

APPLICATION FOR AUTHORIZATION TO INJECT

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 Artesia, NM 88210
Contact party: Pinson McWhorter Phone: (505) 748-1471

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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source 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: Pinson McWhorter Title Petroleum Engineer

Signature: *Pin McWhorter* Date: July 27, 1990

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
YATES PETROLEUM CORPORATION
HOOVER "ADR" STATE #1
I 1-17S-33E
1650' FSL AND 990' FEL
LEA COUNTY, NEW MEXICO

- I. The purpose of re-entering this well is to dispose of Queen produced waters into the Queen formation.
- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Pinson McWhorter (505) 748-1471
- III. Well Data: (See Attachment A)
- IV. This is not an expansion of an existing project.
- V. See attached map. (See Attachment B)
- VI. There are wells within the one-half mile radius of the Hoover "ADR" State #1. Tabulation of data on all wells within area of review which penetrate the proposed injection zone. (See Attachment C)
- VII.
 1. Proposed average daily injection volume approximately 400 BWPD. Maximum daily injection volume approximately 600 BWPD.
 2. This will be a closed system.
 3. Proposed average injection pressure: Unknown
Proposed maximum injection pressure: 750 psi
 4. Sources of injected water would be produced water from the Queen formation. (See Attachment D)
- VIII.
 1. The proposed injection interval is from 3767'-3774' in the Queen formation. These sands were deposited in a supratidal environment.
 2. Fresh water in the Ogallala overlies the Queen to depths of approximately 450'.
- IX. The proposed disposal interval will be stimulated with 3000 gallons of 7 1/2 % HCL acid.
- X. Logs were filed at the Oil Conservation Division when the well was originally drilled to a total depth of 11,825'.
- XI. The approximate location of the nearest fresh water well is in NW/4 of the SE/4 of Section 12-T17S-R33E. A water analysis of a sample from this well is attached. (See Attachment E)

C-108
Application for Authorization to Inject
Hoover "ADR" State #1
Page Two

XII. Yates Petroleum Corporation has examined available geologic and engineering data and has found no evidence of faulting in the proposed interval.

XIII Proof of Notice

1. Copies of certified letters sent to the owner of the surface of the land on which the well is located and to each leasehold operator within the area of review. (See Attachment F)
2. Copy of legal advertisement. (See Attachment G)

XIV. Certification is signed.

YATES PETROLEUM CORPORATION
HOOVER "ADR" STATE #1
I 1-17S-33E

ATTACHMENT A
Page 1

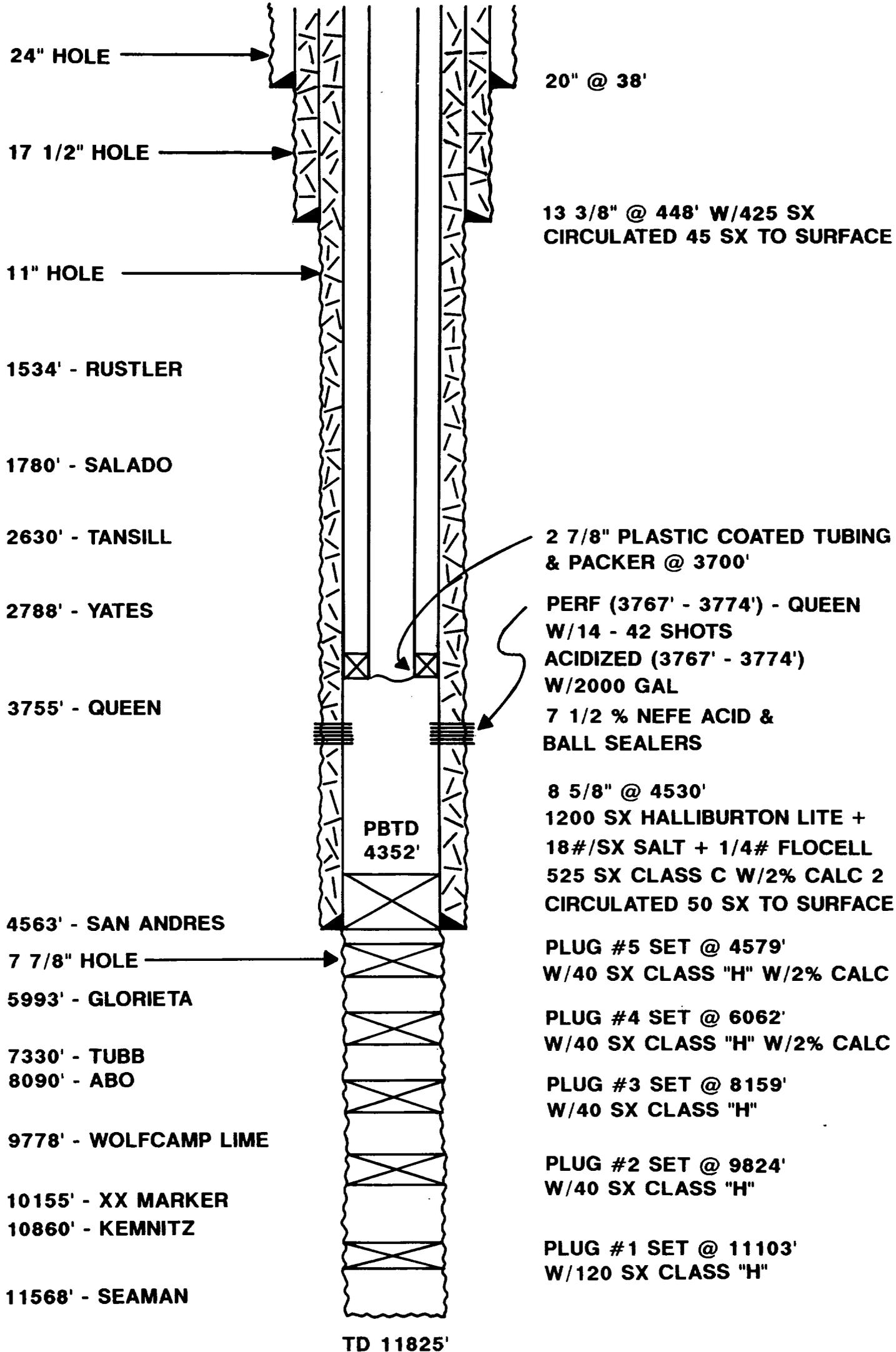
III. Well Data

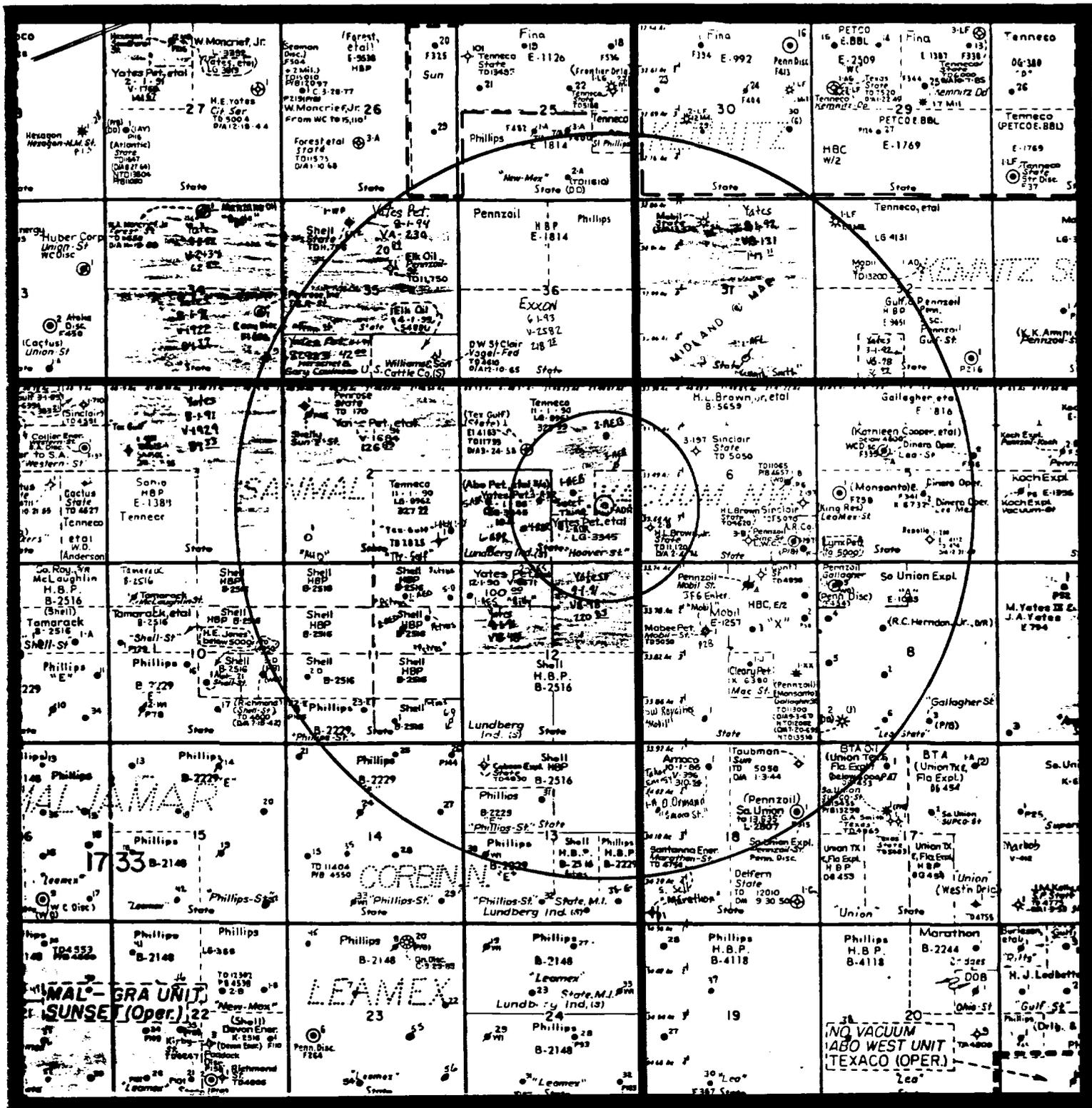
- A. 1. Lease Name/Location:
Hoover "ADR" State #1
Unit I Sec 1-T17S-R33E
1650' FSL and 990' FEL
2. Casing Strings:
13 3/8" set at 448' with 425 sx. Circulated
45 sx to surface.
8 5/8" set at 4530' with 1725 sx. Circulated
50 sx to surface.
3. Tubing:
Propose to use 2 7/8" 6.5# J-55 plastic
coated tubing set at approximately 3700'.
4. Packer:
Propose to use Guiberson Uni VI or Baker
plastic coated or nickel plated packer set at
3700'.
- B. 1. Injection Formation: Queen
2. Injection interval will be through perfor-
ations from approximately 3767'-3774'.
3. Well was originally drilled as a Wolfcamp
Wildcat; however, the zone was not
commercial.
4. Perforations: (Queen) 3767'-3774' w/14
shots, acidized (3767-3774) with 2000 gallons
7 1/2% acid.
5. Next higher (shallower) oil zone is the Seven
Rivers. The next lower (deeper) oil zone is
the Grayburg.

YATES PETROLEUM CORPORATION

HOOVER "ADR" STATE #1
1650' FSL & 990' FEL
SEC. 1 - T17S - R33E
QUEEN FORMATION
LEA COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH OF PROPOSED SALT WATER DISPOSAL WELL





YATES PETROLEUM CORPORATION

HOOVER "ADR" STATE #1

PROPOSED SALT WATER DISPOSAL WELL

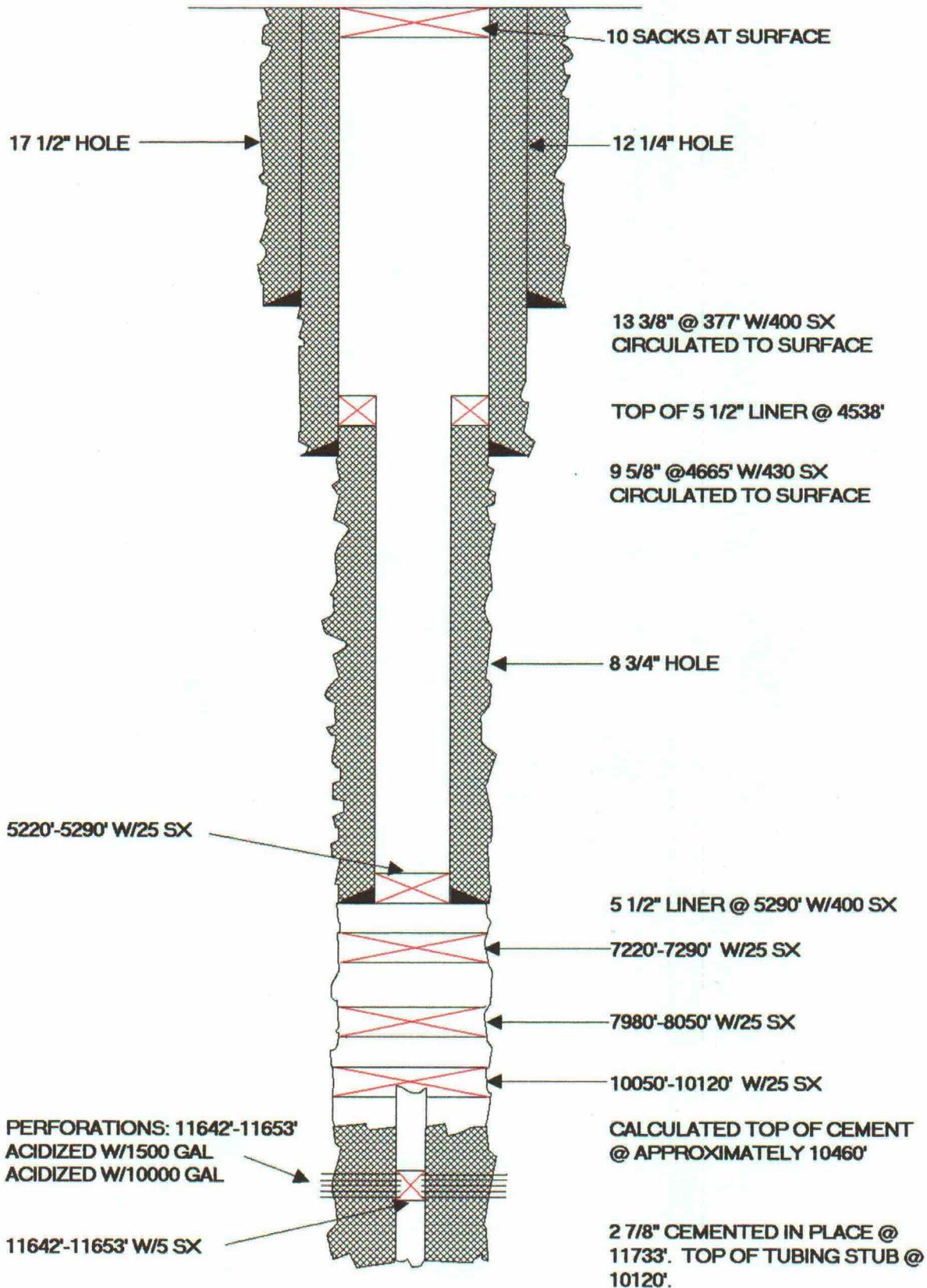
SEC. 1-T17S-R33E
 1650 FSL & 990 FEL
 LEA COUNTY, NM
 ATTACHMENT B

HOOPER ADR STATE #1
C-108 Application for Authorization to Inject

Tabulation of Data on Wells Within Area of Review

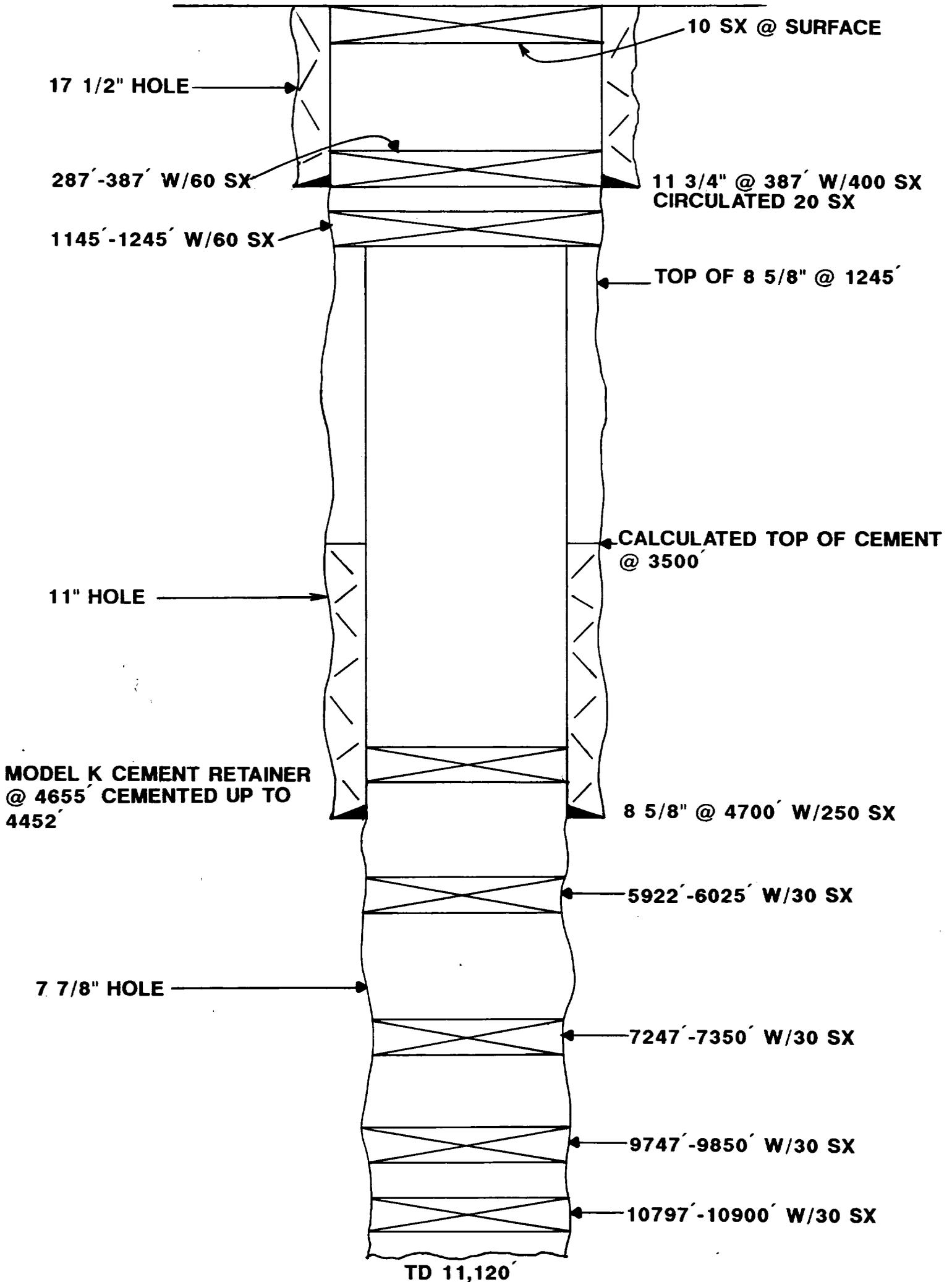
Well Name	Location	Operator	Well Type	Spud Date	Completion Date	TD (Ft)	Production Zone	Perforations	Completion Information
L. C. Harris State #1	F 1-175-33K	Willbanks & Rasmussen Formly-Texas Gulf Prod	F & A	01-31-65 Re-spud	03-15-66	11,733'	Seaman	11634'-11653'	13 3/8" @ 377' w/400 sx; 9 5/8" @ 465' w/400 sx; 5 1/2" liner 4536'-5250' w/200 sx; 2 7/8" tubing @ 11733 w/400 sx Acidized 11,634-6536/10,000 gal acid
Swetfiling ADR State #2	H 1-175-33K	Tates Petroleum Corp	Oil	10-13-86	03-15-87	3,900' 23 3,842'	Queen	3742'-3752'	20" @ 40'; 8 5/8" @ 1552' w/720 sx; 5 1/2" @ 3900' w/606 sx; 2 7/8" tubing @ 3720' Acidized w/ 2500 gals; frac w/10,000 gals + 20,000# sand
Swetfiling ADR State #3	H 1-175-33K	Tates Petroleum Corp	Abandon Loc	---	---	---	---	---	Abandoned location 11/02/88
Swetfiling ADR State #1	J 1-175-33K	Tates Petroleum Corp	Oil	05-22-86	07-04-86	3,300' PB 3,850'	Queen	3744'-3761'	20" @ 40'; 8 5/8" @ 468' w/275 sx; 5 1/2" @ 3900' w/1030 sx; 2 7/8" tubing @ 3685' Acidized 3744-3761 w/4000 gals - frac w/ 10,000 gals gel + 20,000 # sand
Hoover ADR State #3	K 1-175-33K	Tates Petroleum Corp	Oil	02-06-87	02-26-87	3,900'	Queen	3745'-3762'	8 5/8" @ 1515' w/ 775 sx; 5 1/2" @ 3900' w/ 225 sx; 2 7/8" tubing @ 3684' Acidized 3745-3762 w/ 2500 gals - frac w/ 15,000 gals SM + 26,000 # sand
Hoover ADR State #4	M 1-175-33K	Tates Petroleum Corp	Oil	02-16-87	03-24-87	3,900'	Queen	3753'-3763'	8 5/8" @ 1537' w/775 sx; 5 1/2" @ 3900' w/225 sx; 2 7/8" tubing @ 3677' Acidized 3753-3763 w/2000 gals
Hoover ADR State #2	O 1-175-33K	Tates Petroleum Corp	Oil	01-09-87	02-23-87	3,900' PB 3,833'	Queen	3762'-3762'	8 5/8" @ 1505' w/775 sx; 5 1/2" @ 3900' w/310 sx; 2 7/8" tubing @ 3763' Acidized 3762' w/ 750 gals
State B #2	N 6-175-34K	H.L. Brown, Jr	P & A	09-20-73	12-27-73	11,120' PB 6,025'	---	---	11 3/4" @ 387' w/400 sx; 8 5/8" @ 4700' w/250 sx

WILBANKS & RASMUSSEN
 L. C. HARRIS STATE #1
 SEC. 1 - 17S - 33E
 UNIT F
 1980' FNL & 1980' FWL
 RE - SPUD : 01 - 31 - 65 COMPL. : 03 - 15 - 66
 PLUGGED & ABANDONED



H. L. BROWN JR.

STATE "B" #2
SEC. 6-T17S-R34E
UNIT M
990' FSL & 330' FWL
LEA COUNTY, NEW MEXICO
SPUD: 9-20-73
COMPLETION: 12-27-73
P & A



WATER ANALYSIS REPORT
furnished by TRETOLITE CHEMICALS

COMPANY:	YATES PETROLEUM	LOCATION:
LEASE:	HOOVER ADR	1900' FSL and 2310' FWL
SAMPLE POINT:	WELL #3	Sec 1-T17S-R33E
SAMPLE DATE:	7-18-90	
SAMPLE TEMP.:	N/A	
		FORMATION:
		Queen
pH:	7.0	
H2S:		
	POS.	
SPECIFIC GRAVITY:	1.17	

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO3	134.20	2.20
Cl	151230.00	4260.00
SO4	950.00	19.79
Ca	2000.00	100.00
Mg	6561.00	537.79
Na	83816.71	3644.20

IONIC STRENGTH = 4.62
 TOTAL HARDNESS = 32000.0 mg/ltr.
 TOTAL DISSOLVED SOLIDS = 244504.6 mg/ltr.

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca (HCO3)2	2.20	178.29
CaSO4	19.79	1347.22
CaCl2	78.01	4329.46
Mg (HCO3)2	0.00	0.00
MgSO4	0.00	0.00
MgCl2	537.79	25609.41
NaHCO3	0.00	0.00
Na2SO4	0.00	0.00
NaCl	3644.20	213040.20

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO3 @ 80 DEG F. = 0.7
 CaCO3 @ 120 DEG F. = 1.1

SATURATION POINT

CaSO4 @ 70 DEG F. = 4706.6 MG/LTR.
 CaSO4 @ 110 DEG F. = 4783.0 MG/LTR.

(THIS SAMPLE CONTAINED 1347.2 MG/LTR. CaSO4)

WATER ANALYSIS REPORT
furnished by TRETOLITE CHEMICALS

COMPANY:	YATES PETROLEUM	
LEASE:	WILLIAMS WIND MILL	APPROXIMATE LOCATION:
SAMPLE POINT:	WATER TANK	NW/4 of SE/4 of
SAMPLE DATE:	7-18-90	Sec 12-T17S-R33E
SAMPLE TEMP.:	N/A	

pH: 8.0
H2S: NO
SPECIFIC GRAVITY: 1

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO3	122.00	2.00
Cl	3621.00	102.00
SO4	50.00	1.04
Ca	320.00	16.00
Mg	72.90	5.98
Na	1910.52	83.07

IONIC STRENGTH = 0.12
TOTAL HARDNESS = 1100.0 mg/ltr.
TOTAL DISSOLVED SOLIDS = 6092.8 mg/ltr.

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca (HCO3)2	2.00	162.08
CaSO4	1.04	70.91
CaCl2	12.96	719.19
Mg (HCO3)2	0.00	0.00
MgSO4	0.00	0.00
MgCl2	5.98	284.55
NaHCO3	0.00	0.00
Na2SO4	0.00	0.00
NaCl	83.07	4856.05

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO3 @ 80 DEG F. = 0.8
CaCO3 @ 120 DEG F. = 1.2

SATURATION POINT

CaSO4 @ 70 DEG F. = 2607.2 MG/LTR.
CaSO4 @ 110 DEG F. = 2654.4 MG/LTR.

(THIS SAMPLE CONTAINED 70.9 MG/LTR. CaSO4)

ATTACHMENT E

ATTACHMENT F



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

S. P. YATES
PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC. - TREAS.

July 27, 1990

CERTIFIED RETURN RECEIPT

Mr. Billy Williams
P.O. Box 30
Maljamar, NM 88264

Dear Mr. Williams:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Hoover "ADR" State #1 located in Unit I of Section 1-Township 17S-Range 33E.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,


Pinson McWhorter
Petroleum Engineer

PM/pbs

Enclosure



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

S. P. YATES
PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC. - TREAS.

July 27, 1990

CERTIFIED RETURN RECEIPT

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

Dear Sirs:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Hoover "ADR" State #1 located in Unit I of Section 1-Township 17S-Range 33E.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,


Pinson McWhorter
Petroleum Engineer

PM/pbs

Enclosure



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

S. P. YATES
PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC. - TREAS.

July 27, 1990

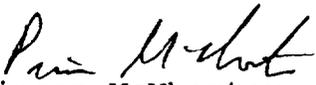
FINA OIL and GAS
6 Desta Drive #4400
Midland, TX 79705

Dear Sirs:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Hoover "ADR" State #1 located in Unit I of Section 1-Township 17S-Range 33E.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,


Pinson McWhorter
Petroleum Engineer

PM/pbs

Enclosures



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

S. P. YATES
PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC. - TREAS.

July 27, 1990

H.L. BROWN, JR.
P.O. Box 2237
Midland, TX 79702

ATTN: Steve Montgomery

Dear Sirs:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Hoover "ADR" State #1 located in Unit I of Section 1-Township 17S-Range 33E.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Pinson McWhorter'.

Pinson McWhorter
Petroleum Engineer

PM/pbs

Enclosure



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

S. P. YATES
PRESIDENT
JOHN A. YATES
VICE PRESIDENT
B. W. HARPER
SEC. - TREAS.

July 27, 1990

MOBIL OIL PRODUCING TX and NM
P.O. Box 633
Midland, TX 79702

Dear Sirs:

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Hoover "ADR" State #1 located in Unit I of Section 1-Township 17S-Range 33E.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,


Pinson McWhorter
Petroleum Engineer

PM/pbs

Enclosure

ATTACHMENT G

LEGAL NOTICE

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, New Mexico 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 "Hoover ADR State #1" is located 1650 FSL and 990 FEL of Section 1, Township 17 South, Range 33 East of Lea County, New Mexico, will be used for saltwater disposal only. Disposal waters from the Queen will be re-injected into the Queen formation at a depth of 3770 feet with a maximum pressure of 750 psi and a maximum rate of 600 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information can be obtained by contacting Pinson McWhorter at (505) 748-1471.

Published in the Hobbs News Sun, Hobbs, NM, Sunday, July 8, 1990.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Don Teer

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of _____

One weeks.
Beginning with the issue dated

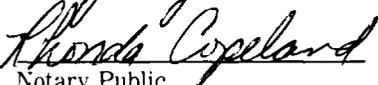
July 8, 1990
and ending with the issue dated

July 8, 1990


Business Manager
Sworn and subscribed to before

me this 16th day of

July, 1990


Notary Public.

My Commission expires _____

July 24, 1991
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

39 LEGAL NOTICE July 8, 1990

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CONSERVATION DIVISION
RE: ENERGY AND MINERALS DEPARTMENT

STATE OF NEW MEXICO

AND MINERALS DEPARTMENT

90 AUG 3 AM 9 20

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

7-31-90

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

Gentlemen:

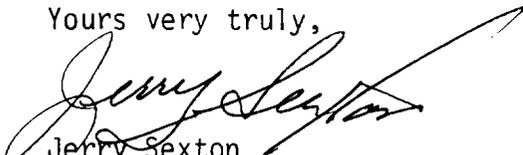
I have examined the application for the:

Yates Pet. Corp. Hoover ADR State #1-I 1-17-33
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

YOU MIGHT LOOK AT SUGGESTED WELLS
MAY NEED TO ADD ONE PLYS

Yours very truly,


 Jerry Sexton
 Supervisor, District 1

/ed