

124838178 SWD

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

August 24, 2001

David Catanach
State of New Mexico
OIL CONSERVATION DIVISION
1220 S. St. Francis Drive
Santa Fe, NM 87505

Dear Sir:

(30-015-10414)

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes ~~SWD~~ #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.
ARE State Com

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

Sam Brandon
Operations Engineer

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Yates Petroleum Corporation
ADDRESS: 105 South Fourth Street, Artesia, NM 88210
CONTACT PARTY: Sam Brandon PHONE: (505) 748-4281
- 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: Sam Brandon TITLE: Operations Engineer
SIGNATURE: Sam Brandon DATE: 8-30-01

* 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: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

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

August 24, 2001

Mr. Tim Gum
State of New Mexico
OIL CONSERVATION DIVISION
1301 West Grand
Artesia, NM 88210

Dear Mr. Gum:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Archimedes SWD #1
18-21S-24E
Eddy County, New Mexico

- I. The purpose of completing this well is for disposal of produced Canyon water into the Devonian.
- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Sam Brandon (505) 748-4281
- III. Well Data: See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B.
- VI. There are no wells within the area of review penetrating the proposed injection zone.
- VII.
 1. Proposed average daily injection volume approximately 20,000 BWPd.
Maximum daily injection volume approximately 25,000 BWPd.
 2. This will be a closed system.
 3. Proposed average injection pressure: 1000 psi.
Proposed maximum injection pressure: 2000 psi.
 4. Sources of injected water would be produced water from the Canyon.
(Attachment C)
 5. See Attachment C.
- VIII. The injection interval is Devonian from 10,600'-10,800'.

Fresh water zones overlie the proposed injection formation at depths to approximately 1100 feet.
- IX. The proposed disposal interval may be acidized and acid fraced with 15-20% HCL acid.

- X. Logs were filed at your office when the well was drilled. Any new logs run after completing will also be submitted to your office.
- XI. There are no windmills that exist within a one mile radius of the subject location. One well produces “fresh” water from a well approximately 1.25 miles from the proposed SWD well. A chemical analysis of the water from this well is attached. (Attachment D)
- XII. Available engineering and geologic data have been examined and no evidence of open faults or hydrologic connection between the disposal zone and any underground sources of drinking water have been found.
- XIII. Proof of notice.
 - A. Certified letters sent to the surface owners and offset operators are attached. (Attachment E)
 - B. Copy of legal advertisement attached. (Attachment F)
- XIV. Certification is signed.

**Yates Petroleum Corporation
Archimedes SWD #1
18-21S-24E**

Attachment A

Page 1

III. Well Data

- A. 1. Lease Name/Location
Archimedes SWD #1
18-21S-24E
1650' FSL & 1980' FEL
2. Casing Strings:
a. Proposed well condition:
13 3/8" 48#, H40 ST&C at 356'
9 5/8" 36 & 40# at 3188'
7"23# J-55, 26# & 23# N-80 at 9751'
4 1/2" Flush joint liner (proposed) 9250' to 11000'.
4 1/2" Plastic coated tubing (proposed) set at 9250' ±
3. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 9250'±.
- B. 1. Injection Formation: Devonian
2. Injection interval into cased hole perforations 10,600'-10,800'.
3. Well was originally drilled as a Morrow well with perforations at 9521'-9599'. Additional zones were perforated at 9086'-9090', 8032'-8069' and 7550'-7812'. All open perforations will be cement squeezed and pressure tested to ensure complete shut-off.
4. Next higher (shallower) oil or gas zone within 2 miles – Morrow.
Next lower (deeper) oil or gas zone within 2 miles – None.

WELL NAME: Archimedes JWD #1

FIELD: Indian Basin

LOCATION: Quad J 16S0' FSL 19B0' F66 Sec 18-21S-24E

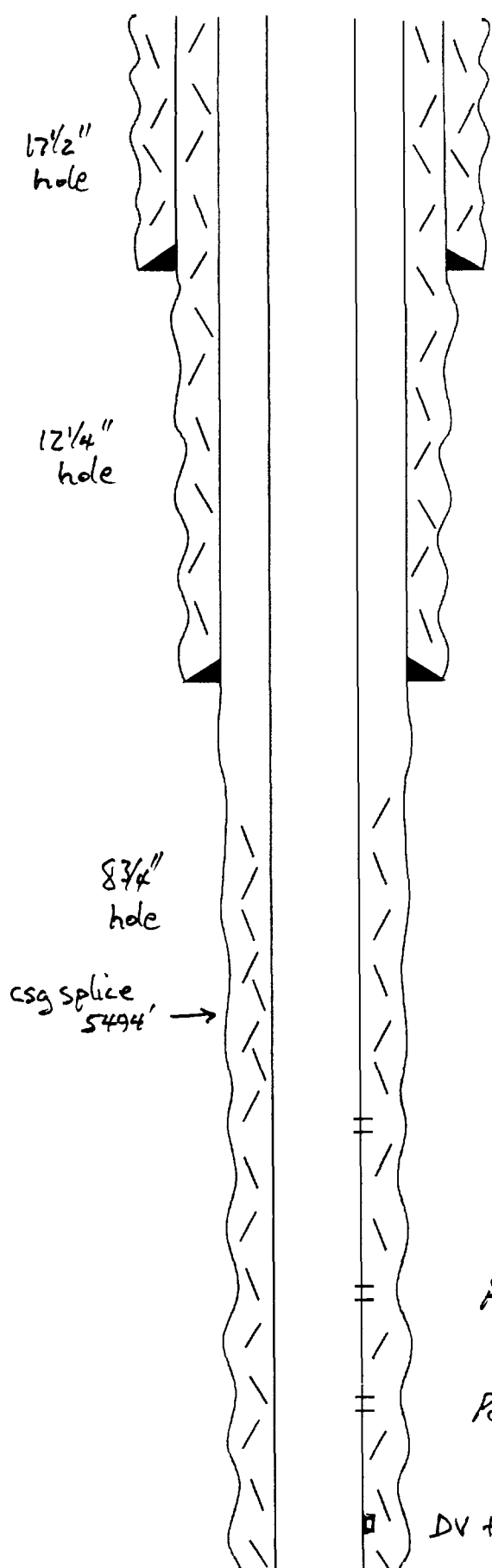
GL: 3811' ZERO: KB: 3838'

SPUD DATE: COMPLETION DATE:

COMMENTS:

CASING PROGRAM

Before



13 3/8" @ 356'

9 5/8" @ 3188 w/1300sx

Perfs 7550'-7812' - Partially squeezed, 7550'-76' are open

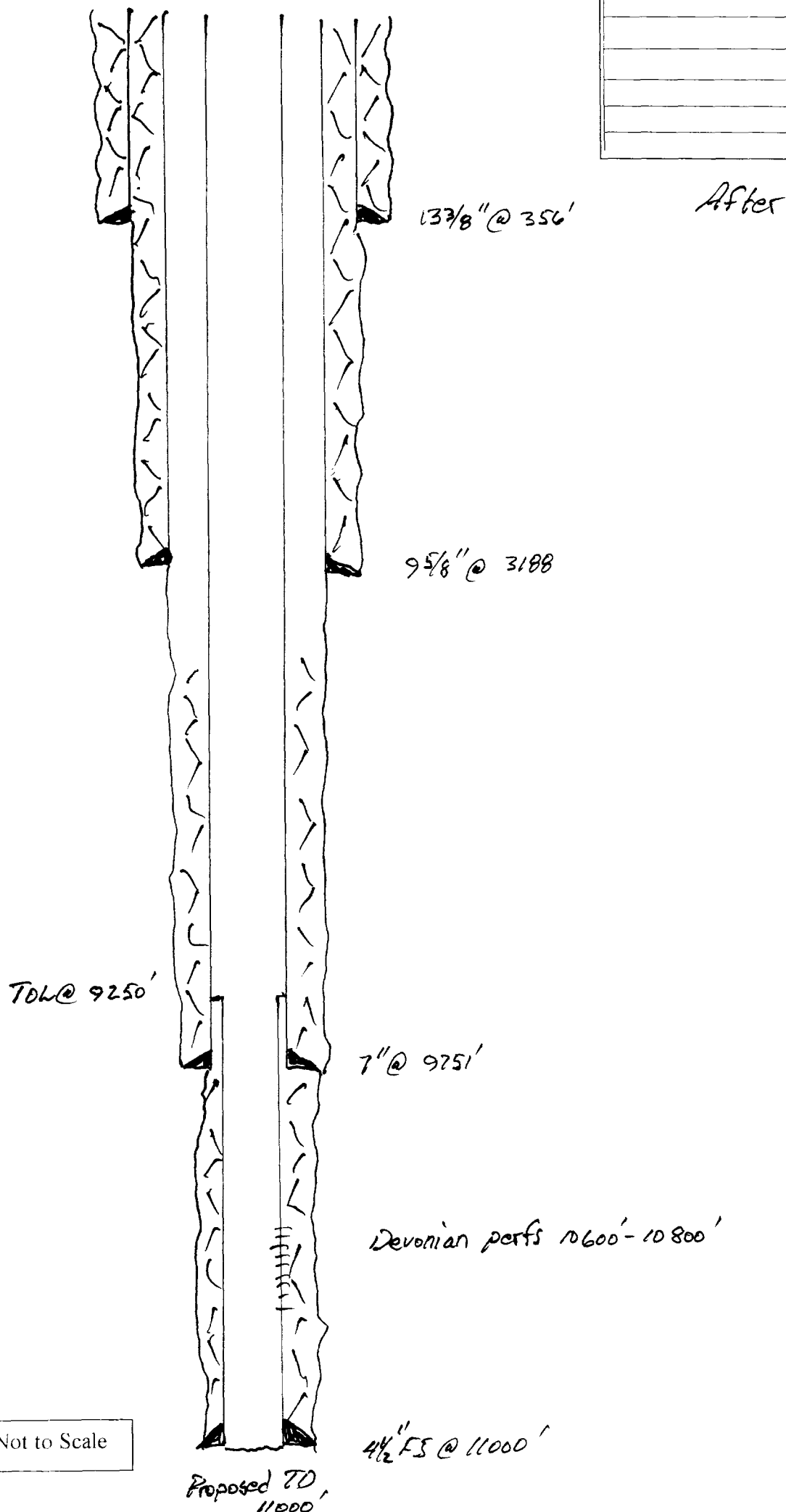
Perfs @ 8032'-8069'

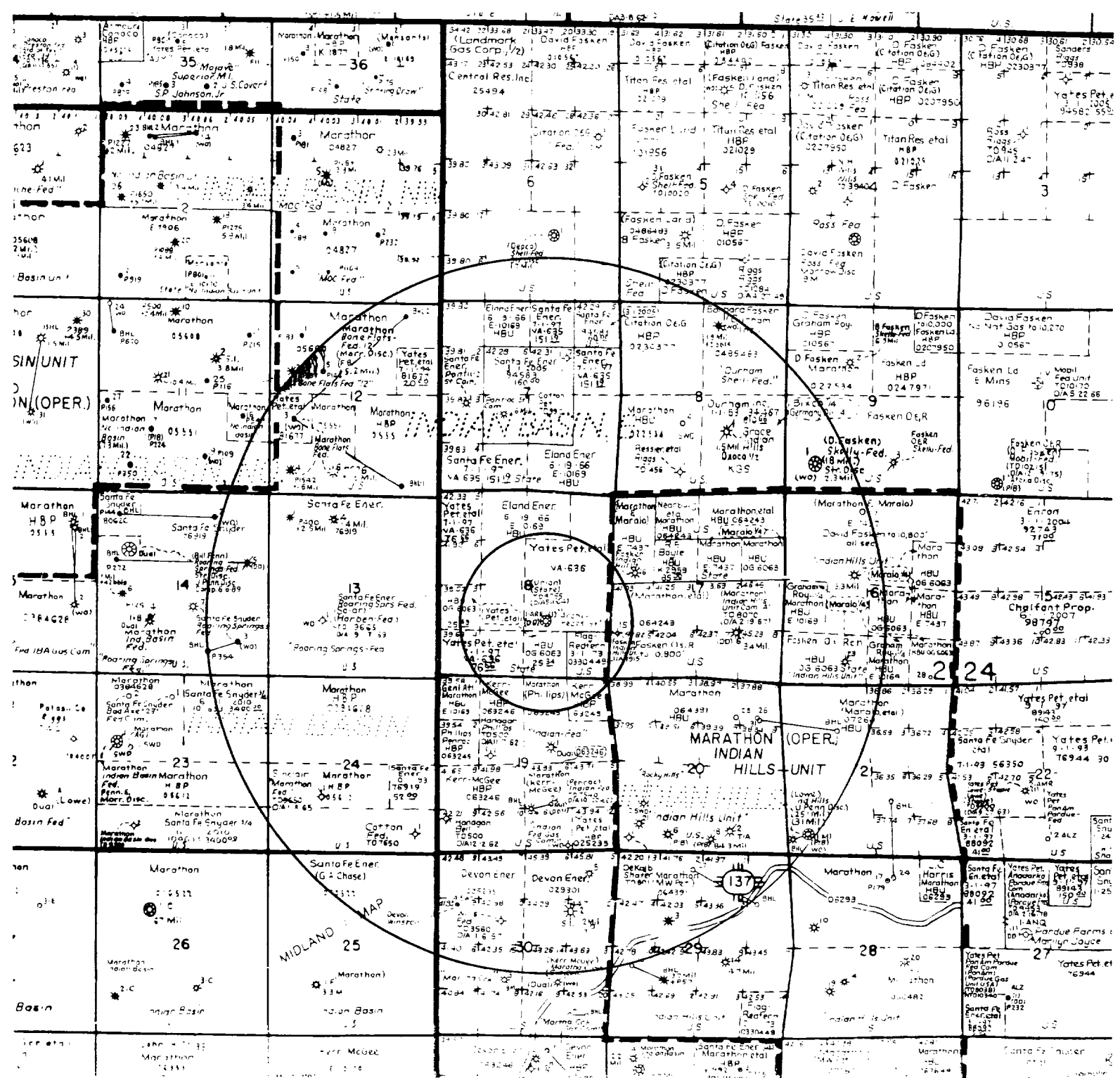
Perfs: 9086'-9090'

DV too @ 9220'

WELL NAME: Archimedes SWD #1 FIELD: Indian Basin
 LOCATION: Unit 5 1650' FSL & 1980' FEL Sec 18-21S-24E
 GL: 3811' ZERO: _____ KB: 3038'
 SPUD DATE: _____ COMPLETION DATE: _____
 COMMENTS: _____

CASING PROGRAM





YATES PETROLEUM CORPORATION
 ARCHIMEDES SWD #1
 PROPOSED SALT WATER DISPOSAL WELL
 SEC 18-T21S-R24E
 1650' FSL & 1980' FEL
 EDDY COUNTY, NEW MEXICO

Water Analysis Report from Petrolite Corporation

YATES PETROLEUM

HILLVIEW AHE
WELL #5

ARTESIA, NEW MEXICO

Summary			Analysis: 15311					
Anion/Cation Ratio	1.00		Anions	mg/L	meq/L	Cations	mg/L	meq/L
TDS (mg/L or g/m ³)	7,914		Chloride	2,300	64.9	Sodium	2,084	90.7
Density (g/cm ³ or tonne/m ³)	1.006		Bicarbonate	817	13.4	Magnesium	110	9.05
Chemical Treatment			Carbonate	0.00	0.00	Calcium	457	22.8
Sample Condition			Sulfate	2,136	44.5	Strontium	10.0	0.23
			Phosphate	N/A	N/A	Barium	0.05	0.00
Sampling Date	7/1/96		Borate	N/A	N/A	Iron	0.05	0.00
Sampled by			Silicate	N/A	N/A	Potassium	N/A	N/A
Submitted by	ANDY MILLER		Hydrogen Sulfide			Aluminum	N/A	N/A
Analysis Date	7/10/96		pH at time of sampling		6.90	Chromium	N/A	N/A
Sample analysis number	15311		pH at time of analysis			Copper	N/A	N/A
			pH used in Calculations		6.90	Lead	N/A	N/A
						Manganese	N/A	N/A
						Nickel	N/A	N/A

Predictions of Saturation Index and Amount of Scale in lb/1000bbl												
Pressure (psi)		Temp.	Calcite CaCO3		Gypsum CaSO4.2H2O		Anhydrite CaSO4		Celestite SrSO4		Barite BaSO4	
CO2	Total	°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
1.18	0.00	80	0.45	50.3	-0.23		-0.30		-0.20		0.65	0.02
1.54	0.00	100	0.57	64.4	-0.24		-0.24		-0.20		0.49	0.02
1.94	0.00	120	0.70	79.4	-0.24		-0.16		-0.13		0.37	0.02
2.35	0.00	140	0.84	95.0	-0.23		-0.06		-0.15		0.27	0.01

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: CO₂ Pressure is absolute pressure. Total Pressure is gauge pressure.

Water to be disposed

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W531-90

TO Mr. Harvey Apple
Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Date September 20, 1990

This report is the property of Halliburton Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the express written approval of Laboratory Management. It may, however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services.

Submitted by Danny Panzer Date Rec. September 20, 1990Well No. State D #1 Depth 10963' - 11052' Formation Bliss Sand

Field _____ County _____ Source _____

Resistivity	0.052		
Specific Gravity ..	1.1706		
pH	6.5		
Calcium	29,025		
Magnesium	392		
Chlorides	157,000		
Sulfates	700		
Bicarbonates	305		
Soluble Iron	500		
<u>KCL</u>	<u>.5%</u>		

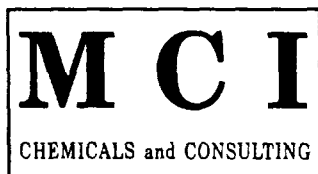
Remarks:

E. Jacobson
 Respectfully submitted

Analyst: Eric Jacobson - Field Engineer

HALLIBURTON SERVICES

Injection zone analysis



Free - from WELL

MILLER CHEMICALS, INC.

Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 393-2893 Hobbs Office
(505) 746-1918 Fax

*APPL X. 1.25 INCHES
FROM APLIMEDS #1*

PROPOSED SWD

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : MARATHON "MW"
Well : #81
Sample Pt. : WELLHEAD

Date : 8/20/01
Date Sampled : 8/20/01
Analysis No. : 00177

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	7.0			
2. H ₂ S	0			
3. Specific Gravity	1.000			
4. Total Dissolved Solids		14629.2		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)				
11. Bicarbonate	HCO ₃	354.0	HCO ₃	5.8
12. Chloride	Cl	8520.0	Cl	240.3
13. Sulfate	SO ₄	350.0	SO ₄	7.3
14. Calcium	Ca	800.0	Ca	39.9
15. Magnesium	Mg	340.6	Mg	28.0
16. Sodium (calculated)	Na	4264.4	Na	185.5
17. Iron	Fe	0.3		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		3400.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	=	mg/L
-----+	-----+				
40 *Ca <----- *HCO ₃ 6		Ca(HCO ₃) ₂	81.0	5.8	470
----- /-----> -----		CaSO ₄	68.1	7.3	496
28 *Mg -----> *SO ₄ 7		CaCl ₂	55.5	26.8	1489
----- <-----/ -----		Mg(HCO ₃) ₂	73.2		
185 *Na -----> *Cl 240		MgSO ₄	60.2		
+-----+	+-----+	MgCl ₂	47.6	28.0	1334
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	185.5	10840
BaSO ₄ 2.4 mg/L					

REMARKS: 0 % KCL PRESENT

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 8/20/01
Address	: ARTESIA, NM	Date Sampled	: 8/20/01
Lease	: MARATHON "MW"	Analysis No.	: 00177
Well	: #81	Analyst	: A. MILLER
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	0.4	at	70 deg. F	or	21 deg. C
S.I. =	0.4	at	90 deg. F	or	32 deg. C
S.I. =	0.4	at	110 deg. F	or	43 deg. C
S.I. =	0.5	at	130 deg. F	or	54 deg. C
S.I. =	0.5	at	150 deg. F	or	66 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2424	at	70 deg. F	or	21 deg C
S =	2499	at	90 deg. F	or	32 deg C
S =	2536	at	110 deg. F	or	43 deg C
S =	2531	at	130 deg. F	or	54 deg C
S =	2505	at	150 deg. F	or	66 deg C

Respectfully submitted,
A. MILLER

Attachment E

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

August 24, 2001

Penroc Oil Corporation
P.O. Box 5970
Hobbs, New Mexico 88241
Attn: Operations

Dear Sir or Madam:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Marathon Oil Co.
P.O. Box 552
Midland, Texas 79702
Attn: Operations

Dear Sir or Madam:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Fasken Oil & Ranch, LTD.
303 West Wall Avenue, Suite 1800
Midland, Texas 79701-5116
Attn: Operations

Dear Sir or Madam:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

David Fasken
1901 1st National Bank Building
303 West Wall Ave.
Midland, Texas 79701-5116
Attn: Operations

Dear Sir or Madam:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Mr. Richard Manus
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220-6292

Dear Mr. Manus,

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Ms. Patricia Schafer Lyman
Queen Route
Carlsbad, NM 88220

Dear Ms. Lyman:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Ms. Patricia Schafer Lyman
Queen Route
Carlsbad, NM 88220

Dear Ms. Lyman:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

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

August 24, 2001

Santa Fe Energy Company
500 W. Illinois Suite 500
Midland, Texas 79701-4310
Attn: Operations

Dear Sir or Madam:

Enclosed please find a copy of Form C-108 (Application for Authority to Inject) for the proposed Archimedes SWD #1 located in Section 18-T21S-R24E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

Enclosure

MARTIN YATES III
1912 - 1985
FRANK W. YATES
1936 - 1989



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

August 30, 2001

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

Gentlemen:

Yates Petroleum Corporation desires to place a public notice in your newspaper for one day. The notice is enclosed.

Please place this notice in your paper on Tuesday, September 4, 2001, (or as soon as possible thereafter) and forward a copy of it along with your billing as soon as possible to:

Yates Petroleum Corporation
105 South Forth Street
Artesia, NM 88210
Attn: Sam Brandon

If you have any questions, please contact me at 748-4281. Thank you for your cooperation in this matter.

Sincerely,

Sam Brandon
Operations Engineer

Enclosure

ATTACHMENT F

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 "Archimedes SWD #1" located 1650' FSL & 1980' FEL of Section 18, Township 21 South, Range 24 East of Eddy County, New Mexico, will be used for salt water disposal. Disposal waters from the Canyon will be re-injected into the Devonian at a depth of approximately 10,600'-10,800' with a maximum pressure of 2000 psi and a maximum rate of 25,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, NM 87505, within 15 days. Additional information can be obtained by contacting Sam Brandon at (505) 748-4281.