SWD 5/16/00

775

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

YATES PETROLEUM CORPORATION
105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
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 28, 2000

David Catanach
State of New Mexico
OIL CONSERVATION DIVISION
2040 S. Pacheco Street
Santa Fe, NM 87505-5472

Dear Mr. Catanach,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed Exxon New Mexico DH State #1 located in Unit M of Section 16-T15S-R28E, Chaves County, New Mexico.

We also request that our earlier application dated February 17, 2000 for disposal into the San Andres formation in this well be withdrawn.

Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R Stall

Albert R. Stall
Operations Engineer

ARS/th

Enclosure

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NEW MEXICO 87505

FORM C-108
Revised 4-1-98

EXXON NEW MEXICO DH STATE #1

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: Yates Petroleum Corporation

ADDRESS: 105 South Fourth Street, Artesia, NM 88210

CONTACT PARTY: Albert R. Stall PHONE: (505) 748-4174

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: Albert R. Stall TITLE: Operations Engineer

SIGNATURE: Albert R Stall DATE: 4/28/00

* 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

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

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SECRETARY

DENNIS G. KINSEY
TREASURER

April 28, 2000

Tim Gum
State of New Mexico
OIL CONSERVATION DIVISION
811 South First Street
Artesia, NM 88210

Dear Mr. Gum,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed Exxon New Mexico DH State #1 located in Unit M of Section 16-T15S-R28E, Chaves County, New Mexico.

We also request that our earlier application dated February 17, 2000 for disposal into the San Andres formation in this well be withdrawn.

Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R Stall

Albert R. Stall
Operations Engineer

ARS/th

Enclosure

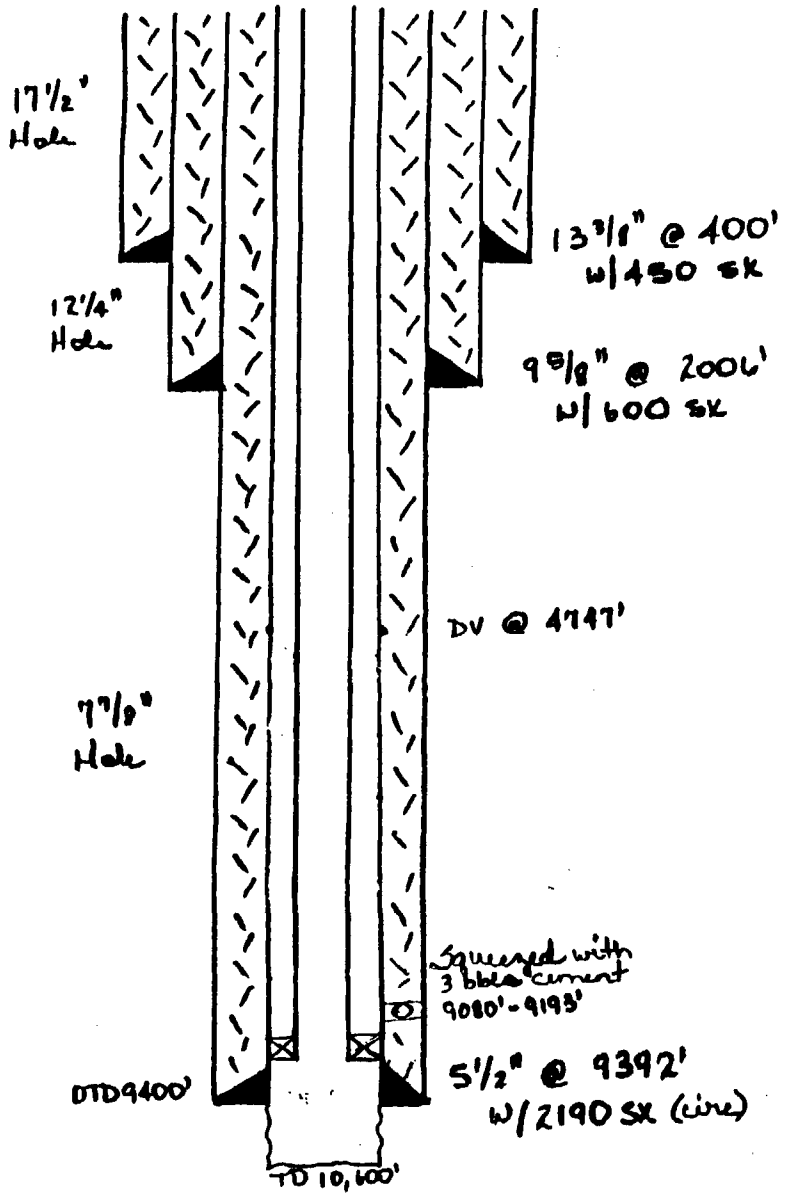
INJECTION WELL DATA SHEET

OPERATOR: Yates Petroleum Corporation

WELL NAME & NUMBER: Exxon New Mexico DH State #1

WELL LOCATION:	660'FSL & 660'FWL	M	16	15S	28E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" **Casing Size:** 13-3/8" @ 400'

Cemented with: 450 **sx.** or _____ **ft³**

Top of Cement: Surface **Method Determined:** Circulated

Intermediate Casing

Hole Size: 12-1/4" **Casing Size:** 9-5/8" @ 2006'

Cemented with: 600 **sx.** or _____ **ft³**

Top of Cement: Surface **Method Determined:** Circulated

Production Casing

Hole Size: 7-7/8" **Casing Size:** 5-1/2" @ 9392'

Cemented with: 1st Stage-1390 **sx.** / 2nd Stage-800 **sx.** or _____ **ft³**

Top of Cement: Surface **Method Determined:** Circulated

Total Depth: 10,600'

Injection Interval

Open Hole 9392 **feet** to 10,600 **feet**

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.4#/ft L-80 **Lining Material:** plastic-coated

Type of Packer: Guiberson Uni VI - Nickel-plated

Packer Setting Depth: 9325'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

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

If no, for what purpose was the well originally drilled? Morrow test

2 **Name of the Injection Formation:** Mississippian/Devonian

3 **Name of Field or Pool (if applicable):** None

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.** Morrow 9088'-9193'

Squeezed off with 3 bbls of cement.

5 **Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:** Morrow at approximately 9000-9200' (not productive in this well).

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Exxon New Mexico DH State #1
M 16-15S-28E
Chaves County, New Mexico

I. The purpose of completing this well is for disposal of produced Morrow water into the Mississippian/Devonian.

II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Albert R. Stall (505) 748-4174

III. Well Data: See Attachment A

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

V. See attached map, Attachment B.

VI. There is 1 well within the area of review penetrating the proposed injection zone. (Attachment C)

VII. 1. Proposed average daily injection volume approximately 1,500 BWPD. Maximum daily injection volume approximately 10,000 BWPD.

2. This will be a closed system.

3. Proposed average injection pressure--unknown.
Proposed maximum injection pressure--5635 psi.

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

5. See Attachment E.

VIII. The injection interval is Mississippian/Devonian from 9392'-10600'.

Underground water sources of drinking water are in the Alluvial fill from surface to 200'.

IX. The proposed disposal interval may be acidized with 15-20% HCL acid.

X. Logs were filed at your office when the well was drilled. Any new logs run after deepening will also be submitted to your office.

XI. There is 1 windmill that exists within a one mile radius of the subject location. Chemical analysis is attached. (Attachment F)

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. Surface owners and offset operators have been notified. (Attachment G)

B. Copy of legal advertisement attached. (Attachment H)

XIV. Certification is signed.

Yates Petroleum Corporation
Exxon New Mexico DH State #1
M-16-15S-28E

Attachment A
Page 1

III. Well Data

A. 1. Lease Name/Location:
Exxon New Mexico DH State #1
M 16-15S-28E
660'FSL & 660'FWL

2. Casing Strings:
a. Proposed well condition:
See Attachment A – Proposed Status.
13 3/8" 61#, K-55 at 400'.
9 5/8" 47#, L-80 at 2006'.
5 1/2" 17# & 20#, L-80 at 9392'(circ).
2 7/8" L-80 plastic-coated tubing w/nickel plated packer at 9325'.

3. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 9325'.

B. 1. Injection Formation: Mississippian/Devonian

2. Injection interval into open hole 9392'-10,600'.

3. Well was originally drilled as an exploratory Morrow well. Well will be a Mississippian/Devonian water disposal well when work is completed.

4. Next higher (shallower) oil or gas zone within 2 miles--Morrow
Next lower (deeper) oil or gas zone within 2 miles—None

EXXON CORP New Mexico DH State #1

16 - 15S - 28E

Spud 4-1-83 / P&A 11-83

Yates @ 432'

Qn @ 1176'

SA @ 1921'

~~2000 - 2900'~~
3000 - 3300

3780'-95'

Tubb @ 4632'

4650 - 4750'

ALo @ 5433'

WC @ 6636'

Penn @ 7417'

Atoka @ 8853'

Morrow @ 9088'

Miss @ 9188'

OTD 9400'

Devonian @ 10,400'

~~17½" hole~~

~~13⅜" @ 400' w/ 450 sx~~
(61 #/ft)

~~12¼" hole~~

~~9⅝" @ 2006' w/ 600 sx~~
(47 #/ft)

~~2⅞ EC L-80 tubing~~

DV @ 4747'

Proposed

Perf 9088 - 9193'
Sqzd w/ 3 bbls cement

Acid 4k 7½%/1k-15%/25k

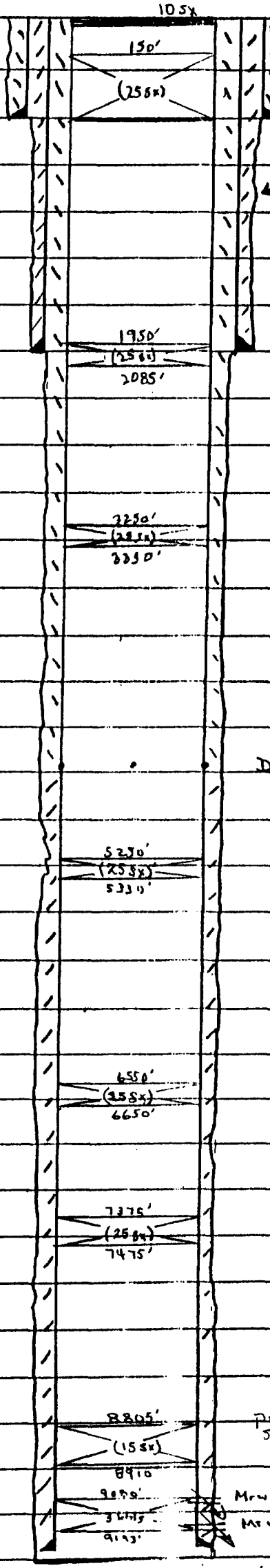
Mrw 9088'-9121' } Frac 55,000# sand
Mrw 9181'-9193' } 20k gal gel + 10k gal CC

5½" @ 9392' w/ 1st Stage - 1390 sx (circ)
(17 #/ft & 20 #/ft) 2nd Stage 800 sx (circ)

Nickel Plated Packer @ 9325'

EXXON CORP New Mexico DH State #1

16 - 15.5 - 28 E



Spud 4-1-83 / P&A 11-83

Yates @ 422'

Rb @ 1176'

SA @ 1921'

Tubb @ 4632'

4650 - 4750'

Glo @ 5437'

WC @ 6635'

Penn @ 7417'

Atoka @ 8853'

Morrow @ 9088'

Miss @ 9188'

DV @ 4747'

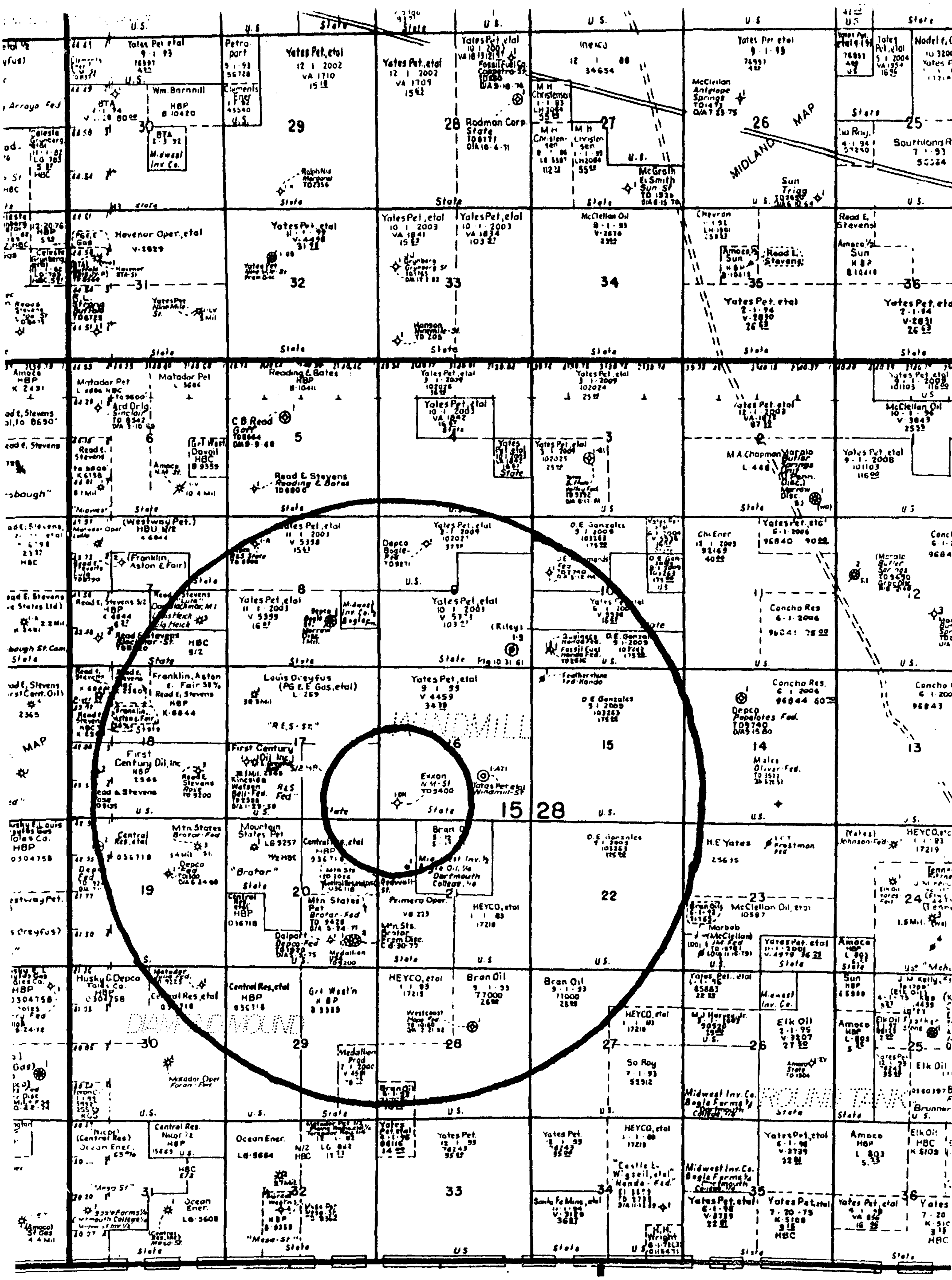
Current

perfs 9088' - 9193'
Sqzd w/ 3 bbls cement

Acid 4k 7½%/1k-15%/2s

Mrw 9088' - 9121' } Frac 20# gel 55,000# sand + 10K gal
Mrw 9181' - 9193' }

5½" @ 9392' w/ 1st Stage - 1390 sx (CITC)
(17 #/ft & 20 #/ft) 2nd Stage 800 sx (CITC)



YATES PETROLEUM CORPORATION
EXXON NEW MEXICO DH STATE #1
PROPOSED SALT WATER DISPOSAL WELL
SEC. 16-T15S-R28E
660'FSL & 660'FWL
CHAVES COUNTY, NEW MEXICO

ATTACHMENT B

ATTACHMENT C

Exxon New Mexico DH State #1

Tabulation of Data on Well Within Area of Review

Well Name	Location	Operator	Type	Spud	Completed	TD	Injection Zone	Perfs	Completion Information
REDWALL STATE COM #1	21E 15S 28E	Bran Oil Corp.	Gas	06/29/89	09/02/89	9250	Atoka	8856'-8860'	13 3/8" @ 353' w/410 sx circ, 45sx
									8 5/8" @ 1909' w/1350 sx circ, 100 sx
									4 1/2" @ 9248' w/750 sx
									2 3/8" tubing @ 8766'

TOC 5040' calc

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

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : WINDMILL "ATI"
Well : #1
Sample Pt. : WELLHEAD

Date : 1/18/00
Date Sampled : 1/18/00
Analysis No. : 00095

	ANALYSIS		mg/L		* meq/L
1.	pH	6.0			
2.	H2S	0			
3.	Specific Gravity	1.030			
4.	Total Dissolved Solids		97783.1		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	195.0	HCO3	3.2
12.	Chloride	Cl	59640.0	Cl	1682.4
13.	Sulfate	SO4	100.0	SO4	2.1
14.	Calcium	Ca	1600.0	Ca	79.8
15.	Magnesium	Mg	802.6	Mg	66.0
16.	Sodium (calculated)	Na	35445.5	Na	1541.8
17.	Iron	Fe	NR		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		7300.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

80	*Ca <----- *HCO3	3
	/------->	
66	*Mg -----> *SO4	2
	<---------/	
1542	*Na -----> *Cl	1682

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	3.2	259
CaSO4	68.1	2.1	142
CaCl2	55.5	74.6	4137
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	66.0	3143
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	1541.8	90102

REMARKS:

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 1/18/00
Address	: ARTESIA, NM	Date Sampled	: 1/18/00
Lease	: WINDMILL "ATI"	Analysis No.	: 00095
Well	: #1	Analyst	: A. MILLER
Sample Pt.	: WELLHEAD		

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

S.I. = -0.9 at 60 deg. F or 16 deg. C
S.I. = -0.8 at 80 deg. F or 27 deg. C
S.I. = -0.7 at 100 deg. F or 38 deg. C
S.I. = -0.6 at 120 deg. F or 49 deg. C
S.I. = -0.6 at 140 deg. F or 60 deg. C

****

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

S = 4533 at 60 deg. F or 16 deg C
S = 4859 at 80 deg. F or 27 deg C
S = 5059 at 100 deg. F or 38 deg C
S = 5149 at 120 deg. F or 49 deg C
S = 5212 at 140 deg. F or 60 deg C

Respectfully submitted,
A. MILLER

BAKER OIL TOOLS
Phone (303) 790-2705
56 Inverness Drive East
Englewood, CO 80112

YATES PETROLEUM CORP.
TICKET #012828

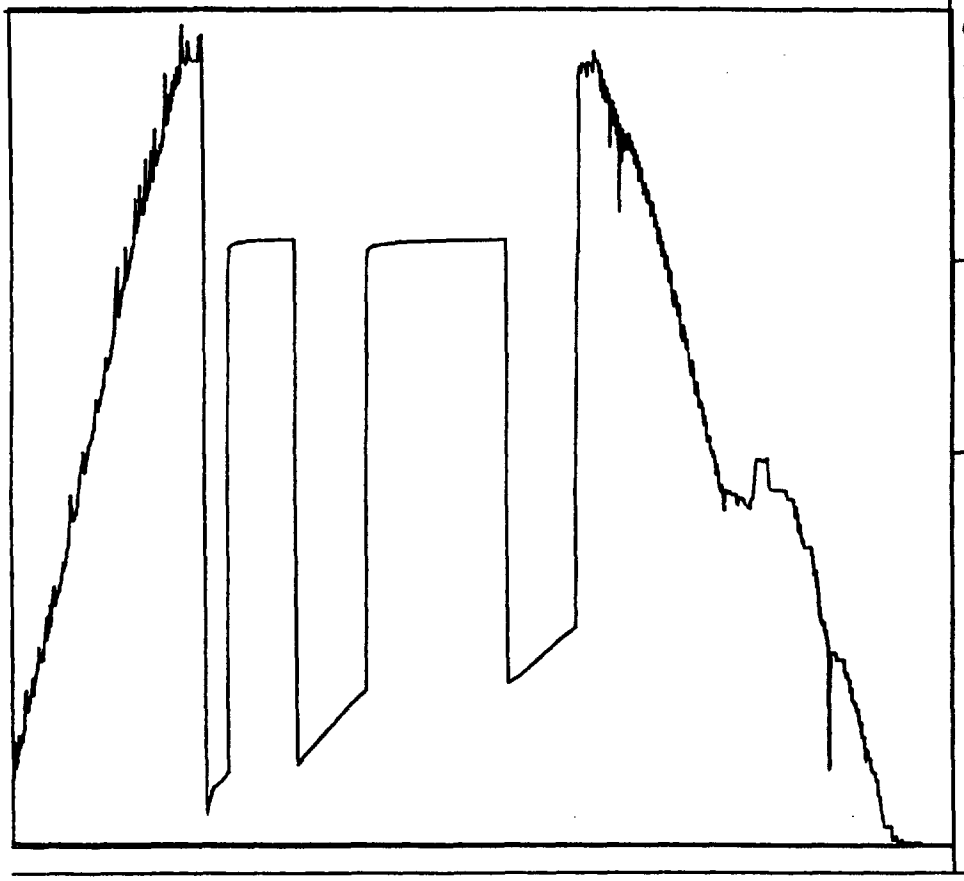
VEST RANCH "RE" FEDERAL #2
DEVONIAN ~ 10723'- 10748'

DST #4
05-16-1996

Contractor	Peterson Drlg.
Rig No.	1
Spot	330' FNL & 1650' FWL
Sec	21
Twp.	14 S
Rng.	30 E
Field	Wildcat
County	Chaves
State	New Mexico
Elevation	3873' KB
Formation	Devonian

Surface Choke	1/8"
Bottom Choke	3/4"
Hole Size	7 7/8"
Core Hole Size	--
DP Size & Wt.	4 1/2" 16.60
Wt. Pipe	--
I.D. of DC	2 1/4"
Length of DC	730'
Total Depth	10748'
Type Test	Conventional
Interval	10723'- 10748'

Mud Type	--
Weight	10.0
Viscosity	55
Water Loss	--
Filter Cake	--
Resistivity	-- @ °F
	137,000 Ppm. NaCl
B.H.T.	170.9 °F
Co. Rep.	Steve Cochran
Tester	Mike Fraley
Baker Dist.	Hobbs NM



		REPORTED	CORRECTED	
Opened Tool @		22:32		hrs.
Flow No.	1	20	18	min.
Shut-in No.	1	60	60	min.
Flow No	2	60	60	min.
Shut-in No.	2	120	120	min.
Flow No.	3	60	58	min.
Shut-in No.	3	None Taken		min.

Recorder Type		STI 8000	
No.	01119	Cap. 10000	psi
Depth		10728	feet
Inside		Clock	
Outside	x	Range	hrs.

Initial Hydrostatic	A	5628
Final Hydrostatic	K	5610
Initial Flow	B	207
Final Initial Flow	C	520
Initial Shut-in	D	4347
Second Initial Flow	E	566
Second Final Flow	F	1135
Second Shut-in	G	4347
Third Initial Flow	H	1179
Third Final Flow	I	1587
Third Shut-in	J	

Pipe Recovery

Approximately 6000' Gas above fluid
Reverse circulated to test tank:
4660' Total fluid = 59.5 bbl., consisting of:
611' Gas cut oil = 8.7 bbl.
4049' Gas cut water = 50.8 bbl.

Gravity:
Top: 45.0 Deg API @ 60 Deg F
Chlorides:
Middle: 34,000 ppm Cl. titrated.
Bottom: 24,000 ppm Cl. titrated.

Yates Petroleum Corp.
Vest Ranch "RE" Federal #2, DST #4 05-16-1996

SAMPLER REPORT

Pressure in Sampler:	1200	psig
Total Volume of Sampler:	2600	cc.
Total Volume of Sample:	2350	cc.
Oil:	750	cc.
Water:	1600	cc.
Mud:	None	cc.
Gas:	0.89	cu. ft.
Other:	None	

Sample: 23,000 ppm Cl. titrated.

Resistivity

Make up Water @ °F of Chloride Content ppm.

Mud Pit Sample @ °F of Chloride Content 137,000 ppm.

Gas / Oil Ratio 190/1 cu.-ft./bbl. Gravity 45.0 °API @ 60 °F

Where was sample drained On location.

Remarks:

D.R.S.

Data prepared by: Symposium Committee
Affiliation: Roswell Geological Society
Date: 10-29-56

Field Name: Chisum (Devonian)
Location: Sec. 13, T. 11 S., R. 27 E., &W ½ Sec.
County & State: 18, T. 11S., R. 28E.
Chaves, New Mexico

DISCOVERY WELL: Honolulu Oil Corp. #1-J State COMPLETION DATE: 4-8-50

PAY ZONE: Devonian dolomite is a fine to coarse crystalline, white to tan reservoir rock with porosity development usually occurring from 0 to 10 feet below the Woodford-Devonian contact. Small vugs to cavernous type of porosity with secondary development of large dolomite crystals lining the vugs and associated with limited fractures make up the commercial void of the dolomite pay. The discovery well potentialed for 170 BOPD flowing, 11/32 inch ck, GOR 80, from open hole 6,490-6,563 feet.

TYPICAL CORE ANALYSIS OF A PAY INTERVAL IN THIS FIELD:

Perm. in millidarcys		% Porosity	Liquid Saturation (% of pore space)	
Horizontal	Vertical		Water	Oil
150 est.	150 est.	4 - 12 est.	25 est.	12 est.

OTHER SHOWS ENCOUNTERED IN THIS FIELD: San Andres 2,025-2,058 feet.

TRAP TYPE: Anticline
NATURE OF OIL: Paraffinic Gravity 40° @ 60° F.
NATURE OF GAS:
NATURE OF PRODUCING ZONE WATER: Resistivity: ohm-meters @ °F.

	Total Solids	Na/K	Ca	Mg	Fe	SO_4	Cl	CO_2	HCO_3	OH	H_2S
ppm		18,822					29,047				

INITIAL FIELD PRESSURE:
TYPE OF DRIVE: Water drive.
NORMAL COMPLETION PRACTICES: Set production string on top of pay and acidize open hole.

PRODUCTION DATA:

No. of wells @ yr. end				Production Oil in barrels Gas in MMCF		No. of wells @ yr. end				Production Oil in barrels Gas in MMCF	
Year	Type	Prod.	Shut in or Abnd.	Annual	Cumulative	Year	Type	Prod.	Shut in or Abnd.	Annual	Cumulative
1941	oil					1949	oil				
	gas						gas				
1942	oil					1950	oil	2	0	42,068	42,068
	gas						gas				
1943	oil					1951	oil	2	0	67,133	109,201
	gas						gas				
1944	oil					1952	oil	2	0	59,939	169,140
	gas						gas				
1945	oil					1953	oil	2	0	48,988	218,128
	gas						gas				
1946	oil					1954	oil	2	0	32,877	251,005
	gas						gas				
1947	oil					1955	oil	2	0	30,853	281,858
	gas						gas				
1948	oil					1956*	oil				
	gas						gas				

* 1956 Figure is production to 5-1-56.

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 2/8/00
Address	: ARTESIA, NM	Date Sampled	: 2/6/00
Lease	: WINDMILL (FRESH)	Analysis No.	: 00113
Well	: NONE	Analyst	: A. MILLER
Sample Pt.	: WELL		

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

S.I. = 0.5 at 60 deg. F or 16 deg. C
S.I. = 0.5 at 80 deg. F or 27 deg. C
S.I. = 0.5 at 100 deg. F or 38 deg. C
S.I. = 0.6 at 120 deg. F or 49 deg. C
S.I. = 0.6 at 140 deg. F or 60 deg. C

****

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

S = 2070 at 60 deg. F or 16 deg C
S = 2158 at 80 deg. F or 27 deg C
S = 2191 at 100 deg. F or 38 deg C
S = 2186 at 120 deg. F or 49 deg C
S = 2173 at 140 deg. F or 60 deg C

Respectfully submitted,
A. MILLER

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

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NM
Lease : WINDMILL (FRESH)
Well : NONE
Sample Pt. : WELL

Date : 2/8/00
Date Sampled : 2/6/00
Analysis No. : 00113

	ANALYSIS		mg/L		* meq/L
1.	pH	7.4			
2.	H2S	0			
3.	Specific Gravity	1.000			
4.	Total Dissolved Solids		5410.0		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		NR		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	122.0	HCO3	2.0
12.	Chloride	Cl	2130.0	Cl	60.1
13.	Sulfate	SO4	1550.0	SO4	32.3
14.	Calcium	Ca	880.0	Ca	43.9
15.	Magnesium	Mg	486.3	Mg	40.0
16.	Sodium (calculated)	Na	240.0	Na	10.4
17.	Iron	Fe	2.5		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		4200.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

44	*Ca <----- *HCO3	2
	/------->	
40	*Mg -----> *SO4	32
	<---------/	
10	*Na -----> *Cl	60

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	2.0	162
CaSO4	68.1	32.3	2197
CaCl2	55.5	9.6	535
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	40.0	1905
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	10.4	610

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 *·2H2O	2090 mg/L
BaSO4	2.4 mg/L

REMARKS:

ATTACHMENT G

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

YATES PETROLEUM CORPORATION
105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
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 28, 2000

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

Gentlemen:

Enclosed please find a copy of form C-108 (Application for Authorization to Inject) on the Exxon New Mexico DH State #1 located in Unit M of Section 16-T15S-R28E of Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R. Stall

Albert R. Stall
Operations Engineer

ARS/th

Enclosures

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DENNIS G. KINSEY
TREASURER

April 28, 2000

Bogle Limited Company
P. O. Drawer 460
Dexter, NM 88260

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Sincerely,

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Operations Engineer

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TREASURER

April 28, 2000

Howard Birchfield
P. O. Box 250
Hagerman, NM 88232-0250

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DENNIS G. KINSEY
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April 28, 2000

Mountain States Petroleum
P. O. Box 1936
Roswell, NM 88202

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Sincerely,

Albert R. Stall
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DENNIS G. KINSEY
TREASURER

April 28, 2000

Primero Operating, Inc.
P. O. Box 1433
Roswell, NM 88202

Gentlemen:

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Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R Stall

Albert R. Stall
Operations Engineer

ARS/th

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DENNIS G. KINSEY
TREASURER

April 28, 2000

Bran Oil Corporation
P. O. Box 2328
Roswell, NM 88201

Gentlemen:

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Should you have any questions, please feel free to contact me at (505) 748-4174.

Sincerely,

Albert R Stall

Albert R. Stall
Operations Engineer

ARS/th

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TREASURER

April 28, 2000

Roswell Daily Record
P. O. Box 1897
Roswell, NM 88202-1897

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 Wednesday, May 3, 2000, and forward a copy of it along with your billing as soon as possible to:

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Attn: Albert R. Stall

If you have any questions, please contact me at 748-4174. Thank you for your cooperation in this matter.

Sincerely,

Albert R Stall

Albert R. Stall
Operations Engineer

ARS/th

Enclosure

Attachment H

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 "Exxon New Mexico DH State #1" located 660'FSL & 660'FWL of Section 16, Township 15 South, Range 28 East of Chaves County, New Mexico, will be used for salt water disposal. Disposal waters from the Morrow will be re-injected into the Mississippian/Devonian at a depth of 9392'-10,600 with a maximum pressure of 5635 psi and a maximum rate of 10,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 2040 S. Pacheco Street, Santa Fe, NM 87505-5472, within 15 days. Additional information can be obtained by contacting Albert R. Stall at (505) 748-4174.