Initial Application Part I

Received: **05/08/2019**

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

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
05/08/2019			pMAM19135 4501F

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: Super Siphon State SWD #2 **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.

05/07/2019
Date

Sean Puryear
Print or Type Name

(817) 600-8772
Phone Number

Signature

spuryear@popmidstream.com
e-mail Address

MAY 08 2019 PM02:46

PERMIAN OILFIELD
PARTNERS

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
Super Siphon State SWD #2
Sec. 36, Twp. 24S, Rge. 34E
1316' FSL, 250' FWL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Super Siphon State SWD #2 located in Sec 36, Twp 24S, Rge 34E, 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 all Affected Persons. 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:
05/07/2019

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: 5-7-2019

E-MAIL ADDRESS: **spuryear@popmidstream.com**

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

Additional Data

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

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

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

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

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

   Overlying Potentially Productive Zones:
   Delaware, Bone Spring, Wolfcamp, Strawn, Atoka & Morrow Tops all above 15,033'

   Underlying Potentially Productive Zones:
   None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Super Siphon State SWD #2
1316' FSL, 250' FWL
Sec. 36, T24S, R34E, Lea Co. NM
Lat 32.1703550° N, Lon 103.4313962° W
GL 3395', RKB 3425'

Surface - (Conventional)

Hole Size: 26" **Casing:** 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 846'
Cement: 534 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5" **Casing:** 13.375" - 61# J-55 & 68# J-55 STC Casing
Depth Top: Surface
Depth Btm: 5333'
Cement: 1718 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: 12486' **ECP/DV Tool:** 5433'
Cement: 2131 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: 12286'
Depth Btm: 17292'
Cement: 248 sks - Lite Class C (60:40:0) + Additives
Cement Top: 12286' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" **Depth:** 19026'
Inj. Interval: 17292' - 19026' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17247' **Tubing:** 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 12286'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17257' **Packer:** 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Super Siphon State SWD #2
1316' FSL, 250' FWL
Sec. 36, T24S, R34E, Lea Co. NM
Lat 32.1703550° N, Lon 103.4313962° W
GL 3395', RKB 3425'

Surface - (Conventional)

Hole Size:	26"
Casing:	20" - 94# H-40 STC Casing
Depth Top:	Surface
Depth Btm:	846'
Cement:	534 sks - Class C + Additives
Cement Top:	Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size:	17.5"
Casing:	13.375" - 61# J-55 & 68# J-55 STC Casing
Depth Top:	Surface
Depth Btm:	5333'
Cement:	1718 sks - Lite Class C (50:50:10) + Additives
Cement Top:	Surface - (Circulate)

Intermediate #2 - (Conventional)

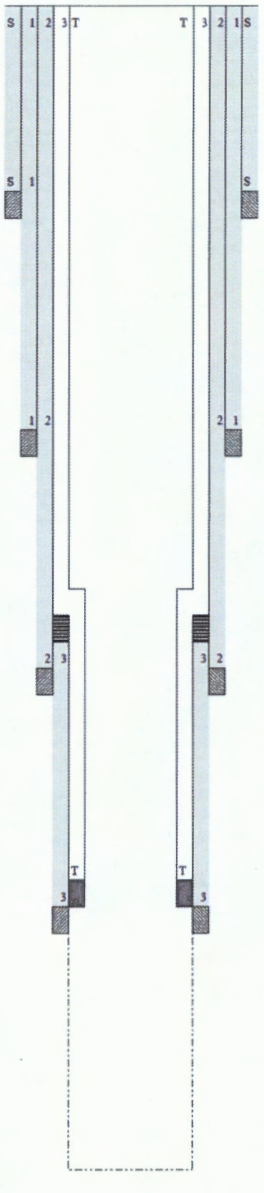
Hole Size:	12.25"
Casing:	9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top:	Surface
Depth Btm:	12486'
Cement:	2131 sks - Lite Class C (60:40:0) + Additives
Cement Top:	Surface - (Circulate)
ECP/DV Tool:	5433'

Intermediate #3 - (Liner)

Hole Size:	8.5"
Casing:	7.625" - 39# HCL-80 FJ Casing
Depth Top:	12286'
Depth Btm:	17292'
Cement:	248 sks - Lite Class C (60:40:0) + Additives
Cement Top:	12286' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size:	6.5"
Depth:	19026'
Inj. Interval:	17292' - 19026' (Open-Hole Completion)



Tubing - (Tapered)

Tubing Depth:	17247'
Tubing:	7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth:	12286'
X/O:	7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth:	17257'
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 3,458 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.
Super Siphon State SWD #2
1316' FSL, 250' FWL
Sec. 36, T24S, R34E, Lea Co. NM
Lat 32.1703550° N, Lon 103.4313962° W
GL 3395', RKB 3425'

GEOLOGY PROGNOSIS			
FORMATION	**TOP** KB TVD (ft)	**BOTTOM** KB TVD (ft)	**THICKNESS** (ft)
Salt	1,289	5,027	3,737
Delaware	5,309	9,244	3,936
Bone Spring	9,244	12,437	3,192
Wolfcamp	12,437	13,315	878
Lwr. Mississippian	16,731	17,046	314
Woodford	17,046	17,257	212
Devonian	17,257	18,347	1,090
Fusselman (Silurian)	18,347	19,052	705
Montoya (U. Ordovician)	19,052	19,437	385
Simpson (M. Ordovician	19,437	20,206	769

2. According to the New Mexico Office of the State Engineer and Permian Oilfield Partners field exploration, there is 1 fresh water well within the proposed well's one-mile area of review indicating the presence of freshwater. The freshwater depth in this well is not given, as it is an old well that was permitted at a much later date. Regionally, shallow fresh water is known to exist at depths less than 610'. 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 Permian Oilfield Partners field exploration, there is 1 fresh water well within the proposed well's one-mile area of review indicating the presence of freshwater. The freshwater depth in this well is not given, as it is an old well that was permitted at a much later date. A sample was obtained and water analysis is attached.

Well Name	Formation Name	Depth Top	Depth Bottom	Thickness	Status
C 04310	None Given	None Given	None Given	N/A	**Sample Caught**

XII: Hydrologic affirmative statement attached.

XIII: Proof of notice and proof of publication attached.

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

4 Property Code	5 Property Name	6 Well Number
	SUPER SIPHON STATE SWD	2

7 OGRID NO.	8 Operator Name	9 Elevation
328259	PERMIAN OILFIELD PARTNERS, LLC	3395'

10 Surface Location

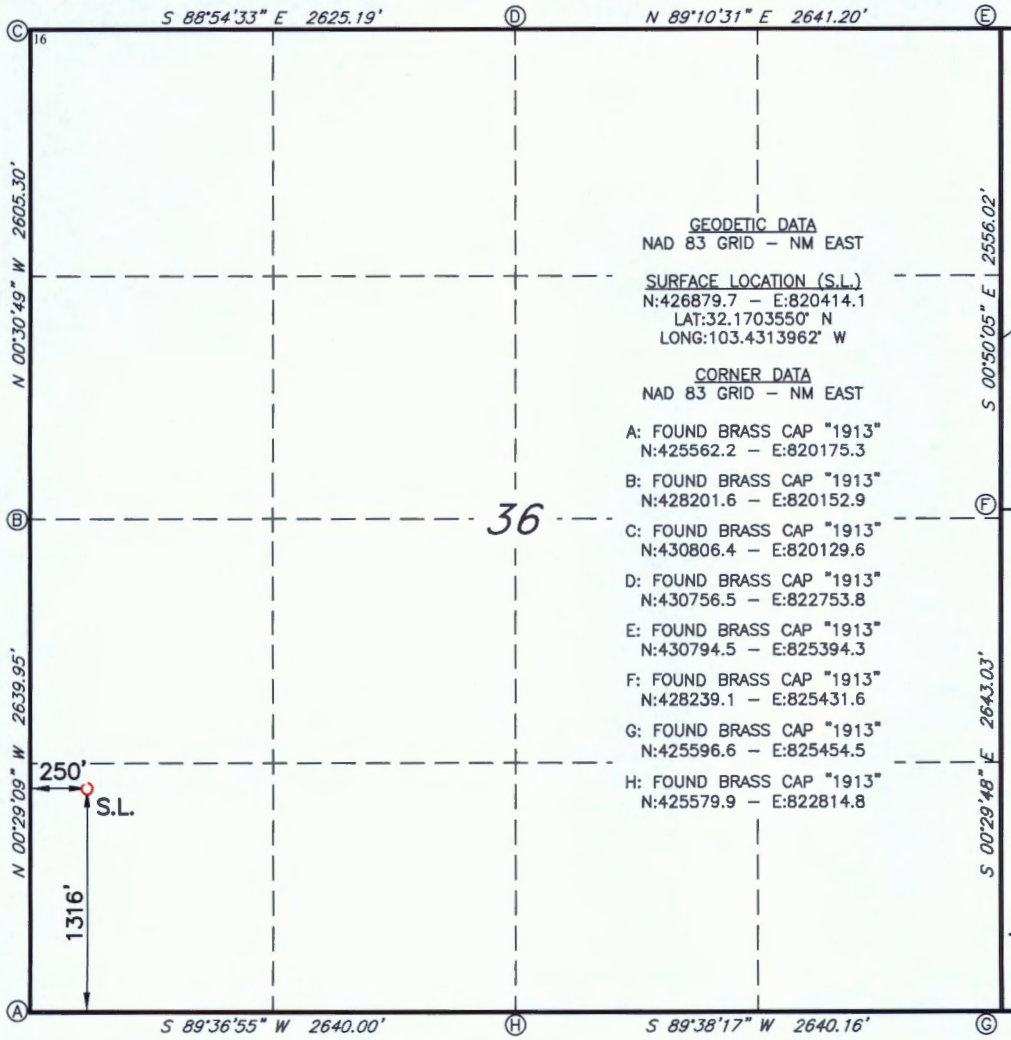
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
M	36	24S	34E		1316	SOUTH	250	WEST	LEA

11 Bottom Hole Location If Different From Surface

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

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

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



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

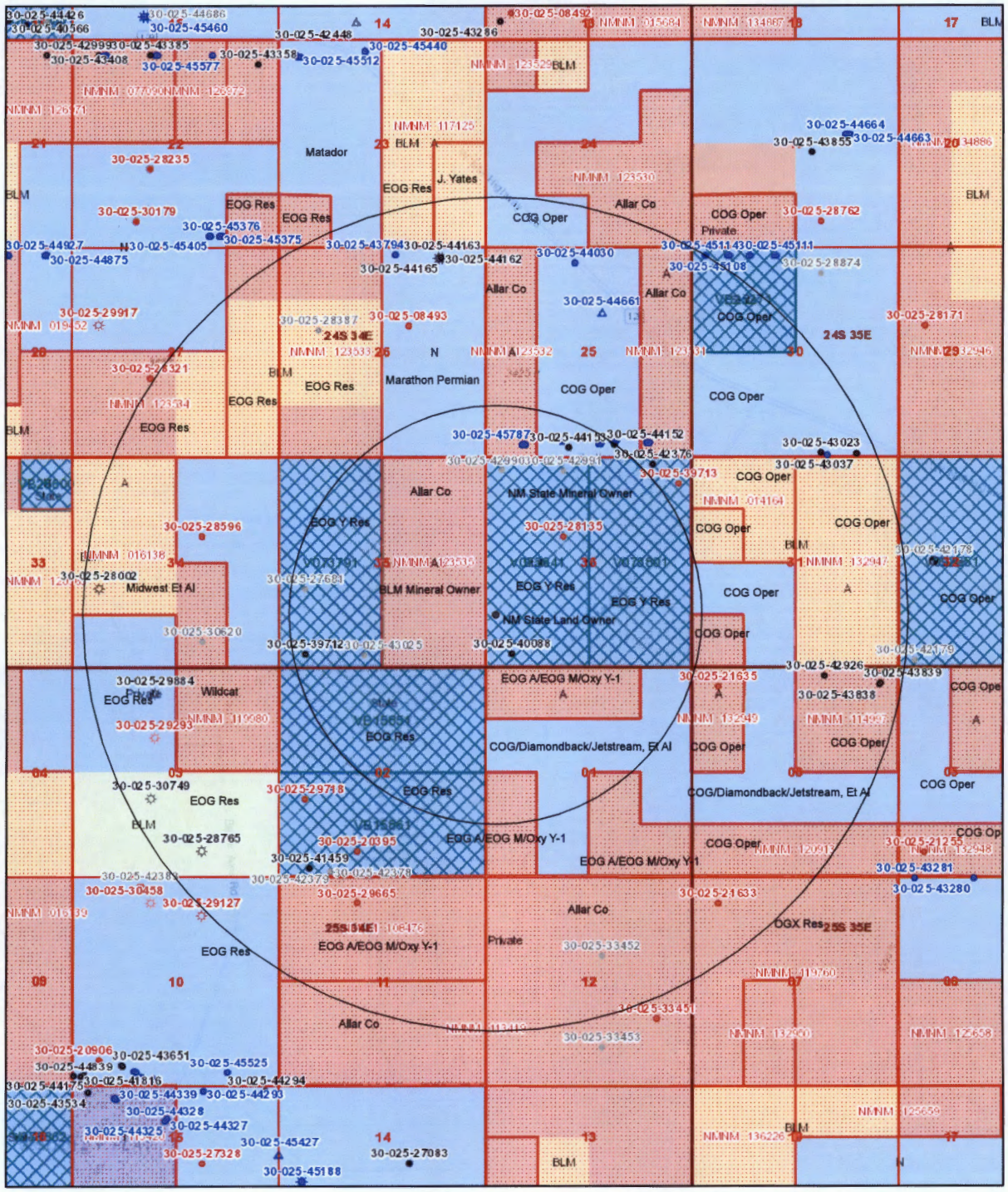
Signature and Seal of Professional Surveyor

JEFFREY L. FANSLER
NEW MEXICO
10034
PROFESSIONAL SURVEYOR

10034
Certificate Number

Job No.: LS19030266R

1 & 2 Mile AOR, Super Siphon State SWD #2



5/4/2019, 5:45:25 PM

1:36,112

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

- Override 1

Well Locations - Small Scale
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abondoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water InjectionTemporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- PLSS First Division

U.S. BLM

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c)

New Mexico Oil Conservation Division

Super Siphon State SWD #2 - 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
30-025-27681	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Cancelled Apd	35	T24S	R34E	L	L-35-24S-34E 1980 FSL 660 FWL	L-35-24S-34E 1980 FSL 660 FWL	MORROW	15000	15000
30-025-28135	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	36	T24S	R34E	F	F-36-24S-34E 1980 FNL 1980 FWL	F-36-24S-34E 1980 FNL 1980 FWL	MORROW	16300	16300
30-025-39712	COG OPERATING LLC	ORANGE RAIDER BPV STATE	#001H	Oil	Horizontal	Active	35	T24S	R34E	M	M-35-24S-34E 330 FSL 660 FWL	D-35-24S-34E 339 FNL 398 FWL	BONE SPRING	13850	9453
30-025-40088	EOG RESOURCES INC	BLACK RAIDER BQK STATE	#001H	Oil	Horizontal	Active	36	T24S	R34E	M	M-36-24S-34E 330 FSL 660 FWL	D-36-24S-34E 330 FNL 660 FWL	DELAWARE	13675	9335
30-025-42990	COG OPERATING LLC	TELECASTER BASS 36 STATE	#001C	Oil	Horizontal	Cancelled Apd	36	T24S	R34E	D	D-36-24S-34E 331 FNL 425 FWL	M-36-24S-34E 331 FSL 660 FWL	BONE SPRING	13850	N/A
30-025-42991	COG OPERATING LLC	TELECASTER BASS 36 STATE	#002C	Oil	Horizontal	Cancelled Apd	36	T24S	R34E	C	C-36-24S-34E 331 FNL 1980 FWL	N-36-24S-34E 331 FSL 1980 FWL	BONE SPRING	17387	N/A
30-025-43025	COG OPERATING LLC	ORANGE RAIDER BPV STATE	#004C	Oil	Horizontal	Cancelled Apd	35	T24S	R34E	N	N-35-24S-34E 316 FSL 2165 FWL	N-35-24S-34E 316 FSL 2165 FWL	BONE SPRING	13900	N/A
30-025-44029	COG OPERATING LLC	SUPER FEE WCA	#001H	Oil	Horizontal	New	25	T24S	R34E	N	N-25-24S-34E 433 FSL 1930 FWL	C-25-24S-34E 380 FNL 1670 FWL	WOLFCAMP	17334	N/A
30-025-44031	COG OPERATING LLC	SUPER FEE WCXY	#001H	Oil	Horizontal	New	25	T24S	R34E	N	N-25-24S-34E 434 FSL 1980 FWL	C-25-24S-34E 380 FNL 1980 FWL	WOLFCAMP	16907	N/A
30-025-44152	COG OPERATING LLC	JACINTO FEDERAL COM	#040H	Oil	Horizontal	Active	25	T24S	R34E	O	O-25-24S-34E 360 FSL 1980 FEL	B-24-24S-34E 203 FNL 2230 FEL	WOLFCAMP	23038	12629
30-025-44153	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#026H	Oil	Horizontal	Active	25	T24S	R34E	N	N-25-24S-34E 320 FSL 1980 FWL	C-24-24N-34E 196 FNL 1685 FWL	WOLFCAMP	23024	12615
30-025-45784	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#603H	Oil	Horizontal	New	25	T24S	R34E	O	O-25-24S-34E 390 FSL 2305 FEL	B-24-24S-34E 200 FNL 1880 FEL	BONE SPRING	22491	12630
30-025-45785	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#605H	Oil	Horizontal	New	25	T24S	R34E	O	O-25-24S-34E 390 FSL 2365 FEL	C-24-24S-34E 200 FNL 2310 FWL	BONE SPRING	22461	12607
30-025-45786	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#607H	Oil	Horizontal	New	25	T24S	R34E	M	M-25-24S-34E 340 FSL 1030 FWL	D-24-24S-34E 200 FNL 990 FWL	BONE SPRING	22743	12611
30-025-45787	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#608H	Oil	Horizontal	New	25	T24S	R34E	M	M-25-24S-34E 340 FSL 970 FWL	D-24-24S-34E 200 FNL 330 FWL	BONE SPRING	22750	12600
30-025-45789	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#705H	Oil	Horizontal	New	25	T24S	R34E	O	O-25-24S-34E 390 FSL 2335 FEL	C-24-24S-34E 200 FNL 2310 FWL	WOLFCAMP	22910	12851
30-025-45790	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#707H	Oil	Horizontal	New	25	T24S	R34E	M	M-25-24S-34E 340 FSL 1000 FWL	D-24-24S-34E 200 FNL 760 FWL	WOLFCAMP	23035	12904
30-025-45791	COG OPERATING LLC	BASEBALL CAP FEDERAL COM	#708H	Oil	Horizontal	New	25	T24S	R34E	M	M-25-24S-34E 340 FSL 940 FWL	D-24-24S-34E 200 FNL 330 FWL	WOLFCAMP	22804	12784

PERMIAN OILFIELD PARTNERS

Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Super Siphon State SWD #2
Sec. 36, Twp. 24, Rge. 34E
1316' FSL, 250' FWL
Lea County, NM

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

Super Siphon State SWD #2 - Affected Persons within 1 Mile Area of Review					
Notified Name	**Notifed Address**	**Notified City, State, ZIP Code**	**Shipper**	**Tracking No.**	**Mailing Date**
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561862332956	5/7/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561862335865	5/7/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561862332437	5/7/2019
Marathon Oil Permian LLC	5555 San Felipe St.	Houston, TX 77056	USPS	9414811899561862332109	5/7/2019
Riverbend Oil & Gas IX LLC	500 Dallas St., Suite 1250	Houston, TX 77002	USPS	9414811899561862330754	5/7/2019
COG Operating LLC	600 West Illinois Avenue	Midland, TX 79701	USPS	9414811899561862335728	5/7/2019
Jetstream New Mexico LLC	P.O. Box 471396	Fort Worth, TX 76147	USPS	9414811899561862332635	5/7/2019
MRC Permian Company	5400 LBJ Freeway, Suite 1500	Dallas, TX 75240	USPS	9414811899561862332093	5/7/2019
One Energy Partners LLC	2929 Allen Parkway, Suite 200	Houston, TX 77019	USPS	9414811899561862332574	5/7/2019
Diamondback Energy, Inc.	500 West Texas Ave., Suite 1200	Midland, TX 79701	USPS	9414811899561862335339	5/7/2019
Energen Resources Corporation	3300 N "A" Street, Bldg 4, Suite 100	Midland, TX 79705	USPS	9414811899561862335537	5/7/2019
The Allar Company	735 Elm Street	Graham, TX 76450	USPS	9414811899561862330952	5/7/2019
EOG Y Resources Inc	104 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561862332611	5/7/2019
EOG A Resources Inc	104 South 4th Street	Artesia, NM 88210-2123	USPS	9414811899561862332277	5/7/2019
Oxy Y-1 Company	5 Greenway Plaza	Houston, TX 77046	USPS	9414811899561862330860	5/7/2019
EOG M Resources Inc	104 South 4th Street	Artesia, NM 88211	USPS	9414811899561862332888	5/7/2019

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

Date: 5-7-2019

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

ARTICLE NUMBER: 9414 8118 9956 1862 3329 56

ARTICLE ADDRESSED TO:

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

FEES

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

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ARTICLE NUMBER: 9414 8118 9956 1862 3358 65

ARTICLE ADDRESSED TO:

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

FEES

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

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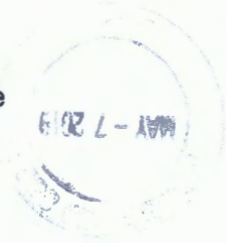
ARTICLE NUMBER: 9414 8118 9956 1862 3324 37

ARTICLE ADDRESSED TO:

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



FEES

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Certified Fee	3.50
Total Postage & Fees:	6.55

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ARTICLE NUMBER: 9414 8118 9956 1862 3321 09

ARTICLE ADDRESSED TO:

Marathon Oil Permian LLC
5555 San Felipe Street
Houston TX 77056-2701

FEES

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

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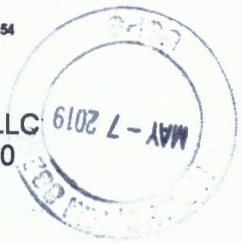
U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 1862 3307 54

ARTICLE ADDRESSED TO:

Riverbend Oil & Gas IX LLC
500 Dallas St., Suite 1250
Houston TX 77002-4715



FEES

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

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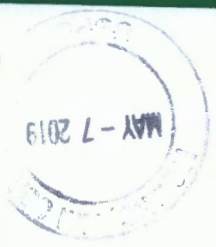
U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 1862 3357 28

ARTICLE ADDRESSED TO:

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



FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3326 35

ARTICLE ADDRESSED TO:

Jetstream New Mexico LLC
PO Box 471396
Fort Worth TX 76147-1376

FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3320 93

ARTICLE ADDRESSED TO:

MRC Permian Company
5400 LBJ Freeway, Suite 1500
Dallas TX 75240-1017

FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3325 74

ARTICLE ADDRESSED TO:

One Energy Partners LLC
2929 Allen Pkwy., Suite 200
Houston TX 77019-7123

FEES

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

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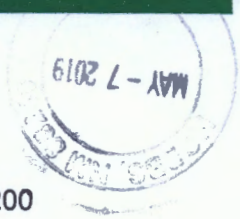
U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 1862 3353 39

ARTICLE ADDRESSED TO:

Diamondback Energy, Inc.
500 W. Texas Ave., Suite 1200
Midland TX 79701-4203



FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3355 37

ARTICLE ADDRESSED TO:

Energen Resources Corporation
3300 North A Street Bldg 4-100
Midland TX 79705-5431

FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3309 52

ARTICLE ADDRESSED TO:

The Allar Company
735 Elm Street
Graham TX 76450-3018

FEES

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3326 11

ARTICLE ADDRESSED TO:

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

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3322 77

ARTICLE ADDRESSED TO:

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

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

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

ARTICLE NUMBER: 9414 8118 9956 1862 3308 60

ARTICLE ADDRESSED TO:

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

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

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1862 3328 88

ARTICLE ADDRESSED TO:

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

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

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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)

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

LEGALS

LEGAL NOTICE
APRIL 26, 2019

Newspaper Publication Notice

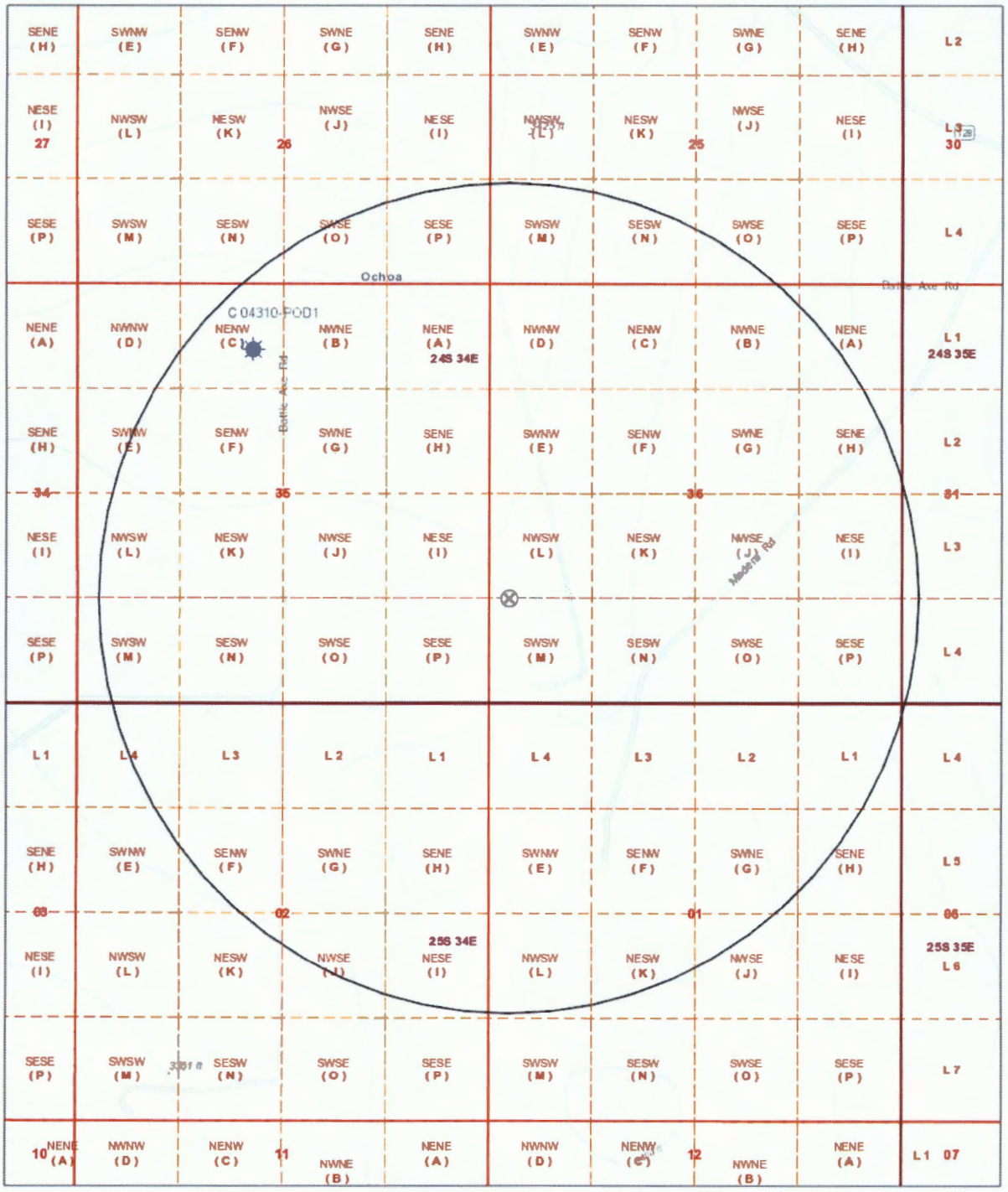
Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817)606-7630, attention Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Lea County, New Mexico. The well name is the Super Siphon State SWD #2, and is located 1316' FSL & 250' FWL, Unit Letter M, Section 36, Township 24 South, Range 34 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,292 feet to 19,026 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,458 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.
#34083

67115647 00227460

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

Water Wells in 1 Mile AOR, Super Siphon State SWD #2



5/4/2019, 10:17:58 PM

Points

- Override 1
- Override 2
- Override 1
- OCD Districts
- OCD District Offices
- 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), (c) OpenStreetMap contributors, and the GIS User Community

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	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02373	CUB	LE		4	1	32	24S	34E	641979	3560916*	600		
C 02386	CUB	LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100
C 02387	CUB	LE			1	11	24S	34E	646513	3567613*	62	40	22
C 02397	CUB	LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100
C 03932 POD13	CUB	LE	4	2	3	15	24S	34E	645314	3565203	90		
C 03932 POD3	CUB	LE	4	3	2	05	24S	34E	642442	3568787	100		
C 03932 POD8	CUB	LE	4	2	4	07	24S	34E	641120	3566769	72		
C 03943 POD1	CUB	LE	2	4	2	21	24S	34E	644523	3564266	610	431	179
C 04014 POD1	CUB	LE	1	1	3	06	24S	34E	639811	3568638	91	81	10

Average Depth to Water: **300 feet**

Minimum Depth: **40 feet**

Maximum Depth: **475 feet**

Record Count: 9

PLSS Search:

Township: 24S **Range:** 34E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 04310 **Subbasin:** C **Cross Reference:** -

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: QUAIL RANCH

Contact: DYLAN VAN BRUNT

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	640010	72121	2019-03-13	PMT	APR	C 04310 POD1	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 04310 POD1	22213		4	2	1	35	24S	34E	646845	3561351	

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
22213	C 04310 POD1	4	2	1	35	24S	34E	646845	3561351

Driller License: **Driller Company:**

Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** **Depth Water:**

Imperative Water Analysis Report

IMPERATIVE
CHEMICAL PARTNERS

SYSTEM IDENTIFICATION

Company: Permian Oilfield Partners, LLC
Location: Super Syphon
Sample Source: Wellhead
Account Rep: Junior Garcia

Sample ID#: W-8562

Sample Date: 05-06-2019
Report Date: 05-07-2019

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	22.54
Magnesium(as Mg)	20.17
Barium(as Ba)	0.00
Strontium(as Sr)	0.56
Sodium(as Na)	282.16
Potassium(as K)	49.71
Iron(as Fe)	0.25
Manganese(as Mn)	0.00

ANIONS

Chloride(as Cl)	300.00
Sulfate(as SO_4)	30.00
Dissolved CO_2(as CO_2)	200.00
Bicarbonate(as HCO_3)	391.00
H_2S (as H_2S)	17.00
Boron(as B)	7.93

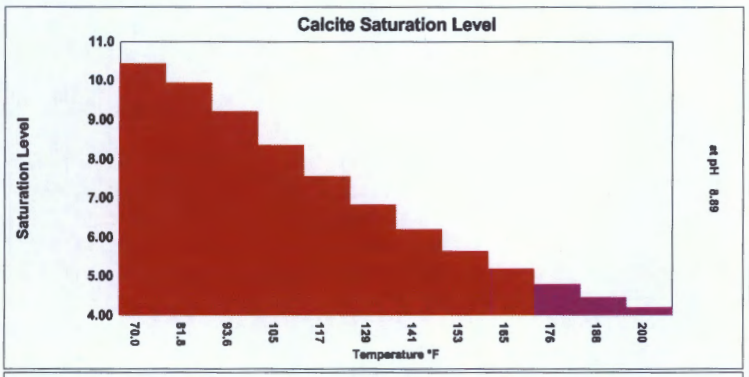
PARAMETERS

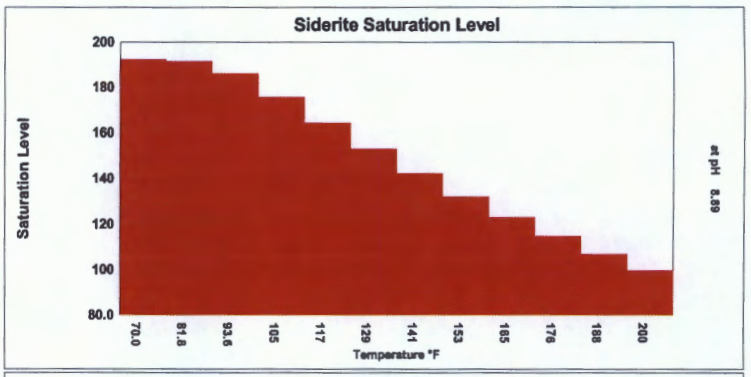
Temperature(^{0}F)	77.70
Sample pH	8.82
Conductivity	1533
T.D.S.	1153
Resistivity	652.16
Sp.Gr.(g/mL)	1.00

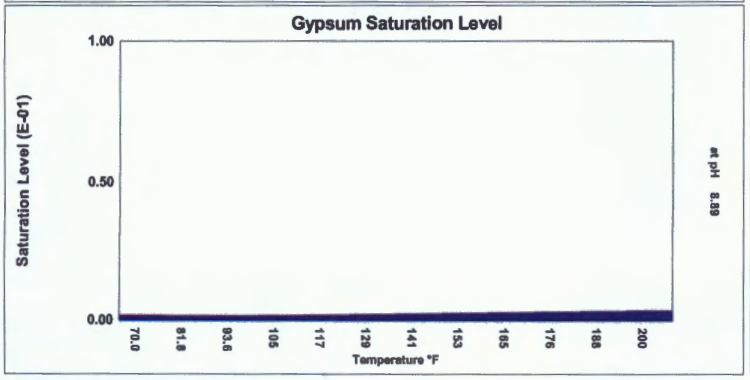
SCALE AND CORROSION POTENTIAL

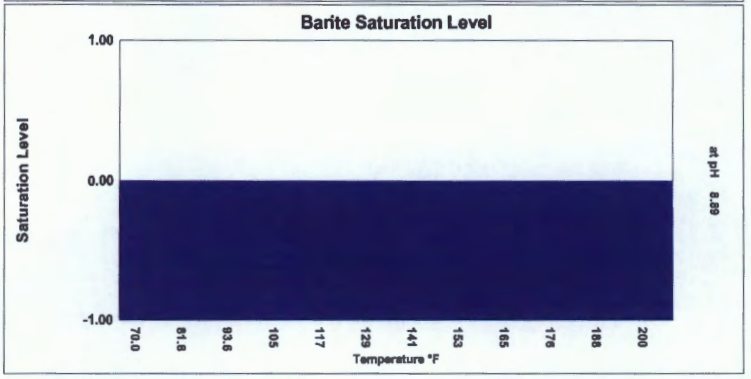
Temp. (^{0}F)	Press. (atm)	Calcite $CaCO_3$		Anhydrite $CaSO_4$		Gypsum $CaSO_4*2H_2O$		Barite $BaSO_4$		Celestite $SrSO_4$		Siderite $FeCO_3$		Mackawenite FeS		CO_2 (mpy)	pCO_2 (atm)
70.00	1.00	10.47	8.07	0.00106	-511.60	0.00181	-438.08	0.00	-0.0730	0.00278	-43.38	192.78	0.150	2146	0.0698	0.00357	0.00113
81.82	1.36	9.92	6.97	0.00110	-498.55	0.00178	-439.82	0.00	-0.0945	0.00282	-42.80	191.68	0.145	1509	0.0673	0.00517	0.00134
93.64	1.73	9.20	5.88	0.00118	-478.51	0.00177	-439.06	0.00	-0.119	0.00291	-41.78	185.70	0.141	1064	0.0648	0.00698	0.00154
105.45	2.09	8.36	4.85	0.00130	-452.92	0.00180	-431.89	0.00	-0.145	0.00304	-40.52	175.47	0.136	750.91	0.0623	0.00872	0.00175
117.27	2.45	7.56	3.97	0.00146	-423.26	0.00201	-405.86	0.00	-0.174	0.00318	-39.30	164.34	0.131	534.13	0.0597	0.00842	0.00195
129.09	2.82	6.83	3.25	0.00168	-390.91	0.00222	-382.54	0.00	-0.209	0.00330	-38.20	152.97	0.126	381.83	0.0571	0.00775	0.00216
140.91	3.18	6.19	2.68	0.00197	-357.12	0.00244	-361.59	0.00	-0.249	0.00342	-37.20	142.19	0.121	275.45	0.0545	0.00680	0.00237
152.73	3.55	5.63	2.22	0.00235	-322.97	0.00266	-342.72	0.00	-0.295	0.00352	-36.30	132.04	0.116	200.45	0.0519	0.00742	0.00257
164.55	3.91	5.18	1.86	0.00286	-289.33	0.00289	-325.67	0.00	-0.349	0.00362	-35.49	122.96	0.111	147.68	0.0491	0.00803	0.00278
176.36	4.27	4.79	1.58	0.00352	-256.91	0.00312	-310.24	0.00	-0.410	0.00371	-34.76	114.54	0.105	109.78	0.0461	0.00848	0.00298
188.18	4.64	4.46	1.35	0.00439	-226.22	0.00335	-296.25	0.00	-0.480	0.00379	-34.10	106.74	0.0993	82.32	0.0431	0.00478	0.00319
200.00	5.00	4.19	1.18	0.00555	-197.61	0.00357	-283.56	0.00	-0.559	0.00386	-33.51	99.59	0.0931	62.28	0.0400	0.00369	0.00339
		xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels	xSAT	Lbs per 1000 Barrels		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. $\{Ca\}\{CO_3\}/K_{sp}$. pCO_2 (atm) is the partial pressure of CO_2 in the gas phase.
Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.









PERMIAN OILFIELD
PARTNERS

Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Super Siphon State SWD #2
Sec. 36, Twp. 24, Rge. 34E
1316' FSL, 250' FWL
Lea County, NM

Permian Oilfield Partners, LLC. has examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 5/4/2019

Plugging Risk Assessment

Permian Oilfield Partners, LLC.
Super Siphon State SWD #2
SL: 1316' FSL & 250' FWL
Sec 36, T24S, R34E
Lea County, New Mexico

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Super Siphon State SWD #2
1316' FSL, 250' FWL
Sec. 36, T24S, R34E, Lea Co. NM
Lat 32.1703550° N, Lon 103.4313962° W
GL 3395', RKB 3425'

Surface - (Conventional)

Hole Size:	26"
Casing:	20" - 94# H-40 STC Casing
Depth Top:	Surface
Depth Btm:	846'
Cement:	534 sks - Class C + Additives
Cement Top:	Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size:	17.5"
Casing:	13.375" - 61# J-55 & 68# J-55 STC Casing
Depth Top:	Surface
Depth Btm:	5333'
Cement:	1718 sks - Lite Class C (50:50:10) + Additives
Cement Top:	Surface - (Circulate)

Intermediate #2 - (Conventional)

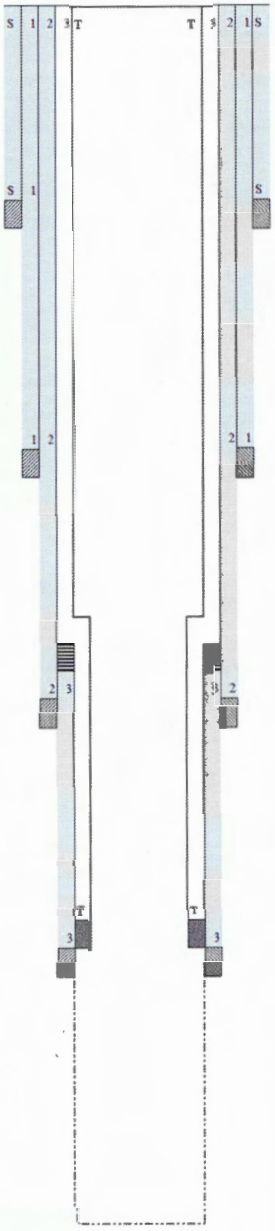
Hole Size:	12.25"
Casing:	9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top:	Surface
Depth Btm:	12486'
Cement:	2131 sks - Lite Class C (60:40:0) + Additives
Cement Top:	Surface - (Circulate)
ECP/DV Tool:	5433'

Intermediate #3 - (Liner)

Hole Size:	8.5"
Casing:	7.625" - 39# HCL-80 FJ Casing
Depth Top:	12286'
Depth Btm:	17292'
Cement:	248 sks - Lite Class C (60:40:0) + Additives
Cement Top:	12286' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size:	6.5"
Depth:	19026'
Inj. Interval:	17292' - 19026' (Open-Hole Completion)



Tubing - (Tapered)

Tubing Depth:	17247'
Tubing:	7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth:	12286'
X/O:	7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth:	17257'
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 6⅝" to 7⅜" Inclusive

Maximum Catch Size (Spiral)		6⅝	6¾	7	7⅛
Maximum Catch Size (Basket)		5⅞	6⅛	6⅜	6⅝
Overshot O.D.		8¼	7⅜	8⅛	8⅜
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 ½" UFJ Tubing Inside of 7 ⅝" 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 Downhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 4¼" to 5½" Inclusive

Maximum Catch Size (Spiral)		4¼	4½	4¾	4¾	5	5	5½
Maximum Catch Size (Basket)		3⅞	4⅛	4⅜	4⅜	4⅝	4⅝	4⅞
Overshot O.D.		5⅝	5⅝	5⅝	5⅝	5⅞	6⅛	6⅛
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5696	5698	C-5168	6975	C-5171	C-4825	6625
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	185
Replacement Parts								
Top Sub	Part No.	5697	5699	A-5169	6976	A-5172	B-4826	6626
Bowl	Part No.	5698	5700	B-5170	6977	B-5173	B-4827	6617
Packer	Part No.	169	1140	B-2199	6114	L-5950	L-4505	6618
Spiral Grapple	Part No.	165	1135	B-2201	6112	B-4369	M-1071	6619
Spiral Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	6620
Standard Guide	Part No.	187	1143	B-2203	6121	B-4371	L-1074	6621
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	6112	B-4369	M-1071	6619
Basket Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	6620
Mill Control Packer	Part No.	169-R	1140-R	B-2199-R	6114-R	L-5950-R	M-4505	L-6618-R

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

5.5" 17# FJ Casing Inside 7.625" 39# FJ Casing

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

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- **If fishing neck is clean**

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

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

- **If dressing fishing neck is required**

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

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

In the Event of a Body Break

- **If fishing neck is clean**

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

- **If dressing fishing neck is required**

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

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

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

Spear Fishing Procedure

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

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.

1. Trip in hole with spear sized to engage the I.D. of the insert liner.
2. Engage the insert liner inside the tubing with spear.
3. Pull the insert liner out of the tubing.
4. Trip out of hole with insert liner.
5. Trip in hole with spear sized to engage the I.D. of the tubing.
6. Engage the tubing with spear.
7. Pick up 2 points over neutral weight.
8. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
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Inside Diameter Cutting Tool Fishing Procedure

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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
Super Siphon State SWD #2
Sec. 36, Twp. 24, Rge. 34E
1316' FSL, 250' FWL
Lea County, NM

April 16, 2019

STATEMENT REGARDING SEISMICITY

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

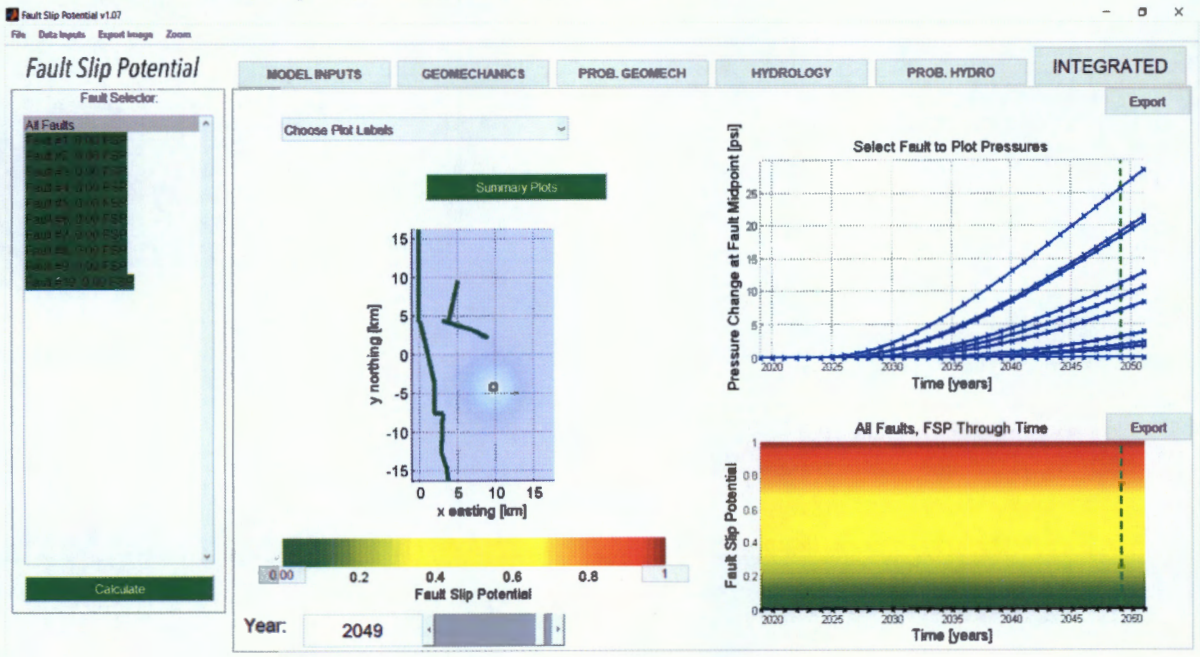
1. M2.9, 1984-12-09, 9.89 miles away @ 312.67 deg heading
2. M3.3, 2001-06-02, 20.54 miles away @ 55.92 deg heading
3. M4.6, 1992-01-02, 22.54 miles away @ 58.88 deg heading
4. M3.1, 2012-03-18, 28.08 miles away @ 286.16 deg heading
5. M2.6, 2017-05-03, 24.71 miles away @ 103.79 deg heading

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-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% in either of the nearby faults after 30 years as per the FSP results screenshot below.
6. The analysis below assumes an improbable well failure through the Montoya and Simpson zones, into the PreCambrian. When the injected fluids stay in the Devonian-Silurian zone as per design, there will be very low probability of fault slip, since there are no known nearby faults within the Devonian-Silurian.



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 1.54 miles away from the nearest active or permitted Devonian disposal well.

gfisher@popmidstream.com
(817) 606-7630