

RECEIVED: 4/30/2019	REVIEWER:	TYPE:	APP NO: DMA19126 59680
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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: Big Swig 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
Big Swig Federal SWD #1
Sec. 28, Twp. 26S, Rge. 32E
966' FSL, 250' FWL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Big Swig Federal SWD #1 located in Sec 28, Twp 26S, Rge 32E, Lea County, New Mexico. This well will be completed open hole in the Devonian-Silurian formation and will be operated as a commercial salt water disposal well.

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

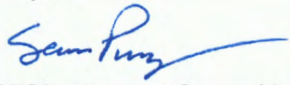
Sincerely,

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:** **4-24-2019**
E-MAIL ADDRESS: **spuryear@popmldstream.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 14,741'

Underlying Potentially Productive Zones:

None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Big Swig Federal SWD #1
966' FSL, 250' FWL
Sec. 28, T26S, R32E, Lea Co. NM
Lat 32.0088254° N, Lon 103.6877989° W
GL 3110', RKB 3140'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 963'
Cement: 624 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: 4391'
Cement: 1466 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: 11749' ECP/DV Tool: 4491'
Cement: 1993 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: 11549'
Depth Btm: 17018'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11549' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18337'
Inj. Interval: 17018' - 18337' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16973' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/O Depth: 11549' FJ Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16983' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Perman Offfield Partners, L.L.C.

Big Swig Federal SWD #1

966' FSL, 250' FWL

Sec. 28, T26S, R32E, Lea Co. NM

Lat 32.0088254° N, Lon 103.6877989° W

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Depth Top: Surface
Depth Btm: 11749'
Cement: 1993 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 4491'

Intermediate #3 - (Liner)

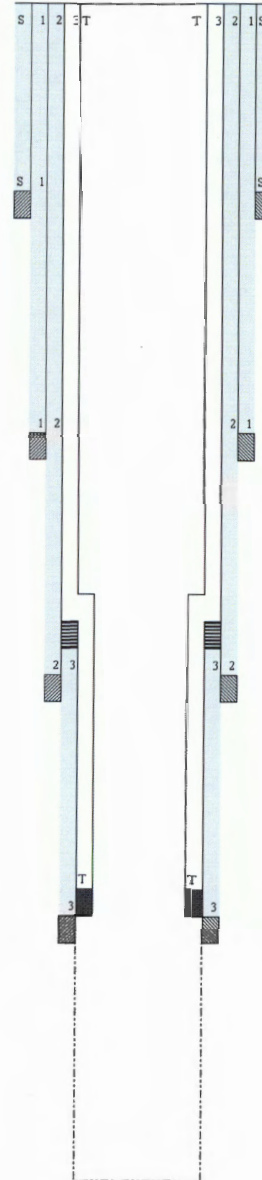
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11549'
Depth Btm: 17018'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11549' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18337'
Inj. Interval: 17018' - 18337' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16973'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11549'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16983'
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 BWPD
The maximum injected volume anticipated is 50,000 BWPD
2. Injection will be through a closed system
3. The average injection pressure anticipated is 2,000 psi
The proposed maximum injection pressure is 3,404 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.
 Big Swig Federal SWD #1
 966' FSL, 250' FWL
 Sec. 28, T26S, R32E, Lea Co. NM
 Lat 32.0088254° N, Lon 103.6877989° W
 GL 3110', RKB 3140'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,345	4,297	2,952
Delaware	4,366	8,603	4,237
Bone Spring	8,603	11,699	3,096
Wolfcamp	11,699	12,580	881
Lwr. Mississippian	16,432	16,734	302
Woodford	16,734	16,983	249
Devonian	16,983	17,846	863
Fusselman (Silurian)	17,846	18,362	516
Montoya (U. Ordovician)	18,362	19,047	685
Simpson (M. Ordovician)	19,047	19,750	703

2. According to both the New Mexico Office of the State Engineer and the Texas Commission on Environmental Quality (TCEQ), 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 646'. There are no underground sources of fresh water present below the injection interval.
- IX:** Formation chemical stimulation with 40,000 gals of 15% Hydrochloric Acid is planned after well completion.
- X:** A compensated neutron/gamma ray log will be run from surface to TD upon well completion. All logs will be submitted to the NMOCD upon completion.
- XI:** According to the New Mexico Office of the State Engineer, there are NO fresh water wells within the proposed well's one-mile area of review.
- XII:** Hydrologic affirmative statement attached.
- XIII:** Proof of notice and proof of publication attached.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-	² Pool Code 97869	³ Pool Name SWD; DEVONIAN-SILURIAN
⁴ Property Code	⁵ Property Name BIG SWIG FEDERAL SWD	
⁷ OGRID NO. 328259	⁸ Operator Name PERMIAN OILFIELD PARTNERS LLC	
		⁶ Well Number 1
		⁹ Elevation 3110'

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
M	28	26S	32E		966	SOUTH	250	WEST	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

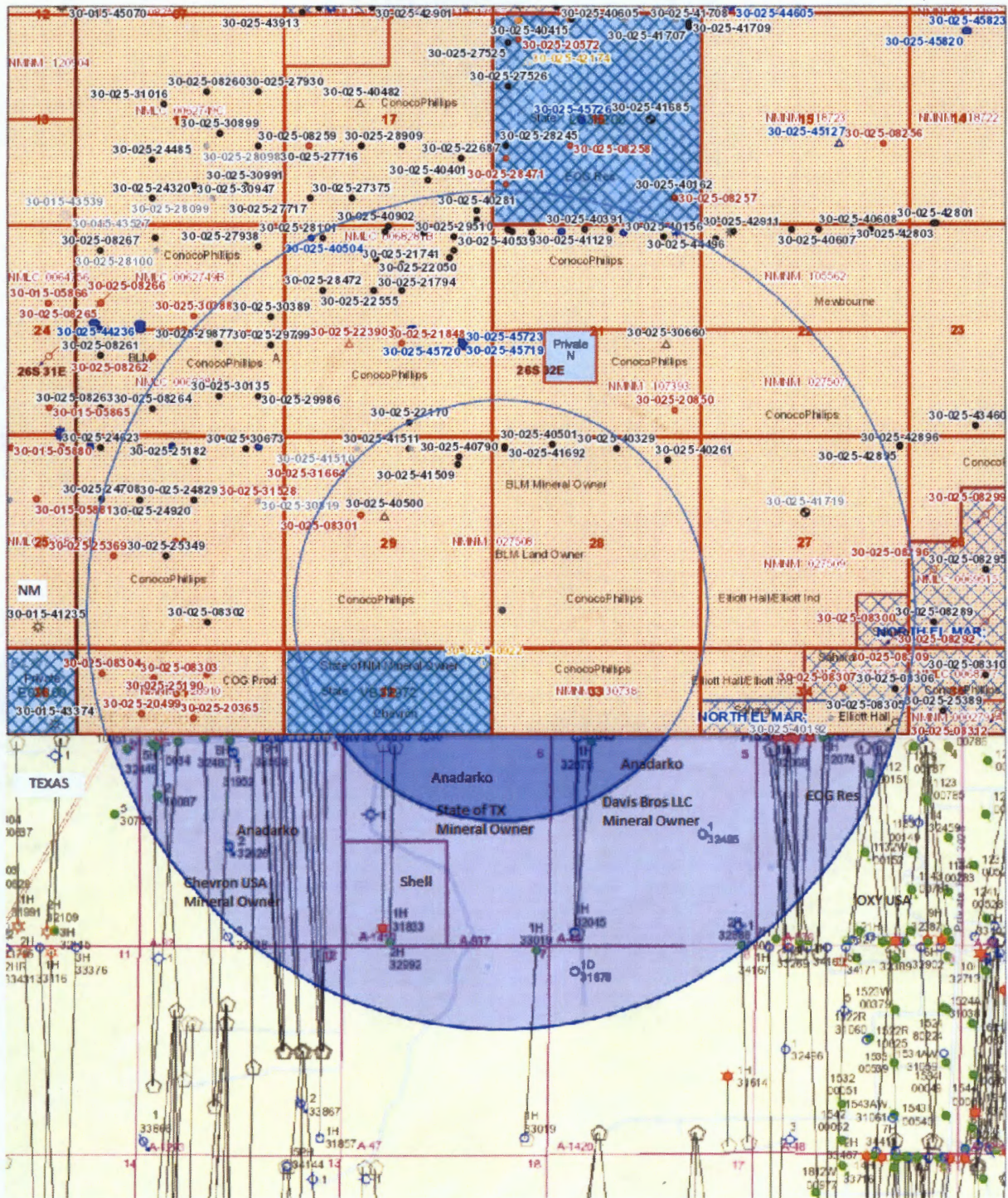
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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.

N 00°23'42" W 2672.89' N 00°18'00" E 2672.61' S 00°18'00" E 2672.61' 966' 250' S.L.	N 89°38'45" E 5346.33' N 89°37'49" E 2669.39' N 89°36'06" E 2671.57'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Gary E Fisher</i> Date: 4-17-2019 Printed Name: Gary E Fisher E-mail Address: gfisher@popmidstream.com
	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 03-29-2019 Date of Survey Signature and Seal of Professional Surveyor 10034 Certificate Number	

Job No.: LS19030270R

1 & 2 Mile AOR Map, Big Swig Federal SWD #1



4/19/2019, 7:49:08 PM

Override 1

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

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

Gas Active

Gas, Cancelled, Never Drilled

Gas, New

Gas, Plugged

Gas, Temporarily Abandoned

Injection, Active

Injection, Cancelled

Injection, New

Injection, Plugged

Injection, Temporarily Abandoned

Oil, Active

Oil, Cancelled

Oil, New

Oil, Plugged

Oil, Temporarily Abandoned

Salt Water Injection, Active

Salt Water Injection, Cancelled

Salt Water Injection, New

Salt Water Injection, Plugged

Salt Water Injection Temporarily Abandoned

Water, Active

Water, Cancelled

Water, New

Water, Plugged

Water, Temporarily Abandoned

PLSS First Division

1:36,112

0 0.35 0.7 1.4 mi
0 0.5 1 2 km

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),

New Mexico Oil Conservation Division

Big Swig 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
30-025-0801	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged Site Released	29	T26S	R22E	F	F-29-26S-32E 1980 FNL 1960 FWL	F-29-26S-32E 1980 FNL 1960 FWL	N/A	4621	4621
30-025-0319	CONOCOPHILLIPS COMPANY	WILDER 28 AC FEDERAL SWD	#00H	Oil	Horizontal	Active	28	T26S	R22E	B	B-28-26S-32E 310 FNL 2160 FWL	G-28-26S-32E 347 FSL 714S FEL	BONE SPRING	13364	9289
30-025-0501	CONOCOPHILLIPS COMPANY	WILDER 28 AC FEDERAL SWD	#001	Oil	Vertical	Active	29	T26S	R22E	F	F-29-26S-32E 2010 FNL 2560 FWL	F-29-26S-32E 2010 FNL 2560 FWL	DELAWARE	6250	6250
30-025-0501	CONOCOPHILLIPS COMPANY	WILDER 28 AC FEDERAL SWD	#00H	Oil	Horizontal	Active	28	T26S	R22E	C	C-28-26S-32E 224 FNL 1544 FWL	F-29-26S-32E LOT 3 351 FSL 1704 FWL	BONE SPRING	18020	9948
30-025-0502	CONOCOPHILLIPS COMPANY	WILDER 28 AC FEDERAL SWD	#00H	Oil	Horizontal	Active	28	T26S	R22E	D	D-28-26S-32E 230 FNL 350 FWL	E-35-26S-32E LOT 4 340 FSL 480 FWL	BONE SPRING	13593	9241
30-025-40740	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#00H	Oil	Horizontal	Active	29	T26S	R22E	A	A-29-26S-32E 524 FNL 849 FWL	D-39-26S-32E 338 FSL 772 FWL	BONE SPRING	13222	9277
30-025-40923	CONOCOPHILLIPS COMPANY	PADUCA BREAKS 12 16 E2 STATE	#00H	Oil	Horizontal	Approved Temporary Abandonment	32	T26S	R22E	A	A-32-26S-32E 400 FNL 327 FWL	D-39-26S-32E 410 FNL 495S FEL	BONE SPRING	13245	8706
30-025-41509	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#00H	Oil	Horizontal	Active	29	T26S	R22E	A	A-29-26S-32E 724 FNL 377 FWL	P-29-26S-32E 281 FSL 331 FWL	BONE SPRING	13620	9277
30-025-41511	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#00H	Oil	Horizontal	Active	29	T26S	R22E	B	B-29-26S-32E 310 FNL 2310 FWL	P-29-26S-32E 274 FSL 394 FEL	BONE SPRING	13890	9245
30-025-41512	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#00H	Oil	Horizontal	Cancelled Apd	29	T26S	R22E	B	B-29-26S-32E 310 FNL 2310 FWL	O-39-26S-32E 307 FSL 206 FEL	BONE SPRING	13528	8841
30-025-41692	CONOCOPHILLIPS COMPANY	WILDER 28 AC FEDERAL COM	#00BH	Oil	Horizontal	Active	28	T26S	R22E	D	D-28-26S-32E 280 FNL 350 FWL	E-39-26S-32E LOT 4 1889 FNL 302 FWL	BONE SPRING	13925	9323

Big Swig Federal SWD #1 - Texas Wells within 1 Mile Area of Review

API Number	Operator	Well Name	Well Number	Type/Status	Well Direction	Abstract	Survey	Block	Section	Distance1	Direction1	Distance2	Direction2	Formation	TVD
4230131833	SHELL WESTERN E&P	ODELL STATE 54-1-6 LOV UNIT	1H	GAS/PRODUCING	Horizontal	937	T&P RR CO / HAGEN W	54 T1	6	260	NORTH	990	WEST	BONE SPRING	8856
4230132045	ANADARKO E&P ONSHORE LLC	THRESHER 54-1-5	1H	OIL/PERMIT	Horizontal	46	T&P RR CO	54 T1	5	330	SOUTH	660	WEST	BONE SPRING	N/A
4230132879	ANADARKO E&P ONSHORE LLC	THRESHER 54-1-5	1H	OIL/PRODUCING	Horizontal	46	T&P RR CO	54 T1	5	325	SOUTH	681	WEST	BONE SPRING	10309
4230132992	SHELL WESTERN E&P	ODELL STATE 54-1-6 LOV	2H	OIL/PRODUCING	Horizontal	937	T&P RR CO/HAGEN W	54 T1	6	299	NORTH	1289	WEST	WOLFCAMP	11743



Statement of Notifications

Re: C-108 Application for SWD Well
 Permian Oilfield Partners, LLC
 Big Swig Federal SWD #1
 Sec. 28, Twp. 26S, Rge. 32E
 966' FSL, 250' FWL
 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:

Big Swig 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
Shell Western E&P	PO BOX 576	Houston, TX 77001	USPS	9414811899561827907885	4/26/2019
Anadarko E&P Onshore LLC	PO BOX 1330	Houston, TX 77251-1330	USPS	9414811899561827908202	4/26/2019
Conoco Phillips Company	P.O.Box 2197 Office EC3-10-W285	Houston, TX 77252	USPS	9414811899561827908776	4/26/2019
Chevron U S A Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561827908714	4/26/2019
Elliott Industries, LP	500 North Kentucky Avenue	Roswell, NM 88201	USPS	9414811899561827908165	4/26/2019
Elliott Hall Co UT, LP	2668 Grant Avenue, Suite 104	Ogden, UT 84401	USPS	9414811899561827908608	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561827908417	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561827908899	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561827908011	4/26/2019
RSC Resources, LP	6824 Island Circle	Midland, TX 79707	USPS	9414811899561827907854	4/26/2019
RRC of TX Injection-Storage Permits (UIC Department)	1701 N. Congress Ave.	Austin, TX 78701	USPS	9414811899561827907250	4/26/2019
Davis Brothers LLC	110 W 7th St #1000	Tulsa, OK 74119	USPS	9414811899561827908936	4/26/2019
Mewbourne Holdings, Inc.	P.O. Box 5270	Hobbs, NM 88241	USPS	9414811899561827908134	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 1827 9078 85

ARTICLE ADDRESSED TO:

Shell Western E&P
PO Box 576
Houston TX 77001-0576

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9082 02

ARTICLE ADDRESSED TO:

Anadarko E&P Onshore LLC
PO Box 1330
Houston TX 77251-1330

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9087 76

ARTICLE ADDRESSED TO:

ConocoPhillips Company
PO Box 2197
Houston TX 77252-2197

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9087 14

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9081 65

ARTICLE ADDRESSED TO:

Elliott Industries, LP
500 North Kentucky Ave
Roswell NM 88201-4721

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
Here
APR 26 2019



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9086 08

ARTICLE ADDRESSED TO:

Elliott Hall Co UT, LP
2668 Grant Ave. Suite 104
Ogden UT 84401-3656

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
Here
APR 26 2019



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9084 17

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9088 99

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



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1827 9080 11

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 1827 9078 54

ARTICLE ADDRESSED TO:

RSC Resources, LP
6824 Island Circle
Midland TX 79707-1413

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 1827 9072 50

ARTICLE ADDRESSED TO:

RRC of Texas-Storage Permits (UIC)
1701 N. Congress Ave.
Austin TX 78701-1494

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 1827 9089 36

ARTICLE ADDRESSED TO:

Davis Brothers LLC
110 W 7th Street, Suite 1000
Tulsa OK 74119-1109

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 1827 9081 34

ARTICLE ADDRESSED TO:

Mewbourne Holdings, Inc.
PO Box 5270
Hobbs NM 88241-5270

FEES

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

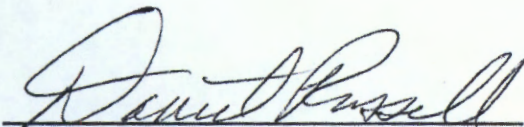


Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

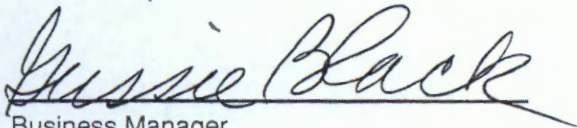
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

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



Publisher

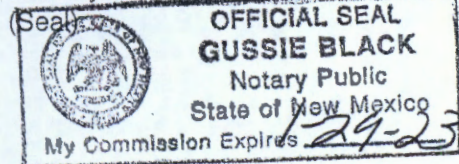
Sworn and subscribed to before me this
23rd day of April 2019.



Business Manager

My commission expires

January 29, 2023



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 23, 2019

Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817) 606-7830, 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 Big Swig Federal SWD #1, and is located 966' FSL & 250' FWL, Unit Letter M, Section 28, Township 26 South, Range 32 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,018 feet to 18,337 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,404 psi.

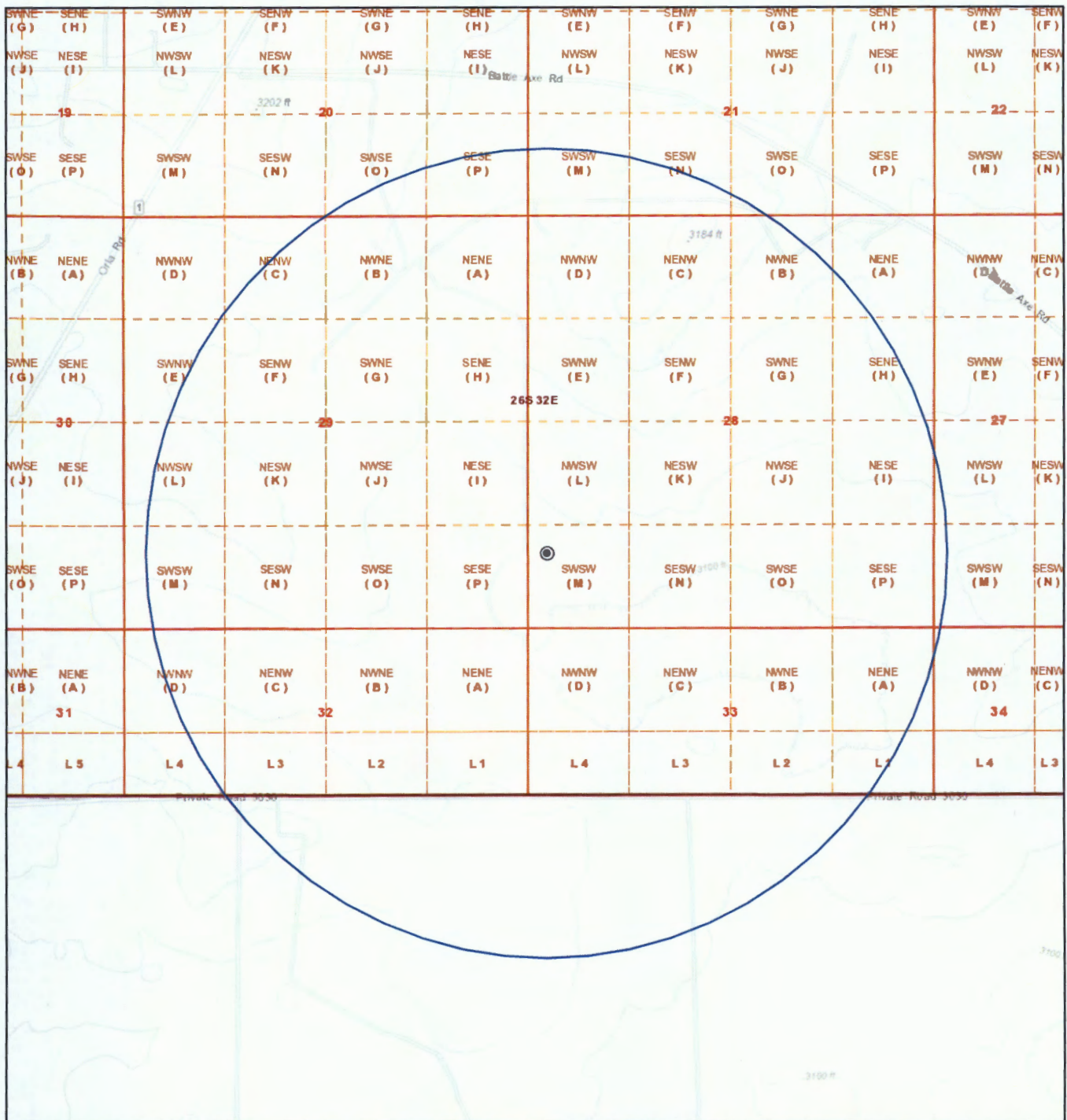
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.
#34056

67115647

00227331

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

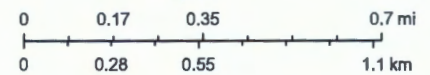
Big Swig Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 8:31:01 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	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02271	R	CUB	LE	2	3	21	26S	32E		624449	3544111*	150	125	25
C 02271 POD2		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	270	250	20
C 02274		CUB	LE	2	1	2	31	26S	32E	621742	3541730*	300	295	5
C 02323		C	LE	3	2	3	21	26S	32E	624348	3544010*	405	405	0
C 03537 POD1		CUB	LE	3	2	3	21	26S	32E	624250	3543985	850		
C 03595 POD1		CUB	LE	4	2	3	21	26S	32E	624423	3544045	280	180	100
C 03829 POD1		CUB	LE	3	3	1	06	26S	32E	620628	3549186	646	350	296
C 04209 POD1		CUB	LE	2	3	3	06	26S	32E	620903	3548619	360	155	205
C 04209 POD2		C	LE	2	3	3	06	26S	32E	620818	3548657	340	155	185

Average Depth to Water: **239 feet**

Minimum Depth: **125 feet**

Maximum Depth: **405 feet**

Record Count: 9

PLSS Search:

Township: 26S **Range:** 32E

*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.

4/19/19 2:14 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Big Swig Federal SWD #1
Sec. 28, Twp. 26S, Rge. 32E
966' FSL, 250' 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". The signature is fluid and cursive, with the first name "Gary" and last name "Fisher" clearly distinguishable.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/24/2019

Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Big Swig Federal SWD #1
SL: 966' FSL & 250' FWL
Sec 28, T26S, R32E
Lea County, New Mexico

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.

Big Swig Federal SWD #1

966' FSL, 250' FWL

Sec. 28, T26S, R32E, Lea Co. NM

Lat 32.0088254° N, Lon 103.6877989° W

GL 3110', RKB 3140'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 963'
Cement: 624 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: 4391'
Cement: 1466 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: 11749'
Cement: 1993 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 4491'

Intermediate #3 - (Liner)

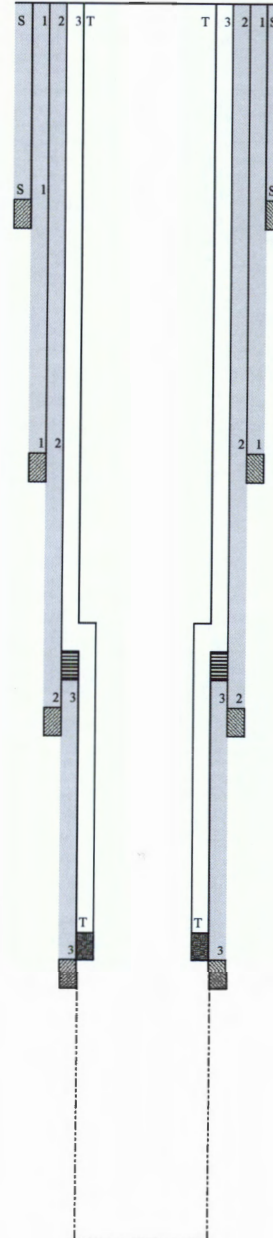
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11549'
Depth Btm: 17018'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11549' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18337'
Inj. Interval: 17018' - 18337' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16973'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11549'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16983'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



Plugging Risk Assessment

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

Bowen Series 150 Releasing and Circulation Overshots

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

Maximum Catch Size (Spiral)		6 5/8"	6 7/8"	7"	7 1/4"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 5/8"	6 7/8"
Overshot O.D.		8 1/4"	7 3/4"	8 1/4"	8 5/8"
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	0217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260

Replacement Parts

Top Sub	Part No.	A-3033	A-5223	0218	A-5355
Bowl	Part No.	B-3034	B-5224	0219	B-5356
Packer	Part No.	A-1814	B-5225	0224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	0222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	0223	B-5360
Standard Guide	Part No.	A-1818	A-5229	0226	A-5361

Basket Parts

Basket Grapple	Part No.	N-84	B-5227	0222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	0223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	0224-R	B-5357-R

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

7" 26# FJ Casing Inside 9.625" 40# BTC Casing													
Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.840	9 5/8	40.0	L-80	BTC	Casing	9.625	10.625	8.835	8.679	-	-	-	-
	7	26.0	HCP-110	FJ	Casing	7.000	7.000	6.276	6.151	28.500	6.080	5.940	5.815

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- If fishing neck is clean

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

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

- If dressing fishing neck is required

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

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

In the Event of a Body Break

- If fishing neck is clean

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

- If dressing fishing neck is required

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

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

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

Spear Fishing Procedure

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

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

Inside Diameter Cutting Tool Fishing Procedure

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

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

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

Series 150 Overshots

Tools are listed in order of maximum catch size.

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

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots

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

Maximum Catch Size (Spiral)		4 1/4"	4 1/2"	4 3/4"	4 7/8"	5"	5 1/4"	5 1/2"
Maximum Catch Size (Basket)		3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	4 7/8"	5"
Overshot O.D.		5 9/16"	5 1/2"	5 5/8"	5 3/4"	5 7/8"	6"	6 1/8"
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5890	5898	C-5108	8075	C-5171	C-4825	8025
(Dressed Spiral Parts)	Weight	130	130	133	138	140	102	185

Replacement Parts

Top Sub	Part No.	5897	5899	A-5160	8076	A-5172	B-4826	8026
Bowl	Part No.	5898	5700	B-5170	8077	B-5173	B-4827	8017
Packer	Part No.	100	1140	B-2100	0114	L-5050	L-4505	8018
Spiral Grapple	Part No.	105	1135	B-2201	0112	B-4360	M-1071	8019
Spiral Grapple Control	Part No.	180	1137	B-2202	0113	B-4370	M-1072	8020
Standard Guide	Part No.	187	1143	B-2203	0121	B-4371	L-1074	8021

Basket Parts

Basket Grapple	Part No.	105	1135	B-2201	0112	B-4360	M-1071	8019
Basket Grapple Control	Part No.	180	1137	B-2202	0113	B-4370	M-1072	8020
Mill Control Packer	Part No.	100-R	1140-R	B-2100-R	0114-R	L-5050-R	M-4505	L-8018-R

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

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

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- If fishing neck is clean

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

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

- If dressing fishing neck is required

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
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
Big Swig Federal SWD #1
Sec. 28, Twp. 26S, Rge. 32E
966' FSL, 250' FWL
Lea County, NM

April 16, 2019

STATEMENT REGARDING SEISMICITY

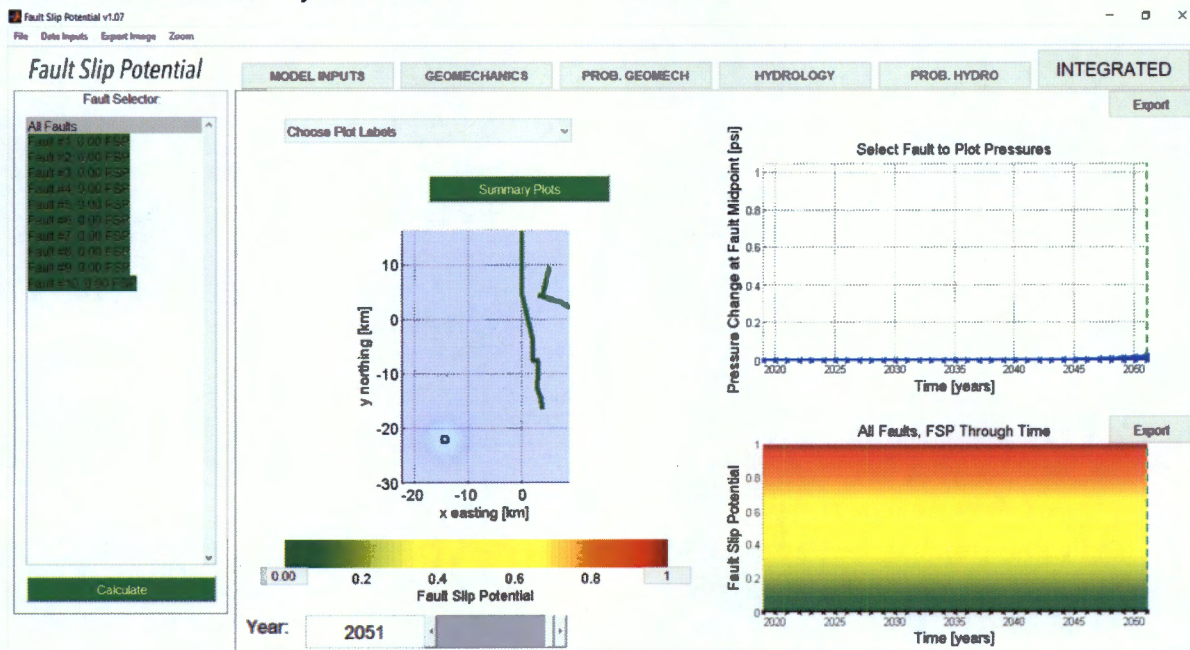
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity of M2.5 or greater in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 19.40 miles away @ 23.34 deg heading
2. M3.1, 2012-03-18, 22.34 miles away @ 327.75 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 approximately 2.1 miles away from the nearest active or permitted Devonian disposal well.

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