

**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING DECEMBER 12, 2019**

CASE No. 20944

SAND 18 FED SWD #1 WELL

LEA COUNTY, NEW MEXICO



RECEIVED: 07/29/19	REVIEWER:	TYPE: SWD	APP NO: pLEL1921155208
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND
 REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: DEVON ENERGY PRODUCTION COMPANY, LP **OGRID Number:** [6137]
Well Name: SAND 18 FEDERAL #001 **API:** 30-025-25017
Pool: SWD;DEVONIAN **Pool Code:** [96101]

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

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
 A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
 B. Check one only for [I] or [II]
 [I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
 [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

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

FOR OCD ONLY

- ☐ Notice Complete
☐ Application
 Content
 Complete

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

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

Jenny Harms

Print or Type Name

Signature

7-19-2019

Date

405-552-6560

Phone Number

Jenny.harms@dv.com

e-mail Address

BEFORE THE OIL CONSERVATION DIVISION
 Santa Fe, New Mexico

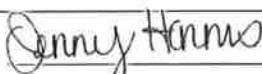
Exhibit No. A

Submitted by: **Devon Energy Production Co. L.P.**

Hearing Date: December 12, 2019

Case No 20944

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: DEVON ENERGY PRODUCTION CO., L.P.
ADDRESS: 333 WEST SHERIDAN AVE, OKLAHOMA CITY, OK 73102
CONTACT PARTY: JENNY HARMS PHONE: 405-552-6560
- 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? Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. **Exhibit A**
- 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. **Exhibit B: No wells within 1/2 mile penetrate the inj/disp zone**
- VII. Attach data on the proposed operation, including: **Exhibit C**
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.). **Exhibit D**
- *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. **Exhibit C**
- IX. Describe the proposed stimulation program, if any. **Exhibit C**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). **Exhibit C**
- *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. **Exhibit C**
- 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. **Exhibit C**
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. **Exhibit C & H**
- 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: Jenny Harms TITLE: Regulatory Specialist
SIGNATURE:  DATE: 7-19-2019
E-MAIL ADDRESS: Jenny.harms@dmr.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

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

- (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 **Exhibit H**

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.

Exhibit C-1

Proposed Injection Well: SAND 18 FEDERAL No. 001

API: 30-025-25017

APPLICATION FOR INJECTION

Form C-108 Section III

III. Well Data--On Injection Well

A. Injection Well Information

- (1) Lease SAND 18 FEDERAL
Well No #1
Location 1980' FNL & 660' FEL
Sec, Twn, Rnge Sec 18-T23S-R32E
Cnty, State Lea County, NM
- (2) Casing 13-3/8", 68#, K55, @ 625'
Cmt'd w/700 sx to surface

10-3/4", 40.5#, N80, @ 4650'
Cmt'd w/ 2200 sx to surface

7-5/8", 33.7#, S95 @ 12720'
Cmt'd w/3050 sx to surface

5.5", 20#, P110 @ 16700'
Cmt'd w/537 sx, TOC @ 1100
- (3) Injection Tubing 3-1/2, Injection tubing, @
16596'
- (4) Packer 5-1/2" Packer @ 16596'

B. Other Well Information

- (1) Injection Formation: Devonian/Silurian and Fusselman formations
Field Name: SWD-Devonian
- (2) Injection Interval: Open-hole:
Devonian/Silurian: 16700-17400 Fusselman:
17400-18000

(3) Original Purpose of Wellbore:

Oil & Gas producer

(4) Other perforated intervals:

Delaware: 7225-7452, sqzd w/300 sx H., Delaware: 7438-7452, sqzd w/200 sx H., Delaware:
7438-7452, sqzd w/200 sx H (csg leak)., Bone Spring: 8713-8737, sqzd w/300 sx H

(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.

Formation tops: Rustler 1023'; Salado 1350'; Delaware 4665'; Bone Spring 8526'; Wolfcamp 11913'; Strawn 13636'; Atoka 13776'; Morrow 14913'; Mississippian 15486'; Woodford 16538'

Exhibit C-2

Proposed Injection Well: SAND 18 FEDERAL No. 001
APPLICATION FOR INJECTION
Form C-108 Section VII to XII

VII Attach data on the proposed operation, including:

- (1) Proposed average injection rate: 18200 BWP
Proposed maximum injection rate: 18200 BWP
- (2) The system will be a closed system.
- (3) Proposed average injection pressure: 3340 psi
Proposed max injection pressure: 3340 psi
- (4) The injection fluid will be produced water from the Delaware, Leonard, Bone Spring, and Wolfcamp formations that will be injected into the Devonian/Silurian and Fusselman formations.
- (5) A representative water analysis is attached for sourced water from the Bone Spring and Delaware formations. **Exhibit D**

VIII Geologic Injection Zone Data

The injection zone is the Devonian/Silurian carbonate from 16700' to 17400' and Fusselman dolomite/carbonate from 17400' to 18000'. The well is not deep enough to encounter the Ordovician Montoya Formation. The gross injection interval is 1300' thick. The average depth to fresh water could not be determined in this area, as there are no fresh water wells located within a 2 mile, or greater, radius per New Mexico Office of the State Engineer web site.

IX Proposed Stimulation

Based on injectivity results this interval could be stimulated with ~20000 gals 15% HCl and 160,000# of sand.

X Log Data

Caliper, Gamma Ray, Porosity, Resistivity, Sonic, and Mud logs were ran by XTO and have been provided in the application. **Exhibit G**

XI Fresh Water Analysis

No fresh water wells were indicated within the vicinity of the proposed disposal well per New Mexico office of the State Engineer web site. The area search is included with this submittal.

XII Geologic / Engineering Statement

Devon Energy Production Co., L.P. (Devon) has examined the geologic data in connection with the Sand 18 Federal SWD #1 and has determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/potable aquifers.

XIII Proof of Notice

Proof of notice to surface owner, and public legal notification are attached. **Exhibit H**

Exhibit A

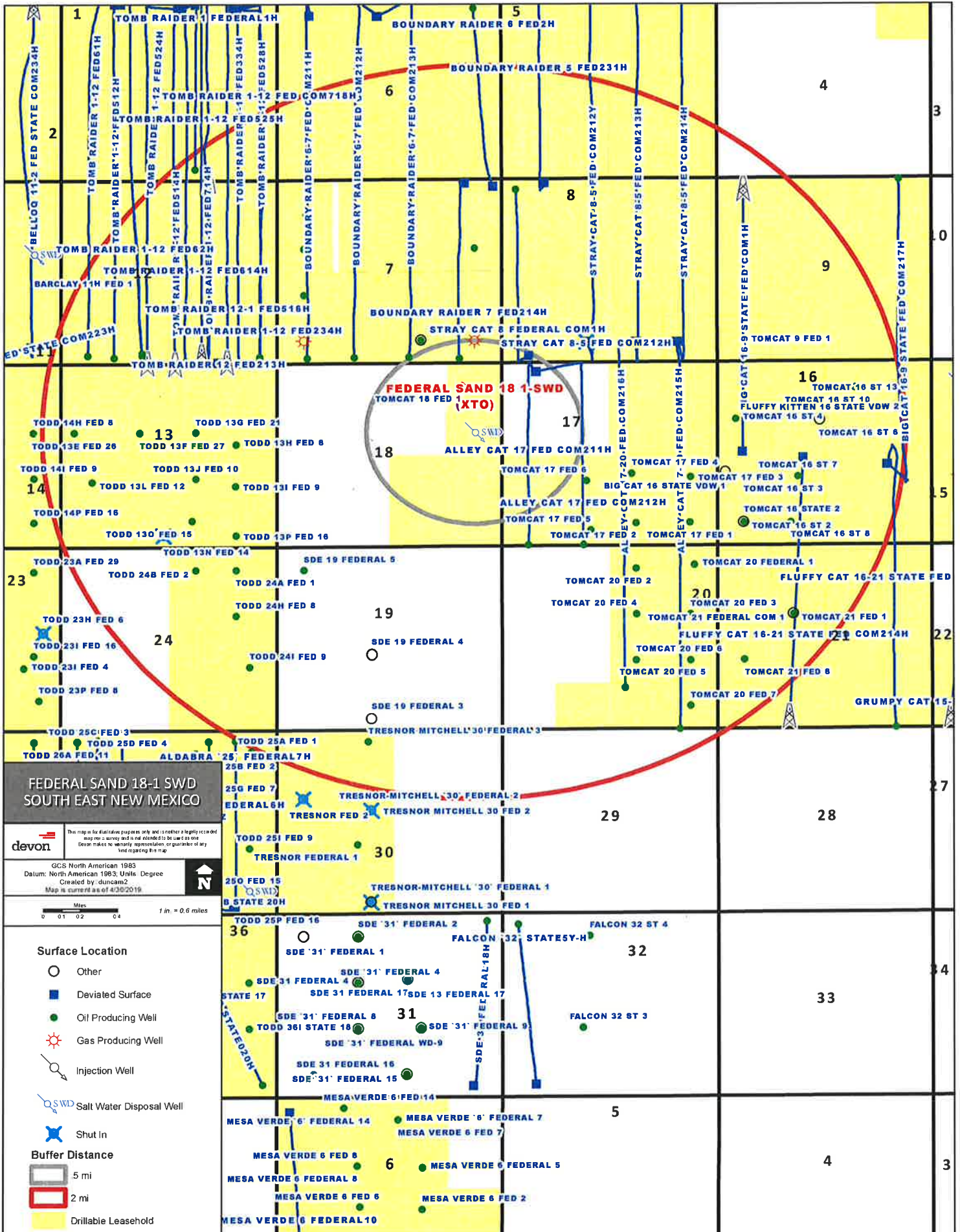


EXHIBIT B

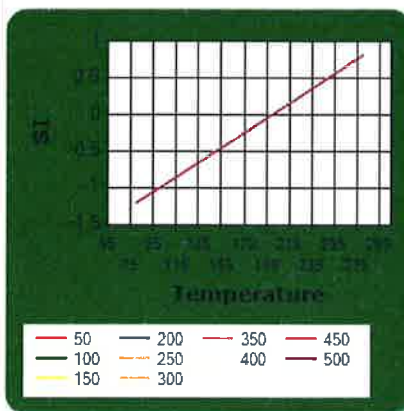
PROJECT SAND 18 FEDERAL #001_30.005-25017
AREA: 1/2 MILE RADIUS WELL TABLE

WELL NAME	WELL NUMBER	CURRENT OPERATOR	WELL STATUS	SURFACE LATITUDE NAD83	SURFACE LONGITUDE NAD83	BOTTOM HOLE LATITUDE NAD83	BOTTOM HOLE LONGITUDE NAD83	ID	FORMATION/POOL	SPUD DATE	COMPLETION DATE	COUNTY
0001525017 FEDERAL SAND 18 F-3WD	1-5WD	DEVCON ENERGY PRODUCTION CO LP	INJECTION	32.38629474	103.70733376	0	0	15500	MOORE	4/16/2015 0:00	2/19/2014 0:00	LEA
0002542982 STRAY CAT 8 FED COM 1H	1H	DEVCON ENERGY PRODUCTION CO LP	PRODUCER	32.3728201	103.7030649	32.3240109	103.7540819	12003	HONE SPRING	8/27/2014 0:00	9/30/2014 0:00	LEA
0002513364 TOMCAT 18 FED 1	1	DEVCON ENERGY PRODUCTION CO LP	PRODUCER	32.3099551	103.7084372	32.30995509	103.7084372	9348	HONE SPRING	5/11/1996 0:00	6/9/1996 0:00	LEA
0001540064 ALLEY CAT 17 FED COM 21PH	21PH	DEVCON ENERGY PRODUCTION CO LP	PRODUCER	32.31102952	103.7025679	32.29736475	103.7029953	55470	HONE SPRING	8/27/2018 0:00	1/23/2019 0:00	LEA
0002545005 ALLEY CAT 17 FED COM 21PH	21PH	DEVCON ENERGY PRODUCTION CO LP	PRODUCER	32.31102952	103.7024669	32.2973409	103.6887387	15551	HONE SPRING	8/10/2018 0:00	1/26/2019 0:00	LEA

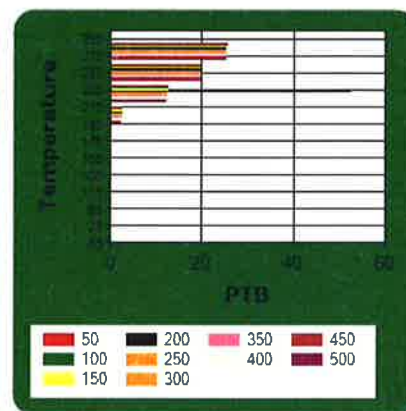
** NO WELLS WITHIN 1/2 MILE PENETRATE THE INJECTION/DISPOSAL ZONE

Company:	Devon
Lease Name:	Ragin Cajun
Well/Unit Name:	Ragin Cajun 14-1H
Sample Location:	well head
LabID:	CWA-20867
Sample Date:	11/08/2017
Test Date:	11/10/2017
Sample ID:	20501
Calcium-Ca: (mg/L)	21619
Magnesium-Mg: (mg/L)	3718
Barium-Ba: (mg/L)	3
Strontium-Sr: (mg/L)	1229
Sodium-Na (mg/L calculated):	74010
Iron-Fe: (mg/L)	43
Manganese-Mn: (mg/L)	4.2
Potassium-K: (mg/L)	
Chlorides-Cl: (mg/L)	163909
Sulfates-SO ₄ : (mg/L)	345
Bicarbonates-HCO ₃ : (mg/L)	73
CO ₂ in brine (mg/L)	352
H ₂ S in brine (mg/L)	0
Dissolved Oxygen-O ₂ (ppm):	
Total Hardness (as CaCO ₃):	69348
Total Dissolved Solids (mg/L):	264952.9
Resistivity (ohms/m):	.02
pH	5.3
Specific Gravity (g/mL):	1.169
System Conditions	
Temperature (°F):	80
Pressure (psi):	120
Ionic Strength:	5.34
CO ₂ in Gas:	(mol%): (ppm):
H ₂ S in Gas Tubing (ppm):	
H ₂ S in Gas Casing (ppm):	
Scale Type	
Calcite SI:	-1.2
Barite SI:	.5
Gypsum SI:	-.53
Hemihydrate SI:	-.54
Anhydrite SI:	-.3
Celestite SI:	.43

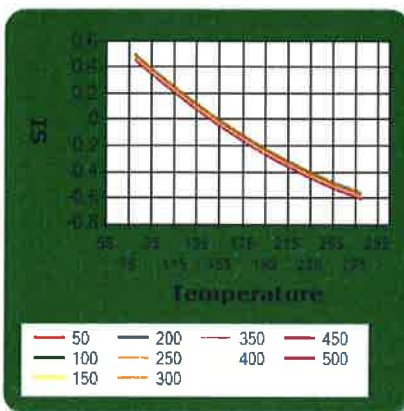
Calcite SI



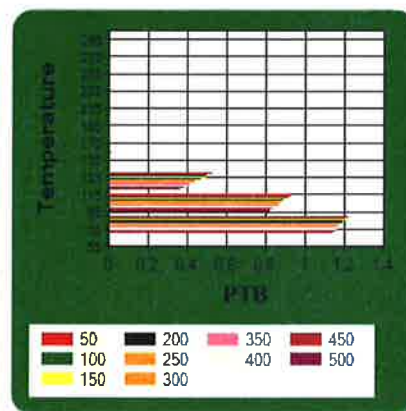
Calcite PTB



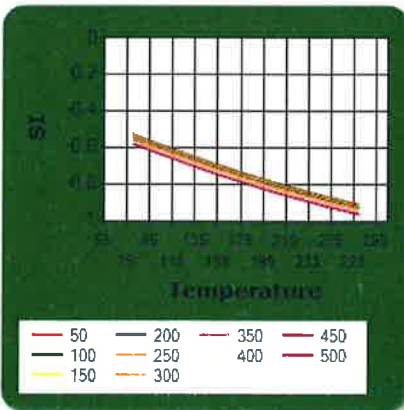
Barite SI



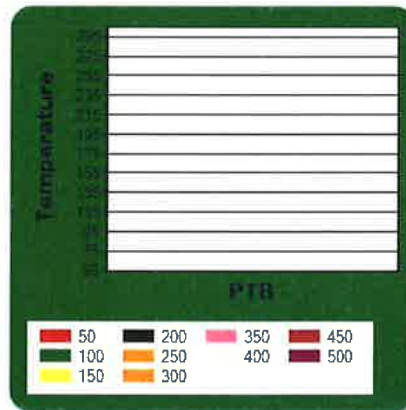
Barite PTB



Gypsum SI



Gypsum PTB



SI	Saturation Index Interpretation
<0.0	Undersaturated for this scale type; non-scaling
0.0-0.5	Slightly supersaturated; likelihood for scale formation is marginal
0.5-1.0	Scale is likely to occur, but should not be severe
1.0-2.0	Scale almost certain to occur, should be strongly scaling
>2.0	Severe scaling situation

Comments:

AEGISCHEMICAL\jomelas



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

Basin/County Search:

Basin: Lea County

County: Lea

PLSS Search:

Section(s): 12, 13, 24

Township: 23S

Range: 31E

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



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

Basin/County Search:

Basin: Lea County

County: Lea

PLSS Search:

Section(s): 7-8, 17-20

Township: 23S

Range: 32E

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

Exhibit G

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: Sand 18 Federal 1		Field: SWD-DEVONIAN	
Location: 1980' FNL & 660' FEL; Sec 18, T23S, R32E		County: LEA	State: NM
Elevation: 3602' GL		Spud Date: 8/25/2015	Compl Date: 01/19/16
API#: 30-025-25017	Prepared by: Clifton Harlin	Date: 5/6/19	Rev:

17-1/2" Hole

13-3/8", 68#, K55 @ 625'

Cmt'd w/ 700 sxs. Cmt to surf.

ETOC on 5-1/2" @ 1100'

12-1/4" Hole

10-3/4", 40.5#, N80, @ 4,650'

Cmt'd w/ 4650 sx

9-1/2" Hole

7-5/8", 33.7#, S95 @ 12,720'

Cmt'd w/ 3050 sxs

6-1/2" Hole

5-1/2", 20#, P110 @ 16,700'

Cmt'd w/ 537 sxs

DEVONIAN - SWD INJECTION ZONE
Open Hole 16,700' - 18,000'

3-1/2" Tubing

5-1/2" Packer @ 16,596'

2-3/8" x 8' sub

2-3/8", 1.87 R Nipple

4-3/4" Open hole


TD @ 18,000'

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).

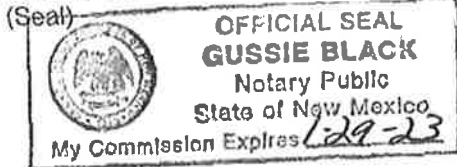
Beginning with the issue dated
July 23, 2019
and ending with the issue dated
July 23, 2019.


Publisher

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


Business Manager

My commission expires
January 29, 2023



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

LEGALS

LEGAL NOTICE
JULY 23, 2019

Devon Energy Production Company, L.P., 333 West Sheridan Ave., Oklahoma City, OK 73102 has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the Sand 18 Federal #1 (30-025-25017), is located 1980 FNL, 860 FEL, Section H-18, T23S, R32E Lea County, New Mexico.

The applicant proposes to permit a salt water disposal well into a non-productive zone (Devonian) in the SDE 18 Lease. Fluid will be disposed into strata in the subsurface depth interval 16,700'-18,000' with a maximum injection rate of 18,200 BWPD and pressure of 3340 PSI.

All interested parties must file objections to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within (15) days of this notice. Any interested party with questions or comments may contact Josh Bruening at Devon Energy Production Co., L.P., 333 West Sheridan Ave., Oklahoma City, OK 73102, or call (405) 235-3611.
#34477

67106744

00231118

ACCOUNTS PAYABLE - LEGALS
DEVON ENERGY
PO BOX 3198
OKLAHOMA CITY, OK 73102-3198

Exhibit H

	NAME	MAILING ADDRESS	CITY	STATE	ZIP	Certified Mailing
Surface Owner:	Bureau of Land Management	620 E Green Street	Carlsbad	NM	88220-6292	9414 8149 0152 7181 7162 30
Grazing Lessee:	Hughes Properties LLC	P.O. Box 5097	Carlsbad	NM	88221	9414 8149 0152 7181 7162 47
Offset Operators within 1/2 mile radius(Active wells):	Foundation Energy	15 E. St. Suite 1200	Tulsa	OK	74103	9414 8149 0152 7181 7162 54
Mineral Owership:	Occidental Permian Limited Partnership	580 Westlake Park Blvd	HOUSTON	TX	77079	9414 8149 0152 7181 7162 61
	EOG M Resources, Inc. & EOG Resources Assets LLC					
Mineral Owership:		105 S. 4th St.	ARTESIA	NM	88210	9414 8149 0152 7181 7162 78
Mineral Owership:	Sharbro Energy, LLC	P.O. Box 840	ARTESIA	NM	88211	9414 8149 0152 7181 7162 85
Confirmation of Geologic Data:	Oil Conservation Division	1220 South St. Francis Drive	Santa Fe	NM	87505	9414 8149 0152 7181 7162 92

I, Jenny Harms, do hereby certify that on 7-19-2019, the above and attached listed interest parties were mailed copies of the application to dispose of water in the Sand 18 Federal SWD #1 well.



Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

Hughes Properties LLC
P.O. Box 5097
Carlsbad, NM 88221

VIA FEDEX

Re: C-108 Application for Authorization to Inject
SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

To Who it May Concern:

Devon Energy Production Co., L.P. (Devon) has submitted to the Oil Conservation Division a salt water disposal application and our records indicate you are the grazing lessee. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms". The signature is fluid and cursive, with the first name "Jenny" and last name "Harms" clearly legible.

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

Occidental Permian Limited Partnership
580 Westlake Park Blvd
Houston, TX 77079

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

Mineral Owner:

Devon Energy Production Co., L.P. (Devon) has submitted to the Oil Conservation Division a salt water disposal application and our records indicate you are a mineral owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms". The signature is written in a cursive, flowing style.

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

EOG M Resources, Inc. & EOG Resources Assets LLC
105 S. 4th St.
Artesa, NM 88210

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

To Who it May Concern:

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Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

Sharbro Energy, LLC
P.O. Box 840
Artesia, NM 88211

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

To Who it May Concern:

Devon Energy Production Co., L.P. (Devon) has submitted to the Oil Conservation Division a salt water disposal application and our records indicate you are a mineral owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms". The signature is written in a cursive, flowing style.

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

Foundation Energy
15 E. St. Suite 1200
Tulsa, OK 74103

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

Operator:

Devon Energy Production Co., L.P. (Devon) has submitted to the Oil Conservation Division a salt water disposal application and our records indicate you are an operator within ½ mile of our proposed location. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms".

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

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

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

To Who it May Concern:

Devon Energy Production Co., L.P. (Devon) has examined the geologic data in connection with the Sand 18 Federal SWD #1 and has determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/potable aquifers.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms". The signature is written in a cursive, flowing style.

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560



Devon Energy Corporation
333 W. Sheridan Avenue
Oklahoma City, OK 73102

July 19, 2019

Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220-6292

VIA FEDEX

Re: C-108 Application for Authorization to Inject

SAND 18 FEDERAL SWD #1
API: 30-025-25017
1980 FNL & 660 FEL,
18-23S-32E Lea County, NM

To Surface Owner:

Devon Energy Production Co., L.P. (Devon) has submitted to the Oil Conservation Division a salt water disposal application and our records indicate you are the surface owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have any questions or need additional information, please feel free to contact me.

Thank you,

A handwritten signature in blue ink that reads "Jenny Harms". The signature is fluid and cursive, with the first name "Jenny" and last name "Harms" clearly distinguishable.

Jenny Harms
Devon Energy Production Company, LP
Regulatory Analyst
(405)552-6560

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Receipt of Fee Application Payment



PO Number: 07M12-190719-C-1080

Payment Date: 7/19/2019 12:51:32 PM
Payment Amount: \$500.00
Payment Type: Credit Card

Application Type: Application for a fluid injection well permit.
Fee Amount: \$500.00
Application Status: Pending Document Delivery

OGRID: 6137
First Name: Jenny
Last Name: Harms
Email: Jenny.Harms@dvn.com

IMPORTANT: If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.

Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505
(505) 476-3441 * ocd.fees@state.nm.us * www.emnrd.state.nm.us/OCD

Lowe, Leonard, EMNRD

From: Harms, Jenny <Jenny.Harms@dvn.com>
Sent: Monday, July 29, 2019 2:48 PM
To: Lowe, Leonard, EMNRD
Cc: McMillan, Michael, EMNRD
Subject: [EXT] RE: [EXTERNAL] Pending Document Delivery: 07M12-190719-C-1080
Attachments: C-108 APPLICATION 7-8-2019_R1.pdf

Hello Leonard and Michael,

Please see the attached C-108 application for the Sand 18 Federal #001 SWD. A hard copy is being overnighted to Michael this afternoon. Please let me know if you have any questions.

Thank you,

Jenny Harms

Regulatory Compliance Professional
Work Phone: (405)552-6560
Jennifer.harms@dvn.com
Devon Energy Center-Tower
333 West Sheridan Avenue Oklahoma City OK 73102-5015

Devon - Internal

From: Lowe, Leonard, EMNRD <Leonard.Lowe@state.nm.us>
Sent: Friday, July 19, 2019 2:19 PM
To: Harms, Jenny <Jenny.Harms@dvn.com>
Cc: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: [EXTERNAL] Pending Document Delivery: 07M12-190719-C-1080

Ms. Jenny Harms,

Good afternoon.

The OCD Santa Fe office has received a PO number that is pending an Application delivery.

Can you e-mail me that application?

This pertains to PO No. 07M12-190719-C-1080

Thankyou,

Leonard Lowe

Engineering Bureau
Oil Conservation Division

Energy Minerals and Natural Resources Department
1220 South St. Francis
Santa Fe, New Mexico 87505
Office: 505-476-3492
Cell: 505-930-6717
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.



Devon Energy Production Company LP
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5010

RE: Sand 18 Federal #001 (SWD; Devonian)
Application for Authorization to Inject (FORM-C-108)
Article XII. Affirmative Statement
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

My name is Sloan Anderson and I am a Senior Geologist at Devon Energy Production Company, L.P. I have examined the geologic and engineering data in connection with the Sand 18 Federal SWD #1 and have determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/potable aquifers.

In addition, I submit the water sample analysis from Todd 26 F Fed 3 SWD with a test date of 7/17/2019. This water sample is representative of the produced fluid that will be injected into the Sand 18 Federal #001 SWD and I expect no compatibility issues with the proposed injection interval.

Thank you,

A handwritten signature in black ink, appearing to read "Sloan Anderson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Sloan Anderson
Senior Geologist



Water Analysis Report

Company:	Devon
Lease Name:	Todd
Well/Unit Name:	Todd 26 F Fed 3 SWD
Sample Location:	Transfer Pump
LabID:	CWA-33645
Sample Date:	07/11/2019
Test Date:	07/17/2019
Sample ID:	39557
Ion	
Calcium-Ca: (mg/L)	25806
Magnesium-Mg: (mg/L)	4105
Barium-Ba: (mg/L)	7
Strontium-Sr: (mg/L)	1564
Sodium-Na (mg/L calculated):	79044
Iron-Fe: (mg/L)	27
Manganese-Mn: (mg/L)	7.3
Potassium-K: (mg/L)	1867
Chlorides-Cl: (mg/L)	180607
Sulfates-SO4: (mg/L)	202
Bicarbonates-HCO3: (mg/L)	37
CO2 in brine (mg/L)	176
H2S in brine (mg/L)	0.5
Dissolved Oxygen-O2 (ppm):	
Total Hardness (as CaCO3):	81408
Total Dissolved Solids (mg/L):	291406
Resistivity (ohms/m):	.02
pH	5.3
Specific Gravity (g/mL):	1.112
System Conditions	
Temperature (°F):	86
Pressure (psi):	410
Ionic Strength:	5.93
CO2 in Gas (ppm):	
CO2 in Gas (mol%):	
H2S in Gas Tubing (ppm):	
H2S in Gas Casing (ppm):	
Comments:	
	AEGISCHEMICAL\ckelley

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



Administrative Order SWD-1481
May 16, 2014

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8B, NMAC, XTO Energy, Incorporated (the "operator") seeks an administrative order to re-enter and re-complete its Sand 18 Federal Well No. 1 with a location of 1991 feet from the North line and 657 feet from the East line, Unit letter H of Section 18, Township 23 South, Range 32 East, NMPM, Lea County, New Mexico, for produced water disposal purposes. The reported location of the well prior to 2014 survey contained in the application was 1980 feet from the North line and 660 feet from the East line.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of 19.15.26.8B, NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, XTO Energy, Incorporated (OGRID 5380), is hereby authorized to utilize its Sand 18 Federal Well No. 1 (API 30-025-25017) with a location of 1991 feet from the North line and 657 feet from the East line, Unit letter H of Section 18, Township 23 South, Range 32 East, NMPM, Lea County, for disposal of oil field produced water (UIC Class II only) through open hole into an interval consisting of the Devonian formations from approximately 16700 feet to approximately 18000 feet. This Order does not authorize injection into the Ordovician Ellenburger formation or deeper units. Injection will occur through internally-coated, 3 ½-inch or smaller tubing and a packer set within 100 feet of the permitted interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the well construction proposed and described in the application.

The operator shall supply the Division with a copy of a mudlog over the permitted disposal interval and an estimated insitu water salinity based on open-hole logs. If significant

hydrocarbon shows occur while drilling, the operator shall notify the Division's district I and the operator shall be required to receive written permission prior to commencing disposal.

The operator shall provide to the Division's district I office prior to commencing disposal a cement bond log (or equivalent) showing final top of cement for the 5 ½-inch casing. The operator shall also provide a summary of depths (picks) for formation tops in the injection interval to the Division's district I office prior to commencing disposal. If the final injection interval is either not within the vertical limits of the approved interval or not the geologic formations described in this Order, the operator will be required to submit a C-108 application and obtain an amendment of this Order prior to any injection in this well.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 3340 psig**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's district I office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district I office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

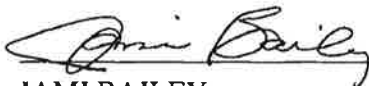
The injection authority granted under this order is not transferable except upon division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMI BAILEY
Director

JB/prg

cc: Oil Conservation Division – Hobbs District Office
Bureau of Land Management – Carlsbad Field Office