

RECEIVED: 05/06/2019	REVIEWER:	TYPE:	APP NO: PMAM19135 47282
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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: Threaded Needle Federal SWD #1	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 holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☒ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application
 Content
 Complete

3) CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Sean Puryear

Print or Type Name

Signature

05/03/2019

Date

(817) 600-8772

Phone Number

spuryear@popmidstream.com

e-mail Address

MAY 06 2019 PM01:15



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
Threaded Needle Federal SWD #1
Sec. 17, Twp. 26S, Rge. 33E
689' FNL, 1319' FWL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Threaded Needle Federal SWD #1 located in Sec 17, Twp 26S, Rge 33E, 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. A copy of this application has also been sent to NM OCD District 1 in Hobbs.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean Puryear", with a long, sweeping horizontal line extending to the right.

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

Date:

05/03/2019

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: **4-26-2019**

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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

Additional Data

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 15,333'

Underlying Potentially Productive Zones:

None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, L.L.C.
Threaded Needle Federal SWD #1
689' FNL, 1319' FWL
Sec. 17, T26S, R33E, Lea Co. NM
Lat 32.0489125 N, Lon 103.5985606° W
GL 3253', RKB 3283'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 870'
Cement: 553 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: 4943'
Cement: 1611 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: 12270' ECP/DV Tool: 5043'
Cement: 2108 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)

Intermediate #3 - (Liner)

Hole Size: 8.5" Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 12070'
Depth Btm: 17470'
Cement: 258 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12070' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18857'
Inj. Interval: 17470' - 18857' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17425' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/O Depth: 12070' FJ Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17435' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Threaded Needle Federal SWD #1
689' FNL, 1319' FWL
Sec. 17, T26S, R33E, Lea Co. NM
Lat 32.0489125 N, Lon 103.5985606° W
GL 3253', RKB 3283'

Surface - (Conventional)

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Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 870'
Cement: 553 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5"
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Depth Top: Surface
Depth Btm: 4943'
Cement: 1611 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: 12270'
Cement: 2108 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5043'

Intermediate #3 - (Liner)

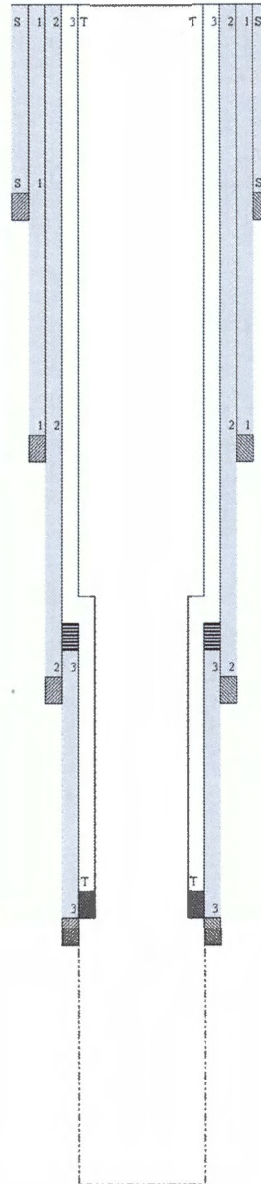
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 12070'
Depth Btm: 17470'
Cement: 258 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12070' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18857'
Inj. Interval: 17470' - 18857' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17425'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12070'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17435'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



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 3,494 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.
Threaded Needle Federal SWD #1
689' FNL, 1319' FWL
Sec. 17, T26S, R33E, Lea Co. NM
Lat 32.0489125 N, Lon 103.5985606° W
GL 3253', RKB 3283'

GEOLOGY PROGNOSIS			
FORMATION	TOP	BOTTOM	THICKNESS
	KB TVD (ft)	KB TVD (ft)	(ft)
Salt	1,179	4,678	3,499
Delaware	4,918	8,991	4,073
Bone Spring	8,991	12,220	3,229
Wolfcamp	12,220	13,180	960
Lwr. Mississippian	16,868	17,268	400
Woodford	17,268	17,435	167
Devonian	17,435	18,395	960
Fusselman (Silurian)	18,395	18,882	487
Montoya (U. Ordovician)	18,882	19,653	771
Simpson (M. Ordovician)	19,653	20,235	582

2. According to the New Mexico Office of the State Engineer and field exploration, there are NO fresh water wells drilled within the proposed well's one-mile area of review. Regionally, shallow fresh water is known to exist at depths less than 750'. 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 and field exploration, there are NO fresh water wells drilled 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 April 15, 2019
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

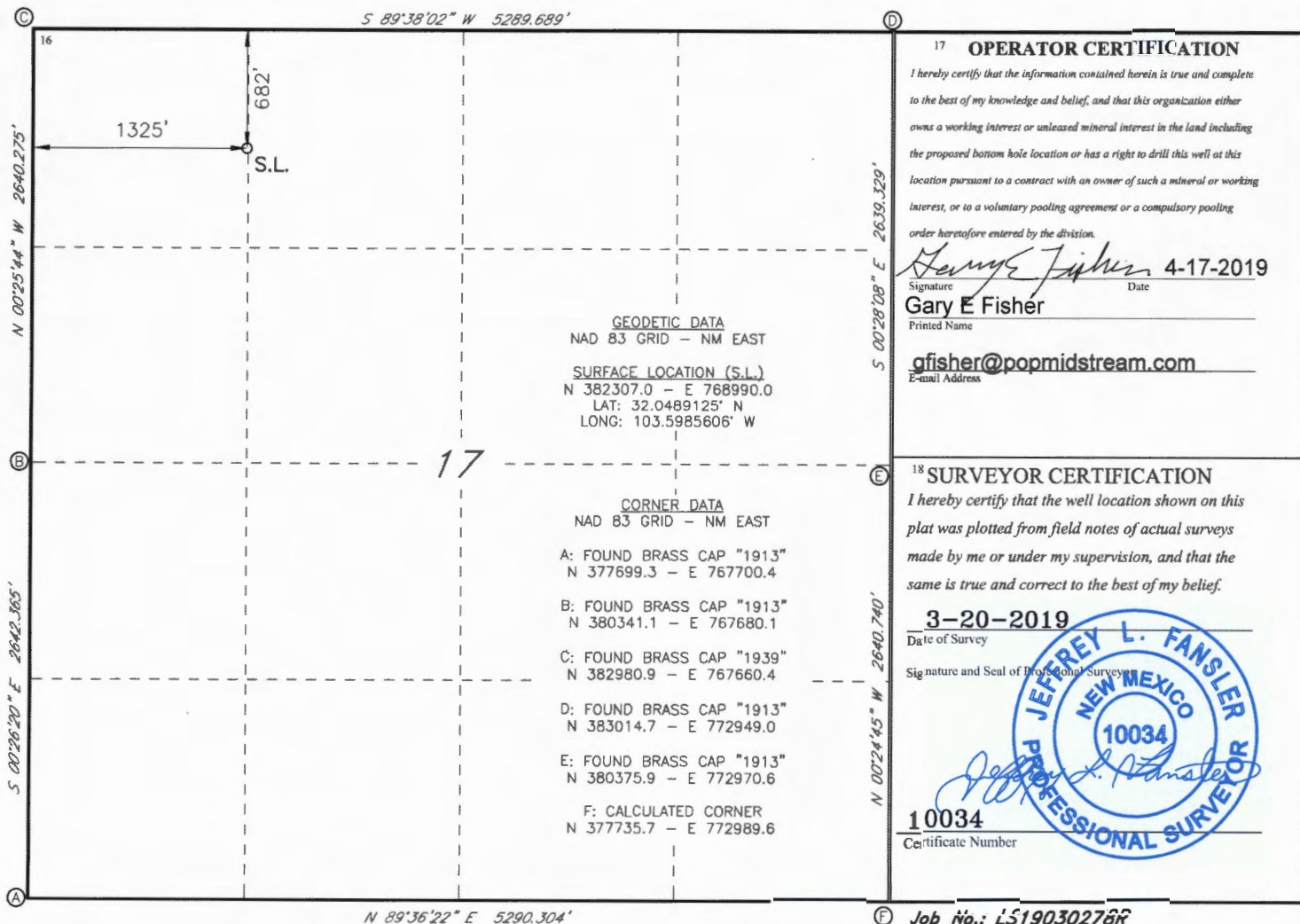
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-	² Pool Code 97869	³ Pool Name SWD; DEVONIAN-SILURIAN
⁴ Property Code	⁵ Property Name THREADED NEEDLE FEDERAL SWD	⁶ Well Number 1
⁷ GRID NO. 328259	⁸ Operator Name PERMIAN OILFIELD PARTNERS, LLC	⁹ Elevation 3253'

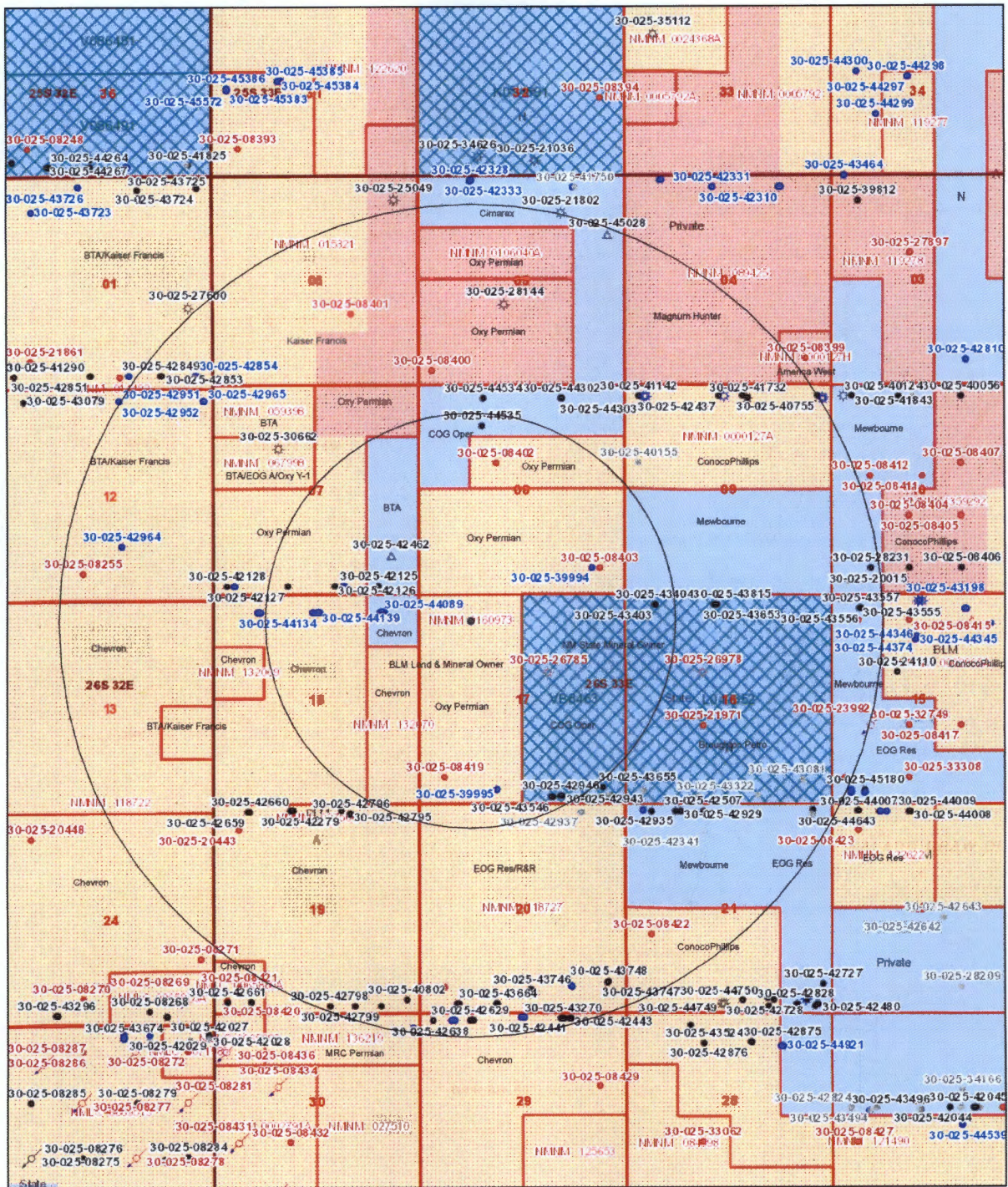
¹⁰ Surface Location									
UL or lot no. D	Section 17	Township 26S	Range 33E	Lot Idn	Feet from the 689	North/South line NORTH	Feet From the 1319	East/West line WEST	County LEA

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.

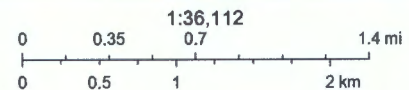


1 & 2 Mile AOR, Threaded Needle Federal SWD #1



5/3/2019, 10:00:21 AM

- 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.,
 GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,
 Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c)

New Mexico Oil Conservation Division

Threaded Needle Federal SWD #1 - Wells within 1 Mile Area of Review

API Number	Current Operator	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-025-08402	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	08	T26S	R33E	P	F-08-26S-33E 1980 FNL 1980 FNL	F-08-26S-33E 1980 FNL 1980 FNL	DELAWARE	4898	4898
30-025-08403	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	08	T26S	R33E	P	P-08-26S-33E 660 FSL 660 FSL	P-08-26S-33E 660 FSL 660 FSL	DELAWARE	5005	5005
30-025-08419	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	17	T26S	R33E	M	M-17-26S-33E 660 FSL 660 FSL	M-17-26S-33E 660 FSL 660 FSL	DELAWARE	4984	4984
30-025-26785	COG OPERATING LLC	STATE GR	#001	Gas	Vertical	Plugged, Not Released	17	T26S	R33E	G	G-17-26S-33E 1980 FNL 1980 FNL	G-17-26S-33E 1980 FNL 1980 FNL	MORROW	15914	15914
30-025-39994	OCCIDENTAL PERMIAN LTD	OPL ZACK 8 FEDERAL	#001	Oil	Vertical	New	08	T26S	R33E	P	P-08-26S-33E 660 FSL 660 FSL	P-08-26S-33E 660 FSL 660 FSL	WOLFCAMP	14500	14500
30-025-39995	OCCIDENTAL PERMIAN LTD	OPL ZACK 17 FEDERAL	#001	Oil	Vertical	New	17	T26S	R33E	N	N-17-26S-33E 330 FSL 1980 FNL	N-17-26S-33E 330 FSL 1980 FNL	WOLFCAMP	14500	14500
30-025-47125	BITA OIL PRODUCERS, LLC	MESA B 8115 JV P COM	#002H	Oil	Horizontal	Active	07	T26S	R33E	P	P-07-26S-33E 190 FSL 1050 FSL	P-07-26S-33E 330 FSL 453 FSL	BONE SPRING	13728	9164
30-025-47126	BITA OIL PRODUCERS, LLC	MESA B 8115 JV P COM	#003H	Oil	Horizontal	Active	07	T26S	R33E	O	O-07-26S-33E 190 FSL 1050 FSL	O-07-26S-33E 330 FSL 453 FSL	BONE SPRING	13728	9164
30-025-47127	BITA OIL PRODUCERS, LLC	MESA B 8115 JV P COM	#004H	Oil	Horizontal	Active	07	T26S	R33E	N	N-07-26S-33E 362 FNL 1880 FNL	N-07-26S-33E 362 FNL 2192 FNL	BONE SPRING	14089	9188
30-025-47943	COG OPERATING LLC	VAST STATE	#003H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 1620 FSL	O-17-26S-33E 180 FSL 988 FSL	BONE SPRING	14200	9185
30-025-47945	COG OPERATING LLC	VAST STATE	#004H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 1620 FSL	O-17-26S-33E 248 FNL 1643 FNL	BONE SPRING	13893	9155
30-025-47946	COG OPERATING LLC	VAST STATE	#005H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 1620 FSL	O-17-26S-33E 330 FNL 2310 FNL	BONE SPRING	14097	9155
30-025-43402	EOG RESOURCES INC	BRASWELL 16 STATE	#707H	Oil	Horizontal	Active	16	T26S	R33E	D	D-16-26S-33E 270 FNL 800 FNL	D-16-26S-33E 156 FSL 1208 FNL	WOLFCAMP	16945	12198
30-025-43403	EOG RESOURCES INC	BRASWELL 16 STATE	#708H	Oil	Horizontal	Active	16	T26S	R33E	D	D-16-26S-33E 270 FNL 800 FNL	D-16-26S-33E 213 FSL 776 FNL	WOLFCAMP	16945	12225
30-025-43404	EOG RESOURCES INC	BRASWELL 16 STATE	#709H	Oil	Horizontal	Active	16	T26S	R33E	D	D-16-26S-33E 270 FNL 800 FNL	D-16-26S-33E 248 FSL 353 FNL	WOLFCAMP	16945	12258
30-025-44088	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL COM P15	#018H	Oil	Horizontal	New	18	T26S	R33E	A	A-18-26S-33E 453 FNL 953 FNL	A-18-26S-33E 180 FSL 1150 FSL	WOLFCAMP	23000	12213
30-025-44089	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL COM P15	#017H	Oil	Horizontal	New	18	T26S	R33E	A	A-18-26S-33E 453 FNL 953 FNL	P-19-26S-33E 180 FSL 740 FNL	WOLFCAMP	23000	12213
30-025-44090	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL COM P15	#018H	Oil	Horizontal	New	18	T26S	R33E	A	A-18-26S-33E 453 FNL 953 FNL	P-18-26S-33E 180 FSL 330 FNL	BONE SPRING	14900	9300
30-025-44091	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL COM P15	#020H	Oil	Horizontal	New	18	T26S	R33E	B	B-18-26S-33E 455 FNL 2500 FNL	N-19-26S-33E 180 FSL 2490 FNL	WOLFCAMP	23000	12213
30-025-44132	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL P14	#012H	Oil	Horizontal	New	18	T26S	R33E	B	B-18-26S-33E 455 FNL 2500 FNL	N-19-26S-33E 180 FSL 2490 FNL	WOLFCAMP	23000	12213
30-025-44133	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL P14	#013H	Oil	Horizontal	New	18	T26S	R33E	B	B-18-26S-33E 455 FNL 2500 FNL	O-19-26S-33E 180 FSL 1964 FNL	WOLFCAMP	23000	12213
30-025-44134	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL P14	#014H	Oil	Horizontal	New	18	T26S	R33E	B	B-18-26S-33E 455 FNL 2500 FNL	O-19-26S-33E 180 FSL 180 FSL	WOLFCAMP	23000	12213
30-025-44139	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL P14	#015H	Oil	Horizontal	New	18	T26S	R33E	B	B-18-26S-33E 455 FNL 2500 FNL	O-19-26S-33E 180 FSL 180 FSL	WOLFCAMP	23000	12213
30-025-44167	CHEVRON U.S.A INC	SD EA 18 19 FEDERAL COM P15	#019H	Oil	Horizontal	New	18	T26S	R33E	A	A-18-26S-33E 360 FNL 1620 FNL	P-19-26S-33E 180 FSL 967 FNL	WOLFCAMP	23000	12523
30-025-44535	COG OPERATING LLC	TIGERCAT FEDERAL COM	#004H	Oil	Horizontal	Active	08	T26S	R33E	C	C-08-26S-33E 360 FNL 1620 FNL	M-08-26S-33E 215 FSL 967 FNL	BONE SPRING	15066	10303
30-025-44888	BITA OIL PRODUCERS, LLC	MESA B 8115 7	#008H	Oil	Horizontal	New	07	T26S	R33E	O	O-07-26S-33E 200 FSL 1928 FNL	B-07-26S-33E 50 FNL 1980 FNL	BONE SPRING	14597	9774
30-025-44889	BITA OIL PRODUCERS, LLC	MESA B 8115 7	#009H	Oil	Horizontal	New	07	T26S	R33E	O	O-07-26S-33E 200 FSL 1928 FNL	A-07-26S-33E 50 FNL 1660 FNL	BONE SPRING	14899	9774
30-025-42462	BITA OIL PRODUCERS, LLC	MESA B SWD 8115 JV P	#002	Sit Water Disposal	Vertical	Active	07	T26S	R33E	P	P-07-26S-33E 1000 FSL 860 FSL	P-07-26S-33E 1000 FSL 860 FSL	DELAWARE	7019	7019
30-025-43545	COG OPERATING LLC	VAST STATE	#024H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 1995 FNL	B-17-26S-33E 360 FNL 1687 FNL	WOLFCAMP	17272	12271
30-025-43546	COG OPERATING LLC	VAST STATE	#025H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 2030 FNL	B-17-26S-33E 300 FNL 1980 FNL	WOLFCAMP	17008	12188
30-025-43547	COG OPERATING LLC	VAST STATE	#026H	Oil	Horizontal	Active	17	T26S	R33E	O	O-17-26S-33E 210 FSL 2065 FNL	B-17-26S-33E 204 FNL 2271 FNL	WOLFCAMP	17312	12307



Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Threaded Needle Federal SWD #1
Sec. 17, Twp. 26S, Rge. 33E
689' FNL, 1319' FWL
Lea County, NM

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

Threaded Needle Federal SWD #1 - Affected Persons within 1 Mile Area of Review					
Notified Name	Notified Address	Notified City, State, ZIP Code	Shipper	Tracking No.	Mailing Date
COG Operating LLC	600 W. Illinois Ave	Midland, TX 79701	USPS	9414811899561809731750	5/3/2019
Occidental Permian Ltd	P.O. Box 4294	Houston, TX 77210-4294	USPS	9414811899561809731552	5/3/2019
BTA Oil Producers, LLC	104 S. Pecos	Midland, TX 79701	USPS	9414811899561809731217	5/3/2019
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561809731644	5/3/2019
Chevron USA Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561809731842	5/3/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561809731293	5/3/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561809731064	5/3/2019
Mewbourne Oil Company	P.O. Box 5270	Hobbs, NM 88241	USPS	9414811899561809731347	5/3/2019
EOG A Resources Inc	104 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561809185256	5/3/2019
Oxy Y-1 Company	5 Greenway Plaza	Houston, TX 77046	USPS	9414811899561809731538	5/3/2019
R&R Royalty Ltd.	500 N. Shoreline Boulevard, Suite 322	Corpus Christi, TX 78401-0313	USPS	9414811899561809719239	5/3/2019
Broughton Petroleum Inc	1205 Silliman Street	Sealy, TX 77474	USPS	9414811899561809736595	5/3/2019
ConocoPhillips Company	P.O.Box 2197 Office EC3-10-W285	Houston, TX 77252	USPS	9414811899561809731903	5/3/2019
Occidental Permian LP	5 Greenway Plaza Suite 110	Houston, TX 77046-0521	USPS	9414811899561809731422	5/3/2019

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

Date: 5-3-2019

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7317 50

ARTICLE ADDRESSED TO:

COG Operating LLC
600 W Illinois Ave
Midland TX 79701-4882

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7315 52

ARTICLE ADDRESSED TO:

Occidental Permian Ltd
PO Box 4294
Houston TX 77210-4294

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7312 17

ARTICLE ADDRESSED TO:

BTA Oil Producers, LLC
104 S. Pecos St
Midland TX 79701-5021

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7316 44

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7318 42

ARTICLE ADDRESSED TO:

Chevron USA
6301 Deauville
Midland TX 79706-2964

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7312 93

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

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7310 64

ARTICLE ADDRESSED TO:

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

FEES

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7313 47

ARTICLE ADDRESSED TO:

Mewbourne Oil Co.
PO Box 5270
Hobbs NM 88241-5270

FEES

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 1852 96

ARTICLE ADDRESSED TO:

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

FEES

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7315 38

ARTICLE ADDRESSED TO:

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

FEES

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1809 7192 39

ARTICLE ADDRESSED TO:

R&R Royalty Ltd.
500 N. Shoreline Boulevard Suite 322
Corpus Christi TX 78401-0313

FEES

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



U.S. Postal Service Certified Mail Receipt

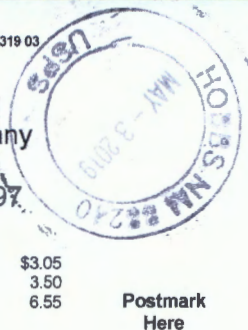
ARTICLE NUMBER: 9414 8118 9956 1809 7319 03

ARTICLE ADDRESSED TO:

ConocoPhillips Company
PO Box 2197
Houston TX 77252-2197

FEES

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



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

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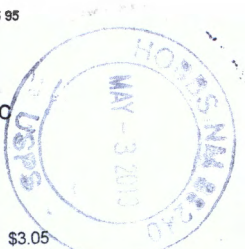
ARTICLE ADDRESSED TO:

Broughton Petroleum Inc
1205 Silliman Street
Sealy TX 77474-3513

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55



Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1808 7314 22

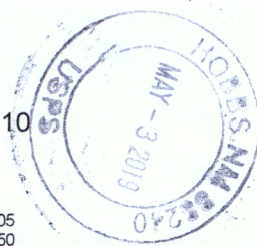
ARTICLE ADDRESSED TO:

Occidental Permian LP
5 Greenway Plaza, Suite 110
Houston TX 77046-0521

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55



Postmark
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Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

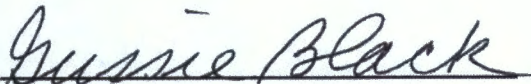
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
April 24, 2019
and ending with the issue dated
April 24, 2019.



Publisher

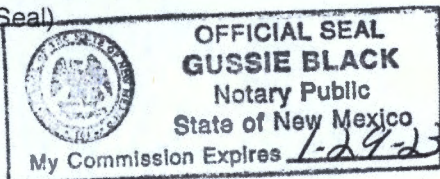
Sworn and subscribed to before me this
24th day of April 2019.



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 24, 2019

Newspaper Publication
Notice

Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817)806-7630, 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 Threaded Needle Federal SWD #1, and is located 689' FNL & 1319' FWL, Unit Letter D, Section 17, Township 26 South, Range 33 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,470 feet to 18,857 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,494 psi.

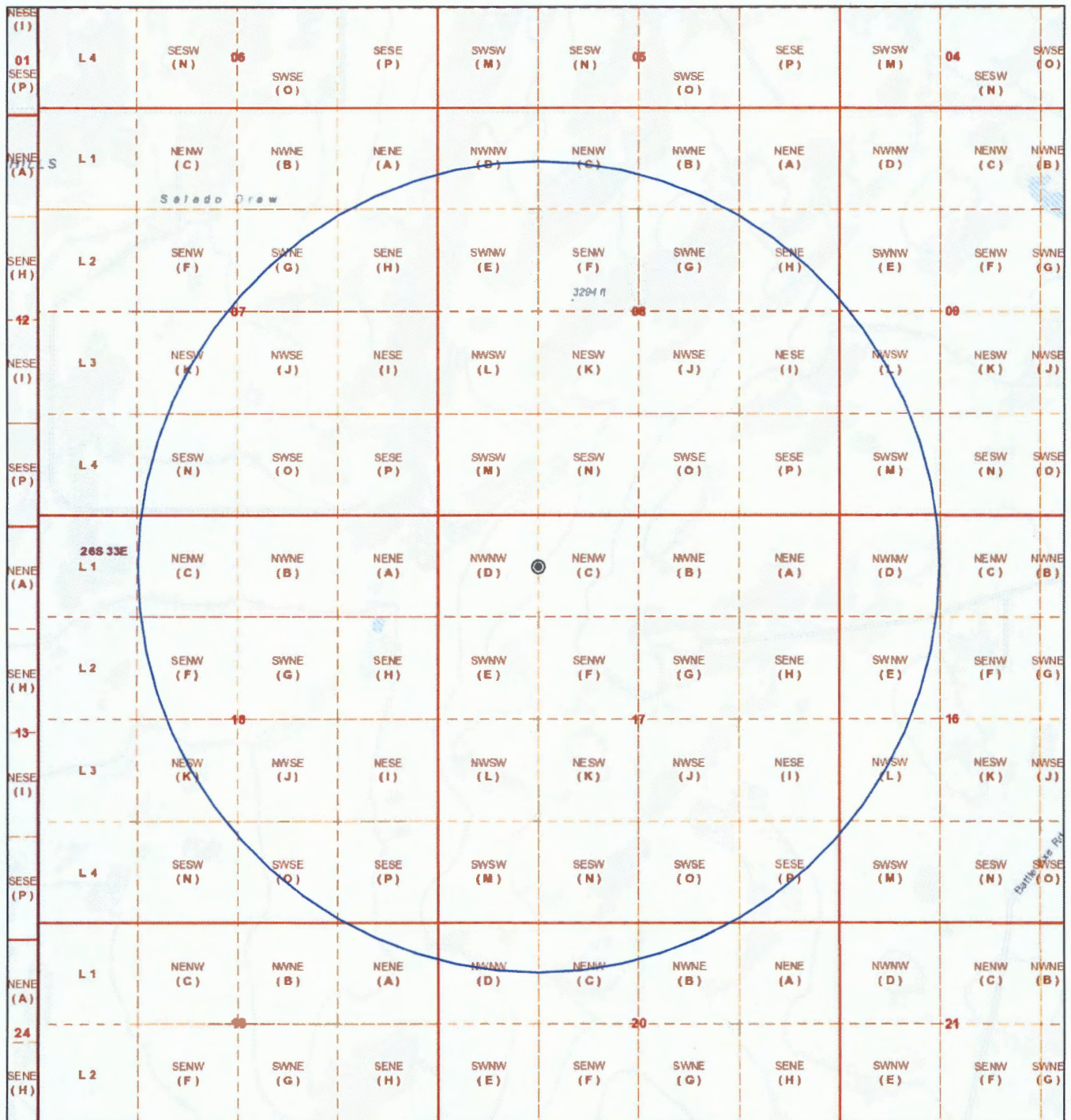
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.
#34067

67115647

00227375

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

Threaded Needle Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 11:33:23 AM

Override 1

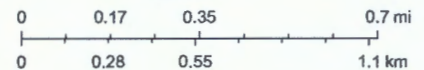
Override 1

PLSS First Division

PLSS Second Division

PLSS Townships

1:18,056



Sources: Esri, 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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02270		CUB	LE	1	1	2	27	26S	33E	636063	3543722	150	125	25
C 02273		CUB	LE	1	2	21	26S	33E	634549	3545134*		160	120	40
C 02285 POD1		CUB	LE	1	4	4	03	26S	33E	636613	3548855	220	220	0
C 02286		CUB	LE	3	4	4	03	26S	33E	636470	3548714	220	175	45
C 02287		C	LE	3	4	4	03	26S	33E	636427	3548708	220		
C 02288		CUB	LE	4	4	4	03	26S	33E	636646	3548758	220	180	40
C 02289		CUB	LE	4	4	4	03	26S	33E	636612	3548675*	200	160	40
C 02290		CUB	LE	4	4	4	03	26S	33E	636538	3548770	200	160	40
C 02293		CUB	LE	2	2	1	14	26S	33E	637501	3546975	200	135	65
C 02294		CUB	LE	4	4	3	11	26S	33E	637465	3547003	200	145	55
C 02295		CUB	LE	2	2	4	12	26S	33E	639850	3547710*	250	200	50
C 03577 POD1		CUB	LE	3	3	3	22	26S	33E	636010	3543771	750	110	640
C 03596 POD1		C	LE	3	3	4	22	26S	33E	636017	3543756	225		

Average Depth to Water: **157 feet**

Minimum Depth: **110 feet**

Maximum Depth: **220 feet**

Record Count: 13

PLSS Search:

Township: 26S **Range:** 33E

*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 OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/22/19 9:10 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Threaded Needle Federal SWD #1
Sec. 17, Twp. 26S, Rge. 33E
689' FNL, 1319' FWL
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 circular stamp.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/24/2019

**Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Threaded Needle Federal SWD #1
SL: 689' FNL & 1319' FWL
Sec 17, T26S, R33E
Lea County, New Mexico**

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Threaded Needle Federal SWD #1
689' FNL, 1319' FWL
Sec. 17, T26S, R33E, Lea Co. NM
Lat 32.0489125 N, Lon 103.5985606° W
GL 3253', RKB 3283'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 870'
Cement: 553 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: 4943'
Cement: 1611 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: 12270'
Cement: 2108 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5043'

Intermediate #3 - (Liner)

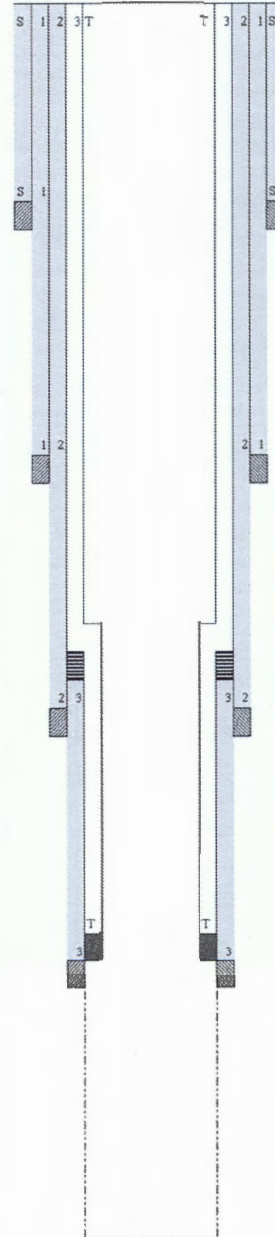
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 12070'
Depth Btm: 17470'
Cement: 258 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12070' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18857'
Inj. Interval: 17470' - 18857' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17425'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12070'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17435'
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)		5 1/2"	6 1/4"	7"	7 1/4"
Maximum Catch Size (Basket)		5 1/2"	6 1/4"	6 3/4"	6 5/8"
Overshot O.D.		8 1/4"	7 7/8"	8 1/2"	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	280

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	Q228	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% to 5% inclusive

Maximum Catch Size (Spiral)		4%	4%	4%	4%	5	5	5%
Maximum Catch Size (Basket)		3%	4%	4%	4%	4%	4%	4%
Overshot O.D.		5%	5%	5%	5%	5%	5%	5%
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5899	5898	C-5168	8975	C-5171	C-4825	8825
(Dressed Spiral Parts)	Weight	130	130	133	138	140	102	185

Replacement Parts

Top Sub	Part No.	5897	5899	A-5168	8975	A-5172	B-4826	8826
Bowl	Part No.	5898	5700	B-5170	8977	B-5173	B-4827	8817
Packer	Part No.	189	1140	B-2190	8114	L-5950	L-4505	8818
Spiral Grapple	Part No.	185	1135	B-2201	8112	B-4369	M-1071	8819
Spiral Grapple Control	Part No.	188	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.	185	1135	B-2201	8112	B-4369	M-1071	8819
Basket Grapple Control	Part No.	188	1137	B-2202	8113	B-4370	M-1072	8820
Mill Control Packer	Part No.	189-R	1140-R	B-2190-R	8114-R	L-5950-R	M-4505	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)	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

*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.

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
Threaded Needle Federal SWD #1
Sec. 17, Twp. 26S, Rge. 33E
689' FNL, 1319' FWL
Lea County, NM

April 17, 2019

STATEMENT REGARDING SEISMICITY

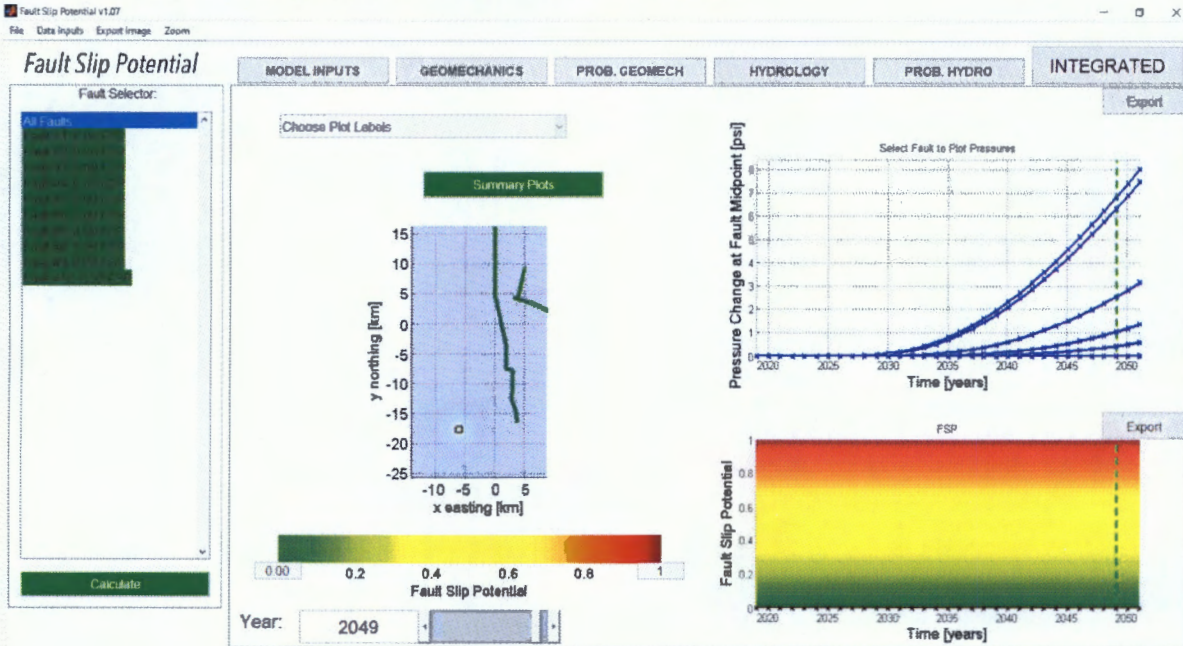
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 15.20 miles away @ 9.35 deg heading
2. M3.1, 2012-03-18, 23.56 miles away @ 313.26 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. Basement PreCambrian 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.
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.
- 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.
 - 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 2.39 miles away from the nearest active or permitted Devonian disposal well.

Greg E. Fisher

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