

03 April 07 DATE	SUSPENSE	W. Jones ENGINEER	03 April 07 LOGGED IN	SWD TYPE	PCL-P0709326452 APP NO.
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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



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 _____

[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.

Print or Type Name

Signature

Title

Date

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval 2007 APR 2X PM 11:45 Yes No

II. OPERATOR: MARBOB ENERGY CORPORATION

ADDRESS: P O BOX 227, ARTESIA, NM 88211-0227

CONTACT PARTY: Brian Collins PHONE: 505-748-3303

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: Engineer

SIGNATURE:  DATE: 29 March 07

E-MAIL ADDRESS: engineering@marbob.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
SWD 4-22-27 No. 1
(Compadres Fee No. 2)
2310' FNL 1060' FEL
H-4-22S-27E, Eddy County

Marbob Energy Corporation proposes to recompleate the captioned well and convert it to salt water disposal service into the Delaware Sand. Marbob proposes to isolate the existing Delaware zones 4164-5193' with a CIBP + 35' cement set at 4125'. The existing zones are uneconomic due to high water production (4 bopd/250 bwpd). We propose to perforate, acidize and frac selected high porosity sands within the gross Delaware Sand interval 2570-3170' for SWD service.

- V. Map is attached.
- VI. Wellbore schematics are attached for all the wells that penetrate the proposed injection zone within the 1/2 mile radius area of review.
- VII.
 - 1. Proposed average daily injection rate = 1000 BWPD
Proposed maximum daily injection rate = 3000 BWPD
 - 2. Closed system
 - 3. Proposed maximum injection pressure = 514 psi
(0.2 psi/ft. x 2570 ft.)
 - 4. Source of injected water will be Delaware Sand produced water. The Delaware produced water is the same as the Delaware water in the receiving formation. No compatibility problems are expected. An analysis of Delaware water from an analogous well is attached.
 - 5. Disposal zone formation water is essentially the same as the injection water.
- VIII. The injection zone is the Delaware Sandstone, a fine-grained sandstone from 2570' to 3170'. Any underground water sources will be shallower than 420'.
- IX. The Delaware sand injection interval will be acidized with 7 1/2% HCl acid. If necessary, the Delaware injection interval may be fraced with up to 300,000 lbs. of 16/30 mesh sand.
- X. Well logs have been filed with the Division.
- XI. There are four fresh water wells within one mile of the proposed SWD well (from Office of the State Engineer website). A visit with the land owner indicated that

there is only one active fresh water well within one mile of the proposed SWD well. A water analysis is attached for the fresh water well located in the SE/4SE/4SE/4, Section 4, T22S-R27E.

- 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 SHEETOPERATOR: Marbob Energy Corp.WELL NAME & NUMBER: SWD 4-22-27 No. 1 (Formerly Compadres Fee No. 2)WELL LOCATION: 2310' FNL 1060' FEL
FOOTAGE LOCATIONUNIT LETTER HSECTION 4 TOWNSHIP 22s RANGE 27eWELLBORE SCHEMATIC

See attached schematics

WELL CONSTRUCTION DATASurface CasingHole Size: 12 1/4" Casing Size: 8 5/8" @ 423'
Cemented with: 375 sx. or ft³Top of Cement: Surface Method Determined: CirculatedIntermediate CasingHole Size: Casing Size: Cemented with: sx. or ft³Top of Cement: Method Determined: Production CasingHole Size: 7 7/8" Casing Size: 5 1/2" @ 5334'Cemented with: 1150 sx. or ft³Top of Cement: Surface Method Determined: CirculatedTotal Depth: Injection Interval2570' feet to 3170'(Perforated) or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Plastic or Dupline 20
 Type of Packer: Nickel plated or stainless steel 10K retrievable double grip
 Packer Setting Depth: ±2525'
 Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

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

If no, for what purpose was the well originally drilled? Oil & gas

2. Name of the Injection Formation: Delaware Sand

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

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. 5/68-93',

4810-18', 4164-4214' (will set CIBP + 35' cement ± 4125' when convert to SWD)

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

Overlying: None

Underlying: Delaware 3250' ±, Morrow 1100' ±

Well: Compadres Fee Z

Location: 2310' FNL 1060' FEL
H-4-229-270
Eddy NM
30-015-34935

Zero: 14' AGL

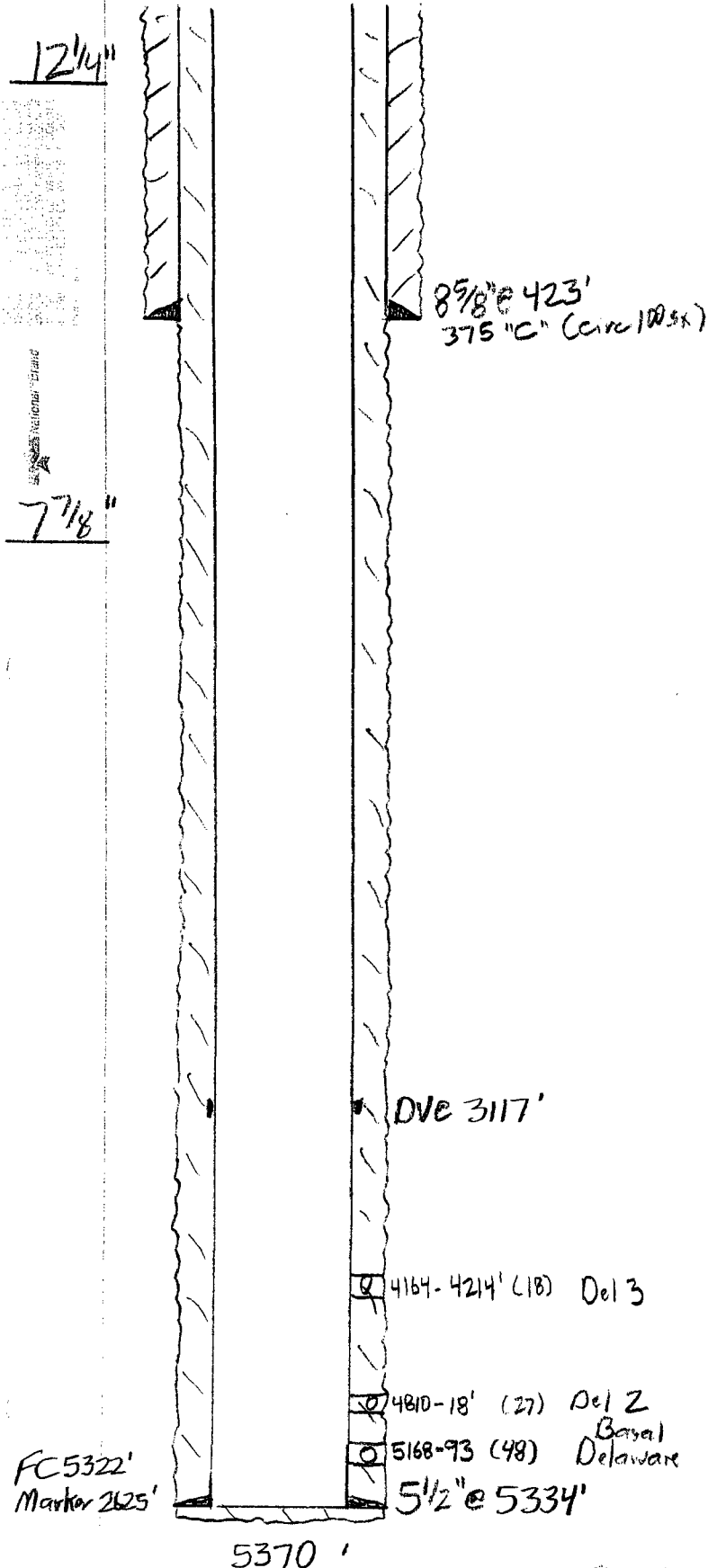
KB: 3114'

GL: 3100'

Casing Program:

Size	Wt.	Grade	Conn	Depth
8 5/8"	24	J55	STC	423'
5 1/2"	17	J55	LTC	5334'
2 7/8"	6.5	J55	EVE	

@ 1953' MD (1948' TVD) 2294' FNL, 943' FEL



Before Conversion

1st: 450 Super H (circ 204 sk)

2nd: 500 HLC + 200 "C" (circ 103 sk)

Well: SWD 4-22-27 No. 1

Location: 2310' FNL 1060' FEL
H-4-22-27e
Eddy NM
30-015-34935

Zero: 14' AGL

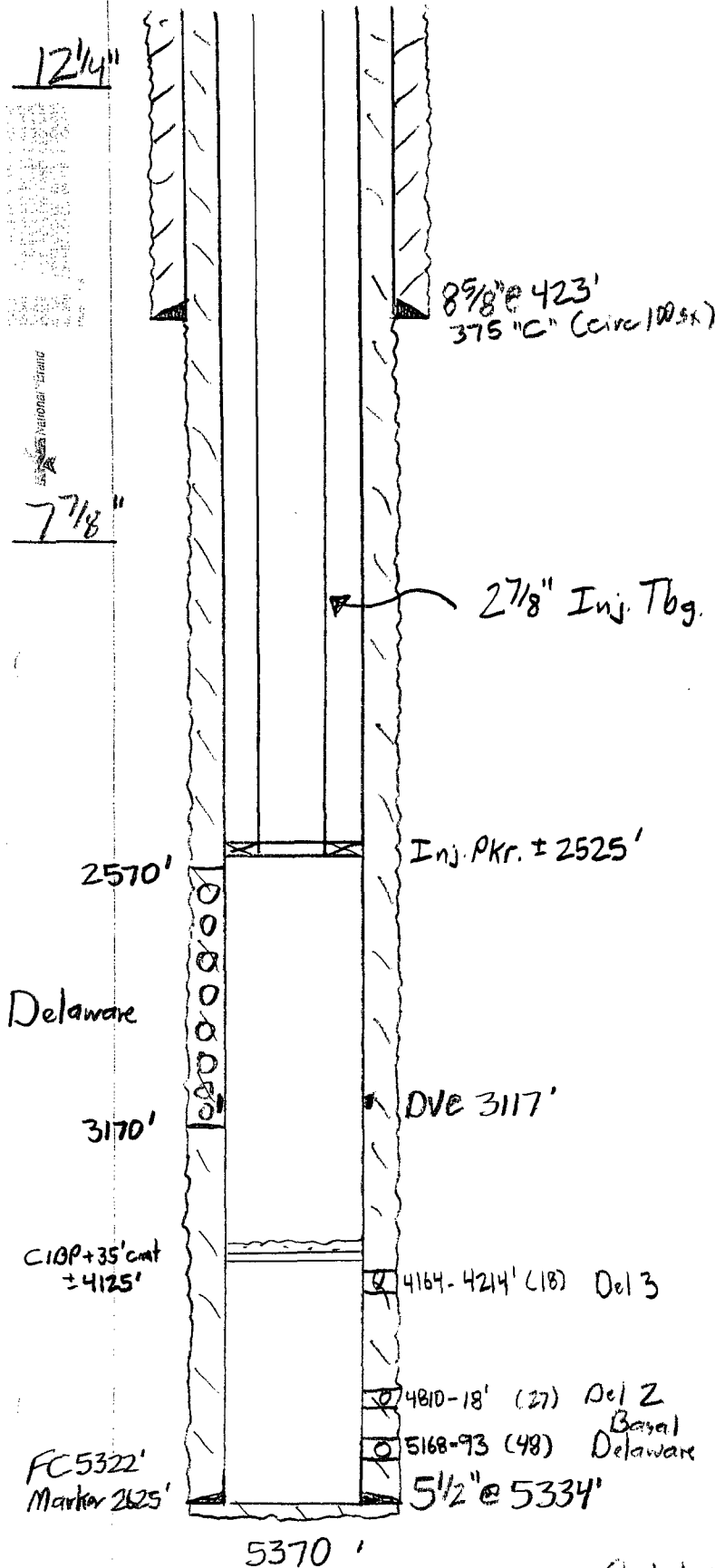
KB: 3114'

GL: 3100'

Casing Program:

Size	Wt.	Grade	Conn	Depth
8 5/8"	24	J55	STC	423'
5 1/2"	17	J55	LTC	5334'
2 7/8"	6.5	J55	EVE	

@ 1953' MD (1948' TVD) 2294' FNL, 943' FEL



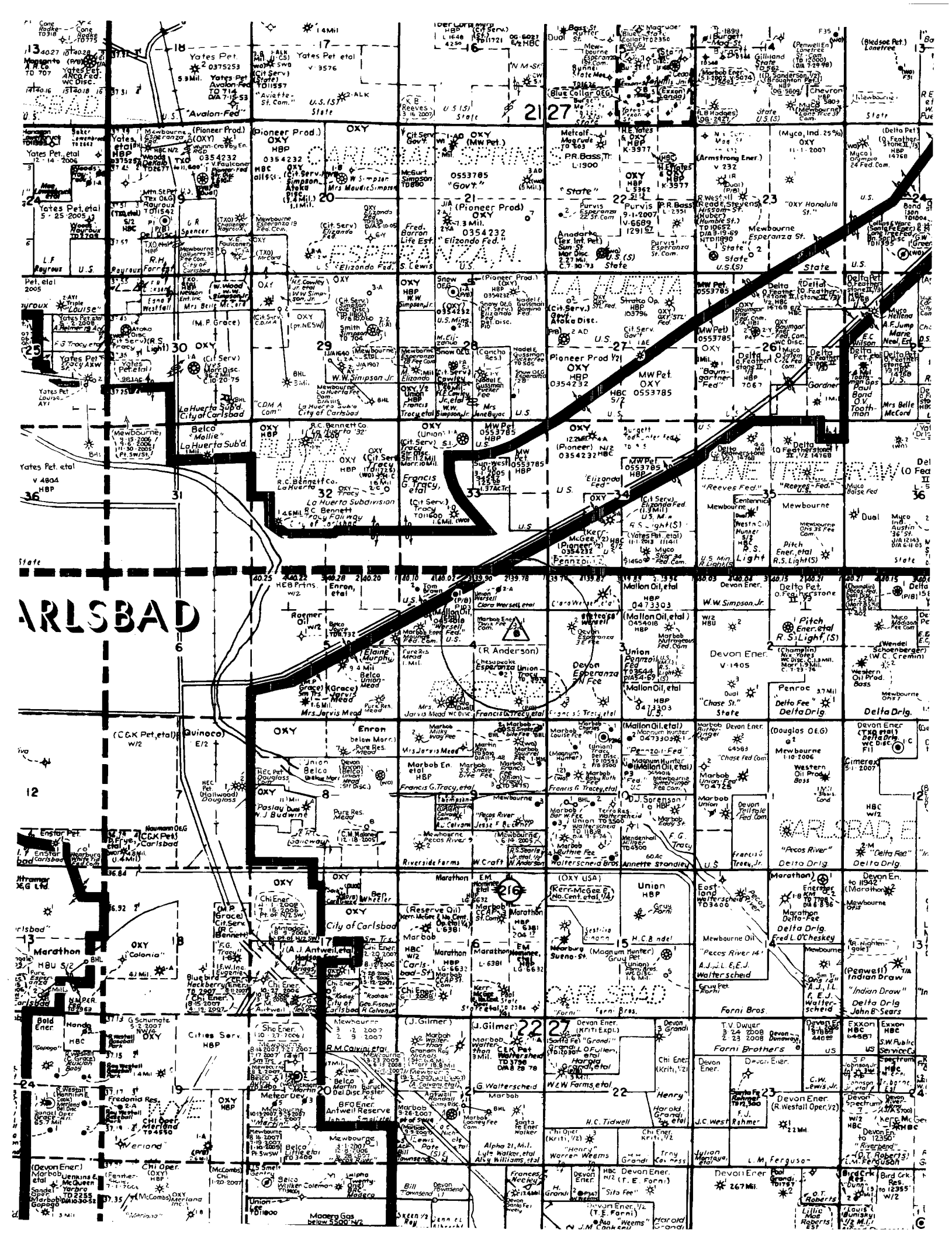
After Conversion

1st: 450 Super H (circ 284 sx)

2nd: 500 HLC + 200" C (circ 173 sx)

V.

MAP



VI.

**Wells Within 1/2
Mile Area of
Review That
Penetrate
Proposed
Disposal Zone**

Well: Twix Fee Com. 1

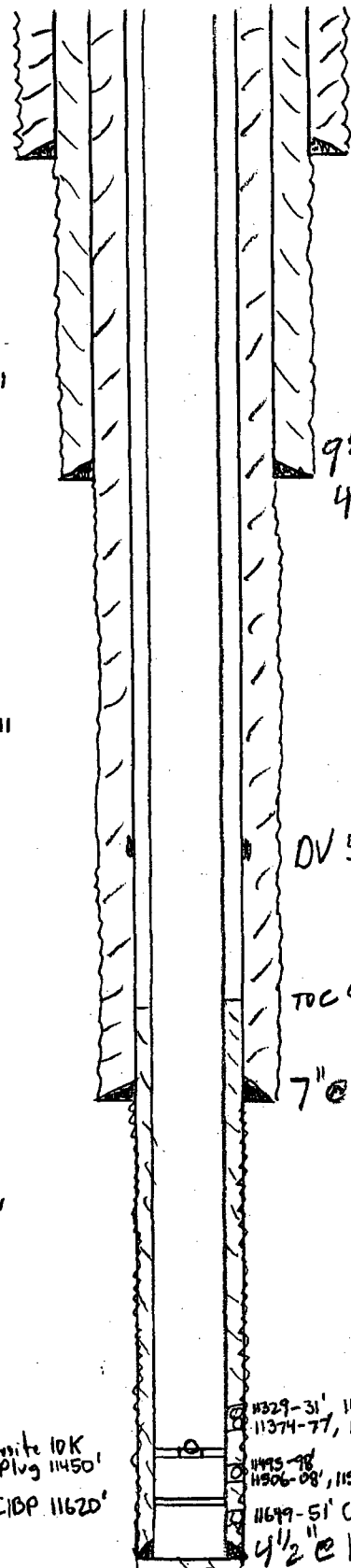
Zero: 15' AGL

Location: 1980' N, 990' E
H-4-225-27e
Eddy NM

KB: 3116'
 GL: 3101'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
13 3/8"	48	H40	SK	402'
9 5/8"	36	J55	SK	1823'
7"	23	HCP110 595, N40	LTC	9049'
4 1/2"	11.6	M95-110	LTC	11785'
2 3/8"	4.7	L80	EVE	



13 3/8" @ 402'
 450" C" (cive 196 sy)

9 5/8" @ 1823'
 400 Interfil C + 250" C" (cive 112 sy)

OV 5284'

TOC 8400' TS

7" @ 9049'

1st: 350 HLC + 200 Spwr H (cive 164 sy)
 2nd: 875 HLC + 200" C" (cive 84 sy)

6 1/8"

Marker Jb:
 10255'
 11015'

Composite 10K
 Plug 11450'
 CIBP 11620'

11329-31', 11359-63', 11367-70' (100) M.Mrw
 11374-77', 11401-04', 11418-22'
 11495-98', 11506-08', 11525-29' (72) L.Mrw 2
 11649-51' (18) L.Mrw
 4 1/2" @ 11785' 305 sx Zone seal H

11800'

- Sketch Not To Scale -

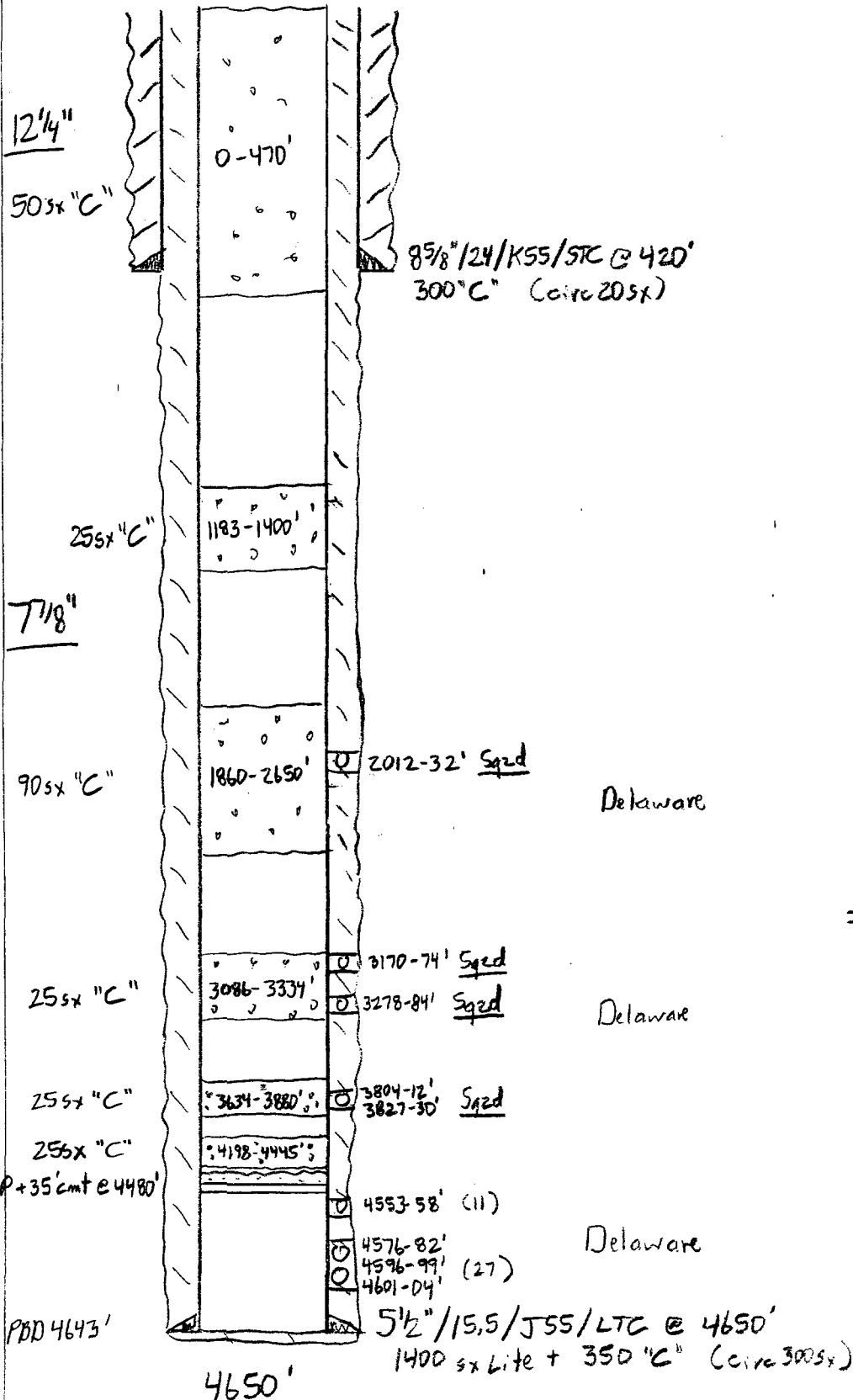
KBCollins / 14 Nov 04

500 SHEETS, FILLER, 5 SQUARE
 400 SHEETS, FILLER, 5 SQUARE
 300 SHEETS, FILLER, 5 SQUARE
 200 SHEETS, FILLER, 5 SQUARE
 100 SHEETS, FILLER, 5 SQUARE
 50 SHEETS, FILLER, 5 SQUARE
 25 SHEETS, FILLER, 5 SQUARE
 10 SHEETS, FILLER, 5 SQUARE
 5 SHEETS, FILLER, 5 SQUARE
 2 SHEETS, FILLER, 5 SQUARE
 1 SHEET, FILLER, 5 SQUARE
 13-782
 42-381
 42-380
 42-380
 42-382
 42-386
 42-386
 281 RECYCLED WHITE
 5.53 INCH
 MADE IN U.S.A.

For National "Print"
 1/4"

Werseil "A" #2

660' FNL, 1780' FEL
B-4-22s-27e
Eddy, Nm



KBCollins / 13 Nov 03

Well: Esperanza 3E Fee 2

Location: 1980' FNL, 890' FNL
E-3-225-27c
Eddy NM
30-015-

Zer:

KV

GL: 3119'

Casing Program:

[illegible]

17 1/2"

[illegible]

12' 14" in

puer. iudicij.

83/4

Mrw

11366'

11523'

Return 10' cont
11600'

DV 7499'

115201

11620

Now

5 1/2" / 17 / P110 / LTC @ 11853'

11855

19I: 865 "C" (circ 89sx)

2nd: 1910"H" (cave)

- Sketch Not To Scale -

KR-11.001

Well: Esperanza 2

Zero: _____

Location: 1650' FSL, 1650' FEL
J-4-225-27e
Eddy NM
30-015-30742

KB: _____
GL: 3097'

Casing Program:

Size	Wt.	Grade	Conn.	Depth

12 1/4"

15,700 140 SHEETS, FILLER, 5 SQUARE
42,381 50 SHEETS, FIVE EASE, 5 SQUARE
42,382 170 SHEETS, FIVE EASE, 5 SQUARE
42,383 170 SHEETS, FIVE EASE, 5 SQUARE
42,384 170 SHEETS, FIVE EASE, 5 SQUARE
42,385 170 SHEETS, FIVE EASE, 5 SQUARE
42,386 170 SHEETS, FIVE EASE, 5 SQUARE
42,387 170 SHEETS, FIVE EASE, 5 SQUARE
42,388 170 SHEETS, FIVE EASE, 5 SQUARE
42,389 170 SHEETS, FIVE EASE, 5 SQUARE
42,390 170 SHEETS, FIVE EASE, 5 SQUARE
42,391 170 SHEETS, FIVE EASE, 5 SQUARE
42,392 170 SHEETS, FIVE EASE, 5 SQUARE
42,393 170 SHEETS, FIVE EASE, 5 SQUARE
42,394 170 SHEETS, FIVE EASE, 5 SQUARE
42,395 170 SHEETS, FIVE EASE, 5 SQUARE
42,396 170 SHEETS, FIVE EASE, 5 SQUARE
42,397 170 SHEETS, FIVE EASE, 5 SQUARE
42,398 170 SHEETS, FIVE EASE, 5 SQUARE
42,399 170 SHEETS, FIVE EASE, 5 SQUARE
42,400 170 SHEETS, FIVE EASE, 5 SQUARE
MADE IN U.S.A.



7 7/8"

8 5/8" / 24 / J55 / STC @ 400'
150" C" (circ 589x)

TOC 1280' CBL

1998-2044' Sqrd 102 5x "C"

4036-67'

4231-40'

4818-54'

5130-53'

5 1/2" / 17 / J55 / LTC @ 5311' 755 5x "C"

5311'

Delaware

- Sketch Not To Scale -

KAR-11-24-1

Well: Esperanza 4-5

Location: 553' FGL, 1650' FEL

0-4-22s-27e

Eddy NM

30-015-34938

Zero: _____

KB :

GL : 3124'

Casing Program:

[illegible]

85/8"/24 @ 408'
200"C" (circ)

200" C" (circ)

TOC 526'

77/18

4022-4162'

5159-5224'

5 1/2" / 15.5 @ 5325' 1125 bx 50/50 P₀₂C

5325

Delaware

- Sketch Not To Scale -

KACollins /

500 SHEETS, FILLER	5 SQUARE
100 SHEETS EYE-EASE	5 SQUARE
100 SHEETS EYE-EASE	5 SQUARE
200 SHEETS EYE-EASE	5 SQUARE
100 RECYCLED WHITE	5 SQUARE
200 RECYCLED WHITE	5 SQUARE

Levi's® National Brand

Stacy C. U. S. A.

Location: 1650' F9L, 585' FEL
I-4-22s-27e
Eddy NM
30-015-35351

Zero: _____

KB : _____

GL : 3092

Casing Program:

[illegible]

185/8" / 24 @ ±425'
Cement to surface

 $7\frac{7}{8}$

Delaware

5170-98'

5 1/2" / 15.5

Q 5337'

Cemented to surface per Chesapeake engineer.

5337

- Sketch Not To Scale -

KARLIS /

500 SHEETS, FILLER 5 SQUARE
13-780 50 SHEETS EYE-EASE 5 SQUARE
42-381 100 SHEETS EYE-EASE 5 SQUARE
42-382 100 SHEETS EYE-EASE 5 SQUARE
42-389 200 SHEETS EYE-EASE 5 SQUARE
42-390 100 RECYCLED WHITE 5 SQUARE
42-392 200 RECYCLED WHITE 5 SQUARE
42-399 200 RECYCLED WHITE 5 SQUARE

Well: Esperanza 4-8

Location: 1980' FSL, 2310' FWL
K-4-225-27e
Edly NM
30105-35352

Zero: _____

KB : _____

GL : 3119'

Casing Program:

[illegible]

8 5/8" / 24 @ 433'
Cemented to surface

Delaware

Overall
Perfed
Interval
3993-5129'

5 1/2" / 15.5 e 5325' Cemented to surface per Chesapeake engineer.

5325

- Gkatcha Alot To Goals -

Mar 11, 1961

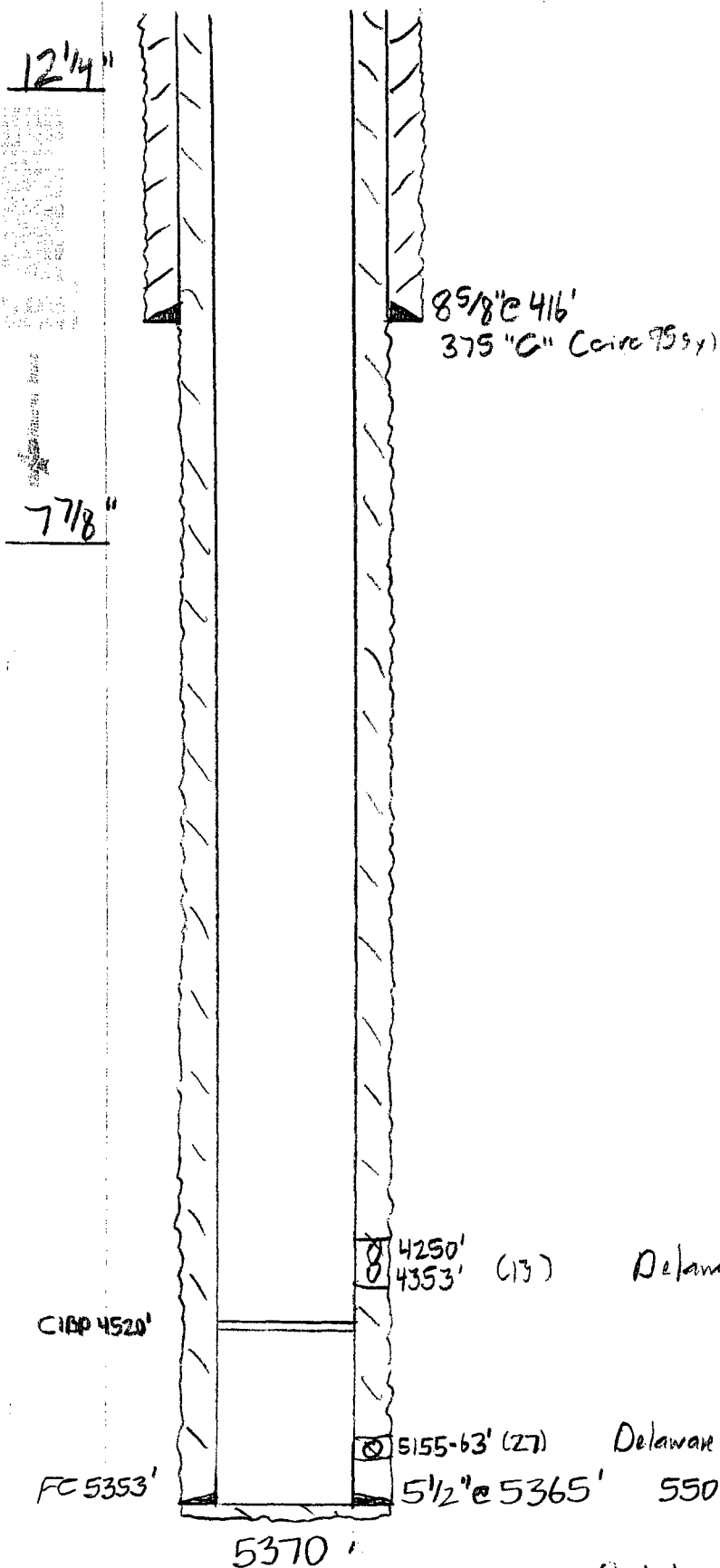
Well: Compadres Fee 1

Location: 2310' FNL 2310' FEL
G-4-22g-27e
Eddy NM
30-DIG-34934

Zero: 14' AGL
KB: 3142'
GL: 3128'

Casing Program:

Size	Wt.	Grade	Conn	Depth
8 5/8"	24	J55	STC	416'
5 1/2"	17	J55	LTC	5365'
2 7/8"	6.5	J55	EVE	



VII.

DELAWARE SAND WATER ANALYSIS

Water Analysis

Analytical
Laboratory Report

for:

Marbob Energy

Delaware Sand

Produced/Inj Zone



Chemical Services

UNICHEM Representative: Bill Polk

Production Water Analysis

Listed below please find water analysis report from: Francis Fee, #1

Sec. 10-229-27e

Lab Test No: 2003148714

Sample Date:

11/25/2003

Specific Gravity: 1.157

TDS: 241213

pH: 6.20

Cations:	mg/L	as:
Calcium	23807	(Ca ⁺⁺)
Magnesium	3769	(Mg ⁺⁺)
Sodium	70309	(Na ⁺)
Iron	62.00	(Fe ⁺⁺)
Barium	0.79	(Ba ⁺⁺)
Strontium	588.00	(Sr ⁺⁺)
Manganese	5.00	(Mn ⁺⁺)
Anions:	mg/L	as:
Bicarbonate	122	(HCO ₃ ⁻)
Sulfate	650	(SO ₄ ⁼)
Chloride	141900	(Cl ⁻)
Gases:		
Carbon Dioxide	160	(CO ₂)
Hydrogen Sulfide	0	(H ₂ S)

X.

LOG SECTION

**Across Proposed
Disposal Interval**

Eng Work

HALLIBURTON

**SPECTRAL DENSITY
DUAL SPACED NEUTRON**

COMPANY <u>MARBOB ENERGY CORPORATION</u>	
WELL <u>COMPADRES FEE No. 2</u>	
FIELD <u>ESPERANZA, DELAWARE</u>	
COUNTY <u>EDDY</u>	STATE <u>NM</u>
COMPANY <u>MARBOB ENERGY CORPORATION</u> WELL <u>COMPADRES FEE No. 2</u> FIELD <u>ESPERANZA, DELAWARE</u> COUNTY <u>EDDY</u> STATE <u>NM</u>	
API No. <u>30-015-34935</u> Location <u>2310' FNL AND 1060' FEL</u>	Other Services DLLT/MGRD
Sect 4 Twp 22S Rge 27E	

Permanent Datum <u>GROUND LEVEL</u>	Elev <u>3100</u>	Elev. : <u>K.B. 3114</u>
Log measured from <u>K.B. 14</u>	above perm. datum	D.F. <u>3113</u>
Drilling measured from <u>KELLY BUSHING</u>		G.L. <u>3100</u>

Date	2-AUG-2006		
Run No.	ONE		
Depth - Driller	5370		
Depth - Logger	5364		
Bottom - Logged Interval	5315		
Top - Logged Interval	200		
Casing - Driller	8.625" @ 420	@	@
Casing - Logger	419		
Bit Size	7.875"		
Type Fluid in Hole	BRINE		
Dens. Visc.	10 29		
Ph Fluid Loss	10 N/A		
Source of Sample	MUD PIT		
Rm @ Meas. Temp.	0.059 @ 78 F	@	@
Rmf @ Meas. Temp.	0.059 @ 78 F	@	@
Rmc @ Meas. Temp.	N/A @ N/A	@	@
Source Rmf Rmc	MEAS. N/A		
Rm @ BHT	0.044 @ 107 F	@	@
Time Since Circ.	12:00 8-2		
Time on Bottom	17:15 8-2		
Max. Rec. Temp.	107 F @ TD	@	@
Equip. Location	582 HOBBS		
Recorded By	K. ANUSKEWICZ		
Witnessed By	MR. JOYCE		

Fold Here

Service Ticket No.: 4543938		API Serial No.: 30-015-34935		PGM Version:		XL v5.8		
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLES				RESISTIVITY SCALE CHANGES				
Date Sample No.				Type Log	Depth	Scale Up Hole	Scale Down Hole	
Depth – Driller								
Type Fluid								
in Hole								
Dens. Visc.								
Ph Fluid Loss								
Source of Sample				RESISTIVITY EQUIPMENT DATA				
Rm @ Meas. Temp.	0.059 @ 78 F	@		Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Rmf @ Meas. Temp.	0.059 @ 78 F	@						
Rmc @ Meas. Temp.	N/A @ N/A	@						
Source Rmf Rmc	CALC. N/A							
Rm @ BHT	0.044 @ 107 F	@						
Rmf @ BHT	0.044 @ 107 F	@						
Rmc @ BHT	N/A @ N/A	@						
EQUIPMENT DATA								
GAMMA		ACOUSTIC		DENSITY		NEUTRON		
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE	
Serial No.	108590YL	Serial No.		Serial No.	AD44YL	Serial No.	A041YL	
Model No.	NGRT	Model No.		Model No.	SDL_DA	Model No.	DSN_II	
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"	
Detector Model No.	T102-A	Spacing		Log Type	GAM-GAM	Log Type	NEU-NEU	
Type	SCINT.			Source Type	Cs 137	Source Type	Am241Be	
Length	4"	LSA [Y / N]		Serial No.	2549GW	Serial No.	DSN-90	

Gross Delaware Sand Wtr. Disposal Inte

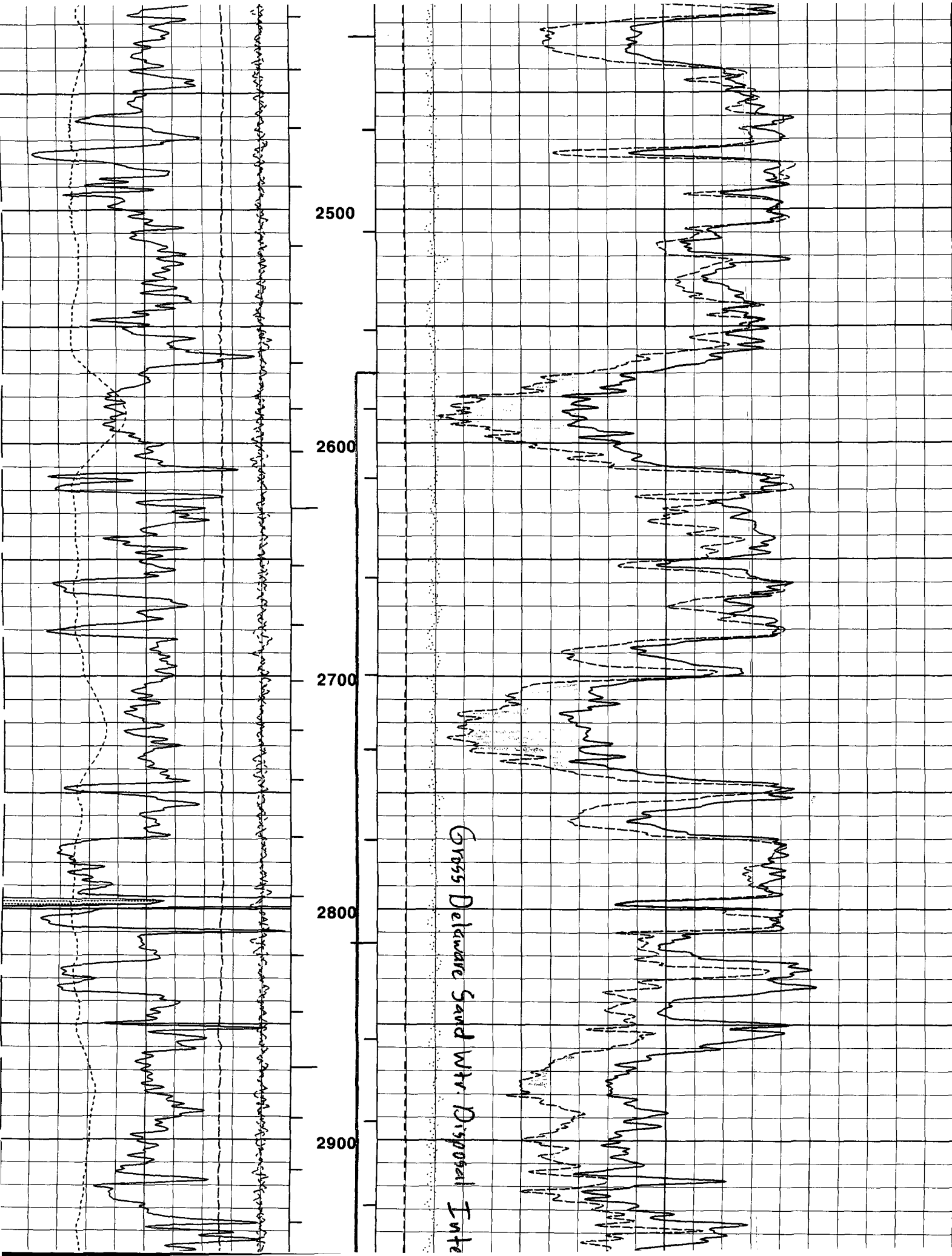
2500

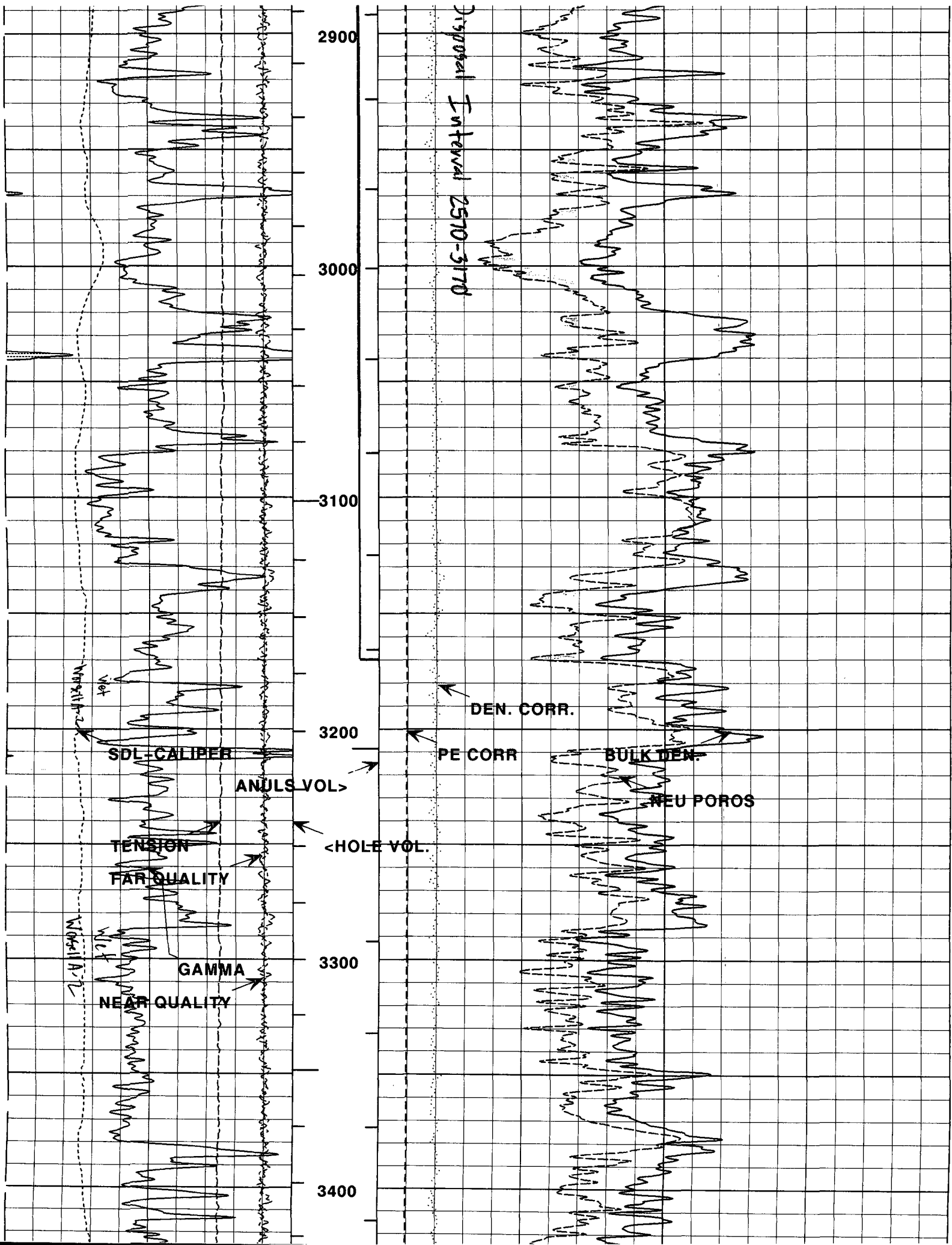
2600

2700

2800

2900





XI.

**FRESH WATER
WELL ANALYSIS**

Fresh Water
Analysis From
Pond & Well ± 0.75 mi
South of Proposed SWD

HALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY Marbob

REPORT W03-225
DATE November 17, 2003
DISTRICT Artesia

SUBMITTED BY _____

WELL @ Pond P-4-22-27 DEPTH _____ FORMATION _____
COUNTY P-4-225-27e FIELD _____ SOURCE _____

SAMPLE	11/14/2003				
Sample Temp.	67.1 °F				
RESISTIVITY	1.568				
SPECIFIC GR.	1.003				
pH	7.10				
CALCIUM	1,000 mpl				
MAGNESIUM	600 mpl				
CHLORIDE	1,526 mpl				
SULFATES	Heavy mpl				
BICARBONATES	153 mpl				
SOLUBLE IRON	0 mpl				
KCL	Neg				
Sodium		0 mpl		0 mpl	0 mpl
TDS		0 mpl		0 mpl	0 mpl
OIL GRAVITY	@ °F	@ °F		@ °F	@ °F

REMARKS

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

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ANALYST: J. Thornton



marbob
energy corporation

March 23, 2007

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

Re: Legal Notice
Water Injection Well

Gentlemen:

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

Please run this notice and return the proof of notice to the undersigned at Marbob
Energy Corporation, P. O. Box 227, Artesia, NM 88211-0227.

Sincerely,

Brian Collins
Petroleum Engineer

BC/dlw

enclosure

ARTESIA DAILY PRESS
LEGAL NOTICES

Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico, 88211-0227, 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 SWD 4-22-27 No. 1 is located 2310' FNL and 1060' FEL, Section 4, Township 22 South, Range 27 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware formation. The disposal water will be injected into the Delaware formation at a depth of 2570' to 3170' at a maximum surface pressure of 514 psi and a maximum rate of 3000 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 Brian Collins at Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico 88211-0227, or call 505-748-3303.

Published in the Artesia Daily Press, Artesia, New Mexico
_____, 2007.

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Total Postage & Fees	\$

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1 0550 4002

MYCO INDUSTRIES INC
P O BOX 840
ARTESIA NM 88211-0840

City, State, ZIP+4[®]
DW SWD 4-22-27 #1
PS Form 3800, June 2002 See Reverse for Instructions

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ABO PETROLEUM CORPORATION
105 S 4TH ST
ARTESIA NM 88210

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PS Form 3800, June 2002 See Reverse for Instructions

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BP AMERICA PRODUCTION COMPANY
P O BOX 3092
HOUSTON TX 77253-3092

City, State, ZIP+4[®]
DW SWD 4-22-27 #1
PS Form 3800, June 2002 See Reverse for Instructions

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YATES DRILLING COMPANY
105 S 4TH ST
ARTESIA NM 88210

City, State, ZIP+4[®]
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RUBICON OIL & GAS LP
400 W ILLINOIS STE 1130
MIDLAND TX 79701

City, State, ZIP+4[®]
DW SWD 4-22-27 #1

7004 0550 0000 7457 8981
7004 0550 0000 7457 8981

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RUSSELL ROYALTY COMPANY
P O BOX 2018
TYLER TX 75710
City, State, ZIP+4
DW SWD 4-22-27*1
PS Form 3800, June 2002 See Reverse for Instructions

RKC INC
7029 E BRIARWOOD CIR
ENGLEWOOD CO 80112
City, State, ZIP+4
DW SWD 4-22-27*1
PS Form 3800, June 2002 See Reverse for Instructions

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7004 0550 0000 7457 8950

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7004 0550 0000 7457 8943
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Sent To
Street, Apt. or PO Box
City, State, ZIP+4
DW SWD 4-22-27*1
PS Form 3800, June 2002 See Reverse for Instructions

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City, State, ZIP+4
DW SWD 4-22-27*1

CIMAREX ENERGY
1700 LINCOLN ST SUITE 1800
DENVER CO 80203

DIVERSE GP III
13455 NOEL RD STE 2000
DALLAS TX 75240

Post
Hr

Return Receipt Fee
(Endorsement Required)

Restricted Delivery Fee
(Endorsement Required)

Total Postage & Fees \$

OXY USA WTP LIMITED PARTNERS
P O BOX 4294
HOUSTON TX 77210-4294
City, State, Zip+4
DW 500 4-22-27 #1

000 0550 4002
 000 0550 4002

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(Endorsement Required)

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RAY WESTALL
P O BOX 4
LOCO HILLS NM 88255
DW 500 4-22-27 #1
PS Form 3800, June 2002
See Reverse for Instructions

0 0550 4002
 0 0550 4002

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DEVON ENERGY PRODUCTION COMPANY
20 N BROADWAY STE 1500
OKLAHOMA CITY OK 73102-8260
DW 500 4-22-27 #1
PS Form 3800, June 2002
See Reverse for Instructions

7004 0550 0000 7457 8905
 7004 0550 0000 7457 8905

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Sent To
CHESAPEAKE OPERATING INC
P O BOX 18496
OKLAHOMA CITY OK 73154
DW 500 4-22-27 #1
PS Form 3800, June 2002
See Reverse for Instructions

7004 0550 0000 7457 8912
 7004 0550 0000 7457 8912

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Sent To
NM OIL CONSERVATION DIVISION
1220 S ST FRANCIS DR
SANTA FE NM 87505
DW 500 4-22-27 #1

Injection Permit Checklist 2/8/07

SWD Order Number _____ Dates: Division Approved _____ District Approved _____

Well Name/Num: COMPADRES F# NO. 2
SWD 4-22-27 #1 Date Spudded: 7/25/06

API Num: (30-) 05-34935 County: EDDY

Footages 2310 FNL/1060 FEL Sec 4 Tsp 22S Rge 27E

Operator Name: MARBON Energy Corp. Contact Brian Collins

Operator Address: P.O. BOX 227 ARTESIA, NM, 88211-0227

Current Status of Well: Del Producer Planned Work: Recomplete UPHOLE Inj. Tubing Size: 2 7/8

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	12 1/4 8 5/8	423'	375'	CIRC.
Intermediate			(450 + 700)	
Production	7 7/8 5 1/2	5334'	1150 SX	CIRC. Both Stages
Last DV Tool		3117'		
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion ☒ After Conversion ☒

Checks (Y/N): Well File Reviewed ☒ ELogs in Imaging ☒

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash	460' - TOP		
Capitan Reef	Just to SE. of Reef		
Chinle House, Etc.			
Formation Above	SALADO?		
Top Inj Interval	2570	Del SS	
Bottom Inj Interval	3170	Del SS	
Formation Below	3250'	Del	yes

CLASH FROM 430'
TO 1735' = ?
↑
TOP Release Sand or Lower LS
514 PSI Max. WHIP
No Open Hole (Y/N)
No Deviated Hole (Y/N)

Fresh Water: Depths: 0 - 420' Wells(Y/N) Yes Analysis Included (Y/N): Yes Affirmative Statement ☒

Salt Water Analysis: Injection Zone (Y/N/NA) Del Disp Waters (Y/N/NA) _____ Types: Del

Notice: Newspaper(Y/N) ☒ Surface Owner _____ Mineral Owner(s) _____

Other Affected Parties: MYCO, ABOP, BP, Yates Drill, RUBICON, RKC, Russ Roy, Fur Fry, AV CAP

AOR/Repairs: NumActiveWells 9 Repairs? No Producing in Injection Interval in AOR No

AOR Num of P&A Wells 1 Repairs? No Diagrams Included? Yes RBDMS Updated (Y/N) _____

Well Table Adequate (Y/N) ☒ AOR STRs: Sec _____ Tsp _____ Rge _____ UIC Form Completed (Y/N) _____

New AOR Table Filename _____ Sec _____ Tsp _____ Rge _____ This Form completed 4/11/07

Conditions of Approval: Sec _____ Tsp _____ Rge _____ Data Request Sent _____

Set CIBP within 200' or above the
COPY of Newspaper NOTICE
WHO a surface owner / TOPS of Evergreen Don to Del.
TOPS of Del members

AOR Required Work: Run off Profile

Required Work to this Well: Notice Contained WHY was the well DEVIATED?

Jones, William V., EMNRD

From: Brian Collins [engineering@marbob.com]
Sent: Monday, April 23, 2007 4:59 PM
To: Jones, William V., EMNRD
Subject: Re: SWD Application: SWD 4-22-27 #1 API No. 30-015-34935 (was the Compadres Fee #2)

Will:

Here's the answers to your questions on the SWD 4-22-27 application. Let me know if you need anything else. Thanks.

1. Plug back with CIBP to 200' below bottom of injection interval.

Answer: We don't think an additional CIBP 200' below the bottom perf is necessary; however, we don't have a problem with this. Instead of setting an additional CIBP, could we set the CIBP + cement proposed for 4125' at 3350' instead?

2. Why was well deviated?

Answer: The desired surface location was too close to a high pressure gas line so we moved the location.

3. Send a copy of the notice published in the newspaper.

Answer: I'll get it in the mail to you ASAP.

4. Who is the surface owner?

Answer: Francis Tracy is the surface owner. He was notified by certified mail and has no objections.

5. Formation tops needed. What's between Salado and Lamar? Is injection into Cherry Canyon only?

Answers:

Formation Tops: Rustler 284', Salado 422', Base Salado/Top Castille 550', Lamar 1735', Bell Canyon 1963', Cherry Canyon 2683', Brushy Canyon 4010', Bone Spring 5202'

Between Salado and Lamar: Salt 422' to 550', Anhydrite 550' to 1735'

Injection Interval: Lower portion of Bell Canyon and upper portion of Cherry Canyon.

6. Reef protection and salinity.

Answer: The Reef is not present in the area near the well. If it were present, the Reef would be protected by casing cemented at least 1000' above the top of the proposed injection interval in all the wells within the area of review. I'm not familiar with the water salinity in the Reef in the Carlsbad area.

7. Is the sand zone producing 80' deeper than the proposed injection interval in one of the offset wells a rare sand that doesn't exist in the proposed well?

Answer: The sand in the Wersell 1 (C-4-22s-27e) 3267-82' appears to be present in the proposed well. The equivalent sand in the proposed SWD had no mudlog show, calculated wet and didn't merit testing in the proposed well. We believe there is adequate vertical separation between our lowest proposed injection perf and the sand in the Wersell 1 to prevent disposal into the Wersell 1 sand. It is also possible that the sand in the proposed well, although stratigraphically equivalent, may be a separate reservoir than the sand in the Wersell 1.

4/23/2007

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Wednesday, April 11, 2007 4:17 PM
To: Brian Collins (engineering@marbob.com)
Cc: Arrant, Bryan, EMNRD; Ezeanyim, Richard, EMNRD
Subject: SWD Application: SWD 4-22-27 #1 API No. 30-015-34935 (was the Compadres Fee #2)

Hello Brian Collins:

We received your application on behalf of Marbob to inject into the Delaware in this relatively newly drilled well from 2570 to 3170 feet and have a couple questions and comments:

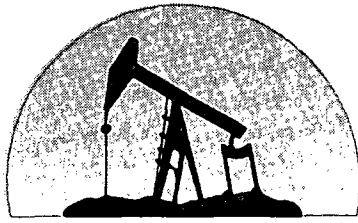
- 1) We'll require Marbob to plug back with a CIBP to approx 200 feet below the lowermost injection interval.
- 2) The well was deviated, but not very much. Why was it deviated?
- 3) Send a copy of the notice as actually posted in the Newspaper.
- 4) Who is the surface owner?
- 5) Please have your geologist send tops of all formations in this well including members of the Delaware. Looks like the Salado starts at 460 feet and the Lamar is at 1735 ?? What is in between? Is the injection interval in the Cherry Canyon only?
- 6) My maps show this well to be southeast but close to the edge of the Capitan Reef. Realize you would be injecting below the Reef or Southeast of the Reef - but would you talk a little about how the Reef is protected from water injection both vertically and laterally? What is your opinion of the salinity in the Reef in this area?
- 7) The Delaware producing interval in an offset well is only 80 or so feet below your intended injection interval. Was that a rare sand that does not exist in this well?

Overall the application looks fine. Please reply as soon as possible and I can release this - probably on April 18.

Thank You,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

4/11/2007



marbob
energy corporation

April 25, 2007

New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505-4000

Attn: Mr. Will Jones

Re: C-108 Application
SWD 4-22-27
Township 22 South, Range 27 East
Sec. 4: 2310 FNL 1060 FEL
Eddy County, NM

Dear Mr. Jones:

Per your request, enclosed is a copy of the Affidavit of Publication for the referenced C-108 application. The legal notice was published in the Artesia Daily Press on April 3, 2007.

Please let us know if you need anything further.

Sincerely,

Debora L. Wilbourn
GeoTech

Enclosure

RECEIVED

APR 30 2007

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Affidavit of Publication

NO. 19667

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott 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 county and state, and that the here to 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 week/days on the same day as follows:

First Publication April 3 2007

Second Publication _____

Third Publication _____

Fourth Publication _____

Fifth Publication _____

Subscribed and sworn to before me this

17th Day April 2007

Amanda K. Lamb
Notary Public, Eddy County, New Mexico

My Commission expires April 5, 2011

Copy of Publication:

LEGAL NOTICE

Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico, 88211-0227, 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 SWD 4-22-27 No. 1 is located 2310' and 1060' FEL, Section 4, Township 22 South, Range 27, East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware formation. The disposal water will be injected into the Delaware formation at a depth of 2570' to 3170' at a maximum surface pressure of 514 psi and a maximum rate of 3000 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 Brian Collins at Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico 88211-0227, or call 505-748-3303. Published in the Artesia Daily Press, Artesia, N.M. April 3, 2007.

Legal 19667