

DATE IN 5/8/06	SUSPENSE 5/24/06	ENGINEER WILL JONES	LOGGED IN 5/8/06	TYPE SWD	APP NO. PTDSD-12848130
6/19/06	6/1/06	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			

30-015-26625

APPLICATION FOR AUTHORIZATION TO INJECT

Mary AIV State #1

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

II. OPERATOR: Yates Petroleum Corporation

ADDRESS: 105 South 4th Street

CONTACT PARTY: Margrethe Hotter PHONE: (505) 748-4165

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: Margrethe Hotter TITLE: Operations Engineer

SIGNATURE: Margrethe Hotter DATE: 4/11/06

E-MAIL ADDRESS: mhotter@ypcnm.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

2006 APR 12 4:33 PM

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Mary AIV St #1
Unit G, 1980 FNL & 1980 FEL, Sec.36, T21S, R31E
Eddy County, New Mexico**

- I. **The purpose of completing this well is to make a disposal well for produced Delaware Sand water into the Delaware Sand formation.**

Yates Petroleum Corporation plans to convert this well to a water disposal well into the Delaware Sand.

- II. **Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Margrethe Hotter (505) 748-4165**

- III. **Well Data: See Attachment A**

- IV. **This is not an expansion of an existing project.**

- V. **See attached map, Attachment B.**

- VI. **8 wells within the area of review penetrate the proposed injection zone. (See Attachment C)**

- VII. **1. Proposed average daily injection volume approximately 7500 BWPD. Maximum daily injection volume approximately 8800 BWPD.**

2. This will be a closed system.

**3. Proposed average injection pressure –unknown.
Proposed maximum injection pressure –1323 psi.**

4. Sources of injected water would be produced water from the Delaware Sand. (Attachment D)

- VIII. **1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from estimated depths of 6614'-8325'.**

Cherry + BRUSHY

**Application for Authorization to Inject
Mary AIV St #1**

-2-

- 2. There are no fresh water zones overlying or underlying the proposed injection formations. The closest fresh water source is about 4 miles to the south west in Sec.16, T22S, R30E, with a water depth of 448'.**

- IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid, or proppant fractured.**

- X. Logs were filed at your office when the well was drilled.**

- XI. There are no windmills or fresh water wells within a one-mile radius of the subject location.**

- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval. (Attachment G)**

- XIII. Proof of notice.**
 - A. Certified letters sent to the surface owner and offset operators attached (Attachment E)**

 - B. Copy of legal advertisement attached. (Attachment F)**

- XIV. Certification is signed.**

**Yates Petroleum Corporation
Mary AIV St #1
G-36-T21S-R31E
Eddy County, New Mexico**

Attachment A

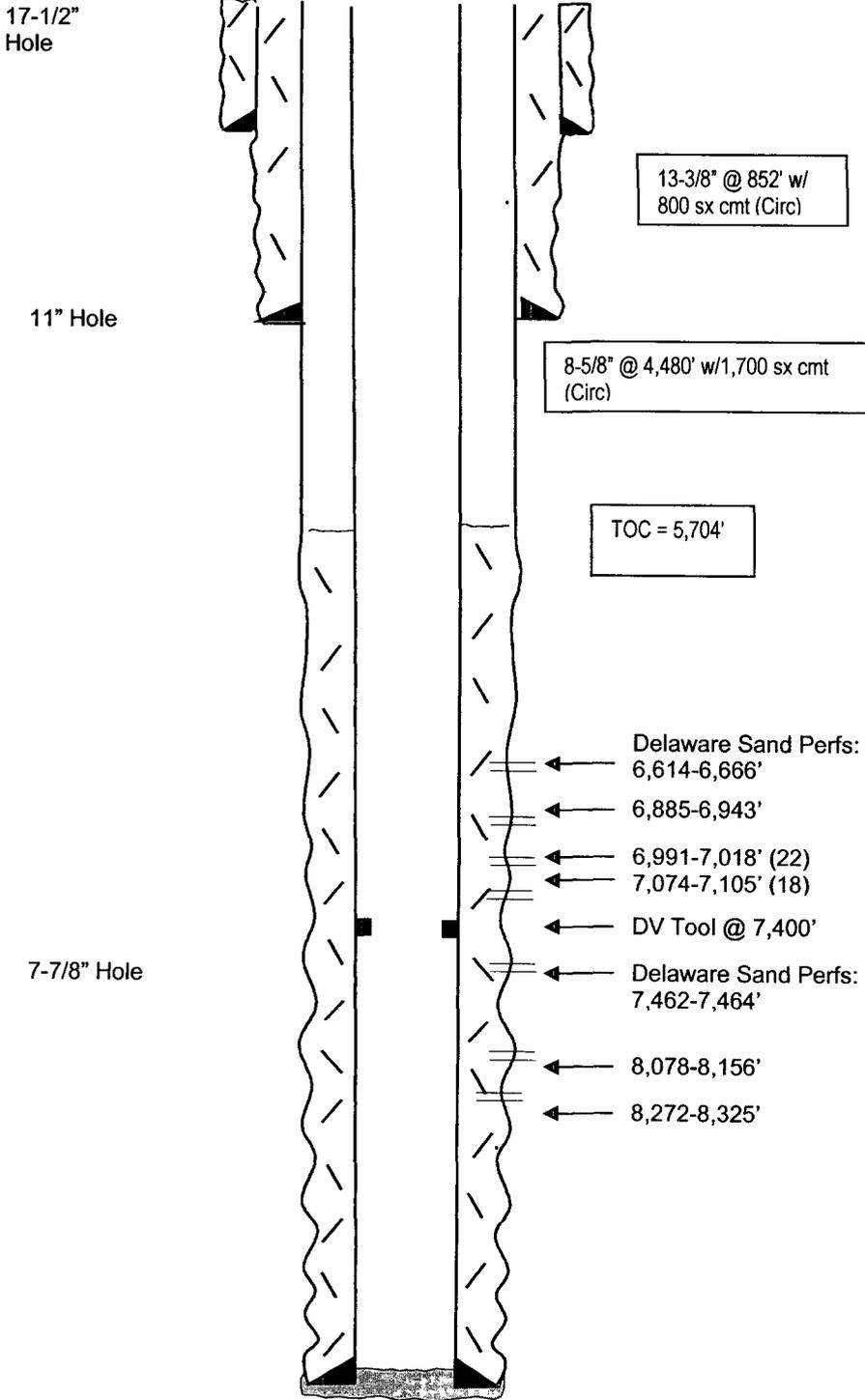
III. Well Data

- A.
1. Lease Name/Location
Mary AIV St #1
G-36-T21S-R31E
1980' FNL & 1980' FEL
 2. Casing Strings:
 - a. Present well condition
13 3/8", 54.5# J-55 @ 852 w/800 sx (circ)
8 5/8", 32# S80/J-55 @ 4480' w/1800 sx (circ).
5 1/2", 17#, 15.5# @ 8470' w/670 sx
 - b. Present Status:
Non-commercial completion in Delaware at 6614'-6666', 6885'-
6943', 6991'-7018', 7074'-7105', 7462'-7464', 8078'-8156', 8,272'-
8,325".
 3. Proposed well condition:
Casing same as above.
3 1/2" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 6585'
 4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 6585'.
- B.
1. Injection Formation: Delaware Sands
 2. Injection Interval will be through perforations from approximately 6614'-8325' gross interval.
 3. Well was originally drilled as a Delaware Sand oil well. Well will be Delaware Sand water disposal well (6614'-8325') when work is completed.
 4. Perforations: High porosity sands between 6614'-8325'.
 5. Next higher (shallower) oil or gas zone within 2 miles-None.
Next lower (deeper) oil or gas zone within 2 miles-Atoka.

WELL NAME: Mary AIV State #1 **FIELD:** Livingston Ridge
LOCATION: 1,980' FNL & 1,980' FEL of Section 36-21S-31E Eddy Co., NM
GL: 3,603' **ZERO:** 14' **KB:** 3,617'
SPUD DATE: 1/31/91 **COMPLETION DATE:** 4/8/91
COMMENTS: API No.: 30-015-26625

CASING PROGRAM

13-3/8" 54.5# J55 STC	852'
8-5/8" 32# S80/J55	4,480'
5-1/2" 17# J55 LTC 1,047'	
5-1/2" 15.5# J55 LTC 5,808'	
5-1/2" 17# J55 LTC 1,615'	8,470'
2-7/8" 6.5# J55 EUE	



Before

TOPS	
Rustler	631'
Delaware	4,456'
Cherry Cny	5,489'
Brushy Cny	7,206'
BS	8,392'

Not to Scale
 4/11/06
 DC/Margarethe

5-1/2" @ 8,470'
 1st Stage: 260 "H"
 2nd Stage: 410 "H"

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LOCATION: 1,980' FNL & 1,980' FEL of Section 36-21S-31E Eddy Co., NM
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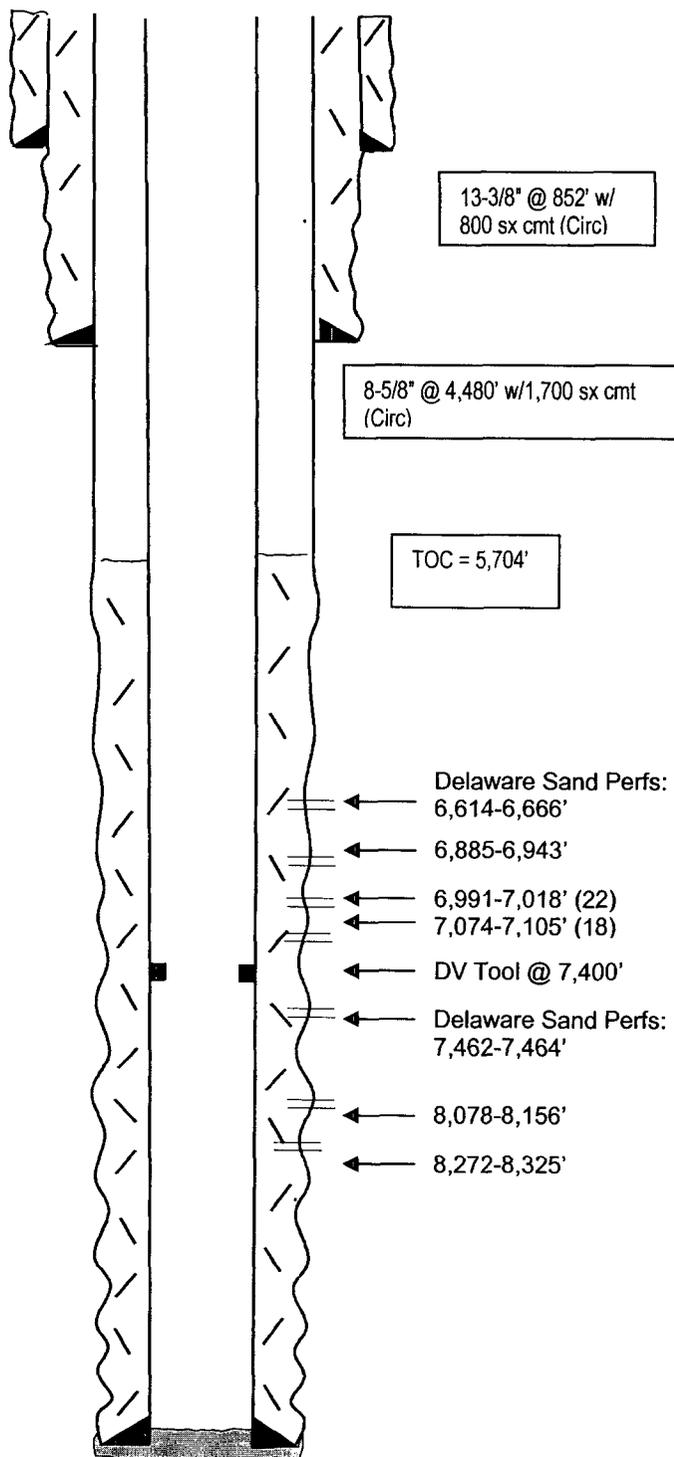
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5-1/2" 15.5# J55 LTC 5,808'	
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2-7/8" 6.5# J55 EUE	

17-1/2" Hole

11" Hole

7-7/8" Hole



13-3/8" @ 852' w/
800 sx cmt (Circ)

8-5/8" @ 4,480' w/1,700 sx cmt
(Circ)

TOC = 5,704'

- ← Delaware Sand Perfs: 6,614-6,666'
- ← 6,885-6,943'
- ← 6,991-7,018' (22)
- ← 7,074-7,105' (18)
- ← DV Tool @ 7,400'
- ← Delaware Sand Perfs: 7,462-7,464'
- ← 8,078-8,156'
- ← 8,272-8,325'

FC: 8,426'
TD: 8,470'

5-1/2" @ 8,470'
1st Stage: 260 "H"
2nd Stage: 410 "H"

After

TOPS	
Rustler	631'
Delaware	4,456'
Cherry Cny	5,489'
Brushy Cny	7,206'
BS	8,392'

Not to Scale
 4/11/06
 DC/Margarethe

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

APR 11 1991

O. C. D.

WELL API NO.
30-015-26625

5. Indicate Type of Lease
STATE FEE

6. State Oil & Gas Lease No.
LG 9280

7. Lease Name or Unit Agreement Name

Mary AIV State

8. Well No.
1

9. Pool name or Wildcat
Livingston Ridge Delaware

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
OIL WELL GAS WELL OTHER

2. Name of Operator
YATES PETROLEUM CORPORATION (505) 748-1471

3. Address of Operator
105 South 4th St., Artesia, New Mexico 88210

4. Well Location
Unit Letter G : 1980 Feet From The North Line and 1980 Feet From The East Line
Section 36 Township 21S Range 31E NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3603' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM 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 OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: 8-5/8" & 5-1/2" Casing, Perforate, Trt <input checked="" type="checkbox"/>	

12. 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.
3-16-91. Ran 104 jts 8-5/8" 32# S-80 & J-55 casing set 4480. Guide shoe set 4480', float collar set 4441'. Cmt'd w/1500 sx "C" Lite, 10#/sx salt, 1/4#/sx Celloseal (yield 1.94, wt 12.9). Tail in w/200 sx "C", 1% CaCl2 (yield 1.32, wt 14.8). PD 4:47 AM 3-17-91. Bumped plug to 2100 psi, held OK. Circulated 300 sx. WOC. Drilled out 5:30 AM 3-18-91. WOC 24 hrs and 45 mins. NU and test to 1000 psi for 30 minutes. Reduced hole to 7-7/8", resumed drilling. TD 8470'. Reached TD 5:00 AM 3-27-91. Ran 198 jts 5 1/2" 17# & 15.5# J-55 LT&C casing set 8470'. Float shoe set 8470', float collar set 8426'. DV tool set 7400'. Cmt'd in 2 stages. Stage 1: 260 sx "H" w/5#/CSE, .7% CF-14, 10# Gilsonite (yield 1.45, wt 14.46). PD 5:00 PM 3-28-91. Circulate thru DV tool 2 hrs. Stage 2: 410 sx "H" w/5# CSE, .7% CF-14, 10#/sx Gilsonite (yield 1.46, wt 14.46). PD 8:10 PM 3-28-91 with 2250 psi for 15 minutes. Bumped plug to 1200 psi for 15 minutes. WOC 18 hrs. Drilled out DV tool at 7400'. Perforated 7074-7105' w/18 .41" holes as follows: 7074, 78, 80, 87, 90, 94, 96, 7104 and 7105'. Treated perms 7074-7105' w/2000 g. 7 1/2% NEFE acid. Frac'd perms w/7500g. 40# X-link gel + 22500# 20/40 sand. Perforated 6991-7018' w/22 - .41" holes as follows: 6991, 94, 95, 7000, 01, 06, 07, 08, 16, 17 and 7018',

I hereby certify that the information above is true and complete to the best of my knowledge and belief. (2 SPF). Acidized perms w/2000 g. 7 1/2% NEFE. Frac'd perms w/7500g. 40# X-link+22500# 20/40 sd. Production Supervisor

SIGNATURE Juanita Goodlett TITLE _____ DATE 4-9-91

TYPE OR PRINT NAME Juanita Goodlett TELEPHONE NO. 505/748-1471

(This space for State Use)

ORIGINAL SIGNED BY
MIKE WILLIAMS
SUPERVISOR, DISTRICT I

APPROVED BY _____ TITLE _____ DATE APR 10 1991

CONDITIONS OF APPROVAL, IF ANY:

Attachment B

Mary AIV State No. 1
Form C-108

Tabulation of data on wells within area of review

Well Name	Operator	Type	Spud	Total Depth	Producing Zone	Perforations	Completion Information
Mary AIV State #3 660' FNL & 1980' FEL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	5/20/1991	8500	Delaware	7103-7140', 7013-35', 8080-8127', 7705-07', 7462-64', 7361-72', 6647-83'	13 3/8" @ 850'. Cmtd w/ 750 sx. 8 5/8" @ 4442' Cmtd w/ 1700 sx. 5 1/2" @ 8500' Cmtd w/ 1000 sx. TOC @ 4470
Mary AIV State #5 660' FNL & 330' FEL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	12/13/1991	8565'	Delaware	6695-6712', 6798-6802', 6940-54', 7072-75', 8238-47', 8434-43'	13 3/8" @ 850'. Cmtd w/ 850 sx. 8 5/8" @ 4260'. Cmtd w/ 1600 sx. 5 1/2" @ 8557'. Cmtd w/ 1450 sx. TOC @ Surface
Lost Tank AIS St #1 1980' FSL & 660' FEL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	12/7/1991	8550'	Delaware	7148-7208', 8382-8406'	13 3/8" @ 869'. Cmtd w/ 850 sx. 8 5/8" @ 4270'. Cmtd w/ 1675 sx. 5 1/2" @ 8550'. Cmtd w/ 1525 sx. TOC @ Surface
Lost Tank AIS St #4 1980' FSL & 1980' FWL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	11/19/1991	8450'	Delaware	6978-83', 7051-82', 8277-94'	13 3/8" @ 850'. Cmtd w/ 850 sx. 8 5/8" @ 4175'. Cmtd w/ 2225 sx. 5 1/2" @ 8450'. Cmtd w/ 1675 sx. TOC @ Surface
Lost Tank AIS St #6 1980' FSL & 1980' FEL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	11/5/1991	8610'	Delaware	7057-97', 8299-8346', 8449-68' CIBP @ 8425' + 35' cmt	13 3/8" @ 868'. Cmtd w/ 850 sx 8 5/8" @ 4240'. Cmtd w/ 1600 sx. 5 1/2" @ 8610'. Cmtd w/ 1850 sx. TOC @ Surface
Lost Tank AIS St #7 2310' FNL & 2310' FWL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	5/21/2003	8500'	Delaware	8288-8306', 8322-26', 7508-16', 7664-68', 7794-97', 7860-64', 6834-52', 6868-74', 6940-50'	13 3/8" @ 865'. Cmtd w/ 700 sx. 8 5/8" @ 4220'. Cmtd w/ 1585 sx. 5 1/2" @ 8500'. Cmtd w/ 980 sx. TOC @ 5533'
Lost Tank AIS St #10 1650' FSL & 990' FWL Sec. 36-21S-31E	Yates Petroleum Corp	Oil	2/20/2003	8508'	Delaware	6780-6810', 6840-48', 7042-50', 7818-28', 8240-56'	13 3/8" @ 850'. Cmtd w/ 700 sx. 8 5/8" @ 4200'. Cmtd w/ 1300 sx. 5 1/2" @ 8508'. Cmtd w/ 1550 sx. TOC @ 5494'
Lost Tank SWD #1 1980' FNL & 660' FWL Sec. 31-21S-32E	Penroc Oil Corporation	SWD	11/12/1991	8364'	Delaware	5296-6012' CIBP @ 6350'. Cmtd w/ 4 sx	13 3/8" @ 829'. Cmtd w/ 750 sx. 8 5/8" @ 4302'. Cmtd w/ 1050 sx. 5 1/2" @ 8103'. Cmtd w/ 1595 sx. TOC @ Surface

TRETOLITE®

Chemicals and Services


 16010 Barker's Point Lane • Houston, Texas 77079
 713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

 Reply to: P.O. Box FF
 Artesia, New Mexico 88210
 (505) 746-3588 Phone
 (505) 746-3580 Fax

 WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 10/24/91
Address	: ARTESIA, NM	Date Sampled	: 10/24/91
Lease	: MARY	Analysis No.	: 009
Well	: BATTERY		
Sample Pt.	: HEATER		

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH		5.5		
2. H ₂ S		0		
3. Specific Gravity		1.190		
4. Total Dissolved Solids		285759.5		
5. Suspended Solids				
6. Dissolved Oxygen				
7. Dissolved CO ₂				
8. Oil In Water				
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)				
11. Bicarbonate	HCO ₃	49.0	HCO ₃	0.8
12. Chloride	Cl	179133.0	Cl	5053.1
13. Sulfate	SO ₄	200.0	SO ₄	4.2
14. Calcium	Ca	28240.0	Ca	1409.2
15. Magnesium	Mg	6479.5	Mg	533.1
16. Sodium (calculated)	Na	71633.0	Na	3115.8
17. Iron	Fe	0.0		
18. Barium	Ba	25.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO ₃)		97200.0		

 PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
-----	-----	-----	-----	-----
1409 *Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0	0.8	65
----- /----->	CaSO ₄	68.1	4.2	283
533 *Mg -----> *SO ₄	CaCl ₂	55.5	1404.2	77920
----- <----- /	Mg(HCO ₃) ₂	73.2		
3116 *Na -----> *Cl	MgSO ₄	60.2		
-----	MgCl ₂	47.6	533.1	25377
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0		
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0		
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4	3115.8	182089
BaSO ₄ 2.4 mg/L				

REMARKS:

----- L. MALLETT / MLAB / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT

Permian Treating Chemicals

WATER ANALYSIS REPORT



SAMPLE

Oil Co. : Yates Petroleum
 Lease : Lost Tank "AIS" St.
 Well No.: # 7
 Location:
 Attention:

Date Sampled : 20-October-2003
 Date Analyzed: 03-November-2003
 Lab ID Number: Nov0303.001- 10
 Salesperson :

File Name : F:\ANALYSES\Nov0303.001

ANALYSIS

- 1. Ph 5.720
- 2. Specific Gravity 60/60 F. 1.218
- 3. CaCO3 Saturation Index 2.449
 @ 80F
 @140F 2.889

Dissolved Gases

- 4. Hydrogen Sulfide Not Present
- 5. Carbon Dioxide Not Determined
- 6. Dissolved Oxygen Not Determined

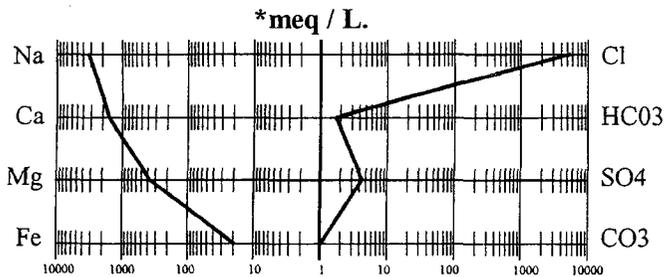
Cations

		<u>MG/L.</u>	<u>EQ. WT.</u>	<u>*MEQ/L</u>
7. Calcium	(Ca++)	31,062	/ 20.1 =	1,545.37
8. Magnesium	(Mg++)	4,315	/ 12.2 =	353.69
9. Sodium	(Na+) (Calculated)	71,091	/ 23.0 =	3,090.91
10. Barium	(Ba++)	Below 10		

Anions

11. Hydroxyl	(OH-)	0	/ 17.0 =	0.00
12. Carbonate	(CO3=)	0	/ 30.0 =	0.00
13. Bicarbonate	(HCO3-)	103	/ 61.1 =	1.69
14. Sulfate	(SO4=)	200	/ 48.8 =	4.10
15. Chloride	(Cl-)	176,960	/ 35.5 =	4,984.79
16. Total Dissolved Solids		283,731		
17. Total Iron	(Fe)	338	/ 18.2 =	18.54
18. Total Hardness as CaCO3		95,335		
19. Resistivity @ 75 F. (Calculated)		0.001	/cm.	

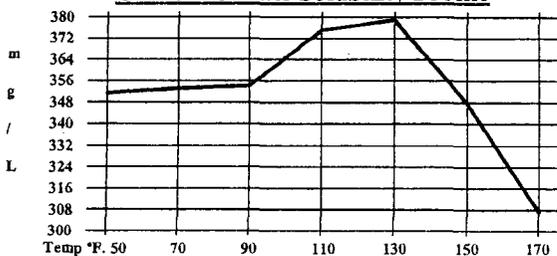
LOGARITHMIC WATER PATTERN



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L =	mg/L.
Ca(HCO3)2	81.04		1.69	137
CaSO4	68.07		4.10	279
CaCl2	55.50	1,539.59		85,447
Mg(HCO3)2	73.17		0.00	0
MgSO4	60.19		0.00	0
MgCl2	47.62	353.69		16,843
NaHCO3	84.00		0.00	0
NaSO4	71.03		0.00	0
NaCl	58.46	3,091.51		180,730

Calcium Sulfate Solubility Profile





ATTACHMENT E

COMPLETE THIS SECTION ON DELIVERY

For delivery instructions
OF

- 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.

Postage
Certified Mail

Return Receipt for Endorsement Required
Restricted Delivery for Endorsement Required

Total Postage
Sent To
P.O.
Street, Apt. No. or P.O. Box No.
City, State, ZIP

1. Article Addressed to:

Penroc Oil Corporation
P.O. Box 2769
Hobbs, NM 88241

Mary AIV St #1

2. Article Number
(Transfer from service label)

7006 0100 0003 9638 6896

Signature: *[Handwritten Signature]*

B. Received by (Printed Name): *Argie Alex*

C. Date of Delivery: *APR 24 2008*

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

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

4. Restricted Delivery? (Extra Fee) Yes

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Hobbs, NM 88241

Gentlemen;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV St #1 located in Unit G, Section 36-T21S-R31E of Eddy County New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4165.

Sincerely,

[Handwritten Signature: Margrethe F. Hotter]

Margrethe F. Hotter
Area Engineer

Enclosure

U.S. Postal Service
CERTIFIED MAIL
 (Domestic Mail Only, Not for International Mail)
 For delivery information visit www.usps.com
OFFICE

Postage \$ _____
 Certified Fee _____
 Return Receipt Fee (Endorsement Required) _____
 Restricted Delivery Fee (Endorsement Required) _____

Total Fee _____

Sent To: Jim Amos
 Bureau of Land Management
 620 E. Greene Street
 Carlsbad, New Mexico 88220-6292

Street, Apt. or P.O. Box: 620 E. Greene Street
 City, State, ZIP+4: Carlsbad, New Mexico 88220-6292

PS Form 3800, June 2002

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:

Jim Amos
 Bureau of Land Management
 620 E. Greene Street
 Carlsbad, New Mexico 88220-6292

Mary AIV St #1

2. Article Number (Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Agent
 Addressee

B. Received by (Printed Name)
 K. S. S. S. S.

C. Date of Delivery
 4-24

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

7006 0100 0003 9638 6902

S. P. YATES
 CHAIRMAN OF THE BOARD
 JOHN A. YATES
 PRESIDENT
 PEYTON YATES
 EXECUTIVE VICE PRESIDENT
 W. D. G. PATTERSON
 SECRETARY
 ENNIS G. KINSEY
 TREASURER

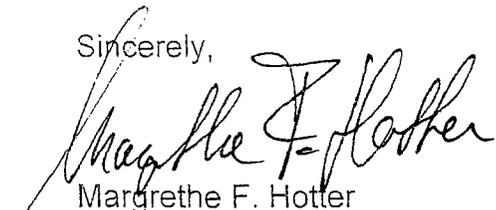
PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

620 E. Greene St
 Carlsbad, New Mexico 88220-6292

Dear Mr. Amos,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV St #1 located in Unit G, Section 36-T21S-R31E of Eddy County New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4165.

Sincerely,

 Margrethe F. Hotter
 Area Engineer

Enclosure

U.S. Postal Service
CERTIFIED MAIL
 Domestic Mail Only
 For delivery information
OFFICIAL

Postage \$ _____
 Certified Fee _____
 Return Receipt Fee (Endorsement Required) _____
 Restricted Delivery Fee (Endorsement Required) _____
 Total \$ _____

Sent To: Mr Pete Martinez
 State of New Mexico
 Commission of Public Lands
 P.O. Box 1148
 Santa Fe, NM 87504-1148

Street, Apt. or PO Box _____
 City, State _____

PS Form 3811, February 2004

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:
 Mr Pete Martinez
 State of New Mexico
 Commissioner of Public Lands
 P.O. Box 1148
 Santa Fe, NM 87504-1148
Mary AIV #1

2. Article Number
 (Transfer from service label) **7004 1350 0005 3317 9727**

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X *[Signature]*
 Agent
 Addressee

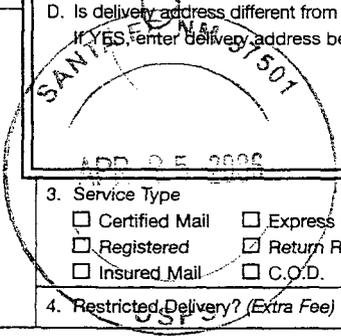
B. Received by (Printed Name) _____ C. Date of Delivery _____

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

S. P. YATES
 CHAIRMAN OF THE BOARD
 JOHN A. YATES
 PRESIDENT
 PEYTON YATES
 EXECUTIVE VICE PRESIDENT
 ANDY G. PATTERSON
 SECRETARY
 DENNIS G. KINSEY
 TREASURER



Apr PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Mr. Pete Martinez
 State of New Mexico
 Commissioner of Public Lands
 P.O. Box 1148
 Santa Fe, New Mexico 87504-1148

Re: Mary AIV State #1

Dear Mr. Martinez:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV State #1 located in Unit G, Section 36-T21S-R31E of Eddy County, New Mexico.

If you have any questions or need additional information, please call me at (505) 748-4165.

Sincerely,

Margrethe F. Hotter

Margrethe F. Hotter
 Area Engineer

Enclosures

CERTIFIED MAIL
 (Domestic Mail Only)
 For delivery information
OFF
 Postage
 Certified Fee
 Return Receipt Fee (Endorsement Required)
 Restricted Delivery Fee (Endorsement Required)
 Total Post
 Sent To
 P.O. Box
 Street, Apt. or PO Box
 Houston,
 City, State,
 PS Form 3800, June 2002

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:
 Pogo Producing Company
 P.O. Box 2504
 Houston, TX 77252-2504
 Mary AIV St #1

COMPLETE THIS SECTION ON DELIVERY
 A. Signature
 X **GEE** Agent Addressee
 B. Received by (Printed Name) **APR 27 2006** Date of Delivery
 D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:
 3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.
 4. Restricted Delivery? (Extra Fee) Yes

2. Article Number **7006 0100 0003 9638 6889**
 (Transfer from service label)

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Houston, TX 77252-2504

Gentlemen;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV St #1 located in Unit G, Section 36-T21S-R31E of Eddy County New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4165.

Sincerely,


 Margrethe F. Hotter
 Area Engineer

Enclosure

S. P. YATES
 CHAIRMAN OF THE BOARD
 JOHN A. YATES
 PRESIDENT
 PEYTON YATES
 EXECUTIVE VICE PRESIDENT
 RANDY G. PATTERSON
 SECRETARY
 DENNIS G. KINSEY
 TREASURER

Affidavit of Publication

NO. 19239

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

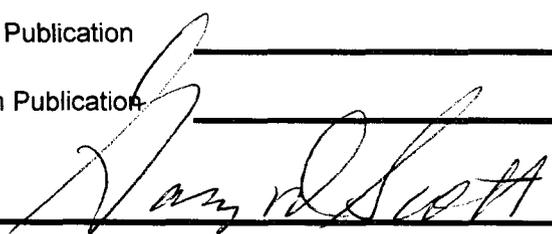
was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutiv week/days on the same day as follows:

First Publication April 30 2006

Second Publication _____

Third Publication _____

Fourth Publication _____



Subscribed and sworn to before me this

2nd Day May 2006



Notary Public, Eddy County, New Mexico

My Commission expires September :23, 2007

Copy of

LEGAL NOTICE

Legal Notice
Yates Petroleum Corporation, 105 south Fourth 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 an injection well. The proposed well the Mary AIV St #1 located 1980' FNL & 1980' FEL, Unit G, Section 36, Township 21 South, Range 31 East of Eddy County, New Mexico, will be used for saltwater disposal. Produced waters from the Delaware Sand will be re-injected into the Delaware Sand at a depth of 6614'-8325' with a maximum pressure of 1323 psi and a maximum rate of 8800 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472, within 15 days. Additional information can be obtained by contacting Margrethe Hotter at (505) 748-4165.

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Mary AIV St #1
Unit 6, Section 36
T21S-R31E
Eddy County, New Mexico

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.

Ray Podany
Geologist
Yates Petroleum Corporation
Published in the Artesia Daily Press, Artesia, N.M. April 30, 2006.

Legal 19239

Attachment G

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Mary AIV St #1
Unit 6, Section 36 T21S-R31E
Eddy County, New Mexico

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.



Ray Podany
Geologist
Yates Petroleum Corporation

4/21/2006
Date

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

April 21, 2006

William Jones
New Mexico Energy & Minerals Department
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Jones,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV St #1 located in Unit G, Section 36-T21S-R31E of Eddy County New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4165.

Sincerely,


Margrethe F. Hotter
Area Engineer

Enclosure

2006 APR 21 8 PM 12 43

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

MAY 26 PM 12 51

May 24, 2006

Will Jones
State of New Mexico
OIL CONSERVATION DIVISION
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: Mary AIV State #1

Dear Mr. Jones,

Please find enclosed the additional information that you requested for the C-108 for the Mary AIV State #1.

If you have any questions or need additional information, please call me at (505) 748-4361.

Sincerely,

Debbie Chavez
Engineering Technician

Enclosures

May 23, 2006

To: Margrethe Hotter

From: George Freeman, Reservoir Engineering Supervisor, Yates Petroleum Corp.
George Freeman

Copies: Pinson McWhorter, Dave Boneau, Carolyn Yates, Ray Stall

Subject: Reservoir Engineering Comments on Proposed SWD in Mary AIV St. #1

Cumulative production through March 2006 from the Mary AIV St. #1 is 61,000 stbo, 59,000 mcf and 229,000 bw, which represents a reservoir volume of 320,000 bbl. Future water injection into the productive interval up to this cumulative amount could be considered to be refilling the volume drained by the same well. Cumulative water injection above this amount would be expected to partially fill the volume drained by other surrounding wells.

Yates Petroleum Corporation operates the six wells which directly offset the Mary #1. These wells all produce from the same intervals proposed for SWD. The cumulative production from the six wells is 232,000 stbo, 705,000 mcf and 1,500,000 bw, equivalent to 2,100,000 bbl. reservoir volume.

Water injection into the drainage area of the six wells would increase the reservoir pressure and cause the total fluid production rates to increase. The effect that this would have on the ultimate oil and gas recovery is uncertain but would probably be positive, based on a limited amount of special core analysis data that shows a favorable mobility ratio. Eventually the water cuts of the producing wells would increase.

Since the water that is proposed for disposal is produced from the same formation, water compatibility should not be an issue.

Please let me know if you need more information.

GHF

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Friday, May 19, 2006 4:21 PM
To: 'Margrethe Hotter'
Cc: Ezeanyim, Richard, EMNRD; Barton, Van, EMNRD
Subject: RE: SWD application: Mary AIV State Well No. 1 30-015-26625

Tracking: **Recipient** **Read**
 'Margrethe Hotter'
 Ezeanyim, Richard, EMNRD Read: 5/22/2006 8:25 AM
 Barton, Van, EMNRD

Hello Margrethe:

Sorry to have used the term "waste" water. I have been around government too long I think. EPA calls salt water disposal, disposal of oil field waste water. I know you are only re-injecting the yukky Delaware water.

The reason I am asking for a reservoir engineer's opinion on this is one of my duties here is to prevent waste of oil and gas in the reservoirs. If the Delaware is producing in this area and you are wanting to inject water into the Delaware then it is possible the salt water will cause "waste of oil and gas resources". Reservoir engineers look at not only the comparison of intervals that are being used (is the injection perforations at the same depths as the producing intervals in offset wells) but also they look at mobility ratios which compares the permeability and viscosity of the injected water with the permeability and viscosity of the oil in the Delaware. In other words, will the injected water, "water-out" the Delaware or will it be neutral or will it actually help sweep oil to one of the producing wells?

Heads up on another subject: Please have one of your field people check the bradenhead of this well for any continuous flow. Since you have an offset injection well in the Bell Canyon (permitted in 1992) that may be hitting your wellbore and moving up, it is possible that you have a bradenhead problem, even if it is not your fault.

I will write the permit such that any problem of the bradenhead be solved prior to injection.

Thank You,

William V. Jones Engineering Bureau Oil Conservation Division Santa Fe

From: Margrethe Hotter [mailto:mhotter@YPCNM.COM]
Sent: Friday, May 19, 2006 4:01 PM
To: Jones, William V., EMNRD
Subject: RE: SWD application: Mary AIV State Well No. 1 30-015-26625

Hello Mr. Jones,

I am sorry, but I have to bother you with a question.

In your question to our reservoir engineer you ask:" what effect injecting waste water into....".

I have been asked to clarify with you, if you with waste water mean produced water? This is the first water disposal well I am involved with so I may have not been too clear. The plan is to bring water in from some of our other leases in the area to dispose into this well, but all the produced water will be from the same Delaware formation. We will not take water from other operators (it is hard enough finding enough disposal for our own Delaware water) nor will we dispose water from other formations.

5/24/2006

If you have time to clarify that I would truly appreciate it.

Have a wonderful weekend!!!!

Regards,

Margrethe Hotter

-----Original Message-----

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]

Sent: Wednesday, May 10, 2006 3:16 PM

To: Margrethe Hotter

Subject: RE: SWD application: Mary AIV State Well No. 1 30-015-26625

Margrethe:

Thank you for your immediate attention to this.

Also, thanks for the explanation of the Bell Canyon - I am not experienced in the Delaware, so any new knowledge is great.

I will wait for your proof of notice and engineer's explanation.

Regards,

William V. Jones

Engineering Bureau

Oil Conservation Division

Santa Fe

From: Margrethe Hotter [mailto:mhotter@YPCNM.COM]

Sent: Wednesday, May 10, 2006 1:57 PM

To: Jones, William V., EMNRD

Cc: Ezeanyim, Richard, EMNRD; Duran-Saenz, Theresa, EMNRD; Arrant, Bryan, EMNRD; Sanchez, Daniel J., EMNRD

Subject: RE: SWD application: Mary AIV State Well No. 1 30-015-26625

Hello Mr. Jones,

1), 2), 3a)

I will find who the nearest Potash Lessee is, notify them and send proof of notice to Santa Fe. I will at the same time send a CBL on the 5 ½" casing and an explanation letter from our reservoir engineer concerning the effect injecting produced water into the formation.

3b).

The interval 4570-4700 is in the Bell Canyon formation. We have never produced from or injected into this interval. Penroc's disposal well that is within the AOI, the Lost Tank SWD #1 got the approval to dispose into this interval, 4615'-6012' on May 27th 1992 (Administrative order SWD-475), but according to the public information available they only perforated and is injecting into the interval 5296'-6012'.

Thank you,

Margrethe Hotter

-----Original Message-----

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]

Sent: Wednesday, May 10, 2006 9:55 AM

To: Margrethe Hotter

Cc: Ezeanyim, Richard, EMNRD; Duran-Saenz, Theresa, EMNRD; Arrant, Bryan, EMNRD; Sanchez, Daniel J., EMNRD

Subject: SWD application: Mary AIV State Well No. 1 30-015-26625

Hello Ms. Hotter:

The Division received your application on 8 May 2006, reviewed the application and has the following comments and requests:

- 1) This location is in the "Potash Area" as defined in division order R-111-P. You have notified the BLM already. However, since this well is being proposed for conversion to injection, please notify the nearest Potash Lessee of this fact. Send proof of that notice to Santa Fe.
- 2) Please check for a temperature survey or CBL on the 5-1/2 inch casing. If one exists, please send a "copy" to the Santa Fe Office.
- 3) Consult your geologist or engineer for the following:
 - a) Yates operates several Delaware producing wells in this general interval within one half mile. Please send an explanation (signed by a reservoir engineer) of what effect injecting waste water into this same gross interval will have on that production.
 - b) There is an interval from approximately 4570 to 4700 in this well that seems to have different log characteristics: higher porosity, lower short resistivity, some washouts. What formation is over that depth and is it ever produced or injected into? In this well and in most of the AOR wells, that interval is above the cement top.

As per Division rules, the 15 day suspense period must start after the application is considered "complete".

Comment for Bryan:

Looks like the mud log in this imaged well file may belong to another well? There is definitely a resistivity log in this well file that appears to be from a different well.

Thank You,

William V. Jones

Engineering Bureau

Oil Conservation Division

Santa Fe

U.S. Postal Service
CERTIFIED MAIL
 (Domestic Mail Only, No Inland Postage)
 For delivery information visit us at www.usps.com
OFFICE

Postage \$ _____
 Certified Fee _____
 Return Receipt Fee (Endorsement Required) _____
 Restricted Delivery Fee (Endorsement Required) _____
 Total Postage and Fees \$ _____

Sent To
 Tom McGuire
 Intrepid Mining
 P.O. Box 101
 Carlsbad, New Mexico

Street, Apt. or PO Box
 City, State

PS Form 3811, June 2002

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:
 Tom McGuire
 Intrepid Mining NM LLC
 P.O. Box 101
 Carlsbad, New Mexico 88220

2. Article Number
 (Transfer from service label)
 7006 0100 0003 9638 6872

COMPLETE THIS SECTION ON DELIVERY

A. Signature
Mary AIV St #1

B. Received by (Printed Name)
 Date of Delivery
 MAR 15 2008
 CARLSBAD, NM

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

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

4. Restricted Delivery? (Extra Fee) Yes

P. YATES
 CHAIRMAN OF THE BOARD
 W. A. YATES
 PRESIDENT
 J. TON YATES
 VICE PRESIDENT
 J. G. PATTERSON
 SECRETARY
 NIS G. KINSEY
 TREASURER

Tom McGuire
 Intrepid Mining NM LLC
 P.O. Box 101
 Carlsbad, New Mexico 88220

Dear Mr. McGuire,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation Mary AIV St #1 located in Unit G, Section 36-T21S-R31E of Eddy County New Mexico.

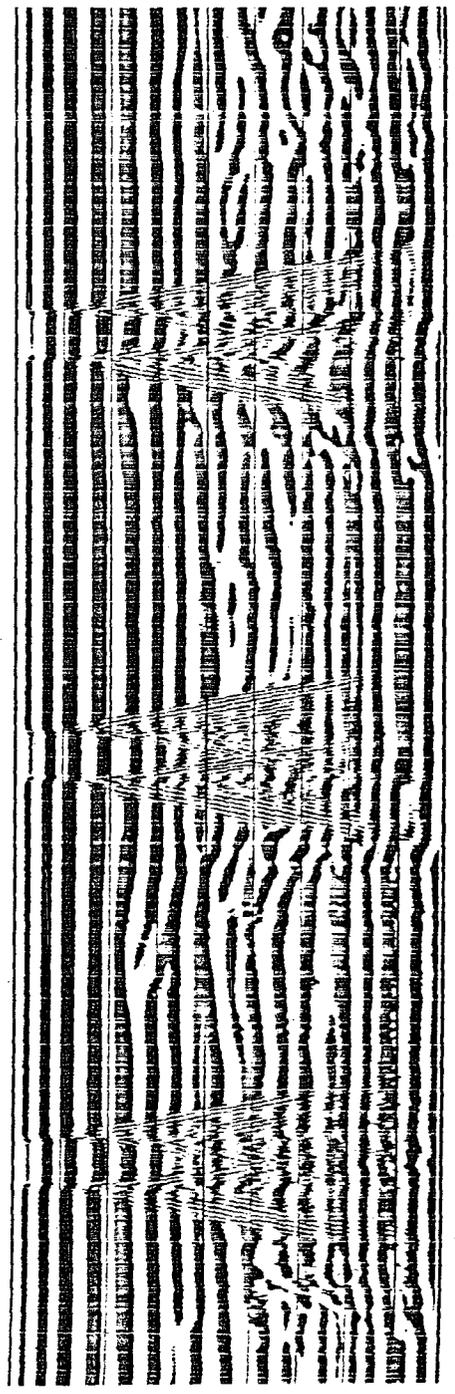
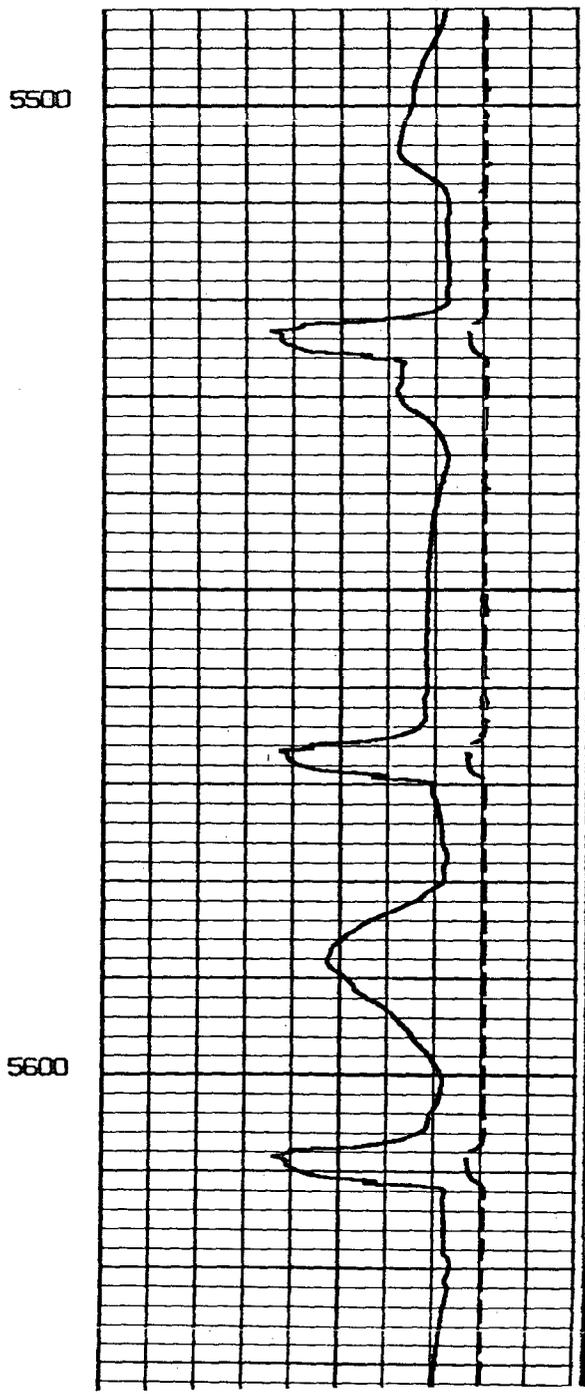
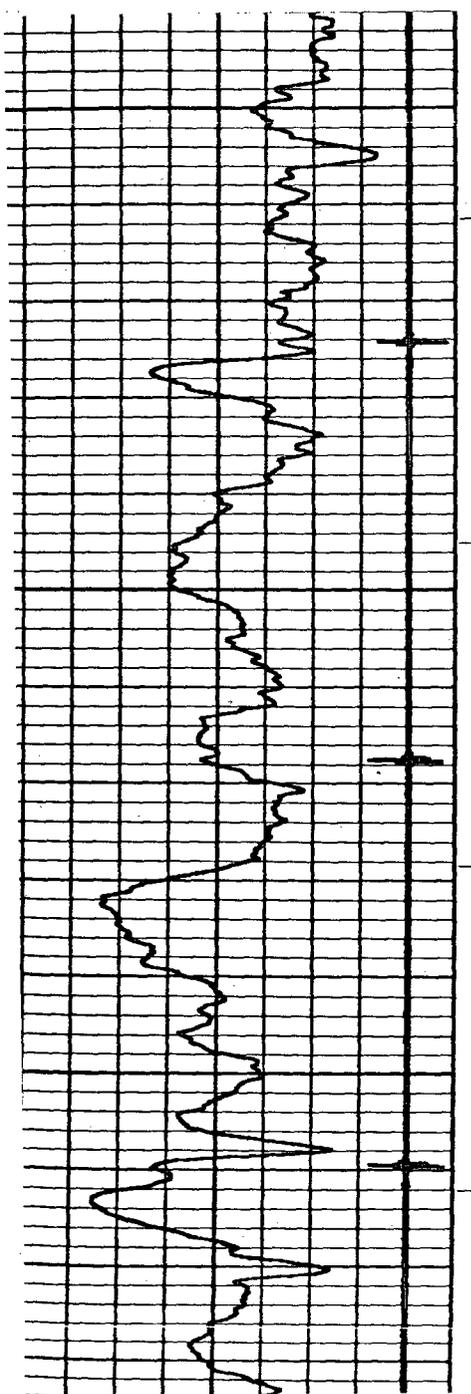
Should you have any questions, please feel free to contact me at (505) 748-4165.

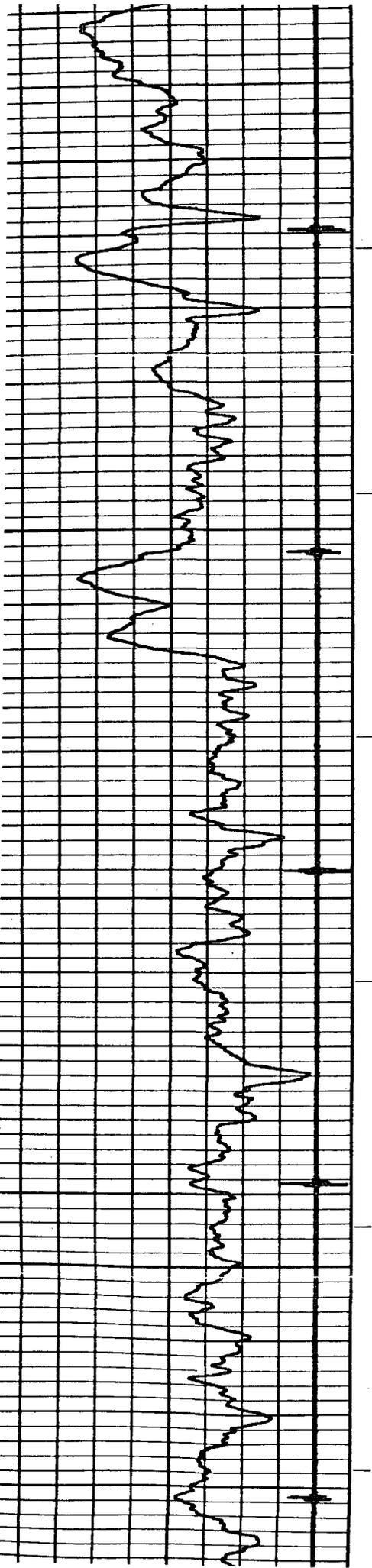
Sincerely,

Margrethe F. Hotter
 Margrethe F. Hotter
 Area Engineer

Finish Cement Bond Log	Volume _____ bbls.	Tool Type CS 3
Preceding fluid _____	Pipe reciprocated during Pumping: Yes _____ No _____	
Returns: Full _____ Partial _____ None _____	Pipe reciprocated after plug down: Yes _____ min., No _____	

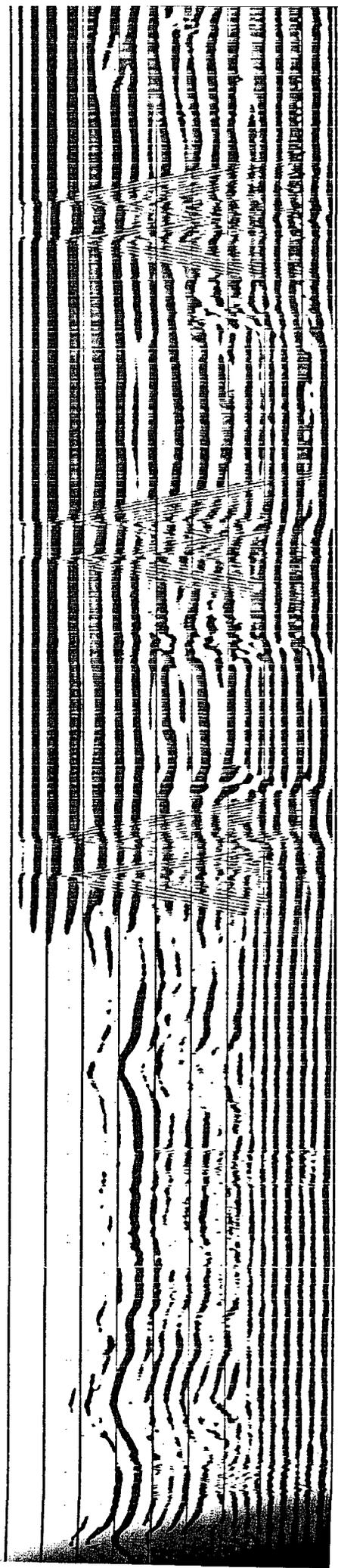
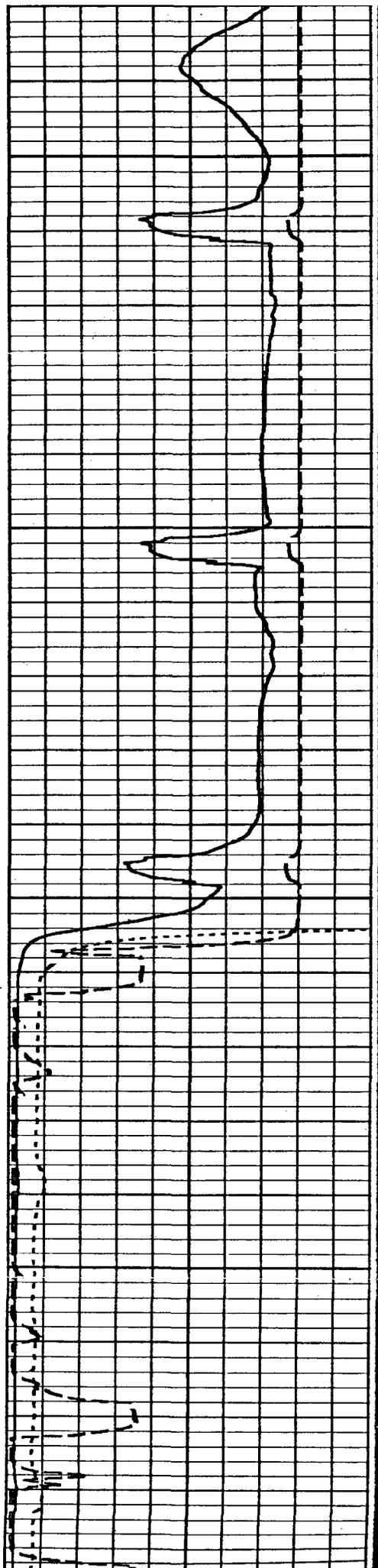
0 GAMMA RAY 100 100 API-UNITS/DIV.	Depth	AMPLITUDE CURVE		200 MICRO SECONDS 1200
		0	MILLIVOLTS 100	
		0	X5	20
CASING COLLAR ↘	60 SEC. TIME MARKS	410	TRANSIT TIME	210
				ALL READINGS ARE ON TRUE DEPTH

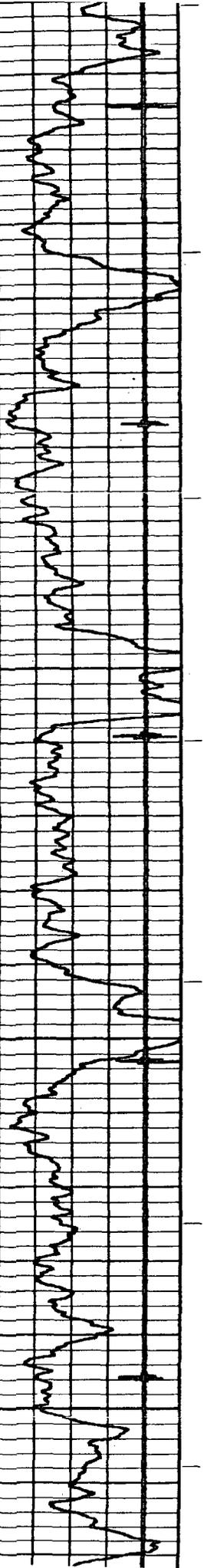




5600

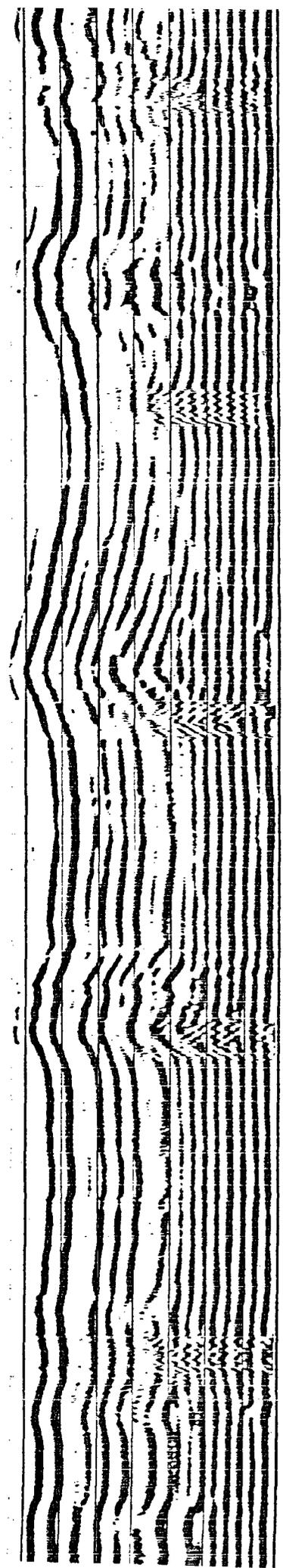
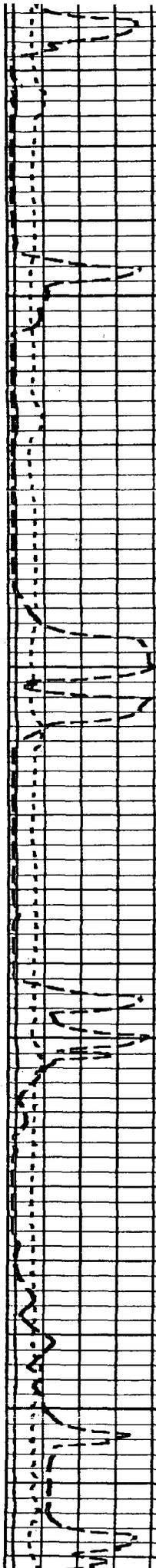
5700





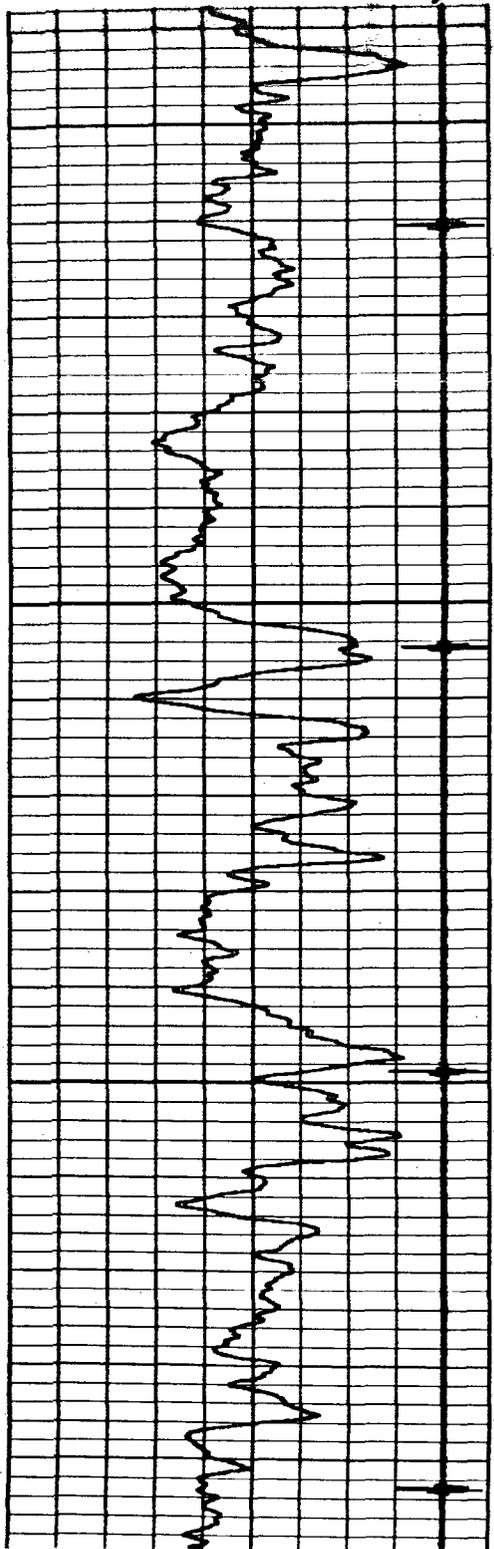
5900

6000



↑ LOGGED w/ 1000,

0 GAMMA RAY 100	Depth	AMPLITUDE CURVE	
10 API-UNITS/DIV.		MILLIVOLTS 100	
CASING COLLAR →	60 SEC TIME MARKS	0 X5 20	200 MICRO SECONDS
LOGGED w/ OPSI		4/0 TRANSIT TIME 2/0	ALL READINGS ARE ON TRUE DEPTH

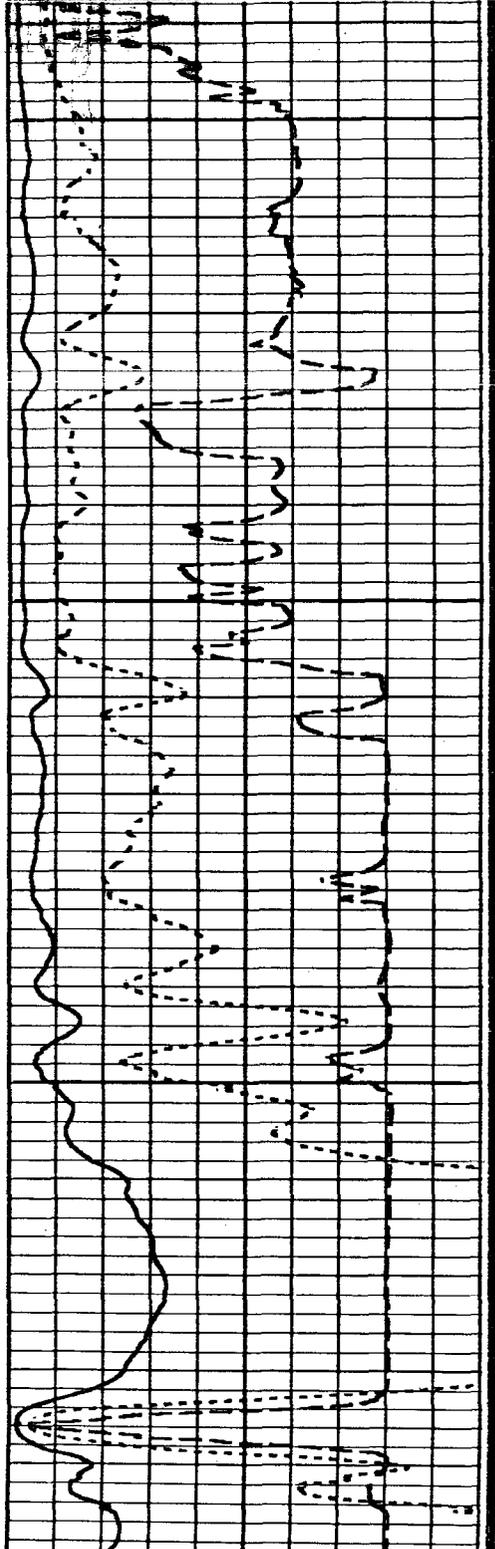


8200

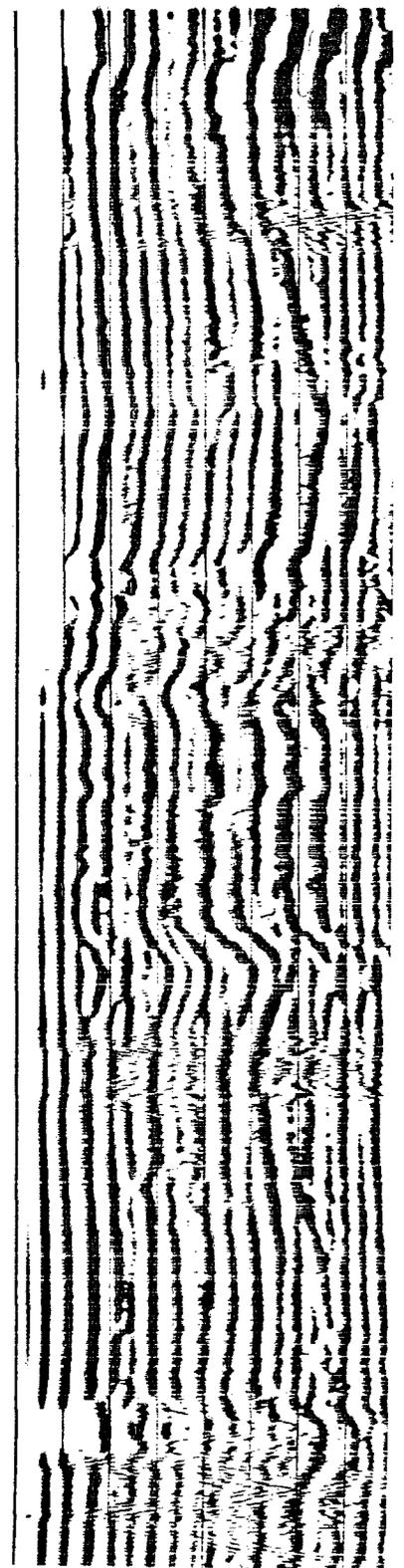
11' DEEP

8300

REPEAT SECTION



11' DEEP



Injection Permit Checklist

SWD Order Number 1030 Dates: Division Approved _____ District Approved _____

Well Name/Num: Mary ATV State #1 Date Spudded: 1/31/91

API Num: (30-) 015-26625 County: Eddy

Footages 1980 FNL 1980 FEL Sec 36 Tsp 21S Rge 31E

Operator Name: Yates Petroleum Corporation Contact Margretha Hotter

Operator Address: 105 South 4th St, ARTESIA NM 88210

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	17 1/2 13 3/8	852	800	CIRC
Intermediate	11"	858	1700	CIRC
Production	7 7/8 5 1/2	8470	260/410 = 670	3704' CBL
Last DV Tool		7400		
Open Hole/Liner				
Plug Back Depth				

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

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

*18614
134728*

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash			
Capitan Reef			
In Reef, Cliff House, Etc:			
Formation Above			
Top Inj Interval	6614	Cherry Paloma	Yes
Bottom Inj Interval	8325	Brushy	Yes
Formation Below		Bone Springs	

all Yates

1323 PSI Max. WHIP
N Open Hole (Y/N)
N Deviated Hole (Y/N)

Water Analysis Included (Y/N): Fresh Water None Injection Zone: _____ Disposal Waters Yes

Affirmative Statement Included (Y/N): Yes

Surface Owner Yates Mineral Owner(s) _____

Checks (Y/N): Newspaper Notice Well Table Adequate Well Table

Adequate Certified Notice: Surface Owner AOR Owners CID/Potash/Others

AOR Num Active Wells 8 Repairs? _____ Producing in Injection Interval Yes

AOR Number of P&A Wells 0 Diagrams Included? _____ Repairs Required? _____

*Log in my File
Mudlog
AV 45!*

Data to Generate New AOR Table New Table Generated? (Y/N) N

	STR	E-W Footages	N-S Footages
Wellsite			
Northeast			
North			
Northwest			
West			
Southwest			
South			
Southeast			
East			

Conditions of Approval:
 1. Disclaimer of Damage to Prod. Del. in these wells
 2. Send T5 or CBL or Calc
 3. _____

RBDMS Updated (Y/N) _____

UIC Form Completed (Y/N) _____

This Form completed _____