

APPLICATION FOR AUTHORIZATION TO INJECT

MAR - 5 1987

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

II. Operator: Kirby Exploration Company of TexasAddress: P. O. Box 1745 Houston, Texas 77251Contact party: Donnie Hill Phone: (505) 394-2508

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: James Kovar Title Regulatory Supervisor

Signature: [Signature] Date: February 18, 1987

* 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.

SALT WATER DISPOSAL APPLICATION

I. See Form C-108

II. See Form C-108

III.

A. 1) Lease name; Maxwell
Well No. 2
Location: Sec. 6, T13S, R38E
2310' FNL and 990' FWL

2) Casing Description:

<u>Size</u>	<u>Depth</u>	<u>Cement Amount</u>	<u>Hole Size</u>	<u>Cement Top</u>	<u>Determined By</u>
13-3/8"	379	375 s sx	17-1/2"	Surface	
8-5/8"	4,526	600sx	11"	Unknown	
5-1/2"	12,236	275 sx 40 sx	7-7/8"	9,038'	Calculated

3) Tubing Description:

Diameter: 2-7/8"
Lining Material: None
Setting Depth: 9600'

4) Packer Specifications:

Unknown at this time. Information will be submitted later.

B. 1) Injection Formation - Wolfcamp
Field: South Gladiola

2) Injection Interval:
9624' - 9634'
9642' - 9656'
9680' - 9682'
Perforated: 2 spf

3) Original Drilling Intention: Development Oil Well.

4) Sealed Perforation Interval:
9578' - 9612' Squeezed with 150 Sxs cement
CIBP set at 9803' capped with 5 Sxs 35' cement.

5) Depth to nearest oil or gas interval.
Lower - Devonian at 12,235'
Higher - None

IV. See Form C-108

V. See attached map.

VI. Other wells within area of review:

A. Operator: Kirby Exploration Company of Texas

Well: Maxwell No. 1

Type: Discovery Oil

Construction: 11-3/4" @ 376' w/510 Sx
8-5/8" @ 4,550' w/425 Sx
5-1/2" @ 12,223' w/1200 Sx - *TOC calc'd 650'*

Date Drilled: 7/7/65

Location: Sec.6, T13S, R38E
1980' FNL & 1980' FWL

Depth: 12,235'

Record of Completion: 9/15/65 DST 9660'-88', op 90 mins,
rec 600' gas in DP, 100' HO&GCM & 200' sli O&GCM, ISIP
2070#/30 mins, FP 267-267#, FSIP 1382#/30 mins, A/150 gals,
C/Ard Drlg. Co.

B. Operator: Major - Giebel - Forster

Well: E. B. Anderson No. 1

Type: Oil Well

Construction: 12-3/4" @ 390' w/400 Sx
8-5/8" @ 4,505' w/400 Sx
4-1/2" @ 12,182' w/900 Sx - *TOC calc'd 8918'*

Date Drilled: 11/21/67

Location: Sec.6, T13S, R38E
2310' FSL & 990' FWL

Depth: 12,197'

Record of Completion: 9626'-70', 15-min pre-flow, good
blo, tool op 45 mins, rec 1664' fluid (30'GCM, 184'
VHO&GCM), rev out 1226' fluid (350' VHO&GCM), 826' free oil
& 90' wtr, rec 184' water below sub, ISIP 1585#/1 Hr, FP
1527-1667#, FSIP 1616#/2 hrs, DST 11,205-11,240' op 1 hr,
wk blo, ISIP 4248#/1 hr, FP 988-889#, FSIP 4269#/2 Hrs, DST
12,083-197', op 3 hrs, GTS 1-1/2 hrs rec 45 BO, 23.5 BW,
ISIP 4297#/45 mins, FP 1161-2237#, FSIP 4297#/1 hr, OH
12,182-12,198', A/500 gals, F/33-1/2 BO/l Hr, 1/2" ch, Grav
43, TP 300#.

C. Operator: Major - Giebel - Forster

Well: E. B. Anderson No. 2

Type: D&A

Construction: 12-3/4" @ 372' w/400 Sx
8-5/8" @ 4,505' w/400 Sx
5-1/2" @ 12,226' w/950 Sx - *TOC calc'd 7698'*

Date Drilled: 4/28/68

Location: Sec.6, T13S, R38E
990' FSL & 990' FWL

Depth: 12,234'

D. Operator: Ashmund & Hilliard
Well: G.A. Whitmire
Type: D&A
Construction: 11-3/4" @ 383' w/525 Sx
8-5/8" @ 4,565' w/500 Sx
Date Drilled: 1/25/66
Location: Sec. 6, T13S, R38E
2110' FSL & 2110' FEL
Depth: 11,726'
Attached schematic

E. Operator: Solar Oil
Well: Rulon No. 1
Type: D&A
Construction: 11-3/4" @ 390' w/#Sx
8-5/8" @ 4,502' w/400 Sx
5-1/2" @ 12,288' w/#Sx
Date Drilled: 11/21/68
Location: Sec. 1, T13S, R37E
2310' FSL & 330' FEL
Depth: 12,288'
Attached schematic

F. Operator: Cosden Petroleum
Well: Maxwell No. 1
Type: D&A
Construction: 13-3/8" @ 405' w/450Sx
8-5/8" @ 4,612' w/2000Sx
5-1/2" @ 11,710' w/325Sx
Date Drilled: 4/22/59
Location: Sec. 6, T13S, R38E
660' FNL & 660' FWL
Depth: 12,346
Attached schematic

G. Operator: Sunray DX Oil Co.
Well: O.E. Fulton No. 1
Type: P&A
Construction: 13-3/8" @ 337' w/350 Sx
9-5/8" @ 4,559' w/3272 Sx
5-1/2" @ 10,048' w/250 Sx
Date Drilled: 11/25/64
Location: Sec. 6, T13S, R38E
660' FSL & 1977' FWL
Depth: 12,320'
Attached schematic

VII. Volumes of Fluids to be Injected:

- 1) Daily Average: 500 bbls/day
Daily Maximum: Unknown at this time.
- 2) System is open.
- 3) Proposed Pressures:
Average: Unknown at this time.
Maximum: Unknown at this time.
- 4) Present plans are to only reinject produced water from the same formation.
- 5) Disposal zone is productive of oil and/or gas

VIII. Lithologic Detail:

Wolfcamp lime

Top @ 9150'

Thickness: 9624' - 9682'

Fresh water sands *J. Hall at depth of 55-0' in the
J.W. Anderson well in Sect. 6 as indicated
on map?*

IX. Stimulation:

In an attempt to stimulate oil production 10,000 gals gelled 15% HCl was used. Attempt was unsuccessful. No further stimulation proposed.

X. See attached log.

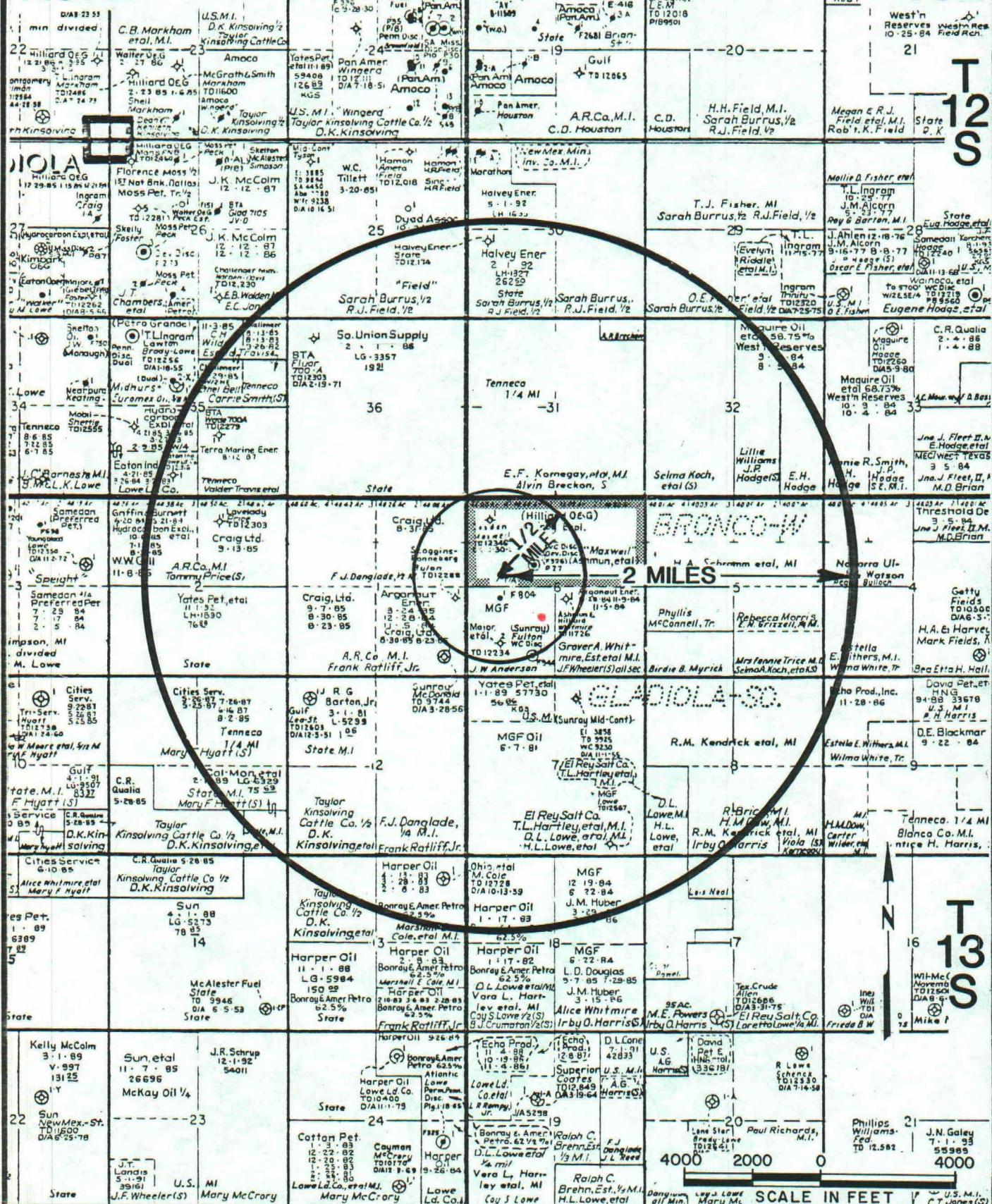
XI. See attached fresh water analysis.

XII. Examination of the available geologic and engineering data has revealed no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Some faults exist but they are sealing faults and do not extend above the base of the Pennsylvanian which is well below any fresh water source.

JLK:M
2/5/87

R37E

R38E



Kirby Exploration Company of Texas

LOCATION PLAT
MAXWELL #2

Lea County, New Mexico

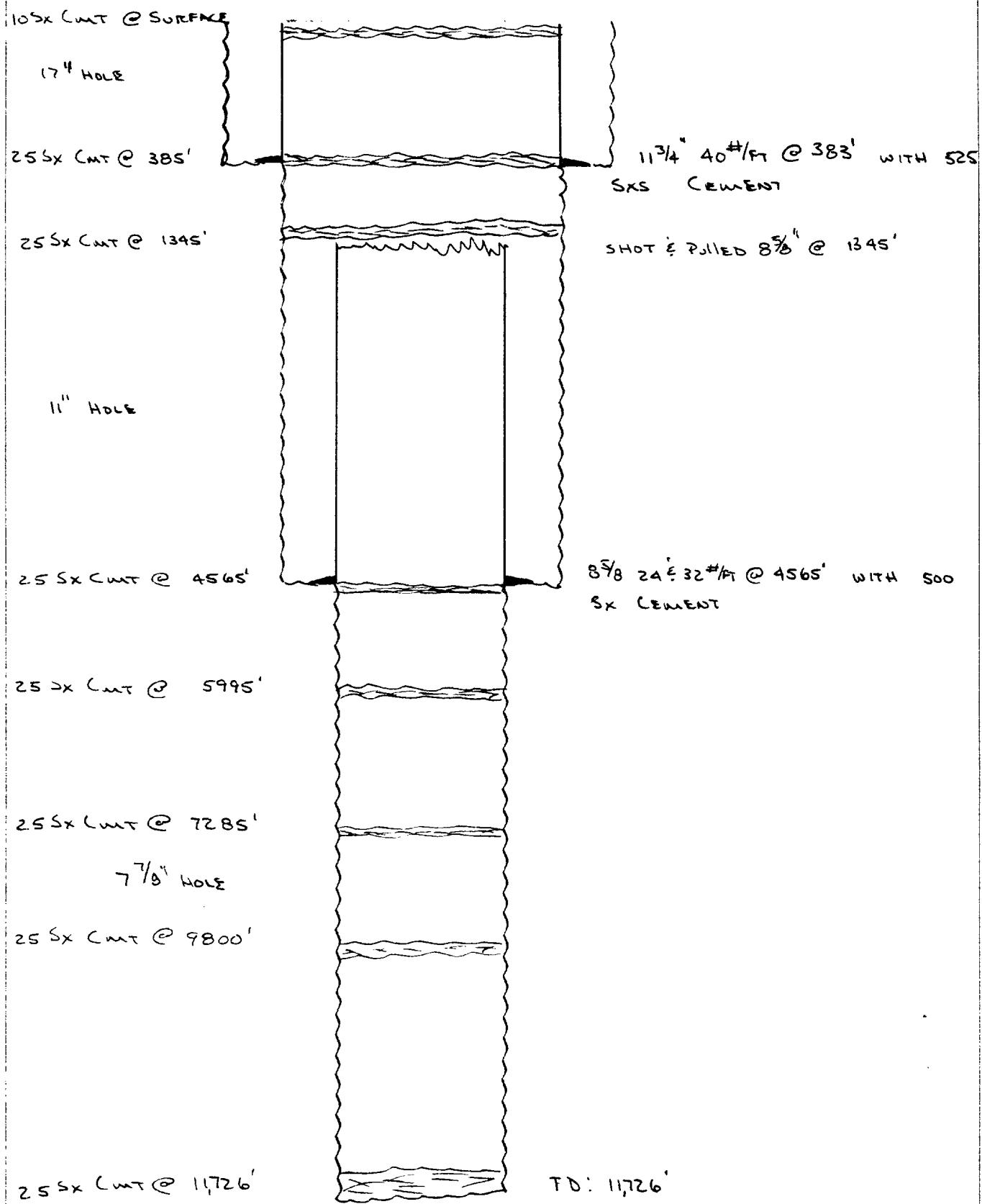
1":4000'



ASHMUND HILLTOP

G.A. WHITMORE No. 1

RDN
2/3/82



40 SXS CEMENT TO SURFACE TO 408'. CAP WITH STEEL PLATE

17 1/2" HOLE

11 3/4", 42#/FT @ 390' WITH 400
SXS CEMENT

100 SXS CEMENT @ 1700'

11" HOLE

100 SXS CEMENT @ 2700'

8 1/2" 24 1/2#/FT @ 4502 WITH 400 SXS CEMENT

50 SXS CEMENT @ 5300'

RETAINER @ 5300'. PUMP 200 SXS CEMENT

8 1/2"

35 SXS CEMENT @ 9577'

PERF: 4618-30

10c @ 87 1/2
by calc.

BRIDGE PLUG @ 9710

PERF: 10560-70

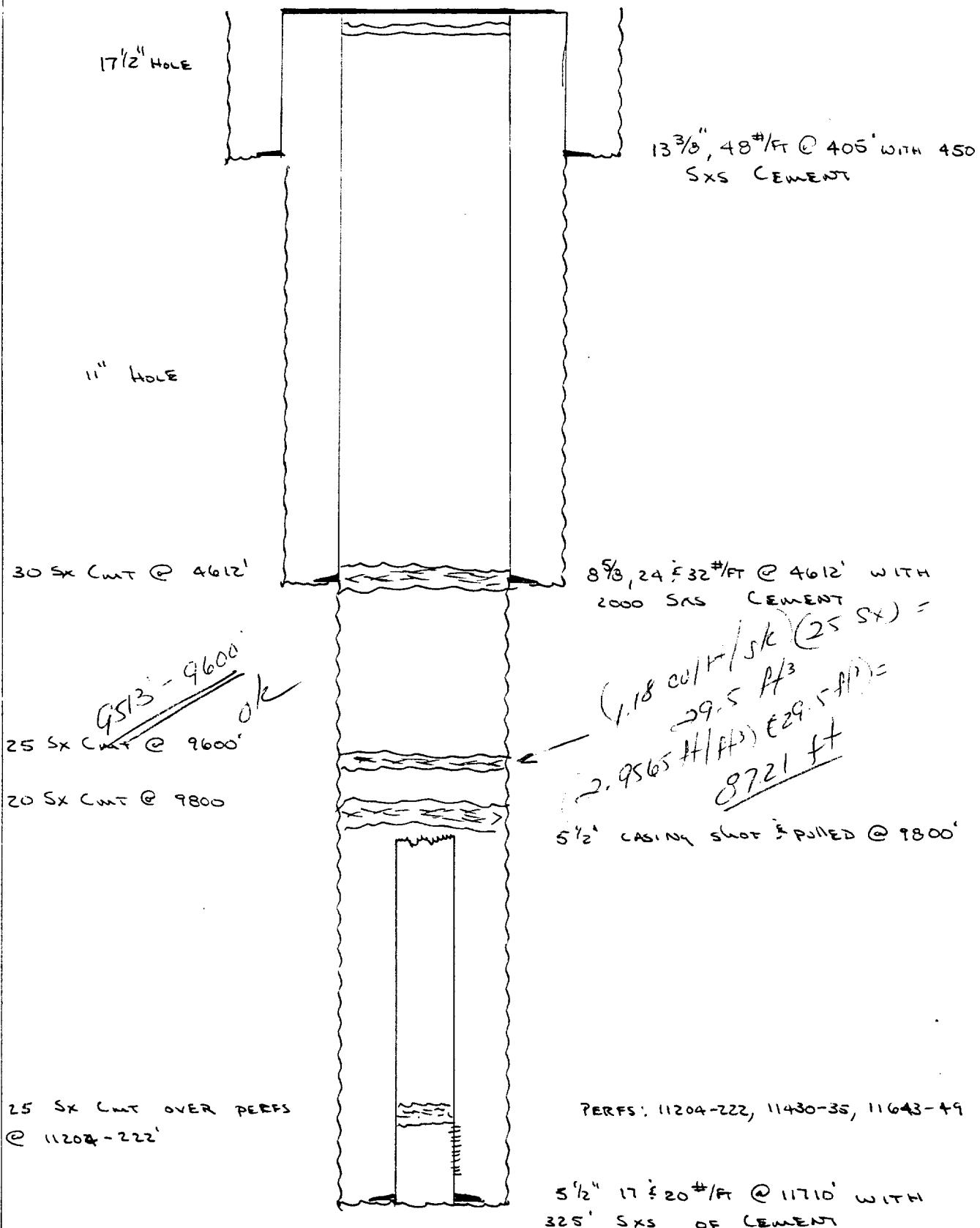
BRIDGE PLUG @ 10743

PERF: 12268-86

5 1/2", 17 1/2#/FT @ 12288' WITH 525 SXS CEMENT

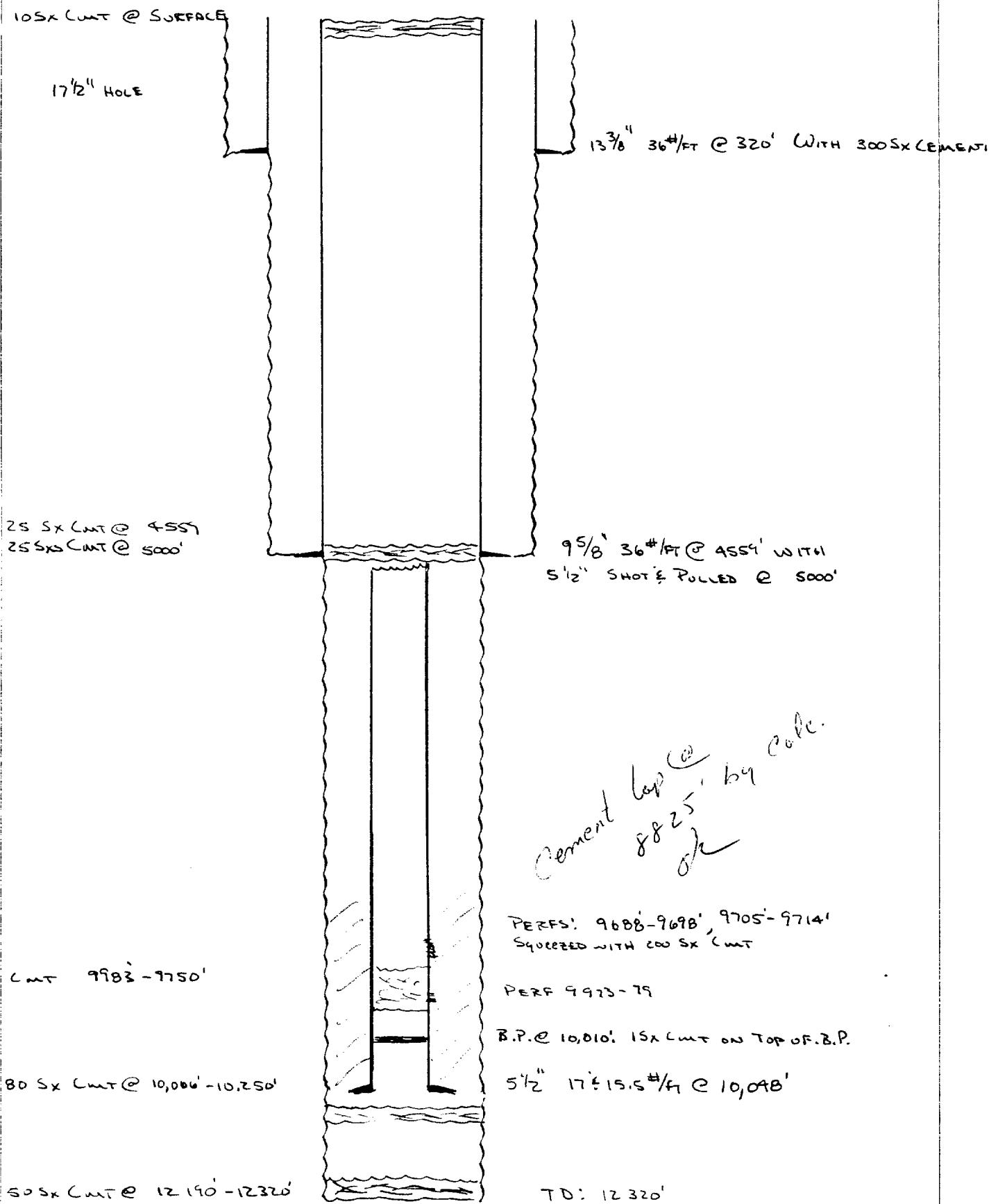
NATIONAL
PIPE
50 SHELLS 1" SQUARE
100 SHELLS 3" SQUARE
42 380
42 382
42 386
42 389

105x CNT @ SURFACE. WELD ON $\frac{1}{2}$ " STEEL PLATE



Ashmun & Hillard

O.E. FULTON No. 1



MAXWELL No.2

LOCATION 2310' FNL X 940' FWL SECTION 6 BLOCK
SURVEY T-13-S R-38-E COUNTY LEA COUNTY, New Mexico
DATUM [] G.L. ELEV. 3964' TD 12,244 PSTD 9768 [

OPT 5-16-69 FLOWING 451 BOPD X 244' MCFD X 0 BBL/D IN 9 HOURS DATA AVAILABLE DST PVT
REMARKS: RECOMPLETION ATTEMPTED IN WOLFCLAMP - PRODUCED ALL WATER WITH HIGH FLUID LEVEL

REMARKS: RECOMPLETION ATTEMPTED IN WOLF CAMP - PRODUCED ALL WATER WITH HIGH FLUID LEVEL.

WATER ANALYSIS REPORT



TECH SERVICE LABORATORY: Odessa, Texas Phone (915) 257-0084 & 243-2863
 RESEARCH LABORATORY: Houston, Texas Phone (713) 431-2261
 PLANT: Odessa, Texas Phone (915) 257-0084

REPORT FOR Donnie Hill DATE SAMPLED 1/26/87
 cc Skidmore DATE REPORTED 1/28/87
 cc FIELD, LEASE, OR WELL Near Maxwell Well
 cc COUNTY STATE
 COMPANY Kirby FORMATION
 ADDRESS DEPTH
 SERVICE ENGINEER Ray Adrian SUBMITTED BY Kirby Bumper

CHEMICAL ANALYSIS (PARTS PER MILLION)

Field, Lease, or Well

Chemical Component	Fresh Well						
Chloride (Cl)	600						
Iron (Fe)	1						
total Hardness (Ca CO ₃)	1400						
Sodium (Na)	521						
Magnesium (Mg)	24						
Bicarbonate (HCO ₃)	170						
Carbonate (CO ₃)	0						
Sulfate (SO ₄)	211						
Hydrogen Sulfide (H ₂ S)							
Specific Gravity	1.001						
Density, lb./gal.	8.342						
H - Beckman 11 Series 11	6.100						
Carbon dioxide							
Sodium (calc.)	0						
DG	1528						
3501 Sol 8 82F	1870						
3501 Present	300						

OTHER DESCRIPTION, REMARKS AND RECOMMENDATIONS

ACO3 SI 8 86 F -0.16
 104 F +0.05
 122 F +0.29
 140 F +0.53
 158 F +0.78

REPORTED BY

Donald J. Scott TITLE Chemist

● SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
2. Restricted Delivery.

3. Article Addressed to:

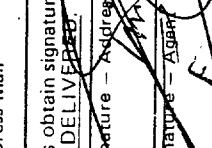
Mr. J. F. Wheeler
Route 1, Box 282
Lovington, N. M. 88260

4. Type of Service:

Article Number	462789
<input type="checkbox"/> Registered	<input type="checkbox"/> Insured
<input checked="" type="checkbox"/> Certified	<input type="checkbox"/> COD
<input type="checkbox"/> Express Mail	

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X 

6. Signature - Agent

X 

7. Date of Delivery

2-24-87

8. Addressee's Address (ONLY if requested and fee paid)

Y

● SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
2. Restricted Delivery.

3. Article Addressed to:

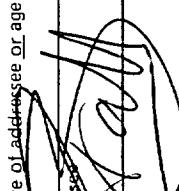
YATES PETROLEUM CORP.
207 South 4th Street
Artesia, New Mexico
88210

4. Type of Service:

Article Number	462631
<input type="checkbox"/> Registered	<input type="checkbox"/> Insured
<input checked="" type="checkbox"/> Certified	<input type="checkbox"/> COD
<input type="checkbox"/> Express Mail	

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee

X 

6. Signature - Agent

X 

7. Date of Delivery

2-20-87

8. Addressee's Address (ONLY if requested and fee paid)



KIRBY EXPLORATION COMPANY OF TEXAS

February 17, 1987

MGF Oil Corporation
Post Office Box 360
Midland, TX 79702

SUBJECT: Field: Gladiola, South (Wolfcamp)
Lease: Maxwell
Well: NO. 2
Location: Lea County, N.M., Sec.6, T135-R38E

Gentlemen:

Kirby Exploration is submitting to the Oil Conservation Commission, State of New Mexico, an application to convert the above referenced well to salt water disposal.

As required under the rules of the Commission, the surface owner of the subject lease and each offset operator is being furnished a copy of this application. Your copy is enclosed.

Should you have any questions, please do not hesitate to call.

Yours very truly,

James L. Kovar
Regulatory Supervisor

JLK:M
Enclosure



KIRBY EXPLORATION COMPANY OF TEXAS

February 17, 1987

Mr. J. F. Wheeler
Route 1, Box 282
Lovington, N.M. 88260

SUBJECT: Field: Gladiola, South (Wolfcamp)
Lease: Maxwell
Well: NO. 2
Location: Lea County, N.M., Sec.6, T135-R38E

Dear Mr. Wheeler:

Kirby Exploration is submitting to the Oil Conservation Commission, State of New Mexico, an application to convert the above referenced well to salt water disposal.

As required under the rules of the Commission, the surface owner of the subject lease and each offset operator is being furnished a copy of this application. Your copy is enclosed.

Should you have any questions, please do not hesitate to call.

Yours very truly,

James L. Kovar
Regulatory Supervisor

JLK:M
Enclosure



KIRBY EXPLORATION COMPANY OF TEXAS

February 17, 1987

Yates Petroleum Corporation
207 South 4th Street
Artesia, N.M. 88210

SUBJECT: Field: Gladiola, South (Wolfcamp)
Lease: Maxwell
Well: NO. 2
Location: Lea County, N.M., Sec.6, T135-R38E

Gentlemen:

Kirby Exploration is submitting to the Oil Conservation Commission, State of New Mexico, an application to convert the above referenced well to salt water disposal.

As required under the rules of the Commission, the surface owner of the subject lease and each offset operator is being furnished a copy of this application. Your copy is enclosed.

Should you have any questions, please do not hesitate to call.

Yours very truly,

[Signature]
James L. Kovar
Regulatory Supervisor

JLK:M
Enclosure

Special Master

LEGAL NOTICE

FEBRUARY 22, 1987

Kirby Exploration Company
of Texas, P. O. Box 1745,
Houston, Texas 77251 has ap-
plied with the New Mexico
Energy and Minerals Depart-
ment - Oil Conservation Divi-
sion to convert the Maxwell #2 to
a salt water disposal well. The
well is located 2310' from the
North Line and 990' from the
West line of Section 6, Township
13 South, Range 38 East. Water
will be disposed of into the
Wolfcamp formation at 9150'.

Any questions related to the
application should be directed to
Jim Kover at Kirby Exploration
at 713/629-9370. Any objections
or requests for hearing should
be filed within 15 days with the
Oil Conservation Division at P.
O. Box 2088, Santa Fe, NM
87501.

9150 Top of
Wolfcamp
formation

P 462 729 637

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Yates Petroleum Corp.	
Street and No 207 S. 4th Street	
P.O. State and ZIP Code Artesia, N. M. 88210	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985
★ U.S.G.P.O. 1985-480-794



P 462 729 636

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to MGF Oil Corporation	
Street and No P. O. Box 360	
P.O. State and ZIP Code Midland, Texas 79702	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985
★ U.S.G.P.O. 1985-480-794



P 462 729 634

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. J. F. Wheeler	
Street and No Route 1, Box 282	
P.O. State and ZIP Code Lovington, N. M. 88260	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985
★ U.S.G.P.O. 1985-480-794

