



RECEIVED OCD

November 20, 2012

2012 DEC -3 P 1:37

New Mexico Oil Conservation Division
Attn: William V. Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Application For Authorization To Inject
Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
Lea County, New Mexico

Dear Mr. Jones:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the Bufflehead 10 Federal #1 SWD well as referenced above. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No

II. OPERATOR: _____ COG OPERATING LLC _____

ADDRESS: _____ 2208 W. Main Street, ARTESIA, NM 88210 _____

CONTACT PARTY: _____ BRIAN COLLINS _____ PHONE: _____ 575-748-6940 _____

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 _____ 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.

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).

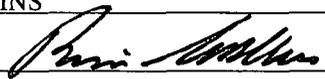
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: _____ BRIAN COLLINS _____ TITLE: _____ Senior Operations Engineer _____

SIGNATURE: _____  _____ DATE: _____ 10/19/2012 _____

E-MAIL ADDRESS: _____ bcollins@concho.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: _____

C-108 Application for Authorization to Inject
BUFFLEHEAD 10 FEDERAL SWD #1
Unit I, Sec 10 T26S R32E
Lea County, NM

COG Operating, LLC, proposes to drill the captioned well to 6600' for salt water disposal service into the Delaware Sand from 5700' to 6420'. An APD will be submitted to the BLM upon approval of this C-108.

- V. Map is attached.
- VI. No wells within the ½ mile radius area of review penetrate the proposed injection zone.
- VII.
 - 1. Proposed average daily injection rate = 7000 BWPD
Proposed maximum daily injection rate = 10000 BWPD
 - 2. Closed system
 - 3. Proposed maximum injection pressure = 1140 psi
(0.2 psi/ft. x 5700 ft.)
 - 4. Source of injected water will be Delaware Sand and Bone Spring Sand produced water. No compatibility problems are expected. Analyses of Delaware and Bone Spring waters from analogous source wells are attached.
- VIII. The injection zone is the Delaware Sandstone, a fine-grained sandstone from 5700' to 6420'. Any underground water sources will be shallower than 1000'. There are no water wells near this well.
- IX. The Delaware sand injection interval might be acidized with approximately 20 gal/ft of 7 ½ % HCl acid.
- X. Well logs, if run, will be filed with the Division. A section of the neutron-density porosity log from an analogous well 2800' to the north showing the injection interval is attached.
- XI. There are no fresh water wells within a mile of the proposed SWD well.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.

III.

WELL DATA

INJECTION WELL DATA SHEET

OPERATOR: COG Operating, LLC

WELL NAME & NUMBER: Bufflehead 10 Federal SWD 1

WELL LOCATION: 1980' FSL 990' FEL I 10 26s 32e
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

See Attached Schematic

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8" e ±1000'
Cemented with: _____ sx. or 1400 ft³
Top of Cement: Surface Method Determined: Design

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" e ±4450'
Cemented with: _____ sx. or 2800 ft³
Top of Cement: Surface Method Determined: Design

Production Casing

Hole Size: 8 3/4" Casing Size: 7" e ±6600'
Cemented with: _____ sx. or 600 ft³
Top of Cement: 3950' Method Determined: Design
Total Depth: 6600'

Injection Interval

5700' feet to 6420'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 3 1/2" or 4 1/2" Lining Material: Plastic or Duoline ZD
Type of Packer: Nickel plated double grip retrievable
Packer Setting Depth: ±5650'
Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

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

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

2. Name of the Injection Formation: Delaware Sand

3. Name of Field or Pool (if applicable): Jennings

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. N/A

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

Overlying: Delaware (Upper Bill Canyon) 4407-4580' ±2 mile NW, ±1.5 mile SE
Underlying: Bone Spring 9130'

There are no mudlog shows in the proposed injection interval in the nearby wells.

30-025-

Bufllehead 10 Federal SWD 1
1980' FSL, 990' FEL
Unit I, Sec 10-26s-32e
Lea, NM

17 1/2"

13 3/8" / 54.5 / JSS / STC e ± 1000' 1400 CF cmt. (Circ)

12 1/4"

3 1/2" or 4 1/2" Inj Tbs

TOC 3950' Design

9 5/8" / 36,40 / JSS / BTC e ± 4450' 2800 CF cmt. (Circ)

8 3/4"

Inj Pkr ± 5650'

Delaware Sand

5700-6420'

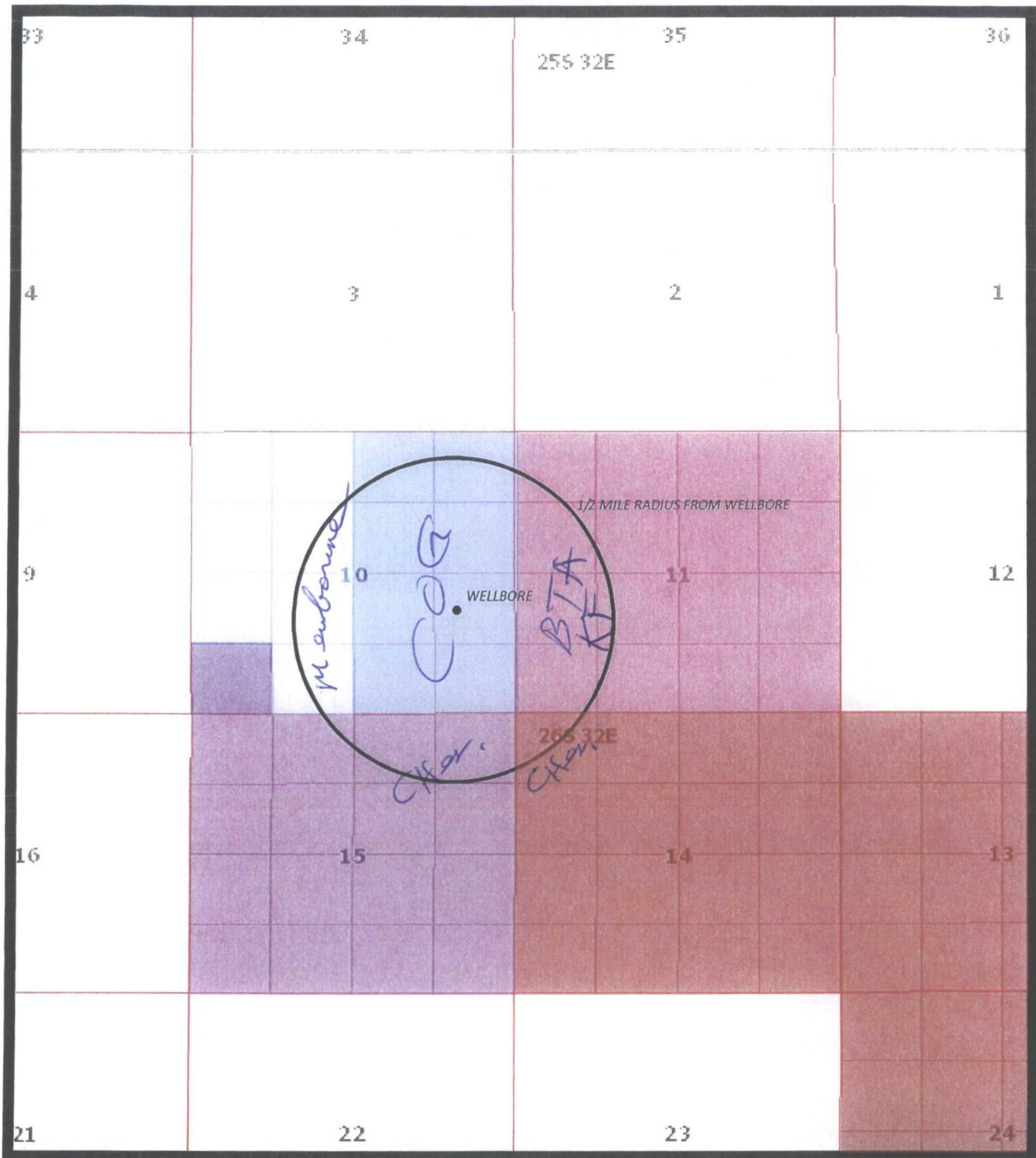
7" / 26 / JSS / LTC e ± 6600'

600 CF cmt
(Design TOC 3950' ±)

6600'

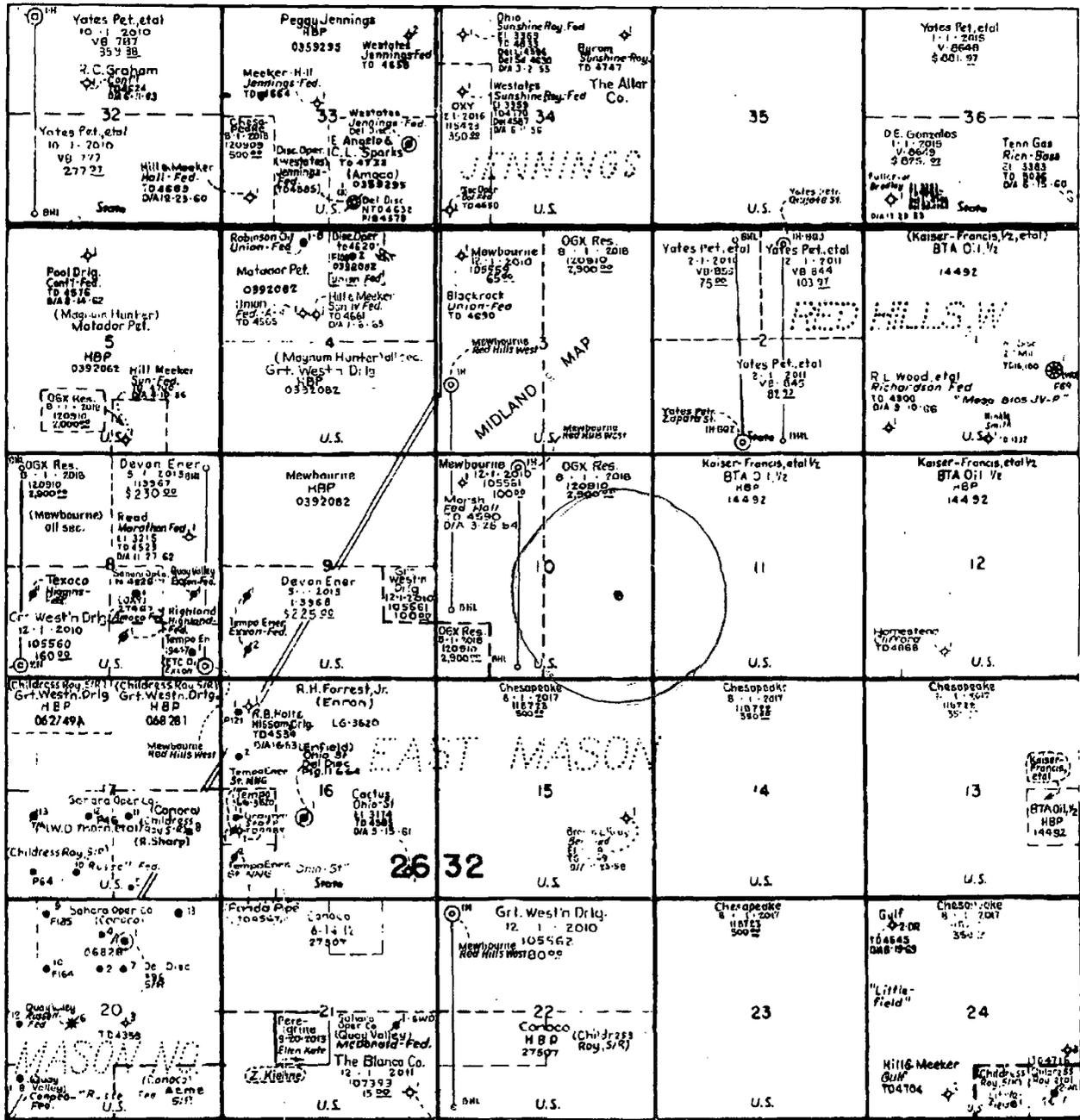
V.

MAP



- BTA Oil Producers
Kaiser Francis Oil
- Cheasapeake Exploration LLC
- Cheasapeake Exploration LLC
- COG Operating LLC
- COG Operating LLC
- Mewbourne Oil Company

Bufflehead 10 Federal SWD No. 1
1980' FSL & 990' FEL
Section 10; T26s - R32e
Eddy County, New Mexico



COG Operating, LLC
Bufflehead 10 Federal SWD #1
Unit I, Sec 10 T26S-R32E
Lea County, NM

VII.

Water Analysis Produced and Receiving Formation Water

WATER SAMPLE REPRESENTATIVE OF WATER BEING INJECTED INTO THE PROPOSED SWD WELL												
Water is very similar to that of the receiving formation, therefore no compatibility problems are expected.												
Avalon												
Lab Test #	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
2012105497	Gunner	8 Fed 8H		3/12/2012	12/17/2011	1.09	2.20	132205.83	5.90		11390.50	2098.17

Bone Spring Produced Water

1/2

TH (CaCO3)	Na (mg/L)	K (mg/L)	Zn (mg/L)	Fe (mg/L)	Ba (mg/L)	Sr (mg/L)	Mn (mg/L)	Resistivity	HCO3 (mg/L)	CO3 (mg/L)	OH (mg/L)	SO4 (mg/L)	Cl (mg/L)	CO2 (mg/L)	H2S (mg/L)
37551.69	48017.49	593.89	96.83	39.25	0.00	378.06	2.66		439.00	0.00		1050.00	68100.00	600.00	0.00

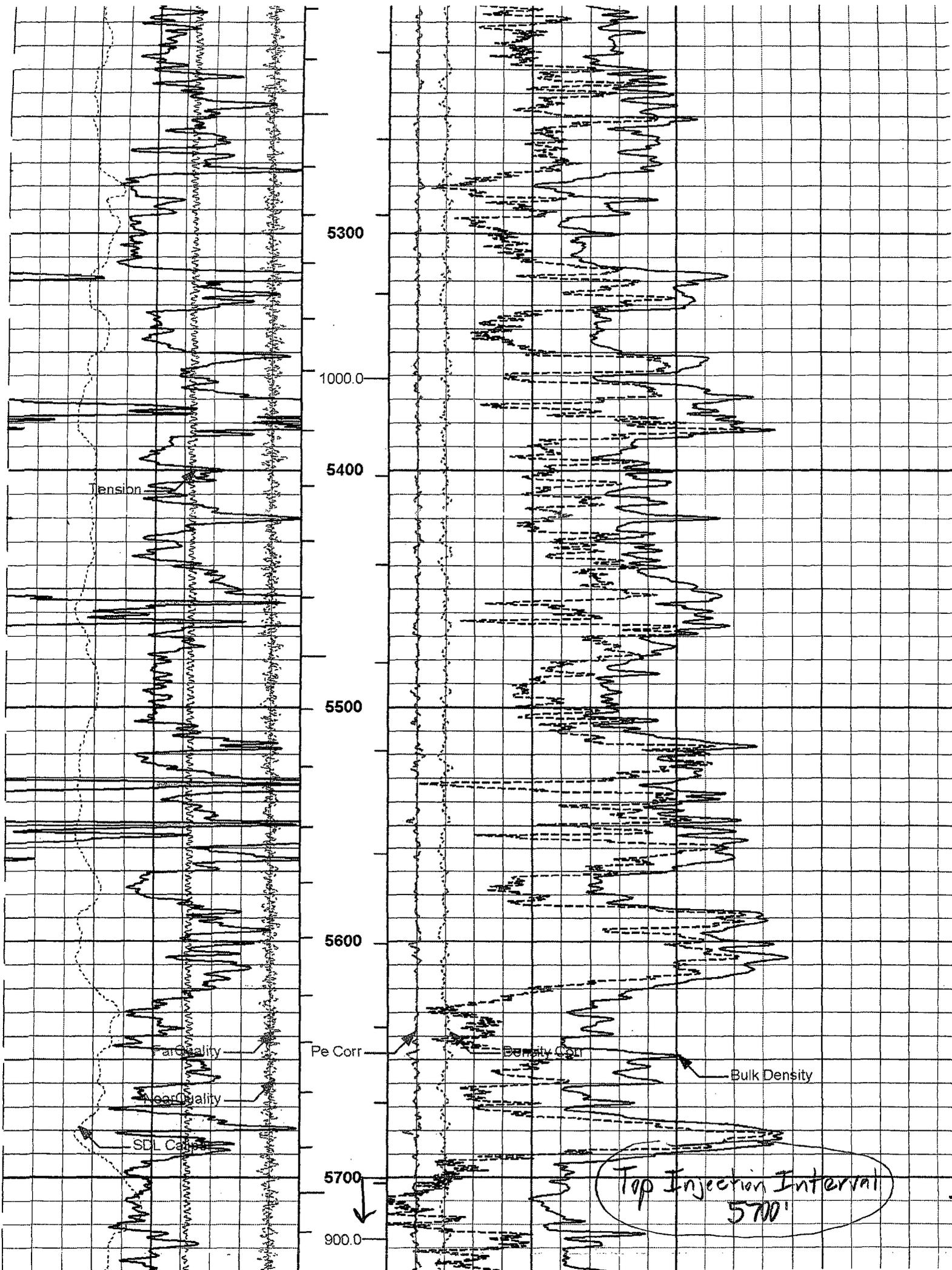
Representative Delaware Produced
And Receiving Formation Water

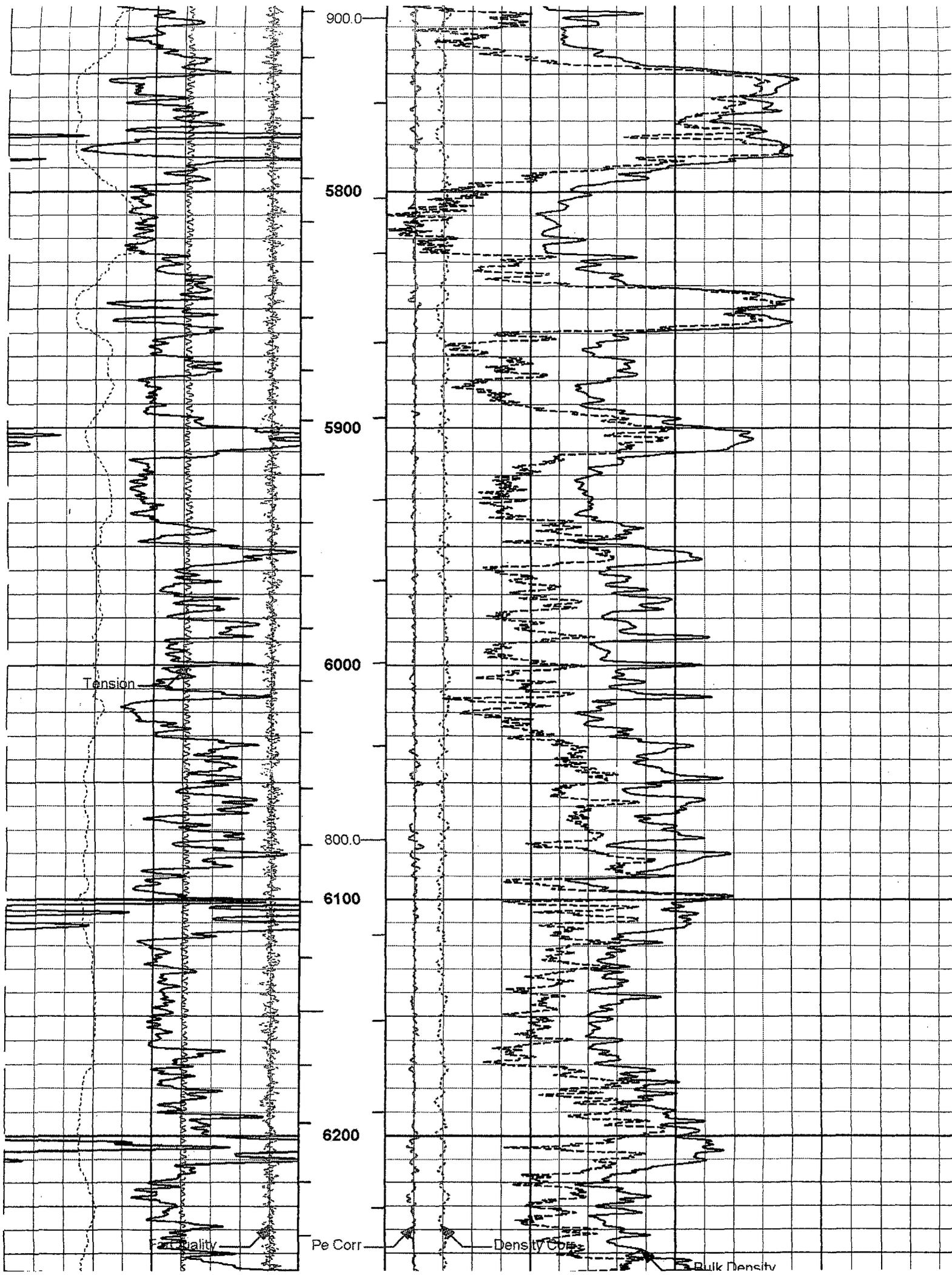
General Information About: Sample 4222			
NORTH EL MAR UNIT 022			
API	3002508278	Sample Number	
Unit/Section/ Township/Range	J / 25 / 26 S / 32 E	Field	EL MAR
County	Lea	Formation	DEL
State	NM	Depth	
Lat/Long	32.01136 / - 103.62579	Sample Source	UNKNOWN
TDS (mg/L)	244815	Water Type	
Sample Date (MM/DD/YYYY)		Analysis Date (MM/DD/YYYY)	
Remarks/Description			
Cation Information (mg/L)		Anion Information (mg/L)	
Potassium (K)		Sulfate (SO ₄)	220
Sodium (Na)		Chloride (Cl)	153500
Calcium (Ca)		Carbonate (CO ₃)	
Magnesium (Mg)		Bicarbonate (HCO ₃)	88
Barium (Ba)		Hydroxide (OH)	
Manganese (Mn)		Hydrogen Sulfide (H ₂ S)	
Strontium (Sr)		Carbon Dioxide (CO ₂)	
Iron (Fe)		Oxygen (O)	

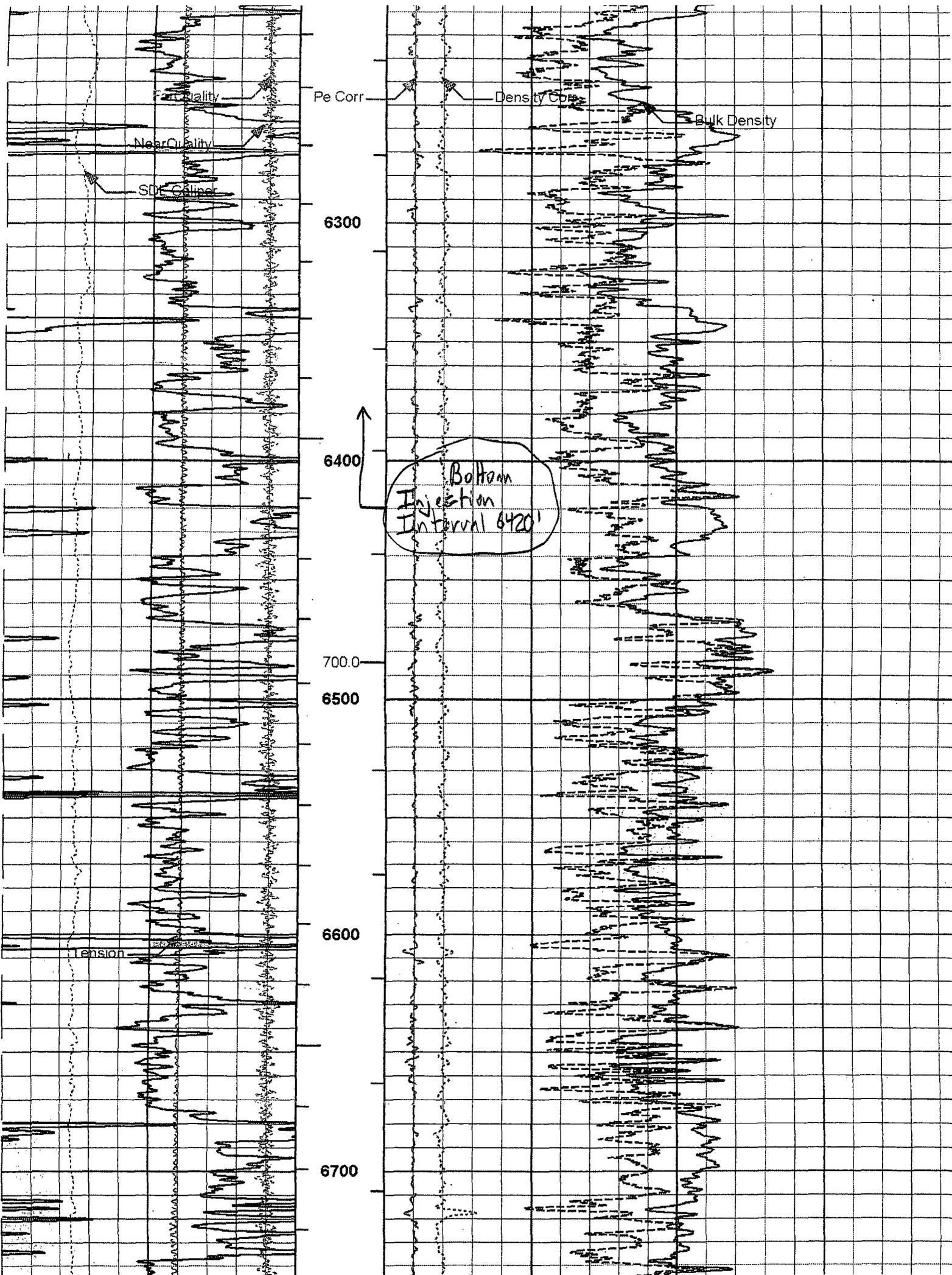
Data obtained from <http://octance.nmt.edu>

X.

**Log Across Proposed
Delaware Sand
Injection Interval**







XI.

**Fresh Water Sample
Analyses**



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 33, 34, 35

Township: 25S

Range: 32E

No Fresh water within
1 mile of proposed SWD.



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 2, 3, 4, 9, 10,
11, 14, 15, 16 **Township:** 26S **Range:** 32E



November 20, 2012

Hobbs News-Sun
P.O. Box 850
Hobbs, NM 88240

**Re: Legal Notice
Salt Water Disposal Well
Bufflehead 10 Federal SWD #1**

To Whom It May Concern:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108 Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof of notice to the undersigned at:

COG Operating LLC, 2208 W. Main St., Artesia, NM 88210

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

HOBBS NEWS-SUN
LEGAL NOTICES

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Bufflehead 10 Federal SWD #1 is located 1980' FSL & 990' FEL, Section 10, Township 26 South, Range 32 East, Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 5700' to 6420' at a maximum surface pressure of 1140 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 28 miles west of Jal. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Hobbs News-Sun, Hobbs, New Mexico
_____, 2012.

Affidavit of Publication

State of New Mexico,
County of Lea.

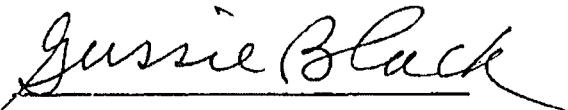
I, JUDY HANNA
PUBLISHER

of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do 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

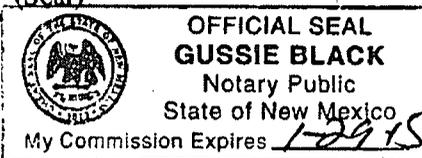
of 1 issue(s).
Beginning with the issue dated
December 11, 2012
and ending with the issue dated
December 11, 2012


PUBLISHER

Sworn and subscribed to before me
this 11th day of
December, 2012


Notary Public

My commission expires
January 29, 2015
(Seal)



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

LEGAL	LEGAL
Legal Notice December 11, 2012	
COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Bufflehead 10 Federal SWD #1 is located 1980' FSL & 990' FEL, Section 10 Township 26 South, Range 32 East, Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 5700' to 6420' at a maximum surface pressure of 1140 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 26 miles west of Jal. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940. #27762	

02107967 00105789
COG OPERATING LLC
FASKEN CENTER, TOWER II
550 W. TEXAS AVE., STE 1300
MIDLAND, TX 79701

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**BUREAU OF LAND MANAGEMENT
620 E GREENE ST
CARLSBAD NM 88220**

2. Article Number
(Transfer from service label) 7011 1570 0000 7781 3431

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Agent
 Address

B. Received by (*Printed Name*) C. Date of Delivery
Jessica Franco **4/03/11**

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (*Extra Fee*) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**CHESAPEAKE EXPLORATION LLC
P O BOX 18496
OKLAHOMA CITY OK 73154-0496**

2. Article Number
(Transfer from service label) **7011 1570 0000 7781 3783**

PS Form 3811, February 2004 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X RECEIVED Agent Address

B. Received by (Printed Name) **DEC 03 2012** C. Date of Delivery

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:
MAILROOM 17

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**KAISER FRANCIS OIL
P O BOX 21463
TULSA OK 74121-1468**

2. Article Number
(Transfer from service label) **7011 1570 0000 7781 3448**

PS Form 3811, February 2004 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature] Agent Address

B. Received by (Printed Name) **DEC 06 2012** C. Date of Delivery

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**MEWBOURNE OIL COMPANY
P O BOX 7698
TYLER TX 75711-7698**

2. Article Number
(Transfer from service label) **7011 1570 0000 7781 3776**

PS Form 3811, February 2004 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [Signature] Agent Address

B. Received by (Printed Name) **HENRY GRANVILLE** C. Date of Delivery **12-4-12**

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**BTA OIL PRODUCERS
104 S PECOS ST
MIDLAND TX 79701**

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3752

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1

COMPLETE THIS SECTION ON DELIVERY

- A. Signature Agent
[Signature] Address
- B. Received by (Printed Name) *LUIS SOSA* C. Date of Deliv *12-3-12*
- D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.
4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**NM OIL CONSERVATION DIVISION
1220 S ST FRANCIS DR
SANTA FE NM 87505**

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3745

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1

COMPLETE THIS SECTION ON DELIVERY

- A. Signature Agent
[Signature] Address
- B. Received by (Printed Name) *Rebecca Lopez* C. Date of Deliv *12-3-12*
- D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.
4. Restricted Delivery? (Extra Fee) Yes

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**MEWBOURNE OIL COMPANY
500 W TEXAS STE 1030
MIDLAND TX 79701**

2. Article Number

(Transfer from service label)

7011 1570 0000 7781 3769

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-15

COMPLETE THIS SECTION ON DELIVERY

- A. Signature Agent
[Signature] Address
- B. Received by (Printed Name) *Mitchell* C. Date of Deliv *12-3*
- D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.
4. Restricted Delivery? (Extra Fee) Yes



November 20, 2012

Oil Conservation Division
Attn: Richard Inge
811 South 1st St.
Artesia, NM 88210

**RE: Application For Authorization To Inject
Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
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Sincerely,

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Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

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

**RE: Application to Inject
Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
Lea County, New Mexico**

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Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

BTA Oil Producers
104 S. Pecos St.
Midland, TX 79701

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Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
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Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

Chesapeake Exploration, L.L.C.
P.O. Box 18496
Oklahoma City, OK 73154-0496

RE: Application to Inject
Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
Lea County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

Kaiser Francis Oil
P.O. Box 21463
Tulsa, OK 74121-1468

**RE: Application to Inject
Bufflehead 10 Federal SWD #1
Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
Lea County, New Mexico**

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Senior Operations Engineer

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November 20, 2012

Mewbourne Oil Company
P.O. Box 7698
Tyler, TX 75711-7698

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Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
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Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

Mewbourne Oil Company
500 W. Texas St. #1020
Midland, TX 79701

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Township 26 South, Range 32 East, N.M.P.M.
Section 10: 1980' FSL & 990' FEL
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Senior Operations Engineer

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Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Friday, December 28, 2012 12:24 PM
To: Brian Collins
Cc: Ezeanyim, Richard, EMNRD
Subject: Bufflehead and Pintail areas

Brian,
In this area, it seems the original applications were for open hole completions over a large Delaware section – the latest applications after protests from Mewbourne and the BLM are for cased hole completions with a contracted Delaware interval.

I see the top of the Delaware, but is the Delaware in this area broken in to members?
If so, where do you guys pick the top of the Ramsey, Bell, Cherry, and Brushy?

Thank You!

William V. Jones, P.E.
505-476-3448W 505-476-3462F
Engineering Bureau, Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Jones, William V., EMNRD

From: Brian Collins <BCollins@concho.com>
Sent: Thursday, February 07, 2013 10:10 AM
To: Jones, William V., EMNRD
Cc: Bobbie Goodloe
Subject: COG Bufflehead 10 Fed SWD 1 Delaware Tops

Will:

Here's the Delaware tops you requested for the Bufflehead 10 Fed SWD 1 in Sec 10-26s-32e:

Delaware (Lamar) 4536'
Bell Canyon 4564'
Cherry Canyon 5538' ✓
Brushy Canyon 6926'
Bone Spring 8695'

I think the geologist is working on the Pintail tops and I'll send them to you when I get them. Thanks.

Brian Collins

Senior Operations Engineer
NM Basin Team

COG OPERATING LLC
2208 W. Main Street
Artesia, New Mexico 88210-3720
Phone # 575.748.6924
Email: bcollins@concho.com



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Injection Permit Checklist (11/15/2010)

WFX _____ PMX _____ SWD 1395 Perm: 2/8/13 Qtr (O/N/D)

Wells 1 Well Name(s): BUFFLEHEAD 10 Federal SWD #1

API Num: 30-025-NA Spud Date: NOT YET New/Old: N (UIC primacy March 7, 1982)

Footages 1980FSL/990FEL Unit I Sec 10 Tsp 26S Rge 32E County LEA

General Location: _____

Operator: COG OPERATING, LLC Contact BRIAN COLLINS

OGRID: 229137 RULE 5.9 Compliance (Wells) 0/2755 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed None Current Status: NOT Permitted

Planned Work to Well: DRILL/ESP/DIAPHR

Diagrams: Before Conversion After Conversion Elogs in Imaging File: NOT Spud yet

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
	Hole.....	Pipe				
New ___ Existing ___ Surface	<u>17 1/2</u>	<u>13 3/8</u>	<u>1000'</u>	<u>—</u>	<u>1400 CF</u>	<u>Surf</u>
New ___ Existing ___ Interm	<u>12 1/4</u>	<u>9 5/8</u>	<u>4950'</u>		<u>2800 CF</u>	<u>Surf.</u>
New ___ Existing ___ LongSt	<u>8 3/4</u>	<u>7"</u>	<u>6600'</u>		<u>600 CF</u>	<u>3950' Plan</u>
New ___ Existing ___ Liner						
New ___ Existing ___ OpenHole						

Depths/Formations:	Depths. Ft.	Formation	Tops?
Formation(s) Above	<u>4064</u> <u>5538</u>	<u>Ball C.</u> <u>Cherry C.</u>	<input checked="" type="checkbox"/>
Injection TOP:	<u>5700'</u>	<u>Cherry C.</u>	Max. PSI <u>1140</u> OpenHole <input checked="" type="checkbox"/> Perfs <input checked="" type="checkbox"/>
Injection BOTTOM:	<u>6420'</u>	<u>Cherry C.</u>	Tubing Size <u>3 1/2</u> Packer Depth <u>5640'</u>
Formation(s) Below	<u>6926</u> <u>8695</u>	<u>Brady C.</u> <u>BS</u>	<input checked="" type="checkbox"/>

~~Capitan Face? (Potash? Noticed?) (WHP? Noticed?) Salado Top/Bot~~ 2700' ~~Cherry C.~~

Fresh Water: Depths: <1000' Formation _____ Wells? NONE Analysis? _____ Affirmative Statement

Disposal Fluid Analysis? Sources: Drill/B.S.

Disposal Interval: Analysis? Production Potential/Testing: NO MVD LOG SHOWS AN OFFSET WELLS

Notice: Newspaper Date 12/1/12 Surface Owner BOG (12/3/12) Mineral Owner(s) _____

RULE 26.7(A) Affected Persons: Cherry/KF/Maher/BTA (12/4/12)

AOR: Maps? Well List? Producing in Interval? NO Wellbore Diagrams? _____

.....Active Wells Repairs? _____ Which Wells? _____

.....P&A Wells Repairs? _____ Which Wells? _____

Issues: _____ Request Sent _____ Reply: _____