

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

December 3, 2002

State of New Mexico
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505-5472

Dear Sir,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed State BD #1 located n Unit M of Section 2-8S-R31E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4182.

Sincerely,

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

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



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TREASURER

December 3, 2002

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

Dear Mr. Gum,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed State BD #1 located in Unit M of Section 2-8S-31E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4182.

Sincerely,

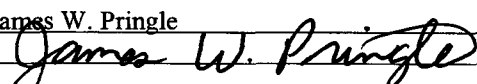
James W. Pringle
Operations Engineer

JWP/cm

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

State BD #1

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR:
ADDRESS: 105 South 4th Street, Artesia, New Mexico 88210
CONTACT PARTY: James W. Pringle PHONE: (505) 748-4182
- 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: James W. Pringle TITLE: Operations Engineer
SIGNATURE:  DATE: December 2, 2002
- * 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

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
State BD #1
Unit M Sec. 2, T8S, R31E
Chaves County, New Mexico**

- I. ~~The purpose of completing this well is to make a disposal well for produced Canyon water into the Canyon.~~ ?
- 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 400 BWPd. Maximum daily injection volume approximately 500 BWPd.
2. This will be a closed system.
3. Proposed average injection pressure 1600 psi.
Proposed maximum injection pressure 2000 psi.
4. Sources of injected water would be produced water from the San Andres. (Attachment C & D)
- VIII. The proposed injection interval is San Andres 3,900'-4,100'.

Underground water sources of drinking water are in the Alluvial fill from surface to 300'.
- IX. The proposed disposal interval may be acidized with 15-20% HCL acid.

X. Logs will be filed at your office. Any new logs run after completing will also be submitted to your office.

XI. There are two windmills that exists within a one mile radius of the subject location. Chemical analysis' of the water from these wells are attached. (Attachment C &D)

XI. 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 has been found. (Attachment E)

XII. Proof of notice.

A. Certified letters sent to the surface owner are attached. (Attachment F) ~~There are no offset operators.~~ *UN SIGNED MINERAL owners?*

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

XIV. Certification is signed.

*Indicated!
12/20/02
PRIVE Every?
— Did They notify
the SHL?
as Surface owner?
— what is Fresh water
not fresh?*

Yates Petroleum Corporation
State BD #1
M-2-8S-R26E

Attachment A

III. Well Data

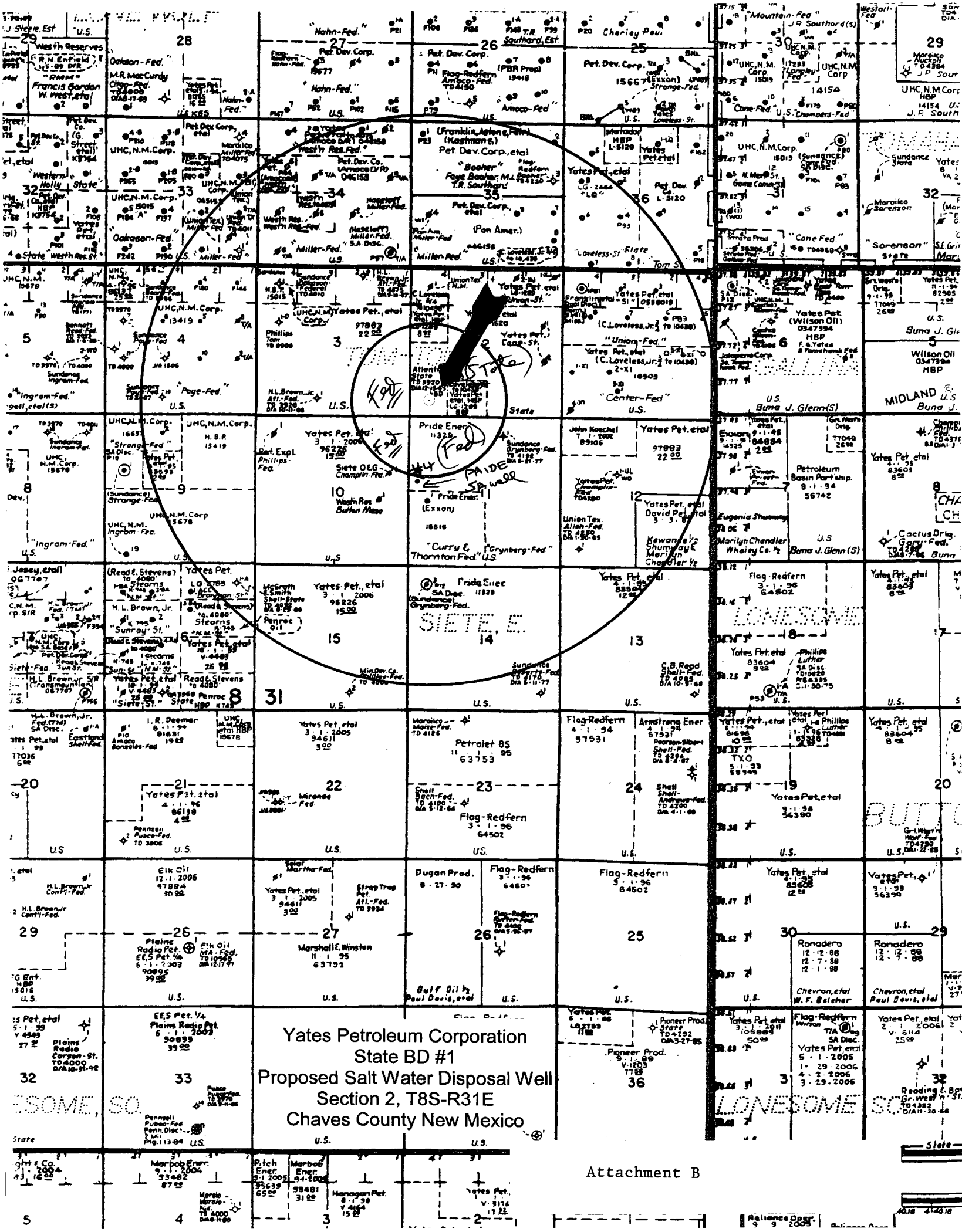
- A. 1. Lease Name/Location
State BD #1
M-2-8S-31E
660' FSL & 660' FWL

~~Re-Entry~~ / Re-Entry

2. Casing Strings:
a. Proposed well condition:
See Attachment A-Proposed Status
8 5/8" 24#, J-55, ST&C @ 334' (circ)
5 1/2" 15.50#, J-55, ST&C @ 4,125'
2 7/8" plastic-coated tubing w/nickel plated Guiberson Uni VI
packer @ 3,850' +/-
3. Propose to use Guiberson or Baker plastic-coated or nickel-plated
packer set at 3,850' +/-.

- B. 1. Injection Formation: San Andres.
2. Injection interval into cased hole perforation 3,900'-4,100'.
3. Well was originally drilled as an exploratory San Andres well. Well
will be a San Andres water disposal well when work is completed.
4. Next higher (shallower) oil or gas zone within 2 miles—None.
Next lower (deeper) oil or gas zone within 2 miles—None.

12/1965



Yates Petroleum Corporation
State BD #1
Proposed Salt Water Disposal Well
Section 2, T8S-R31E
Chaves County New Mexico

Attachment B

**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 Date : 12/9/02
 Address : ARTESIA, NM Date Sampled : UNKNOWN
 Lease : WINDMILL Analysis No. : 00541
 Well : 11/2MI W. ST BD #1 SWD
 Sample Pt. : UNKNOWN

ANALYSIS		mg/L	* meq/L
-----		----	-----
1. pH	7.1		
2. H ₂ S	0		
3. Specific Gravity	1.010		
4. Total Dissolved Solids		6206.4	
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	195.0	HCO ₃ 3.2
12. Chloride	Cl	2982.0	Cl 84.1
13. Sulfate	SO ₄	800.0	SO ₄ 16.7
14. Calcium	Ca	360.0	Ca 18.0
15. Magnesium	Mg	121.7	Mg 10.0
16. Sodium (calculated)	Na	1747.2	Na 76.0
17. Iron	Fe	0.5	
18. Barium	Ba	NR	
19. Strontium	Sr	NR	
20. Total Hardness (CaCO ₃)		1400.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+	-----	-----	-----
18 *Ca <----- *HCO ₃ 3	Ca (HCO ₃) ₂	81.0	3.2 259
----- /-----> -----	CaSO ₄	68.1	14.8 1005
10 *Mg -----> *SO ₄ 17	CaCl ₂	55.5	
----- <-----/ -----	Mg (HCO ₃) ₂	73.2	
76 *Na -----> *Cl 84	MgSO ₄	60.2	1.9 114
+-----+	MgCl ₂	47.6	8.1 387
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	76.0 4441
BaSO ₄ 2.4 mg/L			

REMARKS:

SCALE TENDENCY REPORT

Company : UYATES PETROLEUM Date : 12/9/02
Address : ARTESIA, NM Date Sampled : UNKNOWN
Lease : WINDMILL Analysis No. : 00541
Well : 11/2MI W. ST BD #1 SWD Analyst : A. MILLER
Sample Pt. : UNKNOWN

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

S.I. = 0.0 at 70 deg. F or 21 deg. C
S.I. = 0.1 at 90 deg. F or 32 deg. C
S.I. = 0.1 at 110 deg. F or 43 deg. C
S.I. = 0.1 at 130 deg. F or 54 deg. C
S.I. = 0.2 at 150 deg. F or 66 deg. C

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

S = 2244 at 70 deg. F or 21 deg C
S = 2287 at 90 deg. F or 32 deg C
S = 2301 at 110 deg. F or 43 deg C
S = 2286 at 130 deg. F or 54 deg C
S = 2261 at 150 deg. F or 66 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
Well : 1 MI N.E. ST BD SWD
Sample Pt. : UNKNOWN

Date : 12/9/02
Date Sampled : UNKNOWN
Analysis No. : 00542

ANALYSIS		mg/L	* meq/L
-----		-----	-----
1. pH	7.1		
2. H ₂ S	0		
3. Specific Gravity	1.010		
4. Total Dissolved Solids		6063.8	
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	390.0	HCO ₃ 6.4
12. Chloride	Cl	3408.0	Cl 96.1
13. Sulfate	SO ₄	75.0	SO ₄ 1.6
14. Calcium	Ca	200.0	Ca 10.0
15. Magnesium	Mg	194.4	Mg 16.0
16. Sodium (calculated)	Na	1795.8	Na 78.1
17. Iron	Fe	0.5	
18. Barium	Ba	NR	
19. Strontium	Sr	NR	
20. Total Hardness (CaCO ₃)		1300.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
-----+	-----	-----	-----
10 *Ca <----- *HCO ₃ 6	Ca(HCO ₃) ₂	81.0	6.4 518
/----->	CaSO ₄	68.1	1.6 106
16 *Mg -----> *SO ₄ 2	CaCl ₂	55.5	2.0 112
<-----/	Mg(HCO ₃) ₂	73.2	
78 *Na -----> *Cl 96	MgSO ₄	60.2	
-----+	MgCl ₂	47.6	16.0 762
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	78.1 4565
BaSO ₄ 2.4 mg/L			

REMARKS:

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 12/9/02
Address	: ARTESIA, NM	Date Sampled	: UNKNOWN
Lease	: WINDMILL	Analysis No.	: 00542
Well	: 1 MI N.E. ST BD SWD	Analyst	: J. MILLER
Sample Pt.	: UNKNOWN		

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

S.I. =	0.1	at	70 deg. F	or	21 deg. C
S.I. =	0.1	at	90 deg. F	or	32 deg. C
S.I. =	0.2	at	110 deg. F	or	43 deg. C
S.I. =	0.2	at	130 deg. F	or	54 deg. C
S.I. =	0.3	at	150 deg. F	or	66 deg. C

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

S =	1951	at	70 deg. F	or	21 deg C
S =	1991	at	90 deg. F	or	32 deg C
S =	2004	at	110 deg. F	or	43 deg C
S =	1989	at	130 deg. F	or	54 deg C
S =	1964	at	150 deg. F	or	66 deg C

Respectfully submitted,
J. MILLER

WELLNAME: State "BD" #1 FIELD: Tom Tom (SAN Andres)
 LOCATION: 660' FSL + 660' FWL, Sec. 2, T8S, R31E, Chaves Co., NM
 GL: 4,342' ZERO: _____ AGL: _____ KB: 4,351'
 SPUD DATE: 12/4/65 COMPLETION DATE: _____
 COMMENTS: _____

CASING PROGRAM	
SIZE/WT/GR/CONN	DEPTH SET
8 5/8", 24.0 #/ft, J-55, ST&C	334'
5 1/2", 15.50 #/ft, J-55, ST&C	4,125'

12 1/4" hole

7 7/8" hole

122 +/- jts of
2 7/8" IPC tubing

GILBERSON
UNI VI PIR
@ 3856 +/-

8 5/8" @ 334', CMTD w/ 150 SACKS, CMT circ. to surface

TOC: 3,000' +/-

SAN Andres

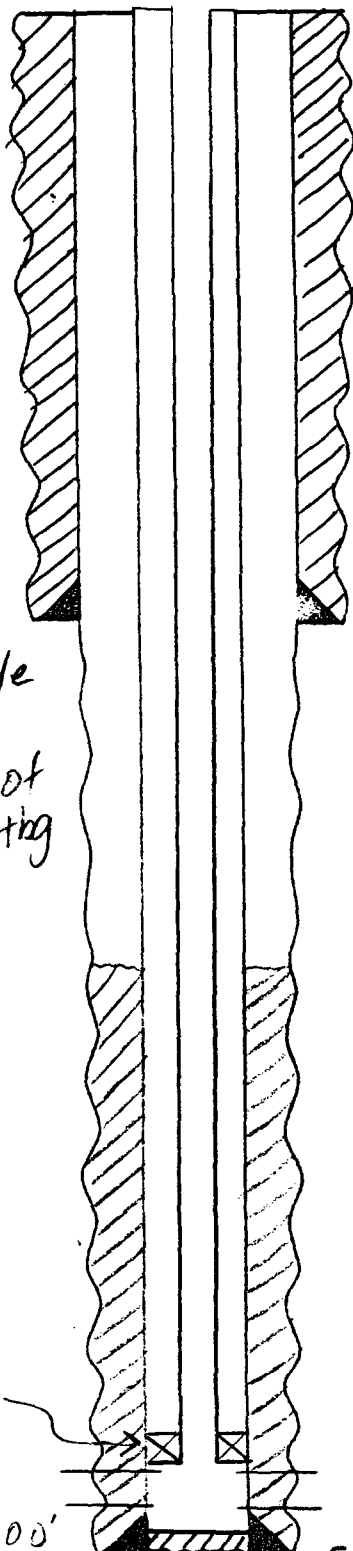
3,900' - 4,100'

PBTD: 4,100'

5 1/2" set @ 4,125', CMTD w/ 800 +/- SACKS
 DATE: 11/27/02 JWP

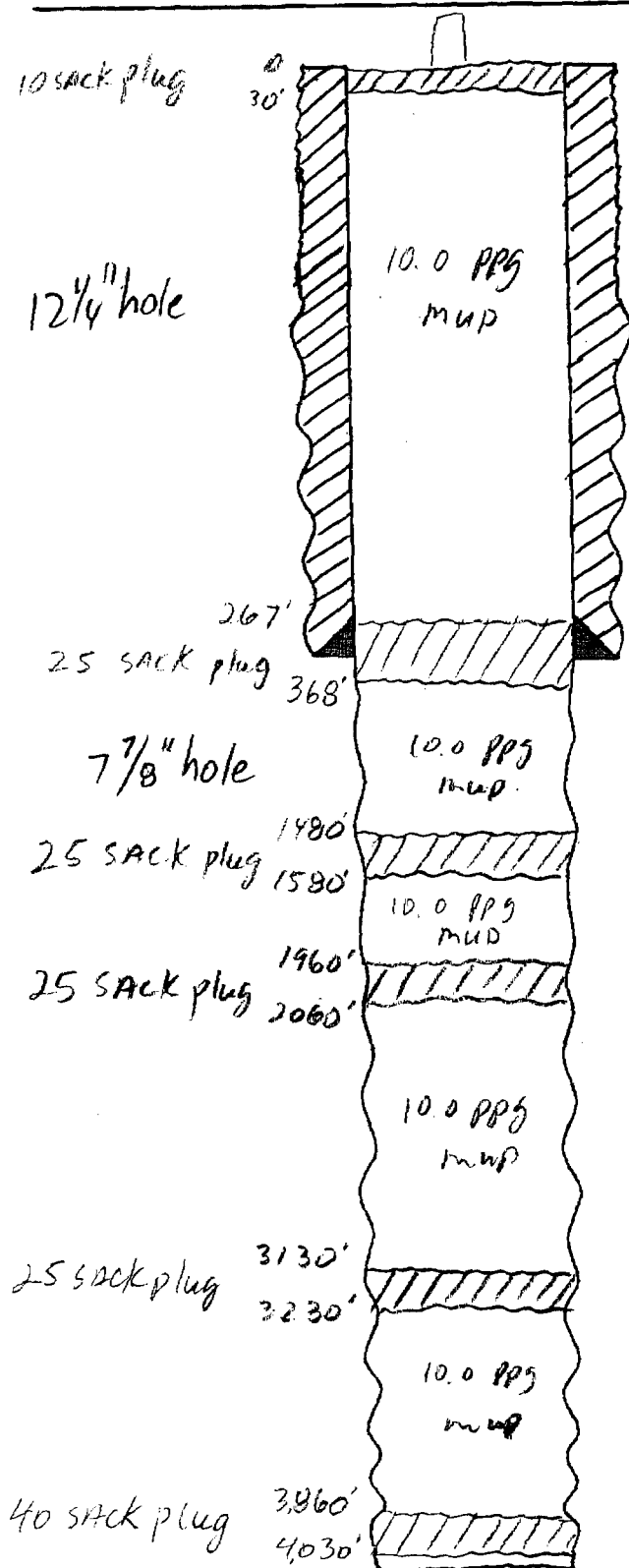
TD: 4,125'

- SKETCH NOT TO SCALE -



WELLNAME: State "BD" #1 FIELD: Tom Tom (San Andres)
 LOCATION: 660' FSL & 660' FWL, Sec 2, T8S, R31E, Chaves Co, NM.
 GL: 4,342' ZERO: _____ AGL: _____ KB: 4,351'
 SPUD DATE: 12/4/65 COMPLETION DATE: 12/15/65
 COMMENTS: _____

CASING PROGRAM	
SIZE/WT/GR/CONN	DEPTH SET
8 5/8", 24.0#/ft, J-55, STK	334'



before

8 5/8" set @ 334' cmtD w/ 150 sacks, cmt circ to surface

TD 4,125'

- SKETCH NOT TO SCALE -

DATE: 11/27/02 JWP

Attachment E

C-108 application for Authorization to Inject
Yates Petroleum Corporation
State BD #1
Section 2, T8S-R31E
Chaves County, New Mexico

Available engineering and geologic 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.

H. Tim Miller

12-18-02

Tim Miller
Geologist
Yates Petroleum Corporation

Date

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



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

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EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

December 18, 2002

Pride Energy
P.O. Box 70195
Tulsa, Oklahoma 74170-1950

Re: State BD #1

Gentlemen;

Yates Petroleum Corporation has made an application with the Oil Conservation Division for administrative approval for a "Salt Water Disposal Well", the State BD #1 located in Unit M, Section 2 Township 8 South, Range 31 East, Chaves County, New Mexico.

Please find enclosed a copy of Form C-108 "Application for Authorization to Inject".

If you should have any questions please feel free to contact me at (505) 748-4182.

Sincerely,

A handwritten signature in cursive script that reads 'James W. Pringle'.

James W. Pringle
Operations Engineer

JWP/cm

Enclosure

Attachment F

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

9884 529T 0000 0EST 0007

OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postman Here

Sent To *Prude Energy*
Street, Apt. No.; or PO Box No. *Box 70195*
City, State ZIP+4 *Indian OK 74170-1950*

State B 541
Cherry Watson

PS Form 3800, May 2000 See Reverse for Instructions

AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES
STATE OF NEW MEXICO

I, Fran Saunders
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with the issue dated

December 8th 2002

and ending with the issue dated

December 8th 2002

Fran Saunders
Clerk

Sworn and subscribed to before me

This 12th day of December 2002

Marylon Shipper
Notary Public

My Commission expires
July 25, 2006

(SEAL)



Publish December 8, 2002

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 State BD #1 located 680' FSL & 680' FWL of Section 2, Township 8 South, Range 31 East of Chaves County, New Mexico, will be used for salt water disposal. Disposal waters from the San Andres will be re-injected into the San Andres at a depth of 3,900'-4,100' with a maximum pressure of 2000 psi and a maximum rate of 500 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 James W. Pringle at (505) 748-4182.

Attachment G

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 State BD #1 located 660' FSL & 660' FWL of Section 2, Township 8 South, Range 31 East of Chaves County, New Mexico, will be used for salt water disposal. Disposal waters from the San Andres will be re-injected into the San Andres at a depth of 3,900'-4,100' with a maximum pressure of 2000 psi and a maximum rate of 500 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 James W. Pringle at (505) 748-4182.

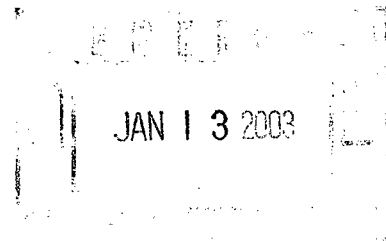
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SECRETARY
DENNIS G. KINSEY
TREASURER

January 10, 2003



Mr. Will Jones
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: State BD #1 located in Unit M, Section 2 Township 8 South, Range 31 East,
Chaves County, New Mexico.

Dear Mr. Jones;

As per our conversation January 7, 2003 regarding notification to the State of New Mexico, Commissioner of Public Lands Mr. Pete Martinez, please find enclosed a copy of the stamped certified mail receipt showing that they received a copy of our C-107 application. I was remiss in sending it to them, I apologize for the oversight.

If you have any further questions please feel free to contact me at (505) 748-4164/

Sincerely,

Cherry Matchus
Engineering Technician
For Jim Pringle Operations Engineer

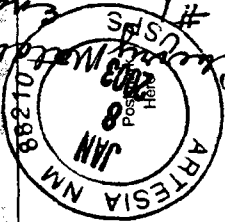
Enclosure

RECEIVED
JAN 13 2003
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SANTA FE, NEW MEXICO

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

PS Form 3800, May 2000

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



STATE OF NEW MEXICO
COMMISSIONER OF PUBLIC LANDS
 Pete Martinez
 P.O. Box 1148
 Santa Fe, New Mexico 87504-1148

PS Form 3800, May 2000 See Reverse for Instructions

2000 1535 0000 0000 5291 0000 0000

COUNTY <u>CHAVES</u> FIELD or LOCATION <u>WILDCAT</u> WELL <u>STATE "BD" #1</u>		COMPANY <u>THE ATLANTIC REFINING COMPANY</u>	
COUNTY <u>CHAVES</u> STATE <u>NEW MEXICO</u>		WELL <u>STATE "BD" #1</u> FIELD <u>WILDCAT</u>	
LOCATION <u>660' FSL</u> <u>660' FWL</u> Sec. <u>2</u> Twp. <u>8-S</u> Rge. <u>31-E</u>		Other Services: <u>FDC-G, L, MDP</u>	
Permanent Datum: <u>GROUND LEVEL</u> Elev. <u>4342</u> Log Measured From: <u>K. B.</u> 10 Ft. Above Perm. Datum Drilling Measured From: <u>K. B.</u>		Elev.: <u>K.B. 4352</u> <u>D.F. 4351</u> <u>G.I. 4342</u>	
Date	12-14-65		
Run No.	ONE		
Depth—Driller	4125		
Depth—Logger	4118		
Btm. Log Interval	4117		
Top Log Interval	3850		
Casing—Driller	8-5/8" @ 340		
Casing—Logger	--		
Bit Size	7-7/8"		
Type Fluid in Hole	SALT GEL		
Dens.	10.6	Visc.	37
pH	Fluid Loss --	8.2 ml	
Source of Sample	11		
R _m @ Meas. Temp.	.06	@ 68 °F	@ 68 °F
R _{mf} @ Meas. Temp.	.044	@ 68 °F	@ 68 °F
R _{mc} @ Meas. Temp.	--	@ -- °F	@ -- °F
Source: R _{mf}	M		
R _{mf} @ BHT	.045	@ 95 °F	@ 95 °F
Max. Rec. Temp.	95	°F	°F
Equip. Location	4556 ART.		
Recorded By	WENDLAND		
Witnessed By	SHEETS & SIMULA		

ON CONSERVATION COMMISSION
 P. O. BOX 2045
 HOUSTON, TEXAS 77250

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RP 31

REMARKS

Changes in Mud Type or Additional Samples				Scale Changes			
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale		
Depth—Driller							
Type Fluid in Hole							
Dens.	Visc.						
pH	Fluid Loss	ml					
Source of Sample				Equipment Data			
R _m @ Meas. Temp.	@	°F	@	°F	Run No.	Tool Type	Pad Type Tool Pos.
R _{mf} @ Meas. Temp.	@	°F	@	°F			
R _{mc} @ Meas. Temp.	@	°F	@	°F			
Source: R _{mf}	R _{mc}						
R _m @ BHT	@	°F	@	°F			
R _{mf} @ BHT	@	°F	@	°F			
R _{mc} @ BHT	@	°F	@	°F			

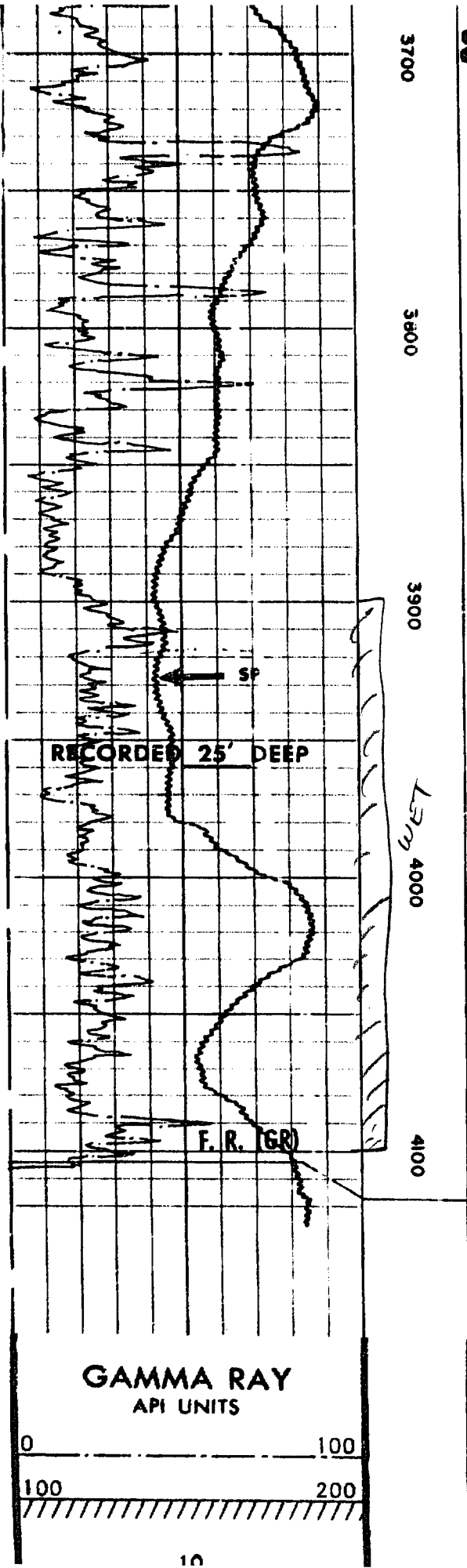
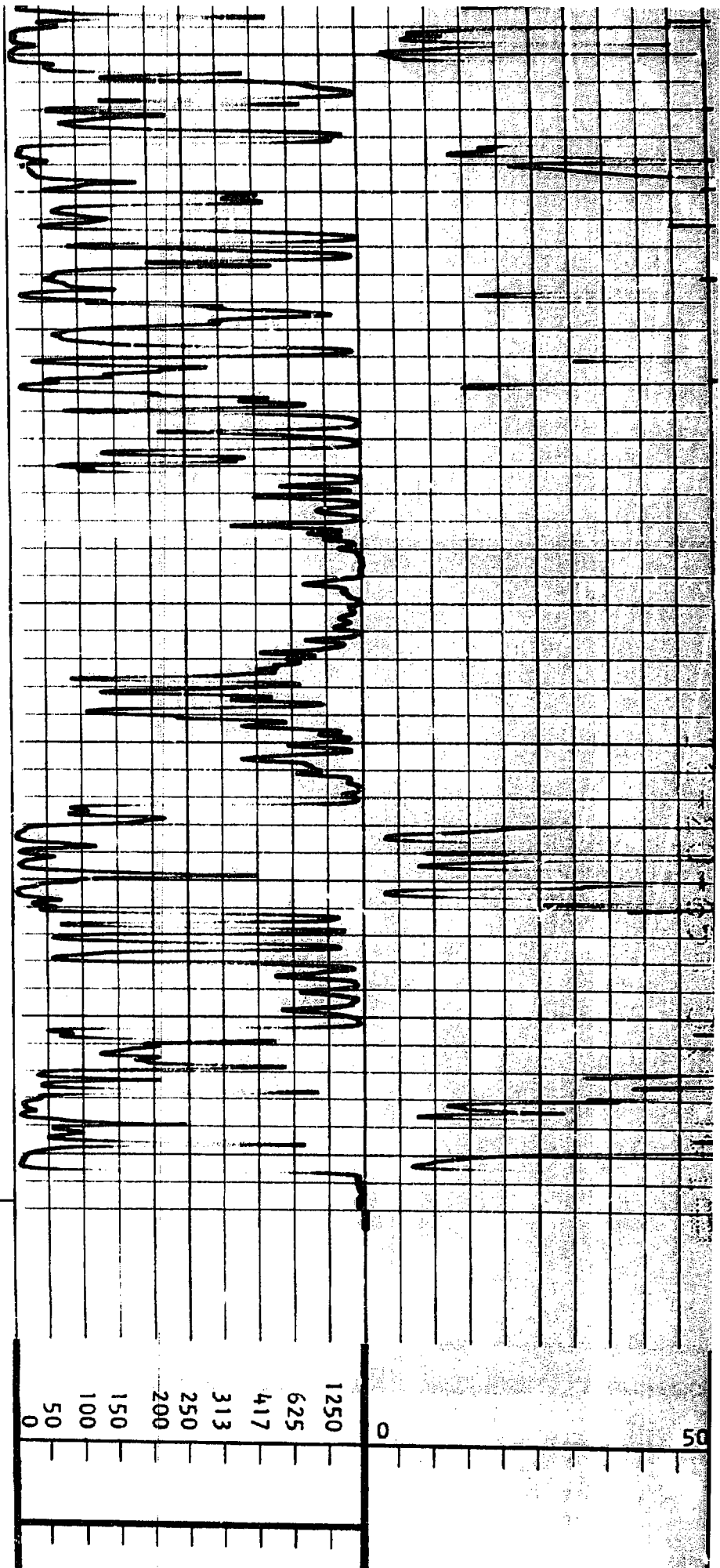
C.D.: S.O.:
 Equip. Used: CART. No. TMC-E-62
 PANEL No. TMP-E-62
 SONDE No. PML-B-45

MICROCALIPER

Depth

RESISTIVITY

RESISTIV



Bit Size

4100

F. R.

6

16

Hole Diameter in Inches

MICROCALIPER

DEPTHS

RESISTIVITY
ohms. m²/m

RESISTIVITY /
ohms. m²/m

COMPANY THE ATLANTIC REFINING COMPANY

WELL STATE "BD" #1

FIELD WILDCAT

COUNTY CHAVES STATE NEW MEXICO

Rm .06 @ 68 °F
Rmf .044 @ 68 °F
Rmc -- @ -- °F
BHT 95 °F

SWSC FR 4117
SWSC TD 4118
DRLR TD 4125
Elev:

KB 4352
DF 4351
GL 4342

CONDUCTIVITY

MILLIMHOS · M

DEPTHS

LATEROLOG POROSITY

PER CENT

200

0

20

15

10

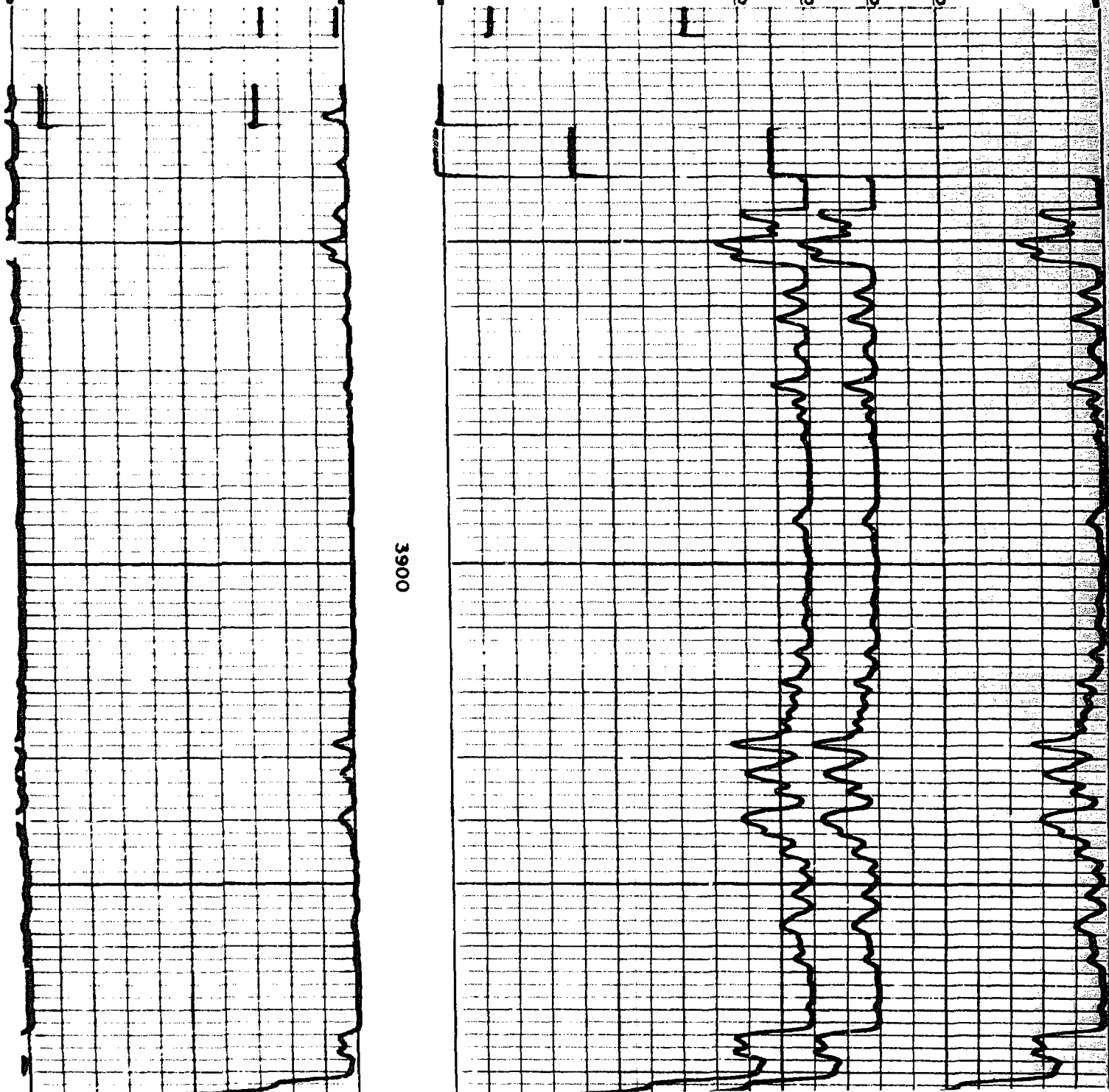
5

$R_w = .04$

0

1.4 R_w
1.2 R_w
.8 R_w
.6 R_w

3900



SCHUMBERGER

COMPENSATED
FORMATION DENSITY LOG
SCHUMBERGER WELL SURVEYING CORPORATION
HOUSTON, TEXAS

COUNTY CHAVES
FIELD or LOCATION WILDCAT
WELL STATE "BD" #1
COMPANY THE ATLANTIC REFINING COMPANY

COMPANY THE ATLANTIC REFINING COMPANY
WELL STATE "BD" #1
FIELD WILDCAT
COUNTY CHAVES STATE NEW MEXICO
Location: 660' FSL
660' FWL
Sec. 2 Twp. 8-S Rge. 31-E
Other Services: L, MLL, MOP
Permanent Datum: GROUND LEVEL; Elev.: 4342
Log Measured From K.B. 10 Ft. Above Perm. Datum
Drilling Measured From K.B.

Date	12-14-65
Run No.	ONE
Type Log	FDC & GR
Depth—Driller	4125
Depth—Logger	4122
Bottom logged interval	4120
Top logged interval	70
Type fluid in hole	SALT GEL SALT GEL SALT GEL
Salinity, PPM Cl.	162,000
Density	10.6
Level	FULL
Max rec. temp., deg F.	95
Operating rig time	4-HOURS
Recorded by	WENDLAND
Witnessed by	SHEETS & SIMULA
BORE-HOLE RECORD	
IN	From To Size Wgt. From To
7-7/8	340 T.D. 8-5/8 SURF. 340
CASING RECORD	

EQUIPMENT DATA

Gamma-Gamma				General			
Run No.	ONE			Run No.	ONE		
Tool Model No.	PGT-D			Hoist Truck No.	4556		
Diameter	4-1/8"			Inst. Truck No.	4556		
Det'r Model No.	SGD-H			Tool Serial No.	PGS-B-16	PGP-A-116	
Type	SCINT			Location	ARTESIA		

LOGGING DATA

General				Gamma Ray				Gamma-Gamma			
Run No.	Depths		Speed Ft./Min.	T.C. Sec.	Sens. Settings	Zero Div. L or R	API Units per Log Div.	Log. T.C.	CALIBRATE — ACPS.		
	From	To							P ₁	P ₂	
1	70	3400	40	2	400	0	10	3	432	936	

Remarks:

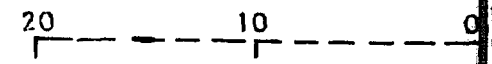
GAMMA RAY CAL : 84; 540; 82.5; 800.

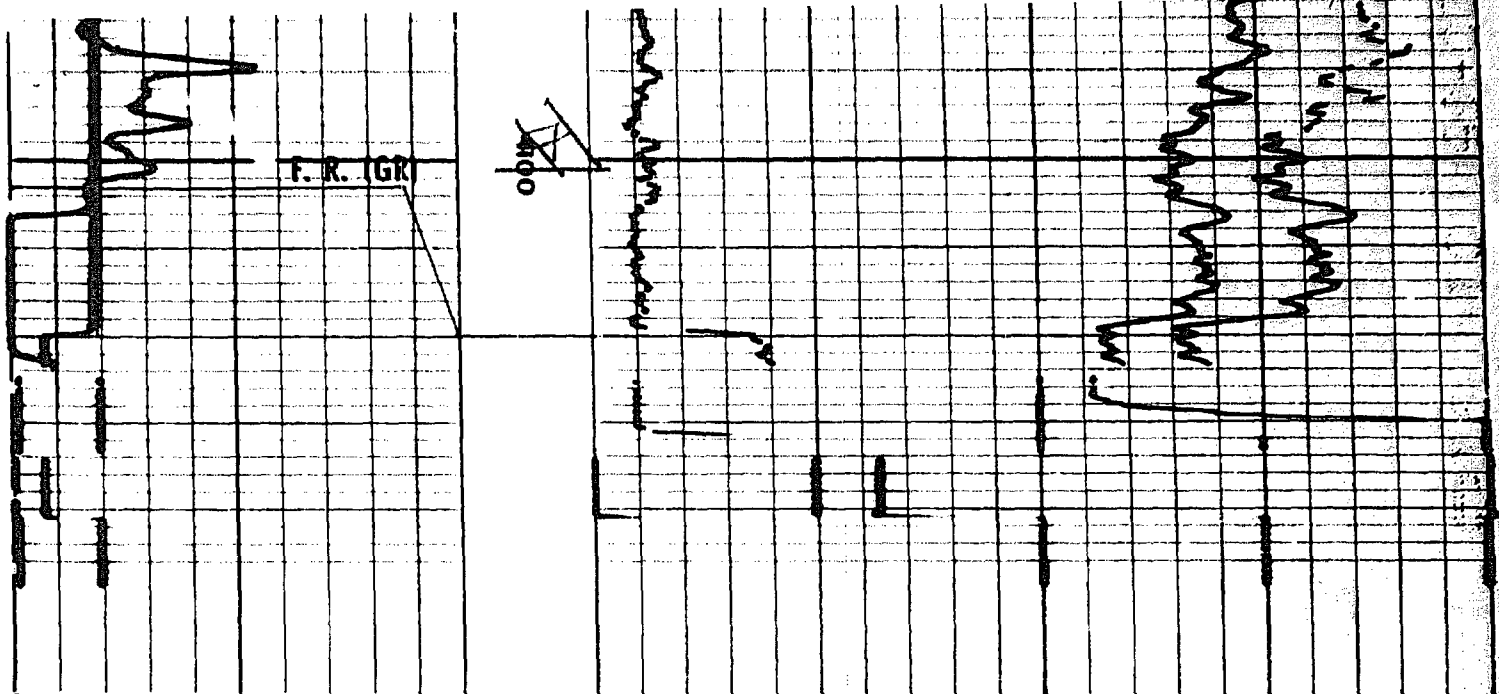
CALIPER

HOLE DIAM. IN INCHES

DEPTHS

POROSITY
PB=2.82





0 100

100 200

GAMMA RAY

API UNITS

6 16

CALIPER

HOLE DIAM. IN INCHES

DEPTHS

2.0

2.5

3.0

1.0

1.5

2.0

BULK DENSITY

GRAMS/CC.

POROSITY

PB=2.82

0 --- ±.25

CORRECTION
GRAMS/CC

20 --- 10 --- 0

COMPANY THE ATLANTIC REFINING COMPANY

Rm 06 @ 68 °F
BHT 95 °F

SWSC FR 4120

SWSC TD 4122

DRLR TD 4125

Elev:

KB 4352

DF 4351

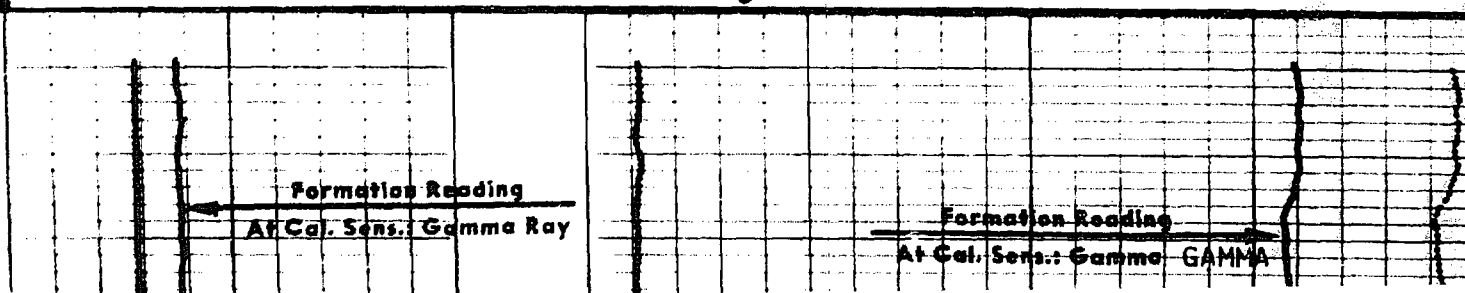
GL 4342

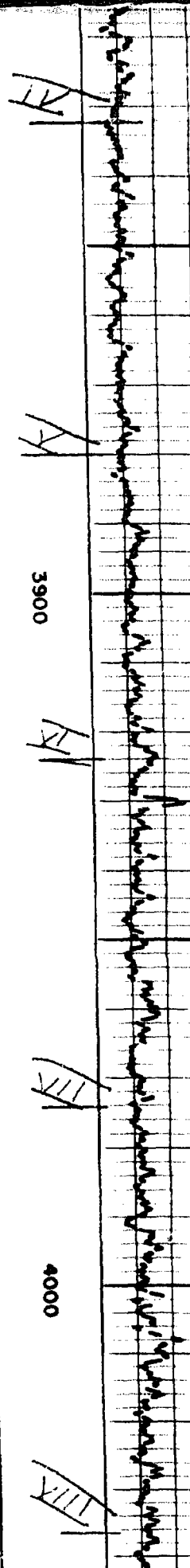
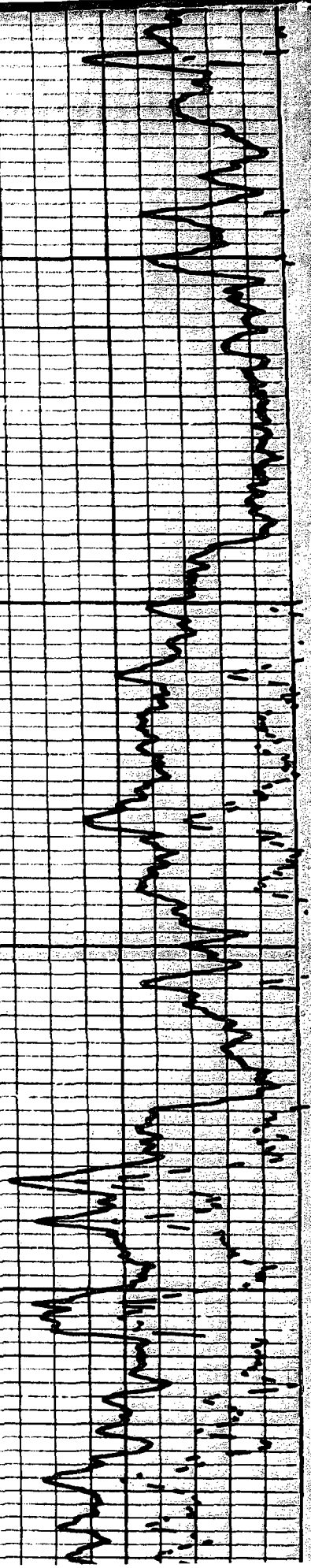
WELL STATE "80" #1

FIELD WILDCAT

COUNTY CHAVES STATE NEW MEXICO

CALIBRATION DATA





K

K

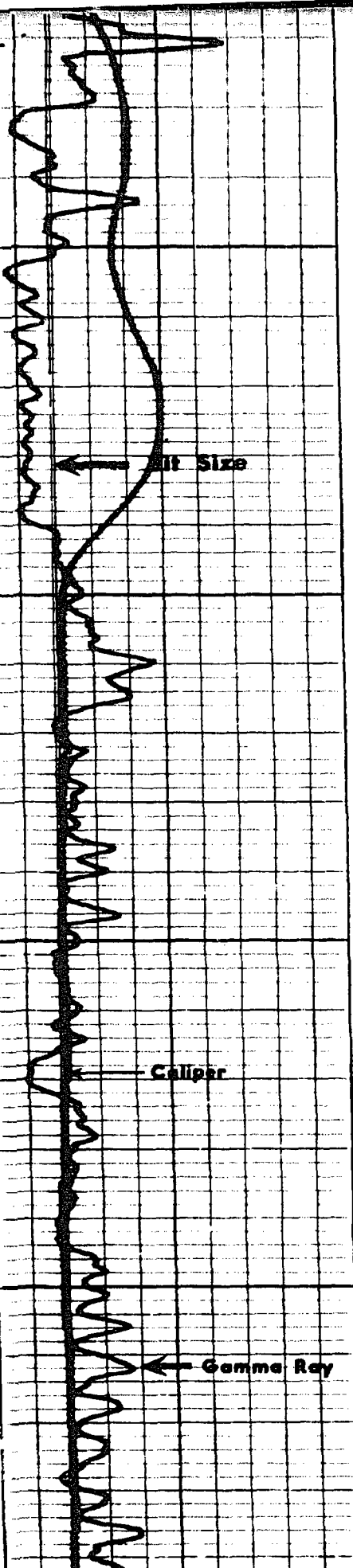
3900

K

K

4000

K



Bit Size

Caliper

Gamma Ray

COUNTY - CHAVES FIELD Wildcat

STATE NM

OPR THE ATLANTIC REFG. CO.

MAP

1 State "BD"

Sec. 2, T-8-S, R-31-E

CO-ORD

660' fr S & W Lines of Sec.

Spd 12-4-65

CLASS

Cmp 12-14-65

FORMATION

DATUM

FORMATION

DATUM

CSG & SX - TUBING

8 5/8" 334' 150

LOGS EL GR RA IND MC A

TD 4125'

PLUGGED & ABANDONED

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CONT.
DATE

PROP DEPTH 4250' TYPE

12-6-65 F.R. 12-2-65
 PD 4250' - SA
 Drlg. 2354'.
 8 5/8" casing @ 334' W/150 sx.

12-13-65 TD 4025', prep to drill.
 Cored 3935-61', rec 26' being:
 12' dolo., w/bldg oil & wtr in top 2½';
 10' dolo & anhy., w/NS; 4' dolo., bldg wtr,
 w/tr. oil.
 Cored 3985-4025', rec 40' being:
 2' dense dolo., w/sli PPP; 12' dolo., w/
 scatt show; 2' dolo., w/NS; 4' dolo., w/
 good PPP; 6' dense dolo., w/NS; 2' dolo.,
 bldg salt wtr; 4' dolo., w/sli show oil
 & wtr; 2' dolo., vuggy, bldg oil & wtr;
 2' dolo., w/NS; 4' dolo., w/sli show wtr.

CHAVES Wildcat NM
THE ATLANTIC REFG. CO., #1 State "BD"

Sec. 2-8S-31E
Page #2

12-13-65 Continued
DST 3980-4025', open 1 hr 30 mins,
GTS 57 mins,
Rec 500' Wtr & GC Emulsion (5% oil),
1 hr 15 min ISIP 960#, FP 90-220#,
1 hr 15 min FSIP 810#.

12-20-65 TD 4125', PLUGGED & ABANDONED.
No Tests or Cores @ TD.
LOG TOPS: Anhydrite 1540', Yates 2015',
San Andres 3108', Slaughter 3890'.

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 30 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all directional and measurement logs run on the well and a summary of all special tests conducted, including drill stem tests. In papers reported shall be submitted together in the case of directionally drilled wells, then vertical logs shall also be reported. For multiple completions, Form 30, though, is still to be reported for each zone. The form is to be filed electronically with the Commission. State land, where six copies are required, See Rule 135b.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Op Alamo _____	T. Penn. "B" _____
T. Salt _____ 1544	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____ 2015	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____ 2015	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____ 3188	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzite _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Hlinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

[illegible]

CMD :
OG5SEC2

ONGARD
INQUIRE REMARKS OF LAND BY SECTION

01/07/03 16:42:49
OGOWVJ -TPH3
PAGE NO: 3

Sec : 2 Twp : 08S Rng : 31E Section Type : NORMAL

OIL and GAS									
U Lot/	Qtr	L	SRF	SUB	ACTIVE	REMARKS			
S L Trct	Qtr	W	ACREAGE	OWNER	LEASE #	(may show restrictions codes)			
I	NE4SE4	N	40.00	ST ST	GT 1213 0000				
					GT 1213 0002				
J	NW4SE4	N	40.00	ST ST	GT 1213 0000				
					GT 1213 0002				
K	NE4SW4	N	40.00	ST ST	GT 1213 0000				
					GT 1213 0002				
L	NW4SW4	N	40.00	ST ST	GT 1213 0000				
					GT 1213 0002				
M	SW4SW4	N	40.00	ST ST	GT 1213 0000				
					GT 1213 0002				
N	SE4SW4	N	40.00	ST ST	GT 1213 0000				

PF01 HELP	PF02 PREV	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/07/03 16:42:36
OGOWVJ -TPH3
PAGE NO: 1

Sec : 02 Twp : 08S Rng : 31E Section Type : NORMAL

4 40.03 CS OPEN 08/29/00	3 39.93 CS OPEN 06/11/98	2 39.83 CS OPEN 08/29/00 A	1 39.73 CS OPEN 08/29/00 A
E 40.00 CS OPEN 08/29/00	F 40.00 CS OPEN 06/11/98	G 40.00 CS OPEN 06/11/98	H 40.00 CS OPEN 06/11/98 A

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/07/03 16:43:12
OGOWVJ -TPH3
PAGE NO: 2

Sec : 02 Twp : 08S Rng : 31E Section Type : NORMAL

L 40.00 CS OPEN 06/11/98	K 40.00 CS OPEN 06/11/98	J 40.00 CS OPEN 06/11/98	I 40.00 CS OPEN 06/11/98 A
M 40.00 CS OPEN 06/11/98	N 40.00 CS OPEN 08/29/00	O 40.00 CS OPEN 06/11/98	P 40.00 CS OPEN 06/11/98

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/07/03 16:47:16
OGOWVJ -TPH3
PAGE NO: 2

Sec : 03 Twp : 08S Rng : 31E Section Type : NORMAL

L 40.00 Federal owned	K 40.00 Federal owned	J 40.00 Federal owned	I 40.00 Federal owned
M 40.00 Federal owned	N 40.00 Federal owned	O 40.00 Federal owned	P 40.00 Federal owned

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/07/03 16:47:47
OGOWVJ -TPH3
PAGE NO: 1

Sec : 10 Twp : 08S Rng : 31E Section Type : NORMAL

D 40.00 Federal owned A	C 40.00 Federal owned	B 40.00 Federal owned	A 40.00 Federal owned
E 40.00 Federal owned	F 40.00 Federal owned	G 40.00 Federal owned	H 40.00 Federal owned

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12