

Initial Application Part I

*This application is placed in file for record. It MAY or MAY NOT have been
reviewed to be determined Administratively Complete*

RECEIVED: 4/30/2019	REVIEWER:	TYPE: SWD	APP NO: DMA19128 54652
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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:** Crossfire 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 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

Date

04/26/2019

(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
Crossfire Federal SWD #1
Sec. 18, Twp. 25S, Rge. 33E
1328' FNL, 250' FEL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Crossfire Federal SWD #1 located in Sec 18, Twp 25S, 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,



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: **4-25-2019**
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: _____

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 15,202'

Underlying Potentially Productive Zones:

None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Crossfire Federal SWD #1
1328' FNL, 250' FEL
Sec. 18, T25S, R33E, Lea Co. NM
Lat 32.1342088° N, Lon 103.6036447° W
GL 3468', RKB 3498'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1046'
Cement: 687 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: 4900'
Cement: 1621 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: 12149' ECP/DV Tool: 5000'
Cement: 2089 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: 11949'
Depth Btm: 17415'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11949' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18922'
Inj. Interval: 17415' - 18922' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17370' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/O Depth: 11949' FJ Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17380' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Crossfire Federal SWD #1
1328' FNL, 250' FEL
Sec. 18, T25S, R33E, Lea Co. NM
Lat 32.1342088° N, Lon 103.6036447° W
GL 3468', RKB 3498'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1046'
Cement: 687 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

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Depth Top: Surface
Depth Btm: 4900'
Cement: 1621 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: 12149'
Cement: 2089 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5000'

Intermediate #3 - (Liner)

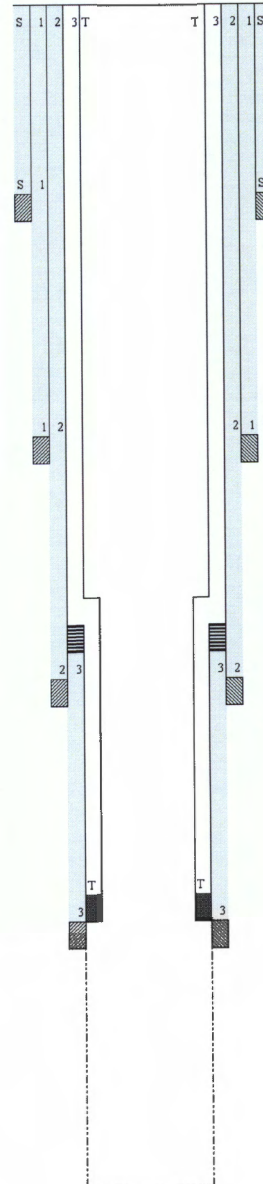
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11949'
Depth Btm: 17415'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11949' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18922'
Inj. Interval: 17415' - 18922' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17370'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11949'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17380'
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 BWPDP
The maximum injected volume anticipated is 50,000 BWPDP
2. Injection will be through a closed system
3. The average injection pressure anticipated is 2,000 psi
The proposed maximum injection pressure is 3,483 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.
 Crossfire Federal SWD #1
 1328' FNL, 250' FEL
 Sec. 18, T25S, R33E, Lea Co. NM
 Lat 32.1342088° N, Lon 103.6036447° W
 GL 3468', RKB 3498'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,365	4,656	3,291
Delaware	4,875	9,028	4,153
Bone Spring	9,028	12,099	3,071
Wolfcamp	12,099	13,196	1,097
Lwr. Mississippian	16,894	17,207	313
Woodford	17,207	17,380	173
Devonian	17,380	18,367	987
Fusselman (Silurian)	18,367	18,947	580
Montoya (U. Ordovician)	18,947	19,589	642
Simpson (M. Ordovician)	19,589	20,169	580

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 625'. 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. No sampling was obtained.
- 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 CROSSFIRE FEDERAL SWD		⁶ Well Number 1
⁷ GRID NO. 328259	⁸ Operator Name PERMIAN OILFIELD PARTNERS LLC		⁹ Elevation 3468'

¹⁰ Surface Location

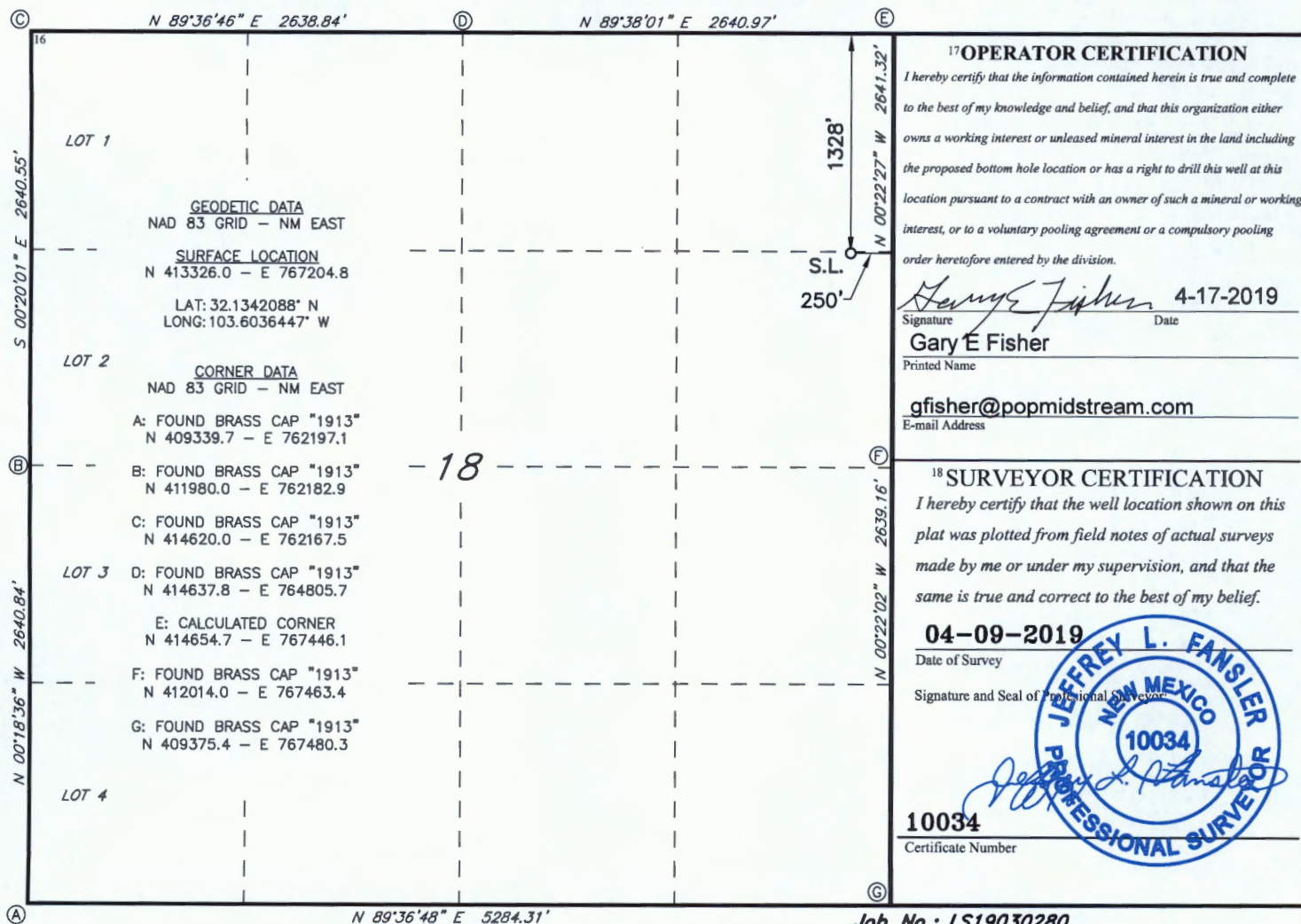
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	18	25S	33E		1328	NORTH	250	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

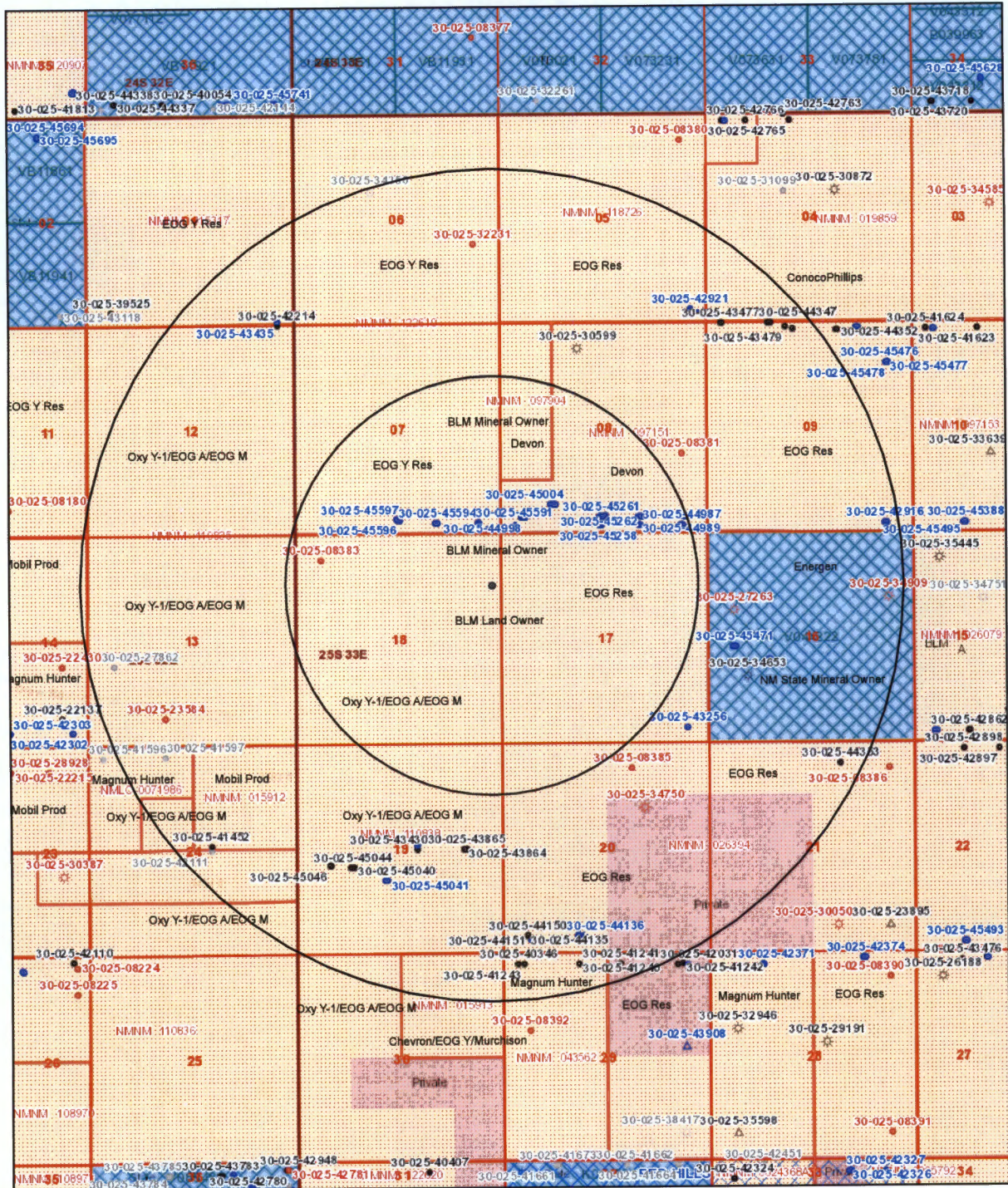
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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, Crossfire Federal SWD #1



4/20/2019, 8:42:01 PM

Override 1

Well Locations - Small Scale

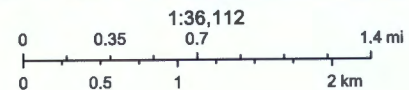
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

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

New Mexico Oil Conservation Division

Crossfire 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	Old Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD		
30-025-08383	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	18	T25S	R33E	D	D-18-25S-33E Lot: 1	660 FSL 660 FWL	D-18-25S-33E Lot: 1	660 FSL 660 FWL	DELAWARE	5080	5080
30-025-44980	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#006H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 320 FWL	M-08-25S-33E 380 FSL 360 FWL	BONE SPRING	17027	12370		
30-025-44981	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#023H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 550 FWL	P-08-25S-33E 380 FSL 360 FWL	BONE SPRING	14709	10425		
30-025-44982	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#013H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 640 FWL	P-08-25S-33E 380 FSL 360 FWL	BONE SPRING	14684	12300		
30-025-44983	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#015H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 700 FSL 1385 FWL	N-08-25S-33E 380 FSL 1880 FWL	BONE SPRING	15494	10500		
30-025-44984	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#017H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 610 FWL	P-08-25S-33E 380 FSL 360 FWL	BONE SPRING	15312	10500		
30-025-44985	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#023H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 530 FWL	M-08-25S-33E 380 FSL 360 FWL	BONE SPRING	14288	9800		
30-025-44986	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#032H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 380 FSL 2540 FWL	N-08-25S-33E 380 FSL 1880 FWL	BONE SPRING	14050	9575		
30-025-44987	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#005H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 670 FWL	P-08-25S-33E 380 FSL 360 FWL	WOLF CAMP	17117	12350		
30-025-44988	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#007H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 180 FSL 2510 FWL	N-08-25S-33E 380 FSL 1660 FWL	WOLF CAMP	17039	12370		
30-025-44989	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#008H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 1770 FWL	O-08-25S-33E 380 FSL 2300 FWL	BONE SPRING	15419	10500		
30-025-44990	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#014H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 560 FWL	M-08-25S-33E 380 FSL 380 FWL	BONE SPRING	14934	10400		
30-025-44991	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#018H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 360 FWL	M-08-25S-33E 380 FSL 380 FWL	BONE SPRING	14963	10400		
30-025-44992	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#021H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 700 FSL 1295 FWL	O-08-25S-33E 380 FSL 1500 FWL	BONE SPRING	14963	10400		
30-025-44993	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#029H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 1650 FWL	O-08-25S-33E 380 FSL 1500 FWL	BONE SPRING	14256	9800		
30-025-44994	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#030H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 580 FWL	P-08-25S-33E 380 FSL 775 FWL	BONE SPRING	14079	9600		
30-025-44995	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#038H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 620 FWL	M-08-25S-33E 380 FSL 775 FWL	BONE SPRING	14079	9600		
30-025-44996	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#039H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 700 FWL	P-08-25S-33E 380 FSL 775 FWL	BONE SPRING	14091	9575		
30-025-44997	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#034H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 590 FWL	M-08-25S-33E 380 FSL 1190 FWL	BONE SPRING	14104	9575		
30-025-44998	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#038H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 700 FSL 1325 FWL	N-08-25S-33E 380 FSL 1190 FWL	BONE SPRING	13895	9575		
30-025-44999	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#041H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 670 FWL	P-08-25S-33E 380 FSL 776 FWL	BONE SPRING	13887	9575		
30-025-45000	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#038H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 350 FWL	M-08-25S-33E 380 FSL 980 FWL	WOLF CAMP	17143	12450		
30-025-45001	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#029H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 180 FSL 2630 FWL	N-08-25S-33E 380 FSL 980 FWL	BONE SPRING	14800	10025		
30-025-45002	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#031H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 700 FSL 1335 FWL	N-08-25S-33E 380 FSL 1605 FWL	BONE SPRING	14104	9575		
30-025-45003	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#033H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 1770 FWL	O-08-25S-33E 380 FSL 2020 FWL	BONE SPRING	14050	9575		
30-025-45004	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#023H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 380 FSL 2600 FWL	N-08-25S-33E 380 FSL 2435 FWL	BONE SPRING	14343	9600		
30-025-45094	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#024H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 180 FSL 1265 FWL	P-08-25S-33E 380 FSL 980 FWL	WOLF CAMP	17030	12270		
30-025-45095	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#024H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 380 FSL 700 FSL 1265 FWL	M-08-25S-33E 380 FSL 1190 FWL	BONE SPRING	14349	9600		
30-025-45162	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#011H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 180 FSL 1710 FWL	N-08-25S-33E 380 FSL 2300 FWL	BONE SPRING	16962	12300		
30-025-45163	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#012H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 640 FWL	O-08-25S-33E 380 FSL 1660 FWL	BONE SPRING	16824	12300		
30-025-45164	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL COM	#010H	Oil	Horizontal	New	08	T25S	R33E	P	P-08-25S-33E 380 FSL 380 FWL	P-08-25S-33E 380 FSL 380 FWL	BONE SPRING	14154	9575		
30-025-45218	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#003H	Oil	Horizontal	New	08	T25S	R33E	M	M-08-25S-33E 180 FSL 2540 FWL	M-08-25S-33E 380 FSL 380 FWL	BONE SPRING	16989	12300		
30-025-45257	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#008H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 1740 FWL	O-08-25S-33E 380 FSL 2300 FWL	WOLF CAMP	17143	12450		
30-025-45258	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#004H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 2630 FWL	O-08-25S-33E 380 FSL 1660 FWL	WOLF CAMP	17109	12450		
30-025-45259	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#026H	Oil	Horizontal	New	08	T25S	R33E	O	O-08-25S-33E 380 FSL 2630 FWL	O-08-25S-33E 380 FSL 2435 FWL	BONE SPRING	14309	9800		
30-025-45260	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#038H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 380 FSL 2570 FWL	N-08-25S-33E 380 FSL 1605 FWL	BONE SPRING	13854	9575		
30-025-45261	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#039H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 380 FSL 2570 FWL	N-08-25S-33E 20 FSL 2345 FWL	BONE SPRING	13852	9575		
30-025-45262	DEVON ENERGY PRODUCTION COMPANY, LP	FLAGLER 8 FEDERAL	#040H	Oil	Horizontal	New	08	T25S	R33E	N	N-08-25S-33E 380 FSL 1710 FWL	N-08-25S-33E 380 FSL 1605 FWL	BONE SPRING	13700	9575		
30-025-45590	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#701H	Oil	Horizontal	New	08	T25S	R33E	P	P-07-25S-33E 250 FSL 550 FWL	P-07-25S-33E 380 FSL 100 FSL 990 FWL	WOLF CAMP	22522	12314		
30-025-45591	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#722H	Oil	Horizontal	New	07	T25S	R33E	P	P-07-25S-33E 250 FSL 583 FWL	P-07-25S-33E 380 FSL 100 FSL 990 FWL	WOLF CAMP	22455	12250		
30-025-45592	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#703H	Oil	Horizontal	New	07	T25S	R33E	P	P-07-25S-33E 250 FSL 616 FWL	P-07-25S-33E 380 FSL 100 FSL 1370 FWL	WOLF CAMP	22518	12304		
30-025-45593	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#704H	Oil	Horizontal	New	07	T25S	R33E	O	O-07-25S-33E 250 FSL 1615 FWL	O-07-25S-33E 380 FSL 1370 FWL	WOLF CAMP	22449	12240		
30-025-45594	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#705H	Oil	Horizontal	New	07	T25S	R33E	O	O-07-25S-33E 250 FSL 1648 FWL	O-07-25S-33E 380 FSL 1650 FWL	WOLF CAMP	22501	12294		
30-025-45595	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#706H	Oil	Horizontal	New	07	T25S	R33E	O	O-07-25S-33E 349 FSL 2603 FWL	O-07-25S-33E 380 FSL 1980 FWL	WOLF CAMP	22443	12230		
30-025-45596	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#707H	Oil	Horizontal	New	07	T25S	R33E	O	O-07-25S-33E 349 FSL 2603 FWL	O-07-25S-33E 380 FSL 2309 FWL	WOLF CAMP	22494	12284		
30-025-45597	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#708H	Oil	Horizontal	New	07	T25S	R33E	O	O-07-25S-33E 349 FSL 2636 FWL	O-07-25S-33E 380 FSL 2272 FWL	WOLF CAMP	22494	12284		
30-025-45598	EOG RESOURCES INC	DAUNTLESS 7 FEDERAL	#709H	Oil	Horizontal	New	07	T25S	R33E	N	N-07-25S-33E 349 FSL 2609 FWL	N-07-25S-33E 380 FSL 2190 FWL	WOLF CAMP	22490	12274		



Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Crossfire Federal SWD #1
Sec. 18, Twp. 25S, Rge. 33E
1328' FNL, 250' 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:

Crossfire 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
Devon Energy Production Company, LP	333 West Sheridan Ave.	Oklahoma City, OK 73102	USPS	9414811899561824109855	4/26/2019
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561824109930	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561824109206	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561824109336	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561824109688	4/26/2019
EOG Y Resources Inc	104 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561824109626	4/26/2019
EOG A Resources Inc	105 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561824109879	4/26/2019
Oxy Y-1 Company	5 Greenway Plaza	Houston, TX 77046	USPS	9414811899561824109473	4/26/2019
EOG M Resources Inc	P.O. BOX 840	Artesia, NM 88211	USPS	9414811899561824109909	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 1098 55

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 1099 30

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 1092 06

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 1093 36

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 1096 88

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

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 1096 26

ARTICLE ADDRESSED TO:

EOG Y 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

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 1088 79

ARTICLE ADDRESSED TO:

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

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 1824 1094 73

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**

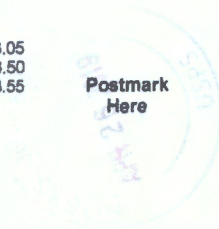
ARTICLE NUMBER: 9414 8118 9956 1824 1099 09

ARTICLE ADDRESSED TO:

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

FEES

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

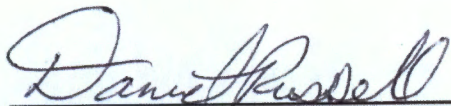


Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

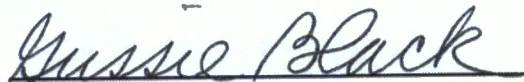
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

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



Publisher

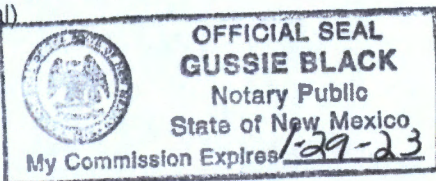
Sworn and subscribed to before me this
24th day of April 2019.



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

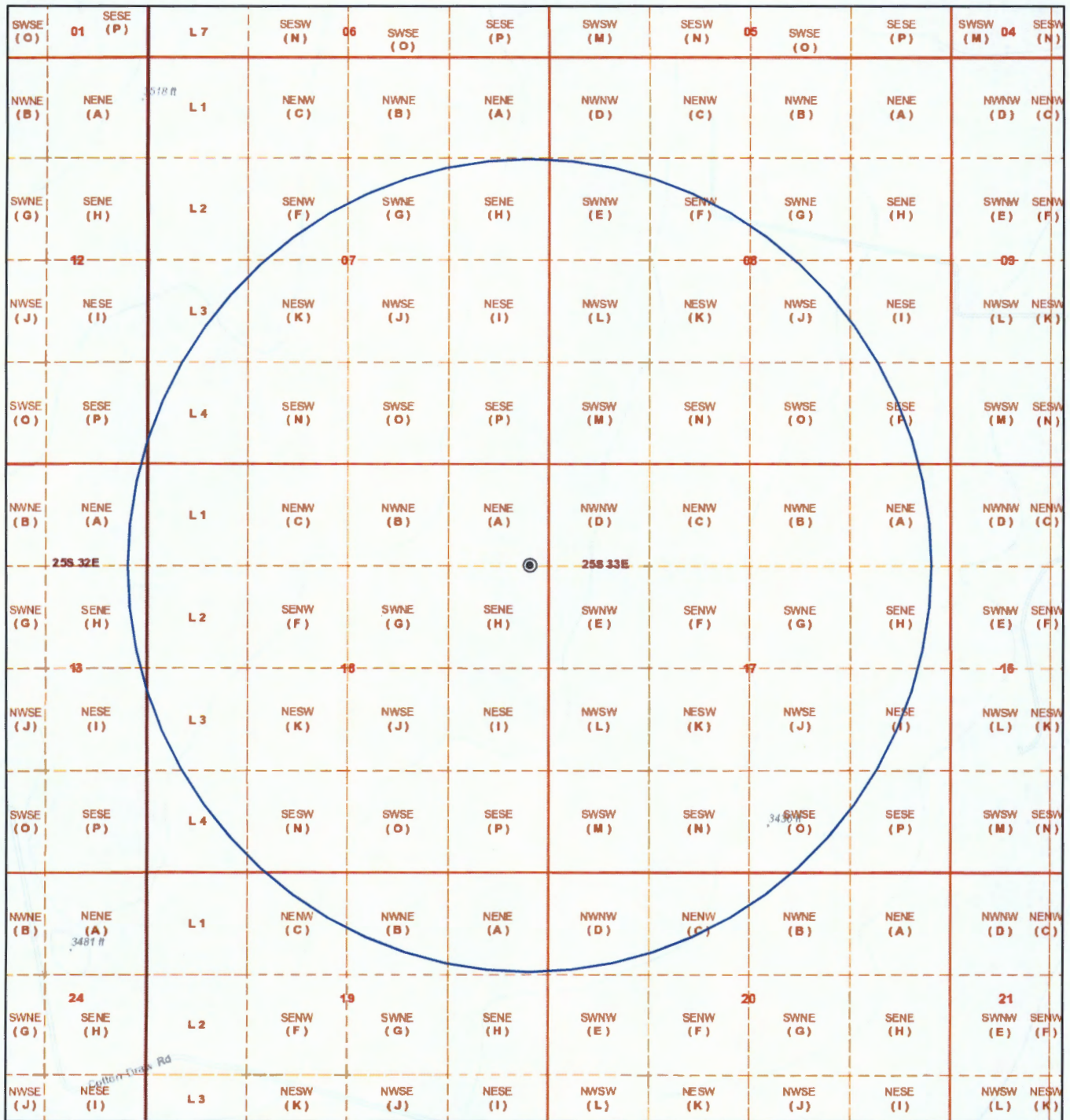
LEGAL NOTICE
APRIL 24, 2019
Newspaper Publication Notice
Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817)606-7630, attention Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Lea County, New Mexico. The well name is the Crossfire Federal SWD #1, and is located 1328' FNL & 250' FEL, Unit Letter H, Section 18, Township 25 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 17,415 feet to 18,922 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,483 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.
#34070

67115647

00227371

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

Crossfire Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 10:03:46 AM

Override 1

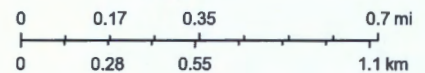
Override 1

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 6	Q 4	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02312		CUB	LE	1	2	1	05	25S	33E	632241	3559687*	150	90	60
C 02313		CUB	LE	2	3	3	26	25S	33E	636971	3552098*	150	110	40
C 02373 CLW317846	O	CUB	LE	2	1	1	13	25S	33E	638518	3556544*	625	185	440
C 02373 S		CUB	LE	1	2	1	13	25S	33E	638721	3556549*	625	185	440

Average Depth to Water: **142 feet**

Minimum Depth: **90 feet**

Maximum Depth: **185 feet**

Record Count: 4

PLSS Search:

Township: 25S

Range: 33E

*UTM location was derived from PLSS - see Help

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

4/20/19 1:41 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Crossfire Federal SWD #1
Sec. 18, Twp. 25S, Rge. 33E
1328' FNL, 250' 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".

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/24/2019

**Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Crossfire Federal SWD #1
SL: 1328' FNL & 250' FEL
Sec 18, T25S, R33E
Lea County, New Mexico**

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Crossfire Federal SWD #1
1328' FNL, 250' FEL
Sec. 18, T25S, R33E, Lea Co. NM
Lat 32.1342088° N, Lon 103.6036447° W
GL 3468', RKB 3498'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1046'
Cement: 687 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: 4900'
Cement: 1621 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: 12149'
Cement: 2089 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5000'

Intermediate #3 - (Liner)

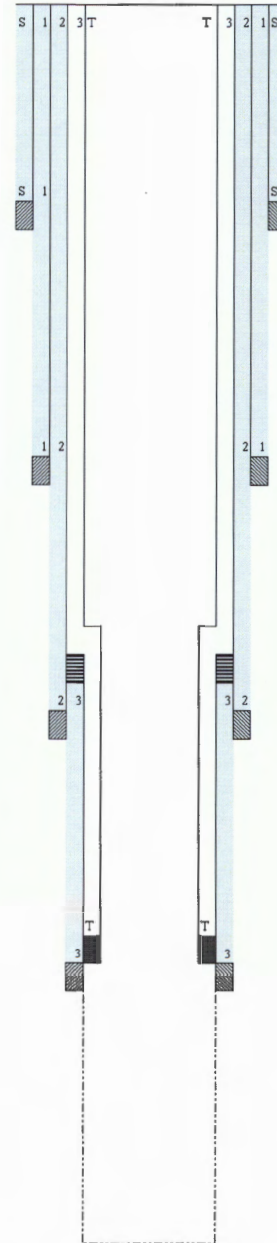
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11949'
Depth Btm: 17415'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11949' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18922'
Inj. Interval: 17415' - 18922' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17370'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11949'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17380'
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 8 5/8" to 7 1/2" Inclusive

Maximum Catch Size (Spiral)		6 5/8"	6 3/4"	7"	7 1/2"
Maximum Catch Size (Basket)		5 3/4"	6 1/4"	6 5/8"	8 5/8"
Overshot O.D.		8 3/4"	7 3/4"	8 1/2"	8 5/8"
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	9217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	280

Replacement Parts

Top Sub	Part No.	A-3033	A-5223	9218	A-5355
Bowl	Part No.	B-3034	B-5224	9219	B-5356
Packer	Part No.	A-1814	B-5225	9224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	9222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Standard Guide	Part No.	A-1818	A-5229	9226	A-5361

Basket Parts

Basket Grapple	Part No.	N-84	B-5227	9222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	9224-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 3/4	4%	4%	4%	4%	4%	4%
Overhaul O.D.		5%	5%	5%	5%	5%	6%	6%
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5898	5898	C-5188	8875	C-5171	C-4825	8825
(Dressed Spiral Parts)	Weight	130	130	133	138	140	182	185

Replacement Parts

Top Sub	Part No.	5897	5899	A-5188	8878	A-5172	B-4826	8826
Bowl	Part No.	5898	5700	B-5170	8877	B-5173	B-4827	8817
Packer	Part No.	189	1140	B-2188	8114	L-5850	L-4505	8818
Spiral Grapple	Part No.	185	1135	B-2201	8112	B-4388	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-4388	M-1071	8819
Basket Grapple Control	Part No.	188	1137	B-2202	8113	B-4370	M-1072	8820
Mill Control Packer	Part No.	188-R	1140-R	B-2188-R	8114-R	L-5850-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 overshoot operation. Details on the overshoot 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.
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.

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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
Crossfire Federal SWD #1
Sec. 18, Twp. 25S, Rge. 33E
1328' FNL, 250' FEL
Lea County, NM

April 16, 2019

STATEMENT REGARDING SEISMICITY

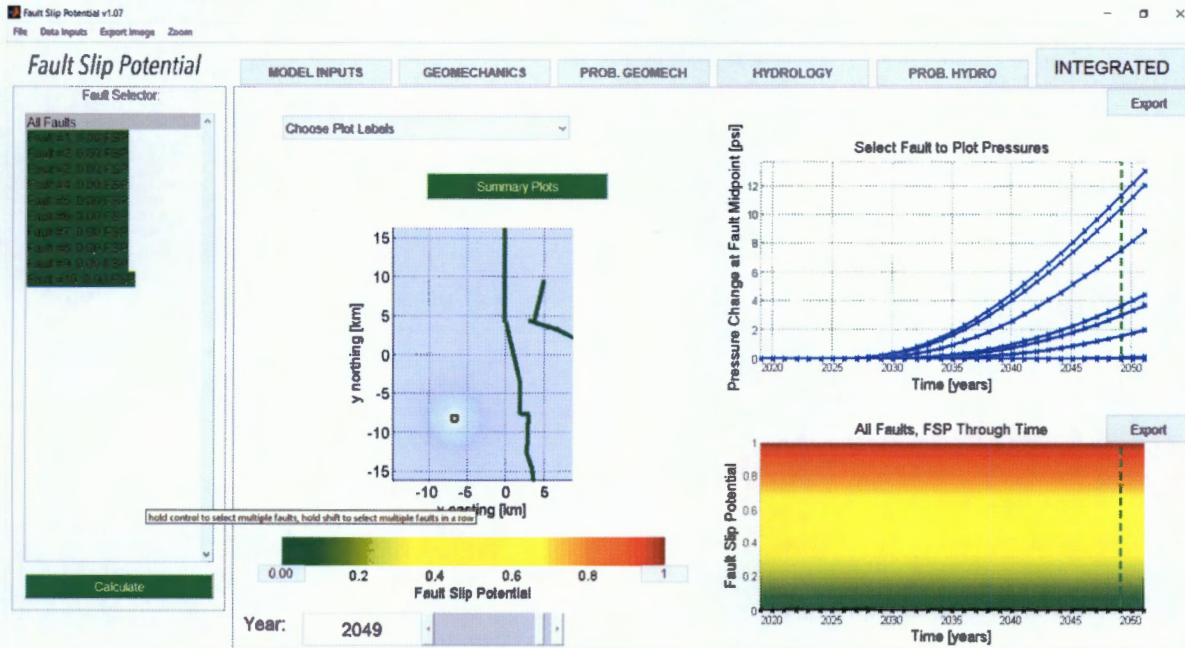
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 9.54 miles away @ 16.94 deg heading
2. M3.1, 2012-03-18, 19.71 miles away @ 301.23 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 2.52 miles away from the nearest active or permitted Devonian disposal well.

Gay E. Fisher

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