

# Initial Application Part I

Received: 06/26/2019

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

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- 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

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

SWD-2166  
Devon Energy Production  
6137  
Rio Blanco 4 Fed Com  
30-025-36425  
SWD; Devonian-Silurian

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

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[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] 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.
- Rebecca Deal  
Print or Type Name

Signature

Regulatory Analyst  
Title

6/3/2019  
Date

Rebecca.deal@dmv.com  
e-mail Address
- Devon - Internal

## McMillan, Michael, EMNRD

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**From:** Deal, Rebecca <Rebecca.Deal@dvn.com>  
**Sent:** Wednesday, June 26, 2019 2:59 PM  
**To:** McMillan, Michael, EMNRD  
**Cc:** Goetze, Phillip, EMNRD; Jones, William V, EMNRD  
**Subject:** [EXT] RE: [EXTERNAL] Rio Blanco 4 Fed Com Well No. 3  
**Attachments:** C\_108\_Plat\_Rio\_Blanco\_4\_Federal\_3\_One\_Mile.pdf; Rio Blanco 4 Fed Com #3\_Submitted C-108 Santa Fe Owner Not. Rev.pdf

Hello Michael,

Attached is the revised C-108, listing notification of surface and leasehold operators within 1 mile of the well and the addition of a one mile radius map.

Thank you,

**Rebecca Deal**  
Regulatory Analyst

**Devon Energy Corporation**  
333 West Sheridan Avenue  
Oklahoma City, OK 73102-5015  
405 228 8429 Direct  
405 552 1364 Fax



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Devon - Internal

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**From:** McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>  
**Sent:** Tuesday, June 25, 2019 12:10 PM  
**To:** Deal, Rebecca <Rebecca.Deal@dvn.com>  
**Cc:** Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>  
**Subject:** [EXTERNAL] Rio Blanco 4 Fed Com Well No. 3

Rebecca:

Your administrative SWD application for the Rio Blanco 4 Fed Com Well No. 3 has been suspended.

You only notified the affected parties within ½ mile AOR.

You must notify affected parties within 1-mile AOR of the proposed SWD.

After the OCD receives proof of mailing to the affected parties, your administrative application will no longer be suspended.

Mike

Michael McMillan  
1220 South St. Francis  
Santa Fe, New Mexico  
505-476-3448  
[Michael.mcmillan@state.nm.us](mailto:Michael.mcmillan@state.nm.us)

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 Corporation  
20 North Broadway  
Oklahoma City, OK 73102-8260

405 235 3611 Phone  
[www.devonenergy.com](http://www.devonenergy.com)

June 3<sup>rd</sup>, 2019

Oil Conservation Division  
Attn: Phillip R. Goetze  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

RE: Form C-108, Application for Authorization to Inject  
Rio Blanco 4 Fed Com #3; API# 30-025-36425  
Lea County, NM  
Section 4, T23S, R34E; 1650' FSL & 1650' FEL

Dear Mr. Goetze:

Please find attached Devon Energy Production Company, LP's Form C-108, amendment to the Application for Authorization to Inject.

Devon's application proposes to deepen the Rio Blanco 4 Fed Com #3 to dispose in the Devonian, Silurian, Fusselman formations.

A copy of this application is being filed with the OCD-Artesia office. Notification has been sent to the surface land owner and to leasehold operators.

If you have any questions, please contact Rebecca Deal at (405)-228-8429.

Sincerely,

A handwritten signature in blue ink that reads "Rebecca Deal".

Rebecca Deal  
Regulatory Analyst

RD/rd  
Enclosure

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 Company, LP\_\_\_  
  
ADDRESS: \_\_\_333 W. Sheridan Ave, Oklahoma City, Oklahoma 73102\_\_\_  
  
CONTACT PARTY: \_\_\_Rebecca Deal\_\_\_PHONE: \_\_\_405-228-8429
- 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 – Deepening Wellbore to inject into Devonian, Silurian, Fusselman  
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.
- 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: \_\_\_Rebecca Deal\_\_\_TITLE: \_\_\_Regulatory Analyst\_\_\_  
  
SIGNATURE: Rebecca DealDATE: \_\_\_6/3/2019\_\_\_  
  
E-MAIL ADDRESS: \_\_\_rebecca.deal@dvn.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.

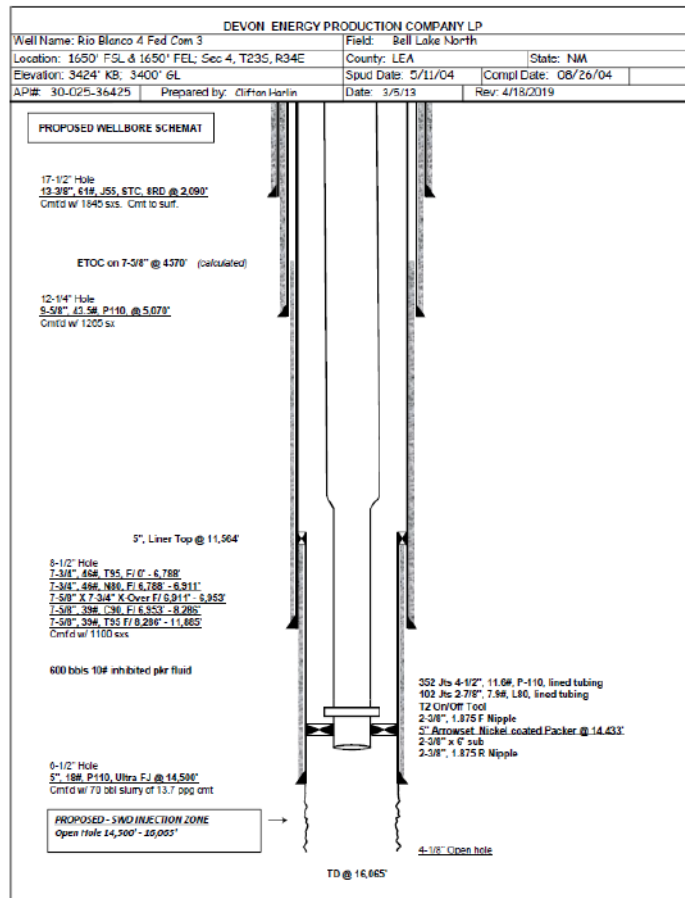
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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

## INJECTION WELL DATA SHEET

OPERATOR: \_\_\_\_\_ Devon Energy Production Company, LP \_\_\_\_\_

WELL NAME &amp; NUMBER: \_\_\_\_\_ RIO BLANCO 4 FED COM 3

WELL LOCATION: \_\_\_\_\_ 1650' FSL & 1650' FEL \_\_\_\_\_ J \_\_\_\_\_ Sec 4 \_\_\_\_\_ T23S \_\_\_\_\_ R34E \_\_\_\_\_  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: \_17-1/2"\_\_\_\_\_ Casing Size: 13-3/8", 61#, @ 2090'

Cemented with: \_1845\_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Surface \_\_\_\_\_ Method Determined: Circ. cement

Intermediate Casing

Hole Size: \_12-1/4"\_\_\_\_\_ Casing Size: \_9-5/8, 43.5#, @ 5070'

Cemented with: \_1265\_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Surface \_\_\_\_\_ Method Determined: Calc. \_

Production Casing

Hole Size: \_\_\_\_\_ 8-1/2"\_\_\_\_\_ Casing Size: \_7-3/4 x 7-5/8, @ 11885'

Cemented with: \_1100\_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_4570'\_\_\_\_\_ Method Determined: Calc.

Total Depth: \_\_\_\_\_ 16,065'\_\_\_\_\_ 5" liner from 11564 to 14500'

Injection Interval (Open Hole)

\_\_\_\_\_ 14500 \_\_\_\_\_ feet to \_\_\_\_\_ 16,065' \_\_\_\_\_

(Perforated or Open Hole; indicate which)



**INJECTION WELL DATA SHEET**

Tubing Size: \_\_4-1/2" X 2-7/8"\_\_ Lining Material: \_\_IPC\_\_

Type of Packer: \_\_5" Nickel coated\_\_

Packer Setting Depth: +/- 14300'\_\_

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? No

If no, for what purpose was the well originally drilled? Devonian completion

\_\_\_\_\_

2. Name of the Injection Formation: Devonian, Silurian, Fusselman

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

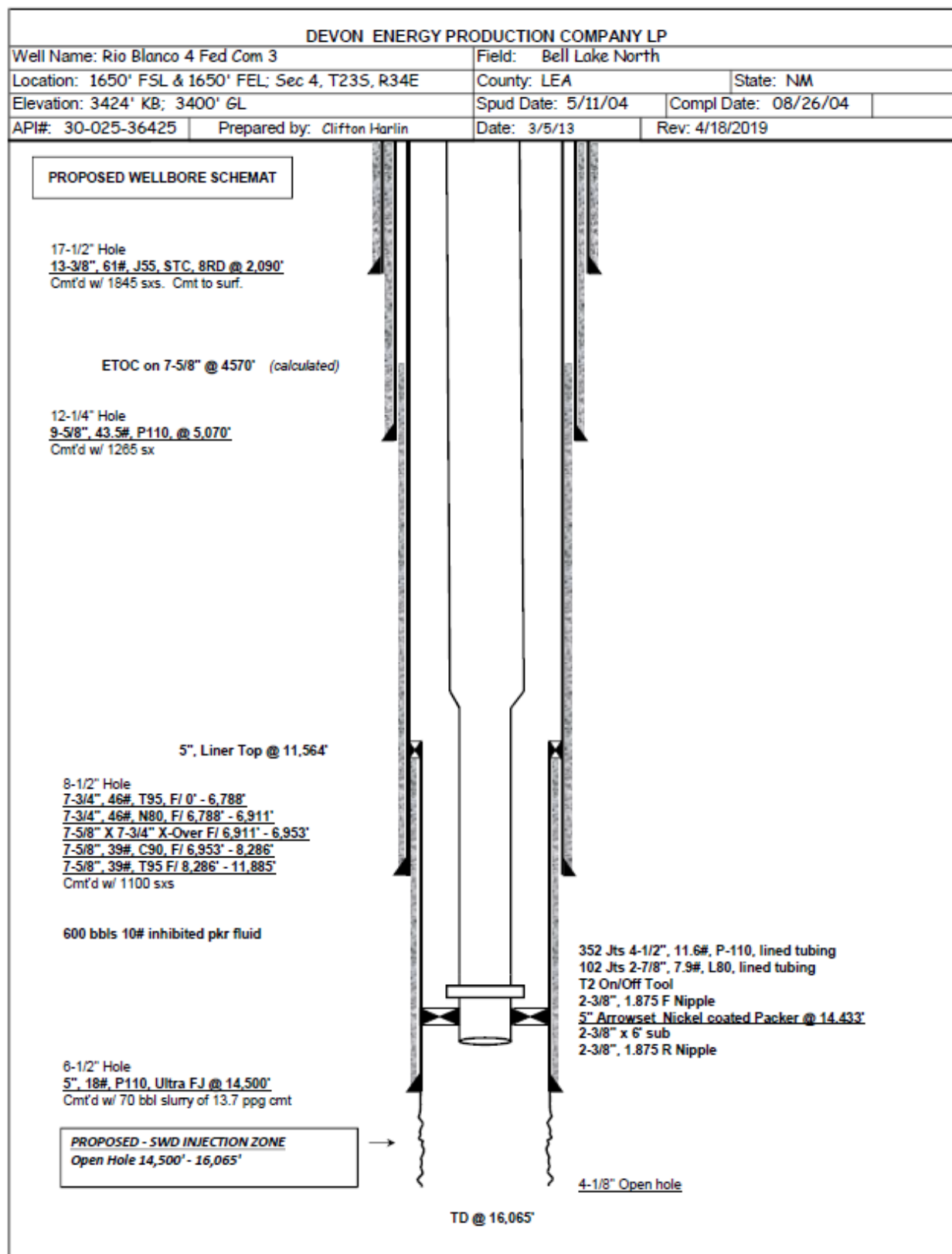
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

Devonian (open hole completion from 14500' – 14653'.)

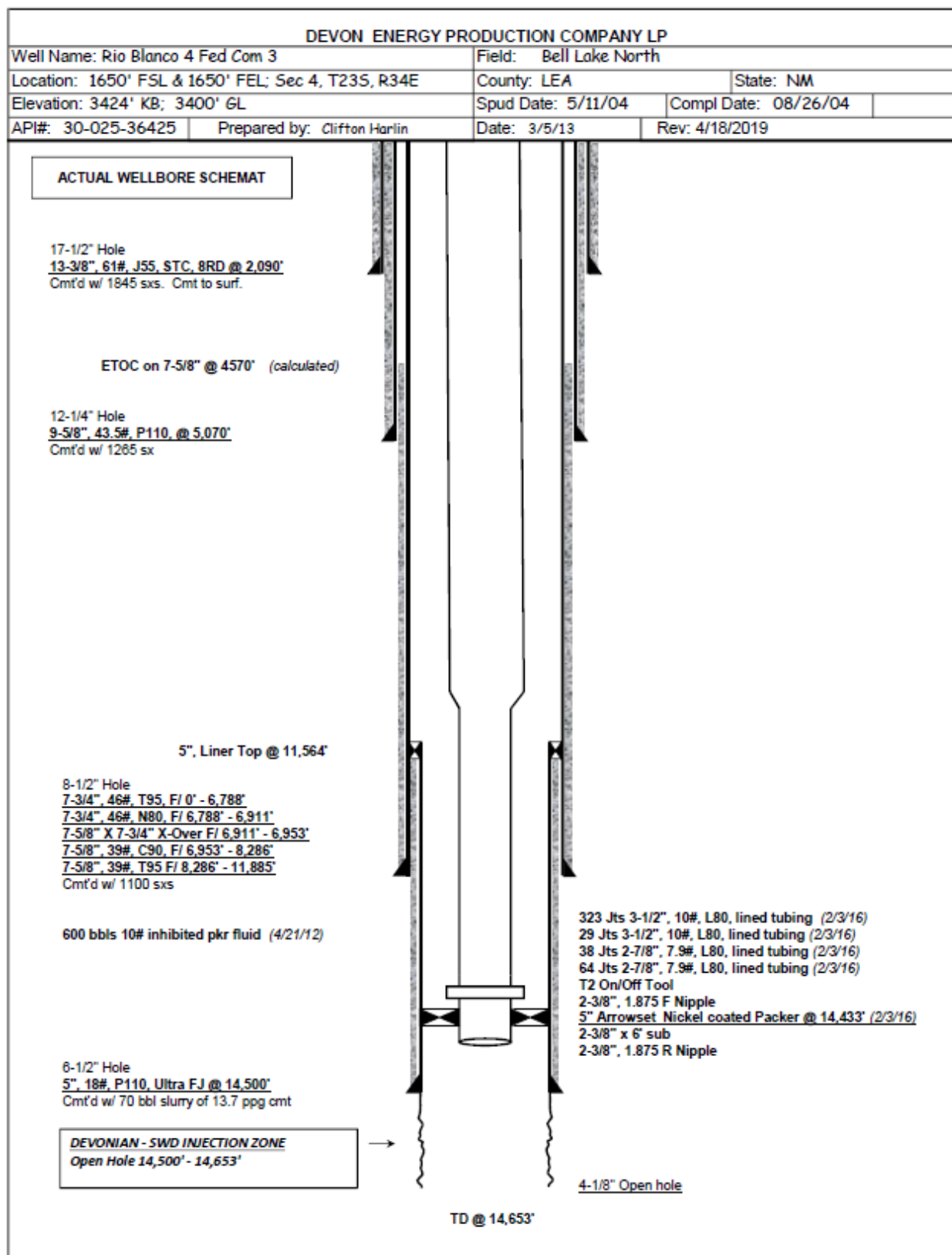
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Estimated Marker tops: Rustler-2225', Capitan Reef-4300, Delaware-5165, Bone Spring-8440, Wolfcamp-11151, Strawn-11608, Atoka-11891, Morrow-12449, Mississippian-13928, Woodford-14338, Devonian-14521, Fusselman-15620, Montoya-16176

## PROPOSED WELLBORE SCHEMATIC



## CURRENT WELLBORE SCHEMATIC



**Proposed Injection Well: Rio Blanco 4 Fed Com #3**

API: 30-025-36425

**APPLICATION FOR INJECTION**

Form C-108 Section III

**III. Well Data--On Injection Well**

**A. Injection Well Information**

- (1) Lease Rio Blanco 4 Fed Com  
Well No #3  
Location 1650' FSL & 1650' FEL  
Sec.Twn.Rnge Sec 4-T23S-R34E  
Cnty, State Lea County, NM
- (2) Casing 13-3/8", 61#, J55, STC,8RD, @ 2090'  
Cmt'd w/1845 sx, to surface.  
  
9-5/8", 43.5#, P110, @ 5070'  
Cmt'd w/ 1265 sx. Surf-calc.  
  
7-3/4", 46#, T95/N80, @ 0'-6911'  
7-5/8", 39#, C90/T95, @ 6911'-11885'  
Cmt'd w/1100 sx. TOC @ 4570'-calc.  
  
5" liner from 11564' to 14500'  
Cmt'd w/275 sx.
- (3) Injection Tubing 4-1/2", 11.6#, P-110, IPC to +/- 11000'  
2-7/8", 7.9#, L80, IPC to +/- 11000' - 14450'
- (4) Packer 5" Nickel coated @ +/- 14,433'

**B. Other Well Information**

- (1) **Injection Formation:** Devonian, Silurian, Fusselman  
**Field Name or Pool:** SWD; Devonian-Silurian
- (2) **Injection Interval:** Open hole from 14500' - 16065'

**(3) Original Purpose of Wellbore:**

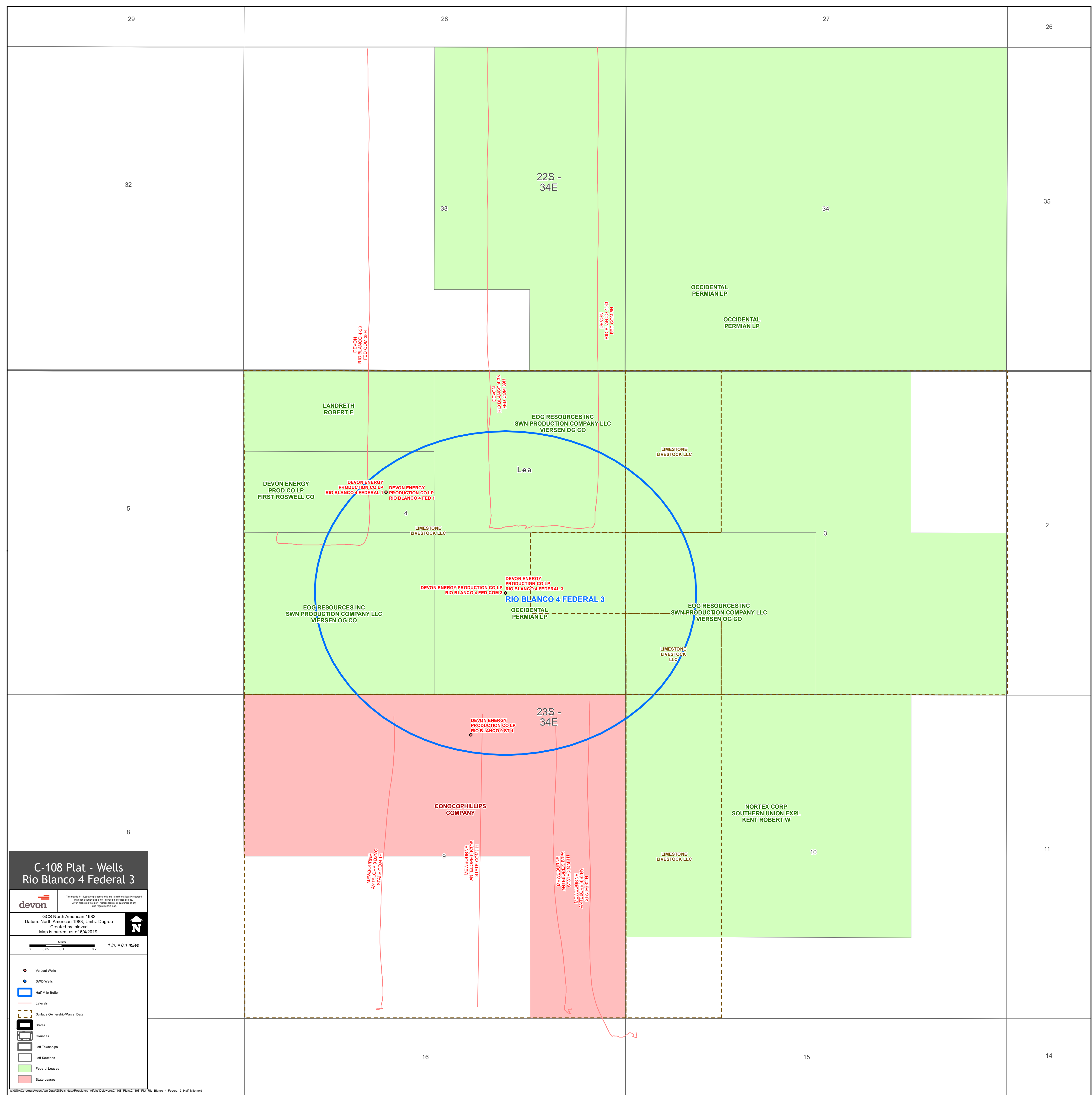
Gas producer

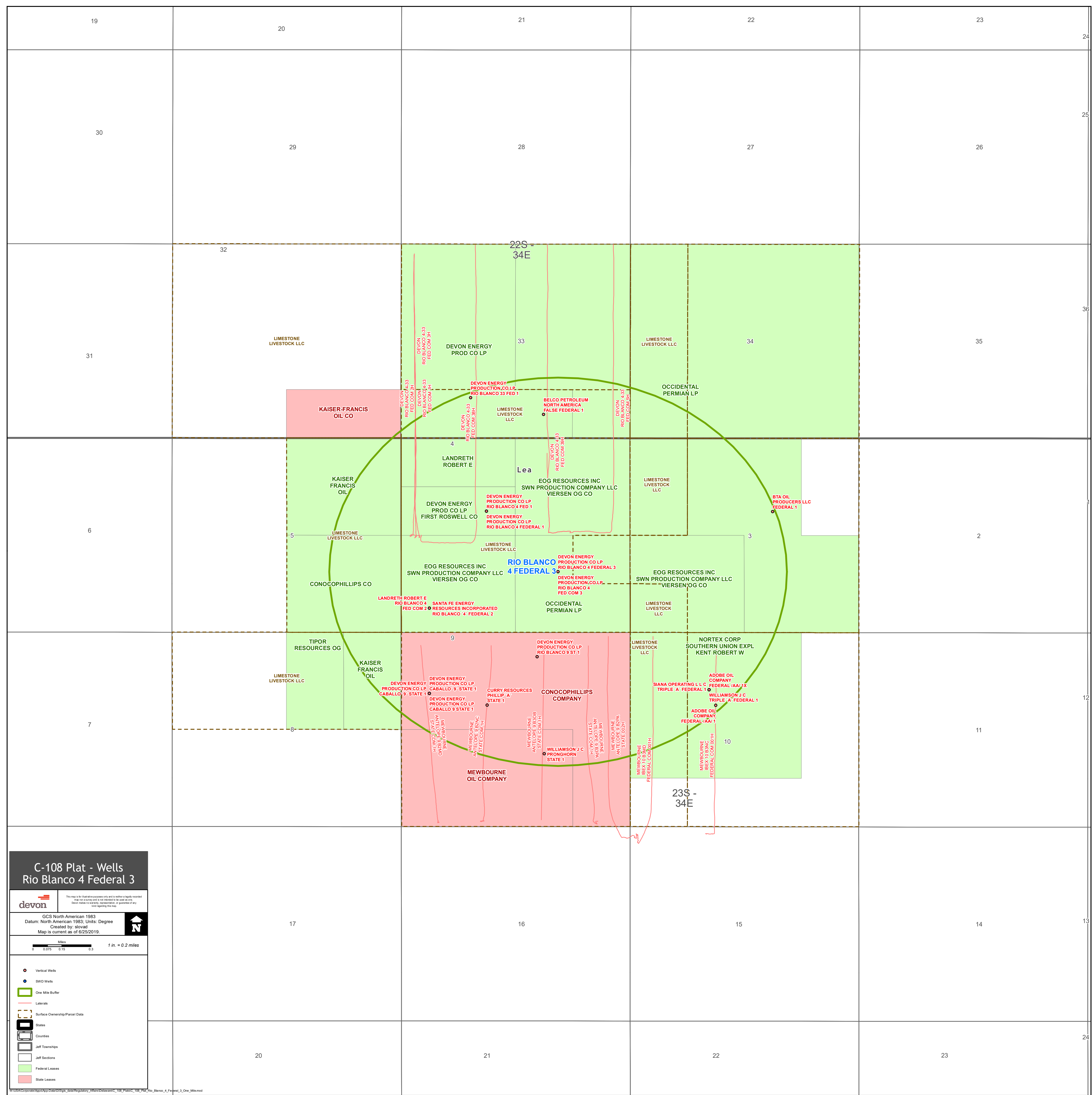
**(4) Other perforated intervals:**

None

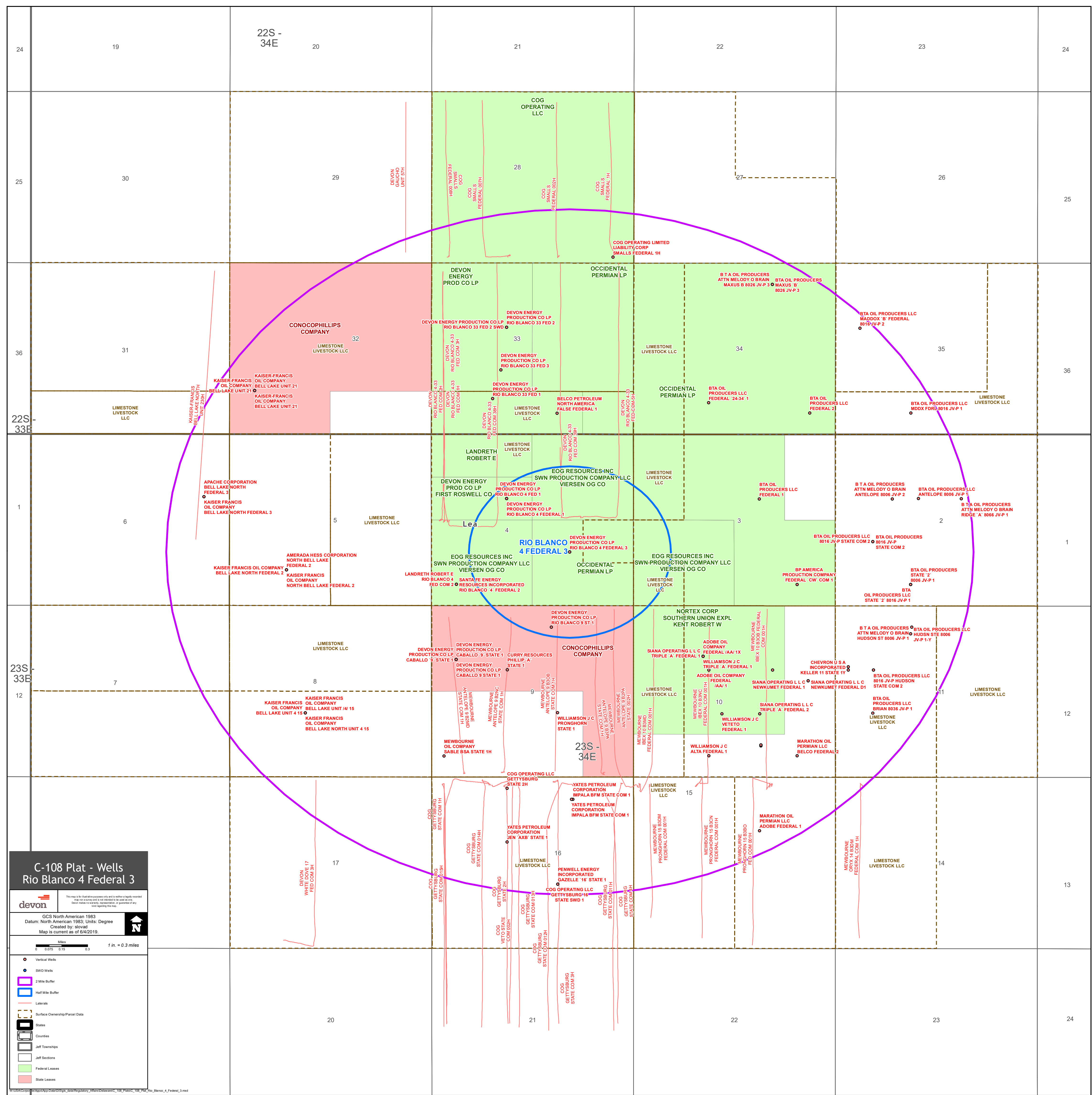
**(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well if any.**

Estimated Marker tops: Rustler-2225', Capitan Reef-4300, Delaware-5165, Bone Spring-8440, Wolfcamp-11151, Strawn-11608, Atoka-11891, Morrow-12449, Mississippian-13928, Woodford-14338, Devonian-14521, Fusselman-15620, Montoya-16176









**Proposed Injection Well: Rio Blanco 4 Fed Com #3**  
**APPLICATION FOR INJECTION**  
**Form C-108 Section VII to XII**

**VII Attach data on the proposed operation, including:**

- (1) Proposed average injection rate: 15000 BWPD  
Proposed maximum injection rate: 20000BWPD
- (2) The system will be a closed system.
- (3) Proposed average injection pressure: 2900  
Proposed max injection pressure: 2900 psi
- (4) The proposed injection fluid is produced water from formations ranging from the Delaware to Wolfcamp that will be re-injected into the Devonian, Silurian, Fusselman.
- (5) Disposal zone formation water analysis: commingled produced water from various formations ranging from the Delaware to Wolfcamp

**VIII Geologic Injection Zone Data**

The proposed injection interval is located in the Devonian, Silurian, and Fusselman. This formation is approximately 1565' feet thick in this area. The injection interval is from 14,500' to 16,065'.

**IX Proposed Stimulation**

There is no proposed stimulation program for the injection interval.

**X Log Data**

Logs have previously been submitted to the OCD.

**XI Fresh Water Analysis**

Attached is a fresh water analysis for a fresh water well drilled in Section 33-T22S-R34E on Bill Angel's property within 1 mile of the proposed SWD location. CP-01705-POD1 is 700 ft deep & 0.45 miles from the Rio Blanco 33-2.

**XII Geologic / Engineering Statement**

An examination of this area has determined there are no open faults or other hydrologic connection between the disposal zone and any underground drinking water.

**XIII Proof of Notice**

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



Section XIV--Proof of Notice to Leasehold Operators  
Devon Energy Prod Co LP  
C108 Application For Injection  
Proposed Well: Rio Blanco 4 Fed Com #3

Proof of Notice to Leasehold Operators within 1 mile of the well location

Nortex Corporation 1415 Louisiana, Suite 3100 Houston, TX 77002	<u>Certified receipt No.</u> 9414 8149 0152 7181 7061 94	Mailed 6/4/2019
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Occidental Permian, LP P.O. Box 4457 Houston, TX 77210	<u>Certified receipt No.</u> 9414 8149 0152 7181 7061 63	Mailed 6/4/2019
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Mewbourne Oil Company 500 W. Texas Avenue, Suite 1020 Midland, TX 79701	<u>Certified receipt No.</u> 9414 8149 0152 7181 7061 70	Mailed 6/4/2019
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Conoco Phillips 925 N. Eldridge Pkwy Houston, TX 77079	Certified receipt No. 9414 8149 0152 7181 7132 08	
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Kaiser Francis 6733 S. Yale Ave. Tulsa, OK 74136	Certified receipt No. 9414 8149 0152 7181 7132 15	
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EOG Resources, Inc. 5509 Champions Drive Midland, Texas 79706	Certified receipt No. 9414 8149 0152 7181 7132 22	
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Viersen Oil and Gas Co. 7130 S. Lewis Ave. Suite 200 Tulsa, OK 74136	Certified receipt No. 9414 8149 0152 7181 7132 39	
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SWN Production Company 2350 N. Sam Houston Pkwy E. Houston, TX 77032	Certified receipt No. 9414 8149 0152 7181 7132 46	
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BTA Oil Producers 104 S. Pecos Midland TX 79701	Certified receipt No. 9414 8149 0152 7181 7132 53	
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Robert E. Landereth 110 W. Louisiana, Suite 404 Midland TX 79701	Certified receipt No. 9414 8149 0152 7181 7132 60	
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A copy of this application has been mailed to the above leasehold operator by certified mail, pertaining to Devon Energy's application for salt water disposal in the Rio Blanco 4 Fed Com #3

Date Mailed: 6/4/2019 & 6/26/2019

Date: 6/26/2019

Signature: Rebecca Deal

Section XIV--Proof of Notice to Surface Land Owner Devon Energy  
Prod Co LP  
C108 Application For Injection  
Proposed Well: Rio Blanco 4 Fed Com #3

Proof of Notice to Surface Land Owner within 1 mile of well location site.

Bureau of Land Management  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, NM 88220

Certified receipt No.  
9414 8149 0152 7181 7061 56 Sent 6/4/2019

New Mexico State Land Office  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

Certified receipt No.  
9414 8149 0152 7181 7131 92

A copy of this application has been mailed to the above surface land owner by  
certified mail, pertaining to Devon Energy's application for salt water disposal in  
the Rio Blanco 4 Fed Com #3

Date Mailed: 6/4/2019 & 6/29/2019

Date: 6/29/2019

Signature: Rebecca Deal

C108 ITEM VI--Well Tabulation in 1/2 Mile Review Area																	
Devon Energy Production Company, LP																	
Proposed Disposal Well: Rio Blanco 4 Fed #3																	
Updated: 9/21/10																	
Operator	Well Name	API NO	County	Surf Location	Sec	Twn	Rnge	Type	Status	Spud Date	Comp Date	TD	PBTD	Comp Zone	Comp Interval-Ft	Casing Program	Cement / TOC
Devon Energy Prod Co LP	Rio Blanco 4 Fed Com 3 (proposed for swd)	30-025-36425	Lea	1650' FSL 1650' FEL	4	23S	34E	Gas	Shut In	5/11/04	8/26/04	14653	14653	Devonian	Open Hole (14500-14653)	13-3/8", 61#, @ 2090' 9-5/8", 43.5#, @ 5070' 7-5/8", 39#, @ 11885' 5" liner, 18#, @ 11564-14500'	1845 sx / surf 1265 sx / surf (calc) 1100 sx / 4570' (calc) 275 sx / liner top
Devon Energy Prod Co LP	Rio Blanco 4 Fed 1	30-025-34515	Lea	1980' FNL 1980' FWL	1	23S	34E	Gas	Active	11/98-orig 07/03-s/t	09/03-s/t 2/99-orig	14590	14590	Devonian Atoka Morrow	14488-14590 (open hole-S/T) 12056-12064 (orig hole-closed) 12916-12945 (orig hole-closed)	13-3/8", 61#, @ 2236' 9-5/8", 40#, @ 5168' 7", 26#, @ 11718' (orig hole) 5" liner, 18#, @ 10540-14488'	1075 sx / surf 1725 sx / surf 1258 sx / 6800' (calc) 210 sx / liner top
Devon Energy Prod Co LP	Rio Blanco 9 State 1	30-025-36302	Lea	660' FNL 2129' FEL	9	23S	34E	Gas	Active	7/9/04	10/12/04	14654	14654	Devonian	Open Hole (14546-14654)	13-3/8", 54.5#, @ 1660' 9-5/8", 40#, @ 5142' 7", 26#, @ 11855' 5" liner, 23#, 11530-14546	1625 sx / surf 1825 sx / surf 1525 sx / 4947' (TS) 400 sx / liner top



# Dissolved Mineral Water Analysis

Friday, May 24, 2019

Laboratory Sample #: AC88592

Login Batch: 190524039-CWA-ASAP

Production Company:	DEVON ENERGY	Date Sampled:	May 16, 2019
Field:	PERMIAN BASIN	Date Received:	May 24, 2019
Pad:	NORTH THISTLE	Submitted By:	JEROMIE PICKERING
Well/Vessel:	CP-01073	Collection Point:	POD 1

Gases and Physical Parameters			Analysis of Sample			
Analyte	Result	Unit	Cations	mg/L (ppm)	Anions	mg/L (ppm)
Total Dissolved Solids	472.39		Calcium	54.5	Bicarbonate	219.5
Specific Gravity	1.000		Magnesium	23.52	Chloride	80.088
pH	7.5		Barium	0.08	Sulfate	36
Sample Temperature	70	° F	Strontium	1.05		
Downhole Temperature	300	° F	Potassium	0.01		
Sample Pressure	14.7	psia	Iron	0.07		
Downhole Pressure	1470	psia	Manganese	0.01		
Carbon Dioxide (Dissolved)	20	ppm	Zinc	0.2		
Hydrogen Sulfide (Dissolved)	<1.71	ppm	Lead	0.04		
			Sodium	44.06		
			Lithium	0.01		
			Total Hardness	197.86		

\*\*SCALING POTENTIAL PREDICTED USING SCALESOFTPIZTER FROM BRINE CHEMISTRY CONSORTIUM (RICE UNIVERSITY)\*\*

\*\*SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS\*\*

T <sup>a</sup>	P	Calcite (CaCO <sub>3</sub> )		Barite (BaSO <sub>4</sub> )		Gypsum (CaSO <sub>4</sub> 2H <sub>2</sub> O)		Anhydrite (CaSO <sub>4</sub> )	
°F	psia	SI	PTB	SI	PTB	SI	PTB	SI	PTB
300	1470	1.74	28.21	-0.65	0.00	-1.67	0.00	-0.80	0.00
274	1308	1.52	25.82	-0.69	0.00	-1.75	0.00	-1.01	0.00
249	1147	1.31	23.07	-0.71	0.00	-1.81	0.00	-1.20	0.00
223	985	1.09	20.00	-0.72	0.00	-1.86	0.00	-1.40	0.00
198	823	0.88	16.62	-0.70	0.00	-1.91	0.00	-1.59	0.00
172	662	0.67	13.01	-0.65	0.00	-1.96	0.00	-1.78	0.00
147	500	0.47	9.23	-0.57	0.00	-2.01	0.00	-1.97	0.00
121	338	0.27	5.39	-0.44	0.00	-2.06	0.00	-2.16	0.00
96	176	0.08	1.63	-0.27	0.00	-2.10	0.00	-2.36	0.00
70	15	0.06	1.20	-0.05	0.00	-2.12	0.00	-2.56	0.00

T	P	Iron Sulfide (FeS)		Iron Carbonate (FeCO <sub>3</sub> )		Halite (NaCl)		Celestite (SrSO <sub>4</sub> )	
°F	psia	SI	PTB	SI	PTB	SI	PTB	SI	PTB
300	1470	0.00	0.00	0.74	0.03	-6.94	0.00	-1.30	0.00
274	1308	0.00	0.00	0.59	0.03	-6.97	0.00	-1.45	0.00
249	1147	0.00	0.00	0.42	0.02	-7.01	0.00	-1.59	0.00
223	985	0.00	0.00	0.23	0.02	-7.03	0.00	-1.72	0.00
198	823	0.00	0.00	0.02	0.00	-7.06	0.00	-1.84	0.00
172	662	0.00	0.00	-0.20	0.00	-7.07	0.00	-1.95	0.00
147	500	0.00	0.00	-0.44	0.00	-7.08	0.00	-2.04	0.00
121	338	0.00	0.00	-0.69	0.00	-7.07	0.00	-2.11	0.00
96	176	0.00	0.00	-0.95	0.00	-7.05	0.00	-2.15	0.00
70	15	0.00	0.00	-1.07	0.00	-7.02	0.00	-2.16	0.00

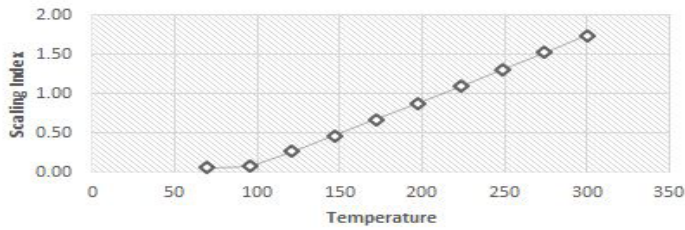
Midland Lab  
3408 East State Hwy 158  
Midland, TX 79706

Friday, May 24, 2019

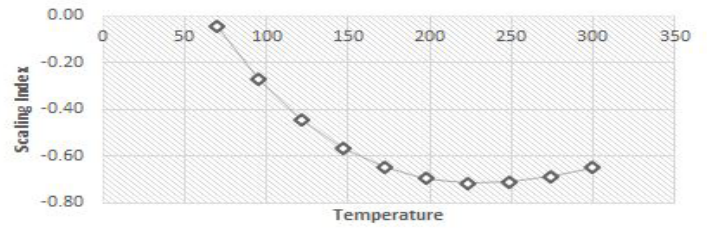
Laboratory Sample #: AC88592

Login Batch: 190524039-CWA-ASAP

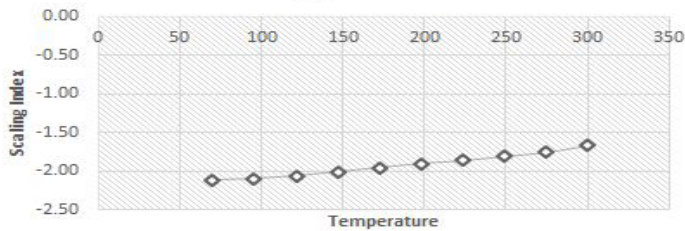
**Calcite**



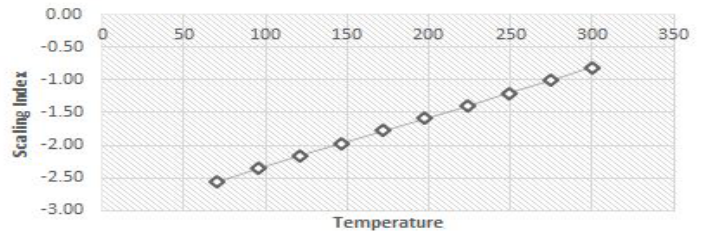
**Barite**



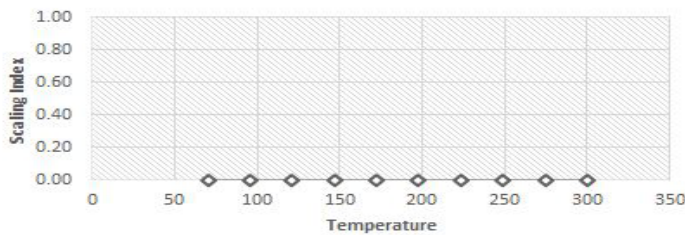
**Gypsum**



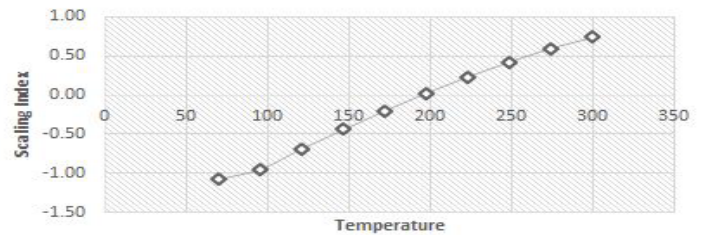
**Anhydrite**



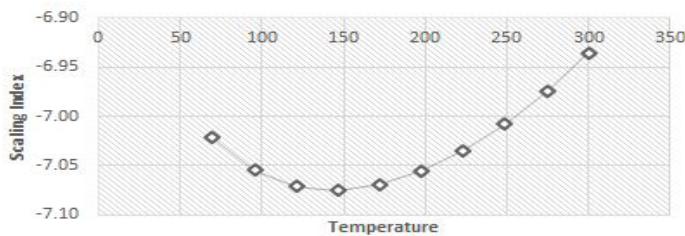
**Iron Sulfide**



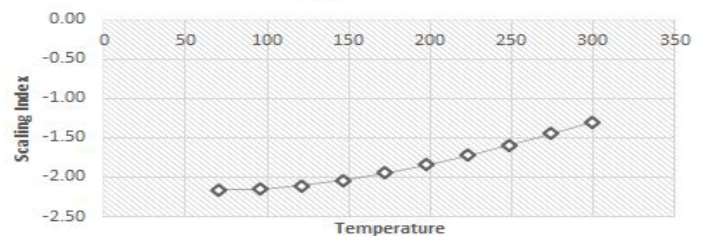
**Iron Carbonate**



**Halite**



**Celestite**



Remarks

None

*Curtis Hendricks*

Curtis Hendricks  
Analyst

May 24, 2019

Validation Date

Midland Lab  
3408 East State Hwy 158  
Midland, TX 79706

Well Name	Rio Blanco 33 Federal 002 SWD	Rio Blanco 4 Fed 3 SWD
Sample Date	10/24/2018	10/24/2018
Test Date	10/26/2018	10/26/2018
Calcium (mg/L)	10590	11879
Magnesium (mg/L)	1625	1880
Barium (mg/L)	2	1
Strontium (mg/L)	549	658
Sodium (calculated) (mg/L)	59998.54555	63371.51338
Iron (mg/L)	2127	255
Manganese (mg/L)	4	2.6
Chlorides (mg/L)	115404	123634
Sulfates (mg/L)	994	1029
Bicarbonates (mg/L)	512	610
CO2 in Brine	770	792
H2S in Brine	0	0
Total Hardness (as CaCO3)	33162.2428	37434.12551
Total Dissolved Solids (mg/L)	191805.5456	203320.1134
Resistivity (ohms/m)	0.033367127	0.031477456
pH	5.780881177	5.844706594
Specific Gravity (mg/L)	1.128	1.134
Temperature (°F)	80	80
Pressure (psi)	120	120
Ionic Strength	3.632196248	3.910942389
CalciteSI	-0.520645267	-0.284776516
BariteSI	0.73162155	0.464127667
GypsumSI	-0.149006899	-0.10358548
HemihydrateSI	-0.185969189	-0.137446016
AnhydriteSI	-0.113206645	-0.036142026
CelestiteSI	0.564987035	0.668824788
PTBCalcite	0	0
PTBBarite	0.962231115	0.369713201
PTBGypsum	0	0
PTBHemiHydrate	0	0
PTBAnhydrite	0	0
PTBCelestite	225.560319	270.0692629

# 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  
June 07, 2019  
and ending with the issue dated  
June 07, 2019.

Editor Todd Bailey

Sworn and subscribed to before me this  
7th day of June 2019.

Gussie Black  
Business Manager

My commission expires  
January 29, 2023



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

## LEGAL NOTICE June 7, 2019

Devon Energy Production Company, LP, 333 West Sheridan Avenue, Oklahoma City, OK 73102-8260 has filed an amended form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking approval to amend the depth for this injection well. The injection well, Rio Blanco 4, Fed Corn 3, is located NWSE 1650 FSL & 1650' FEL, Section 4, Township 23 South, Range 34 East in Lea County, New Mexico. Disposal water will be sourced from area wells producing from formations ranging from the Delaware to Wolfcamp that will be re-injected into the Devonian, Silurian, Fusselman, at a depth from 14,500' to 16,085', at a maximum injection pressure of 2900 psi, and a maximum rate of 20,000 BWP/D. Any interested party who has an objection 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 Corporation, 333 West Sheridan Avenue, Oklahoma City, OK 73102 at 405-552-7882.

#34254

67106744

00229318

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
NMNM19143

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other: INJECTION

8. Well Name and No.

RIO BLANCO 4 FED COM 03

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: REBECCA DEAL

E-Mail: Rebecca.Deal@dvn.com

9. API Well No.

30-025-36425-00-S1

3a. Address

P O BOX 250  
ARTESIA, NM 88201

3b. Phone No. (include area code)

Ph: 405-228-8429

10. Field and Pool or Exploratory Area

BELL LAKE  
SWD

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 4 T23S R34E NWSE 1650FSL 1650FEL

11. County or Parish, State

LEA COUNTY, NM

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Devon Energy Production Co. respectfully requests approval of procedure to deepen the Rio Blanco 4 Federal Com 3. Proposed procedure as follows:

## MIRU WSU &amp; TOH INJECTION STRING

- 1) Hold PJSM; Record SITP & SICP; MIRU WSU & support equipment.
- 2) ND tree; NU 7-1/16? 10K BOPE with annular, tbg rams, blind rams; PTEST BOPE according to Devon protocol.
- 3) Release PCKR & TOH laying down lined injection tbg, On/Off tool, & PCKR.
- 4) RIH kill string; RDMO WSU & equipment for deepening rig.

MIRU DEEPENING RIG, D/O OPEN HOLE, &amp; ACID TREAT FORMATION

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #464139 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPANY LP, sent to the Hobbs  
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/06/2019 (19PP1772SE)**

Name (Printed/Typed) REBECCA DEAL

Title REGULATORY COMPLIANCE PROFESSI

Signature (Electronic Submission)

Date 05/06/2019

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By LONG VO

Title PETROLEUM ENGINEER

Date 05/09/2019

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***



## Additional data for EC transaction #464139 that would not fit on the form

### 32. Additional remarks, continued

- 1) Prep pad & existing facility equipment according to deepening rig footprint.
- 2) Hold PJSM; Record SITP & SICP; MIRU deepening rig & support equipment.
- 3) NU 7-1/16? 10K BOPE with annular, pipe rams, blind rams; PTEST BOPE according to Devon protocol.
- 4) MU 4-1/8? D/O BHA; TIH to 5? CSG Shoe.
- 5) C/O existing OH interval; proceed deepening OH to top of Montoya @ 16,065 ftKB.
- 6) CIRC hole clean; TOH laying down D/O string & BHA.
- 7) RIH kill string; RDMO deepening rig & equipment for WSU.

#### MIRU WSU & TIH INJECTION STRING

- 1) Hold PJSM; Record SITP & SICP; MIRU WSU & support equipment.
- 2) NU 7-1/16? 10K BOPE with annular, tbg rams, blind rams; PTEST BOPE according to Devon protocol.
- 3) MU injection BHA:
  - 2-7/8? tail pipe w/ XN Nipple
  - 5? x 2-7/8? Arrowset AS1-X 10K Injection Packer (internal Ni coated), On/Off Tool, Stinger.
  - RIH w/ ~2,951? 2-7/8? 6.5# L-80 lined injection string.
  - RIH with ~11,474? 4-1/2? 12.6# P-110 line injection string & set PCKR @ ~14,433?. \*Per NMOCD, packer must be set within 100? of injection zone (Csg Shoe @ 14,500?). Move packer set depth deeper or shallower to avoid previous packer slip set points while staying below 14,400?.
- 4) MIRU pumping services; acid treat well with 20,000 gal 15% HCl; RDMO pumping services.
- 5) Release On/Off tool, CIRC backside with PCKR fluid, latch On/Off tool.
- 6) Space out, land injection string, & NU WH.
- 7) RDMO WSU & related equipment.

Please see attached proposed procedure and current and proposed wellbore schematic.

## Revisions to Operator-Submitted EC Data for Sundry Notice #464139

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DEEP NOI	DEEP NOI
Lease:	NMNM19143	NMNM19143
Agreement:		
Operator:	DEVON ENERGY PRODUCTION COMPAN 333 WEST SHERIDAN AVE OKLAHOMA CITY, OK 73102 Ph: 405-228-8429	DEVON ENERGY PRODUCTION COM LP P O BOX 250 ARTESIA, NM 88201 Ph: 575-748-1854
Admin Contact:	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com  Ph: 405-228-8429	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com  Ph: 405-228-8429
Tech Contact:	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com  Ph: 405-228-8429	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com  Ph: 405-228-8429
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	DEVONIAN	BELL LAKE SWD
Well/Facility:	RIO BLANCO 4 FEDERAL COM 3 Sec 4 T23S R34E Mer NMP SWSW 1650FSL 1650FEL	RIO BLANCO 4 FED COM 03 Sec 4 T23S R34E NWSE 1650FSL 1650FEL

# PECOS DISTRICT

## DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>Devon Energy Production Company LP</b>
<b>LEASE NO.:</b>	<b>NMNM19143</b>
<b>WELL NAME &amp; NO.:</b>	Rio Blanco 4 Federal Com 3
<b>SURFACE HOLE FOOTAGE:</b>	1650'/S & 1650'/E
<b>BOTTOM HOLE FOOTAGE:</b>	1650'/S & 1650'/E
<b>LOCATION:</b>	Section 4, T.23 S., R.34 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input checked="" type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

**All Previous COAs Still Apply.**

### A. PRESSURE CONTROL

1.
  - a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the liner casing shoe shall be **10,000 (10M)** psi.

### B. SPECIAL REQUIREMENT (S)

#### Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

## **C. SPECIAL REQUIREMENT (S)**

### **WELL COMPLETION**

**The operator shall supply the BLM with a copy of a mudlog over the permitted disposal interval and estimated insitu water salinity based on open-hole logs. If hydrocarbon shows occur while drilling, the operator shall notify the BLM.**

**The operator shall provide to the BLM a summary of formation depth picks based on mudlog and geophysical logs along with a copy of the mudlog and open hole logs from TD to top of Devonian**

A NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:

1. Properly evaluate the injection zone utilizing open hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
2. Restrict the injection fluid to the approved formation.
3. If a step rate test will be run an NOI sundry shall be submitted to the BLM for approval

If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

## GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Chaves and Roosevelt Counties

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 627-0272.

After office hours call (575)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)

393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test

does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

**B. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

**C. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



**WELL NAME:** Rio Blanco 4 Fed Com 3 SWD

**API:** 30-025-36425

**WBS:**

Lea County, NM

**Contact:** Clifton Harlin

405-549-6574

### **WELLBORE DATA**

*\*Tubing & packer data available in “Current Wellbore Schematic” at bottom of procedure – “Proposed Wellbore Schematic” included as well.*

**Rio Blanco 4-3 - KBEL: 3,424’; GL: 3,400’; KB: 24’**

Size	Weight	Grade	Interval	Collapse	Burst	Drift	Capacity
9-5/8”	61	J-55	0-2,090’	-	-	-	-
See WBD	-	-	0-11,885’	-	-	-	-
5” (liner)	18	P-110	11,564-14,500’	13,450	13,940	4.151	0.0178
4-1/8”	OH	OH	14,500-14,653’	N/A	N/A	N/A	0.0165

### **IMPORTANT NOTES**

- 1) The existing 4-1/8” Open Hole interval will be deepened to the top of the Montoya formation at 16,065 ftKB.
- 2) The existing injection string has been run with lined injection string, On/Off tool, & retrievable packer.
- 3) This well currently injects into 153’ open hole into Devonian formation.
- 4) The existing injection string is made up of 3-1/2”, 2-7/8”, & 2-3/8” pipe. The proposed injection string will be made up of 4-1/2” & 2-7/8” pipe – ensure appropriate elevators and BOP rams are readily available prior to TOH.

### **RELEVANT CONCERNS**

- 1) NMOCD tubing pressure limit is **2,900 psi** at surface. If this pressure is exceeded during workover operations, take measures to ensure injection pressure will remain below permitted value before resuming disposal (10 ppg brine may be necessary to stay below pressure limitations).
- 2) Following well work, tank water levels will need to be high enough to resume injection post-job – we will need to resume injection after completing the state witnessed MIT.
- 3) NMOCD regulation states that the packer may be set no shallower than 14,400’.

## **PROCEDURE**

**SAFETY:** All personnel will wear hard hats, safety glasses with side shields, steel toed boots, H<sub>2</sub>S monitor and fire-retardant clothing while on location. Any personnel arriving on location after the pre-job safety meeting will check in with the Devon PIC and review hazards before proceeding. All personnel have the obligation and full authority to stop the job if any action may be perceived as harmful to people or the environment.

### **MIRU WSU & TOH INJECTION STRING**

- 1) Hold PJSM; Record SITP & SICP; MIRU WSU & support equipment.
- 2) ND tree; NU 7-1/16" 10K BOPE with annular, tbg rams, blind rams; PTEST BOPE according to Devon protocol.
- 3) Release PCKR & TOH laying down lined injection tbg, On/Off tool, & PCKR.
- 4) RIH kill string; RDMO WSU & equipment for deepening rig.

### **MIRU DEEPENING RIG, D/O OPEN HOLE, & ACID TREAT FORMATION**

- 1) Prep pad & existing facility equipment according to deepening rig footprint.
- 2) Hold PJSM; Record SITP & SICP; MIRU deepening rig & support equipment.
- 3) NU 7-1/16" 10K BOPE with annular, pipe rams, blind rams; PTEST BOPE according to Devon protocol.
- 4) MU 4-1/8" D/O BHA; TIH to 5" CSG Shoe.
- 5) C/O existing OH interval; proceed deepening OH to top of Montoya @ 16,065 ftKB.
- 6) CIRC hole clean; TOH laying down D/O string & BHA.
- 7) RIH kill string; RDMO deepening rig & equipment for WSU.

### **MIRU WSU & TIH INJECTION STRING**

- 1) Hold PJSM; Record SITP & SICP; MIRU WSU & support equipment.
- 2) NU 7-1/16" 10K BOPE with annular, tbg rams, blind rams; PTEST BOPE according to Devon protocol.
- 3) MU injection BHA:
  - 2-7/8" tail pipe w/ XN Nipple
  - 5" x 2-7/8" Arrowset AS1-X 10K Injection Packer (internal Ni coated), On/Off Tool, Stinger.
  - RIH w/ ~2,951' 2-7/8" 6.5# L-80 lined injection string.
  - RIH with ~11,474' 4-1/2" 12.6# P-110 line injection string & set PCKR @ ~14,433'.

*\*Per NMOCD, packer must be set within 100' of injection zone (Csg Shoe @ 14,500'). Move packer set depth deeper or shallower to avoid previous packer slip set points while staying below 14,400'.*

- 4) MIRU pumping services; acid treat well with 20,000 gal 15% HCl; RDMO pumping services.
- 5) Release On/Off tool, CIRC backside with PCKR fluid, latch On/Off tool.
- 6) Space out, land injection string, & NU WH.
- 7) RDMO WSU & related equipment.

### **PERFORM MIT W/ REGULATORY REPRESENTATIVES**

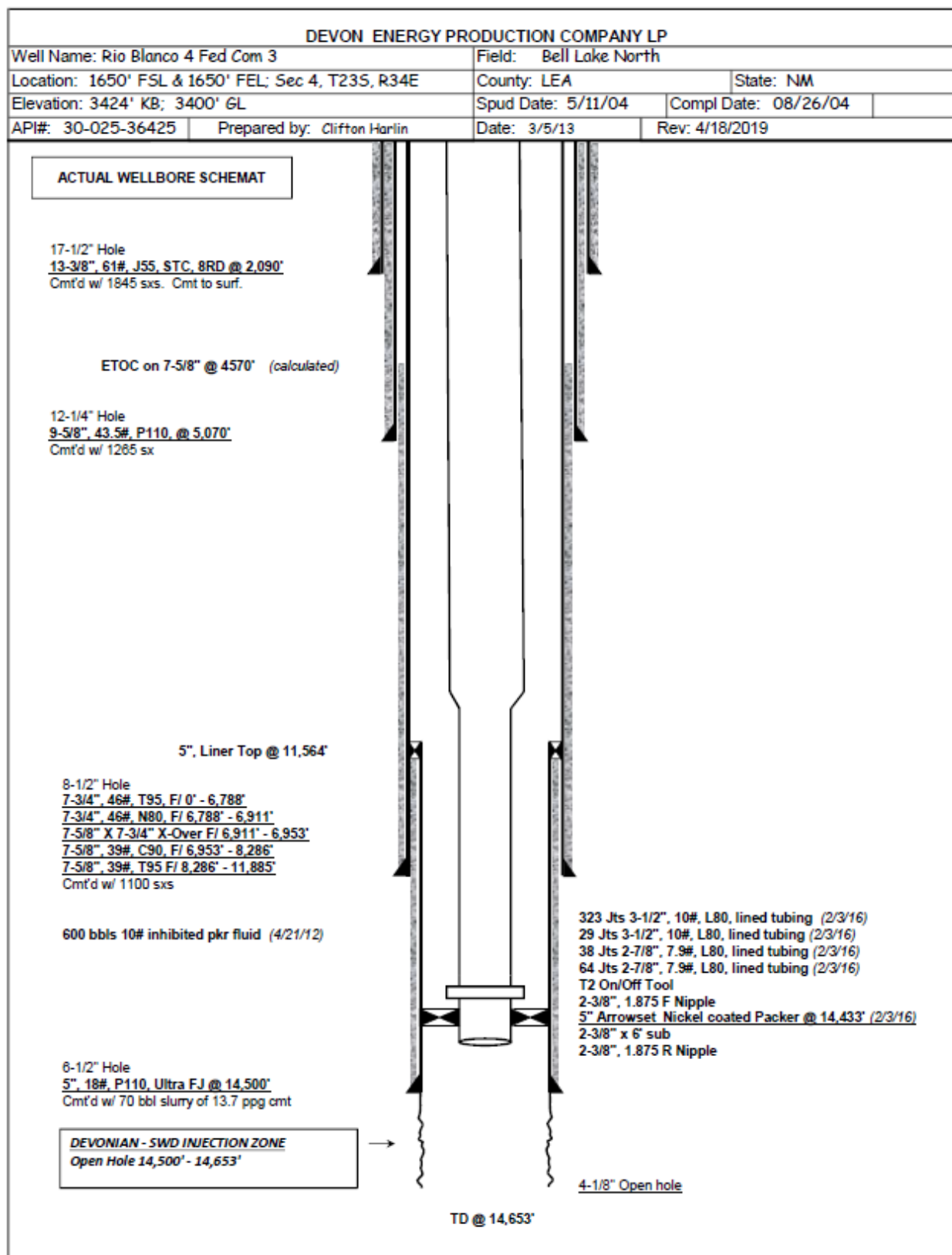
- 1) Notify & set up NMOCD & BLM for official MIT with chart recorder. Once MIT is approved & NMOCD OK's injection, initiate disposal into Devonian. **Do not exceed max pressure of 2,900 psi per NMOCD.**

*\*Any future slickline tools will require a smooth surface to prevent tbg coating damage.*

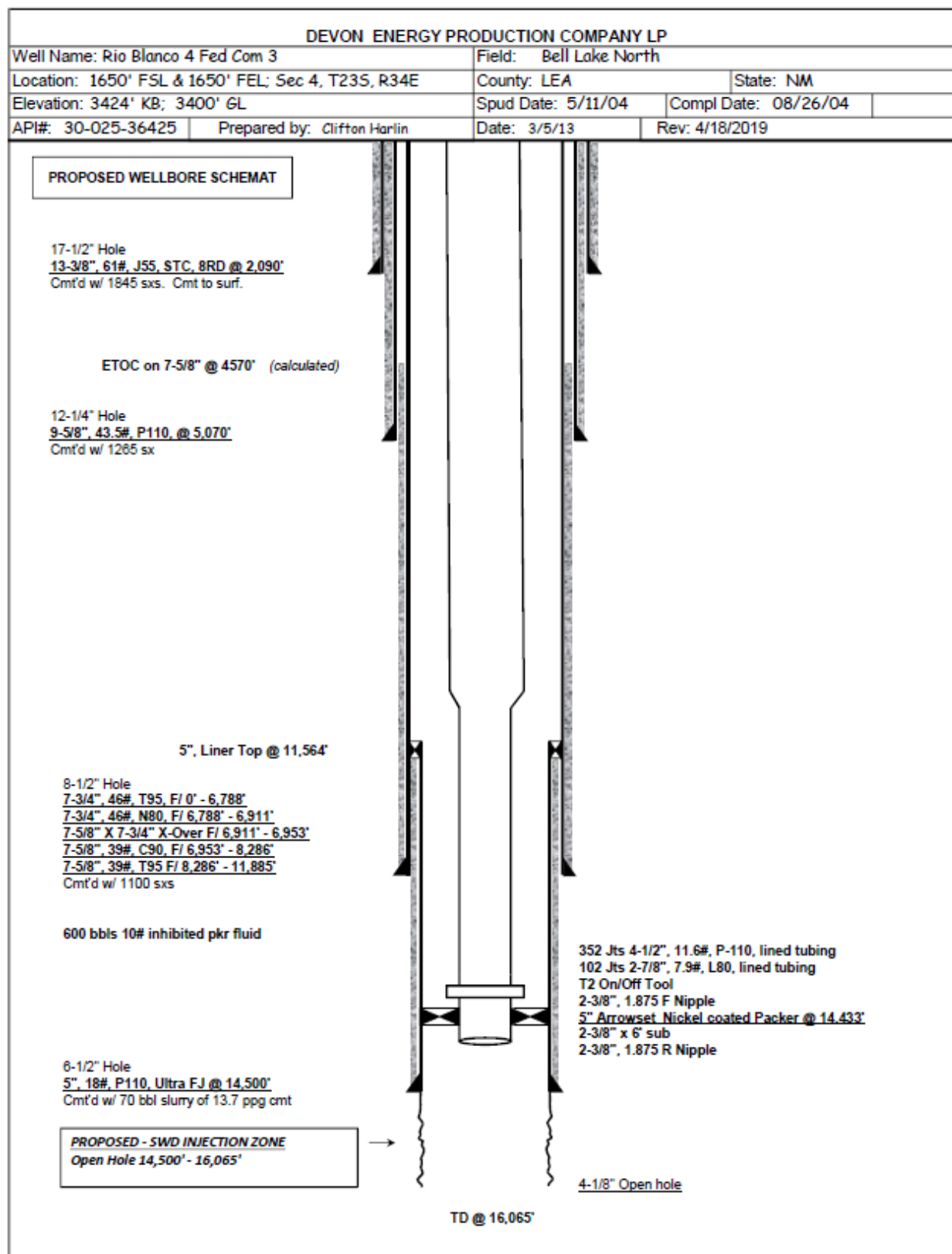
*\*\*Per NMOCD, any unseating of injection packer will require an additional witnessed MIT prior to commencing injection.*

- 2) TOTP - Resume Injection.

## CURRENT WELLBORE SCHEMATIC



## PROPOSED WELLBORE SCHEMATIC



## **McMillan, Michael, EMNRD**

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**From:** McMillan, Michael, EMNRD  
**Sent:** Tuesday, June 25, 2019 11:10 AM  
**To:** 'rebecca.deal@dm.com'  
**Cc:** Goetze, Phillip, EMNRD; Jones, William V, EMNRD  
**Subject:** Rio Blanco 4 Fed Com Well No. 3

Rebecca:

Your administrative SWD application for the Rio Blanco 4 Fed Com Well No. 3 has been suspended.

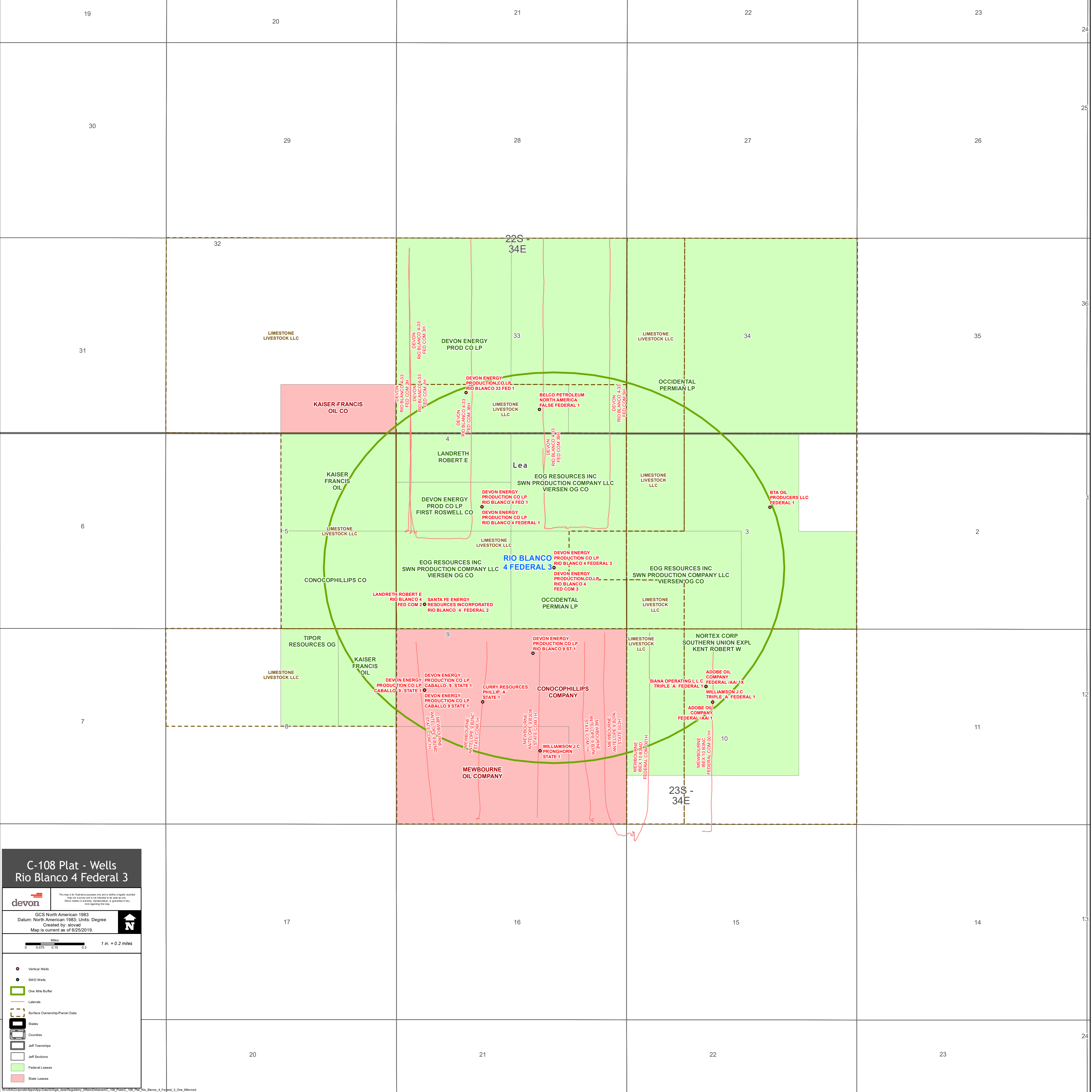
You only notified the affected parties within ½ mile AOR.

You must notify affected parties within 1-mile AOR of the proposed SWD.

After the OCD receives proof of mailing to the affected parties, your administrative application will no longer be suspended.

Mike

Michael McMillan  
1220 South St. Francis  
Santa Fe, New Mexico  
505-476-3448  
Michael.mcmillan@state.nm.us



C-108 Plat - Wells  
Rio Blanco 4 Federal 3

devon

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GCS North American 1983  
Datum: North American 1983; Units: Degree  
Created by: slovad  
Map is current as of 8/25/2019.

N

Miles

00.0750.150.3

1 in. = 0.2 miles

Vertical Wells

SWD Wells

One Mile Buffer

Laterals

Surface Ownership/Parcel Data

States

Counties

Jeff Townships

Jeff Sections

Federal Leases

State Leases

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