E 990 FSL 1650 FWL	Queen	2019	2019
30-015-03491	EOG Y RESOURCES, INC.	FEDERAL AR	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	С	C-33-18S-29E 330 FNL 1650 FWL	C-33-18S-29E 330 FNL 1650 FWL	Queen	2021	2021
30-015-22784	MEWBOURNE OIL CO	TRIGG JENNINGS COM	#001	Gas	Vertical	Active	28	T18S	R29E	N	N-28-18S-29E 660 FSL 1980 FWL	N-28-18S-29E 660 FSL 1980 FWL	Morrow	11320	11320
30-015-23136	EOG Y RESOURCES, INC.	NORTH TURKEY MU FEDERAL COM	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	С	C-33-18S-29E 660 FNL 1980 FWL	C-33-18S-29E 660 FNL 1980 FWL	Morrow	11500	11500
30-015-03468	R & M Oil, LLC	PARRY	#001	Oil	Vertical	Active	28	T18S	R29E	J	J-28-18S-29E 2310 FSL 2310 FEL	J-28-18S-29E 2310 FSL 2310 FEL	Queen	2039	2039
30-015-03489	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	G	G-33-18S-29E 2390 FNL 2040 FEL	G-33-18S-29E 2390 FNL 2040 FEL	n/a	n/a	n/a
30-015-23508	OXY USA INC	GOVERNMENT AM COM	#001	Gas	Vertical	Plugged, Site Released	33	T18S	R29E	0	O-33-18S-29E Lot: 2 660 FSL 1980 FEL	O-33-18S-29E Lot: 2 660 FSL 1980 FEL	Morrow	11356	11356
30-015-03486	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	В	B-33-18S-29E 330 FNL 1650 FEL	B-33-18S-29E 330 FNL 1650 FEL	Grayburg	2865	2865
30-015-23469	OXY USA WTP LIMITED PARTNERSHIP	STATE CZ COM	#001	Gas	Vertical	Plugged, Not Released	_	T19S	R29E	Н	H-04-19S-29E 2180 FNL 960 FEL	H-04-19S-29E 2180 FNL 960 FEL	Morrow		11500
30-015-03488	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#004	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	Н	H-33-18S-29E 1650 FNL 990 FEL	H-33-18S-29E 1650 FNL 990 FEL	Gravburg	2751	2751
30-015-03561	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released		T19S	R29E	Н	H-04-19S-29E 1980 FNL 660 FEL	H-04-19S-29E 1980 FNL 660 FEL	Yates	3858	3858
30-015-03487	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#003	Oil	Vertical	Plugged, Site Released	33	T18S	R29E	Α	A-33-18S-29E 330 FNL 330 FEL	A-33-18S-29E 330 FNL 330 FEL	Queen	2073	2073
30-015-23917	MACK ENERGY CORP	TURKEY TRACK SEC 3 UNIT	#027	Oil	Vertical	Plugged, Site Released	_	T19S	R29E	D	D-03-19S-29E Lot: 4 330 FNL 330 FWL	D-03-19S-29E Lot: 4 330 FNL 330 FWL	Queen	2950	2950
30-015-03466	DENTON OIL CO	HOVER	#002	Oil	Vertical	Plugged, Site Released	27	T18S	R29E	L	L-27-18S-29E 1980 FSL 660 FWL	L-27-18S-29E 1980 FSL 660 FWL	Grayburg	2879	2879
30-015-03503	MACK ENERGY CORP	BRAINARD TRACT 3	#003	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	M	M-34-18S-29E Lot: 4 660 FSL 660 FWL	M-34-18S-29E Lot: 4 660 FSL 660 FWL	Queen	2273	2273
30-015-24028	EOG RESOURCES INC	NORTH TURKEY TRACK MU FED.	#002	Gas	Vertical	Active	34	T18S	R29E	E	E-34-18S-29E 1980 FNL 660 FWL	E-34-18S-29E 1980 FNL 660 FWL	Morrow	_	11600
30-015-38659	CIMAREX ENERGY CO. OF COLORADO	EMPIRE A FEDERAL COM	#003H	Oil	Horizontal	Active	27	T18S	R29E	M	M-27-18S-29E 330 FSL 810 FWL	D-27-18S-29E 351 FNL 649 FWL	Bone Spring		
30-015-03555	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#004	Oil	Vertical	Plugged, Site Released	03	T19S	R29E	D	D-03-19S-29E 660 FNL 660 FWL	D-03-19S-29E 660 FNL 660 FWL	Brown Lime	3157	3157
30-015-03462	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released		T18S	R29E	M	M-27-18S-29E 660 FSL 660 FWL	M-27-18S-29E 660 FSL 660 FWL	San Andres	3185	3185
30-015-03498	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	34	T18S	R29E	E	E-34-18S-29E 1980 FNL 880 FWL	E-34-18S-29E 1980 FNL 880 FWL	Queen	2085	2085
30-015-03546	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#005	Oil	Vertical	Plugged, Site Released	_	T19S	R29E	Ē	E-03-19S-29E 1680 FNL 990 FWL	E-03-19S-29E 1680 FNL 990 FWL	Queen	2085	2085
30-015-03495	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	34	T18S	R29E	1	L-34-18S-29E 2185 FSL 990 FWL	L-34-18S-29E 2185 FSL 990 FWL	Grayburg	2405	2405
30-015-03496	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	34	T18S	R29E	D	D-34-18S-29E 990 FNL 990 FWL	D-34-18S-29E 990 FNL 990 FWL	Grayburg	2612	2612
30-015-03535	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#009	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	K	K-34-18S-29E 1325 FSL 1325 FWL	K-34-18S-29E 1325 FSL 1325 FWL	Queen	2108	2108
30-015-06185	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#003	Oil	Vertical	Plugged, Site Released		T18S	R29E	F	F-34-18S-29E 2635 FNL 1325 FWL	F-34-18S-29E 2635 FNL 1325 FWL	Queen	2104	2104
30-015-10472	REMNANT OIL OPERATING, LLC	BRAINARD	#007	Injection	Vertical	Active	34	T18S	R29E	N	N-34-18S-29E Lot: 3 5 FSL 1325 FWL	N-34-18S-29E Lot: 3 5 FSL 1325 FWL	Queen	2115	2115
30-015-10920	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#004	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	C	C-34-18S-29E 1315 FNL 1325 FWL	C-34-18S-29E 1315 FNL 1325 FWL	Queen	2108	2108
30-015-23118	REMNANT OIL OPERATING, LLC	TURKEY TRACK SEC 3 UNIT	#020	Oil	Vertical	Active	03	T19S	R29E	F	F-03-19S-29E 1650 FNL 1650 FWL	F-03-19S-29E 1650 FNL 1650 FWL	San Andres	2962	2962
30-015-23312	RODNEY B WEBB DBA WEBB OIL CO	TURKEY TRACK SEC 3 UNIT	#023	Oil	Vertical	Plugged, Site Released		T19S	R29E	C C	C-03-19S-29E Lot: 3 990 FNL 1650 FWL	C-03-19S-29E Lot: 3 990 FNL 1650 FWL	Grayburg	2962	2962
30-015-03502	MACK ENERGY CORP	BRAINARD TRACT 1	#001	Oil	Vertical	Plugged, Site Released		T18S	R29E	N	N-34-18S-29E Lot: 3 660 FSL 1980 FWL	N-34-18S-29E Lot: 3 660 FSL 1980 FWL	Grayburg	2265	2265
30-015-03556	RODNEY B WEBB DBA WEBB OIL CO	TURKEY TRACK SEC 3 UNIT	#001	Oil	Vertical	Plugged, Site Released		T19S	R29E	C	C-03-19S-29E Lot: 3 660 FNL 1980 FWL	C-03-19S-29E Lot: 3 660 FNL 1980 FWL	Grayburg	2268	2268
30-015-03499	REMNANT OIL OPERATING, LLC	MCKEE WILSON	#002	Oil	Vertical	Active	34	T18S	R29E	F	F-34-18S-29E 2310 FNL 1980 FWL	F-34-18S-29E 2310 FNL 1980 FWL	Grayburg	2106	2106
30-015-23509	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Cancelled Apd	34	T18S	R29E	F	F-34-18S-29E 1980 FNL 1980 FWL	F-34-18S-29E 1980 FNL 1980 FWL	Morrow	11600	
30-015-23102	CIMAREX ENERGY CO. OF COLORADO	EMPIRE FEDERAL COM	#001	Gas	Vertical	Plugged. Site Released	1 27	T18S	R29E	K	K-27-18S-29E 1980 FSL 1980 FWL	K-27-18S-29E 1980 FSL 1980 FWL	Morrow		11700
30-015-03500	REMNANT OIL OPERATING, LLC	MCKEE WILSON	#002	Oil	Vertical	Active	34	T18S	R29E	C	C-34-18S-29E 990 FNL 1980 FWL	C-34-18S-29E 990 FNL 1980 FWL	Queen	2104	2104
30-015-23555	COG OPERATING LLC	DENTON FEDERAL	#002	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	K	K-27-18S-29E 1980 FSL 2080 FWL	K-27-18S-29E 1980 FSL 2080 FWL	San Andres	2780	2780
30-015-03504	MACK ENERGY CORP	BRAINARD TRACT 4	#002	Oil	Vertical	Plugged, Site Released		T18S	R29E	K	K-34-18S-29E 1866 FSL 1980 FWL	K-34-18S-29E 1866 FSL 1980 FWL	San Andres	2416	2416
30-015-03501	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#005	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	F	F-34-18S-29E 1650 FNL 2310 FWL	F-34-18S-29E 1650 FNL 2310 FWL	Grayburg	2101	2101
30-015-23993	OXY USA WTP LIMITED PARTNERSHIP	STATE DB COM	#003	Gas	Vertical	Active	03	T19S	R29E	c	C-03-19S-29E Lot: 3 860 FNL 2230 FWL	C-03-19S-29E Lot: 3 860 FNL 2230 FWL	Morrow		11505
30-015-23993	REMNANT OIL OPERATING, LLC	BRAINARD	#001	Injection	Vertical	Active	34	T18S	R29E	0	O-34-18S-29E Lot: 2 5 FSL 2635 FEL	O-34-18S-29E Lot: 2 5 FSL 2635 FEL	San Andres	2429	2429
30-015-03534	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#008	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	<u> </u>	J-34-18S-29E 1325 FSL 2645 FWL	J-34-185-29E 1325 FSL 2645 FWL	Queen	2137	2137
30-015-03534	REMNANT OIL OPERATING, LLC	TURKEY TRACK SEC 3 UNIT	#010	Injection	Vertical	Active	03	T19S	R29E	C	C-03-19S-29E Lot: 3 1315 FNL 2635 FWL	C-03-19S-29E Lot: 3 1315 FNL 2635 FWL	San Andres	2324	2324
30-015-03493	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#003	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	В	B-34-18S-29E 990 FNL 2310 FEL	B-34-18S-29E 990 FNL 2310 FEL	Grayburg	2105	2105
30-015-03506	MACK ENERGY CORP	BRAINARD TRACT 4	#001	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	B	J-34-18S-29E 2204 FSL 2310 FEL	J-34-18S-29E 2204 FSL 2310 FEL	Queen	2110	2110
30-015-03306	MACK ENERGY CORP	FEATHERSTONE	#008	Oil	Vertical	Plugged, Site Released		T18S	R29E	G	G-34-18S-29E 1650 FNL 2310 FEL	G-34-18S-29E 2204 FSL 2310 FEL	Queen	2110	2107
30-015-03494	MACK ENERGY CORP	BRAINARD TRACT 3	#002	Oil	Vertical	Plugged, Site Released	34	T18S	R29E	0	O-34-18S-29E Lot: 2 886 FSL 2315 FEL	O-34-18S-29E Lot: 2 886 FSL 2315 FEL	San Andres	2443	2443
30-015-03505	RODNEY B WEBB DBA WEBB OIL CO	TURKEY TRACK SEC 3 UNIT	#005	Oil	Vertical	Plugged, Site Released	_	T19S	R29E	В В	B-03-19S-29E Lot: 2 886 FSL 2315 FEL B-03-19S-29E Lot: 2 660 FNL 1980 FEL	B-03-19S-29E Lot: 2 886 FSL 2315 FEL B-03-19S-29E Lot: 2 660 FNL 1980 FEL	San Andres San Andres	3272	3272
30-015-03558	LEGACY RESERVES OPERATING. LP	EMPIRE 34 FEDERAL	#001	Oil	Vertical	Plugged, Site Released	34	T18S	R29E	G G	G-34-18S-29E 108: 2 660 FNL 1980 FEL	G-34-18S-29E 108: 2 660 FNL 1980 FEL	Morrow	11758	11758
30-015-23290	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	_	T19S	R29E	G	G-03-19S-29E 1980 FNL 1980 FEL	G-03-19S-29E 1980 FNL 1980 FEL	Grayburg	3000	3000
30-015-23750	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#024	Oil	Vertical	Plugged, Site Released	1 27	T18S	R29E	P	P-27-18S-29E 330 FSL 990 FEL	P-27-18S-29E 330 FSL 990 FEL	Queen	2207	2207
30-015-03467	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	_	T18S	R29E	A	A-34-18S-29E 660 FNL 660 FEL	A-34-18S-29E 660 FNL 660 FEL	San Andres	_	2895
50-015-03497	FILE-GINGARD WELL OPERATOR	PRE-UNGARD WELL	#001	UII	vertical	I riuggeu, site keleaseo	1 34	1102	KZSE	А	M-34-103-29E 000 FINE 000 FEE	W-94-109-73E DOOLLINE DOOLEE	Jan Anures	2095	2090

VII (4)

Permian Oilfield Partners, LLC. Stoeger 33 Federal SWD #1 2227' FNL, 300' FEL Sec. 33, T18S, R29E, Eddy Co. NM Lat 32.7050878° N, Lon 104.0721526° W GL 3426', RKB 3456'

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	0	D	Е						
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						
pН	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. Stoeger 33 Federal SWD #1 2227' FNL, 300' FEL Sec. 33, T18S, R29E, Eddy Co. NM Lat 32.7050878° N, Lon 104.0721526° W GL 3426', RKB 3456'

D	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	С	0								
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
Stoeger 33 Federal SWD #1
2227' FNL & 300' FEL
Sec 33, T18S, R29E
Eddy County, NM

July 11, 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 one M2.6 event recorded 6.6 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 4.7 miles away from the nearest active or permitted Devonian disposal well, the Santo Nino 29 Fed SWD #1, 30-015-42534.

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 8.1 mi (13.1 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.

- 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:

Stoeger 33 Fed SWD rate (BBL/day)	50000
Interval height (ft)	768
Average Porosity (%)	5.4
Vert stress gradient (psi/ft)	1.00
Hor stress direction (deg N)	10
Fault dip (deg)	75
Ref depth (ft)	12180
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

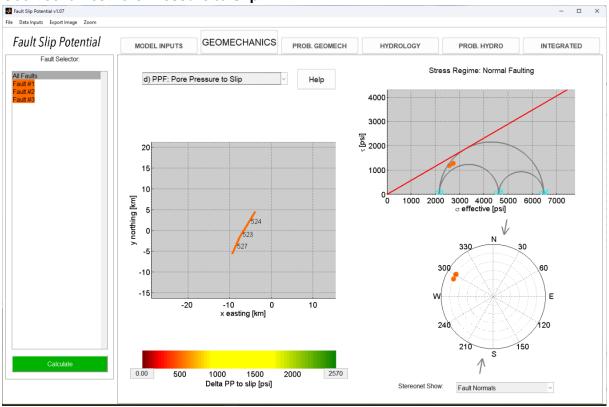
**Note:** In screenshots below,

Injection Well #1: Proposed Stoeger 33 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

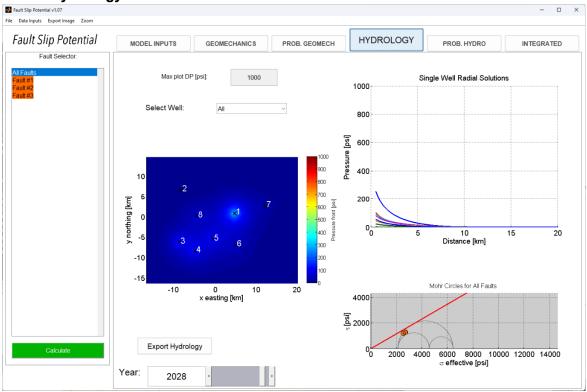




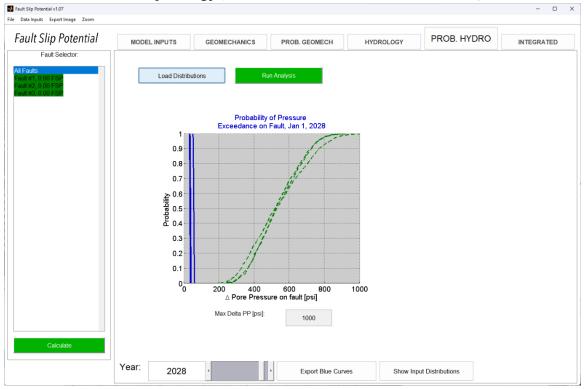
### **GeoMechanics Variability**



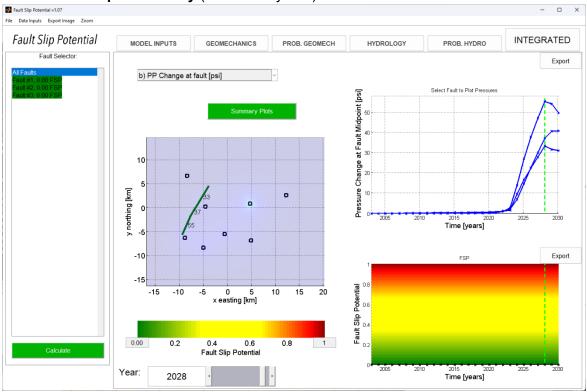
### Year 5 Hydrology

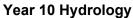


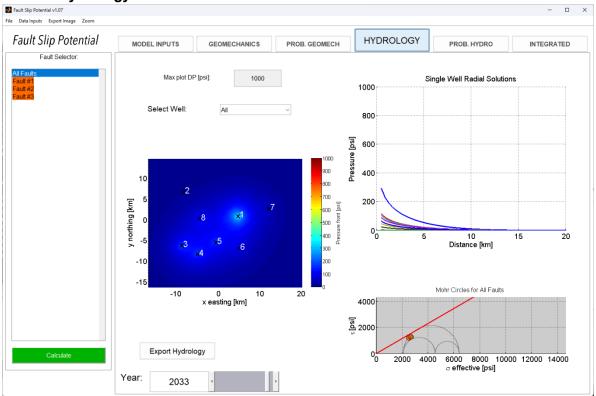
### Year 5 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



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



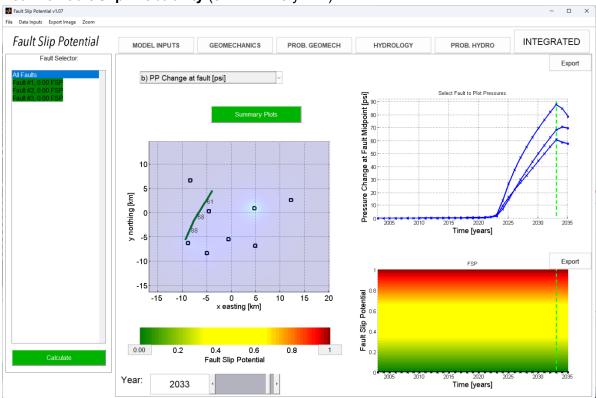


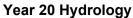


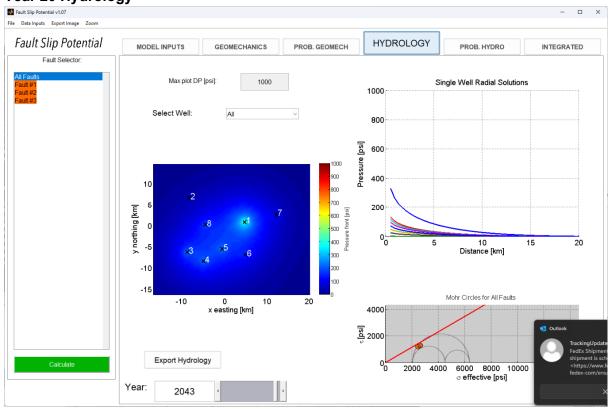
### Year 10 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



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



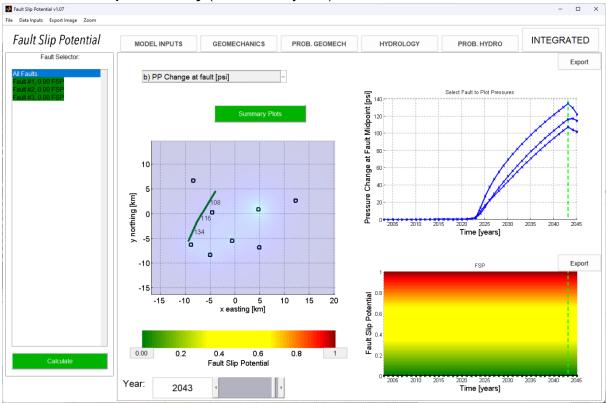




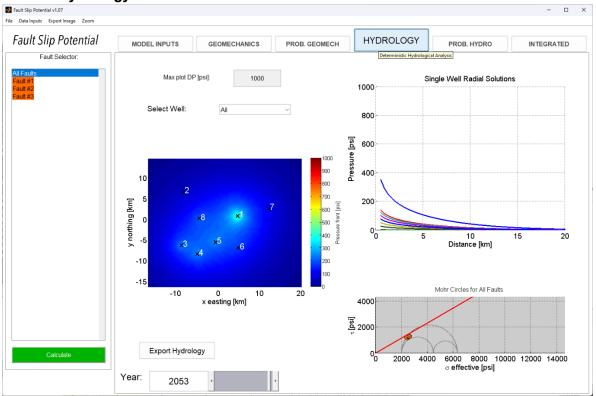
### Year 20 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



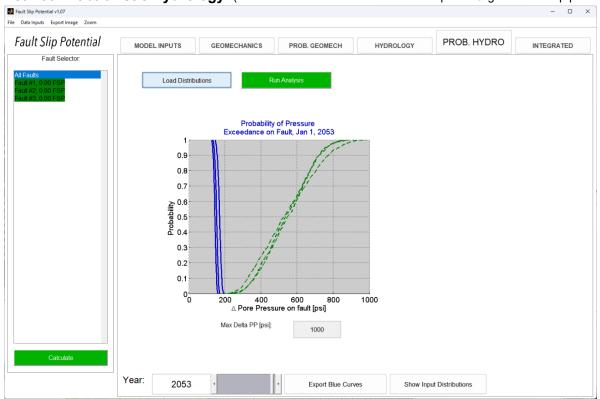
### Year 20 Fault Slip Probability (0% after 20 years)

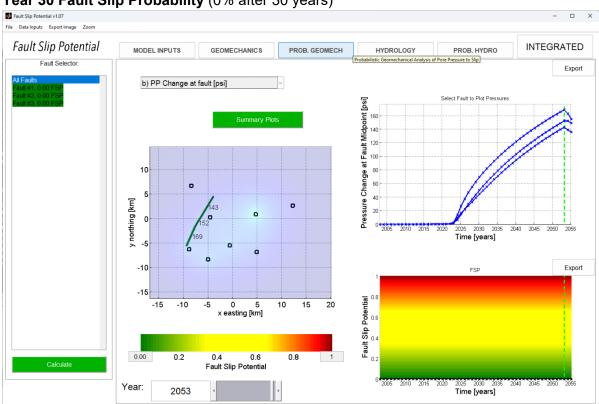






### Year 30 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)





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 Stoeger 33 Federal SWD #1 2227' FNL & 300' FEL

Sec 33, 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.

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)

180 feet

		Sub-		o	O	o						Water
POD Number	Code		County	_	•	•		Tws	Rng	X	Y	DepthWellDepthWater Column
<u>CP 00582 POD1</u>		CP	ED				24	18S	29E		3622096*	150
<u>CP 00863</u>		CP	ED	1	4	2	27	18S	29E	588341	3620768*	320
<u>CP 01618 POD1</u>		CP	ED	3	4	2	29	18S	29E	585120	3620554	240 180 60

Average Depth to Water:

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

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

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 263484

### **CONDITIONS**

Operator:	OGRID:
Permian Oilfield Partners, LLC	328259
PO Box 3329	Action Number:
Hobbs, NM 88241	263484
	Action Type:
	[IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

### CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	9/9/2023