

RECEIVED: 4/30/2019	REVIEWER:	TYPE: SWI	APP NO: PMA1912938819
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Applicant: Permian Oilfield Partners, LLC.**OGRID Number:** 328259**Well Name:** Bottomless Pit Federal SWD #2**API:** 30-025-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 holdersB. ☐ Royalty, overriding royalty owners, revenue ownersC. ☒ Application requires published noticeD. ☐ Notification and/or concurrent approval by SLOE. ☒ Notification and/or concurrent approval by BLMF. ☒ Surface ownerG. ☒ 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

4-26-2019

Date

(817) 600-8772

Phone Number

spuryear@popmidstream.com

e-mail Address



Mr. Phillip Goetze
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Bottomless Pit Federal SWD #2
Sec. 28, Twp. 24S, Rge. 32E
1333' FNL, 430' FEL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Bottomless Pit Federal SWD #2 located in Sec 28, Twp 24S, Rge 32E, Lea County, New Mexico. This well will be completed open hole in the Devonian-Silurian formation and will be operated as a commercial salt water disposal well.

Similar application exhibits were sent to offset operators, mineral owners, lessees and the surface owner. The distribution list and proof of mailing, as well as affidavit of publication are enclosed.

If you have any questions, please contact us at (817)606-7630.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean Puryear", is written over a light blue horizontal line.

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

Date: 04/26/2019

APPLICATION FOR AUTHORIZATION TO INJECT

- I. **PURPOSE:** **Disposal**
Application qualifies for administrative approval? **Yes**
- II. **OPERATOR:** **Permian Oilfield Partners, LLC.**
ADDRESS: **P.O. Box 1220, Stephenville, TX. 76401**
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:** **4-24-2019**
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: _____

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 BWP
The maximum injected volume anticipated is 50,000 BWP
2. Injection will be through a closed system
3. The average injection pressure anticipated is 2,000 psi
The proposed maximum injection pressure is 3,405 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 Go-Tech's website and are listed below.

WELL NAME	FIGHTING OKRA 18 FEDERAL COM #001H	SALADO DRAW 6 FEDERAL #001H	RATTLESNAKE 13 12 FEDERAL COM #001H	SNAPPING 2 STATE #014H
api	3002540382	3002541293	3002540912	3001542688
latitude	32.0435333	32.0657196	32.0369568	32.06555986
longitude	-103.5164566	-103.5146942	-103.416214	-103.7413815
section	18	6	13	2
township	26S	26S	26S	26S
range	34E	34E	34E	31E
unit	E	M	P	P
ftgns	2590N	200S	330S	250S
ftgew	330W	875W	330E	330E
county	Lea	Lea	Lea	EDDY
state	NM	NM	NM	NM
formation	AVALON UPPER	BONE SPRING 3RD SAND	DELAWARE-BRUSHY CANYON	WOLFCAMP
sampledate	42046	41850	41850	42284
ph	8	6.6	6.2	7.3
tds_mgL	201455.9	99401.9	243517.1	81366.4
resistivity_ohm_cm	0.032	0.064	0.026	0.1004
sodium_mgL	66908.6	34493.3	73409.8	26319.4
calcium_mgL	9313	3295	15800	2687.4
iron_mgL	10	0.4	18.8	26.1
magnesium_mgL	1603	396.8	2869	326.7
manganese_mgL	1.6	0.37	3.12	
chloride_mgL	121072.7	59986.5	149966.2	50281.2
bicarbonate_mgL	1024.8	109.8	48.8	
sulfate_mgL	940	710	560	399.7
co2_mgL	1950	70	200	100

5. Devonian water analysis from the area of review is unavailable. Representative area water analyses were sourced from Go-Tech's website and are listed below.

WELL NAME	ANTELOPE RIDGE UNIT #003	BELL LAKE UNIT #006
api	3002521082	3002508483
latitude	32.2593155	32.3282585
longitude	-103.4610748	-103.507103
sec	34	6
township	23S	23S
range	34E	34E
unit	K	O
ftgns	1980S	660S
ftgew	1650W	1980E
county	LEA	LEA
state	NM	NM
field	ANTELOPE RIDGE	BELL LAKE NORTH
formation	DEVONIAN	DEVONIAN
samplesource	UNKNOWN	HEATER TREATER
ph	6.9	7
tds_mgL	80187	71078
chloride_mgL	42200	47900
bicarbonate_mgL	500	476
sulfate_mgL	1000	900

VIII: Injection Zone Geology

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 carbonates & chert, followed by the Upper Silurian dolomites, and the Lower 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 8%, 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 migrations to USDW's, 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.

Permian Oilfield Partners, LLC.
 Bottomless Pit Federal SWD #2
 1333' FNL, 430' FEL
 Sec. 28, T24S, R32E, Lea Co. NM
 Lat 32.1921111° N, Lon 103.6724560° W
 GL 3565', RKB 3595'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,183	4,549	3,366
Delaware	4,649	8,785	4,136
Bone Spring	8,785	11,868	3,083
Wolfcamp	11,868	12,968	1,100
Lwr. Mississippian	16,465	16,802	337
Woodford	16,802	16,991	189
Devonian	16,991	17,932	941
Fusselman (Silurian)	17,932	18,612	680
Montoya (U. Ordovician)	18,612	19,305	693
Simpson (M. Ordovician)	19,305	19,849	544

2. According to the New Mexico Office of the State Engineer, there are NO fresh water wells within the proposed well's one-mile area of review. Regionally, shallow fresh water is known to exist at depths less than 600'. There are no underground sources of fresh water 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 NO fresh water wells within the proposed well's one-mile area of review.
- 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

¹ API Number 30-025-		² Pool Code 97869	³ Pool Name SWD; DEVONIAN-SILURIAN
⁴ Property Code	⁵ Property Name BOTTOMLESS PIT FEDERAL SWD		⁶ Well Number 2
⁷ OGRID NO. 328259	⁸ Operator Name PERMIAN OILFIELD PARTNERS LLC		⁹ Elevation 3565'

¹⁰ Surface Location

UL or lot no. H	Section 28	Township 24S	Range 32E	Lot Idn	Feet from the 1333	North/South line NORTH	Feet From the 430	East/West line EAST	County LEA
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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
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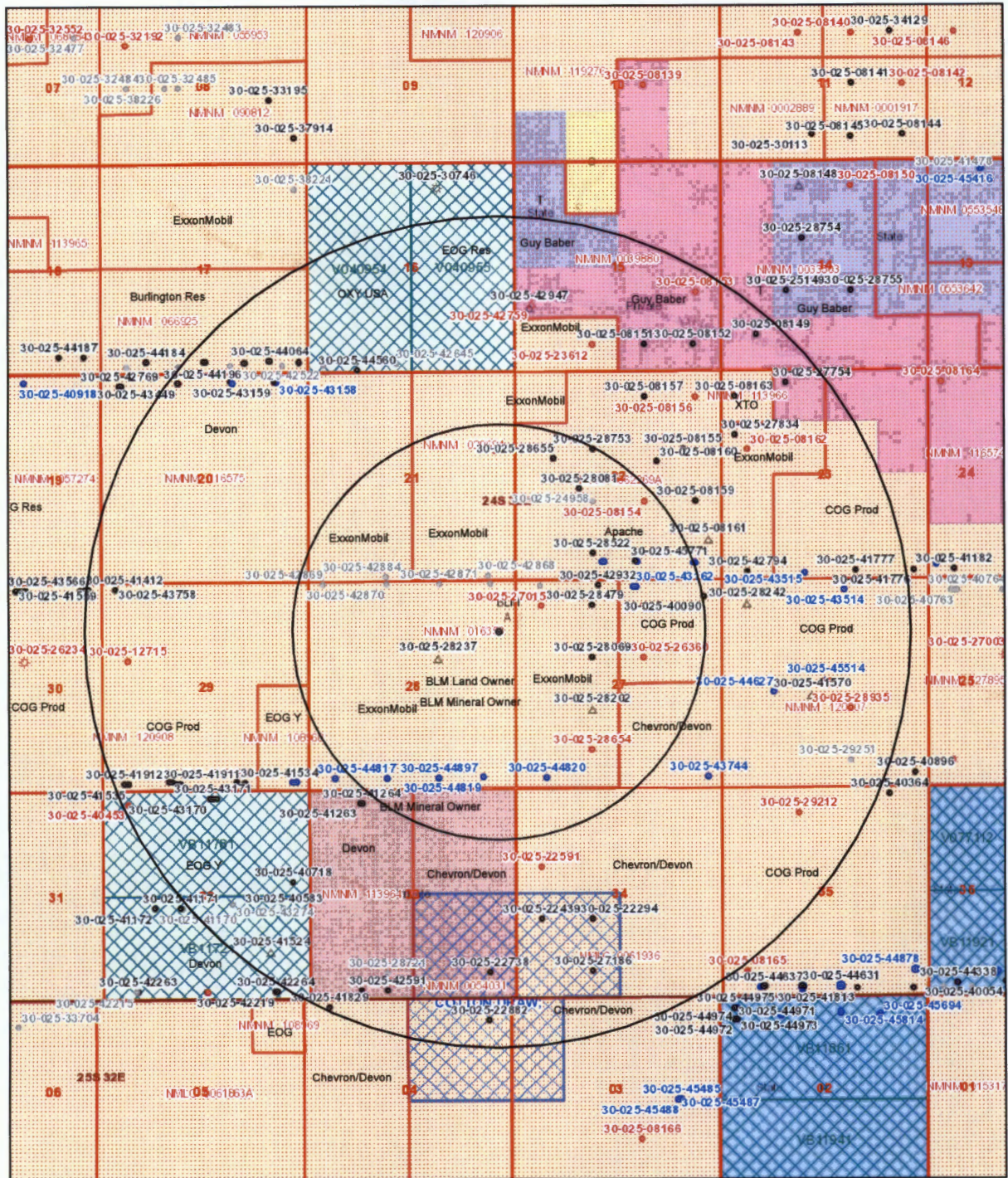
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

¹⁶ GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION N 434252.6 - E 745775.2 LAT: 32.1921111° N LONG: 103.6724560° W CORNER DATA NAD 83 GRID - NM EAST A: CALCULATED CORNER N 430259.0 - E 740942.8 B: FOUND BRASS CAP "1916" N 432898.6 - E 740923.8 C: FOUND BRASS CAP "1916" N 435539.9 - E 740903.4 D: FOUND BRASS CAP "1916" N 435568.6 - E 743550.4 E: FOUND BRASS CAP "1916" N 435588.5 - E 746196.1 F: FOUND BRASS CAP "1916" N 432949.2 - E 746214.3 G: FOUND BRASS CAP "1916" N 430310.9 - E 746231.9 H: FOUND BRASS CAP "1916" N 430288.3 - E 743585.6		17 OPERATOR CERTIFICATION 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. <i>Gary E Fisher</i> 4-17-2019 Signature Date Gary E Fisher Printed Name gfisher@popmidstream.com E-mail Address 18 SURVEYOR CERTIFICATION 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. 04-09-2019 Date of Survey Signature and Seal of Professional Surveyor 10034 Certificate Number
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Job No.: LS19030264

1 & 2 Mile AOR, Bottomless Pit Federal SWD #2



4/20/2019, 7:23:46 PM

Override 1

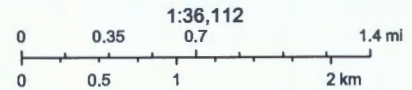
Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned

- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- PLSS First Division



U.S. BLM
Sources: Esri, HERE, Garmin, Intermap, increment P Corp.,
GEOCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,
Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong).

New Mexico Oil Conservation Division

Bottomless Pit Federal SWD #2 - Wells within 1 Mile Area of Review

API Number	Current Operator	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	Section	Surface Location	Bottomhole Location	Formation	MD	TVD
30-025-08154	MARKS AND GARNER PRODUCTION LTD CO	BRADLEY FEDERAL	#001	Oil	Vertical	Plugged, Site Released	22	T24S	R32E	J	J-22-24S-32E 1980 FSL 1980 FSL	J-22-24S-32E 1980 FSL 1980 FSL	DELAWARE	4966	4966
30-025-08158	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	22	T24S	R32E	E	E-22-24S-32E 1980 FSL 1980 FSL	E-22-24S-32E 1980 FSL 1980 FSL	DELAWARE	5296	5296
30-025-24939	RALPH E WILLIAMSON	GRAHAM FEDERAL	#001	Oil	Vertical	Plugged, Site Released	22	T24S	R32E	O	O-22-24S-32E 660 FSL 1980 FSL	O-22-24S-32E 660 FSL 1980 FSL	DELAWARE	4957	4957
30-025-24948	RALPH E WILLIAMSON	WRIGHT FEDERAL	#001	Oil	Vertical	Plugged, Site Released	22	T24S	R32E	B	B-27-24S-32E 660 FSL 1980 FSL	B-27-24S-32E 660 FSL 1980 FSL	DELAWARE	4957	4957
30-025-24948	RALPH E WILLIAMSON	GRAHAM FEDERAL	#002	Oil	Vertical	Cancelled Apd	22	T24S	R32E	K	K-23-24S-32E 1980 FSL 1980 FSL	K-23-24S-32E 1980 FSL 1980 FSL	DELAWARE	5100	5100
30-025-26380	PRE-ONGARD WELL OPERATOR	WRIGHT FEDERAL	#002	Oil	Vertical	Plugged, Site Released	27	T24S	R32E	G	G-27-24S-32E 1980 FSL 1980 FSL	G-27-24S-32E 1980 FSL 1980 FSL	DELAWARE	4885	4885
30-025-27015	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	27	T24S	R32E	D	D-27-24S-32E 1980 FSL 1980 FSL	D-27-24S-32E 1980 FSL 1980 FSL	DELAWARE	4979	4979
30-025-28609	3 KNIGHTS OPERATING LLC	EXXON A FEDERAL	#001	Oil	Vertical	Active	27	T24S	R32E	F	F-27-24S-32E 1980 FSL 1980 FSL	F-27-24S-32E 1980 FSL 1980 FSL	DELAWARE	4979	4979
30-025-28601	3 KNIGHTS OPERATING LLC	GRAHAM FEDERAL	#001	Oil	Vertical	Active	27	T24S	R32E	K	K-23-24S-32E 1980 FSL 1980 FSL	K-23-24S-32E 1980 FSL 1980 FSL	DELAWARE	4902	4902
30-025-28202	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	21	T24S	R32E	H	H-21-24S-32E 2110 FSL 1550 FSL	H-21-24S-32E 2110 FSL 1550 FSL	DELAWARE	4942	4942
30-025-28202	3 KNIGHTS OPERATING LLC	EXXON A FEDERAL	#001	Oil	Vertical	Active	27	T24S	R32E	K	K-23-24S-32E 1980 FSL 1980 FSL	K-23-24S-32E 1980 FSL 1980 FSL	DELAWARE	4979	4979
30-025-28237	ECG RESOURCES INC	ALLEN B FEDERAL SWD	#001	Salt Water Disposal	Vertical	Active	27	T24S	R32E	K	K-23-24S-32E 1980 FSL 1980 FSL	K-23-24S-32E 1980 FSL 1980 FSL	DELAWARE	4979	4979
30-025-28476	3 KNIGHTS OPERATING LLC	EXXON A FEDERAL	#003	Oil	Vertical	Active	28	T24S	R32E	C	C-28-24S-32E 1980 FSL 1980 FSL	C-28-24S-32E 1980 FSL 1980 FSL	DELAWARE	4885	4885
30-025-28532	3 KNIGHTS OPERATING LLC	EXXON A FEDERAL	#002	Oil	Vertical	Active	22	T24S	R32E	N	N-22-24S-32E 660 FSL 1980 FSL	N-22-24S-32E 660 FSL 1980 FSL	DELAWARE	4947	4947
30-025-28654	TEMPO ENERGY INC	EXXON A FEDERAL	#004	Oil	Vertical	Plugged, Site Released	27	T24S	R32E	N	N-27-24S-32E 990 FSL 1980 FSL	N-27-24S-32E 990 FSL 1980 FSL	DELAWARE	4947	4947
30-025-28655	MC OPERATING OF MA, LLC	EXXON A FEDERAL	#003	Oil	Vertical	Active	22	T24S	R32E	E	E-22-24S-32E 2210 FSL 1980 FSL	E-22-24S-32E 2210 FSL 1980 FSL	DELAWARE	4888	4888
30-025-28753	MC OPERATING OF MA, LLC	FEDERAL CG 22	#003	Oil	Vertical	Active	22	T24S	R32E	F	F-22-24S-32E 1980 FSL 1980 FSL	F-22-24S-32E 1980 FSL 1980 FSL	DELAWARE	7257	7257
30-025-43867	XTO ENERGY, INC	OUTRIDER FEDERAL	#003C	Oil	Horizontal	Cancelled Apd	21	T24S	R32E	O	O-21-24S-32E 101 FSL 2005 FSL	O-21-24S-32E 101 FSL 2005 FSL	BONE SPRING	15776	10842
30-025-43868	XTO ENERGY, INC	OUTRIDER FEDERAL	#004C	Oil	Horizontal	Cancelled Apd	21	T24S	R32E	P	P-21-24S-32E 101 FSL 685 FSL	P-21-24S-32E 101 FSL 685 FSL	BONE SPRING	15604	10871
30-025-43869	XTO ENERGY, INC	CAZADOR FEDERAL	#001C	Oil	Horizontal	Cancelled Apd	28	T24S	R32E	D	D-28-24S-32E 101 FSL 370 FSL	D-28-24S-32E 101 FSL 370 FSL	BONE SPRING	15720	10773
30-025-43870	XTO ENERGY, INC	CAZADOR FEDERAL	#002C	Oil	Horizontal	Cancelled Apd	28	T24S	R32E	C	C-28-24S-32E 101 FSL 2005 FSL	C-28-24S-32E 101 FSL 2005 FSL	BONE SPRING	15796	10813
30-025-43871	XTO ENERGY, INC	CAZADOR FEDERAL	#003C	Oil	Horizontal	Cancelled Apd	28	T24S	R32E	B	B-28-24S-32E 101 FSL 1955 FSL	B-28-24S-32E 101 FSL 1955 FSL	BONE SPRING	15773	10841
30-025-43872	XTO ENERGY, INC	CAZADOR FEDERAL	#004C	Oil	Horizontal	Cancelled Apd	28	T24S	R32E	A	A-28-24S-32E 101 FSL 635 FSL	A-28-24S-32E 101 FSL 635 FSL	BONE SPRING	15605	10871
30-025-43883	XTO ENERGY, INC	OUTRIDER FEDERAL	#001C	Oil	Horizontal	Cancelled Apd	21	T24S	R32E	M	M-21-24S-32E 101 FSL 320 FSL	M-21-24S-32E 101 FSL 320 FSL	BONE SPRING	15721	10776
30-025-43884	XTO ENERGY, INC	OUTRIDER FEDERAL	#002C	Oil	Horizontal	Cancelled Apd	21	T24S	R32E	N	N-21-24S-32E 171 FSL 1955 FSL	N-21-24S-32E 171 FSL 1955 FSL	BONE SPRING	15742	10887
30-025-43931	XTO ENERGY, INC	OUTRIDER FEDERAL	#005C	Oil	Horizontal	Cancelled Apd	27	T24S	R32E	D	D-27-24S-32E 170 FSL 2115 FSL	D-27-24S-32E 170 FSL 2115 FSL	BONE SPRING	15554	10892
30-025-43932	XTO ENERGY, INC	OUTRIDER FEDERAL	#006H	Oil	Horizontal	Active	27	T24S	R32E	C	C-27-24S-32E 190 FSL 2260 FSL	C-27-24S-32E 190 FSL 2260 FSL	BONE SPRING	15276	10793
30-025-43162	COG PRODUCTION, LLC	DOS XX 27 FEDERAL COM	#002H	Oil	Horizontal	New	27	T24S	R32E	B	B-27-24S-32E 190 FSL 2260 FSL	B-27-24S-32E 190 FSL 2260 FSL	BONE SPRING	14151	9600
30-025-43179	COG PRODUCTION, LLC	DOS XX 27 FEDERAL COM	#004H	Oil	Horizontal	New	27	T24S	R32E	B	B-27-24S-32E 190 FSL 2260 FSL	B-27-24S-32E 190 FSL 2260 FSL	BONE SPRING	15462	10910
30-025-44818	XTO ENERGY, INC	OUTRIDER FEDERAL	#004H	Oil	Horizontal	New	28	T24S	R32E	N	N-28-24S-32E 274 FSL 1980 FSL	N-28-24S-32E 274 FSL 1980 FSL	BONE SPRING	20642	10802
30-025-44819	XTO ENERGY, INC	OUTRIDER FEDERAL	#004H	Oil	Horizontal	New	28	T24S	R32E	P	P-28-24S-32E 274 FSL 825 FSL	P-28-24S-32E 274 FSL 825 FSL	BONE SPRING	20632	10250
30-025-44820	XTO ENERGY, INC	OUTRIDER FEDERAL	#005H	Oil	Horizontal	New	27	T24S	R32E	M	M-27-24S-32E 265 FSL 785 FSL	M-27-24S-32E 265 FSL 785 FSL	BONE SPRING	20648	10801
30-025-44897	XTO ENERGY, INC	OUTRIDER FEDERAL	#003H	Oil	Horizontal	New	28	T24S	R32E	O	O-28-24S-32E 274 FSL 1980 FSL	O-28-24S-32E 274 FSL 1980 FSL	BONE SPRING	20639	10801
30-025-45769	APACHE CORPORATION	GHOST RIDER 22 15 FEDERAL COM	#202H	Oil	Horizontal	New	22	T24S	R32E	P	P-22-24S-32E 400 FSL 736 FSL	P-22-24S-32E 400 FSL 736 FSL	BONE SPRING	18470	10836
30-025-45770	APACHE CORPORATION	GHOST RIDER 22 15 FEDERAL COM	#203H	Oil	Horizontal	New	22	T24S	R32E	O	O-22-24S-32E 431 FSL 2151 FSL	O-22-24S-32E 431 FSL 2151 FSL	BONE SPRING	18079	10833
30-025-45771	APACHE CORPORATION	GHOST RIDER 22 15 FEDERAL COM	#204H	Oil	Horizontal	New	22	T24S	R32E	O	O-22-24S-32E 431 FSL 2151 FSL	O-22-24S-32E 431 FSL 2151 FSL	BONE SPRING	18079	10833
30-025-45772	APACHE CORPORATION	GHOST RIDER 22 15 FEDERAL COM	#205H	Oil	Horizontal	New	22	T24S	R32E	N	N-22-24S-32E 442 FSL 2286 FSL	N-22-24S-32E 442 FSL 2286 FSL	BONE SPRING	18083	10899
30-025-45773	APACHE CORPORATION	GHOST RIDER 22 15 FEDERAL COM	#206H	Oil	Horizontal	New	22	T24S	R32E	N	N-22-24S-32E 442 FSL 2226 FSL	N-22-24S-32E 442 FSL 2226 FSL	BONE SPRING	18386	10810



Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Bottomless Pit Federal SWD #2
Sec. 28, Twp. 24S, Rge. 32E
1333' FNL, 430' FEL
Lea County, NM

Permian Oilfield Partners, LLC has mailed notifications to offset operators, mineral owners, lessees and the surface owner as per the following list:

Bottomless Pit Federal SWD #2 - Affected Persons within 1 Mile Area of Review					
Notified Name	Notified Address	Notified City, State, ZIP Code	Shipper	Tracking No.	Mailing Date
Marks And Garner Production Ltd Co	P.O. Box 70	Lovington, NM 88260	USPS	9414811899561824459851	4/26/2019
Ralph E Williamson	P.O. Box 994	Midland, TX 79702	USPS	9414811899561824459608	4/26/2019
3 Knights Operating LLC	6404 CR 1440	Lubbock, TX 79407	USPS	9414811899561824421964	4/26/2019
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561824421506	4/26/2019
Tempo Energy Inc	P.O. Box 1034	Midland, TX 79702	USPS	9414811899561824459677	4/26/2019
MCI Operating Of NM, LLC	7505 Memorial Woods # 60	Houston, TX 77024	USPS	9414811899561824459752	4/26/2019
XTO Energy, Inc	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414811899561824459134	4/26/2019
COG Production, LLC	P.O. Box 2064	Midland, TX 79702	USPS	9414811899561824421384	4/26/2019
Apache Corporation	303 Veterans Airpark Ln #1000	Midland, TX 79705	USPS	9414811899561824421933	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561824421100	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561824459929	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561824459776	4/26/2019
Exxon Mobil Oil Corp	5959 Las Colinas Boulevard	Irving, TX 75039	USPS	9414811899561824459233	4/26/2019
EOG Y Resources Inc	104 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561824459264	4/26/2019
EOG A Resources Inc	105 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561824421032	4/26/2019
Oxy Y-1 Company	5 Greenway Plaza	Houston, TX 77046	USPS	9414811899561824459653	4/26/2019
EOG M Resources Inc	P.O. Box 840	Artesia, NM 88211	USPS	9414811899561824424176	4/26/2019
Devon Energy Production Company, LP	333 West Sheridan Ave.	Oklahoma City, OK 73102	USPS	9414811899561824421063	4/26/2019
Black Mountain Operating LLC	500 Main Street Suite 1200	Fort Worth, TX 76102-3926	USPS	9414811899561824421605	4/26/2019
Chisos Ltd	1331 Lamar Street Suite 1077	Houston, TX 77010	USPS	9414811899561824421360	4/26/2019
Chevron U S A Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561824421131	4/26/2019

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

Date: 4-26-2019

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 4598 51

ARTICLE ADDRESSED TO:

Marks & Garner Production Ltd Co
PO Box 70
Lovington NM 88260-0070

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4219 64

ARTICLE ADDRESSED TO:

3 Knights Operating LLC
6404 County Road 1440
Lubbock TX 79407-1106

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4596 77

ARTICLE ADDRESSED TO:

Tempo Energy Inc
PO Box 1034
Midland TX 79702-1034

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Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4596 08

ARTICLE ADDRESSED TO:

Ralph E Williamson
PO Box 994
Midland TX 79702-0994

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Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE ADDRESSED TO:

EOG Resources, Inc.
PO Box 2267
Midland TX 79702-2267

FEES

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Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4597 52

ARTICLE ADDRESSED TO:

MCI Operating of NM, LLC
7505 Memorial Woods Dr Apt 60
Houston TX 77024-3742

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4591 34

ARTICLE ADDRESSED TO:

XTO Energy, Inc.
6402 Holiday Hill Road Bldg #5
Midland TX 79707

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE ADDRESSED TO:

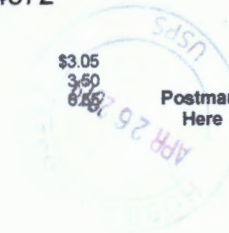
Apache Corporation
303 Vet Airpark Ln Ste 1000
Midland TX 79705-4572

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4599 29

ARTICLE ADDRESSED TO:

New Mexico State Land Office
2827 N Dal Paso St. Suite 117
Hobbs NM 88240-2062

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4213 84

ARTICLE ADDRESSED TO:

COG Production, LLC
PO Box 2064
Midland TX 79702-2064

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4211 00

ARTICLE ADDRESSED TO:

Bureau of Land Management
620 E Greene St
Carlsbad NM 88220-6292

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4597 76

ARTICLE ADDRESSED TO:

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe NM 87501-2708

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4592 33

ARTICLE ADDRESSED TO:

ExxonMobil Oil Corp
5959 Las Colinas Blvd
Irving TX 75039-4202

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4592 64

ARTICLE ADDRESSED TO:

EOG Y Resources, Inc.
104 South 4th Street
Artesia NM 88210-2123

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4210 32

ARTICLE ADDRESSED TO:

EOG A Resources Inc.
105 South 4th Street
Artesia NM 88210-2177

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4596 53

ARTICLE ADDRESSED TO:

Oxy Y-1 Company
5 Greenway Plaza
Houston TX 77046-0526

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4214 76

ARTICLE ADDRESSED TO:

EOG M Resources Inc.
PO Box 840
Artesia NM 88211-0840

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4210 63

ARTICLE ADDRESSED TO:

Devon Energy Production Co., LP
333 West Sheridan Ave
Oklahoma City OK 73102-5010

FEES

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Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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ARTICLE NUMBER: 9414 8118 9956 1824 4216 05

ARTICLE ADDRESSED TO:

Black Mountain Operating LLC
500 Main Street, Suite 1200
Fort Worth TX 76102-3926

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4213 60

ARTICLE ADDRESSED TO:

Chisos Ltd
1331 Lamar Street, Ste 1077
Houston TX 77010-3135

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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

ARTICLE NUMBER: 9414 8118 9956 1824 4211 31

ARTICLE ADDRESSED TO:

Chevron USA
6301 Deauville
Midland TX 79706-2964

FEES

Postage Per Piece	\$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

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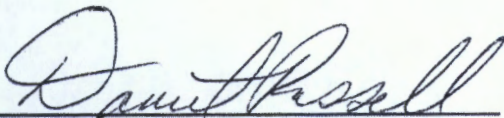


Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

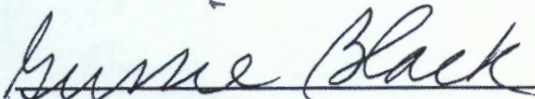
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
April 23, 2019
and ending with the issue dated
April 23, 2019.



Publisher

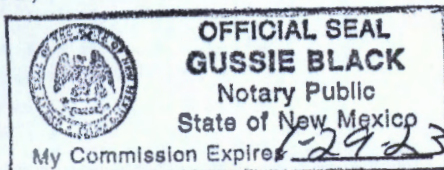
Sworn and subscribed to before me this
23rd day of April 2019.



Business Manager

My commission expires
January 29, 2023.

(Seal)



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

LEGALS

LEGAL NOTICE April 23, 2019

Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817)606-7630, attention 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 Lea County, New Mexico. The well name is the Bottomless Pit Federal SWD #2, and is located 1333' FNL & 430' FEL, Unit Letter H, Section 28, Township 24 South, Range 32 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,026 feet to 18,587 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,405 psi.

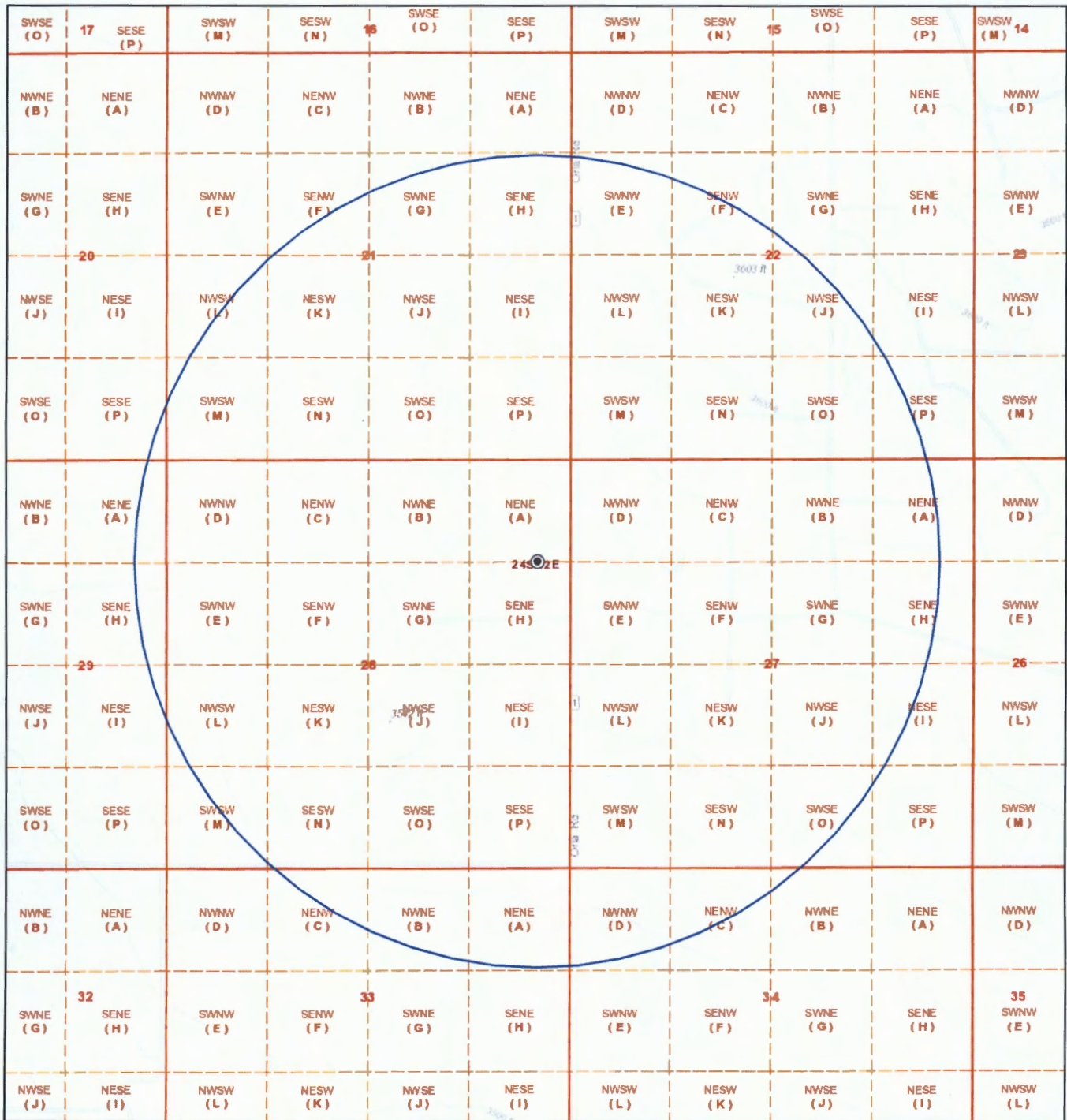
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.
#34057

67115647

00227334

GARY FISHER
PERMIAN OILFIELD PARTNERS, LLC.
PO BOX 1220
STEPHENVILLE, TX 76401

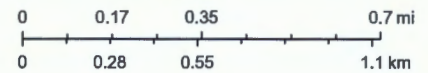
Bottomless Pit Federal SWD #2 - Water Wells within 1 Mile AOR



4/17/2019, 9:28:11 AM

- Override 1
- Override 1
- PLSS First Division
- PLSS Second Division
- PLSS Townships

1:18,056



Sources: Eari, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD	Sub- basin	Code	County	Q Q Q Q				Tws	Rng	X	Y	DepthWell	Water Column	Water
					64	16	4	Sec							
C 01932	C	ED	ED	ED	3	1	12	24S	32E	628633	3567188*	492			
C 02350	CUB	ED	ED	ED	4	3	10	24S	32E	625826	3566333*	60			
C 03527 POD1	C	LE	LE	LE	1	2	3	03	24S	32E	625770	3568487	500		
C 03528 POD1	C	LE	LE	LE	1	1	2	15	24S	32E	626040	3566129	541		
C 03530 POD1	C	LE	LE	LE	3	4	3	07	24S	32E	620886	3566156	550		
C 03555 POD1	C	LE	LE	LE	2	2	1	05	24S	32E	622709	3569231	600	380	220

Average Depth to Water:

380 feet

Minimum Depth:

380 feet

Maximum Depth:

380 feet

Record Count: 6

PLSS Search:

Township: 24S Range: 32E

*UTM location was derived from PLSS - see Help

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

4/20/19 11:51 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Bottomless Pit Federal SWD #2
Sec. 28, Twp. 24S, Rge. 32E
1333' FNL, 430' FEL
Lea County, NM

Permian Oilfield Partners, LLC. has 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.

A handwritten signature in black ink, appearing to read "Gary Fisher", is written over a light blue grid background.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/24/2019

**Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Bottomless Pit Federal SWD #2
SL: 1333' FNL & 430' FEL
Sec 28, T24S, R32E
Lea County, New Mexico**

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Bottomless Pit Federal SWD #2
1333' FNL, 430' FEL
Sec. 28, T24S, R32E, Lea Co. NM
Lat 32.1921111° N, Lon 103.6724560° W
GL 3565', RKB 3595'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 855'
Cement: 541 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5"
Casing: 13.375" - 54.5# J-55 & 61# J-55 STC Casing
Depth Top: Surface
Depth Btm: 4674'
Cement: 1532 sks - Lite Class C (50:50:10) + Additives
Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)

Hole Size: 12.25"
Casing: 9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top: Surface
Depth Btm: 11918'
Cement: 2040 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 4774'

Intermediate #3 - (Liner)

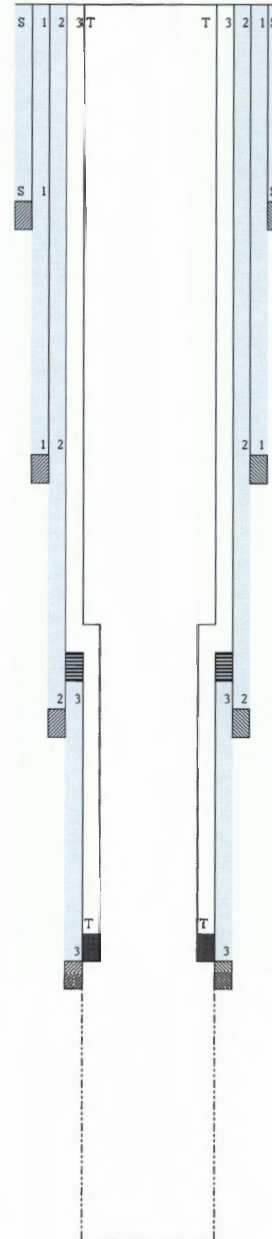
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11718'
Depth Btm: 17026'
Cement: 256 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11718' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18587'
Inj. Interval: 17026' - 18587' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16981'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11718'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16991'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



Plugging Risk Assessment

7" UFJ Tubing Inside of 9 5/8" 40# Casing

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6 5/8" to 7 1/4" Inclusive

Maximum Catch Size (Spiral)		6 5/8"	6 3/4"	7"	7 1/4"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 5/8"	6 5/8"
Overshot O.D.		8 3/4"	7 7/8"	8 3/4"	8 3/4"
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	Q217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260

Replacement Parts

Top Sub	Part No.	A-3033	A-5223	Q218	A-5355
Bowl	Part No.	B-3034	B-5224	Q219	B-5356
Packer	Part No.	A-1814	B-5225	Q224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	Q222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	Q223	B-5360
Standard Guide	Part No.	A-1818	A-5229	Q226	A-5361

Basket Parts

Basket Grapple	Part No.	N-84	B-5227	Q222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	Q223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	Q224-R	B-5357-R

A 6.375" O.D. Bowen Series 150 Overshot will be used to perform this overshot operation. Details on the overshot are listed above. Casing to tubing clearance dimensions are listed below.

7" 26# FJ Casing Inside 9.625" 40# BTC Casing

Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.840	9 5/8	40.0	L-80	BTC	Casing	9.625	10.625	8.835	8.679	-	-	-	-
	7	26.0	HCP-110	FJ	Casing	7.000	7.000	6.276	6.151	28.500	6.080	5.940	5.815

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- If fishing neck is clean

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

- If dressing fishing neck is required

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.
5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

In the Event of a Body Break

- If fishing neck is clean

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

- If dressing fishing neck is required

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.

5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

Spear Fishing Procedure

If an overshot cannot be used to retrieve the fish, a spear may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.
1. Trip in hole with spear sized to engage the I.D. of the insert liner.
 2. Engage the insert liner inside the tubing with spear.
 3. Pull the insert liner out of the tubing.
 4. Trip out of hole with insert liner.
 5. Trip in hole with spear sized to engage the I.D. of the tubing.
 6. Engage the tubing with spear.
 7. Pick up 2 points over neutral weight.
 8. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
 9. Once released from packer, trip out of hole with fish.

Inside Diameter Cutting Tool Fishing Procedure

If an overshot is required but a mill cannot be used to dress off a fishing neck, an inside diameter cutting tool may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.
1. Trip in hole with spear sized to engage the I.D. of the insert liner.
 2. Engage the insert liner inside the tubing with spear.
 3. Pull the insert liner out of the tubing.
 4. Trip out of hole with insert liner.
 5. Trip in hole with inside diameter cutting tool and cut the tubing below the damaged fishing neck.
 6. Trip out hole with cutting tool.
 7. Trip in hole with spear sized to engage the I.D. of the tubing.
 8. Engage the previously cut tubing segment with spear.
 9. Trip out hole with cut tubing segment and spear.
 10. Trip in hole with overshot and engage fish.
 11. Pick up 2 points over neutral weight.
 12. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
 13. Once released from packer, trip out of hole with fish.

5 1/2" UFJ Tubing Inside of 7 5/8" 39# Casing

Series 150 Overshots

Tools are listed in order of maximum catch size.

The following table shows only a partial listing of available NOV Dowhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 4 1/4" to 5 1/2" Inclusive

Maximum Catch Size (Spiral)		4 1/4"	4 1/2"	4 3/4"	4 7/8"	5"	5 1/4"	5 1/2"
Maximum Catch Size (Basket)		3 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"
Overall O.D.		5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5896	5898	C-5168	8075	C-5171	C-4825	8825
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	185
Replacement Parts								
Top Sub	Part No.	5897	5899	A-5100	8078	A-5172	B-4826	8826
Bowl	Part No.	5898	5700	B-5170	8077	B-5173	B-4827	8817
Packer	Part No.	100	1140	B-2190	8114	L-5850	L-4505	8818
Spiral Grapple	Part No.	105	1135	B-2201	8112	B-4380	M-1071	8819
Spiral Grapple Control	Part No.	180	1137	B-2202	8113	B-4370	M-1072	8820
Standard Guide	Part No.	187	1143	B-2203	8121	B-4371	L-1074	8821
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	8112	B-4380	M-1071	8819
Basket Grapple Control	Part No.	180	1137	B-2202	8113	B-4370	M-1072	8820
Mill Control Packer	Part No.	100-R	1140-R	B-2190-R	8114-R	L-5850-R	M-4305	L-8818-R

A (6.625" turned down to **6.500"** O.D.) Bowen Series 150 Overshot will be used to perform this overshot operation. Details on the overshot are listed above. Casing to tubing clearance dimensions are listed below.

5.5" 17# FJ Casing Inside 7.625" 39# FJ Casing													
Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.500	7 5/8	39.0	HCL-80	FJ	Casing	7.625	7.625	6.625	6.500	-	-	-	-
	5 1/2	17.0	HCL-80	FJ	Casing	5.500	5.500	4.892	4.767	18.500	4.520	4.400	4.275

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- If fishing neck is clean

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

- If dressing fishing neck is required

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
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 6. Trip out hole with cutting tool.
 7. Trip in hole with spear sized to engage the I.D. of the tubing.
 8. Engage the previously cut tubing segment with spear.
 9. Trip out hole with cut tubing segment and spear.
 10. Trip in hole with overshot and engage fish.
 11. Pick up 2 points over neutral weight.
 12. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
 13. Once released from packer, trip out of hole with fish.

Abandonment Procedure

If the tubing cannot be recovered and the well is to be abandoned.

- The operator will ensure that all geologic formations are properly isolated.
- 1. Confirm the I.D. of the injection tubing is free from obstructions.
- 2. Run in hole with wireline set profile plug.
- 3. Set plug inside of packer assembly.
(Plug will allow cement to fill the I.D. of the injection tubing and the tubing to casing annulus)
- 4. Run in hole with wireline conveyed perforating guns and perforate the tubing immediately above the packer.
- 5. Trip in hole with an overshot, spear, cement retainer or isolation tool that will provide a work string-to- injection tubing seal.
- 6. Engage the fish with sealing tool.
- 7. Confirm circulation down the tubing and up the tubing-to-casing annulus.
- 8. Cement the work string, injection tubing, injection tubing-to-casing annulus and work string-to-casing annulus to surface.
- 9. Confirm the entirety of the wellbore is cemented to surface and all zones are isolated.
- 10. ND wellhead and install permanent capping flange.



**Attachment to C-108
Permian Oilfield Partners, LLC
Bottomless Pit Federal SWD #2
Sec. 28, Twp. 24S, Rge. 32E
1333' FNL, 430' FEL
Lea County, NM**

April 16, 2019

STATEMENT REGARDING SEISMICITY

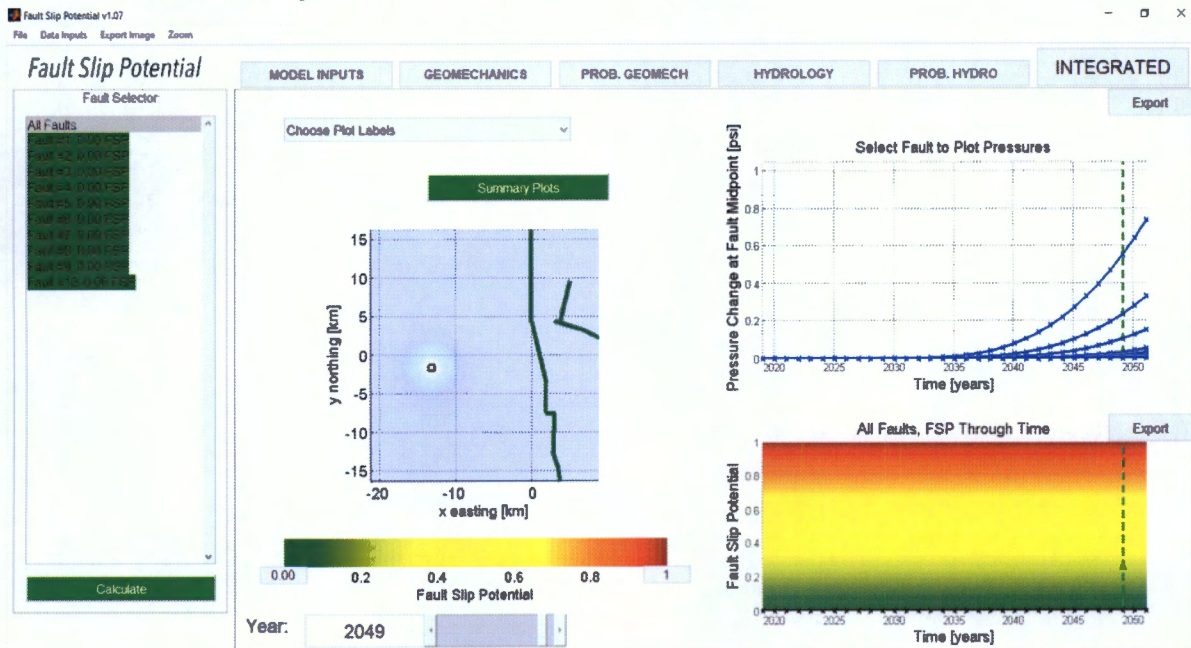
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity of M2.5 or greater in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 8.52 miles away @ 53.25 deg heading
2. M3.1, 2012-03-18, 14.26 miles away @ 295.59 deg heading

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. Based on offset well log data, we have not interpreted any faults in the immediate area.
3. A basement PreCambrian fault is 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.
4. Even though we do not propose to inject into the PreCambrian, Permian Oilfield Partners ran modeling to check for fault slip assuming the improbable occurrence of a total downhole well failure that would allow 100% of injected fluids to enter the PreCambrian. 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 PreCambrian fault being stressed so as to create an induced seismic event, with the following assumptions:
 - a. Full proposed capacity of 50,000 BBL/day for 30 years

- b. 12.5 mD average permeability, 3% average porosity, .75 psi/ft frac gradient, .45 psi/ft hydrostatic gradient
 - c. $A\text{-}\phi=0.60$ & Max Horizontal Stress direction 75 deg NW, as per Snee, Zoback paper noted above.
5. The probability of an induced seismic event in the PreCambrian is calculated to be 0% after 30 years, as per the FSP results screenshot below.
 6. The analysis below assumes an improbable well failure through the Montoya and Simpson zones, into the PreCambrian. When the injected fluids stay in the Devonian-Silurian zone as per design, there will be very low probability of fault slip, since there are no known nearby faults within the Devonian-Silurian.



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 1.55 miles away from the nearest active or permitted Devonian disposal well.

Greg E. Fisher

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