

DATE IN 11.30.10	SUSPENSE	ENGINEER WJ.	LOGGED IN 11.30.10	TYPE SWD	APP NO 1033436775
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



PTG-W  
1196-A  
COB  
VED OSD 29/37  
MYX 23 SWD #2

**ADMINISTRATIVE APPLICATION CHECKLIST**

30-015-22434

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 \_\_\_\_\_

Prog. EP  
308012

[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.

Dean Chumbley  
Print or Type Name

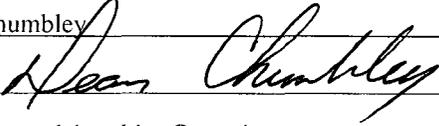
*Dean Chumbley*  
Signature

Land Advisor  
Title

11/23/10  
Date

dchumbley@conchoresources.com  
e-mail Address

**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  
CONTACT PARTY: Dean Chumbley PHONE: 575-748-6948
- 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: Dean Chumbley TITLE: Land Advisor  
SIGNATURE:  DATE: 11/23/10  
E-MAIL ADDRESS: dchumbley@conchoresources.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: 8/27/09

C-108 Application for Authorization to Inject  
MYOX 21 SWD #1  
1980' FNL, 660' FWL  
E-21-T25S-R28E, Eddy County

Marbob Energy Corporation proposes re-enter the captioned well for salt water disposal service into the Delaware Sand from 3500' to 4850'.

- V. Map is attached.
- VI. One well within the ½ mile radius area of review penetrates the proposed injection zone. Wellbore schematic is attached.
- VII.
  - 1. Proposed average daily injection rate = 2000 BWPD  
Proposed maximum daily injection rate = 5000 BWPD
  - 2. Closed system
  - 3. Proposed maximum injection pressure = 700 psi  
(0.2 psi/ft. x 3500' 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 3500' to 4850'. Any underground water sources will be shallower than 532'.
- IX. The Delaware sand injection interval will be acidized with approximately 20 gal/ft of 7 ½ % HCl acid. If necessary, the injection interval may be fraced with up to 300,000 lbs. of 20/40 mesh sand.
- X. Well logs are filed with the Division. A section of the dual laterolog resistivity log showing the injection interval is attached.
- XI. There is one fresh water well within a mile of the proposed SWD well. Water analysis from the well is attached.
- 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.

INJECTION WELL DATA SHEET

OPERATOR: Marbob Energy Corp

WELL NAME & NUMBER: MYDX 21 SWD No. 1 (Formerly Hammond 1)

WELL LOCATION: 1980' FNL 660' FWL

UNIT LETTER: E

SECTION: 21

TOWNSHIP: 25S

RANGE: 28E

WELLBORE SCHEMATIC

See attached before and after Schematics. Marbob proposes to reenter this well, clean out to 4910', run 5 1/2" casing and convert to SWD in the Delaware 3500-4850'.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 11 Casing Size: 8 5/8" @ 532'  
Cemented with: 190 sx. or - or - ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circulated Intermediate Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_  
Cemented with: \_\_\_\_\_ sx. or \_\_\_\_\_ or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_  
Cemented with: \_\_\_\_\_ sx. or \_\_\_\_\_ or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Total Depth: 4910'

3500' Injection Interval \_\_\_\_\_ feet to 4850'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: EPC or Duoline 20  
 Type of Packer: OK nickel plated double grip retrievable  
 Packer Setting Depth: 3450' ±  
 Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection? Yes X No     
 If no, for what purpose was the well originally drilled? Oil and gas

2. Name of the Injection Formation: Delaware Sand  
 3. Name of Field or Pool (if applicable): San Lorenzo

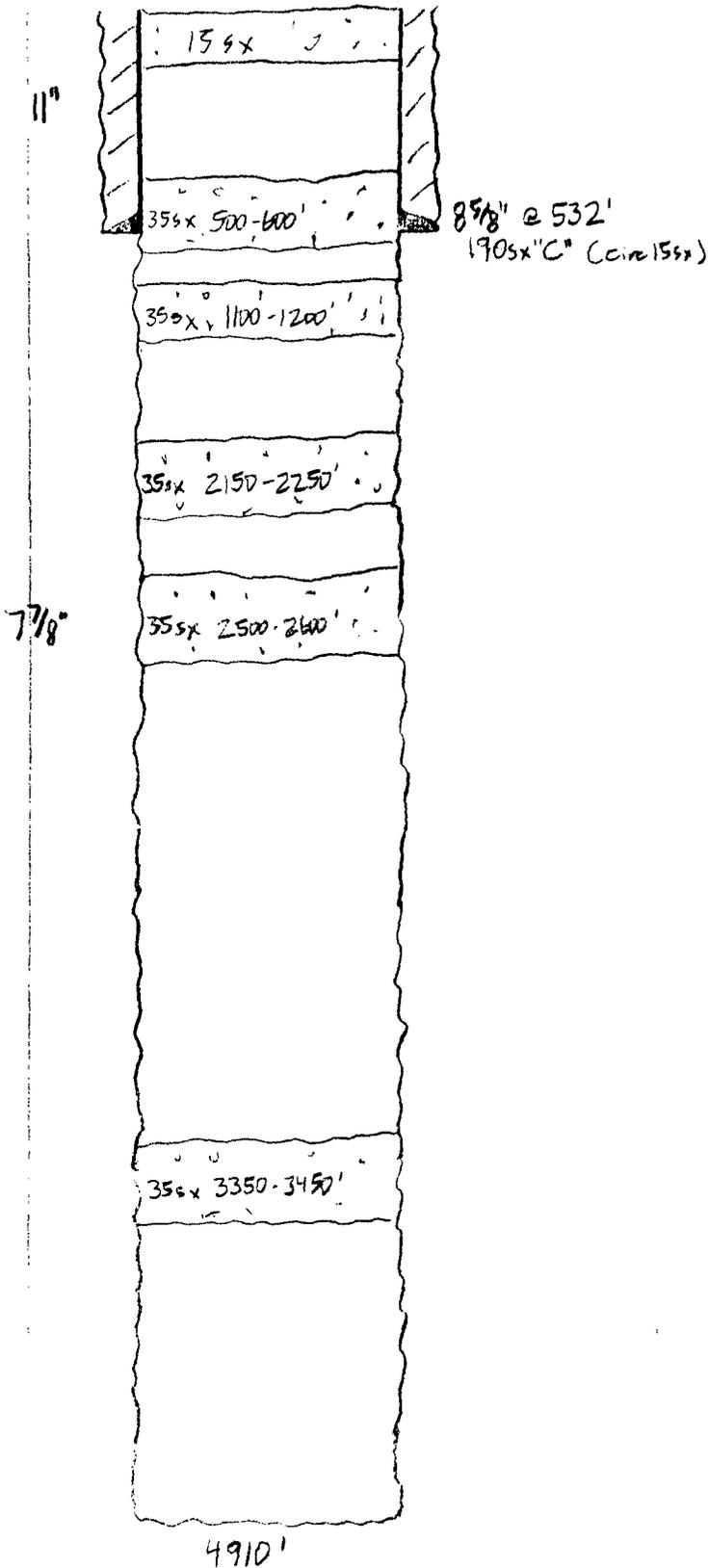
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. See wellbore schematic

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:  
Underlying: Possible Bone Spring 6500-8500', Possible Penn ± 10500'  
Possible Strawn ± 11800', Possible Atoka ± 12,100'  
Possible Morrow ± 12,500'

Overlying: None

30-015-22434

(Formerly Hammond 1)  
1980' FWL, 660' FWL  
E-21-25s-28e  
Eddy NM



Before SWD Conversion

30-015-22434

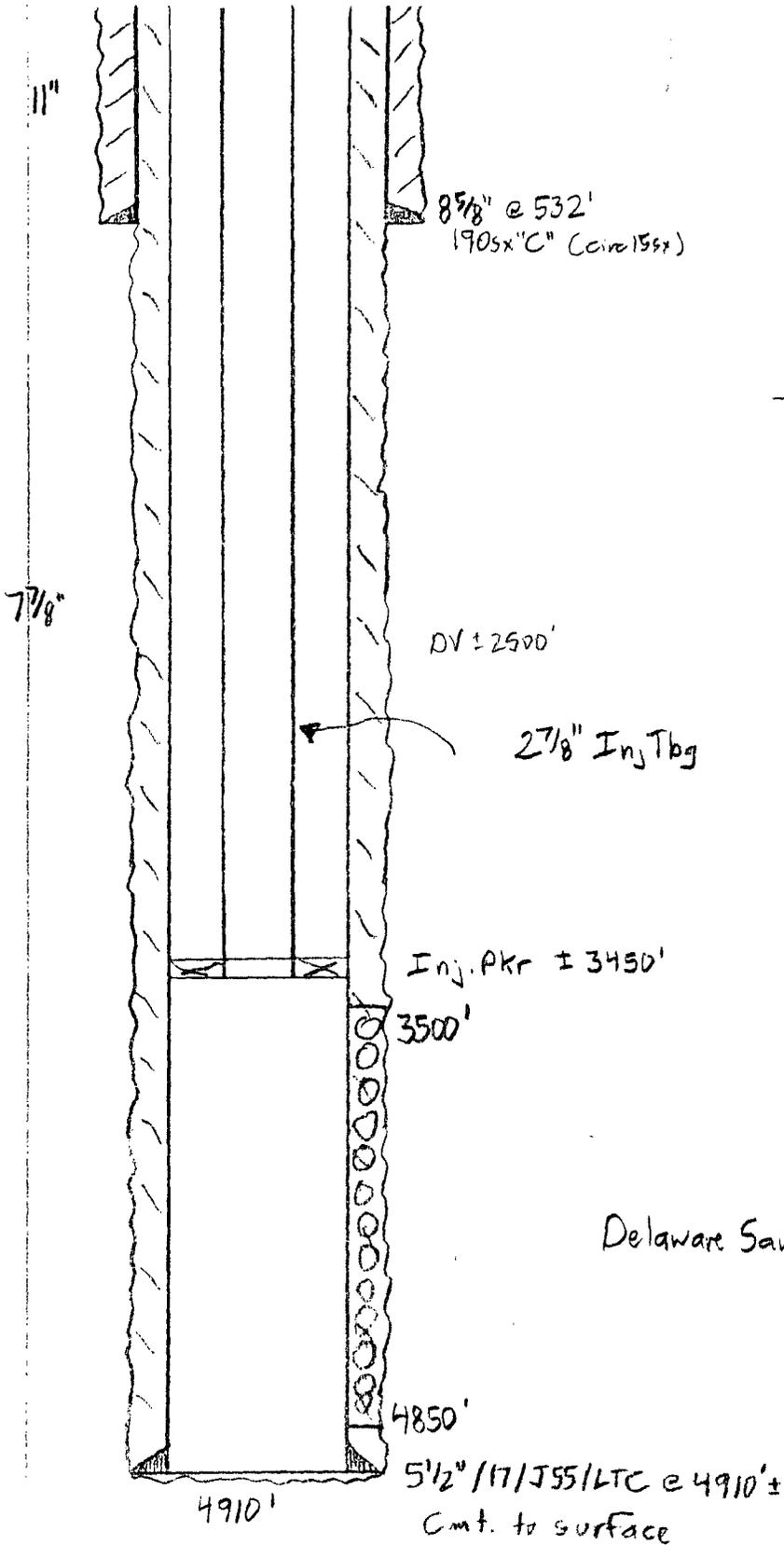
11170X 21 SWD No. 1

(Formerly Hammond 1)

1980' FNL, 660' FWL

E-21-25s-28e

Eddy NM

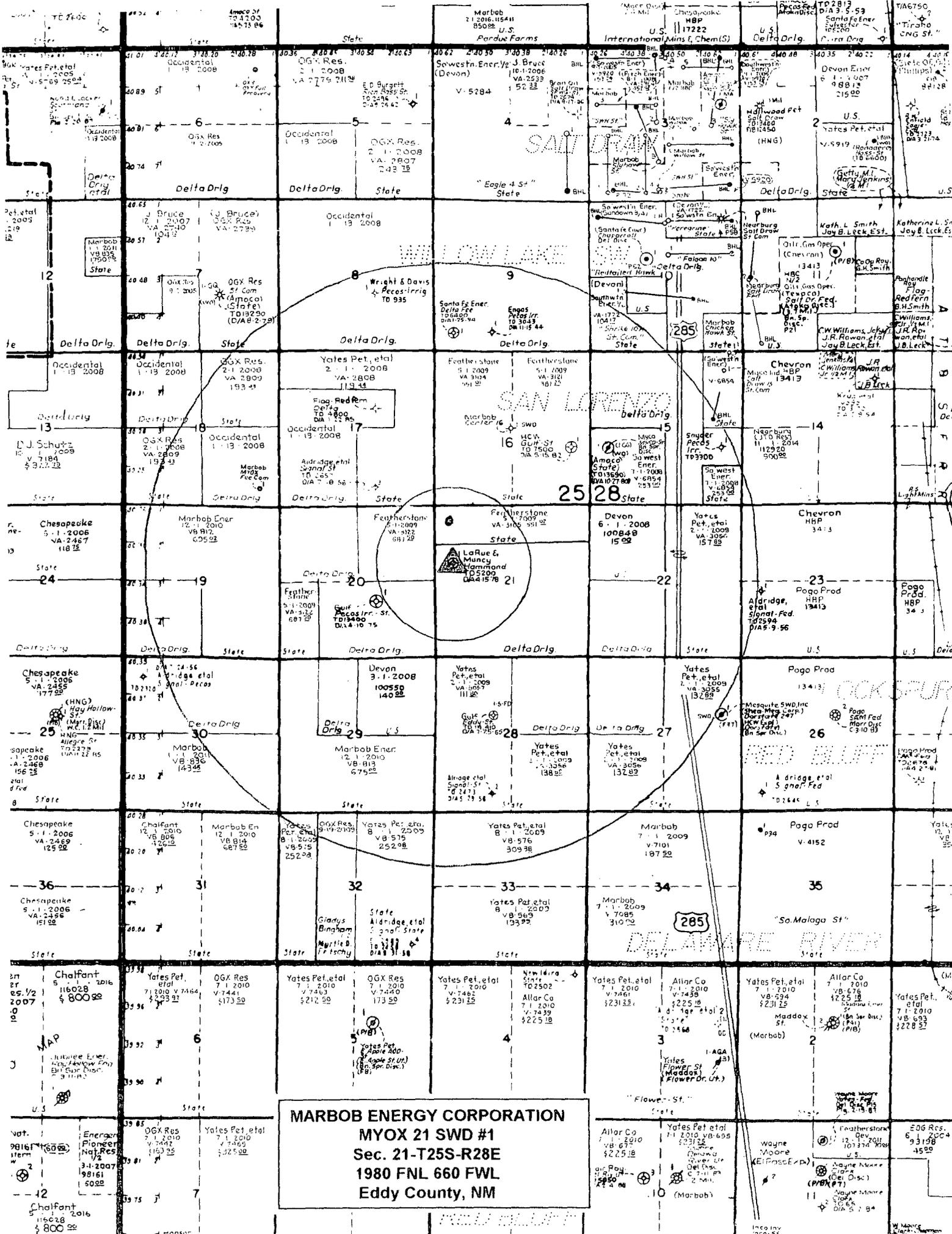


After SWD Conversion

Delaware Sand

**V.**

**MAP**



**MARBOb ENERGY CORPORATION**  
**MYOX 21 SWD #1**  
**Sec. 21-T25S-R28E**  
**1980 FNL 660 FWL**  
**Eddy County, NM**

MAP

98161

Chalfant 5-1-2016 \$800.00

OGX Res 7-1-2010 V-744 \$173.50

Chalfant 5-1-2016 \$800.00

Yates Pet. etal 7-1-2010 V-744 \$173.50

Monsor 2-1-2015 \$244.00

OGX Res 7-1-2010 V-744 \$173.50

Chalfant 5-1-2016 \$800.00

# **VI.**

**Wells Within  $\frac{1}{2}$  Mile  
Radius Area of Review  
That Penetrate  
Proposed Injection  
Zone**

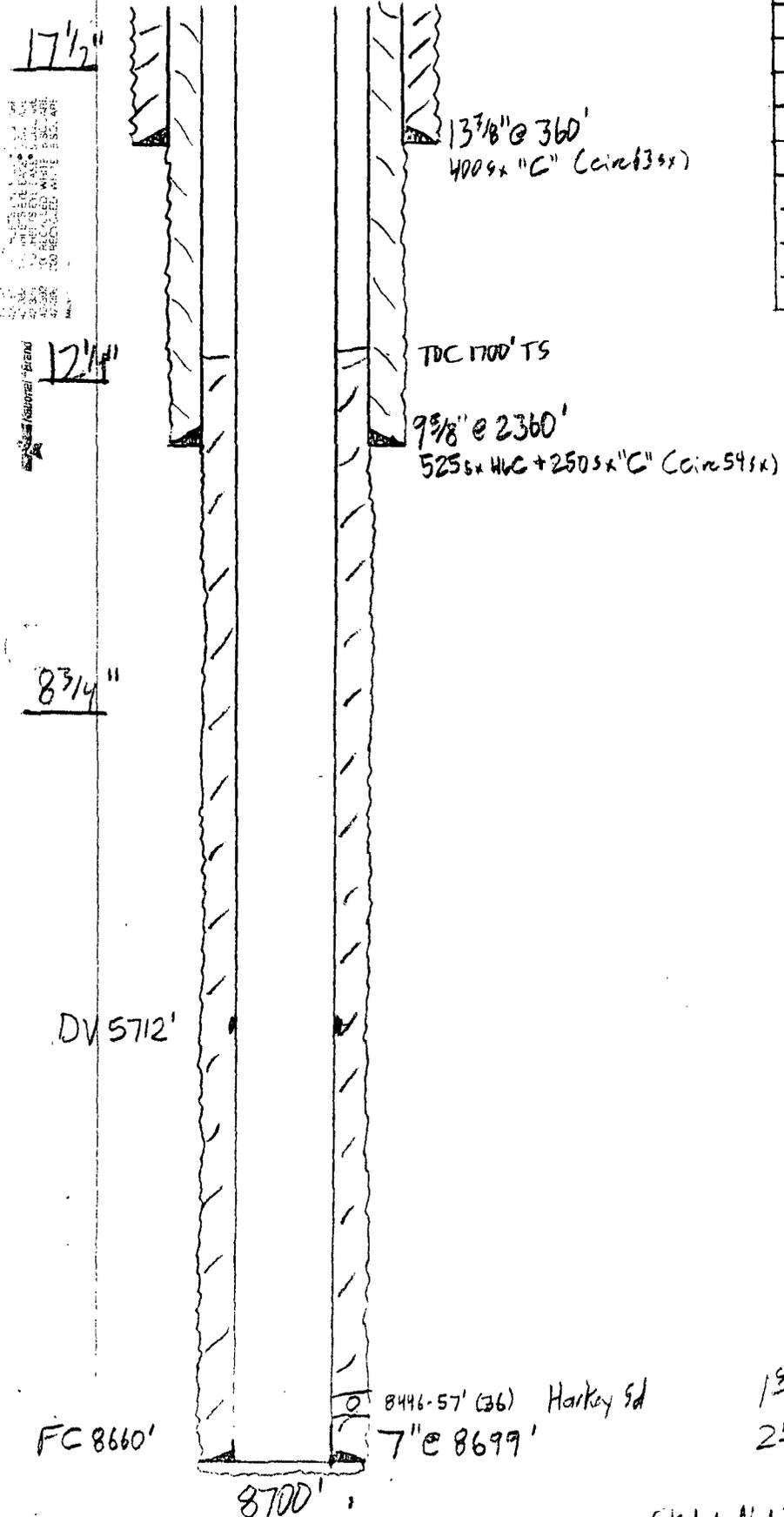
Well: MYDX 21 ST 8

Location: 660' FNL, 330' FWL  
D- 21- 25s - 28e  
Eddy NM  
30-015- 37034

Zerov: 17.5' AGL  
 KB: 3020.5'  
 GL: 3003'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 3/8"	48	J55	STC	360'
9 5/8"	36	J55	STC	2360'
7"	23	N80	LTC	6526'
	23	P110	LTC	8699'
2 7/8"	6.5	J55	EVE	



Within 1/2 Mile Radius Area of Review

1st: 450s x Super H (circ 133s)

2nd: 650s x HLC + 100s x "H"

**VII.**

**WATER ANALYSIS**

# HALLIBURTON

## PERMAIN BASIN OPERATIONS LABORATORY WATER ANALYSIS REPORT HOBBS, NEW MEXICO

COMPANY Marbob REPORT DATE W09-055  
 DATE July 12, 2009  
 DISTRICT Artesia

*Delaware Produced Water*

SUBMITTED BY \_\_\_\_\_

WELL COUNTY DEPTH FORMATION  
 TANK FIELD SOURCE

SAMPLE	Black River	Spanish Cedar 1	Wtr. Well C-00516	
Sample Temp.	70 °F	70 °F	70 °F	°F
RESISTIVITY	15.8	0.054	3.41	
SPECIFIC GR	1.000	1.154	1.002	
pH	7.85	5.43	7.33	
CALCIUM	750 mpl	30,000 mpl	1,000 mpl	mpl
MAGNESIUM	300 mpl	17,100 mpl	450 mpl	mpl
CHLORIDE	104 mpl	140,306 mpl	240 mpl	mpl
SULFATES	Light mpl	Light mpl	Heavy mpl	mpl
BICARBONATES	153 mpl	61 mpl	262 mpl	mpl
SOLUBLE IRON	0 mpl	25 mpl	0 mpl	mpl
<CL	N	N	N	
Sodium	mpl	mpl	mpl	mpl
TDS	mpl	mpl	mpl	mpl
OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MPL = Milligrams per liter  
 Resistivity measured in Ohm-cm

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ANALYST \_\_\_\_\_

# MALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY  
 WATER ANALYSIS REPORT  
 HOBBS, NEW MEXICO

COMPANY Marbob  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

REPORT NO. 008-156  
 DATE November 15 2008  
 DISTRICT Hobbs

*Bone Spring Sand  
 Produced Water*

SUBMITTED BY \_\_\_\_\_

WELL Save DA 21 Fed. #1 DEPTH \_\_\_\_\_ FORMATION \_\_\_\_\_  
 COUNTY \_\_\_\_\_ FIELD \_\_\_\_\_ SOURCE \_\_\_\_\_

**SAMPLE**

Sample Temp.	70 °F			
RESISTIVITY	0.968			
SPECIFIC GR	1.095			
pH	6.53			
CALCIUM	7500 mpl			
MAGNESIUM	6000 mpl			
CHLORIDE	83125 mpl			
SULFATES	Light mpl			
BICARBONATES	231 mpl			
SOLUBLE IRON	0 mpl			
KCL	Negative			
Sodium	0 mpl	0 mpl	0 mpl	0 mpl
TDS	0 mpl	0 mpl	0 mpl	0 mpl
OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

**REMARKS**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MPL = Milligrams per liter  
 Resistivity measured at 25 °C

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 nor the information contained herein to be disseminated without the  
 written consent of Malliburton Company. The information contained  
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 stated on the report.

ANALYST: MMB/BJ

**X.**

**Dual Laterolog Across  
Across Proposed  
Delaware Sand Portion  
of Injection Interval**



Dual Technology

FILE NO.

COMPANY

WELL

FIELD

COUNTY

LOCATION:

STATE

Other Services

GROUND LEVEL 10 Elev. 2994

Fl. Above Permanent Datum

Permanent Datum K. B. 10

Drilling Measured from K. B.

Date 3-30-78

Run No. ONE

Depth-Driller 4910

Depth-Logger 4873

Bottom Logged Interval 4872

Top Logged Interval 2400

Sealing-Driller 8 5/8 @ 545

Sealing-Logger 5 1/2 @ 545

Bit Size 7 7/8"

Type Fluid in Hole SALT GEL

Density and Viscosity 10.1 40

pH and Fluid Loss 9.5 16.6cc

Source of Sample PIT

Rm @ Meas. Temp. .034 @ .72 °F

Rmf @ Meas. Temp. .034 @ .72 °F

Rmc @ Meas. Temp. @ °F

Source of Rmf and Rmc MEAS. .023 @ 105°F

Rm @ BHT .023 @ 105°F

Rmf @ BHT 6123 HOBBS

Rmc @ BHT MC ATEE

Time Since Circ 13 HOURS

Max. Rec. Temp. Def. F. 105°F

Equip. No. and Location

Recorded By MC ATEE

LABILE-REVISED

FOLD HERE

THIS HEADINGS AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP-37

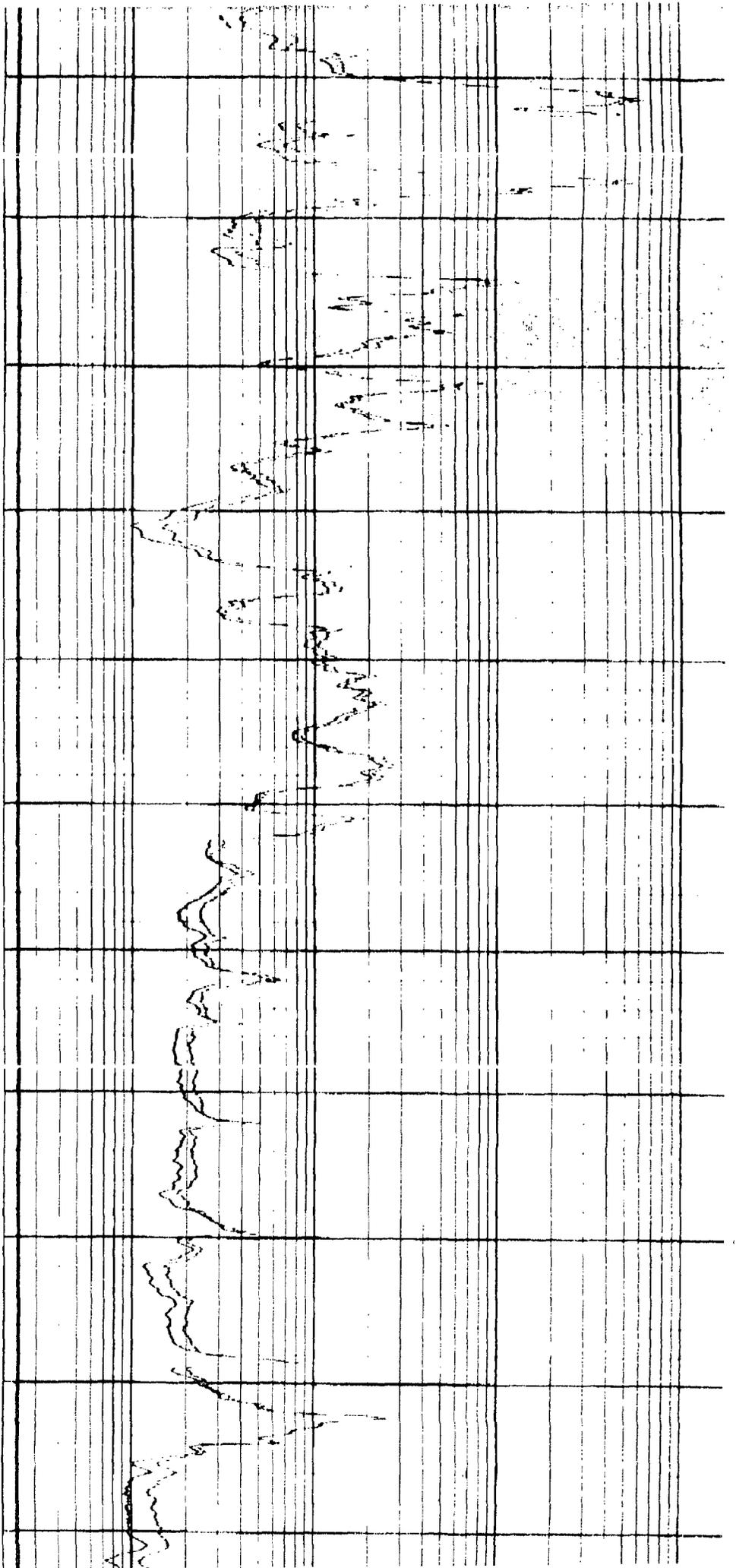
REMARKS  
 SHALLOW CURVE INTERRUPTED ON REPEAT SEC.  
 DEEP CURVE INTERRUPTED ON MAIN LOG.  
 G/R SENS. = 649 T.C. = 1

Series No	Equipment Used		
	1221	3501	1306
Run No.	ONE	ONE	ONE
S.O.	95939	95939	95939
Tool No.	37959	32038	31410
Elec. No.	31396	-	-
Part No.	31427		

Changes in Mud Type or Additional Samples				Scale Changes			
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole		
Rate							
Depth-Driller							
Type Fluid in Hole							
Dens.	Visc.						
PH	Fluid Loss	cc	cc				
Source of Sample							
Rm @ Meas. Temp.	@ °F	@ °F	Run No.	Tool Type	Pad Type	Tool Position	Other
Rmf @ Meas. Temp.	@ °F	@ °F	ONE	SEE ABOVE		CENTRALIZED	
Rmc @ Meas. Temp.	@ °F	@ °F					
Source Rmf Rmc							
Rm @ BHT	@ °F	@ °F					
Rmf @ BHT	@ °F	@ °F					
Rmc @ BHT	@ °F	@ °F					

DETECTOR TYPE SCINT.  
 DETECTOR LENGTH 6"

BEAM WIDTH 2 1/4"



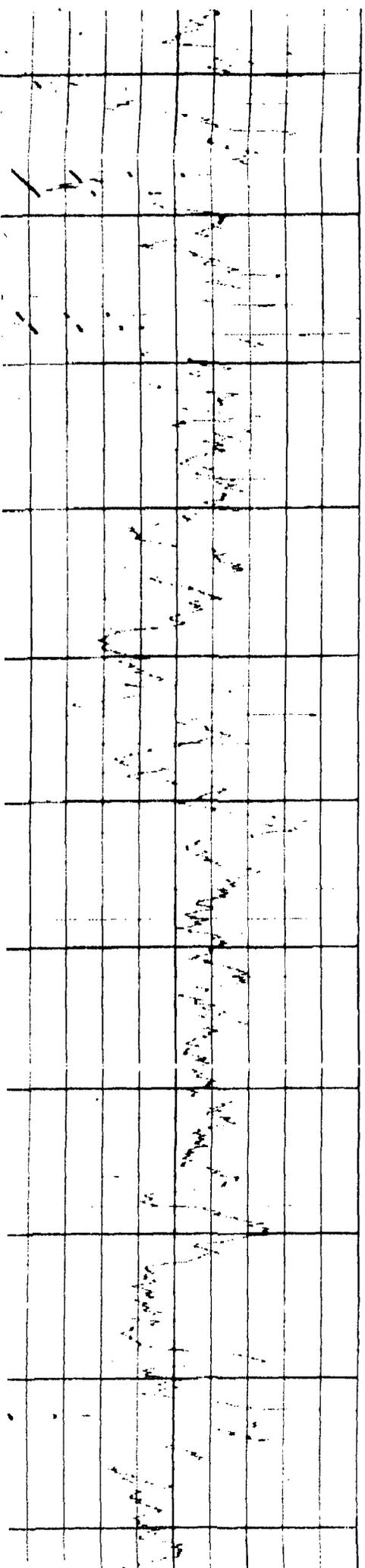
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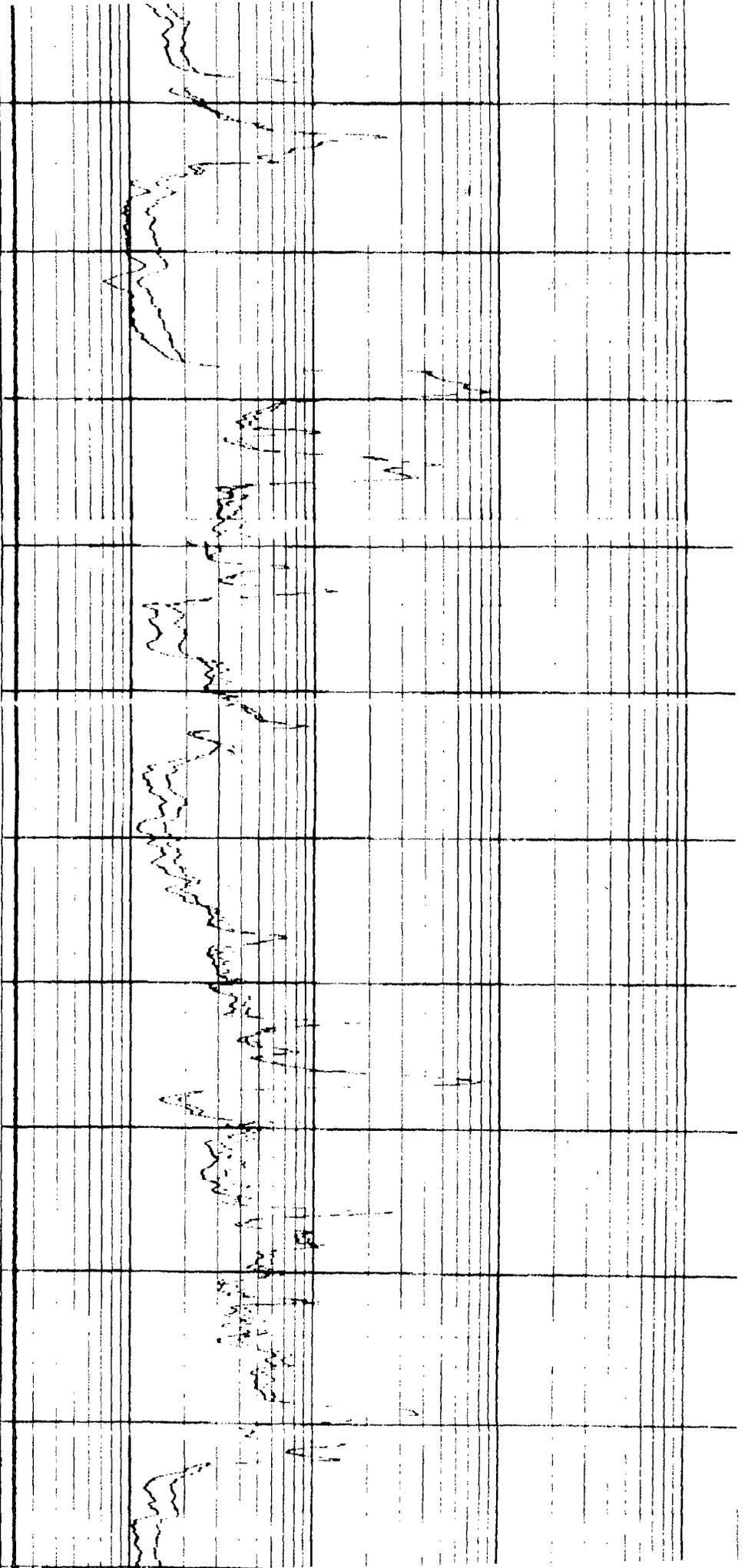
3400

3500

3600

3700





3700

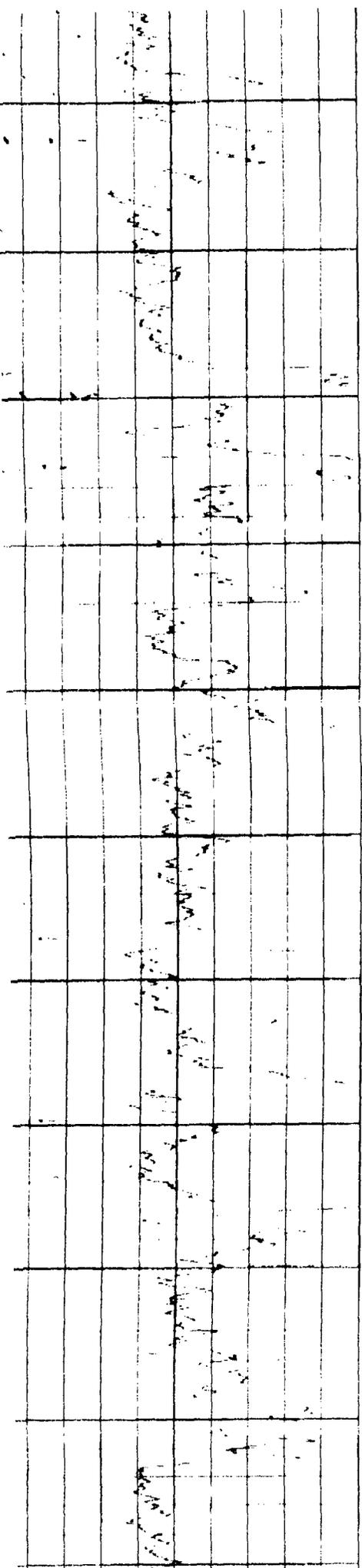
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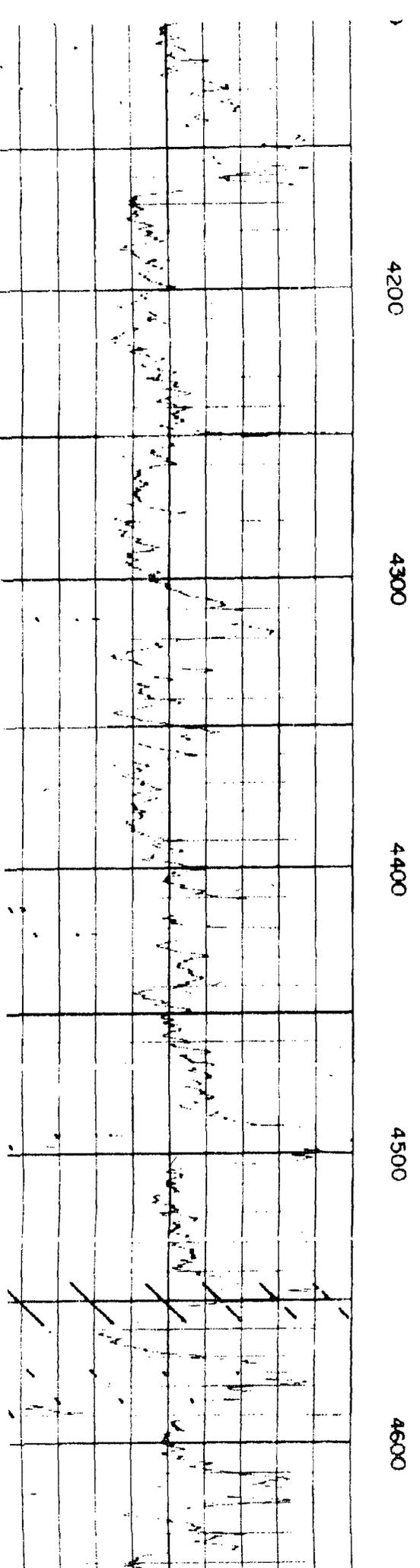
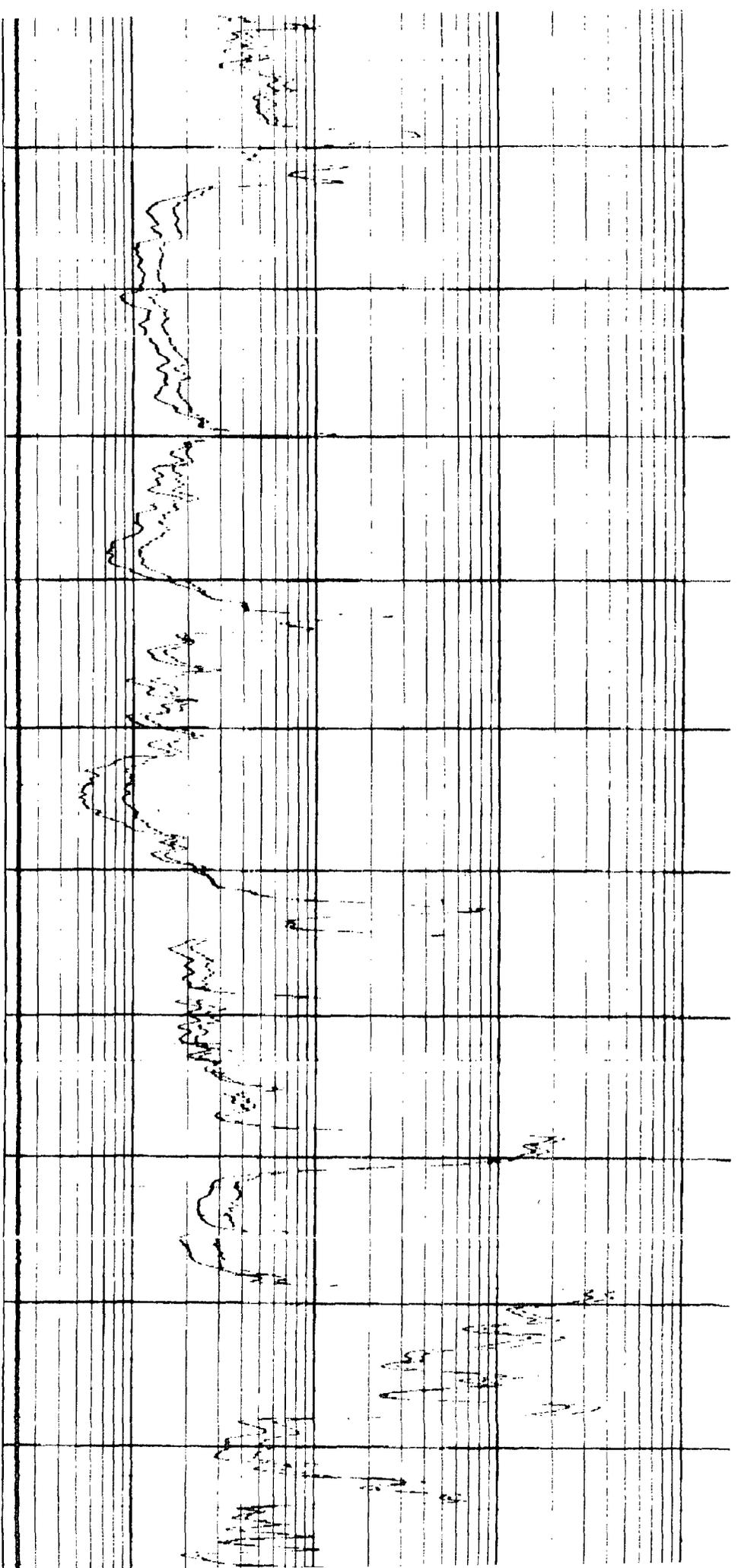
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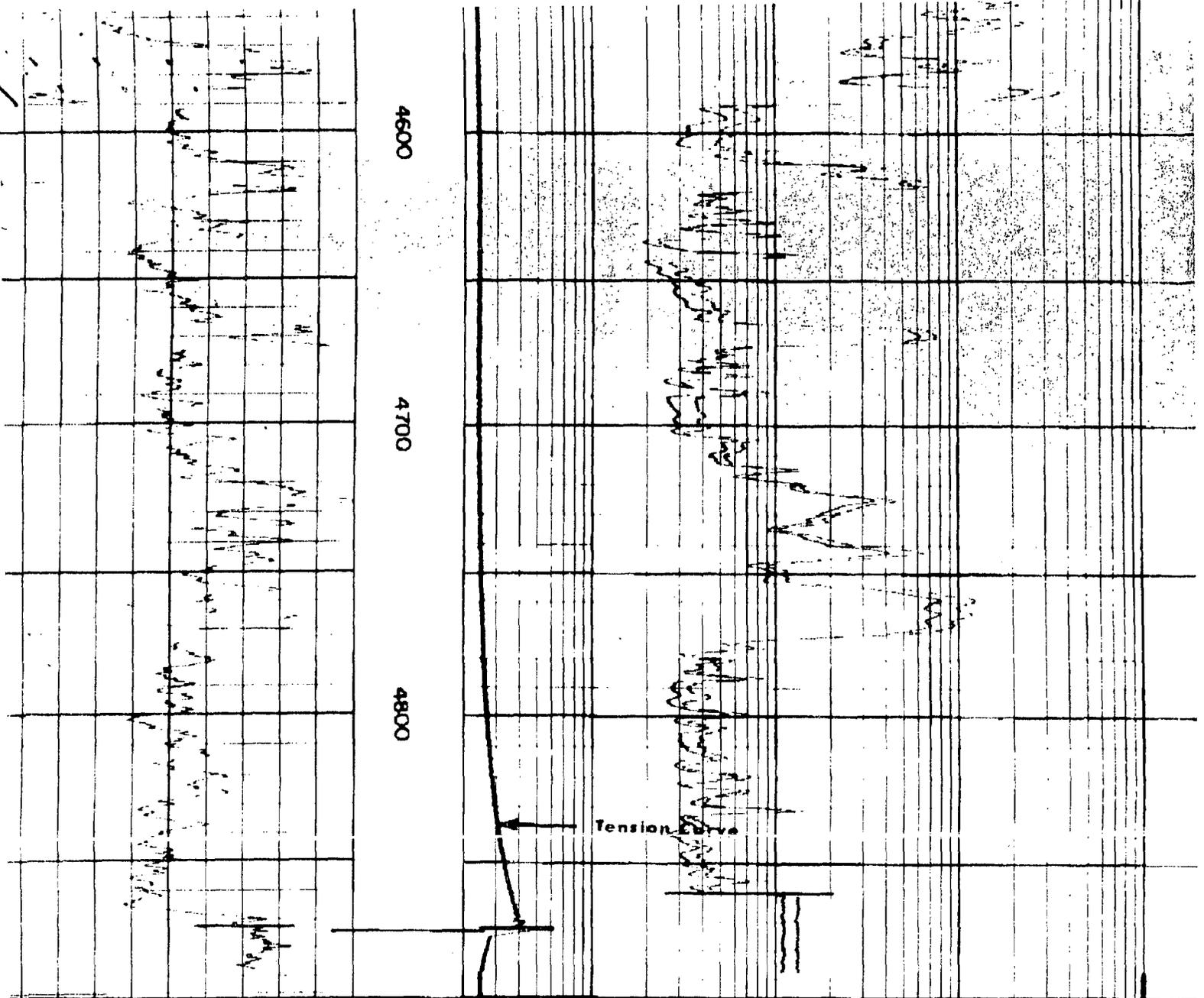
4000

4100

4200







HOLE SIZE - INCHES	16
API UNITS	100
10 API/CD	

.2	1.0	10	100	1000
DEEP LATEROLOG				
.2	1.0	10	100	1000
SHALLOW LATEROLOG				
.2	1.0	10	100	1000

GAMMA RAY & CALIPER	DEPTH	RESISTIVITY Ohms m <sup>2</sup> /m
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# **XI.**

## **Fresh Water Sample Analyses**

# HALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY  
 WATER ANALYSIS REPORT  
 HOBBS, NEW MEXICO

COMPANY Marbob  
Stock Water Well  
~~SE/4 NE/4 SE/4 Sec. 20~~ 25s-28e

REPORT DATE W09-059  
July 30, 2009  
 DISTRICT Hobbs

SUBMITTED BY \_\_\_\_\_

WELL Stock Tanks DEPTH \_\_\_\_\_ FORMATION \_\_\_\_\_  
 COUNTY \_\_\_\_\_ FIELD \_\_\_\_\_ SOURCE \_\_\_\_\_

SAMPLE	5-26S-28C	C-2160 5-S	C03413	
Sample Temp.	70 °F	70 °F	70 °F	°F
RESISTIVITY	15.8	3.41	3.41	
SPECIFIC GR.	1.000	1.002	1.002	
pH	8.57	8.12	7.89	
CALCIUM	700 mpl	1,000 mpl	1,150 mpl	mpl
MAGNESIUM	390 mpl	750 mpl	750 mpl	mpl
CHLORIDE	45 mpl	1,222 mpl	316 mpl	mpl
SULFATES	Light mpl	Moderate mpl	Moderate mpl	mpl
BICARBONATES	170 mpl	366 mpl	292 mpl	mpl
SOLUBLE IRON	0 mpl	0 mpl	0 mpl	mpl
KCL	Negative	Negative	Negative	
Sodium	mpl	mpl	mpl	0 mpl
TDS	mpl	mpl	mpl	0 mpl
OIL GRAVITY	@ °F	@ °F	@ °F	@ °F

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MPL = Milligrams per liter  
 Resistivity measured in: Ohm/m2/m

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ANALYST: JH



# New Mexico Office of the State Engineer

## Point of Diversion by Location

(with Drilling Information)

WR File Nbr	Sub basin	Use	Diversion	County	POD Number	Grant	(NAD83 UTM in meters)				(in feet)			
							X	Y	Start Date	Finish Date	Well	Depth Water		
<u>C 01276</u>	3 ED	3	ED	C 01278	6416 4	28	25S	28E	585470	3551338*	04/04/1965	04/08/1965	205	90
<u>C 01522</u>	3 ED	3	ED	C 01522	1 22	25S	28E	586843	3554004*	07/15/1975	09/10/1975	150		
<u>C 01573</u>	3 ED	3	ED	C 01573	Shallow 4 2 4	20	25S	28E	584733	3553268*	01/15/1975	01/20/1975	176	96
<u>C 03413</u>	3 ED	3	ED	C 03413 POD1	4 2 4	20	25S	28E	584733	3553267				
<u>C 12761</u>	ED	-	ED	C 12761	28	25S	28E	585669	3551935*					

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

q q q

**Record Count:** 5

**POD Search:**

POD Basin: Carlsbad

**PLSS Search:**

Sections: 16, 17, 20, 21, Township: 25S Range: 28E  
22, 28, 29

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

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

7/22/09 10:33 AM

Page 1 of 1

POINT OF DIVERSION BY LOCATION



November 23, 2010

Artesia Daily Press  
P. O. Box 190  
Artesia, NM 88211-0190

Re: Legal Notice  
Water Disposal Well

Gentlemen:

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 "Dean Chumbley".

Dean Chumbley  
Land Advisor

DC/sd

enclosure

**ARTESIA DAILY PRESS**  
**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 MYOX 21 #1, is located 1980' FNL 660' FWL, Sec. 21, Township 25 South, Range 28 East, Eddy 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 3500-4850' at a maximum surface pressure of 700 psi and a maximum rate of 5000 BWPD. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Street, Santa Fe, New Mexico, 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Dean Chumbley at COG Operating, LLC at [dchumbley@conchoresources.com](mailto:dchumbley@conchoresources.com) or 575-748-6940.

Published in the Artesia Daily Press, Artesia, New Mexico  
\_\_\_\_\_, 2010.



November 23, 2010

Devon Energy Corporation  
Delta Drilling  
20 N. Broadway, Ste. 1500  
Oklahoma City, OK 73102-8260

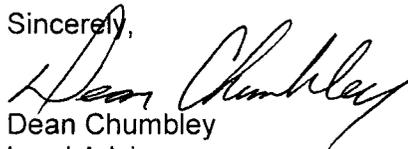
Re: Application to Inject  
MYOX 21 SWD #1  
Township 25 South, Range 28 East, NMPM  
Section 21: 1980 FNL 660 FWL, Unit E  
Eddy County, New Mexico

Ladies and Gentlemen:

Enclosed for your review is a copy of COG Operating, LLC's application to convert the referenced well to salt water disposal. 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 should you have any questions.

Sincerely,

  
Dean Chumbley  
Land Advisor

DC/sd  
enclosure

## Jones, William V., EMNRD

---

**From:** Brian Collins [BCollins@conchoresources.com]  
**Sent:** Monday, November 22, 2010 12:17 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Stormi Davis; Matt Corser; Morris Keith  
**Subject:** MYOX 21 SWD 1, SWD-1196, 30-015-22434

Will:

We just finished the work on this well and Richard Enge told us the C-108 had expired. I was wondering if you had any record of a request to extend the approval date? I know I sent you requests to extend approval on SWD 1193, SWD 1194 and SWD 1187 which you approved (6 mos extension on SWD 1193 and 1194, one year on SWD 1187). I didn't find anything in my records indicating I asked for an extension on the captioned C-108. I apologize if I dropped the ball and didn't request an extension on the MYOX 21 SWD 1.

If you didn't approve a C-108 extension, would you email Matt Corser ([mcorser@conchoresources.com](mailto:mcorser@conchoresources.com)) and Stormi Davis ([sdavis@conchoresources.com](mailto:sdavis@conchoresources.com)) and let them know what needs to be done to secure C-108 approval? My last day at Concho is tomorrow so I won't be handling this. Thanks.

**Brian Collins**  
**COG OPERATING LLC**  
2208 W Main St  
Artesia, New Mexico 88210-3720



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**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Tuesday, November 23, 2010 8:38 AM  
**To:** Stormi Davis; Matt Corser; Morris Keith  
**Cc:** Inge, Richard, EMNRD; Gray, Darold, EMNRD; Ezeanyim, Richard, EMNRD  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Hello to you guys at COG (please send your contact info and titles in OUTLOOK format?):

As Brian requested, I looked through our files and could not find any request to extend this permit, so it has expired per the stip. In the Rules.

Please send in another C-108 requesting to use this well for disposal. You can basically use the recently submitted C-108 as a template or just copy it.

However, I looked this over and it seems the notices sent out with the previous application may have been lacking. Devon was the only party noticed along with a newspaper notice. I see in the file, this is a FEE tract, but nothing as to who that surface owner is and whether they were noticed.

Please supply your landman with the Midland map of this location with the ½ mile circle drawn on it and ask your Landman to provide you with whomever controls the minerals in every separately owned tract in the ½ mile circle. Please identify these tracts and list those owners. Below is the definition of whom should be noticed:

**19.15.26.7 DEFINITIONS:**

A. “**Affected person**” means the division designated operator; in the absence of an operator, a lessee whose interest is evidenced by a written conveyance document either of record or known to the applicant as of the date the applicant files the application; or in the absence of an operator or lessee, a mineral interest owner whose interest is evidenced by a written conveyance document either of record or known to the applicant as of the date the applicant filed the application for permit to inject.

(2) The applicant shall furnish, by certified or registered mail, a copy of the application to each **owner of the land surface on which each injection or disposal well is to be located** and to each leasehold operator or other **affected person** within any tract wholly or partially contained within one-half mile of the well.

Many Regards,

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

---

**From:** Brian Collins [mailto:BCollins@conchoresources.com]  
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**Cc:** Stormi Davis; Matt Corser; Morris Keith  
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Will:

2208 W Main St  
Artesia, New Mexico 88210-3720  
575.748.6946



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**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Tuesday, November 23, 2010 9:20 AM  
**To:** Stormi Davis  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Hello Stormi:

Yes, new newspaper notice and new certified notice and statement from landman as to Devon owning the surface and the other ownership within the AOR.

Thank You,

Will Jones  
New Mexico  
Oil Conservation Division  
[Images](#) [Contacts](#)

---

**From:** Stormi Davis [mailto:SDavis@conchoresources.com]  
**Sent:** Tuesday, November 23, 2010 9:05 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Good morning.

I am getting the application ready to send. The surface owner is also Devon. Do we need to place another legal notice in the newspaper?

Thank you for your help.

**Stormi Davis**  
Regulatory Analyst  
COG OPERATING LLC  
2208 W Main St  
Artesia, New Mexico 88210-3720  
575.748.6946



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## Jones, William V., EMNRD

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New Mexico  
Oil Conservation Division  
[Images](#) [Contacts](#)

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Regulatory Analyst  
COG OPERATING LLC  
2208 W Main St  
Artesia, New Mexico 88210-3720  
575.748.6946



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**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

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Many Regards,

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

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**Brian Collins**

## Jones, William V., EMNRD

---

**From:** Stormi Davis [SDavis@conchoresources.com]  
**Sent:** Monday, November 29, 2010 8:22 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

I checked again with Dean, and he said there are no other owners.

**Stormi Davis**  
Regulatory Analyst  
COG OPERATING LLC  
2208 W Main St  
Artesia, New Mexico 88210-3720  
575.748.6946



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**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Tuesday, November 23, 2010 5:00 PM  
**To:** Stormi Davis  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Good for the surface owner – thank you. Send the proof of notice to Devon for that, or the certified receipt number.

Does Devon and COG control all minerals (have leases) within ½ mile of this well? No one else has a lease?

Will Jones  
New Mexico  
Oil Conservation Division  
[Images](#) [Contacts](#)

---

**From:** Stormi Davis [mailto:SDavis@conchoresources.com]  
**Sent:** Tuesday, November 23, 2010 11:53 AM  
**To:** Jones, William V., EMNRD  
**Subject:** FW: MYOX 21 SWD 1, SWD-1196, 30-015-22434

The emails exchanged below verify that Delta Drilling was acquired by Devon. Do you need something more official, or will this work for you? I sent the application this morning.

**Stormi Davis**  
Regulatory Analyst  
COG OPERATING LLC  
2208 W Main St  
Artesia, New Mexico 88210-3720  
575.748.6946



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---

**From:** Gray, Ken [mailto:Ken.Gray@dvn.com]  
**Sent:** Tuesday, November 23, 2010 11:24 AM  
**To:** Dean Chumbley  
**Subject:** RE: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Dean, Delta Drilling was acquired by Kerr McGee who was acquired by Devon in 1996 or 97, so Devon should be the owner of the surface and the minerals on all of those Delta Drilling lands in that area.

---

**From:** Dean Chumbley [mailto:dchumbley@conchoresources.com]  
**Sent:** Tuesday, November 23, 2010 11:46 AM  
**To:** Gray, Ken  
**Cc:** Stormi Davis  
**Subject:** FW: MYOX 21 SWD 1, SWD-1196, 30-015-22434

Ken

Would you be willing and able to verify that Delta Drilling is the private surface owner of the involved lands and that Devon owns and manages this lands. Messages below can be reviewed for that source of this request.

Thanks and have a Happy Thanksgivings,

**Dean Chumbley**  
COG OPERATING LLC  
Phone 575.748.6940  
Fax 575.748.6950  
2208 W Main St  
Artesia, New Mexico 88210-3720



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**From:** Stormi Davis  
**Sent:** Tuesday, November 23, 2010 9:42 AM  
**To:** Dean Chumbley  
**Subject:** FW: MYOX 21 SWD 1, SWD-1196, 30-015-22434

**Stormi Davis**  
Regulatory Analyst  
COG OPERATING LLC



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FILE	1
J.S.G.S.	
AND OFFICE	
OPERATOR	1

**RECEIVED**  
NEW MEXICO OIL CONSERVATION COMMISSION

APR 21 1978

**O. C. C.**  
ARTESIA, OFFICE

Form C-103  
Supersedes O-11  
C-102 and C-103  
Effective 1-1-65

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR OPERATIONS TO BE CLASSIFIED AS A DIFFERENT RESERVOIR. SEE REGULATIONS FOR REPORTS ON DIFFERENT RESERVOIRS.)

5a. Indicate Type of Lease  
State  Fee

5. State Oil & Gas Lease No.

7. Unit Agreement No.

8. Form of Lease Name  
Harmond

9. Well No.  
1

10. Field and Pool, or Well Unit  
Wildcat Delaware

11. Direction (Show whether NE, SE, SW, NW, etc.)  
2994.2

12. County  
Eddy

UNIT LETTER **E**      **1980**      FEET FROM THE **North**      LINE AND      **660**      FEET FROM  
**West**      LINE, SECTION **21**      TOWNSHIP **25 S**      RANGE **28 E**      RANGE

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
ERECT REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPER. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
WELL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Plugged well 3/21/78, by pumping 35 sack cement plug from 3350' - 3450', 35 sack cement plug from 2500' - 2600', 35 sack cement plug from 2150' - 2250', 35 sack cement plug from 1100' - 1200', 35 sack cement plug from 500' - 600' and 15 sack cement plug at surface, with heavy mud between all plugs. Set dry hole marker and cleaned up location.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

BY *[Signature]* TITLE Operator DATE 4/18/78

APPROVED BY *[Signature]* TITLE OIL AND GAS INSPECTOR DATE JUN 1 1982

CONDITIONS OF APPROVAL, IF ANY:

# Affidavit of Publication

NO. 21463

STATE OF NEW MEXICO

County of Eddy:

Walter L. Green

*Walter L. Green*

being duly sworn, says that he is the Publisher

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

### Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/days on the same

day as follows:

- First Publication November 28, 2010
- Second Publication \_\_\_\_\_
- Third Publication \_\_\_\_\_
- Fourth Publication \_\_\_\_\_
- Fifth Publication \_\_\_\_\_

Subscribed and sworn to before me this 29th day of November 2010



**OFFICIAL SEAL**  
**Danny Scott**  
**NOTARY PUBLIC-STATE OF NEW MEXICO**

My commission expires: 3/18/2014

*Danny Scott*

Danny Scott  
Notary Public, Eddy County, New Mexico

# Copy of Publication:

### LEGAL NOTICE

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 MYOX 21 #1, is located 1980' FNL 660' FWL, Sec. 21, Township 25 South, Range 28 East, Eddy 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 3 500-4850' at a maximum surface pressure of 700 psi and a maxi-

mum rate of 5000 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 Street, Santa Fe, New Mexico, 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Dean Chumbley at COG Operating, LLC at dchumbley@conchoresources.com or 575-748-6940. Published in the Artesia Daily Press, Artesia, N.M., November 28, 2010. Legal No. 21463.

**Injection Permit Checklist** (11/15/2010)

WFX PMX SWD 1196A Permit Date 12/29/10 UIC Qtr (O/N/D)

# Wells 1 Well Name(s): MYOX 21 SWD #1 (Formerly Hammond #1)

API Num: 30-015-22434 Spud Date: 3/4/78 New/Old: 0 (UIC primacy March 7, 1982)

Footages 1980 FNL/660 FWL Unit E Sec 21 Tsp 25S Rge 28E County EDDY

General Location: S. of LOVING on 621180

Operator: COG OPERATING LLC Contact DEAN CHUMBLEY

OGRID: 229137 RULE 5.9 Compliance (Wells) 8/28/10 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed Current Status:

Planned Work to Well: Cleanup To 4910'

Diagrams: Before Conversion  After Conversion  Elogs in Imaging File:

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
	Hole.....	Pipe				
New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> Surface	<u>11</u>	<u>8 5/8</u>	<u>532</u>	<u>-</u>	<u>190</u>	<u>CIRC</u>
New <input type="checkbox"/> Existing <input type="checkbox"/> Intern						
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> LongSt	<u>7 7/8</u>	<u>5 1/2</u>	<u>4910'</u>	<u>(2000cf) →</u>	<u>(Plan to CIRC)</u>	
New <input type="checkbox"/> Existing <input type="checkbox"/> Liner						
New <input type="checkbox"/> Existing <input type="checkbox"/> OpenHole						

**Depths/Formations:**      Depths, Ft.      Formation      Tops?

Formation(s) Above			
Injection TOP:	<u>3500</u>	<u>3500</u>	Max. PSI <u>700</u> OpenHole <input type="checkbox"/> Perfs <input checked="" type="checkbox"/>
Injection BOTTOM:	<u>4850</u>	<u>4850</u>	Tubing Size <u>2 7/8</u> Packer Depth <u>3450</u>
Formation(s) Below			

Capitan Reef?  (Potash?  Noticed?  [WIPR?  Noticed?  Salado Top/Bot 1669-2290 Cliff House?

Fresh Water: Depths: 0-532' Formation Del Wells? yes Analysis?  Affirmative Statement

Disposal Fluid Analysis? Sources: Del / Bone Spring

Disposal Interval: Analysis?  Production Potential/Testing:

Notice: Newspaper Date 11/28/10 Surface Owner DEVON Mineral Owner(s) DEVON

RULE 26.7(A) Affected Persons: DEVON

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

.....Active Wells 10 Repairs? 0 Which Wells? -

.....P&A Wells 0 Repairs? - Which Wells? -

Issues: \_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_