

7/4/12 ← Noted by Newborn/BLM (450-1200) (CH)

DATE IN 12/3/12	SUSPENSE	ENGINEER WJD	LOGGED IN	TYPE SWD	APP NO. P. KVR 1225155 935
--------------------	----------	-----------------	-----------	-------------	-------------------------------

RESUBMITTED
ALSO moved LOCATION
TO THE EAST

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 _____

Buffhead 10 Federal SW #1
I/10/265/32E/LEA
5700' 6420' Bkfs
30-025-NA

[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

[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.

BRIAN COLLINS
Print or Type Name

Signature

SENIOR OPERATIONS ENGINEER
Title

10/19/2012
Date

bcollins@concho.com
e-mail Address



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.

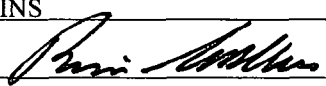
Sincerely,

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

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X 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 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.
- 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, LLCWELL NAME & NUMBER: Bufflehead 10 Federal SWD 1WELL LOCATION: 1980' FSL 990' FEL I 10 26s 32e
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

See Attached Schematic

WELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2" Casing Size: 13 3/8" e ±1000'Cemented with: _____ sx. or 1400 ft³Top of Cement: Surface Method Determined: DesignIntermediate CasingHole Size: 12 1/4" Casing Size: 9 5/8" e ±4450'Cemented with: _____ sx. or 2800 ft³Top of Cement: Surface Method Determined: DesignProduction CasingHole Size: 8 3/4" Casing Size: 7" e ±6600'Cemented with: _____ sx. or 600 ft³Top of Cement: 3950' Method Determined: DesignTotal Depth: 6600'Injection Interval5700' 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 20

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 Bull Canyon) 4407-4580' \pm 2 mile NW, \pm 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'

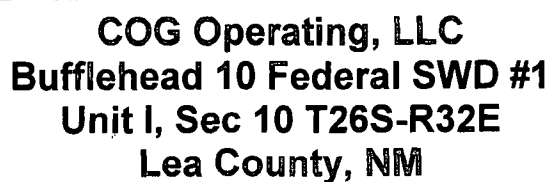
V.

MAP



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

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)	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>

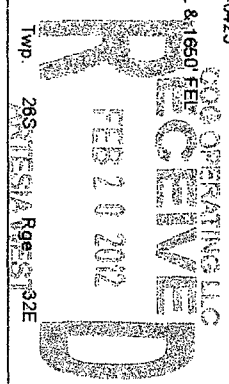
X.

**Log Across Proposed
Delaware Sand
Injection Interval**

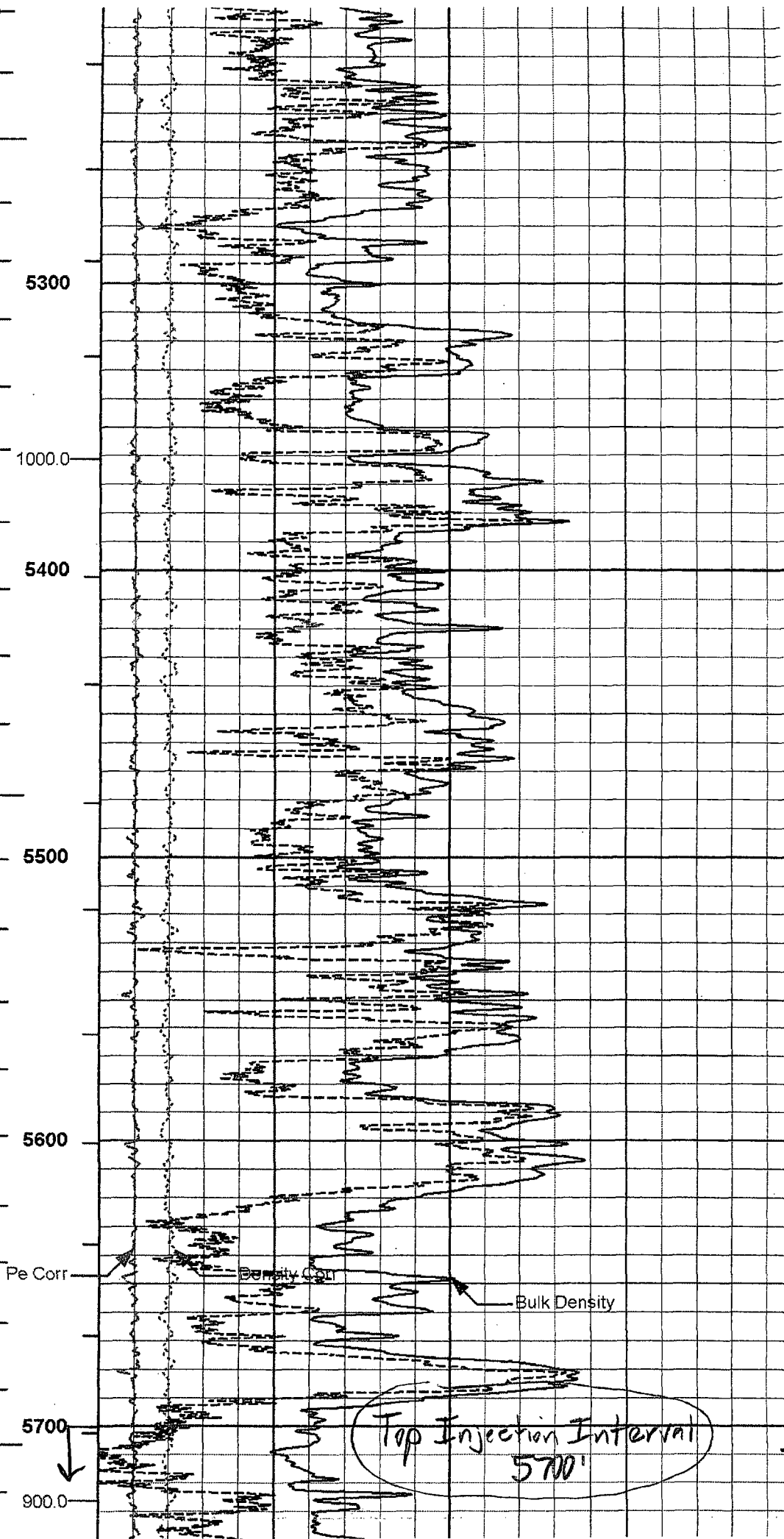
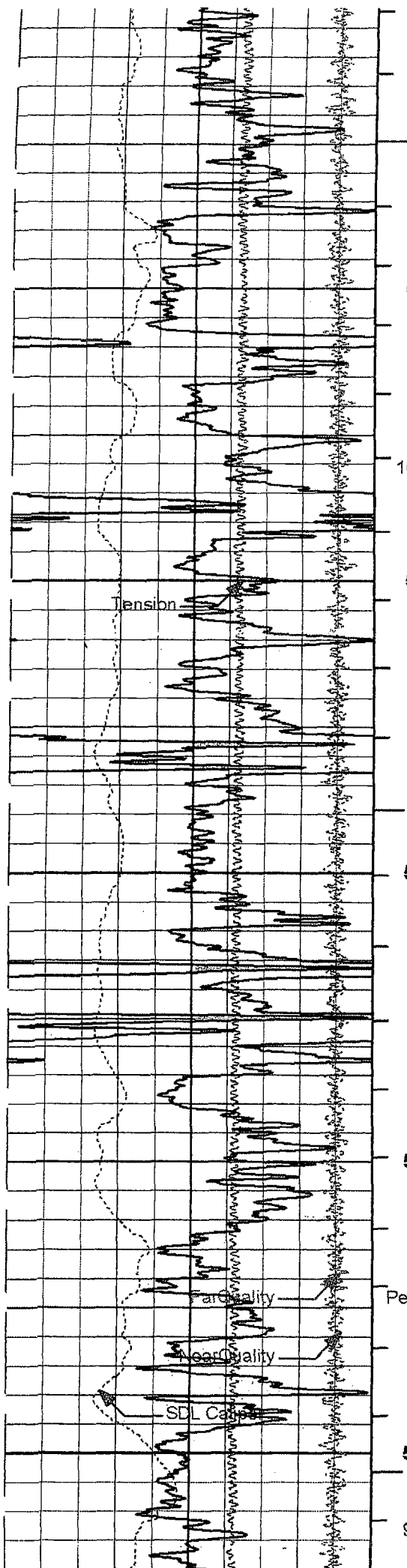
HALLIBURTON

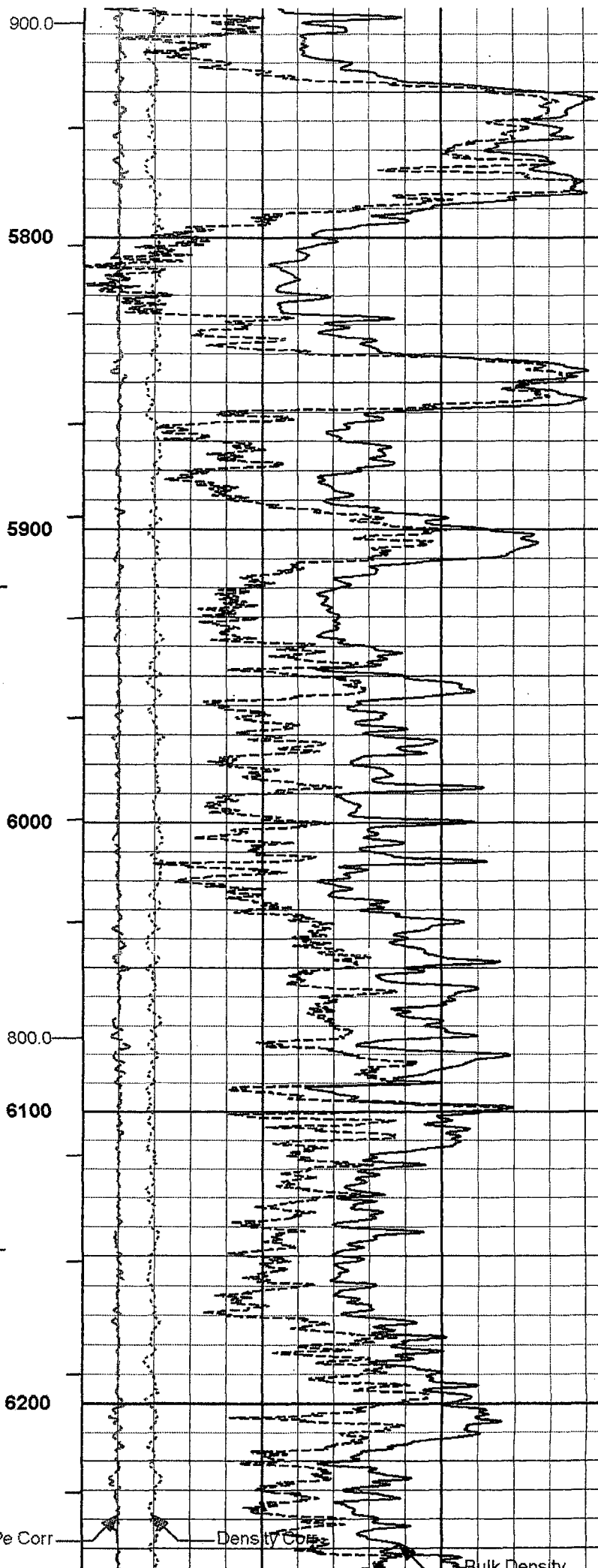
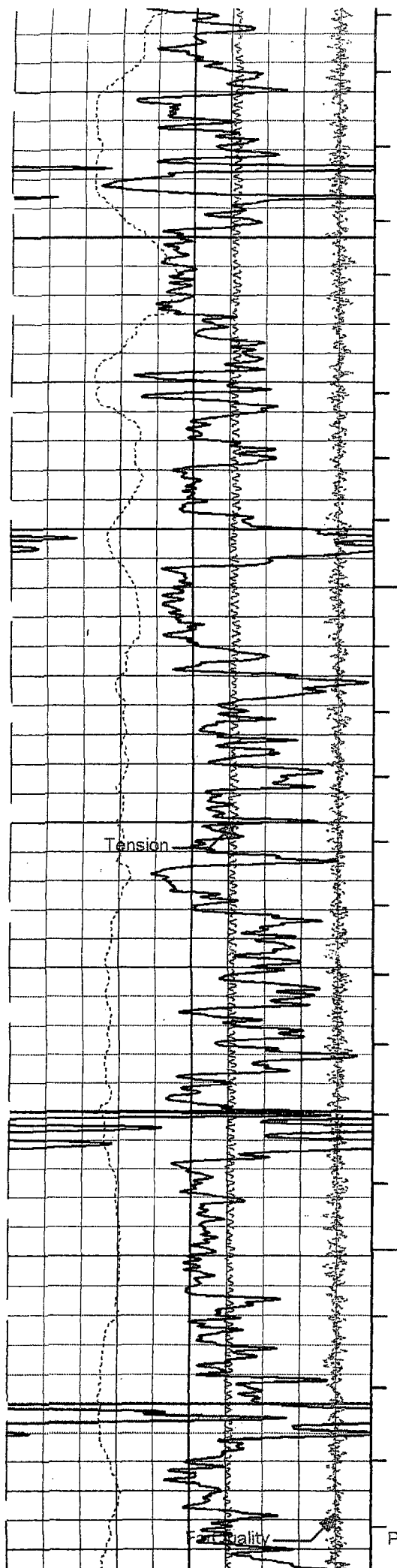
**DUAL SPACED NEUTRON
SPECTRAL DENSITY
COMP. SPECTRAL
GAMMA RAY**

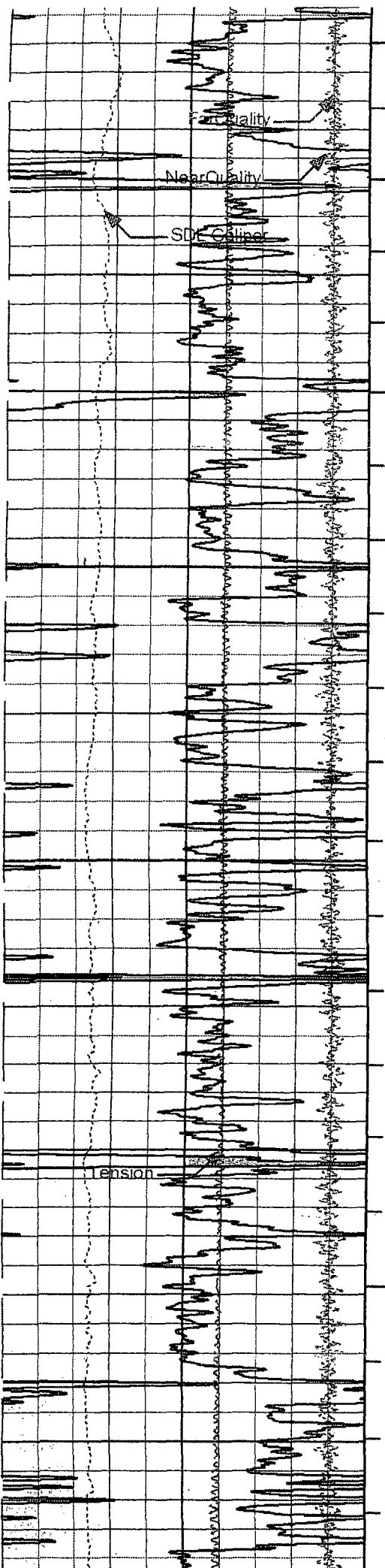
COMPANY		COG PRODUCTION LLC	
WELL		BUFFLEHEAD 10 FEDERAL No. 1H	
FIELD		JENNING-DELAWARE BONE SPRING	
COUNTY		LEA	
STATE		NEW MEXICO	
Sect. 10		API No. 30-025-40423	
Location		330' FNL & 1650' FET	
Twp. 28S		R. 9E S. 13E	
Elev. 3258.0 ft		Elev. 3276.0 ft	
18.0 ft above perm. Datum		D.F. 3275.0 ft	
G.L. 3258.0 ft		G.L. 3258.0 ft	
Other Services:		WSTT XRMI CORING DILMGRD	
14-Feb-12		ONE	
pht - Driller		9900.00 ft	
pht - Logger		9884.0 ft	
pht - Logged Interval		9840 ft	
p - Logged Interval		190 ft	
sing - Driller		9.625 in @ 4444.0 ft	
sing - Logger		4442.0 ft	
Size		7.875 in @	
pne Fluid in Hole		BRINE	
viscosity		8.8 ppv 28.00 s/c	
Fluid Loss		9.00 pH	
Source of Sample		FLOWLINE	
1 @ Meas. Temperature		0.090 ohmm @ 75.00 degF	
1 @ Meas. Temperature		0.06 ohmm @ 75.00 degF	
1 @ Meas. Temperature		0.108 ohmm @ 75.00 degF	
Source Rmf		CHART	
1 @ BHT		0.05 ohmm @ 135.0 degF	
Time Since Circulation		10.0 hr	
Time on Bottom		14-Feb-12 12:50	
X Rec. Temperature		135.0 degF @ 9894.0 ft	
Upstream Location		798 HOBS, NM	
Recorded By		ALEXANDER PRICE	
Checked By		ANDREW MCCARTHY	



Service Ticket No.: 9264466		API Serial No.: 30-025-40423		PGM Version: WL INSITE R3.4.0 (Build 4)	
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES	
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample		RESISTIVITY EQUIPMENT DATA			
Rm @ Meas. Temp	@	Run No.	Tool Type & No.	Pad Type	Tool Pos.
Rmf @ Meas. Temp.	@				
Rmc @ Meas. Temp.	@				
Source Rmf	Rmc				
Rm @ BHT	@				
Rmf @ BHT	@				
Rmc @ BHT	@				
EQUIPMENT DATA					
GAMMA		ACOUSTIC		DENSITY	
Run No.	ONE	Run No.		Run No.	ONE
Serial No.	10931261GR	Serial No.		Serial No.	109654025RD
Model No.	GTET	Model No.		Model No.	SDLT-I
Diameter	3.625 in	No. of Cent.		Diameter	4.5 in
Detector Model No.	T102-A	Spacing		Log Type	GAM-GAM
Type	SCINT			Source Type	Cs137
Length	8	LSA [Y/N]		Serial No.	5115GW
Distance to Source	24 ft	FWDA [Y/N]		Strength	1.5 Ci
LOGGING DATA					
NEUTRON					
Run No.	ONE				
Serial No.	109654025RD				
Model No.	DSNT-I				
Diameter	3.625 in				
Log Type	NEU-NEU				
Source Type	Am241Be				
Serial No.	DSN-314				
Strength	15 Ci				







Pe Corr

Density Corr

Bulk Density

6300

6400

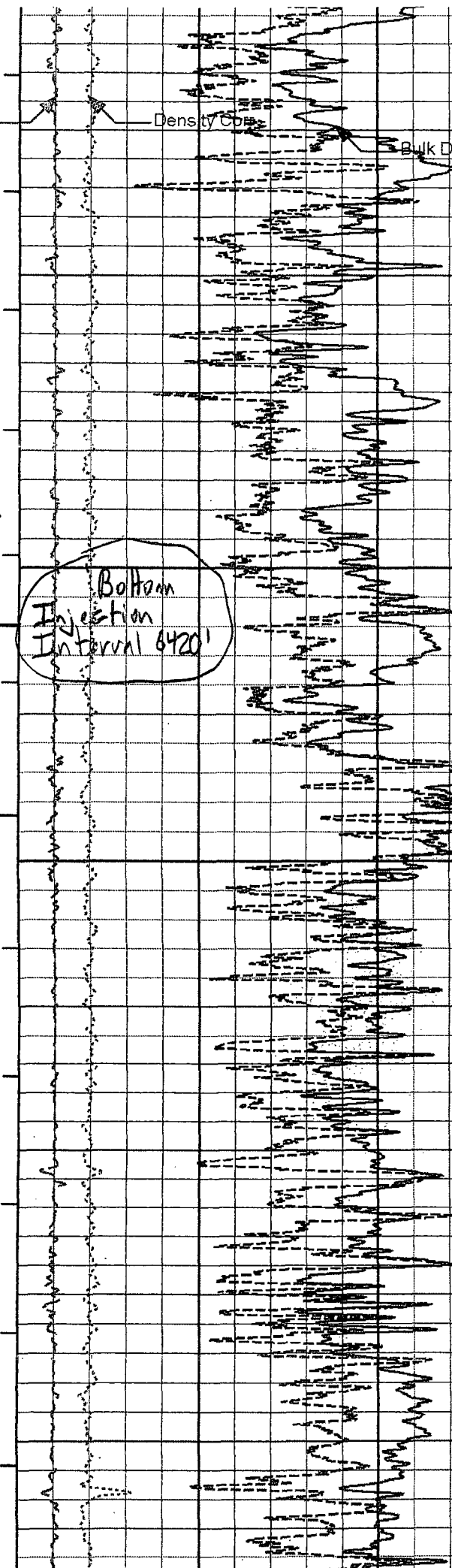
700.0

6500

6600

6700

Bottom
Injection
Interval 6420'



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 black ink, 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.

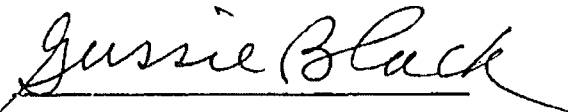
I, JUDY HANNA
PUBLISHER

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

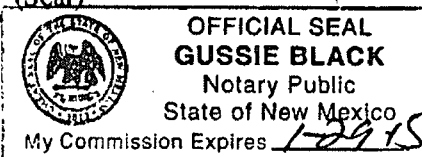
of 1 issue(s).
Beginning with the issue dated
December 11, 2012
and ending with the issue dated
December 11, 2012


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

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☒ Agent
☐ Addres

B. Received by (Printed Name)

JERRA FARMER

C. Date of Deliv

4/03/11

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

3. Service Type

☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchand
☐ 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

102595-02-M-15

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
If YES, enter delivery address below: ☐ No

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

102595-02-M-15

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Steve Bates*
☐ Agent
☐ Address

B. Received by (Printed Name)

DEC 06 2012

C. Date of Delivery

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
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

102595-02-M-15

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Henry Granillo*
☒ Agent
☐ Address

B. Received by (Printed Name)

HENRY GRANILLO

C. Date of Delivery

12-4-12

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:

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

[Signature]
☐ Agent
☐ Address

B. Received by (Printed Name)

Luis Sosa

C. Date of Delivery

12-3-12

D. Is delivery address different from item 1? ☐ YesIf 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:

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

[Signature]
☐ Agent
☐ Address

B. Received by (Printed Name)

Rebecca Lopez

C. Date of Delivery

D. Is delivery address different from item 1? ☐ YesIf 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

[Signature]
☐ Agent
☐ Address

B. Received by (Printed Name)

Mitchell

C. Date of Delivery

12-3-12

D. Is delivery address different from item 1? ☐ YesIf 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
Lea County, New Mexico

Dear Mr. Inge:

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



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

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 dark ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

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

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:

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Sincerely,

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

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,

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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

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,

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Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

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

**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,

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Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



November 20, 2012

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

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.

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Sincerely,

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Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

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 #1API Num: 30-025-NA Spud Date: NOT YET New/Old: N (UIC primacy March 7, 1982)Footages 1980 FSL / 990 FEL Unit I Sec 10 Tsp 26S Rge 32E County LEA

General Location: _____

Operator: COG OPERATING, LLC Contact BRIAN COLLINSOGRID: 229137 RULE 5.9 Compliance (Wells) 0/2755 (Finan Assur) OK IS 5.9 OK? OKWell File Reviewed None Current Status: NOT PermittedPlanned Work to Well: DRILL/EXP/PRODUCEDiagrams: 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	17 1/2	13 3/8	1000'	—	1400 CF	Surf
New ___ Existing ___ Interm	12 1/4	9 5/8	4950'	—	2800 CF	Surf.
New ___ Existing ___ LongSt	8 3/4	7"	6600'	—	600 CF	3950' Plan
New ___ Existing ___ Liner						
New ___ Existing ___ OpenHole						

Depths/Formations:

	Depths, Ft.	Formation	Tops?
Formation(s) Above	4064 5538	Ball C. Chang C.	<input checked="" type="checkbox"/>
Injection TOP:	5700'	Chang C.	Max. PSI 1140
Injection BOTTOM:	6420'	Chang C.	Open Hole Perfs <input checked="" type="checkbox"/> Tubing Size 3 1/2" x 4 1/2" Packer Depth 5640'
Formation(s) Below	6926 8695	Brady C. BS	<input checked="" type="checkbox"/>

Ball Canyon Redwood 1.5-2 mi AWAY

~~Capitan Reef? (Potash? Noticed? (WHP? Noticed? Salado Top/Bot~~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 WELLSNotice: Newspaper Date 12/1/12 Surface Owner BGM Mineral Owner(s) (12/3/12)RULE 26.7(A) Affected Persons: Chen/KF/Mah/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: _____