STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF PERMIAN OILFIELD PARTNERS, LLC TO APPROVE SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO.

CASE NO. 20573

APPLICATION

Permian Oilfield Partners, LLC ("Permian"), OGRID No. 328259, through its undersigned attorneys, hereby submits this application to the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-12, Rule No. 19.15.26, and Rule 19.15.4.8 for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, Permian states as follows:

(1) Permian proposes to drill the JDAM Federal SWD Well #1 well at a surface location 2027 feet from the South line and 250 feet from the East line of Section 23, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a produced water disposal well.

(2) Permian seeks authority to inject produced water into the Silurian-Devonian formation at a depth of approximately 17,573' to 19,043'.

(3) Permian further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.

(4) Permian anticipates using an average injection pressure of 2,000 psi for this well and it requests approval of a maximum injection pressure of 3,515 psi for the well.

(5) On or about April 26, 2019, Permian filed an administrative application with the Division seeking administrative approval of the subject well for produced water disposal.

(6) Permian complied with the notice requirements for administrative applications, including mailing and publication in the Hobbs News Sun.

(7) The New Mexico State Land Office submitted a protest with respect to Permian's administrative application. Permian discussed the State Land Office's protest with the State Land Office. The State Land Office requested that Permian submit an application for hearing before a Division Examiner for this matter.

(8) To Permian's knowledge, no other protests were submitted.

(9) A proposed C-108 for the subject well is attached hereto in Attachment A.

(10) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, Permian requests that this application be set for hearing before an Examiner of the Oil Conservation Division on June 13, 2019; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: 

Deana M. Bennett
Susan Miller Bisong
Post Office Box 2168
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
Deana.Bennett@modrall.com
Susna.Bisong@modrall.com
Attorneys for Applicant

CASE NO. 20573: Application of Permian Oilfield Partners, LLC for approval of a salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Silurian-Devonian formation through the JDAM Federal SWD Well #1 well at a surface location 2027 feet from the South line and 250 feet from the East line of Section 23, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a produced water disposal well. Applicant seeks authority to inject produced water into the Silurian-Devonian formation at a depth of approximately 17,573' to 19,043'. Applicant further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 20.0 miles West of Jal, New Mexico.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: JDAM 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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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

(817) 600-8772
Phone Number

spuryear@popmidstream.com
e-mail Address

EXHIBIT A

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

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.

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

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Additional Data

1. **Is this a new well drilled for injection?**
   Yes

2. **Name of the Injection Formation:**
   Devonian: Open Hole Completion

3. **Name of Field or Pool (if applicable):**
   SWD; Devonian-Silurian

4. **Has the well ever been perforated in any other zone(s)?**
   No: New Drill for Injection of Produced Water

5. **Give the name and depths of any oil or gas zones underlying or overlying the proposed Injection zone in this area:**

   Overlying Potentially Productive Zones:
   Delaware, Bone Spring, Wolfcamp, Strawn, Atoka & Morrow Tops all above 15,423'

   Underlying Potentially Productive Zones:
   None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
JDAM Federal SWD #1
2027' FSL, 250' FEL
Sec. 23, T25S, R33E, Lea Co. NM
Lat 32.1143369° N, Lon 103.5354068° W
GL 3338', RKB 3368'

Surface - (Conventional)

Hole Size: 26" **Casing:** 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 970'
Cement: 629 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: 5086'
Cement: 1664 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: 12315' **ECP/DV Tool:** 5186'
Cement: 2126 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: 12115'
Depth Btm: 17579'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12115' - (Volumetric)

Intermediate #4 - (Open Hole)

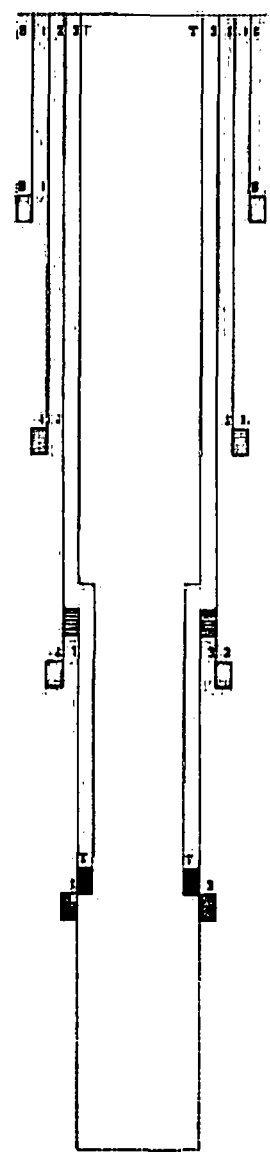
Hole Size: 6.5" **Depth:** 19049'
Inj. Interval: 17579' - 19049' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17528' **Tubing:** 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12115'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17538' **Packer:** 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Offield Partners, LLC.
JDAM Federal SWD #1
2027' FSL, 250' FEL
Sec. 23, T25S, R33E, Lea Co. NM
Lat 32.1143369° N, Lon 103.5334068° W
GL 3338', RKB 3368'



Surface - (Conventional)
Hole Size: 26"
Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 970'
Cement: 629 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: 5086'
Cement: 1664 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: 12315'
Cement: 2126 sks - Lite Class C (50:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5186'

Intermediate #3 - (Liner)
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 12115'
Depth Btm: 17573'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12115' - (Volumetric)

Intermediate #4 - (Open Hole)
Hole Size: 6.5"
Depth: 19043'
Inj. Interval: 17573' - 19043' (Open-Hole Completion)

Tubing - (Tapered)
Tubing Depth: 17528'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12115'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17538'
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 3,515 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.
JDAM Federal SWD #1
2027' FSL, 250' FEL
Sec. 23, T25S, R33E, Lea Co. NM
Lat 32.1143369° N, Lon 103.5354068° W
GL 3338', RKB 3368'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,260	4,818	3,558
Delaware	5,061	9,220	4.159
Bone Spring	9,220	12,265	3,045
Wolfcamp	12,265	13,322	1,057
Lwr. Mississippian	16,967	17.338	371
Woodford	17,338	17,538	200
Devonian	17,538	18,453	915
Fusselman (Silurian)	18,453	19.068	615
Montoya (U. Ordovician)	19,068	19,811	743
Simpson (M. Ordovician	19.811	20.368	557

2. According to the New Mexico Office of the State Engineer and field exploration, there are NO fresh water wells drilled within the proposed well's one-mile area of review. Regionally, shallow fresh water is known to exist at depths less than 625'. There are no underground sources of fresh water present below the injection interval.

IX: Formation chemical stimulation with 40,000 gals of 15% Hydrochloric Acid is planned after well completion.

X: A compensated neutron/gamma ray log will be run from surface to TD upon well completion. All logs will be submitted to the NMOCD upon completion.

XI: According to the New Mexico Office of the State Engineer and field exploration, there are NO fresh water wells drilled within the proposed well's one-mile area of review.

XII: Hydrologic affirmative statement attached.

XIII: Proof of notice and proof of publication attached.

PERMIAN OILFIELD PARTNERS

Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
JDAM Federal SWD #1
Sec. 23, Twp. 25S, Rge. 33E
2027' 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.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/25/2019

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	2 Pool Code	3 Pool Name
30-025-	97869	SWD; DEVONIAN-SILURIAN

4 Property Code	5 Property Name	6 Well Number
	JDAM FEDERAL SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
328259	PERMIAN OILFIELD PARTNERS, LLC	3338'

10 Surface Location

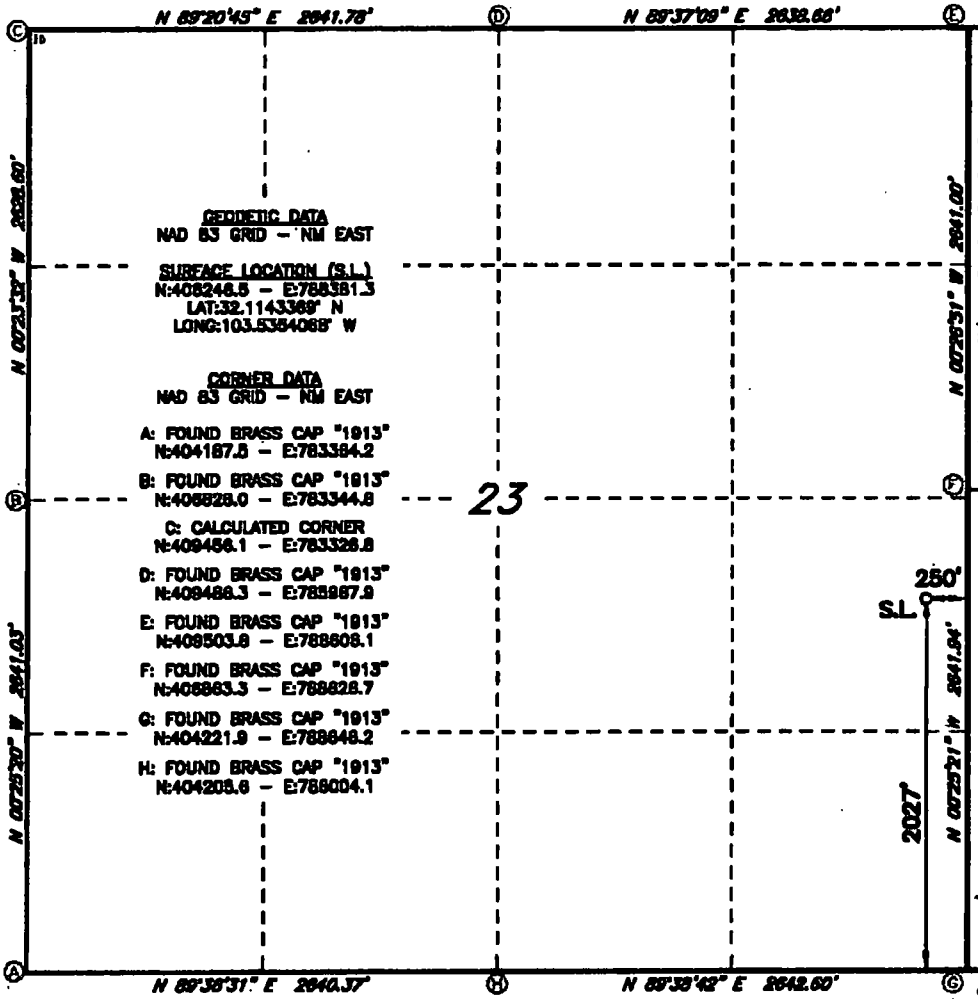
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
I	23	25S	33E		2027	SOUTH	250	EAST	LEA

11 Bottom Hole Location If Different From Surface

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

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

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



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 — Date: 4-17-2019

Gary E Fisher
Printed Name

gfisher@popmidstream.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

3-30-19
Date of Survey

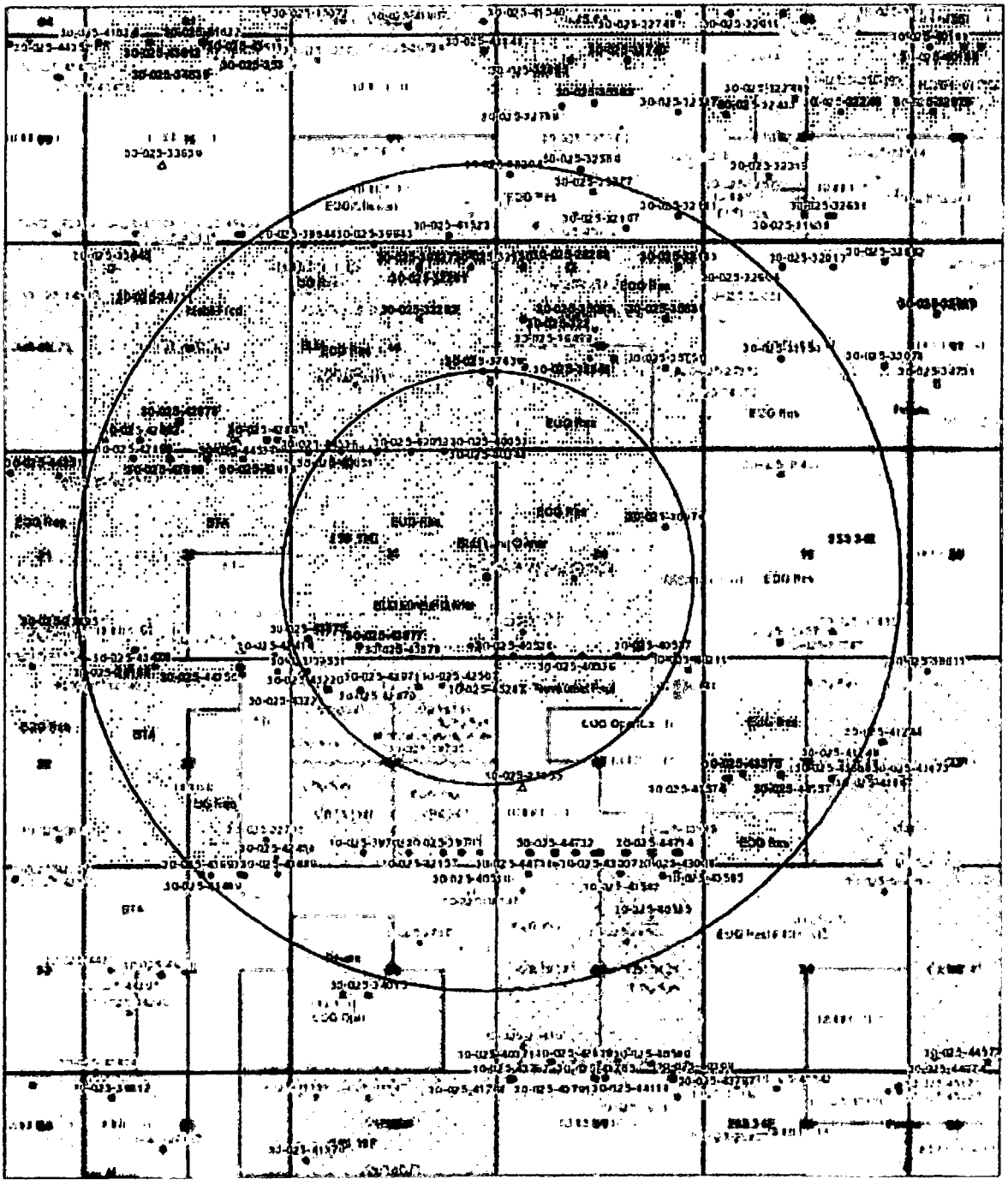
Signature and Seal of Professional Surveyor

JEFFREY L. EKHSLER
NEW MEXICO
10034
PROFESSIONAL SURVEYOR

10034
Certificate Number

Job No.: LS190302B1R

1 & 2 Mile AOR, JDAM Federal SWD #1



4/21/2019, 5:24:11 PM

Override 1

Well Locations - Small Scale

New

Plugged

Temporarily Abandoned

Well Locations - Large Scale

Miscellaneous

CO2 Cancelled

CO2, Plugged

Gas, New

Gas, Plugged

Gas, Temporarily Abandoned

Injection, Active

Injection, Cancelled

Injection, New

Injection, Plugged

Injection, Temporarily Abandoned

Oil, Active

Oil, Cancelled

Oil, Plugged

Oil, Temporarily Abandoned

Salt Water Injection, Active

Salt Water Injection, Cancelled

Salt Water Injection, New

Salt Water Injection Temporarily Abandoned

Water, Active

Water, Cancelled

Water, New

Water, Plugged

Water, Temporarily Abandoned

PLSS First Division

0.5 0 1 2 km

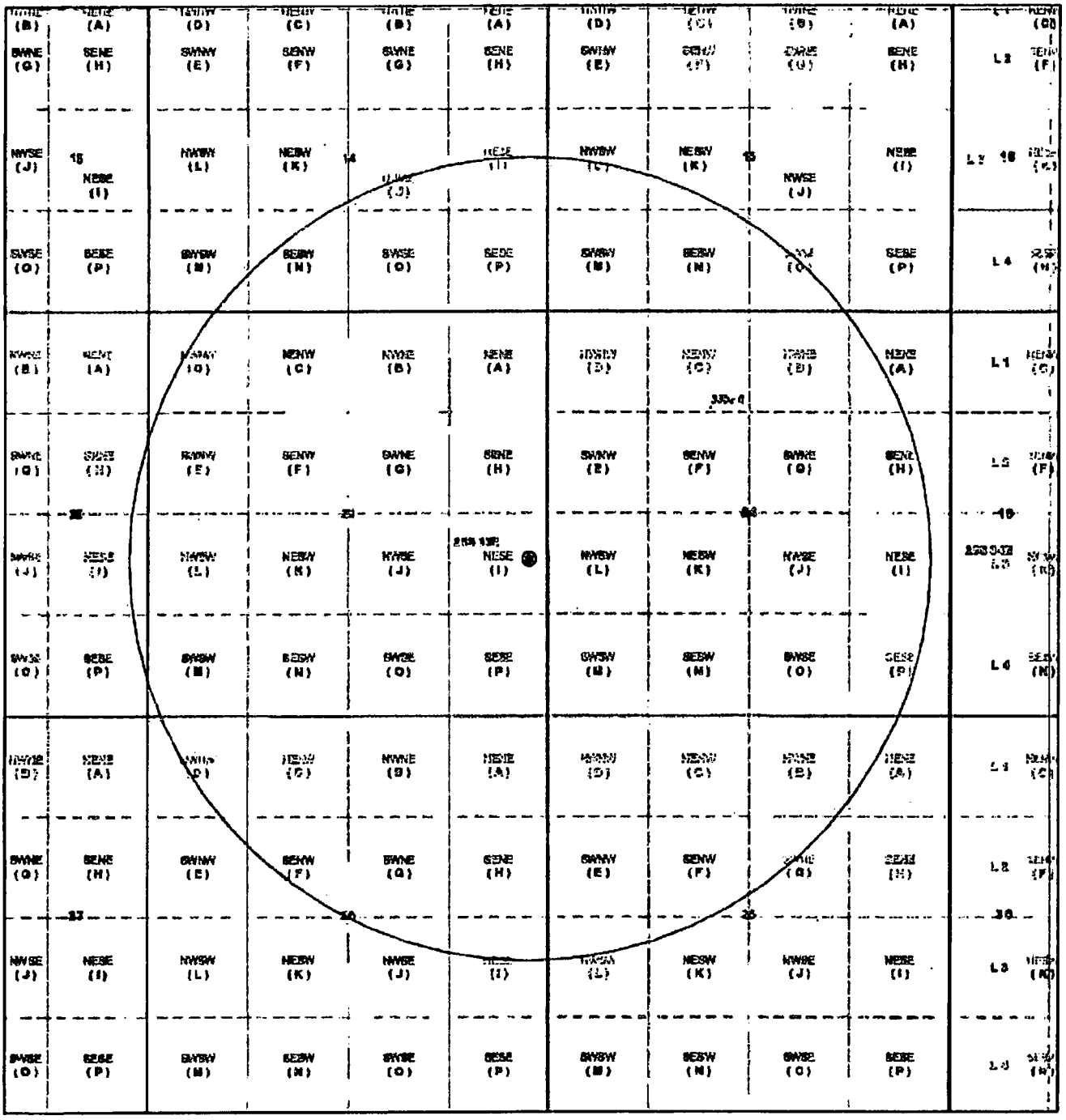
New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/ New Mexico Oil Conservation Division

JDAM Federal SWD #1 - Wells within 1 Mile Area of Review

API Number	Operator Name	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-025-08267	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	25	T26S	R33E	M	M-25-26S-33E 660 FSL 660 FWL	M-25-26S-33E 660 FSL 660 FWL	DELAWARE	5159	5159
30-025-08896	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	36	T26S	R33E	M	M-36-26S-33E 660 FSL 660 FWL	M-36-26S-33E 660 FSL 660 FWL	DELAWARE	5344	5344
30-025-28438	EOG RESOURCES INC	ANDERSON FOR US	#001	Gas	Vertical	Plugged, Site Released	24	T26S	R33E	L	L-24-26S-33E 1980 FSL 660 FWL	L-24-26S-33E 1980 FSL 660 FWL	MORROW	13400	13400
30-025-27724	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Plugged, Site Released	24	T26S	R33E	E	E-24-26S-33E 1980 FSL 1980 FWL	E-24-26S-33E 1980 FSL 1980 FWL	DELAWARE	5800	5800
30-025-42262	EOG RESOURCES INC	VACA 24 FEDERAL	#001H	Oil	Vertical	Cancelled App	24	T26S	R33E	I	I-24-26S-33E 2080 FSL 660 FEL	I-24-26S-33E 2080 FSL 660 FEL	BONE SPRING	12650	12650
30-025-42676	EOG RESOURCES INC	VACA 24 FEDERAL	#002H	Oil	Horizontal	Active	24	T26S	R33E	H	H-24-26S-33E 2080 FNL 660 FEL	C-13-26S-34E 1477 FNL 1497 FWL	BONE SPRING	14657	12249
30-025-42702	EOG RESOURCES INC	VACA 24 FEDERAL	#003H	Oil	Horizontal	Active	24	T26S	R33E	I	I-24-26S-33E 2080 FSL 660 FEL	E-13-26S-33E 2291 FSL 2401 FWL	BONE SPRING	14758	12255
30-025-42703	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#001H	Oil	Horizontal	Active	26	T26S	R33E	D	D-26-26S-33E 330 FNL 430 FWL	M-26-26S-33E 455 FSL 453 FWL	BONE SPRING	11973	9418
30-025-42705	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#002E	Salt Water Disposal	Vertical	Plugged, Not Released	26	T26S	R33E	G	G-26-26S-33E 2630 FNL 1930 FEL	G-26-26S-33E 2630 FNL 1930 FEL	BELL CANYON-CHERRY CANYON	14700	21000
30-025-42951	EOG RESOURCES INC	CABALLO 23 FEDERAL	#002H	Oil	Horizontal	Active	23	T26S	R33E	C	C-23-26S-33E 50 FNL 2200 FWL	B-13-26S-33E 4301 FNL 2221 FWL	BONE SPRING	14110	9456
30-025-42953	EOG RESOURCES INC	CABALLO 23 FEDERAL	#003H	Oil	Horizontal	Active	23	T26S	R33E	B	B-23-26S-33E 50 FNL 2200 FEL	D-23-26S-33E 4600 FNL 2202 FEL	BONE SPRING	14095	9440
30-025-42955	EOG RESOURCES INC	CABALLO 23 FEDERAL	#004H	Oil	Horizontal	Active	23	T26S	R33E	A	A-23-26S-33E 50 FNL 440 FEL	P-13-26S-33E 4629 FNL 431 FEL	BONE SPRING	14107	9449
30-025-42947	EOG RESOURCES INC	CABALLO 23 FEDERAL	#005H	Oil	Horizontal	Active	23	T26S	R33E	D	D-23-26S-33E 40 FNL 1295 FWL	B-23-26S-33E 379 FSL 1343 FWL	BONE SPRING	14025	9439
30-025-42948	EOG RESOURCES INC	CABALLO 23 FEDERAL	#006H	Oil	Horizontal	Active	23	T26S	R33E	A	A-23-26S-33E 30 FNL 1310 FEL	P-23-26S-33E 4621 FNL 1276 FEL	BONE SPRING	14023	9455
30-025-42939	EOG RESOURCES INC	VACA 24 FEDERAL COM	#002H	Oil	Horizontal	Active	24	T26S	R33E	M	M-24-26S-33E 50 FSL 430 FWL	L-13-26S-33E 3469 FSL 483 FWL	BONE SPRING	14097	9429
30-025-42939	EOG RESOURCES INC	VACA 24 FEDERAL COM	#004H	Oil	Horizontal	Active	24	T26S	R33E	N	N-24-26S-33E 50 FSL 2180 FWL	E-13-26S-33E 3689 FSL 2139 FWL	BONE SPRING	14091	9434
30-025-42950	EOG RESOURCES INC	VACA 24 FEDERAL COM	#005H	Oil	Horizontal	Active	24	T26S	R33E	N	N-24-26S-33E 50 FSL 1980 FWL	L-13-26S-33E 3689 FSL 2259 FWL	BONE SPRING	13780	9429
30-025-40536	EOG RESOURCES INC	VACA 24 FEDERAL COM	#006H	Oil	Horizontal	Active	24	T26S	R33E	O	O-24-26S-33E 50 FSL 2180 FEL	J-13-26S-33E 2035 FSL 2220 FEL	BONE SPRING	14020	9454
30-025-40537	EOG RESOURCES INC	VACA 24 FEDERAL COM	#007H	Oil	Horizontal	Active	24	T26S	R33E	P	P-24-26S-33E 50 FSL 1010 FEL	I-13-26S-33E 2305 FSL 1273 FEL	BONE SPRING	13907	9456
30-025-40538	EOG RESOURCES INC	VACA 24 FEDERAL COM	#008H	Oil	Horizontal	New	24	T26S	R33E	P	P-24-26S-33E 50 FSL 660 FEL	I-13-26S-33E 2300 FSL 430 FEL	BONE SPRING	13 [illegible]	9459
30-025-42562	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#702H	Oil	Horizontal	Active	26	T26S	R33E	A	A-26-26S-33E 722 FNL 937 FEL	P-26-26S-33E 230 FSL 1003 FEL	WOLFCAMP	17275	11130
30-025-42698	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#703H	Oil	Horizontal	Active	26	T26S	R33E	A	A-26-26S-33E 721 FNL 927 FEL	P-26-26S-33E 380 FSL 830 FEL	WOLFCAMP	17218	13473
30-025-42570	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#703H	Oil	Horizontal	Active	26	T26S	R33E	B	B-26-26S-33E 721 FNL 1985 FEL	O-26-26S-33E 228 FSL 1787 FEL	WOLFCAMP	17835	13447
30-025-42577	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#704H	Oil	Horizontal	Active	26	T26S	R33E	B	B-26-26S-33E 721 FNL 2015 FEL	O-26-26S-33E 230 FSL 2535 FEL	WOLFCAMP	17825	13465
30-025-43018	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#705H	Oil	Horizontal	Active	26	T26S	R33E	C	C-26-26S-33E 807 FNL 1808 FWL	B-26-26S-33E 230 FSL 2084 FWL	WOLFCAMP	17680	13577
30-025-43219	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#706H	Oil	Horizontal	Active	26	T26S	R33E	C	C-26-26S-33E 807 FNL 1778 FWL	B-26-26S-33E 230 FSL 1489 FWL	WOLFCAMP	17672	13711
30-025-43220	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#707H	Oil	Horizontal	Active	26	T26S	R33E	D	D-26-26S-33E 808 FNL 979 FWL	M-26-26S-33E 230 FSL 834 FWL	WOLFCAMP	17621	13489
30-025-43221	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#708H	Oil	Horizontal	Active	26	T26S	R33E	D	D-26-26S-33E 808 FNL 949 FWL	M-26-26S-33E 230 FSL 930 FWL	WOLFCAMP	17764	13405
30-025-43869	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#501C	Oil	Horizontal	Cancelled App	26	T26S	R33E	B	B-26-26S-33E 714 FNL 1988 FEL	P-26-26S-33E 231 FSL 684 FEL	BONE SPRING	12185	11710
30-025-43853	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#502C	Oil	Horizontal	Cancelled App	26	T26S	R33E	C	C-26-26S-33E 714 FNL 2018 FWL	O-26-26S-33E 231 FSL 2188 FEL	BONE SPRING	11110	11277
30-025-43852	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#503H	Oil	Horizontal	New	26	T26S	R33E	C	C-26-26S-33E 714 FNL 2048 FWL	B-26-26S-33E 230 FSL 1930 FWL	BONE SPRING	12085	11744
30-025-43853	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#708H	Oil	Horizontal	Rigs	26	T26S	R33E	B	B-26-26S-33E 715 FNL 1983 FEL	P-26-26S-33E 230 FSL 1254 FEL	WOLFCAMP	17717	13477
30-025-43854	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#710H	Oil	Horizontal	New	26	T26S	R33E	C	C-26-26S-33E 734 FNL 2483 FWL	B-26-26S-33E 230 FSL 2612 FWL	WOLFCAMP	17788	13805
30-025-43875	EOG RESOURCES INC	CABALLO 23 FEDERAL	#701H	Oil	Horizontal	Active	23	T26S	R33E	M	M-23-26S-33E 484 FSL 426 FWL	L-24-26S-33E 2298 FSL 333 FWL	WOLFCAMP	17904	13455
30-025-43876	EOG RESOURCES INC	CABALLO 23 FEDERAL	#702H	Oil	Horizontal	Active	23	T26S	R33E	M	M-23-26S-33E 484 FSL 481 FWL	L-24-26S-33E 2027 FSL 667 FWL	WOLFCAMP	18120	13540
30-025-43877	EOG RESOURCES INC	CABALLO 23 FEDERAL	#703H	Oil	Horizontal	Active	23	T26S	R33E	H	H-23-26S-33E 900 FSL 1758 FWL	I-24-26S-33E 2280 FSL 1357 FWL	WOLFCAMP	18031	13422
30-025-43878	EOG RESOURCES INC	CABALLO 23 FEDERAL	#704H	Oil	Horizontal	Active	23	T26S	R33E	H	H-23-26S-33E 900 FSL 1780 FWL	E-14-26S-33E 2410 FSL 1786 FWL	WOLFCAMP	18757	13545
30-025-42957	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#505H	Oil	Horizontal	Active	26	T26S	R33E	H	H-26-26S-33E 713 FNL 1823 FEL	O-26-26S-33E 330 FSL 2480 FEL	BONE SPRING	11455	10854
30-025-43288	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#506H	Oil	Horizontal	Active	26	T26S	R33E	C	C-26-26S-33E 734 FNL 2518 FWL	H-26-26S-33E 117 FSL 1803 FWL	BONE SPRING	11764	10979
30-025-42958	EOG RESOURCES INC	CABALLO 23 FEDERAL	#705H	Oil	Horizontal	New	23	T26S	R33E	H	H-23-26S-33E 900 FSL 2231 FWL	E-14-26S-33E 2543 FSL 2430 FWL	WOLFCAMP	20015	13481
30-025-42965	EOG RESOURCES INC	CABALLO 23 FEDERAL	#706H	Oil	Horizontal	New	23	T26S	R33E	H	H-23-26S-33E 900 FSL 2264 FWL	J-14-26S-33E 2543 FSL 2230 FEL	WOLFCAMP	20033	13481
30-025-42966	EOG RESOURCES INC	CABALLO 23 FEDERAL	#707H	Oil	Horizontal	New	23	T26S	R33E	O	O-23-26S-33E 900 FSL 2098 FEL	J-14-26S-33E 2543 FSL 2180 FEL	WOLFCAMP	20053	13481
30-025-42967	EOG RESOURCES INC	CABALLO 23 FEDERAL	#708H	Oil	Horizontal	Rigs	23	T26S	R33E	O	O-23-26S-33E 900 FSL 2080 FEL	J-14-26S-33E 2543 FSL 2080 FEL	WOLFCAMP	20064	13481
30-025-42968	EOG RESOURCES INC	CABALLO 23 FEDERAL	#709H	Oil	Horizontal	Rigs	23	T26S	R33E	O	O-23-26S-33E 900 FSL 2062 FEL	J-14-26S-33E 2543 FSL 1980 FEL	WOLFCAMP	20101	13453
30-025-43289	EOG RESOURCES INC	CABALLO 23 FEDERAL	#711H	Oil	Horizontal	New	23	T26S	R33E	P	P-23-26S-33E 900 FSL 958 FEL	I-14-26S-33E 2543 FSL 860 FEL	WOLFCAMP	20114	13453
30-025-43873	EOG RESOURCES INC	CABALLO 23 FEDERAL	#712H	Oil	Horizontal	New	23	T26S	R33E	P	P-23-26S-33E 900 FSL 908 FEL	I-14-26S-33E 2543 FSL 920 FEL	WOLFCAMP	20017	13453
30-025-43723	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#503H	Oil	Horizontal	New	26	T26S	R33E	D	D-26-26S-33E 730 FNL 850 FWL	M-26-26S-33E 330 FSL 1020 FWL	BONE SPRING	11 [illegible]	10837
30-025-43726	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	#504H	Oil	Horizontal	New	26	T26S	R33E	D	D-26-26S-33E 753 FNL 850 FWL	M-26-26S-33E 330 FSL 930 FWL	BONE SPRING	11767	10804

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



4/17/2019, 11:01:52 AM

Override 1

Override 1

PLSS First Division

PLSS Second Division

PLSS Townships

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

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 Oil Conservation Division

NM OCD Oil and Gas Map, http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

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

Average Depth to Water: 142 feet
Minimum Depth: 90 feet
Maximum Depth: 185 feet

Record Count: 4

PLSS Search:

Township: 25S Range: 33E

*UTM location was derived from PLSS - see Help

4/22/19 6:48 PM

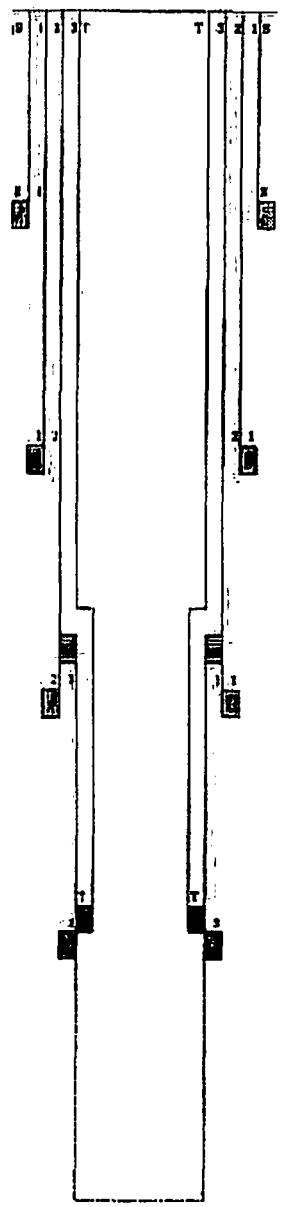
WATER COLUMN/ AVERAGE DEPTH TO WATER

Plugging Risk Assessment

Permian Oilfield Partners, LLC.
JDAM Federal SWD #1
SL: 2027' FSL & 250' FEL
Sec 23, T25S, R33E
Lea County, New Mexico

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
JDAM Federal SWD #1
2027' FSL, 250' FEL
Sec. 23, T26S, R33E, Lea Co. NM
Lat 32.1143369° N, Lon 103.5354068° W
GL 3338', RKB 3368'



Surface - (Conventional)
Hole Size: 26"
Casing: 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 970'
Cement: 629 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: 5086'
Cement: 1664 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: 12315'
Cement: 2126 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5186'

Intermediate #3 - (Liner)
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 12115'
Depth Btm: 17573'
Cement: 260 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12115' - (Volumetric)

Intermediate #4 - (Open Hole)
Hole Size: 6.5"
Depth: 19043'
Inj. Interval: 17573' - 19043' (Open-Hole Completion)

Tubing - (Tapered)
Tubing Depth: 17528'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12115'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17538'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

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

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 6¼" to 7⅛" Inclusive

Maximum Catch Size (Spiral)		6⅛	6½	7	7⅛
Maximum Catch Size (Basket)		5¾	6⅛	6⅝	6⅝
Overshot O.D.		8⅝	7⅝	8⅛	8⅝
Type		F.H.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	9217	C-5354
(Dressed Spiral Parts)	Weight	260	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.	88-89	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.	88-89	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 ½" UFJ Tubing Inside of 7 ⅝" 39# Casing

Tools are listed in order of maximum catch size.

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

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 4⅛" to 5⅝" Inclusive

Maximum Catch Size (Inches)		4⅛	4½	4¾	4⅞	5"	5⅛	5⅝
Maximum Catch Size (Inches)		3⅝	4⅛	4⅜	4½	4⅝	4¾	4⅞
Overshot O.D.		5¾	5¾	5¾	5¾	5¾	5¾	6⅛
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5000	5000	C-5150	5075	C-5171	C-4825	4825
(Dressed Spiral Parts)	Weight	130	130	133	139	149	152	155
Replacement Parts								
Top Sub	Part No.	5007	5000	A-5150	5070	A-5172	B-4820	4820
Bowl	Part No.	5003	5700	B-5170	5077	B-5173	B-4827	4817
Packer	Part No.	100	1140	B-2100	6114	L-5250	L-4300	4819
Spiral Grapple	Part No.	105	1135	B-2201	6112	B-4350	M-1071	4819
Spiral Grapple Control	Part No.	106	1137	B-2202	6113	B-4370	M-1072	4820
Standard Guide	Part No.	107	1143	B-2203	6121	B-4371	L-1074	4821
Basket Parts								
Basket Grapple	Part No.	105	1135	B-2201	6112	B-4350	M-1071	4819
Basket Grapple Control	Part No.	106	1137	B-2202	6113	B-4370	M-1072	4820
Mill Control Packer	Part No.	150-R	1140-R	B-2139-R	6114-R	L-5250-R	M-4305	L-4818-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)	Fiore 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.

PERMIAN OILFIELD
PARTNERS

Attachment to C-108
Permian Oilfield Partners, LLC
JDAM Federal SWD #1
Sec. 23, Twp. 25S, Rge. 33E
2027' FSL, 250' FEL
Lea County, NM

April 16, 2019

STATEMENT REGARDING SEISMICITY

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

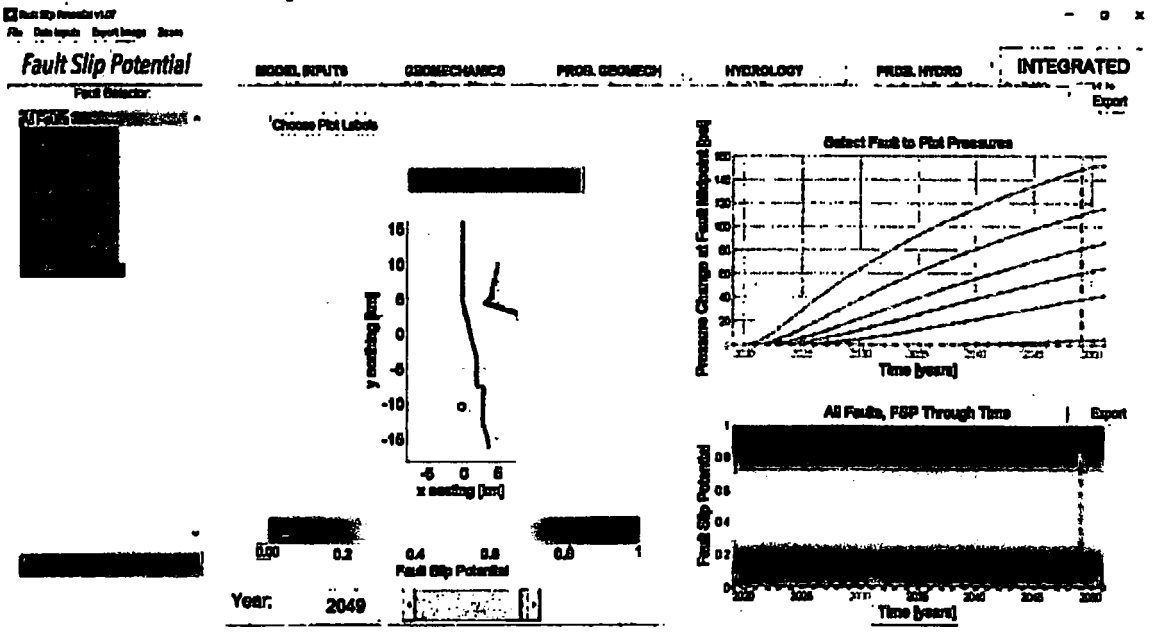
1. M2.9, 1984-12-09, 10.62 miles away @ 353.47 deg heading
2. M3.3, 2001-06-02, 27.74 miles away @ 56.18 deg heading
3. M4.6, 1992-01-02, 29.81 miles away @ 58.43 deg heading
4. M3.1, 2012-03-18, 23.90 miles away @ 299.17 deg heading

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-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. At the fault location closest to the wellbore, fault slip potential remains below 5% even where there is potential to see localized 150 psi pressure change.
6. The analysis below assumes an improbable well failure through the Montoya and Simpson zones, into the PreCambrian. When the injected fluids stay in the Devonian-Silurian zone as per design, there will be very low probability of fault slip, since there are no known nearby faults within the Devonian-Silurian.



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 2.07 miles away from the nearest active or permitted Devonian disposal well.

gfisher@popmidstream.com
(817) 606-7630

PERMIAN OILFIELD
PARTNERS

Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
JDAM Federal SWD #1
Sec. 23, Twp. 25S, Rge. 33E
2027' FSL, 250' FEL
Lea County, NM

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

JDAM 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
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561828025182	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561828025946	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561828025007	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561828025380	4/26/2019
BTA Oil Producers, LLC	104 S Pecos St	Midland, TX 79701	USPS	9414811899561828025761	4/26/2019
Newkumet Exploration Inc	500 W Texas Ave # 1410	Midland, TX 79701	USPS	9414811899561828025403	4/26/2019
Concho Resources, Inc.	550 W Texas Ave, Suite 1300	Midland, TX 79701	USPS	9414811899561828025670	4/26/2019
COG Operating LLC	600 W Illinois Ave	Midland, TX 79701	USPS	9414811899561828025618	4/26/2019

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

Date: 4-26-2019

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.

Daniel Russell
Publisher

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

Gussie Black
Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

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, P.O. Box 1220, Stephenville, TX 76401, phone (512) 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 JDAM Federal SWD #1, and is located 2027' FSL & 250' FEL, Unit Letter I, Section 23, Township 25 South, Range 33 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,573 feet to 19,043 feet. The maximum expected injection rate is 60,000 BWPD at a maximum surface injection pressure of 3,615 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.
#34058

67115647 00227335

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