

RECEIVED: 04/30/2019	REVIEWER:	TYPE: SWD	APP NO: DMA19128 58865
-------------------------	-----------	--------------	---------------------------

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: Down The Middle State SWD #1	API: 30-025-Pending
Pool: SWD; Devonian-Silurian	Pool Code: 97869

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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

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

Sean Puryear

Print or Type Name

Signature

04/27/2019

Date

(817) 600-8772

Phone Number

spuryear@popmidstream.com

e-mail Address



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

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Down the Middle State SWD #1
Sec. 29, Twp. 24S, Rge. 33E
1013' FSL, 250' FEL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Down the Middle State SWD #1 located in Sec 29, Twp 24S, 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:

04/27/2019

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.

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 14,828'

Underlying Potentially Productive Zones:

None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Down The Middle State SWD #1
1013' FSL, 250' FEL
Sec. 29, T24S, R33E, Lea Co. NM
Lat 32.1841634° N, Lon 103.5865813° W
GL 3497', RKB 3527'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1600'
Cement: 1110 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: 5019'
Cement: 1656 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: 12176' ECP/DV Tool: 5119'
Cement: 2103 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: 11976'
Depth Btm: 16664'
Cement: 240 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11976' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18358'
Inj. Interval: 16664' - 18358' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16619' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/O Depth: 11976' FJ Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16629' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Down The Middle State SWD #1
1013' FSL, 250' FEL
Sec. 29, T24S, R33E, Lea Co. NM
Lat 32.1841634° N, Lon 103.5865813° W
GL 3497', RKB 3527'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1600'
Cement: 1110 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: 5019'
Cement: 1656 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: 12176'
Cement: 2103 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5119'

Intermediate #3 - (Liner)

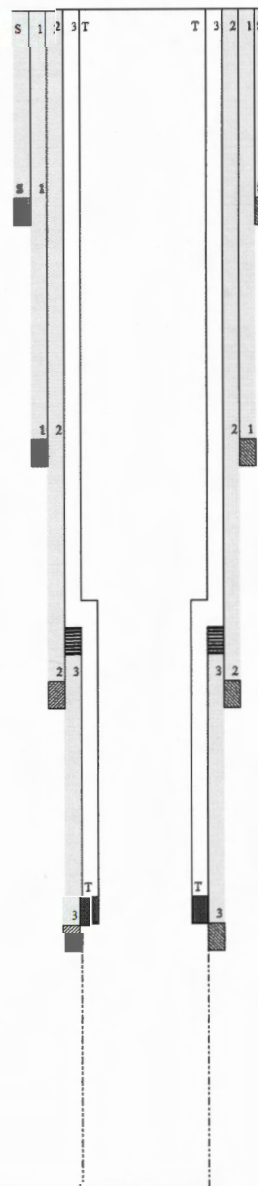
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11976'
Depth Btm: 16664'
Cement: 240 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11976' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18358'
Inj. Interval: 16664' - 18358' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16619'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11976'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16629'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



VI: There is one well within the proposed well's area of review that penetrates the Devonian Formation, the EOG Resources Inc. State 29J, API #30-025-26158. This well has been plugged back and is currently producing out of the Wolfcamp (PBSD 13,429'). Well documentation showing schematics, well details and plugging procedures is attached at the end of this application.

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 3,333 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.
Down The Middle State SWD #1
1013' FSL, 250' FEL
Sec. 29, T24S, R33E, Lea Co. NM
Lat 32.1841634° N, Lon 103.5865813° W
GL 3497', RKB 3527'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,538	4,873	3,335
Delaware	4,994	9,010	4,016
Bone Spring	9,010	12,126	3,116
Wolfcamp	12,126	13,173	1,047
Lwr. Mississippian	16,045	16,459	414
Woodford	16,459	16,629	170
Devonian	16,629	17,616	987
Fusselman (Silurian)	17,616	18,383	767
Montoya (U. Ordovician)	18,383	18,890	507
Simpson (M. Ordovician)	18,890	19,685	795

2. According to the New Mexico Office of the State Engineer and field exploration, there are 4 fresh water wells within the proposed well's one-mile area of review indicating the presence of freshwater at depths less than 120'. Regionally, shallow fresh water is known to exist at depths less than 700'. There is one well in the region that shows fresh water to 1533', which is very close to the estimated top of salt, but does not show TD, leading us to suspect that there may be a recording error in the well data, where well TD and depth of water were recorded incorrectly. Casing design on this well includes surface casing to a depth of 1600', which may be excessive, but will ensure ground water protection. There are no underground sources of fresh water present below the injection interval.

- IX:** Formation chemical stimulation with 40,000 gals of 15% Hydrochloric Acid is planned after well completion.
- X:** A compensated neutron/gamma ray log will be run from surface to TD upon well completion. All logs will be submitted to the NMOCD upon completion.
- XI:** According to the New Mexico Office of the State Engineer and field exploration, there are 4 fresh water wells within the proposed well's one-mile area of review. Attempts were made to sample the below listed water wells but all wells were out of service and/or non-existent. No water samples were obtained.

Well Name	Formation Name	Depth Top	Depth Bottom	Thickness	Status
C 02563	None Given	None Given	120'	N/A	Out of Service
C 02564	None Given	None Given	120'	N/A	Non-Existent
C 02310	None Given	70'	120'	50'	Out of Service
C 02311	None Given	70'	120'	50'	Out of Service

- XII:** Hydrologic affirmative statement attached.

- XIII:** Proof of notice and proof of publication attached.

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

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

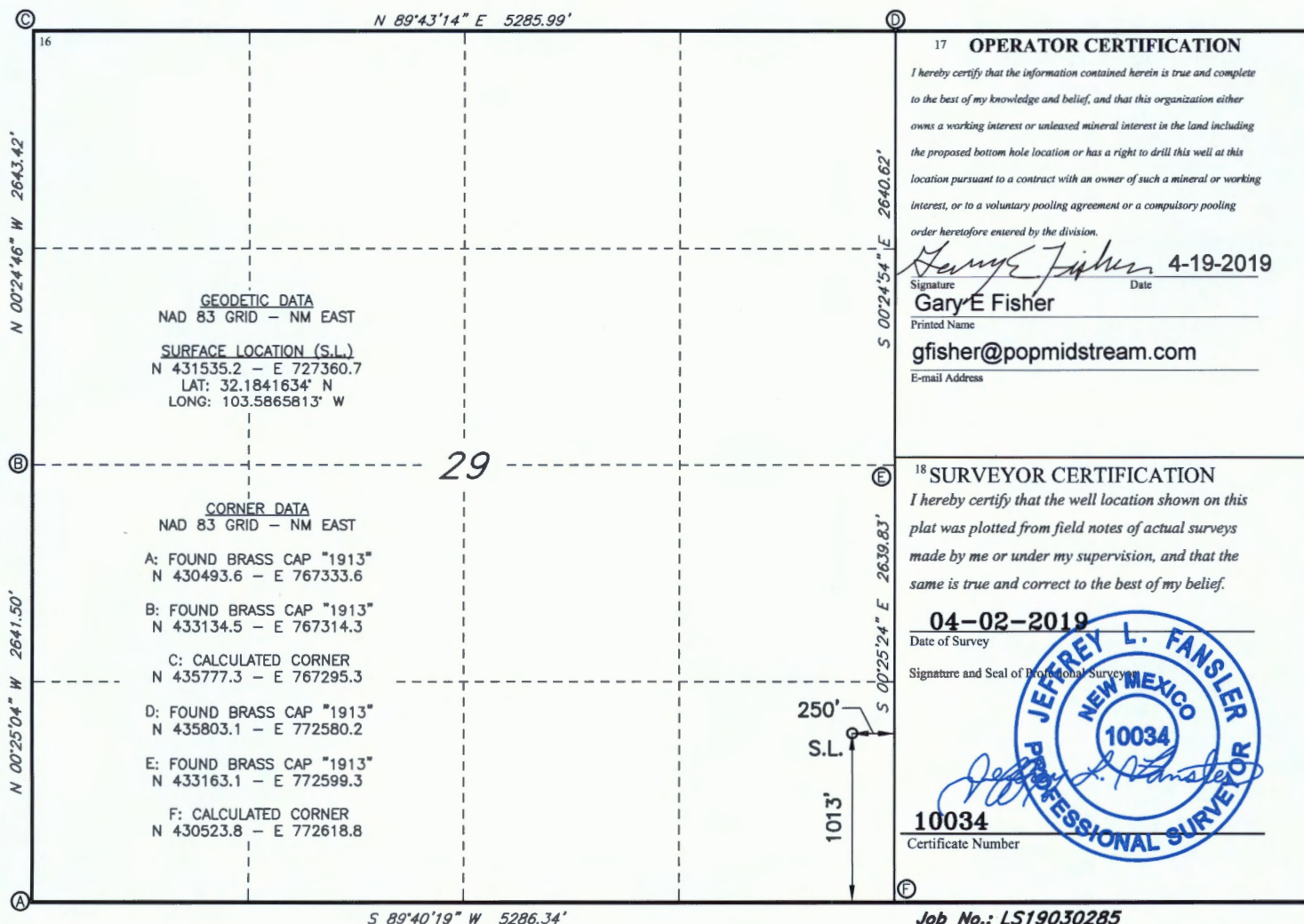
Form C-102
Revised April 15, 2019
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-		² Pool Code 97869		³ Pool Name SWD; DEVONIAN-SILURIAN					
⁴ Property Code		⁵ Property Name DOWN THE MIDDLE STATE SWD						⁶ Well Number 1	
⁷ GRID NO. 328259		⁸ Operator Name PERMIAN OILFIELD PARTNERS, LLC						⁹ Elevation 3497'	
¹⁰ Surface Location									
UL or lot no. P	Section 29	Township 24S	Range 33E	Lot Idn	Feet from the 1013	North/South line SOUTH	Feet From the 250	East/West line EAST	County LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



The map displays the Eastern United States, specifically focusing on Virginia, North Carolina, and South Carolina. It is overlaid with a grid of 36 numbered squares (01-36) and numerous place names. Major cities like Washington, D.C., and Richmond are marked. The map includes state boundaries and a large circular area drawn across the center. The map is titled 'Eastern United States' and includes a scale bar at the bottom.

1:36,112

- 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

Legend:

 - 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



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

Down The Middle State 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
30-025-08374	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	29	T24S	R33E	O	O-29-24S-33E 660 FSL 1980 FSL	O-29-24S-33E 660 FSL 1980 FSL	DELAWARE	5200	5200
30-025-26158	EOG RESOURCES INC	STATE 29 J	#001	Oil	Vertical	Active	29	T24S	R33E	J	J-29-24S-33E 1980 FSL 1980 FSL	J-29-24S-33E 1980 FSL 1980 FSL	DELAWARE	17523	17523
30-025-27147	PIONEER NATURAL RESOURCES USA INC	GETTY 28 STATE	#001	Oil	Vertical	Plugged, Site Released	28	T24S	R33E	J	J-28-24S-33E 1980 FSL 1980 FSL	J-28-24S-33E 1980 FSL 1980 FSL	MORROW	16225	16225
30-025-27293	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	33	T24S	R33E	F	F-33-24S-33E 1980 FSL 1980 FSL	F-33-24S-33E 1980 FSL 1980 FSL	MORROW	15960	15960
30-025-39609	EOG RESOURCES INC	CARAVAN BVV STATE	#001	Gas	Vertical	Active	32	T24S	R33E	B	B-32-24S-33E 660 FSL 1980 FSL	B-32-24S-33E 660 FSL 1980 FSL	WOLF CAMP	14750	14750
30-025-40971	CHEVRON U.S.A INC	MCCLOY RANCH 29 24 33 ST	#003C	Oil	Horizontal	Cancelled Apd	29	T24S	R33E	B	B-29-24S-33E 101 FSL 2020 FSL	O-29-24S-33E 331 FSL 2020 FSL	WOLF SPRING	15753	11050
30-025-40974	TAP ROCK OPERATING, LLC	JACKSON UNIT	#018H	Oil	Horizontal	Active	21	T24S	R33E	M	M-21-24S-33E 200 FSL 770 FSL	D-21-24S-33E 340 FSL 371 FSL	BONE SPRING	15674	11079
30-025-41001	CHEVRON U.S.A INC	MCCLOY RANCH 29 24 33 ST	#004C	Oil	Horizontal	Cancelled Apd	29	T24S	R33E	A	A-29-24S-33E 101 FSL 1980 FSL	D-29-24S-33E 331 FSL 400 FSL	BONE SPRING	15701	11038
30-025-41021	TAP ROCK OPERATING, LLC	MCCLOY RANCH 29 24 33 ST	#001C	Oil	Horizontal	Cancelled Apd	29	T24S	R33E	C	C-29-24S-33E 101 FSL 1980 FSL	N-29-24S-33E 331 FSL 1980 FSL	BONE SPRING	15698	11042
30-025-41138	TAP ROCK OPERATING, LLC	JACKSON UNIT	#001H	Oil	Horizontal	Active	21	T24S	R33E	N	N-21-24S-33E 200 FSL 1670 FSL	C-21-24S-33E 292 FSL 1671 FSL	BONE SPRING	15670	11093
30-025-41336	BETTIS 20 STATE COM	BETTIS 20 STATE COM	#002H	Oil	Horizontal	Active	20	T24S	R33E	P	P-20-24S-33E 200 FSL 940 FSL	A-20-24S-33E 254 FSL 889 FSL	BONE SPRING	15725	11146
30-025-41437	TAP ROCK OPERATING, LLC	BETTIS 20 STATE COM	#003C	Oil	Horizontal	Active	20	T24S	R33E	C	O-20-24S-33E 200 FSL 2260 FSL	B-20-24S-33E 330 FSL 2260 FSL	BONE SPRING	15805	11059
30-025-41568	EOG Y RESOURCES, INC.	CARAVAN BWM STATE	#003C	Oil	Horizontal	Cancelled Apd	32	T24S	R33E	O	N-32-24S-33E 111 FSL 1980 FSL	N-32-24S-33E 331 FSL 1980 FSL	BONE SPRING	15694	11030
30-025-41569	CARAVAN BWM STATE	CARAVAN BWM STATE	#004C	Oil	Horizontal	Cancelled Apd	32	T24S	R33E	B	B-32-24S-33E 331 FSL 1880 FSL	B-32-24S-33E 331 FSL 1880 FSL	BONE SPRING	15626	11050
30-025-41591	EOG Y RESOURCES, INC.	CARAVAN BWM STATE	#005C	Oil	Horizontal	Cancelled Apd	32	T24S	R33E	A	A-32-24S-33E 71 FSL 400 FSL	P-32-24S-33E 331 FSL 400 FSL	BONE SPRING	15753	11050
30-025-41602	EOG RESOURCES INC	CARAVAN BVV STATE	#008H	Oil	Horizontal	Active	33	T24S	R33E	D	D-33-24S-33E 50 FSL 450 FSL	M-33-24S-33E 236 FSL 486 FSL	BONE SPRING	15868	11048
30-025-41604	EOG Y RESOURCES, INC.	CARAVAN STATE UNIT	#009C	Oil	Horizontal	Cancelled Apd	33	T24S	R33E	C	C-33-24S-33E 50 FSL 1930 FSL	N-33-24S-33E 330 FSL 1930 FSL	BONE SPRING	15749	11079
30-025-41610	EOG RESOURCES INC	CARAVAN BVV STATE	#006H	Oil	Horizontal	Active	33	T24S	R33E	C	C-33-24S-33E 50 FSL 1930 FSL	C-33-24S-33E 330 FSL 1976 FSL	BONE SPRING	15872	11054
30-025-41638	EOG RESOURCES INC	CARAVAN BVV STATE	#001H	Oil	Horizontal	Active	33	T24S	R33E	A	A-33-24S-33E 15 FSL 400 FSL	P-33-24S-33E 330 FSL 399 FSL	BONE SPRING	15760	11054
30-025-41641	EOG RESOURCES INC	CARAVAN BWM STATE	#001H	Oil	Horizontal	Active	33	T24S	R33E	C	O-33-24S-33E 15 FSL 2150 FSL	B-33-24S-33E 265 FSL 2193 FSL	BONE SPRING	15870	11053
30-025-41642	EOG RESOURCES INC	CONVOY BUC STATE	#002H	Oil	Horizontal	Active	28	T24S	R33E	O	D-33-24S-33E 11 FSL 600 FSL	M-33-24S-33E 330 FSL 400 FSL	BONE SPRING	15870	11051
30-025-41645	EOG Y RESOURCES, INC.	CARAVAN BWM STATE	#002C	Oil	Horizontal	Cancelled Apd	32	T24S	R33E	D	D-33-24S-33E 15 FSL 400 FSL	A-28-24S-33E 331 FSL 382 FSL	BONE SPRING	15824	11060
30-025-41647	EOG RESOURCES INC	CONVOY BUC STATE	#001H	Oil	Horizontal	Active	33	T24S	R33E	P	P-28-24S-33E 15 FSL 400 FSL	B-28-24S-33E 331 FSL 387 FSL	BONE SPRING	15870	11051
30-025-41655	EOG RESOURCES INC	CARAVAN BVV STATE	#007H	Oil	Horizontal	Active	33	T24S	R33E	D	D-33-24S-33E 200 FSL 2290 FSL	D-28-24S-33E 233 FSL 387 FSL	BONE SPRING	15500	10873
30-025-41710	TAP ROCK OPERATING, LLC	JACKSON UNIT	#028H	Oil	Horizontal	Active	21	T24S	R33E	N	N-21-24S-33E 200 FSL 1715 FSL	C-21-24S-33E 273 FSL 2183 FSL	BONE SPRING	15500	10873
30-025-41744	EOG RESOURCES INC	CARAVAN BVV STATE	#010H	Oil	Horizontal	Active	33	T24S	R33E	B	B-33-24S-33E 15 FSL 2150 FSL	O-33-24S-33E 266 FSL 2152 FSL	BONE SPRING	15890	11059
30-025-41761	Murchison Oil and Gas, LLC	JACKSON UNIT	#021C	Oil	Horizontal	Cancelled Apd	21	T24S	R33E	N	N-21-24S-33E 201 FSL 1070 FSL	C-21-24S-33E 331 FSL 1670 FSL	BONE SPRING	15300	N/A
30-025-41847	Murchison Oil and Gas, LLC	JACKSON UNIT	#027C	Oil	Horizontal	Cancelled Apd	21	T24S	R33E	M	M-21-24S-33E 201 FSL 1070 FSL	D-21-24S-33E 331 FSL 970 FSL	BONE SPRING	16500	N/A
30-025-41896	Murchison Oil and Gas, LLC	BETTIS 20 STATE COM	#006C	Oil	Horizontal	Cancelled Apd	20	T24S	R33E	P	P-20-24S-33E 201 FSL 350 FSL	A-20-24S-33E 331 FSL 350 FSL	BONE SPRING	15500	N/A
30-025-42097	Murchison Oil and Gas, LLC	BETTIS 20 STATE COM	#007C	Oil	Horizontal	Cancelled Apd	20	T24S	R33E	N	N-20-24S-33E 201 FSL 2310 FSL	B-20-24S-33E 331 FSL 1670 FSL	BONE SPRING	15500	N/A
30-025-42098	Murchison Oil and Gas, LLC	BETTIS 20 STATE COM	#008C	Oil	Horizontal	Cancelled Apd	20	T24S	R33E	N	N-20-24S-33E 201 FSL 2290 FSL	C-20-24S-33E 331 FSL 2290 FSL	BONE SPRING	15500	N/A
30-025-42099	Murchison Oil and Gas, LLC	BETTIS 20 STATE COM	#009C	Oil	Horizontal	Cancelled Apd	20	T24S	R33E	M	M-20-24S-33E 201 FSL 2270 FSL	D-20-24S-33E 331 FSL 970 FSL	BONE SPRING	15500	N/A
30-025-44274	EOG RESOURCES INC	CONVOY 28 STATE COM	#066H	Oil	Horizontal	New	28	T24S	R33E	B	B-28-24S-33E 559 FSL 2327 FSL	O-33-24S-33E 100 FSL 2537 FSL	WOLF CAMP	22427	22272
30-025-44274	EOG RESOURCES INC	CONVOY 28 STATE COM	#050H	Oil	Horizontal	Active	28	T24S	R33E	B	B-28-24S-33E 572 FSL 2327 FSL	O-33-24S-33E 109 FSL 2274 FSL	WOLF CAMP	22692	12468
30-025-44384	EOG RESOURCES INC	BANDIT 29 STATE COM	#501H	Oil	Horizontal	Active	29	T24S	R33E	A	A-29-24S-33E 424 FSL 699 FSL	H-32-24S-33E 2421 FSL 345 FSL	BONE SPRING	18528	11133
30-025-44562	EOG RESOURCES INC	BANDIT 29 STATE COM	#502H	Oil	Horizontal	Active	29	T24S	R33E	A	A-29-24S-33E 423 FSL 734 FSL	H-32-24S-33E 2421 FSL 1068 FSL	BONE SPRING	18628	11115
30-025-44563	EOG RESOURCES INC	BANDIT 29 STATE COM	#503H	Oil	Horizontal	Active	29	T24S	R33E	B	B-29-24S-33E 409 FSL 2244 FSL	G-32-24S-33E 2443 FSL 1813 FSL	BONE SPRING	18508	11118
30-025-44626	EOG RESOURCES INC	BANDIT 29 STATE COM	#504	Oil	Vertical	Plugged, Site Released	29	T24S	R33E	B	B-29-24S-33E 408 FSL 2277 FSL	B-29-24S-33E 408 FSL 2277 FSL	TAMARISK	1309	1309
30-025-45369	EOG RESOURCES INC	BANDIT 29 STATE COM	#504Y	Oil	Horizontal	Active	29	T24S	R33E	B	B-29-24S-33E 430 FSL 2211 FSL	G-32-24S-33E 2404 FSL 2533 FSL	BONE SPRING	18560	11133
30-025-45370	EOG RESOURCES INC	CARAVAN 28 STATE COM	#601H	Oil	Horizontal	New	28	T24S	R33E	C	C-28-24S-33E 483 FSL 1444 FSL	N-33-24S-33E 100 FSL 1740 FSL	BONE SPRING	22414	12197
30-025-45371	EOG RESOURCES INC	CARAVAN 28 STATE COM	#701H	Oil	Horizontal	New	28	T24S	R33E	C	C-28-24S-33E 546 FSL 2153 FSL	N-33-24S-33E 100 FSL 2490 FSL	WOLF CAMP	22690	12468
30-025-45372	EOG RESOURCES INC	CARAVAN 28 STATE COM	#702H	Oil	Horizontal	New	28	T24S	R33E	C	C-28-24S-33E 579 FSL 2153 FSL	N-33-24S-33E 100 FSL 1990 FSL	WOLF CAMP	22687	12468
30-025-45464	EOG RESOURCES INC	CARAVAN 28 STATE COM	#602H	Oil	Horizontal	New	28	T24S	R33E	C	C-28-24S-33E 483 FSL 1611 FSL	N-33-24S-33E 100 FSL 1490 FSL	WOLF CAMP	22682	12468
30-025-45465	EOG RESOURCES INC	CARAVAN 28 STATE COM	#704H	Oil	Horizontal	New	28	T24S	R33E	D	D-28-24S-33E 481 FSL 394 FSL	M-33-24S-33E 100 FSL 830 FSL	WOLF CAMP	22693	12468
30-025-45466	EOG RESOURCES INC	CARAVAN 28 STATE COM	#705H	Oil	Horizontal	New	28	T24S	R33E	D	D-28-24S-33E 481 FSL 394 FSL	M-33-24S-33E 100 FSL 330 FSL	WOLF CAMP	22682	12468
30-025-45761	EOG RESOURCES INC	CARAVAN 28 STATE COM	#601H	Oil	Horizontal	New	29	T24S	R33E	A	A-29-24S-33E 442 FSL 347 FSL	H-32-24S-33E 2539 FSL 660 FSL	BONE SPRING	19835	12760
30-025-45762	EOG RESOURCES INC	BANDIT 29 STATE COM	#602H	Oil	Horizontal	New	29	T24S	R33E	B	B-29-24S-33E 476 FSL 2352 FSL	H-32-24S-33E 2539 FSL 1980 FSL	BONE SPRING	19840	12760
30-025-45763	EOG RESOURCES INC	BANDIT 29 STATE COM	#702H	Oil	Horizontal	New	29	T24S	R33E	A	A-29-24S-33E 441 FSL 380 FSL	G-32-24S-33E 2539 FSL 989 FSL	WOLF CAMP	20043	12455
30-025-45764	EOG RESOURCES INC	BANDIT 29 STATE COM	#703H	Oil	Horizontal	New	29	T24S	R33E	A	A-29-24S-33E 476 FSL 2319 FSL	H-32-24S-33E 2539 FSL 1649 FSL	WOLF CAMP	20049	12455
30-025-45765	EOG RESOURCES INC	BANDIT 29 STATE COM	#704H	Oil	Horizontal	New	29	T24S	R33E	B	B-29-24S-33E 475 FSL 2385 FSL	G-32-24S-33E 2539 FSL 2309 FSL	WOLF CAMP	19976	12455
30-025-45768	EOG RESOURCES INC	BANDIT 29 STATE COM	#703H	Oil	Horizontal	New	29	T24S	R33E	A	A-29-24S-33E 443 FSL 314 FSL	H-32-24S-33E 2539 FSL 330 FSL	WOLF CAMP	20027	12455

*API No. 30-025-26158, STATE 29 J #1 has been plugged back and is currently producing out of the Wolfcamp (BPTD 13,429"). Wellbore schematics are attached.



Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Down the Middle State SWD #1
Sec. 29, Twp. 24S, Rge. 33E
1013' FSL, 250' FEL
Lea County, NM

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

Down The Middle State SWD #1 - Affected Persons within 1 Mile Area of Review					
Notified Name	Notified Address	Notified City, State, ZIP Code	Shipper	Tracking No.	Mailing Date
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561828970888	4/27/2019
Pioneer Natural Resources USA Inc	P.O. Box 3178	Midland, TX 79702	USPS	9414811899561828970963	4/27/2019
Chevron U S A Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561828970840	4/27/2019
Tap Rock Operating, LLC	602 Park Point Drive Suite 200	Golden, CO 80401	USPS	9414811899561828970994	4/27/2019
EOG Y Resources, Inc.	104 S 4th St	Artesia, NM 88210	USPS	9414811899561828970833	4/27/2019
Murchison Oil And Gas, LLC	7250 Dallas Parkway Suite 1400	Plano, TX 75024	USPS	9414811899561828970765	4/27/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9114811899561828970895	4/27/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561828970789	4/27/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561828970796	4/27/2019
Oxy USA Inc.	5 Greenway Plaza Suite 110	Houston, TX 77046	USPS	9414811899561828970918	4/27/2019
Murchison Bone Springs Drig. Prog. 1, LLC	814 San Jacinto Blvd Suite 303	Austin, TX 78701	USPS	9414811899561828970758	4/27/2019

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

Date: 4-27-2019

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

ARTICLE NUMBER: 9414 8118 9956 1828 9708 88

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1828 9709 63

ARTICLE ADDRESSED TO:

Pioneer Natural Resources USA Inc.
PO Box 3178
Midland TX 79702-3178

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1828 9708 40

ARTICLE ADDRESSED TO:

Chevron USA
6301 Deauville
Midland TX 79706-2964

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1828 9709 94

ARTICLE ADDRESSED TO:

Tap Rock Operating, LLC
602 Park Point Drive, Suite 200
Golden CO 80401-9359

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1828 9708 33

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

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

ARTICLE NUMBER: 9414 8118 9956 1828 9707 65

ARTICLE ADDRESSED TO:

Murchison Oil & Gas, LLC
7250 Dallas Parkway, Suite 1400
Plano TX 75024-5002

FEES

Postage Per Piece	\$3.65
Certified Fee	3.50
Total Postage & Fees:	7.15

Postmark
Here

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1828 9708 95

ARTICLE ADDRESSED TO:

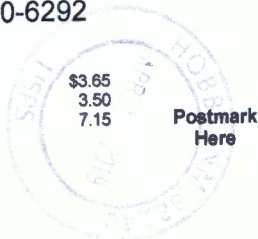
Bureau of Land Management
620 E Greene St
Carlsbad NM 88220-6292

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.65
3.50
7.15

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1828 9707 89

ARTICLE ADDRESSED TO:

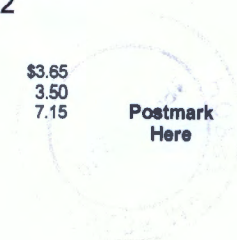
New Mexico State Land Office
2827 N Dal Paso St. Suite 117
Hobbs NM 88240-2062

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.65
3.50
7.15

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1828 9707 96

ARTICLE ADDRESSED TO:

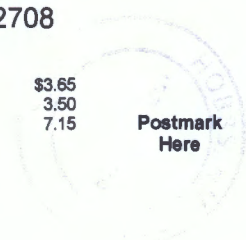
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe NM 87501-2708

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.65
3.50
7.15

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1828 9708 16

ARTICLE ADDRESSED TO:

Oxy USA Inc
5 Greenway Plaza, Suite 110
Houston TX 77046-0521

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.65
3.50
7.15

Postmark
Here



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1828 9707 58

ARTICLE ADDRESSED TO:

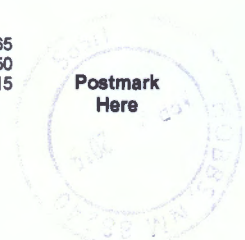
Murchison Bone Springs Drlg Prog 1
814 San Jacinto Blvd, Suite 303
Austin TX 78701-2685

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.65
3.50
7.15

Postmark
Here

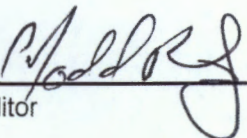


Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

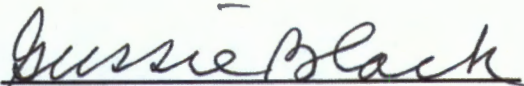
I, Todd Bailey, Editor of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
April 26, 2019
and ending with the issue dated
April 26, 2019.



Editor

Sworn and subscribed to before me this
26th day of April 2019.

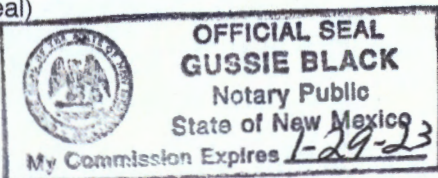


Business Manager

My commission expires

January 29, 2023

(Seal)



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

LEGALS

LEGAL NOTICE
APRIL 26, 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 Down The Middle State SWD #1, and is located 1013' FSL & 250' FEL, Unit Letter P, Section 29, Township 24 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 16,664 feet to 18,358 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,333 psi.

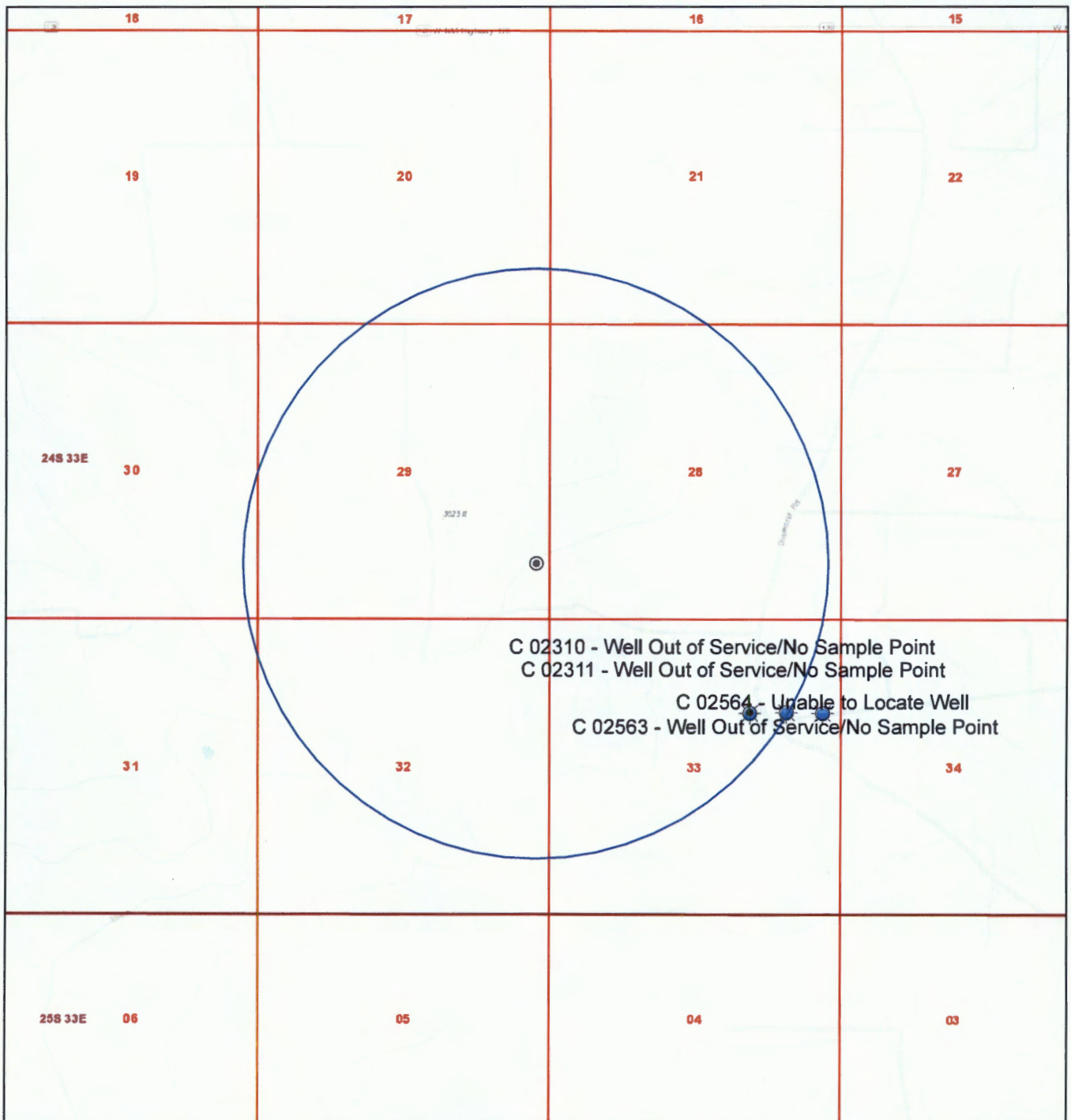
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.
#34064

67115647

00227427

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

Down The Middle State SWD #1 - Water Wells within 1 Mile AOR



4/22/2019, 4:04:12 PM

Override 1

Points



Override 1



Override 2



PLSS First Division

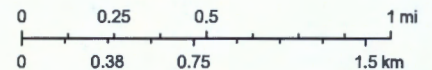


PLSS Second Division



PLSS Townships

1:25,000



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



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02308		CUB	LE	1	3	1	10	24S	33E	634953	3567364*	40	20	20
C 02309		CUB	LE	2	2	2	25	24S	33E	639638	3562994*	60	30	30
C 02310		CUB	LE	2	3	2	33	24S	33E	634437	3560918*	120	70	50
C 02311		CUB	LE	2	3	2	33	24S	33E	634437	3560918*	120	70	50
C 02430		CUB	LE	3	3	3	16	24S	33E	633377	3564732*	643	415	228
C 02431		CUB	LE	4	4	4	17	24S	33E	633175	3564728*	525	415	110
C 02432		CUB	LE	4	4	4	17	24S	33E	633175	3564728*	640	415	225
C 02563		CUB	LE	1	4	2	33	24S	33E	634639	3560923*	120		
C 02564		CUB	LE	2	4	2	33	24S	33E	634839	3560923*	120		
C 02890		C	LE	2	4	29	24S	33E	33E	633114	3562012*	500		
C 03565 POD3		CUB	LE	3	4	08	24S	33E	33E	632763	3566546		1533	
C 03591 POD1		CUB	LE	2	1	4	05	24S	33E	632731	3568518			
C 03600 POD1		CUB	LE	2	2	1	26	24S	33E	637275	3563023			
C 03600 POD2		CUB	LE	4	4	1	25	24S	33E	638824	3562329			
C 03600 POD3		CUB	LE	3	4	2	26	24S	33E	637784	3562340			
C 03600 POD4		CUB	LE	3	3	1	26	24S	33E	636617	3562293			
C 03600 POD5		CUB	LE	3	2	4	26	24S	33E	637857	3562020			
C 03600 POD6		CUB	LE	3	1	4	26	24S	33E	637383	3562026			
C 03600 POD7		CUB	LE	3	1	3	26	24S	33E	636726	3561968			
C 03601 POD1		CUB	LE	4	4	2	23	24S	33E	638124	3563937			
C 03601 POD2		CUB	LE	3	2	4	23	24S	33E	637846	3563588			
C 03601 POD3		CUB	LE	1	3	3	24	24S	33E	638142	3563413			
C 03601 POD4		CUB	LE	3	3	3	24	24S	33E	638162	3561375			
C 03601 POD5		CUB	LE	2	4	4	23	24S	33E	637988	3563334			
C 03601 POD6		CUB	LE	1	4	4	23	24S	33E	637834	3563338			
C 03601 POD7		CUB	LE	4	4	4	23	24S	33E	637946	3563170			
C 03602 POD2		CUB	LE	4	4	1	25	24S	33E	638824	3562329			
C 03603 POD1		CUB	LE	3	2	2	35	24S	33E	637805	3561225			
C 03603 POD2		CUB	LE	3	1	2	35	24S	33E	637384	3561167			
C 03603 POD3		CUB	LE	4	1	1	35	24S	33E	636890	3561092			
C 03603 POD4		CUB	LE	3	2	4	35	24S	33E	637789	3560461			
C 03603 POD5		CUB	LE	3	3	2	35	24S	33E	636745	3560767			
C 03603 POD6		CUB	LE	3	1	3	35	24S	33E	636749	3560447			

4/26/2019

T24S R33E Average Fresh Water Depths.htm

C 03662 POD1	C	LE	3	1	2	23	24S	33E	637342	3564428	550	110	440
C 03666 POD1	C	LE	2	3	4	13	24S	33E	639132	3565078	650	390	260
C 03679 POD1	C	ED	1	4	2	14	24S	33E	603567	3581547	700	575	125
C 03917 POD1	C	LE	4	1	3	13	24S	33E	638374	3565212	600	420	180
C 04014 POD2	CUB	LE	4	4	2	01	24S	33E	639656	3568917	95	81	14
C 04014 POD3	CUB	LE	2	4	2	01	24S	33E	639497	3569007	95	87	8
C 04014 POD4	CUB	LE	3	4	2	01	24S	33E	639295	3568859	96	86	10
C 04014 POD5	CUB	LE	1	4	2	01	24S	33E	639284	3569086	95	85	10

Average Depth to Water: **300 feet**

Minimum Depth: **20 feet**

Maximum Depth: **1533 feet**

Record Count: 41

PLSS Search:

Township: 24S **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.

4/22/19 3:41 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: C 02563 **Subbasin:** CUB **Cross Reference:-**
Primary Purpose: COM COMMERCIAL
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** -
Total Diversion: 33 **Cause/Case:** -
Owner: NGL WATER SOLUTIONS PERMIAN
Contact: R CHARLES WILKIN

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
 get images 633170	COWNF	2018-09-17	CHG	PRC	C 02563	T	0	0	
207110	COWNF	2001-01-03	CHG	PRC	C 02563	T	0	0	
144220	DCL	1998-02-09	DCL	PRC	C 02563	T	0	33	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q	Q	6416 4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02563			1	4	2	33	24S	33E		634639	3560923*	

An () after northing value indicates UTM location was derived from PLSS - see Help



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: C 02564 **Subbasin:** CUB **Cross Reference:-**
Primary Purpose: COM COMMERCIAL
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** -
Total Diversion: 33 **Cause/Case:** -
Owner: NGL WATER SOLUTIONS PERMIAN
Contact: R CHARLES WILKIN

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
 get images 633177	COWNF	2018-09-17	CHG	PRC	C 02564	T	0	0	
207111	COWNF	2001-01-03	CHG	PRC	C 02564	T	0	0	
144226	DCL	1998-02-10	DCL	PRC	C 02564	T	0	33	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q	Q	64	16	4	Sec	Tws	Rng	X	Y	Other Location Desc
C 02564			2	4	2	33	24	S	33	E		634839	3560923*	

An () after northing value indicates UTM location was derived from PLSS - see Help



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: C 02310 **Subbasin:** CUB **Cross Reference:-**
Primary Purpose: COM COMMERCIAL
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** -
Total Diversion: 33 **Cause/Case:** -
Owner: NGL WATER SOLUTIONS PERMIAM
Contact: R CHARLES WILKIN

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
633156	COWNF	2018-09-17	CHG	PRC	C 02310	T	0	0	
207097	COWNF	2001-01-03	CHG	PRC	C 02310	T	0	0	
144627	DCL	1998-02-09	DCL	PRC	C 02310 AMENDMENT	T	0	33	
240818	DCL	1993-04-20	DCL	PRC	C 02310	T	0	3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q	Q	Sec	Tws	Rng	X	Y	Other Location Desc
C 02310			2	3	2	33	24S	33E	634437	3560918*	

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	Source
12/31/1890	DCL	0	3	C 02310	

Place of Use

Q	Q	Q	Q	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64	16	4				0	3		DOM	12/31/1890	DCL	NO PLACE OF USE GIVEN

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	3		DOM	12/31/1890	GW

New Mexico Office of the State Engineer **Water Right Summary**

[get image list](#)

WR File Number:	C 02311	Subbasin:	CUB	Cross Reference:	-
Primary Purpose:	DOM	72-12-1 DOMESTIC ONE HOUSEHOLD			
Primary Status:	DCL	DECLARATION			
Total Acres:	0	Subfile:	-		
Total Diversion:	33	Cause/Case:	-		
Owner:	NGL WATER SOLUTIONS PERMIAN				
Contact:	R CHARLES WILKIN				

Documents on File

Trn #	Doc	File/Act	Status			From/ To	Acres	Diversion	Consumptive
			1	2	Transaction Desc.				
 633157 COWNF 2018-09-17			CHG	PRC	C 02311	T	0	0	
239245 DCL 2002-08-19			DCL	PRC	C 02311 - AMENDED	T	0	33	
207098 COWNF 2001-01-03			CHG	PRC	C 02311	T	0	0	
144629 DCL 1998-02-09			DCL	PRC	C 0231 AMENDMENT	T	0	33	
240815 DCL 1993-04-23			DCL	PRC	C 02311	T	0	3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q	Q	Sec	Tws	Rng	X	Y	Other Location Desc
C 02311			2	3	2	33	24S	33E	634437	3560918*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	Source
12/31/1890	DCL	0	33	C 02311	

Place of Use

Q Q Q Q

256	64	16	4	SecTws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other	Location	Desc
						0	3		DOM	12/31/1890	DCL		NO PLACE OF USE GIVEN	

Source

Acres	Diversion	CU	Use	Priority	Source	Description
0	3	DOM	12/31/1890	GW		



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Down the Middle State SWD #1
Sec. 29, Twp. 24S, Rge. 33E
1013' FSL, 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", is written over a light blue horizontal line.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/25/2019

**Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Down The Middle State SWD #1
SL: 1013' FSL & 250' FEL
Sec 29, T24S, R33E
Lea County, New Mexico**

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.

Down The Middle State SWD #1

1013' FSL, 250' FEL

Sec. 29, T24S, R33E, Lea Co. NM

Lat 32.1841634° N, Lon 103.5865813° W

GL 3497', RKB 3527'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1600'
Cement: 1110 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: 5019'
Cement: 1656 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: 12176'
Cement: 2103 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5119'

Intermediate #3 - (Liner)

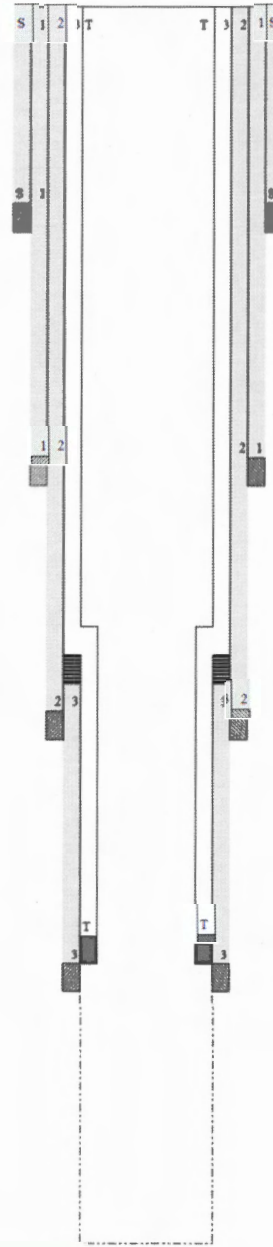
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11976'
Depth Btm: 16664'
Cement: 240 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11976' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18358'
Inj. Interval: 16664' - 18358' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16619'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11976'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16629'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



Plugging Risk Assessment

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

Bowen Series 150 Releasing and Circulation Overshots

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

Maximum Catch Size (Spiral)		6 5/8"	6 3/4"	7"	7 1/4"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 5/8"	6 5/8"
Overshot O.D.		8 3/4"	7 7/8"	8 1/8"	8 3/8"
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	260

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 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 1/8"	5 1/2"
Maximum Catch Size (Basket)		3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	4 7/8"	5 1/2"
Overshot O.D.		5 3/4"	5 7/8"	5 7/8"	5 7/8"	5 7/8"	5 7/8"	5 7/8"
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly		Part No.	5898	5898	C-5188	9875	C-5171	C-4825
(Dressed Spiral Parts)		Weight	130	130	133	138	140	182
Replacement Parts								
Top Sub		Part No.	5897	5899	A-5169	9876	A-5172	B-4826
Bowl		Part No.	5898	5700	B-5170	9877	B-5173	B-4827
Packer		Part No.	189	1140	B-2199	8114	L-5850	L-4505
Spiral Grapple		Part No.	185	1135	B-2201	8112	B-4389	M-1071
Spiral Grapple Control		Part No.	188	1137	B-2202	8113	B-4370	M-1072
Standard Guide		Part No.	187	1143	B-2203	8121	B-4371	L-1074
Basket Parts								
Basket Grapple		Part No.	185	1135	B-2201	8112	B-4389	M-1071
Basket Grapple Control		Part No.	188	1137	B-2202	8113	B-4370	M-1072
Mill Control Packer		Part No.	189-R	1140-R	B-2199-R	8114-R	L-5850-R	M-4505

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
Down the Middle State SWD #1
Sec. 29, Twp. 24S, Rge. 33E
1013' FSL, 250' FEL
Lea County, NM

April 17, 2019

STATEMENT REGARDING SEISMICITY

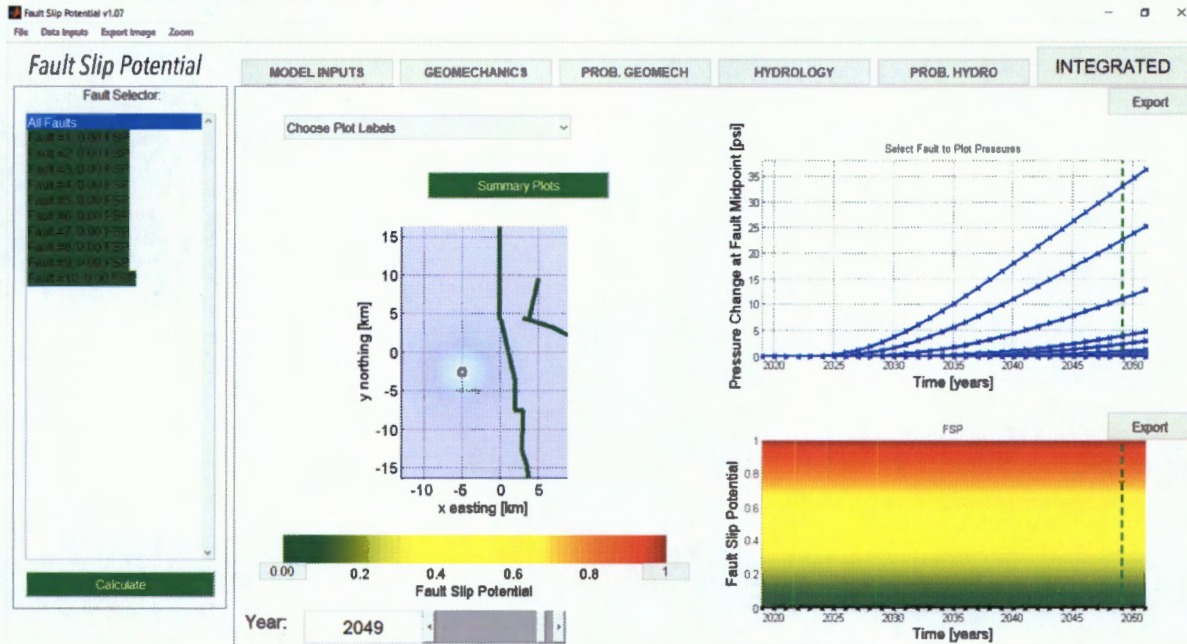
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 5.98 miles away @ 17.49 deg heading
2. M3.3, 2001-06-02, 28.19 miles away @ 67.95 deg heading

Permian Oilfield Partners does not own any 2D or 3D seismic data in the area of this proposed SWD well. Our fault interpretations are based on well to well correlations and publicly available data and software as follows:

1. USGS Quaternary Fault & Fold database shows no quaternary faults in the nearby area.
2. Based on offset well log data, we have not interpreted any faults in the immediate area.
3. Basement PreCambrian faults are documented in the Snee & Zoback paper, "State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity", published in the February 2018 issue of the SEG journal, The Leading Edge, along with a method for determining the probability of fault slip in the area.
4. Even though we do not propose to inject into the PreCambrian, Permian Oilfield Partners ran modeling to check for fault slip assuming the improbable occurrence of a total downhole well failure that would allow 100% of injected fluids to enter the PreCambrian. Software as discussed in #3 from the Stanford Center for Induced and Triggered Seismicity, "FSP 1.0: A program for probabilistic estimation of fault slip potential resulting from fluid injection", was used to calculate the probability of the PreCambrian fault being stressed so as to create an induced seismic event, with the following assumptions:
 - a. Full proposed capacity of 50,000 BBL/day for 30 years
 - b. 12.5 mD average permeability, 3% average porosity, .75 psi/ft frac gradient, .45 psi/ft hydrostatic gradient

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



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 5.14 miles away from the nearest active or permitted Devonian disposal well.

Gay E. Fisher

gfisher@popmidstream.com

(817) 606-7630

Current Wellbore Schematic

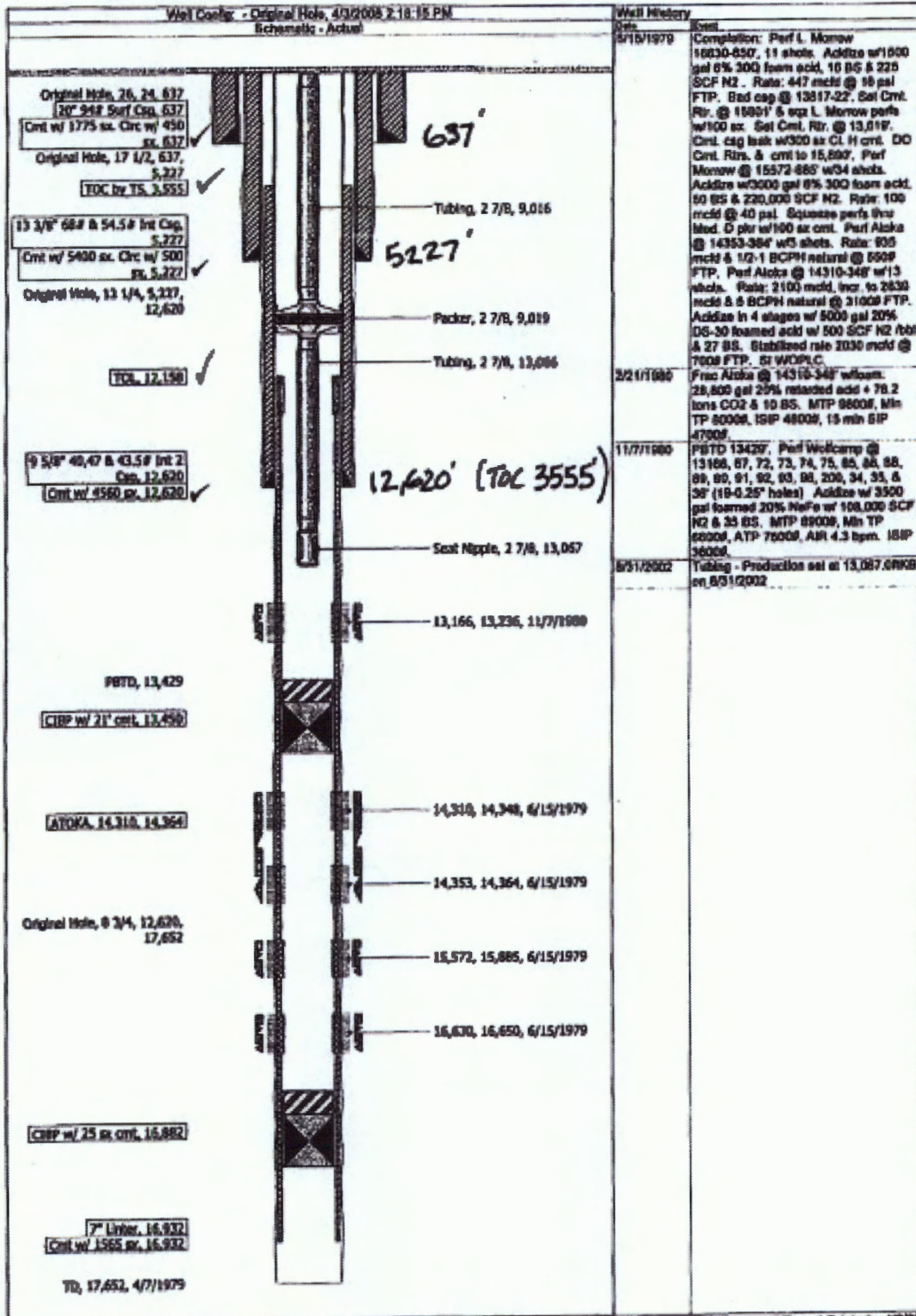
STATE 29 J 1

SECTION VI: API No. 30 025 26158, STATE 29 J #1 has been plugged back and is currently producing out of the Wolfcamp (PBTD 13,429').

Field: TRISTE DRAW EAST
County: LEA
State: NEW MEXICO
Elevation: GL 3,620.00 KB 3,644.00
KB Height: 24.00

Location: SEC 29, 24S-33E, 1980 F&L & 1980 FEL

Spud Date: 12/11/1978
Initial Compl. Date:
API #: 3002526158
CHK Property #: 890787
1st Prod Date: 11/1/1980
PBTD: Original Hole - 13429.0
TD: 17,852.0



Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88201
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

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

Form C-103
Revised July 18, 2013

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-26158
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator EOG RESOURCES INC		6. State Oil & Gas Lease No.
3. Address of Operator PO BOX 2267 MIDLAND, TX 79702		7. Lease Name or Unit Agreement Name STATE 29 J
4. Well Location Unit Letter J : 1980 feet from the SOUTH line and 1980 feet from the EAST line Section 29 Township 24S Range 33E NMPM County LEA		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GR		9. OGRID Number 7377
		10. Pool name or Wildcat TRISTE DRAW; WOLFCAMP, EAST

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	CHANGE PLANS ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	MULTIPLE COMPL ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐		CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG proposes to P&A this wellbore ASAP using the attached procedure:

**See Attached
Conditions of Approval**

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Kay Maddox

TITLE Regulatory Analyst

DATE 09/21/2018

Type or print name Kay Maddox

E-mail address: kay_maddox@eogresources.com

PHONE: 432-686-3658

For State Use Only

APPROVED BY:

Mark Whitaker

TITLE P.E.S.

DATE 09/27/2018

Conditions of Approval (if any):

State 29 J #1

AP# 30-033-36158
 Sect 25, T54S, R33E
 1.000' SEC. & 1.000' REL.
 LEA, NM



SPUD 12/11/1978
 COMP 6/15/1979

Hole	Well	Remarks
26"	KB: 3,544' Perf & squeeze @ 60' to surface	Circulated 450 sbs to surface
17-1/2"	Perf & squeeze @ 487-487' Perf & squeeze @ 1,000-1,100' 50 sh Class C at 5,177-277'	Circulated 500 sbs to surface
	50 sh Class C at 7,125-225'	
	50 sh Class II at 9,250-350'	
	120 sh Class II to cover 7" liner top 12,100-670'	Cemented w/ 4,560 sbs; Unknown TOC on 5.5"
12-1/4"	Set CTBP @ 13,120 and dump 25 sbs of Class II 13,166-13,236; 11/7/1980 Wellcamp Perf 14,310-14,348; 6/15/1979 14,383-14,364; 6/15/1979 15,572-15,885; 6/15/1979 16,630-16,650; 6/15/1979 TD 17,653 on 4/7/1979	Cemented w/ 1,565 sbs; Unknown TOC on 7"
8-3/4"	7" 12.5# N-80 AB PL-48 LTC Liner to 15,419' TOL @ 13,023' PETD @ 14,058' TD @ 14,109' CTBP w/ 21' cent @ 13,450'	
	28" 94# STC to 437' 13-3/8" 54,566# STC to 5,227'	
	7" Liner Top is at 12,150' 9-5/8" 4043,547# to 12,620'	

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

3-NMOC-D-HOBBS
1-W. A. PRNKA-TULSA
1-RAY BLOHM-MIDLAND
1-FILE

1-SOUTHLAND ROYALTY
1100 WALL TOWERS WEST

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease
State ☒ Fee ☐

5. State Oil & Gas Lease No.
LG-5547

7. Unit Agreement Name

8. Name of Lease Home
State 29 "J"

9. Well No.
1

10. Field and Pool, or Wildcat
Wildcat

12. County
Lea

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR APPLICATIONS TO ABANDON OR REOPEN A WELL OR TO A DIFFERENT RESERVOIR.
SEE APPLICATION FOR PERMIT AND OTHER CHARGE FOR SUCH PROPOSALS.)

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

1. Name of Operator

Getty Oil Company

2. Address of Operator

P. O. Box 730, Hobbs, New Mexico 88240

3. Location of Well

UNIT LETTER J 1980 FEET FROM THE South LINE AND 1980 FEET FROM
THE East LINE, SECTION 29 TOWNSHIP 24-S RANGE 33-E NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)
3520 G.L.

16.

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐

OTHER ☐

REMEDIAL WORK ☐
COMMENCE DRILLING OPERATIONS ☐
CASING TEST AND CEMENT JOBS ☐

ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

OTHER Plugback from Atoka to Wolfcamp ☒

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

10-27-80 Rigged up Unit. Moved in frac tanks and installed BOP's.

10-28-80 Moved in rigged up Knox unit. Knox pumped 80 bbls. 8.6# KCL water down tbq.

10-29-80 16 hr. TP-1100# bled off. Killed with 80 bbls. 8.6# KCL water. Removed tree (unseat pkr.). Installed BOP.

10-30-80 Pulled tbq. McCullough ran CIBP and set in 7" liner at 13,450'. Dumped 21' cement to 13,429'. Ran 7" Lok-set pkr., 2.25" Profile nipple, and on-off tool.

10-31-80 TIH with tbq. Set 7" Baker Lok-set pkr. at 12,310'. Retrieved on-off tool. Circulated tbq. and csg. with 3% KCL 8.65# water with corrosion inhibitor. Rigged down.

11-1-80 Bled down csg. Removed BOP. Installed tree. Tested to 9000# OK. Rigged up swab unit. Swabbed to 7800'.

(CONTINUED ON BACK)

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Dale R. Crockett

TITLE Area Superintendent

DATE 11-10-80

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

LM

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-77

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

0+6-NMOCD-Hobbs 1-Mr. J.A.-Midland
1-File 1-Engr JM
1-Foreman CK 1-JA
1-BB 1-BK

State ☒	Perm ☐
3. State of New Mexico License No. LG-5547	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE APPLICATION FOR PERMIT - (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐	7. Unit Agreement Name
2. Name of Operator Getty Oil Company	8. Farm or Lease Name State 29 J
3. Address of Operator P.O. Box 730, Hobbs, NM 88240	9. Well No. 1
4. Location of Well UNIT LETTER J 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 29 TOWNSHIP 24S RANGE 33E N.M.P.M.	10. Field and Pool, or Wildcat East Trustee Draw Wolfcamp
15. Elevation (Show whether DF, RT, GR, etc.) 3520	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐
OTHER ☐

PLUG AND ABANDON ☐
CHANGE PLANS ☐
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☒
COMMENCE DRILLING OPS. ☐
CASING TEST AND CEMENT JOBS ☐
OTHER ☐

ALTERING CASING ☐
PLUG AND ABANDONMENT ☐
OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

7/2/84 TD 16,935', PBTD 13,450'. Perfs @ 13,166-13236'. 13 3/8" @ 5227', 9 5/8" @ 12,620', 7" @ 12,158-16,832. Replace plug. Rig up pulling unit.
7/3/84 Kill well w/ 70 bbls. 3% KCL. Packer fluid.
7/5/84 SI 38 hours, TP 2000#. Load hole w/ 150 bbls 2% KCL. Repair head and install BOP. Work loc-set pkr 3 hours and pull 16 jts.
7/6/84 Pull tbq & loc-set pkr. By CRC ran gauge ring to 13,560'. Set Howco retainer @ 13,410'. Ran 240 jts tbq.
7/7/84 Ran 2 7/8" tbq string into cement retainer @ 13,410'. By Howco cement w/ 100 sxs class "H" w/ .05% Halad 5. Displace cement to 13,260' w/ 1700#. Raise tbq to 13,385' and reverse out 4 sxs. Pull 236 jts tbq.
7/9/84 Finish pulling tbq and stringer. Ran pkr on total 393 jts 2 7/8" tbq (12,268'). Set @ 12,290' Baker loc-set @ 12,286', 2.25" profile nipple @ 12,284', on-off @ 12,280'. Install wellhead.
7/10/84 SI 12 hours, TP 350#. Open to pit 1/2 hour, dead. Swab 3 1/2 hours, FL 1000, recovered 55 bbls load. Flow to pit 6 hours. Rig down unit. Placed well back on production.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Area Superintendent
August 1, 1984
ORIGINAL SIGNED BY JERRY SEXTON
APPROVED BY DISTRICT SUPERVISOR
CONDITIONS OF APPROVAL, IF ANY:

AUG - 6 1984



State 29 J 31 - P&A Procedure

API# 30-025-216158

Sect 32, T24S, R33E

1,980' FSL & 1,980' FEL

LEA, NM

1. Set a 7" CIBP @ 13,120' & dump 25 sk Class H on top of CIBP to cover the existing Wolfcamp perforations.
2. Circulate well with 9 ppg mud. Pressure test the casing.
3. Spot a 120 sk Class H plug from 12,108' to 12,670' to cover the 9-5/8" shoe x 7" Liner Top; WOC and tag.
4. Spot 50 sk Class H plug @ 9,250'-9,350' to cover the Top of the Bone Spring Interval.
5. Spot a 50 sk Class C plug at 7,125-7,225" (spacer plug).
6. Spot a 50 sk Class C plug @ 5,177-5,277' to cover the Delaware & Canyon Sands; WOC 4 hrs. & tag.
7. Spot a 50 sk Class C plug from 3,700'-3,800'. (Salt & Anhydrite)
8. Perf and Squeeze 50sx Class C @ 1,000'-1,100' to cover the inside and outside of the 9-5/8" casing to the top of the salt; WOC 4 hrs. & tag. (Rustler)
9. Perf and Squeeze 9-5/8" casing at 487'-687'. WOC and tag.
10. Perf and squeeze the 9-5/8" casing at 60' and verify that there is cement to surface in all annuli.
11. Cut off WH 3 feet below surface. 100'
12. Weld on P&A marker. Cut off anchors three feet below surface. Clean location.

^
UPRIGHT MARKER

GENERAL CONDITIONS OF APPROVAL:

- 1) Insure all bradenheads have been exposed, identified, and valves are operational prior to rigging up on well.**
- 2) Contact the appropriate NMOCD District Office no later than 24 hours prior to moving in and rigging up.**
- 3) A copy of the approved C103 intent to P&A should be distributed to the onsite company and plugging representatives. Approved procedures are good for a period of one year from approved date, unless otherwise specified on the C103 intent. Approvals past this date will require the submission and approval of a new C103 intent.**
- 4) A company representative is required to be present to witness all operations including setting CIBP's, circulation of mud laden fluids, perforating, squeezing or spotting cement plugs, tags, or any other operations approved on the C103 intent to P&A. Company representative should contact the NMOCD and report all operations.**
- 5) Any changes that may be required during plugging operations should be approved by the NMOCD before proceeding.**
- 6) A closed loop system is to be used for all plugging operations. Contents of the steel pits to be hauled to a NMOCD permitted disposal facility.**
- 7) Mud laden fluids must be placed between all cement plugs mixed at 25 sacks of salt gel per 100 barrels of brine.**
- 8) All cement plugs will be 100' or 25 sacks cement, whichever is greater. Class 'C' cement will be used above 7500' and Class 'H' below 7500'.**

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

3-NMOCC-HOBBS
1-R.J. STARRAK-TULSA
1-A. B. CARY-MIDLAND
1-ELB, ENGR.

1-HC, FOREMAN
1-FILE
1-BH, FIELD CLK
1-SOUTHLAND-MIDLAND
1-AMOCO-HOBBS
1-AMOCO-HOUSTON

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-63

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.

SUNDARY NOTICES AND REPORTS ON WELL

1. ☐ OIL WELL ☒ GAS WELL ☐ OTHER-
2. Name of Operator
Getty Oil Company
3. Address of Operator
P. O. Box 730, Hobbs, NM 88240
4. Location of Well
UNIT LETTER J 1980 FEET FROM THE South LINE AND 1980 FEET FROM
THE East LINE, SECTION 29 TOWNSHIP 24S RANGE 33E NMPM.

7. Unit Agreement No.
8. Form of Lease Name
State 29 "J"
9. Well No.
1
10. Field and Pool, or Wildcat
Wildcat
12. County
Lea

15. Elevation (Show whether DF, RT, GR, etc.)
3520' GL

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐
OTHER ☐
PLUG AND ABANDON ☐
CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
COMMENCE DRILLING OPNS. ☐
CASING TEST AND CEMENT JOBS ☐
OTHER Repair csg. and completion ☒
ALTERING CASING ☐
PLUG AND ABANDONMENT ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

4-8-79 Dual Induction-SFL (16,923-12,615'), Compensated Neutron-Formation Density (16,932-12,600'), BHC Sonic w/Gamma Ray (16,833-12,612'), Dipmeter (16,846-12,612'), Gamma-Ray-Spectroscopy Log (16,846-12,616'), Fracture Identification Log (16,846-12,612') and Cyberlook (16,000-13,000').

4-22 TD 17,523', Devonian. Top of Devonian by samples at 17,460'. A drill stem test was run in the upper Devonian to evaluate drill breaks.

DST #1: 17,460-17,523' (63')
Opened tool for 15 minute pre flow with weak blow. Shut in 65" for ISIP.
Tool opened 175 minutes for FFP with weak blow of air throughout flow period. No GTS.

Surface choke - 1", bottom choke - 3/8".

IHH	8588#	FFP (175")	3182#
IFP (15")	3030#	FSIP (240")	7254#
ISIP (65")	4976#	FHH	8575#

Used 6700' water blanket. Recovered 6700' WB plus 434' DF with no shows. Sample chamber recovery dry, 0#.

18. I hereby certify that the information on this report is true and complete to the best of my knowledge and belief.

(CONTINUED)

SIGNED [Signature] TITLE Area Superintendent DATE 7-30-79
Date R. Crockett

APPROVED BY Jerry Sexton TITLE Dist. 1, Supv. DATE AUG 2 1979
CONDITIONS OF APPROVAL, Dist. 1, Supv.

4-25 TD 17,652', Upper Silurian.

DST #2: 17,585-17,652' (67').

Opened tool for 15 minute pre flow with weak blow increasing slightly at end of flow period. Shut in 60 minutes for ISIP. Tool opened 120 minutes for FFP with weak blow increasing to fair blow at end of flow period. No GTS.

Surface choke - 3/8", bottom choke - .62"

IHH	8724#	FFP (120")	3325-3877#
IFP (15")	3065-3162#	FSIP (240")	7363#
ISIP (60")	7233#	FHH	8692#

Used 6790' water cushion. Rversed out 6790' water cushion plus 1732' of drill fluid cut with formation water. Recovered 120' black sulfur water above circulating sub. Sample chamber recovered 1900 cc black sulfur water plus 5.6 cubic feet of gas at 120#, BHT at 17,648' was 250°F.

4-26 & TD 17,652', Driller - 17,645', Schlumberger. PBTD 16,742'. Currently running
4-27 2 7/8" production tubing. Ran Schlumberger electric logs as follows:

BHC-Sonic w/Gamma Ray (17,635-16,906'), Compensated Neutron-Formation Density (17,636-16,906'), Dual Laterolog-Micro-SFL (17,639-16,906'), Gamma-Ray Spectroscopy Log (16,932-12,600') and Cyberlook (17,630-16,906'). Cement Bond Log (16,910-12,000').

4-28 Set CIBP at 16,882'. Circulated hole with 9.1# brine. Spotted 25 sxs Class "H" cement, 3/4% CFR-2 16,742-16,882'.

4-29 Schlumberger ran Cement Bond Log with 3000# on csg. OK, 16,682-12,000'.

4-30 & Ran Baker Lockset pkr. and 421 jts. (13,022') 2 7/8" tbg. Displaced to 12,000'
5-1 with nitrogen. Set pkr. 13,054', profile at 13,048', and on & off tool 13,046'. Installed wellhead. Released rig 3:00 a.m.

5-4 Set gas unit. Connecting flow lines.

5-5 Connected up gas unit.

5-7 By Dresser Atlas, ran PFC Log 15,000-16,595'. Perf. 7" csg. .39" hole, 11 holes, 16,630,32,34,36,38,40,42,44,46,48,50'. Pulling gun. Flow 9 hrs., 20/64, TP-40#. 6' flare. TSTM. No fluid. 3 1/2 hr. shut-in TP-115#.

5-8 Cardinal treated 7" perfs. 16,630-50', 11 holes, with 1500 gals. 6% foamed acid, 16 ball sealers, using 225,000 SCF N₂. Formation broke 8800#. Maximum treating pressure 9400#, min. 8800#, ISIP 8200#, rate 5 BPM, 15 min. 7900#. Displaced acid to perfs. and overflushed with 3 bbls. Total load 225 bbls. Flowed 12 1/2 hrs. 110 BLW, 447,000 CFG, TP-16#. No fluid last 9 hrs.

5-9 Kill well with 110 bbls. 2% KCl water. Dresser Atlas ran 1 11/16" X-plug (thru tbg. BP) and stopped at 13,811' while pulling tools. Swabbed well in, 15-20 bbls. condensate. Loaded tbg. with 67 bbls. 2% KCl water.

5-17 Rigged up rotary tools. Installed BOP and choke lines.

- 5-18-79 Installed hydril. Tested BOP. Unseated pkr. at 13,050'. Pumped 950 bbls. 17# mud (hole cap. 631 bbls.). Did not circulate.
- 5-19 Pulled tbg. and pkr.
- 5-21 Ran lead impression block to 12,997'. Wash 13,616'. Tag up 13,817' with lead block.
- 5-22 Ran 6 1/8" flat bottom mill. Fell free at 13,822'. Ran mill to 13,853'. Bad pipe 13,817-22'.
- 5-23 to 5-27 Using 6 1/8" taper mill. Milled and washed 13,817-22'. Dresser Atlas unable to run Verta Log. Bad pipe at 13,817-22' is in middle of jt. Ran taper mill - drilled out bad pipe.
- 5-28 Ran EZ drill retainer and set at 15,801'. Cemented with 100 sxs Class "H" .8% Halad 22, .6% HR-12, 5# KCl/sx. Reversed out 10 sxs.
- 5-29 Ran RTTS and set at 13,616'. Pump in, broke 3200#, back 2950#, 2 bbls. ISIP 2600#, 20 min. 1950#. Pulled RTTS. Ran EZ drill retainer 13,619-21'. Howco cemented with 300 sxs Class "H" .8% Halad 9, .2% HR-4, pressured 2900#, 2 BPM, ISIP 2550#. CP-1500#-1350#. Reversed out 2 bbls. Small gas.
- 5-30 Ran bit and drilled retainer 13,619'.
- 6-1 Pumped in 3400-3100' 3 BPM, with 300 sxs Class "H", .8% Halad 9, and 2% HR-4. Maximum pressure 4500#, min. 3000#, 2 BPM, ISIP 2600#, & 15 min. 2550#. Displaced cement 13,736'. WOC.
- 6-2 Drilled cement stringers 13,627-13,740'. Good cement 13,740-13,822'. Tested squeeze 2500#, 3/4 hr. O.K.
- 6-3 Drilled retainer 15,803'. Drilled cement 15,890'. By Howco, displaced hole with 10# brine.
- 6-4 Dresser Atlas ran gauge ring 15,889'. Set Baker pkr. at 15,000', F nipple 1.81 profile at 15,081-19', mill out extension at 15,003-09', and 2 3/8" pup jt. 15,019-15,027'. Tested tbg. in hole
- 6-5 Ran 481 jts. 2 7/8" tbg., set in Baker Model "D" pkr. at 15,000'. Displaced tbg. to 12,000' with N₂. Installed wellhead on top of rotary table. Tested tbg. with 7000#.
- 6-6 Dresser Atlas perf. 7" csg., .25" hole, 34 holes, at 15,572,73,74,75,76,77, 78,79,80,15,608,09,10,16,17,18,19,20,21,22,23,24,35,36,37,38,39,15,278,79,80, 81,82,83,84, & 85'. Rigged down. Had 300# on wellhead. Opened well up. Had 25' flare. Est. 500 MCF. In 2 hrs. pressure went to 0#. After 10 hrs. flow, had 3' flare. 10# brine & 2% KCl.

- 6-7-79 By Cardinal, treated 7" csg. perfs., 15,572-15,885', 34 holes, with 5000 gals. Quality Foamed 6% acid with 50 - 7/8" RCN ball sealers with 220,000 SCF N₂. Pkr. at 15,000'. Broke down formation at 5500# at 2 BPM. Started acid and N₂. Flushed with 120 bbls. 10# brine with foam and KCl. Maximum 9400#, min. 5900#, avg. 5 BPM, ISIP 4700#. Balled out 9400#. Load to recover - 232 bbls. liquid and 153 bbls. N₂. FTP-4450#. Flowed 17 1/2 hrs., TP-40#. Est. 100,000 CFG.
- 6-8 Flowing and testing. 24 hr. test. TP-40#. 10-6' flare. Est. 2-3 bbls. fluid per hr.
- 6-9 Laying down 1000' 2 7/8" tbg. Flowed 10 hrs., TP-0-20#, no fluid. Howco squeezed perfs., 15,572-885', thru Baker Model D pkr. at 15,000' with 100 sxs Class "H", .8% Halad 9, .2% HR-4. Displaced cement to 15,200'. Maximum pressure 5500#, ISIP 4800#.
- 6-10 Ran Baker 7" Lockset pkr. on 449 jts. 2 7/8" tbg. Set pkr. 14,002-06' and 2.25 profile nipple at 13,976'. Displaced tbg. to 12,000' with 95,000 SCF N₂. Installed wellhead. Bled off N₂, 7/64" choke. Rigged up Dresser Atlas. Ran 2 1/8" gun and stopped at 173'. 1 11/16" tool stopped at 213'.
- 6-11 Dresser Atlas perf. 7" csg., Atoka, 1 spf, .39" hole at 14,353,55,58,61, & 64' = 5 holes. Opened 4 p.m. No increase. Shut in 1 hr. Opened, TP-955#. Unloaded water. TP to 1720#. 12/64" choke. Opened 16/64" choke, TP-1500#. TP-850#, 1.5 MCFG. Stable, TP-550#, 935 MCF, 1/2 to 1 BO, and no water.
- 6-12 Dresser Atlas perf. balance of Atoka zone 14,310,14,16,18,25,26,31,33,37, 42,44,46,48' = 13 holes, .39", Jumbo Jet gun. Shut in 17 hrs., TP-6600#. Opened 14/64", TP-3100#, 2,839,000 CFG and 5 BO/hr.
- 6-13 Test 9 1/2 hrs. TP-750#, 945 MCF and 2 bbls. condensate. SITP 1700#. Flowed 12 1/2 hrs. 1700-475#. Shut in - 703 MCFG. Hooked up Western and Howco, 14,310-14,364' to treat.
- 6-14 Rigging down rotary tools. 30 days. Western treated 7" csg. perfs., 14,310-14,364' with 5000 gals. 20% DS 30 acid and 27 high density ball sealers. 4 stages. Pkr. set at 14,002-14,006'. 1000# increase in balls. Flushed with 73 bbls. 10# brine with 2% KCl. Avg. pressure 6800#, maximum 7600#, minimum 6400#. All fluid had 500 SCF N₂ per bbl. Total of 96,000 SCF N₂. ISIP 5000#. 5 min. 4800#, 10 min. 4750#, and 15 min. 4750#. Job finished at 7:10 a.m. Avg. rate 7.1 BPM. Total load to recover 193 bbls. Opened well at 7:45 a.m. Bottom up in 35 min. Gas started flowing at 12:00 p.m., choke 30/64", FTP 600# - 2.5 MCF. On 20/64", TP increased to 650# - 1.5 MCF. At 12:30 p.m., 20/64", TP-650# - 1.8 MCF. At 2 p.m., 700# TP - 2.03 MCF. Cameron set back pressure valve in wellhead.
- 6-15 Rigging down.

- 11-3-80 McCullough perforated 7" liner 1 spf. with a .25" hole at 13,166,67,72,73,74,75, 85,86,88,89,90,91,92,93,98, 13,200,34,35,36 = 19 holes. Fluid level at 8300'. Gas to surface in 40 min. 2' flare. Well started flowing.
- 11-6-80 Flowed and tested. Western treated Wolfcamp perms., 13,166-13,236', with 3500 gals. of 20% NE acid and 35 ball sealers. Maximum treating pressure 8900#, minimum 6600#, rate 4.3 BPM. ISIP 3600#. Used 108,000 SCF N₂. Load = 145 bbls. 15 min. SIP 3000#. Opened to pit 5 hrs. - TP-125# with 24/64" choke to tank. 13 hrs. TP-850#. Recovered 210 bbls. fluid and good gas.
- Flowing and testing.