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ATTORNEYS AT LAW
EL PATIO BUILDING
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POST OFFICE BOX 2265
SANTA FE, NEW MEXICO 87504-2265

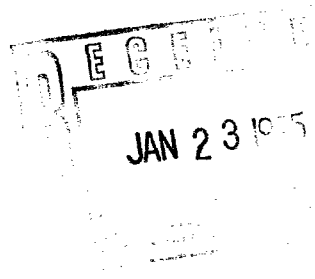
W. THOMAS KELLAHIN*
*NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

January 23, 1995

HAND DELIVERED



Mr. Michael E. Stogner
Chief Hearing Examiner
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Application of Meridian Oil Inc. for Approval of its East Corbin (Delaware) Unit as an Authorized Unit and Waterflood Project and to Qualify Said Waterflood for the Recovered Oil Tax Rate Pursuant to the "New Mexico Enhanced Oil Recovery Act", Lea County, New Mexico

11207

Dear Mr. Stogner:

On behalf of Meridian Oil Inc., please find enclosed our referenced application which we request be set for hearing on the next available Examiner's docket now scheduled for February 16, 1995.

By copy of this letter and application, sent certified mail, we are notifying all interested parties within a 1/2 mile radius of the subject injection well of their right to appear at the hearing and participate in this case, including the right to present evidence either in support of or in opposition to the application and that failure to appear at the hearing may preclude them from any involvement in this case at a later date.

Pursuant to the Division's Memorandum 2-90, all parties are hereby informed that if they appear in this case, then they are requested to file a Pre-Hearing Statement with the Division not later than 4:00 PM on Friday, February 10, 1995, with a copy delivered to the undersigned.

Also enclosed is our proposed advertisement of this case for the NMOCD docket.

Very truly yours,

W. Thomas Kellahin

Enclosure

cc: Meridian Oil Inc. (Midland) and
By Certified Mail - Return Receipt
All Parties Listed in Application

PROPOSED ADVERTISEMENT

CASE 11207 Application of Meridian Oil Inc. for approval of its proposed East Corbin (Delaware) Unit as an authorized unit and waterflood project and to qualify said project for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico. Applicant, in the above styled cause, seeks approval of its East Corbin (Delaware) Unit and Waterflood Project by means of a significant changes in process including the approval of the conversion of 3 producers to injection wells and to drill one new injection well. Applicant further seeks an order pursuant to the Rules and Procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate, as promulgated by Division Order R-9708, qualifying this Unit Waterflood Project, located in various parts of Sections 15, 16, 21, 22, T18S, R33E, NMPM, Delaware formation of the West Corbin-Delaware Pool, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Said project area is located approximately 5.7 miles southwest of Buckeye, New Mexico.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF MERIDIAN OIL INC. FOR APPROVAL OF ITS EAST CORBIN (DELAWARE) UNIT AS AN AUTHORIZED UNIT AND WATERFLOOD PROJECT AND TO QUALIFY SAID WATERFLOOD FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO

JAN 23

CASE NO 11207

APPLICATION

Comes now MERIDIAN OIL INC., by its attorneys, Kellahin & Kellahin, and applies to the New Mexico Oil Conservation Division for:

approval of its proposed East Corbin (Delaware) Unit, consisting of 880 acres of federal and state lands, as a unit pursuant to Division Rule 507;

approval of its proposed East Corbin (Delaware) Unit Waterflood Project for salt water injection in the Delaware formation of the West Corbin-Delaware Pool within an interval from approximately 5190 feet to 5270 including authorization to convert 3 producers to injection wells and to drill one new injection well; and

an order pursuant to the Rules and Procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate, as promulgated by Division Order R-9708, qualifying the East Corbin (Delaware) Unit Waterflood Project, located in portions of Sections 15, 16, 21, 22, T18S, R33E, NMPM, Delaware formation of the West Corbin-Delaware Pool, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5).

and in support states:

(1) Meridian Oil Inc. ("Meridian") is the current operator of all the Delaware oil wells (West Corbin-Delaware Pool) within a 880 acre area (containing 480 acres of federal leases and 400 acres of state leases) and consisting of the following acreage:

TOWNSHIP 18 SOUTH RANGE 33E, NMPM

Section 15: S/2SW/4
Section 16: S/2
Section 21: N/2
Section 22: NW/4

(2) Meridian proposes the formation of a unit to be called the East Corbin Delaware Unit, containing all of the acreage described above, for the purposes of a waterflood project for the secondary recovery of oil from the Delaware formation.

(3) The Delaware wells in the proposed Unit Area are currently producing at 91 BOPD and 271 BWPD from 8 active producers. Ultimate primary oil recovery from the Unit Area is estimated to be 529,500 barrels of oil. As of December 1, 1994, cumulative oil production from the Unit was 393,100 barrels of oil. Approximately 136,400 barrels of oil reserves remain to be produced under the current mode of operations.

(4) Under the proposed initial 160-acre irregular five-spot patterns, ultimate secondary oil recovery is estimated an additional 510,400 barrels of oil.

(5) Meridian seeks approval to convert 3 producers to injection wells and to drill its proposed Federal MA Well No 11 as an injection well at a standard well location 990 feet FEL and 1340 feet FNL of said Section 21.

(6) Meridian seeks to qualify the entire Unit Area as an Enhanced Oil Recovery Project in accordance with the rules and procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovered Oil Tax Rate under the New Mexico Enhanced Oil Recovery Act.

(7) The estimated amount of recoverable oil attributable to a Positive Production Response from the use of enhanced oil recovery technology for this EOR Project is 510,400 barrels of additional oil.

(8) In accordance with Division Order R-9708, the following is submitted:

a. Operator's name and address:

MERIDIAN OIL INC.
P. O. Box 51810
Midland, Texas 79710-1810

b. Description of the Use area:

(1) Plat outlining Use area:

See Exhibit "A"

(2) Description of the Use Area:

T18S, R33E NMPM
Sec. 15: S/2SW/4
Sec. 16: S/2
Sec. 21: N/2
Sec. 22: NW/4

(3) Total acres in Use Area:

880 acres, more or less

(4) Name of the subject Pool and formation:

Delaware formation of the
West Corbin-Delaware Pool

c. Status of operations in the project area:

(1) unit name:
East Corbin (Delaware) Unit
approvals pending
(2) N/A
(3) N/A

d. Method of recovery to be used:
(1) injected fluids: water
(2) Approvals pending
(3) N/A

e. Description of the Use Area:
(1) a list of producing wells:
See Exhibit "B"

(2) a list of injection wells:
See Exhibit "C"

(3) Capital cost of additional facilities:

Drill & Equip 1 injector: $301,000.00
Convert 3 producers to injec:$127,000.00
Upgrade Battery/injec.facil: $108,000.00

(4) Total Project Costs:

$536,000.

(5) Estimated total value of the additional production that will be recovered as a result of this Use Area:

An additional 510,400 barrels of oil with a current undiscounted value of $ 9.5 million dollars

(6) Anticipated date of commencement of injection:

as soon as possible after OCD approval, if granted.

(7) the type of fluid to be injected and the anticipated volumes:

water injected at an estimated rate of 3,000 BWPD

(8) Explanation of changes in technology:

Meridian proposes to utilize changes in technology and the process to be used for displacement of oil as approved by the Division

f. Production data:

See attached graphs marked as Exhibits "D" "E" and "F" to show the production history and production forecast of oil, gas, casinghead gas and water from the project area.

(9) In accordance with Division notice rules, copies of this application have been sent certified mail return receipt to those parties listed on Exhibit G attached.

Wherefore, Applicant requests that this application be set for hearing and that after said hearing, the Division enter its order approving this application.

Respectfully submitted

W. Thomas Kellahin
KELLAHIN & KELLAHIN
P.O. Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285

CERTIFICATION

STATE OF TEXAS)
) SS.
COUNTY OF MIDLAND)

I,Chet A. Babin, having been first duly sworn, state that I am a petroleum engineer, a duly authorized representative of Meridian Oil Inc., have knowledge of the facts herein and therefor certify that the facts set forth in this Application are true and accurate to the best of my own knowledge and belief.

Chet A. Babin

STATE OF TEXAS)
) SS.
COUNTY OF MIDLAND)

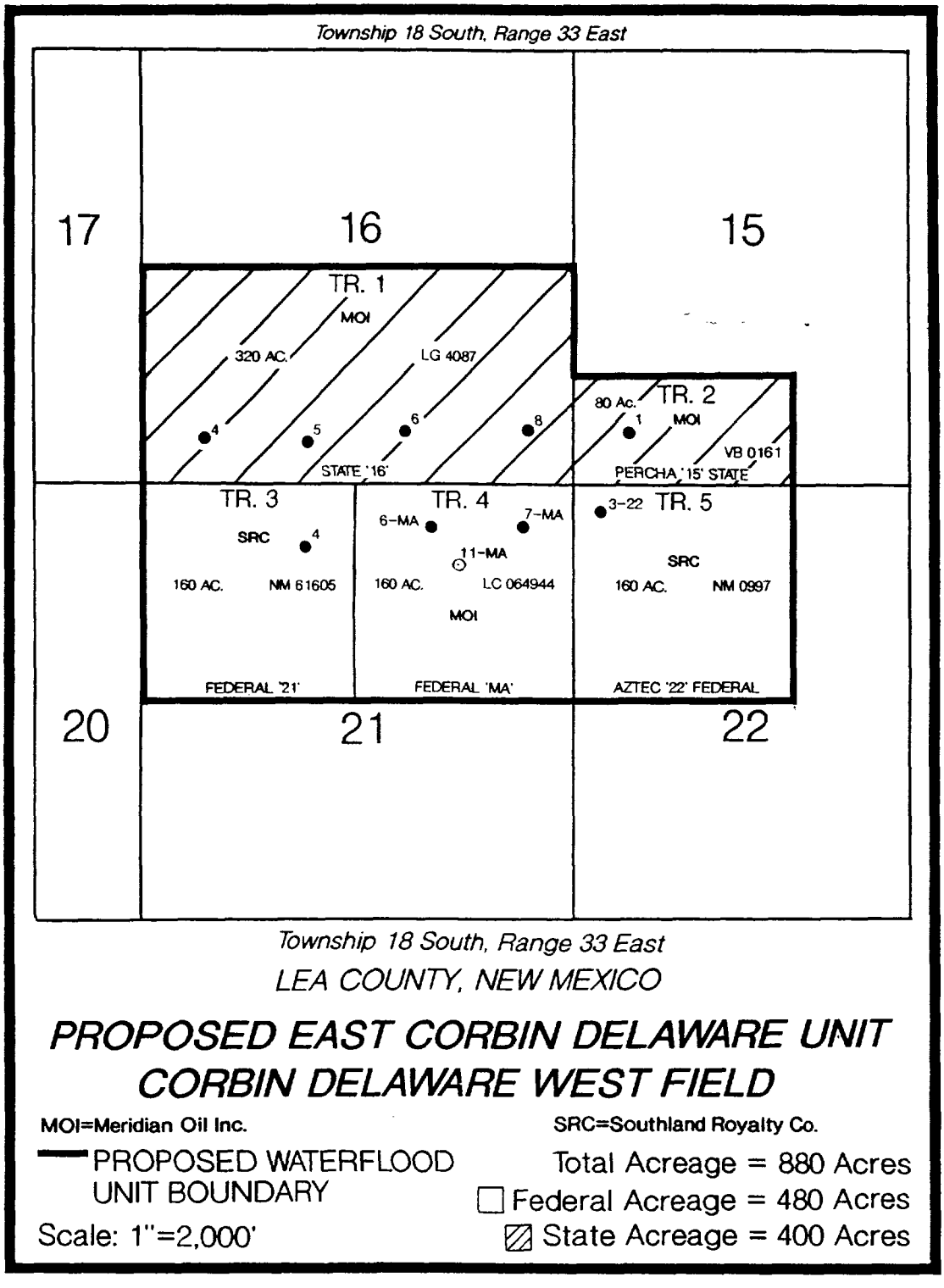
The foregoing certificate was signed and acknowledged before me on this 20th day of January, 1995, by Chet A. Babin.

Notary Public

My Commission Expires:

11-19-98

EXHIBIT A



Township 18 South, Range 33 East

LEA COUNTY, NEW MEXICO

PROPOSED EAST CORBIN DELAWARE UNIT
CORBIN DELAWARE WEST FIELD

MOI=Meridian Oil Inc.

SRC=Southland Royalty Co.

PROPOSED WATERFLOOD UNIT BOUNDARY

Scale: 1"=2,000'

Total Acreage = 880 Acres

Federal Acreage = 480 Acres

State Acreage = 400 Acres

EXHIBIT B

DESCRIPTION OF USE AREA

list of production wells

WELL NAME	UNIT	SECTION	TOWNSHIP	RANGE	FOOTAGE
Percha "15" State #1	M	15	18 south	33 east	660' FSL & 660' FWL
State "16" #5	N	16	18 south	33 east	510' FSL & 1,980' FWL
State "16" #6	O	16	18 south	33 east	660' FSL & 1,980' FEL
Federal "MA" #6	B	21	18 south	33 east	503' FNL & 1,661' FEL
Federal "MA" #7	A	21	18 south	33 east	530' FNL & 530' FEL
Aztec "22" Federal #3	D	22	18 south	33 east	330' FNL & 330' FWL

EXHIBIT C

DESCRIPTION OF USE AREA

list of proposed injection wells

WELL NAME	UNIT	SECTION	TOWNSHIP	RANGE	FOOTAGE
State "16" #4	M	16	18 south	33 east	548' FSL & 760' FWL
State "16" #8	P	16	18 south	33 east	660' FSL & 460' FEL
Federal "21" #4	C	21	18 south	33 east	779' FNL & 1,943' FWL
Federal "MA" #11	H	21	18 south	33 east	1,340' FNL & 990' FEL

EXHIBIT D

PRODUCTION DATA

Historical & Projected for Crude Oil

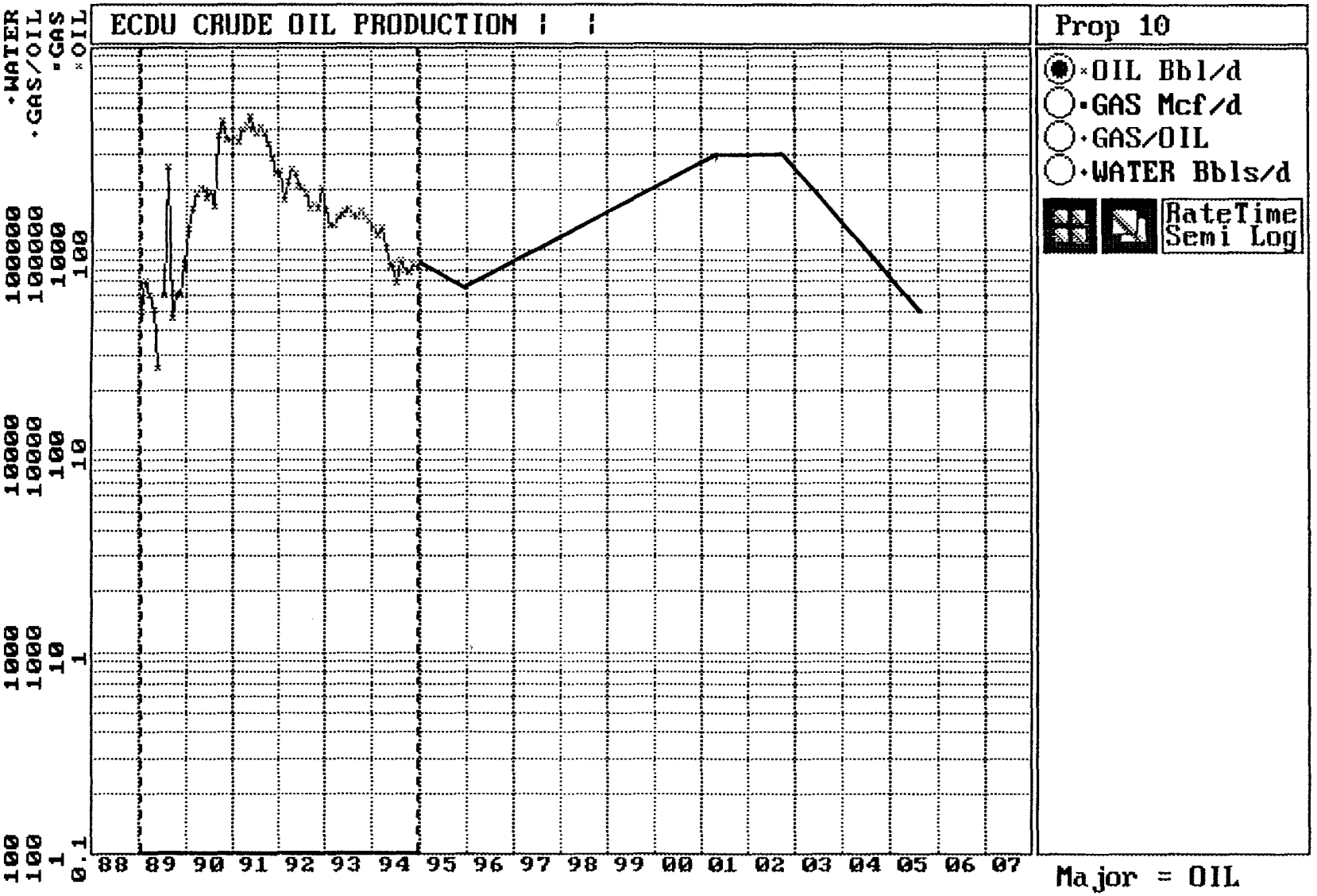


EXHIBIT E

PRODUCTION DATA

Historical & Projected for Casinghead Gas

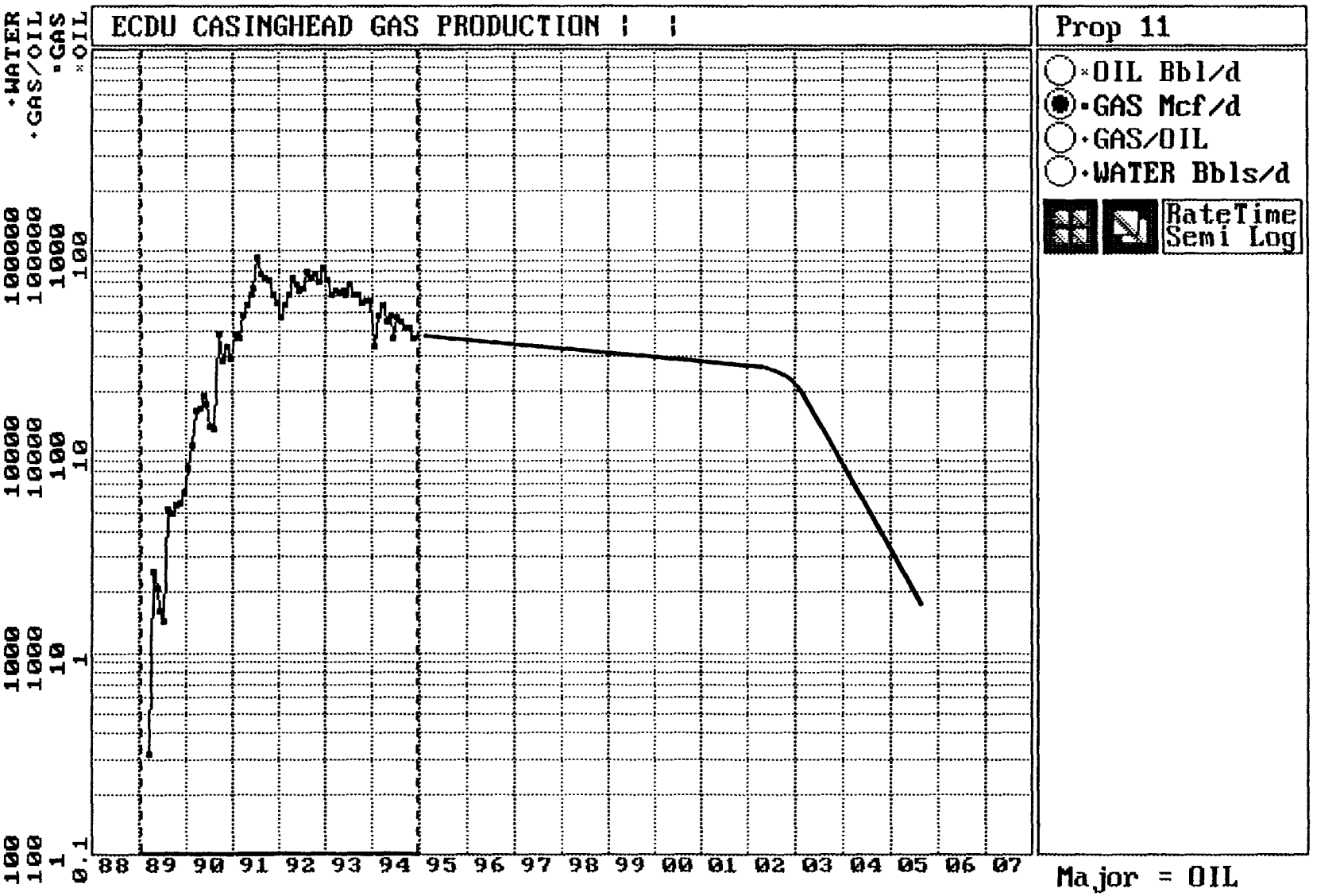
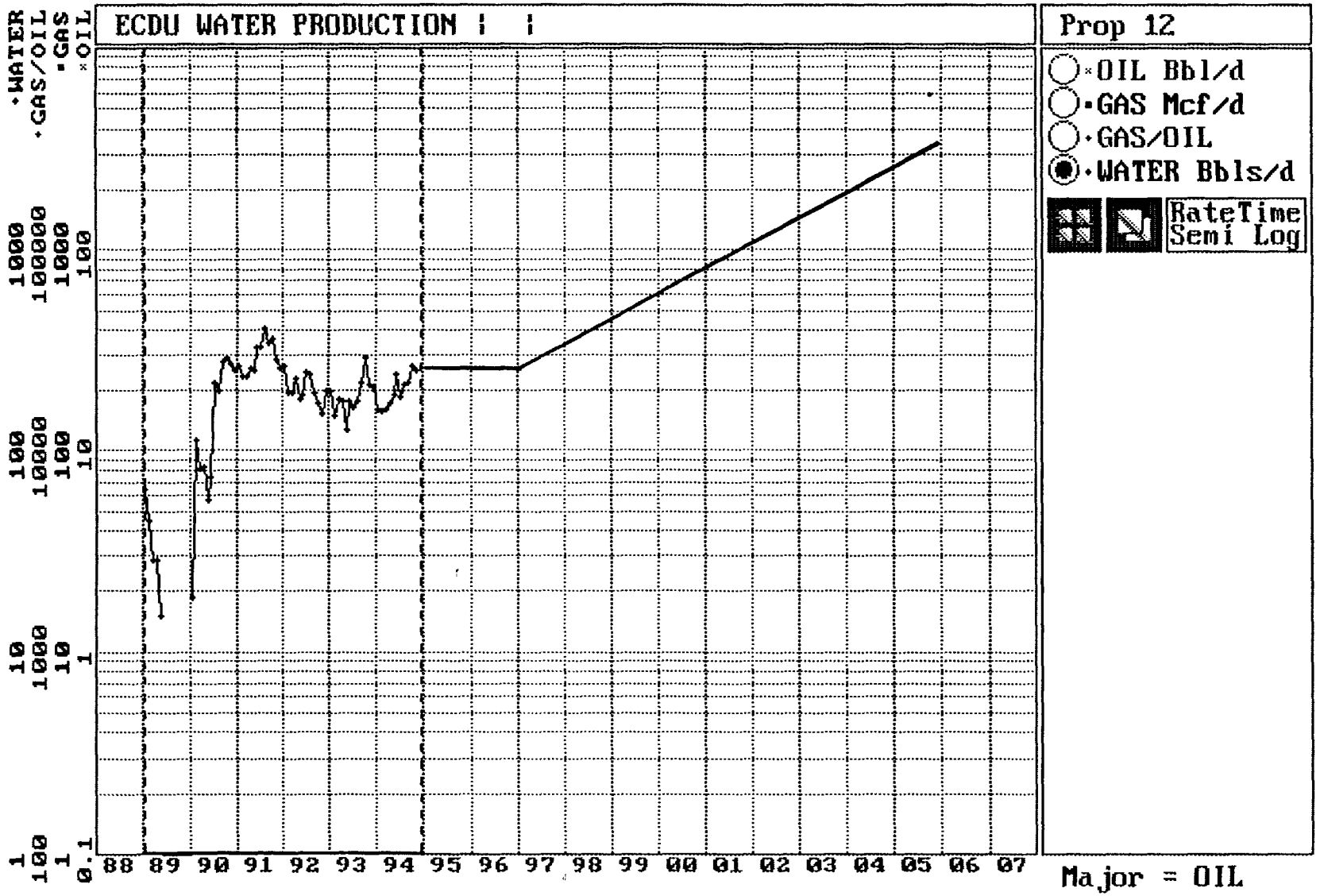


EXHIBIT F

PRODUCTION DATA

Historical & Projected for Water



OFFSET OPERATORS WITHIN 1/2 MILE:

BTA OIL PRODUCERS
104 S. PECOS
MIDLAND, TEXAS 79701

HARVEY E. YATES CO.
BOX 1933
ROSWELL, NEW MEXICO 88201

SURFACE OWNERS:

BUREAU OF LAND MANAGEMENT
P.O. BOX 1778
CARLSBAD, NEW MEXICO

COMMISSIONER OF PUBLIC LANDS
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

EXHIBIT "G"

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE NEW MEXICO 87504

FORM C-108
Revised 7-1-81

JAN 2

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [X] yes [ ] no

II. Operator: Meridian Oil, Inc.
Address: P.O. Box 51810, Midland, TX 79710-1810
Contact Party: Donna Williams Phone: 915-688-6943

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 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/1 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 text data on the well. (If well logs have been filed with the Division they need not be submitted.)

* 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: Chet A. Babin, P.E. Title: Reservoir Engineer

Signature: _____ Date: DEC 7 1994

If the information required under Section 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. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. **Proposed Injection Well Data**

Items 3A and 3B for each injection well are provided in tabular and schematic form on the following pages. Note that there are two schematics for the three existing wells illustrating the "current" wellbore configuration and the "proposed" wellbore configuration.

INJECTION WELL DATA SHEET

Meridian Oil Inc.	State "16"			
OPERATOR	LEASE			
4	548' FSL & 760' FWL	16	T18S	R33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, NM
COUNTY, STATE

Schematic

see attached drawings

Tubular Data

Surface Casing

Size 13 3/8 Cemented with 375
TOC surface feet determined by circulation
Hole size 17 1/2

Intermediate Casing

Size 8 5/8" Cemented with 1475 sx
TOC surface feet determined by circulation
Hole size 12¼"

Long String

Size 5½" Cemented with 846/1172
TOC surface feet determined by circulation
Hole size 7 7/8"
Total Depth 11,460'

Injection Interval

5,190 feet to 5,250 feet
Perforated with 2 JSPF

EXHIBIT "A"

INJECTION WELL DATA SHEET

Tubing size 2 3/8" lined with plastic coated (material) set in a Guiberson G-6 (brand and model) packer at 5,160' feet
(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation Delaware

2. Name of Field or Pool (if applicable) Current: West Corbin Delawware
Proposed: East Corbin Delawware Unit

3. Is this a new well drilled for injection? _____ YES X NO

If no, for what purpose was the well originally drilled? Wolfcamp oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

11,388' - 11,406', 11,188' - 11,238' and 10,886' - 10,902' with CIBP set @ 10,850' capped with 35' of cement.
9,870' - 9,876', 9,890' - 9,904', 9,908' - 9,918' and 9,936' - 9,946' with CIBP set @ 9,840'.
9,010' - 9,028', 9,034' - 9,044' and 9,090' - 9,100' with CIBP set @ 8,980'.
7,326' - 7,334' and 7,345' - 7,353' with CIBP set @ 7,240'.
See wellbore sketches of current and proposed configuration of well.

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

Yates-Seven Rivers-Queen at an approximate producing zone depth of 4,300 feet.
First Bone Spring carbonate at an approximate top of 6,900 feet.

EXHIBIT "A"

FIELD: WEST CORBIN

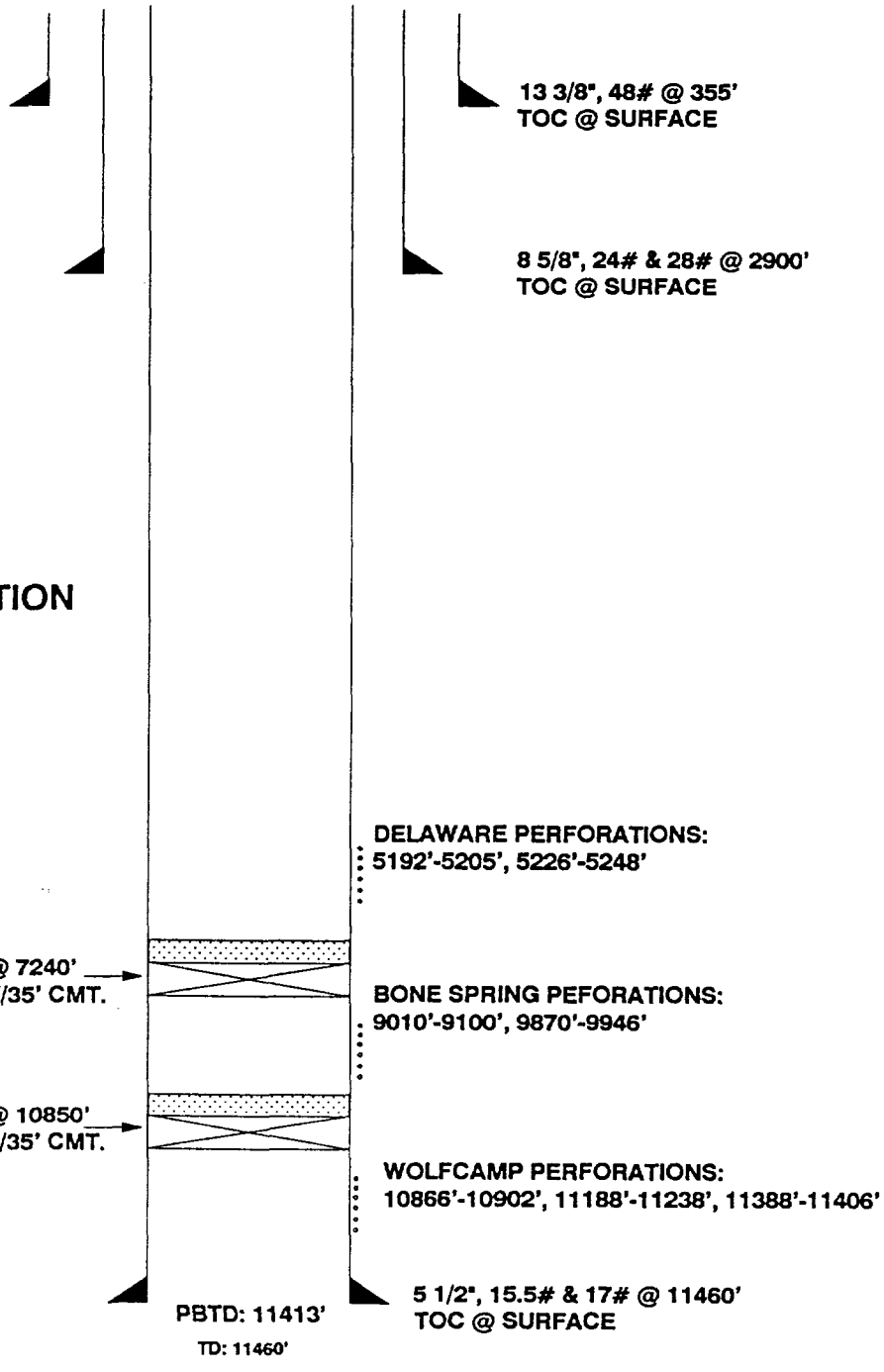
DATE SPUD: 10/05/89 COMP: 10/07/89

LEASE: STATE 16 WELL NO. 4

ELEVATION: 3864' K.B./3851' G.L.

LOCATION: 548' FSL & 760' FWL, SEC. 16, T18S, R33E

LEA COUNTY, NEW MEXICO



PRESENT CONFIGURATION

STAT18#4.DRW

EXHIBIT "A"

FIELD: WEST CORBIN

DATE SPUD: 10/05/89 COMP: 10/07/89

LEASE: STATE 16 WELL NO. 4

ELEVATION: 3864' K.B./3851' G.L.

LOCATION: 548' FSL & 760' FWL, SEC. 16, T18S, R33E

LEA COUNTY, NEW MEXICO

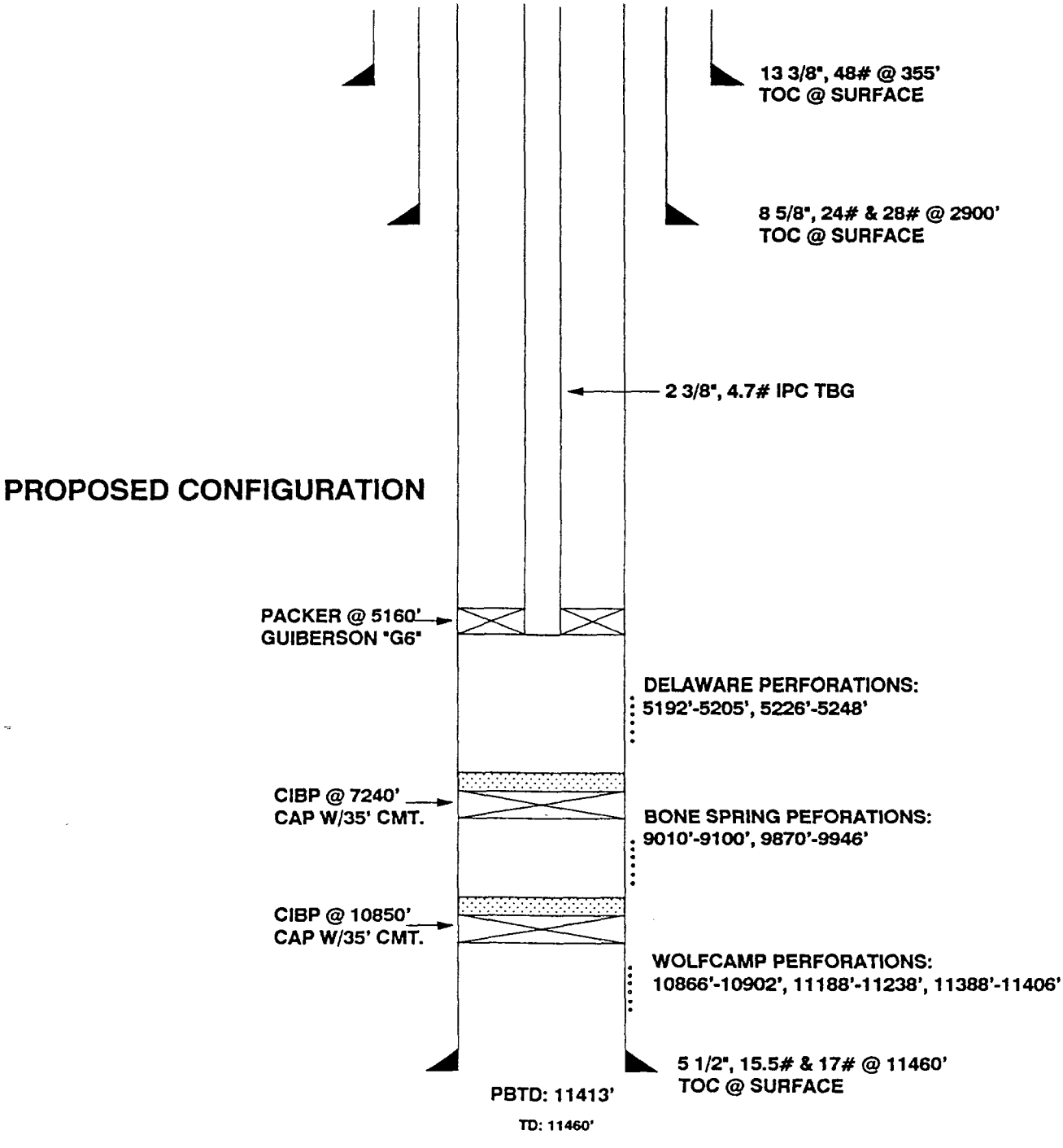


EXHIBIT "A"

ST16#4.DRW

INJECTION WELL DATA SHEET

Meridian Oil Inc.	State "16"			
OPERATOR	LEASE			
8	660' FSL & 460' FEL	16	T18S	R33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, NM
COUNTY, STATE

Schematic

see attached drawings

Tubular Data

Surface Casing
Size 8 5/8" Cemented with 405
TOC surface feet determined circulation
Hole size 12 1/4 by

Intermediate Casing
Size - Cemented with -
TOC - feet determined -
Hole size - by

Long String
Size 5½" Cemented with 1536 sx
TOC surface feet determined circulation
Hole size 7 7/8" by
Total Depth 5,500'

Injection Interval

5,200 feet to 5,262 feet
Perforated with 2 JSPF

EXHIBIT "B"

INJECTION WELL DATA SHEET

Tubing size 2 3/8" lined with plastic coated (material) set in a Guiberson G-6 (brand and model) packer at 5175' feet
(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation Delaware

2. Name of Field or Pool (if applicable) Current: West Corbin Delaware
Proposed: East Corbin Delaware Unit

3. Is this a new well drilled for injection? _____ YES __X__ NO

If no, for what purpose was the well originally drilled? Delaware oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

Well has not been perforated in any other zones. See wellbore schematics for the current and proposed configuration of well.

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

Yates-Seven Rivers-Queen at an approximate producing zone depth of 4,300 feet.
First Bone Spring carbonate at an approximate top of 6,900 feet.

FIELD: WEST CORBIN

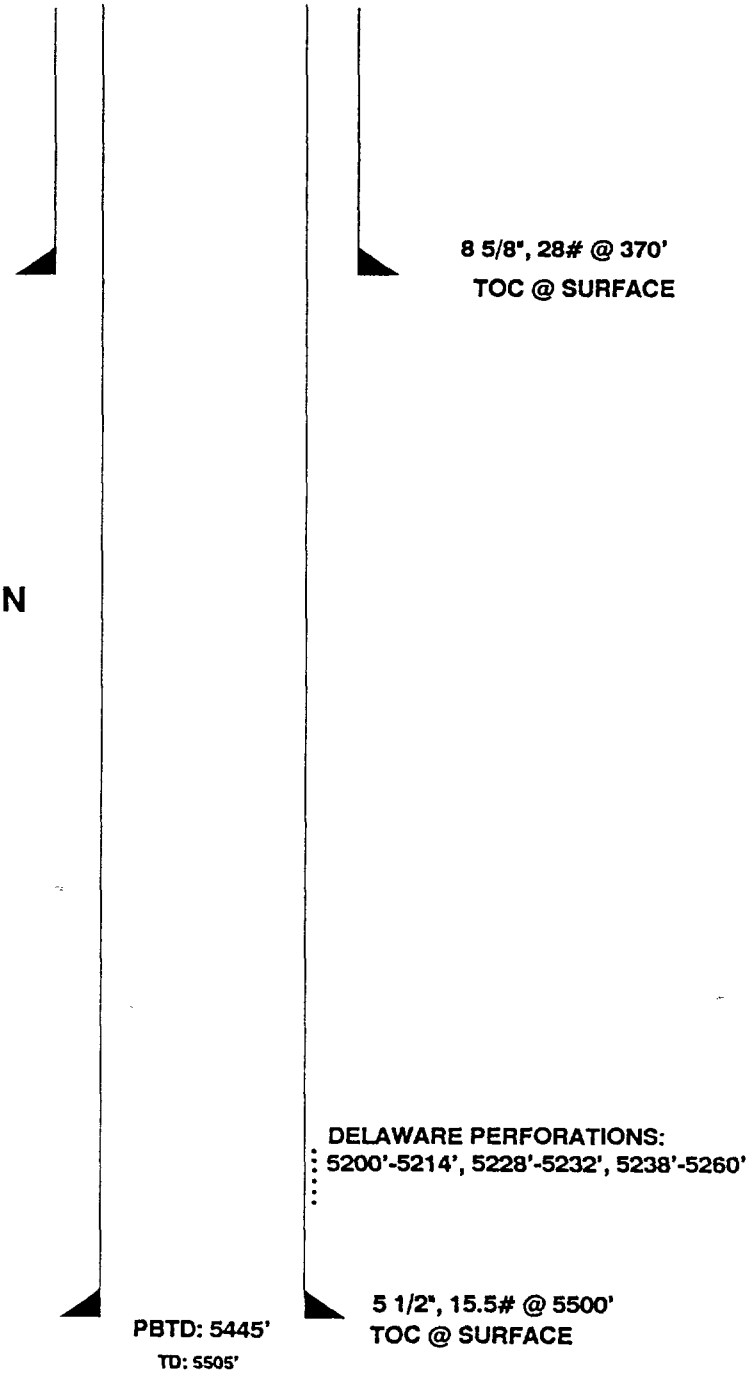
DATE SPUD: 02/23/91 COMP: 03/19/91

LEASE: STATE 16 WELL NO. 8

ELEVATION: 3882' K.B./3866' G.L.

LOCATION: 460' FEL & 660' FSL, SEC. 16, T18S, R33E

LEA COUNTY, NEW MEXICO



PRESENT CONFIGURATION

STAT16#8.DRW

EXHIBIT "B"

FIELD: WEST CORBIN

DATE SPUD: 02/23/91 COMP: 03/19/91

LEASE: STATE 16 WELL NO. 8

ELEVATION: 3882' K.B./3866' G.L.

LOCATION: 460' FEL & 660' FSL, SEC. 16, T18S, R33E

LEA COUNTY, NEW MEXICO

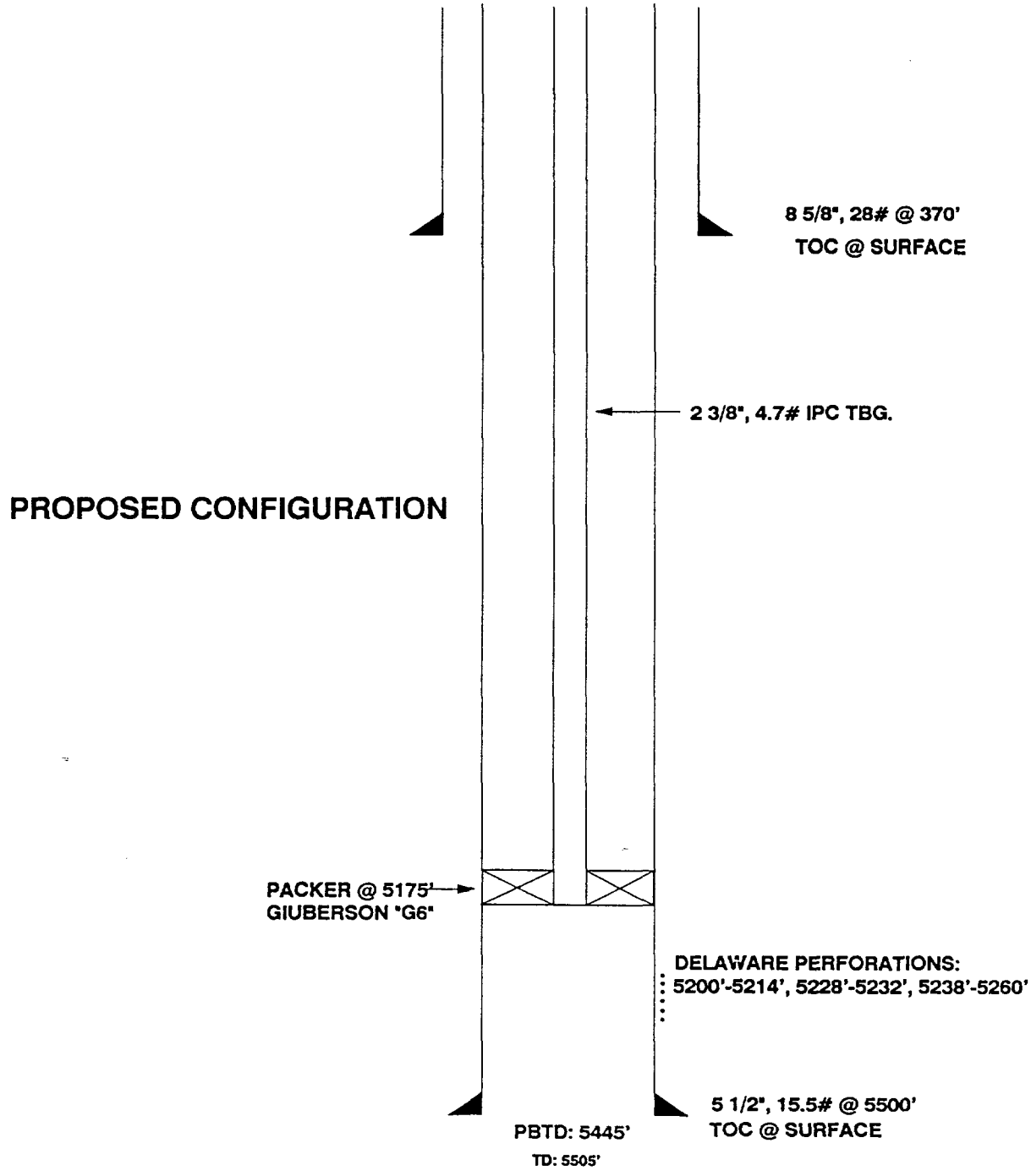


EXHIBIT "B"

Page 4 of 4

ST16#8.DRW

INJECTION WELL DATA SHEET

Southland Royalty Company		Federal "21"		
OPERATOR		LEASE		
4	779' FNL & 1943' FWL	21	T18S	R33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, NM
COUNTY, STATE

Schematic

see attached drawings

Tubular Data

Surface Casing

Size 8 5/8" Cemented with 200 sx
TOC surface feet determined by circulation
Hole size 12 1/4

Intermediate Casing

Size - Cemented with -
TOC - feet determined by -
Hole size -

Long String

Size 5½" Cemented with 900 sx
TOC surface feet determined by circulation
Hole size 7 7/8"
Total Depth 5,500'

Injection Interval

5,190 feet to 5,250 feet
Perforated with 2 JSPF

EXHIBIT "C"

INJECTION WELL DATA SHEET

Tubing size 2 3/8" lined with plastic coated (material) set in a Guiberson G-6 (brand and model) packer at 5,125' feet
(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation Delaware

2. Name of Field or Pool (if applicable) Current: West Corbin Delaware
Proposed: East Corbin Delaware Unit

3. Is this a new well drilled for injection? _____ YES __X__ NO

If no, for what purpose was the well originally drilled? Delaware oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

Well has not been perforated in any other zones. See wellbore schematics for the current and proposed configuration of well.

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

Yates-Seven Rivers-Queen at an approximate producing zone depth of 4,300 feet.
First Bone Spring carbonate at an approximate top of 6,900 feet.

FIELD: WEST CORBIN

DATE SPUD: 12/01/89 COMP: 01/05/90

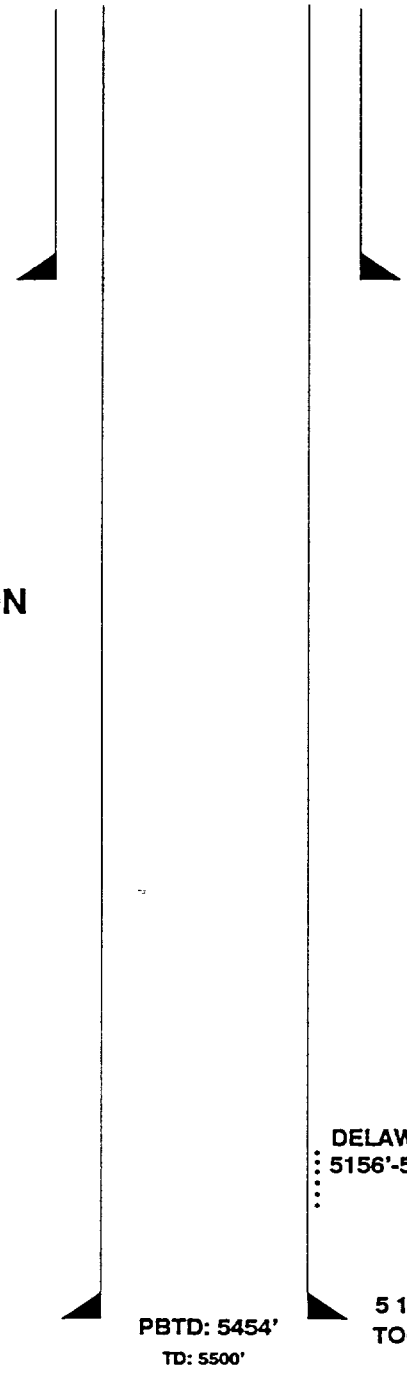
LEASE: FEDERAL 21 WELL NO. 4

ELEVATION: 3862' K.B./3846 G.L.

LOCATION: 779 FNL & 1943 FWL, SEC 21, T18S, R33E

LEA COUNTY, NEW MEXICO

PRESENT CONFIGURATION



FED21#4.DRW

EXHIBIT "C"

FIELD: WEST CORBIN

LEASE: FEDERAL 21 WELL NO. 4

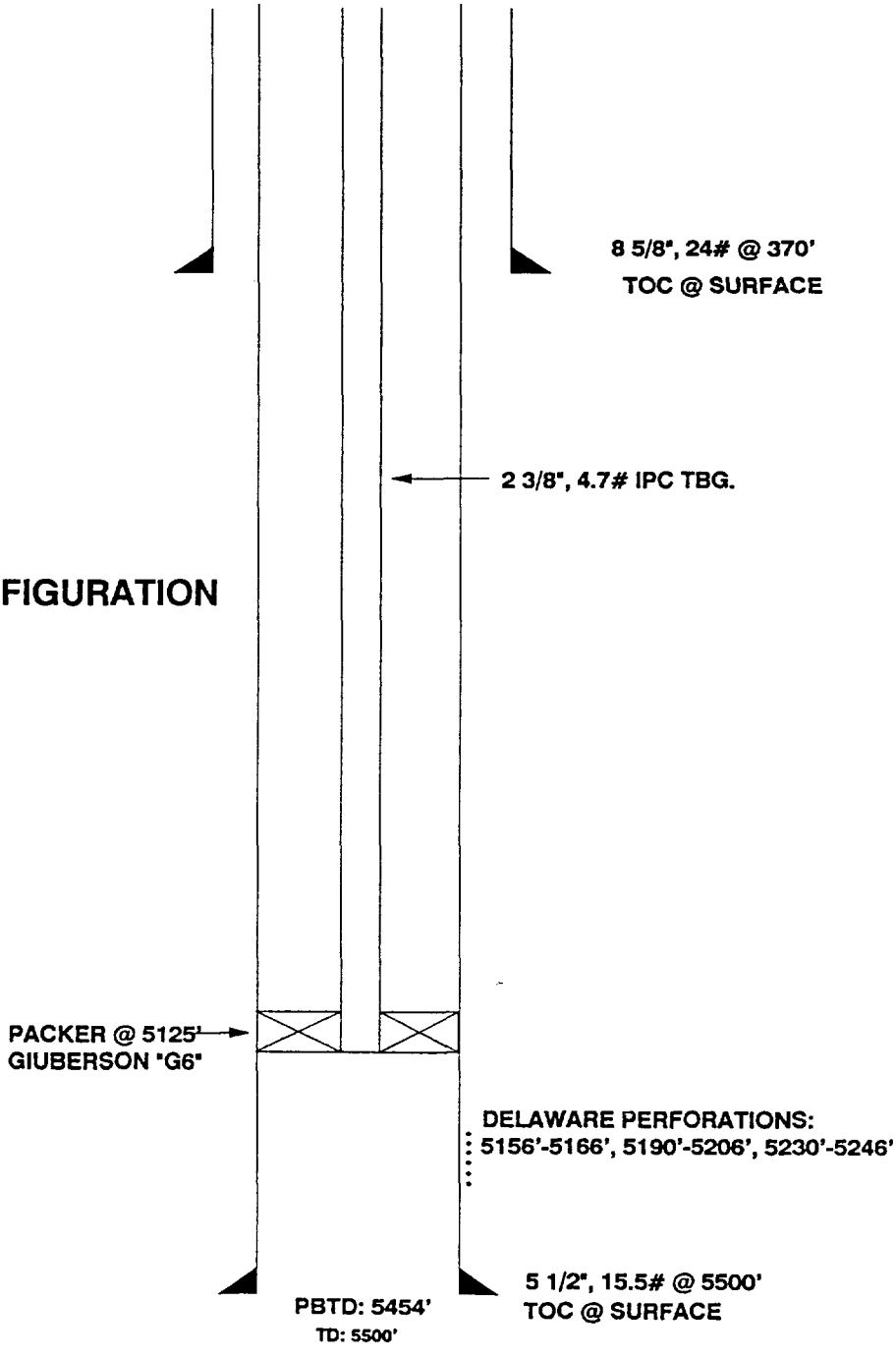
LOCATION: 779 FNL & 1943' FWL, SEC 21, T18S, R33E

LEA COUNTY, NEW MEXICO

DATE SPUD: 12/01/89 COMP: 01/05/90

ELEVATION: 3862' K.B./3846' G.L.

PROPOSED CONFIGURATION



F21#4.DRW

EXHIBIT "C"

INJECTION WELL DATA SHEET

Meridian Oil Inc.		Federal "MA"		
OPERATOR		LEASE		
11	779' FNL & 1943' FWL	21	T18S	R33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Lea County, NM
COUNTY, STATE

Schematic

see attached drawings

Tubular Data

Surface Casing

Size 8 5/8" Cemented to surface
TOC surface feet determined by circulation
Hole size 12 1/4

Intermediate Casing

Size - Cemented with -
TOC - feet determined by -
Hole size -

Long String

Size 5½" Cemented to surface
TOC surface feet determined by circulation
Hole size 7 7/8"
Total Depth 5,500'

Approximate Injection Interval

5,200 feet to 5,270 feet
Perforated with 2 JSPF

EXHIBIT "D"

INJECTION WELL DATA SHEET

Tubing size 2 3/8" lined with plastic coated (material) set in a Guiberson G-6 (brand and model) packer at 5,125' feet
(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation Delaware

2. Name of Field or Pool (if applicable) Current: West Corbin Delaware
Proposed: East Corbin Delaware Unit

3. Is this a new well drilled for injection? X YES _____ NO

If no, for what purpose was the well originally drilled? n/a

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

This is a proposed drill well. See wellbore sketches of proposed configuration of well.

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

Yates-Seven Rivers-Queen at an approximate producing zone depth of 4,300 feet.
First Bone Spring carbonate at an approximate top of 6,900 feet.

FIELD: WEST CORBIN DATE SPUD: N/A COMP: N/A

LEASE: FEDERAL MA WELL NO. 11 ELEVATION: APPROX. 3855'

LOCATION: 990' FEL & 1320' FNL, SEC 21, T18S, R33E

LEA COUNTY, NEW MEXICO

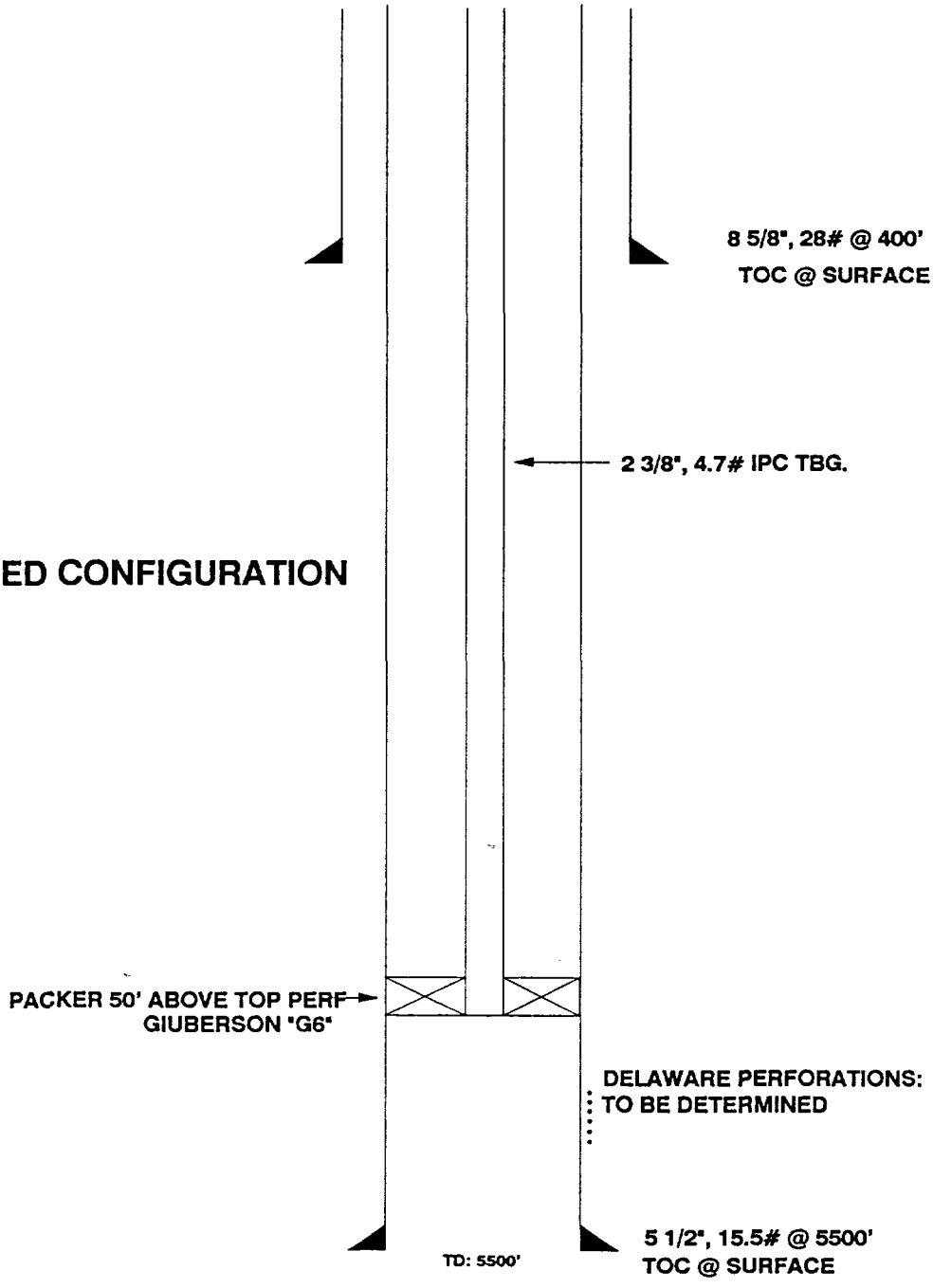
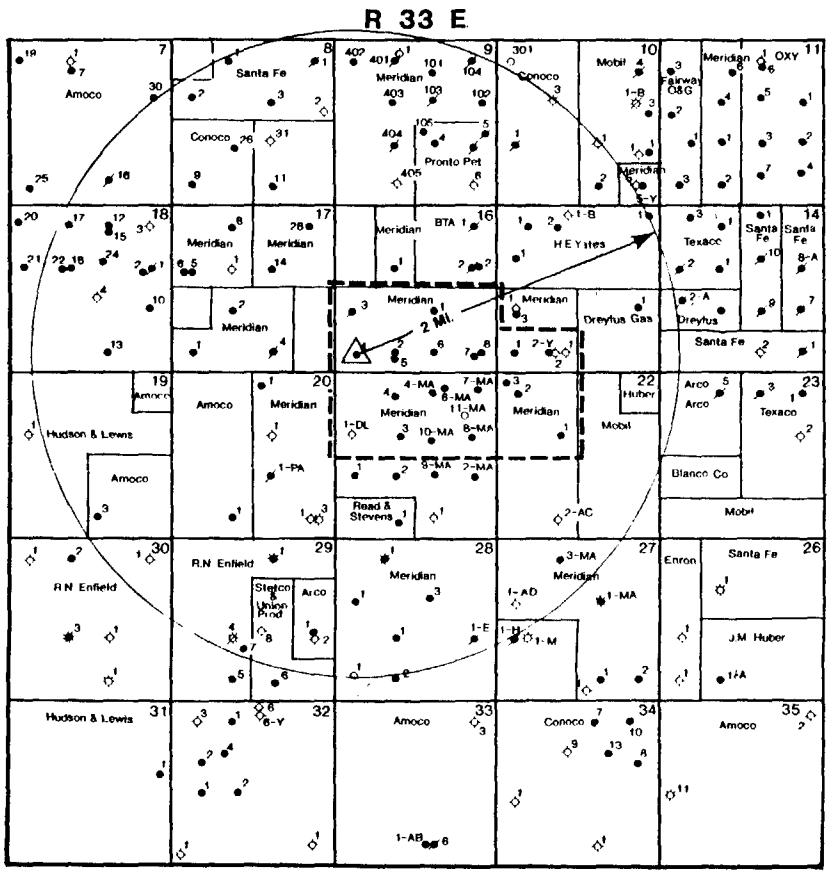


EXHIBIT "D"

FEDMA#11.DRW



SCALE
1" = 4000'

0 1 2 Miles

0' 4000' 8000'

MOI

△ *State "16" #4*

PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres

State Acreage = 400 Acres

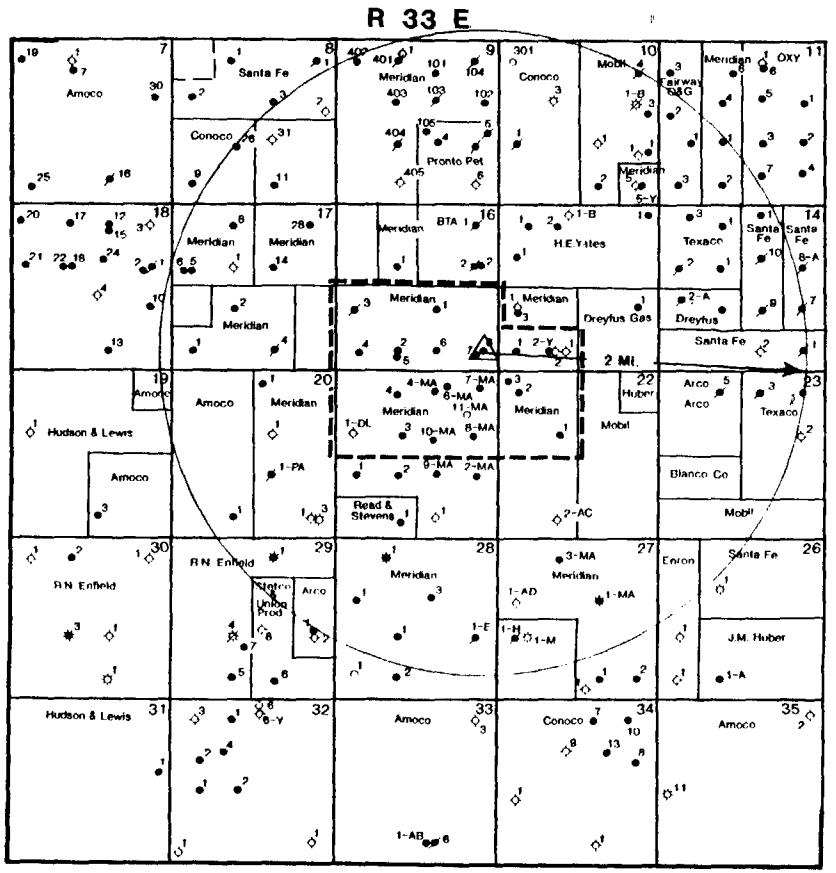
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	9-84			BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT E-1



SCALE
1" = 4000'

0 1 2 Miles

0' 4000' 8000'

MOI
△ *State "16" #8*
PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

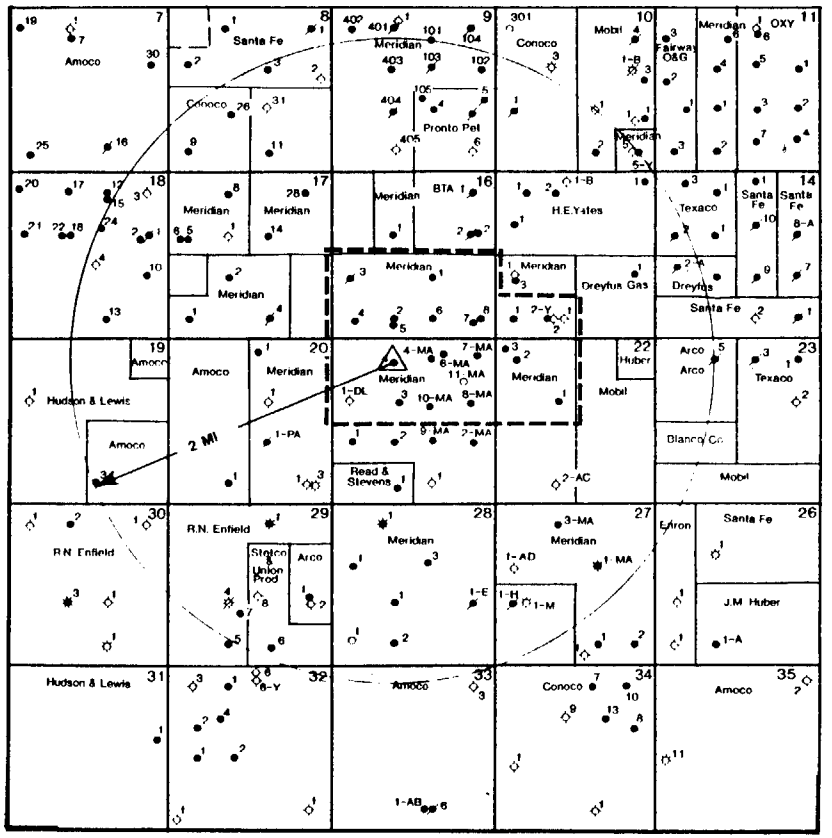
E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	6-94			BM-4240
GEOPHYSICIST	DATE			

EXHIBIT E-2

R 33 E

T 18 S



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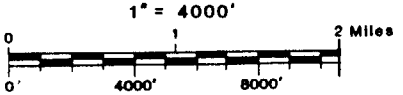


SRC

△ *Fed "21" #4*

PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres

State Acreage = 400 Acres

Total Acreage = 880 Acres

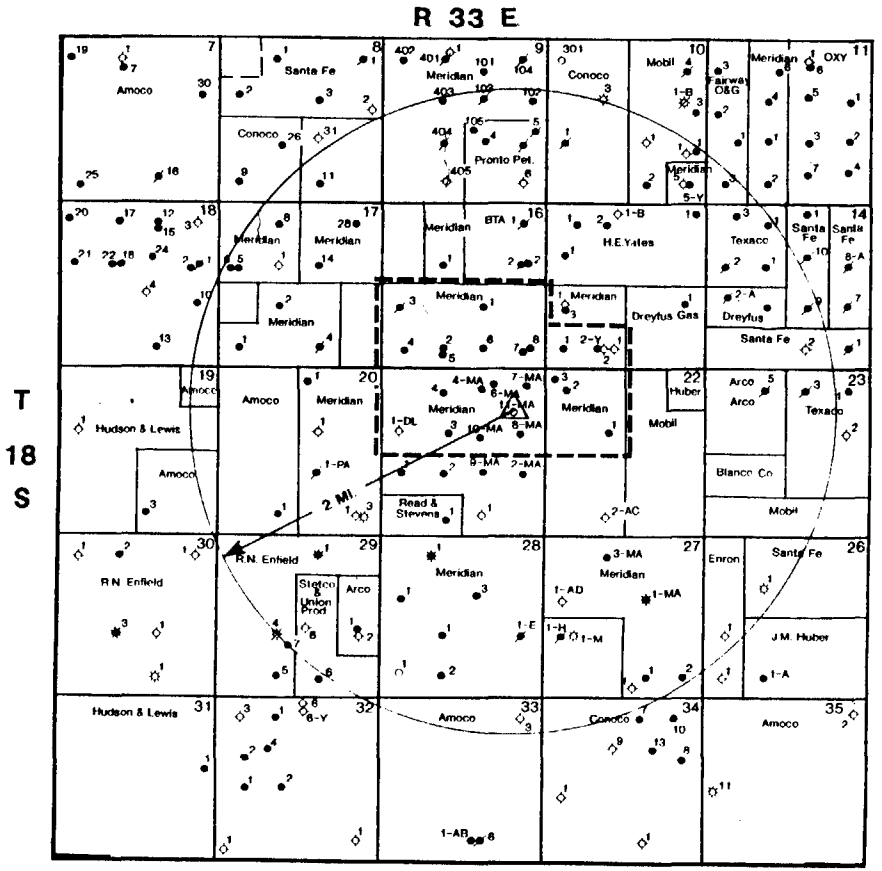
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD

LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	9-94			BM-4240
GEOPHYSICIST	DATE			

EXHIBIT E-3



SCALE
1" = 4000'

0 1 2 Miles
0' 4000' 8000'

MOI
△ *FED "MA" #11*
PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	8-94			BM-4240
GEOPHYSICIST	DATE			DRAWN BY

EXHIBIT E-4

IV. This is not an expansion of an existing Meridian Oil, Incorporated project.

V. **Area of Review**

Two maps are provided for each proposed injection well for a total of 8 maps. "Exhibit E" maps have a scaled, two-mile radius circle drawn around each proposed injection well that identifies all wells and leases within two miles. "Exhibit F" maps have a scaled, one-half mile radius circle drawn around each proposed injection well that identifies each well's area of review. The following notation was used for the four injection wells:

WELL	EXHIBIT E DESIGNATION	EXHIBIT F DESIGNATION
State "16" #4	EXHIBIT E-1	EXHIBIT F-1
State "16" #8	EXHIBIT E-2	EXHIBIT F-2
Fed. "21" #4	EXHIBIT E-3	EXHIBIT F-3
Federal MA #11	EXHIBIT E-4	EXHIBIT F-4

VI. **Data for Wells in Area of Review**

All wells of public record within the "area of review" that penetrate the proposed Delaware injection zone are tabulated on the following pages (listed in order by section number, unit letter and well number). In addition to the tabulated data, there is a wellbore schematic illustrating the details of the only well in the area of review - penetrating the injection zone - that is plugged (Exhibit G).

BTA Oil Producers, Corbin 675 LTD #1
Unit L, Section 15, T18S-R33E, Lea Co., NM.
D & A well.
Spud 10/11/67, TD = 13,500'.
13 3/8 @ 381' w/350 sx,
9 5/8 @ 5,065' w/900 sx.
50 sx cmt 13,050' - 13,200',
25 sx cmt 12,125' - 12,200',
25 sx cmt 10,125' - 10,200',
25 sx cmt 7,225' - 7,300',
25 sx cmt 5,625' - 5,700',
25 sx cmt 5,005' - 5,080',
35 sx cmt 1,550' - 1,650',
35 sx cmt 345' - 395',
10 sx cmt to surface.
Plugged 12/20/67.

Meridian Oil Inc., Percha "15" Federal COM #3
Unit L, Section 15, T18S-R33E, Lea Co., NM .
Shut-in well.
Spud 7/23/92, TD = 11,550' .
13 3/8 @ 420' w/425 sx, surface,
8 5/8 @ 2,955' w/1,250 sx, circulated,
5 1/2 @ 11,550' w/1950 sx,
TOC @ 1,300', determined by Cement Bond Log.
Perforated 11,147' - 11,376'.
Completed 8/21/92.

Meridian Oil Inc., Percha State "15" #1
Unit M, Section 15, T18S-R33E, Lea Co., NM.
Oil well.
Spud 6/13/91, TD = 5,491'.
8 5/8 @ 432' w/300 sx,
5 1/2 @ 5,491' w/1,400 sx, TOC @ surface, circulated.
Perforated 5,100' - 5,266'.
Completed 7/14/91.

Meridian Oil Inc., Percha State "15" #2Y
Unit N, Section 15, T18S-R33E, Lea Co., NM.
Oil well.
Spud 9/1/91, TD = 11,590'.
13 3/8 @ 436' w/425 sx,
8 5/8 @ 2,904' w/1350 sx,
5 1/2 @ 11,590' w/1590 sx,
TOC @ 3,245, determined by Cement Bond Log.
Perforated 10,918' - 11,434'.
Not completed.
CIBP @ 10,870'.
Perforated 9,912' - 9,940'.
Completed 12/3/91.

Meridian Oil Inc., State "16" #1
Unit J, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 2/27/87, TD = 12,500'.
13 3/8 @ 372' w/350 sx, circulated,
9 5/8 @ 3,000' w/1,300 sx, circulated,
5 1/2 @ 12,500' w/2815 sx, TOC @ 2,075' determined by Temperature Survey.
Perforated 11,231' - 11,303'.
Completed 4/15/87.
OWWO
Perforated 11,036' - 11,082'.
Completed 4/26/88.

Meridian Oil Inc., State "16" #3
Unit L, Section 16, T18S-R33E, Lea Co., NM.
Shut-in well.
Spud 10/22/88, TD = 11,450'.
13 3/8 @ 358' w/350 sx, surface,
8 5/8 @ 2,900' w/1,300 sx, surface,
5 1/2 @ 11,450' w/1,460 sx, TOC @ 3,275' determined by Cement Bond Log.
Perforated 11,008' - 11,042'.
Completed 12/8/88.
OWWO
CIBP @ 10,500' w/cmt plug @ 10,465' - 10,500' w/35 sx.
Perforated 7,999' - 9,550'.
Completed 4/4/89.
OWWO
CIBP @ 7,250' w/cmt plug @ 7,215' - 7,250' w/35 sx.
Perforated 5,218' - 5,246'.
Completed 1/24/91.

Meridian Oil Inc., State "16" #4
Unit M, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 10/5/89, TD = 11,460'.
13 3/8 @ 355' w/90 sx, circulated,
9 5/8 @ 2,900' w/1,225 sx, circulated,
5 1/2 @ 11,460' w/1,675 sx, circulated.
Perforated 11,388' - 11,406'.
Not completed.
CIBP @ 11,345'.
Perforated 10,886' - 11,238'.
Completed 8/3/89.
OWWO
CIBP @ 10,850' w/cmt plug @ 10,815' - 10,850' w/35 sx.
Perforated 9,870' - 9,946'.
Not completed.
CIBP @ 9,840'.
Perforated 9,010' - 9,100'.
Not completed.
CIBP @ 8,980'.
Perforated 7,326' - 7,353'.
Not completed.
CIBP @ 7,280'.
Perforated 5,192' - 5,248'.
Completed 10/7/89.

Meridian Oil Inc., State "16" #2
Unit N, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 4/16/88, TD = 13,651'.
13 3/8 @ 350' w/370 sx, circulated,
9 5/8 @ 2,910' w/1,085 sx,
5 1/2 @ 13,640' w/1,940 sx, TOC @ 2,914' determined by Cement Bond Log.
Perforated 13,363' - 13,369'.
Not completed.
CIBP @ 13,300' w/cmt plug @ 13,365' - 13,300' w/35 sx.
Perforated 11,400' - 11,434'.
Completed 7/10/88.

Meridian Oil Inc., State "16" #5
Unit N, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 11/29/88, TD = 5,450'.
8 5/8 @ 350' w/250 sx, circulated,
5 1/2 @ 5,450' w/1,200 sx, circulated TOC.
Perforated 5,184' - 5,544'.
Completed 1/20/89.

Meridian Oil Inc., State "16" #6
Unit O, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 8/11/90, TD = 5,510'.
8 5/8 @ 461' w/325 sx, circulated,
5 1/2 @ 5,510' w/1,000 sx, circulated.
Perforated 5,097' - 5,245'.
Completed 10/28/90.

Meridian Oil Inc., State "16" #7
Unit P, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 11/3/90, TD = 11,550'.
13 3/8 @ 391' w/400 sx, circulated,
8 5/8 @ 2,928' w/1,400 sx, circulated,
5 1/2 @ 11,550' w/2,120 sx, TOC @ 4,900' determined by Cement Bond Log.
Perforated 11,204' - 11,264'.
Completed 12/20/90.

Meridian Oil Inc., State "16" #8
Unit P, Section 16, T18S-R33E, Lea Co., NM.
Oil well.
Spud 2/23/91, TD = 5,505'.
8 5/8 @ 370' w/405 sx, circulated,
5 1/2 @ 5,500' w/1,530 sx, circulated.
Perforated 5,200' - 5,260'.
Completed 3/24/91.

Southland Royalty Company, Federal MA #7
Unit A, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 8/21/90, TD = 5,500'.
8 5/8 @ 400' w/325 sx,
5 1/2 @ 5,495' w/2,100 sx.
Perforated 5,148' - 5,264'.
Completed 9/23/90.

Southland Royalty Company, Federal MA #4
Unit B, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 5/16/89, TD = 11,511'.
13 3/8 @ 370' w/300 sx,
8 5/8 @ 2,900' w/1500 sx,
5 1/2 @ 11,511' w/2,435 sx,
TOC @ surface, circulated.
Perforated 10,948' - 11,442'.
Completed 8/3/89.

Southland Royalty Company, Federal MA #6
Unit B, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 12/17/89, TD = 5,500'.
8 5/8 @ 370' w/250 sx,
5 1/2 @ 5,500' w/1,035 sx.
Perforated 5,140' - 5,252'.
Completed 1/12/90.

Southland Royalty Company, Federal "21" #4
Unit C, Section 21, T18S-R33E, Lea Co., NM.
Shut-in oil well.
Spud 12/1/89, TD = 5,500'.
8 5/8 @ 362' w/250 sx,
5 1/2 @ 5,500' w/1,150 sx,
TOC @ 1,620' determined by Cement Bond Log.
Perforated 5,156' - 5,246'.
Completed 1/5/90.

Southland Royalty Company, Federal "21" #3
Unit F, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 12/31/89, TD = 11,538'.
13 3/8 @ 351' w/370 sx,
8 5/8 @ 2,903' w/1,250 sx,
5 1/2 @ 11,538' w/1,510 sx,
TOC @ 2,900' determined by Cement Bond Log.
Perforated 11,103' - 11,378'.
Completed 2/13/90.

Southland Royalty Company, Federal MA #10
Unit G, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 9/7/93, TD = 11,527'.
13 3/8 @ 406' w/425 sx, surface,
8 5/8 @ 3,037' w/1,250 sx, circulated,
5 1/2 @ 11,452' w/2,225 sx,
TOC @ 3,068', determined by Temperature Survey.
Perforated 11,154' - 11,260'.
Not completed.
CIBP @ 11,100' w/cmt plug @ 11,065' - 11,100' w/35 sx.
Perforated 10,400' - 10,418'.
Not completed.
CIBP @ 10,350' w/cmt plug @ 10,315' - 10,350' w/35 sx.
Perforated 7,384' - 7,421'.
Completed 10/25/93.

Southland Royalty Company, Federal MA #8
Unit H, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 1/16/92, TD = 11,540'.
13 3/8 @ 416' w/425 sx,
8 5/8 @ 2,928' w/1,350 sx,
5 1/2 @ 11,540' w/2,175 sx,
TOC @ 1,812' determined by Cement Bond Log.
Perforated 11,150' - 11,242'.
Completed 2/24/92.

Southland Royalty Company, Federal MA #2
Unit I, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 4/24/67, TD = 13,461'.
13 3/8 @ 350' w/300 sx,
8 5/8 @ 4,984' w/1,100 sx,
5 1/2 @ 13,461' w/1000 sx,
TOC @ 4,850' determined by Temperature Survey.
Dual completion:
Perforated 13,218' - 13,424'.
Perforated 11,052' - 11,217'.
Completed 8/4/67.
OWWO
CIBP @ 12,850' w/cmt plug @ 12,815' - 12,850' w/35 sx.
Perforated 10,518' - 10,541'.
Completed 8/23/87.
OWWO
CIBP @ 10,450' w/cmt plug @ 10,415' - 10,450' w/35 sx.
Perforated 8,620' - 9,600'.
Completed 10/23/90.

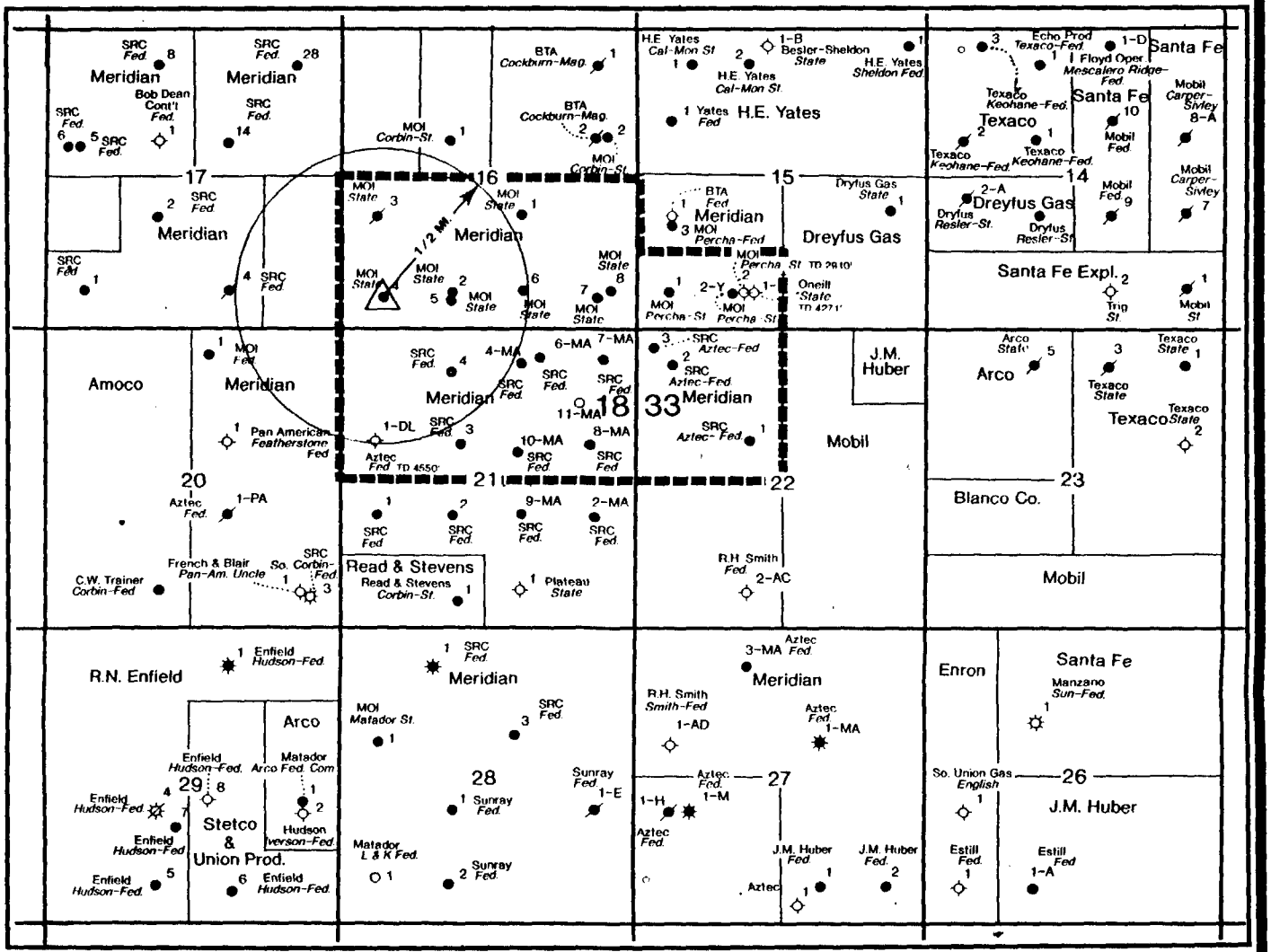
Meridian Oil Inc., Federal MA #9
Unit J, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 11/26/92, TD = 11,550'.
13 3/8 @ 405' w/425 sx, circulated,
8 5/8 @ 2,920' w/2,250 sx, circulated,
5 1/2 @ 11,550' w/2,035 sx,
TOC @ 300', determined by Cement Bond Log.
Perforated 11,139' - 11,247'.
Completed 1/13/93.

Southland Royalty Company, Federal "21" #2
Unit K, Section 21, T18S-R33E, Lea Co., NM.
Oil well.
Spud 3/24/89, TD = 11,465'.
13 3/8 @ 350' w/370 sx,
8 5/8 @ 2,900' w/1,380 sx,
5 1/2 @ 11,465' w/1,695 sx.
Perforated 11,004' - 11,202'.
Completed 5/5/89.

Southland Royalty Company, Aztec "22" Federal #2
Unit D, Section 22, T18S-R33E, Lea Co., NM.
Oil well.
Spud 7/2/91, TD = 11,430'.
13 3/8 @ 450' w/475 sx,
8 5/8 @ 2,900' w/1,250 sx,
5 1/2 @ 11,430' w/1,540 sx,
TOC EOT ± 2,900'.
Perforated 11,252' - 11,304'.
Completed 8/12/91.

Southland Royalty Company, Aztec "22" Federal #3
Unit D, Section 22, T18S-R33E, Lea Co., NM.
Oil well.
Spud 3/13/93, TD = 5,500'.
8 5/8 @ 420' w/300 sx,
5 1/2 @ 5,500' w/1,600 sx,
TOC @ surface, circulated.
Perforated 5,194' - 5,250'.
Completed 4/16/93.

Township 18 South, Range 33 East



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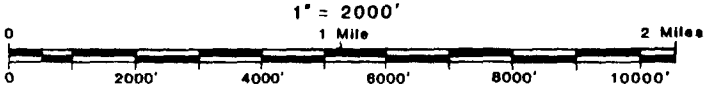


△ MOI *State "16" #4*
PROPOSED INJECTOR

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

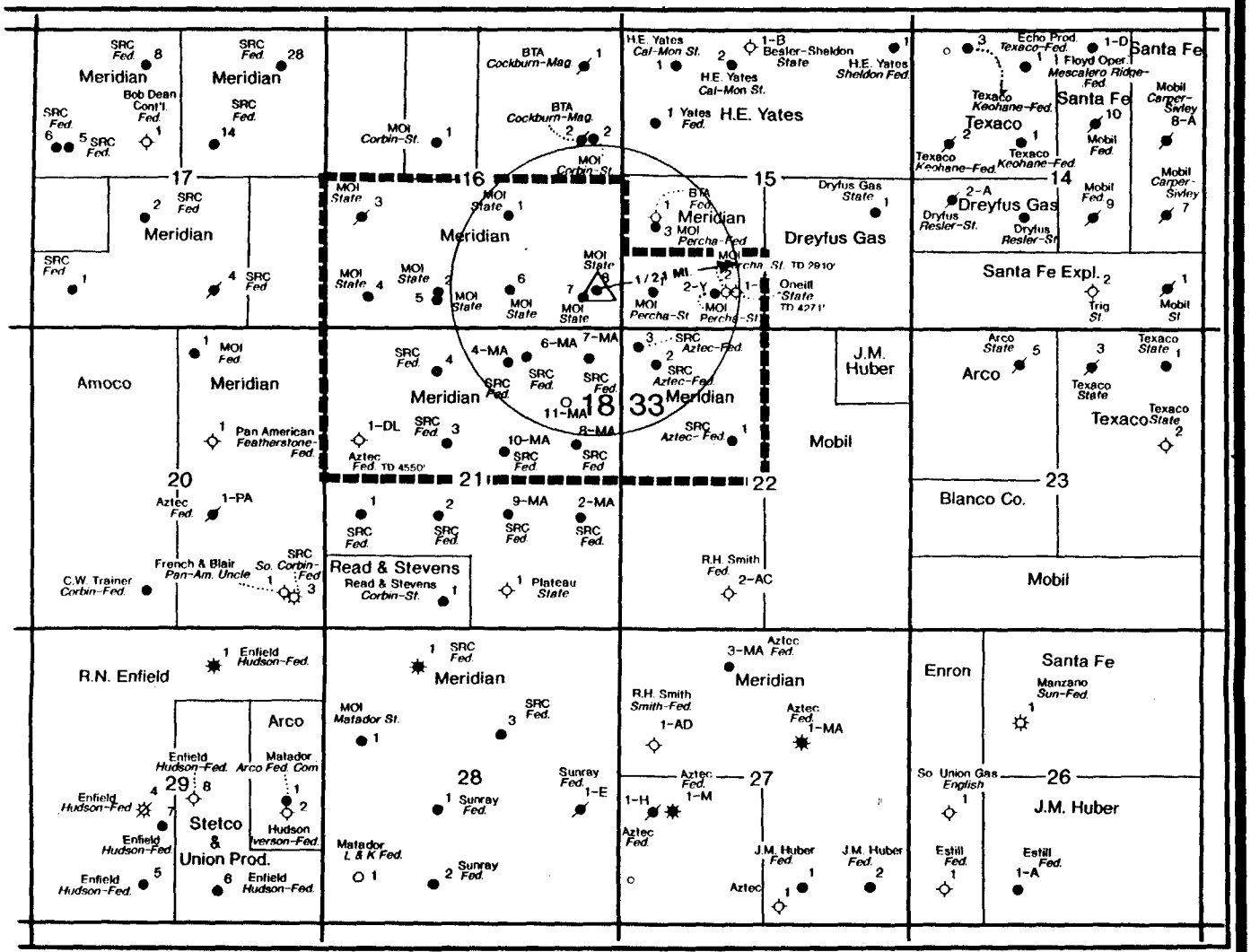
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A SZANTAY	9-84	Chet Babin	9/84	BM-4240
DEPARTMENT	DATE			DRAFTED BY

EXHIBIT F-1

Township 18 South, Range 33 East



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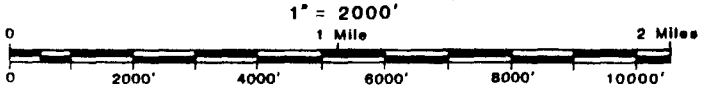


MOI
△ *State "16" #8*
PROPOSED INJECTOR

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

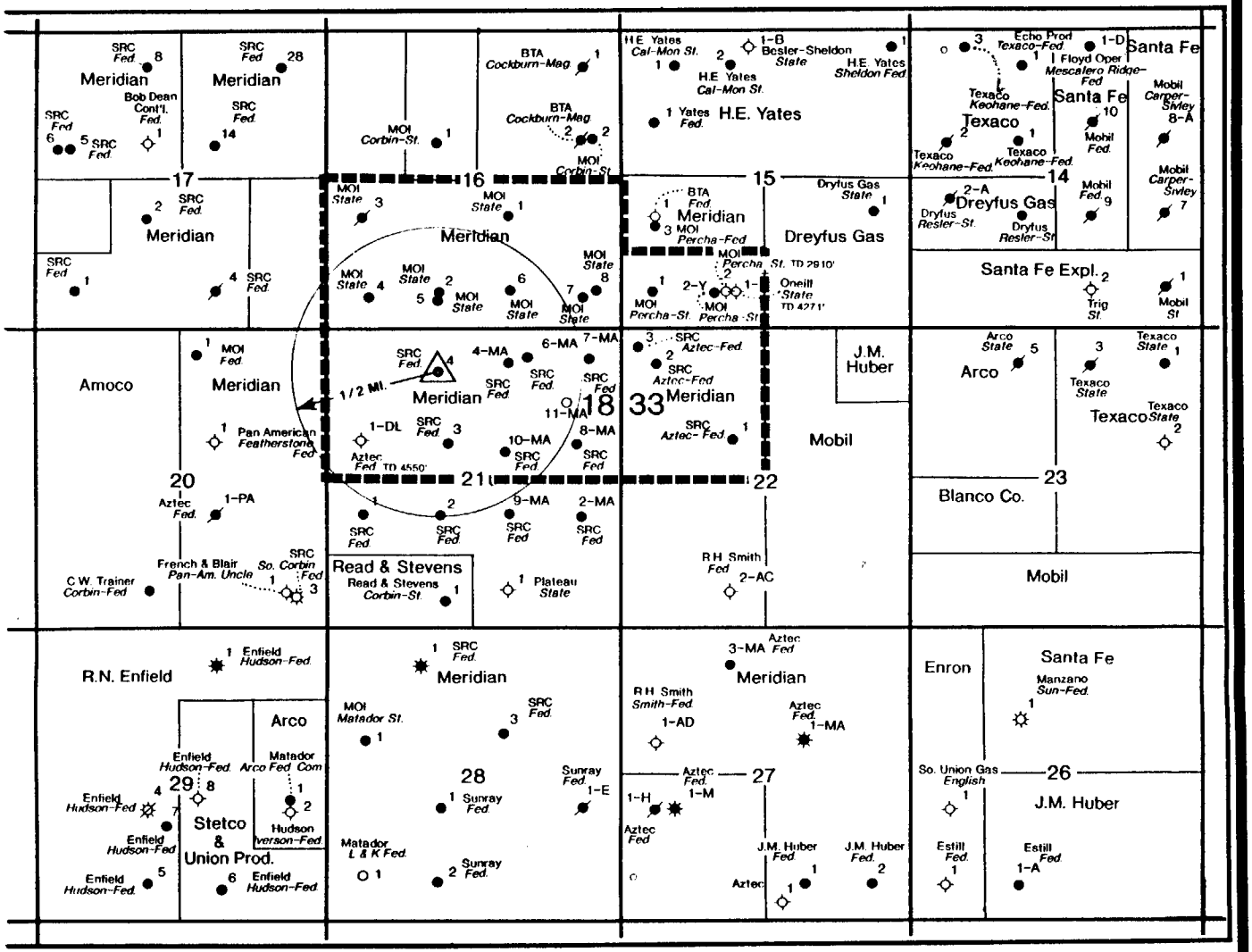
GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A. STANLEY	9-94	Chel Bahn	9/94	BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

EXHIBIT F-2

Township 18 South, Range 33 East



SCALE
1" = 2000'

0 — 1 Mile — 2 Miles

0 — 2000' — 4000' — 6000' — 8000' — 10000'

SRC
Fed "21" #4

PROPOSED INJECTOR

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

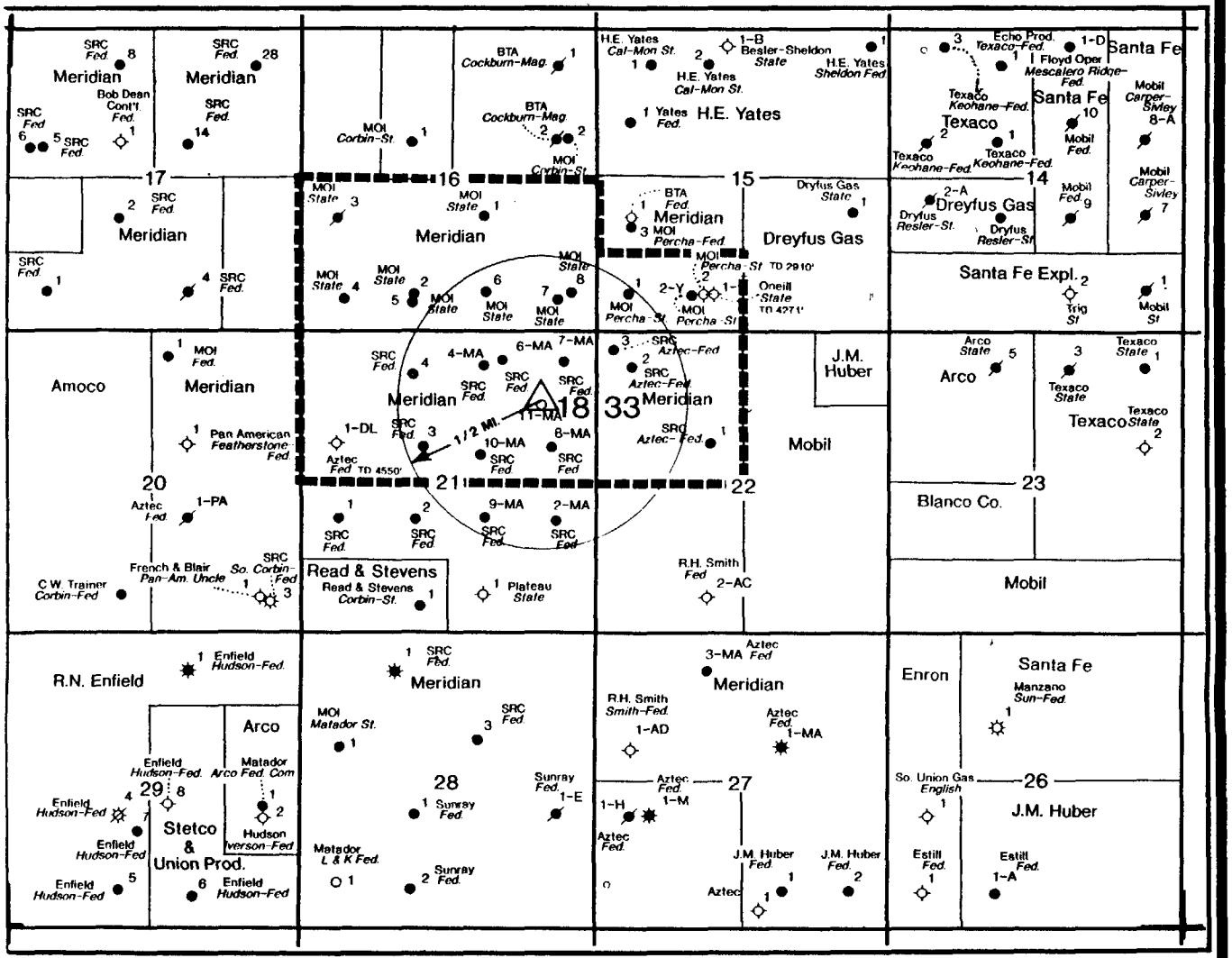
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A. SZANTAY	8-94	Chet Babin	9/94	BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT F-3

Township 18 South, Range 33 East



SCALE
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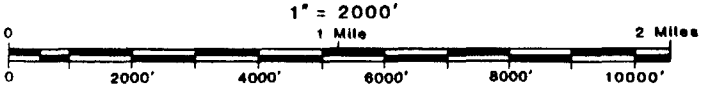


△ MOI
FED "MA" #11
PROPOSED INJECTOR

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A. SZANTAY	9-84	Chet Babin	9/84	BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT F-4

FIELD: WEST CORBIN

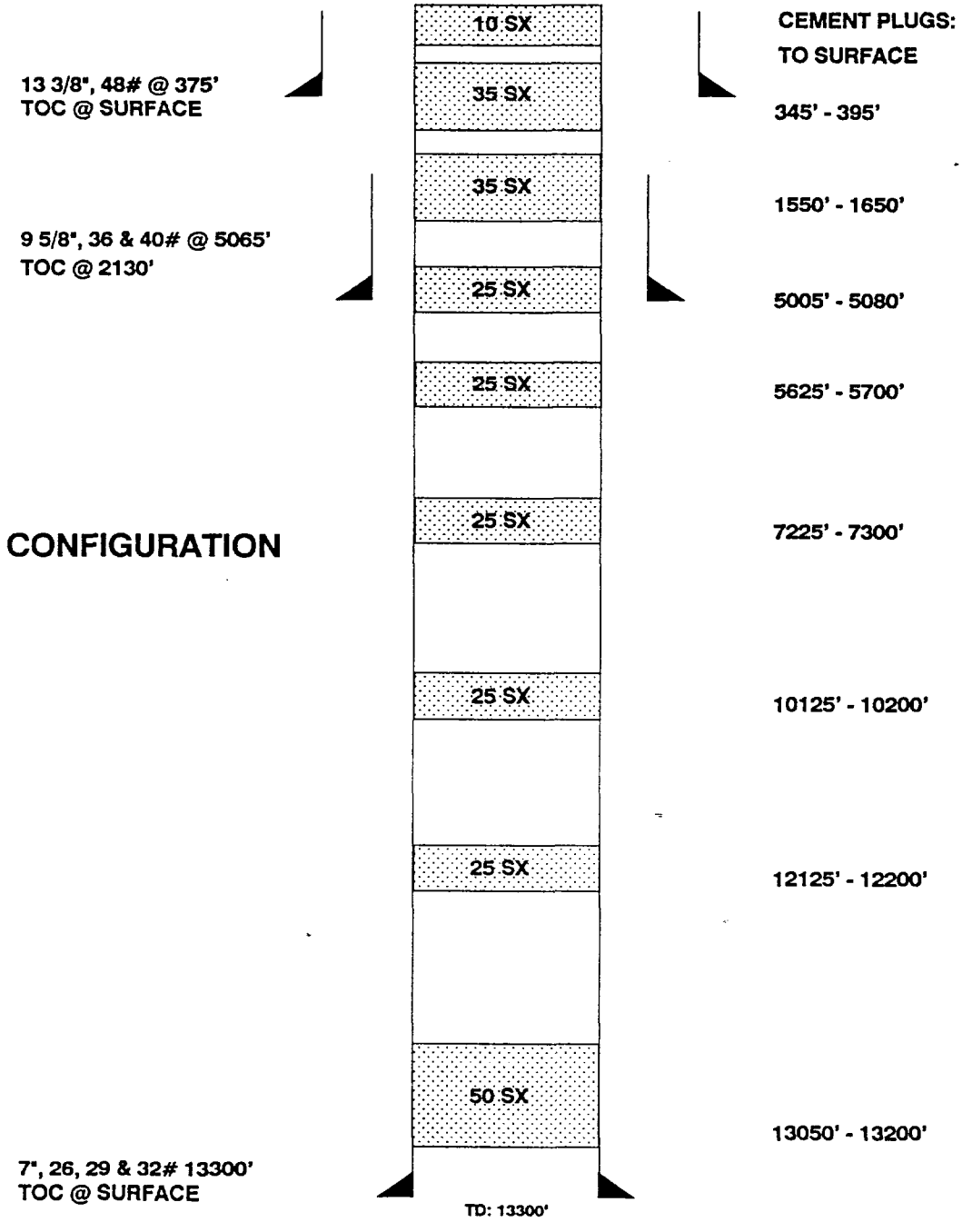
LEASE: CORBIN 675 LTD WELL NO. 1

LOCATION: 1980 FSL & 660 FWL, SEC 15, T18S, R33E
LEA COUNTY, NEW MEXICO

DATE SPUD: 10/11/67 PLUG: 12/20/67

ELEVATION: 3884' G.L.

CONFIGURATION



BTA#1.DRW

EXHIBIT "G"

VII. **Proposed Operation**

1) The proposed, average daily injection rate is 1800 BOPD/well. The proposed, maximum injection rate is 3,000 BOPD/well.
2) The system will be closed.
3) The proposed, average injection pressure is 500 psi. The proposed, maximum pressure is 1,050 psi.
4) The source of the injection fluid is produced water from the Delaware, Wolfcamp and Bone Spring formations. The receiving formation will be the Delaware. A water analysis showing compatibility between the produced water and the receiving formation is attached (see Exhibit "H"). The produced fluid sample was taken from the West Corbin Tank Batteries; water samples were taken from the State "16" #4 and the Federal MA #7.

VIII. **Geological Data on the Injection Zone**

Lithological Description:
The proposed East Corbin (Delaware) Unit produces oil and gas from a series of fine to very fine-grained arkosic sandstones of the middle Permian age Delaware Group.

Geological Name:
The proposed zone for injection is the Delaware formation.

Thickness:

Federal "21" #4:	90'
State "16" #4:	56'
State "16" #8:	60'
Federal "MA" #11:	80' (approximate)

Depth:
The top of the producing zone is as follows:

Federal "21" #4:	5,156'
State "16" #4:	5,192'
State "16" #8:	5,200'
Federal "MA" #11:	5,200' (approximate)

Fresh Water Sources:
In the immediate area of the subject wellbores, fresh water has been encountered in aquifers above 250 feet. These aquifers are found in the Pliocene age Ogallala and Pleistocene age alluvial sediments and consist for the most part of alternating calcareous silt, fine sand and clay. In the wellbores listed above, these aquifers are present to a depth of 250' and are protected by 13-3/8" surface casing set to depths from 340' to 430'. In addition, 5-1/2" production casing has been run to bottom in all three well bores. There are no sources of fresh water underlying the proposed injection intervals.

IX. **Proposed Stimulation Program**
The proposed stimulation program is a 3,000 gallon treatment of 15% N_eF_e HCl acid.

X. **Injection Well Logging and Test Data**
Log sections are attached with the proposed interval indicated (Exhibit"I").

XI. **Fresh Water Analysis**
There are no fresh water wells within one mile of any of the proposed injection wells. The closest water wells are in sections 14 and 27 as shown on Exhibit "J".

XII. **Hydrologic Communication**
An examination of seismic data and available subsurface information indicates there is no evidence of open faults on any other hydrologic connection between the injection zones and any underground source of drinking water.

XIII. **Proof of Notice**
Proof of notice is attached (Exhibit "K").

XIV. **Certification**
Certification is on form C-108.

If any further data are required or need clarification, please contact Chet A. Babin at (915) 688-6964. We appreciate your assistance in helping us initiate this project.

Chet A. Babin, P. E.
Reservoir Engineer
Texas License #77279

Martin Water Laboratories, Inc.
WATER CONSULTANTS SINCE 1953
BACTERIAL AND CHEMICAL ANALYSES

P. O. BOX 1468
MONAHANS, TEXAS 79756
(915) 943-3234 or 563-1040

709 W. INDIANA
MIDLAND, TEXAS 79701
(915) 683-4521

November 23, 1994

Mr. Chet Babin
Meridian Oil Company
P.O. Box 51810
Midland, TX 79710

Subject: Recommendations relative to laboratory #1194144 (11-21-94), West Corbin Unit.

Dear Mr. Babin:

The objective herein is to provide an evaluation of the compatibility between the waters represented in these analyses in regard to injecting a mixture of Delaware, Bone Springs, and Wolfcamp into the Delaware.

It is noted that we did find a significant amount of oxygen in the water at the injection pumps, but it is obvious that this would be due to air contamination and not representative of a natural condition in this water. The air contamination would create some incompatibility as a result of soluble iron in the other waters. Of course, there was some minor iron oxide in the water at the injection pumps. However, if the air contamination is prevented, then there would be no incompatibility identified as a result of any combination of these waters. This is to say that there would be neither scaling potential nor precipitation as a result of mixing the waters.

In general, we find no evidence to suggest there would be any compatibility problem as a result of injecting the mixture of Delaware, Bone Springs, and Wolfcamp into the Delaware.

In addition to the above discussion of compatibility, the results indicate satisfactory injection quality in the present injection water. The total amount of suspended matter and the fact that the suspended material showed microscopically to be essentially all very fine material would be indicative of this satisfactory injectability.

Yours very truly,

Waylan C. Martin

WCM/mo

EXHIBIT "H"

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 1194144 (Corrected Copy)
SAMPLE RECEIVED 11-21-94
RESULTS REPORTED 11-23-94 (11-29-94)

TO: Mr. Chet Babin
P.O. Box 51810, Midland, TX 79710

COMPANY Meridian Oil Company LEASE West Corbin Unit
FIELD OR POOL South Corbin
SECTION 16 & 21 BLOCK ____ SURVEY T-18S &R-33E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "16" #4. 11-21-94
NO. 2 Produced water - taken from Federal "MA" #7. 11-21-94
NO. 3 Mixed water - taken from injection pump discharge. 11-21-94
NO. 4

REMARKS: 1. & 2. Delaware 3. Delaware, Bone Springs, & Wolfcamp

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1703	1.1708	1.1432	
pH When Sampled			7.2	
pH When Received	5.56	5.92	6.38	
Bicarbonate as HCO_3	161	181	327	
Supersaturation as $CaCO_3$	8	4	4	
Undersaturation as $CaCO_3$	--	--	--	
Total Hardness as $CaCO_3$	65,500	69,500	34,500	
Calcium as Ca	18,800	20,600	10,400	
Magnesium as Mg	4,495	4,374	2,066	
Sodium and/or Potassium	72,466	72,430	73,194	
Sulfate as SO_4	576	480	1,044	
Chloride as Cl	157,662	160,503	136,356	
Iron as Fe	1.5	3.6	1.8	
Barium as Ba			0	
Turbidity, Electric			51	
Color as Pt			48	
Total Solids, Calculated	254,160	258,568	223,387	
Temperature °F.			70	
Carbon Dioxide, Calculated	660	380	36	
Dissolved Oxygen,			1.8	
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.050	0.050	0.053	
Suspended Oil			10	
Filtrable Solids as mg/l			20.5	
Volume Filtered, ml			400	
Total Dissolved Solids @ 180°F.	247,244	246,296	212,252	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: Letter of recommendation attached.

Form No. 3

By Waylan C. Martin, M.A.

EXHIBIT "H"

MOI State "16" #4

Perfs: 5192' - 5248'
IPP: 168 BOPD
353 BWPD
85 MCFGPD

COMPENSATED NEUTRON / LITHO-DENSITY

CSU

COMPANY: MERIDIAN OIL INCORPORATED

WELL: ST. 16 #4

FIELD: S. CORBIN WOLFCAMP
COUNTY: LEA
STATE: NEW MEXICO
NATION: USA
LOCATION: 760' FWL & 540' FSL

SEC: 16 TWP: 18S RGE: 33E

PERMANENT DATUM: G.L. ELEVATIONS-
ELEV. OF PERM. DATUM: 3851.0 F KB: 3868.0 F
LOG MEASURED FROM: K.B. DF: 3867.0 F
17.0 F ABOVE PERM. DATUM GL: 3851.0 F
DRLG. MEASURED FROM: K.B.

DATE: 6 JUL 89
RUN NO: ONE

DEPTH-DRILLER: 11468.0 F
DEPTH-LOGGER: 11454.0 F
BTM. LOG INTERVAL: 11433.0 F
TOP LOG INTERVAL: 57.0 F

CASING-DRILLER: 2900.0 F
CASING-LOGGER: 2896.0 F
CASING: 8 5/8
WEIGHT:
BIT SIZE: 7 7/8
DEPTH:

OTHER SERVICES-
DLL
MSFL

PROGRAM
TAPE NO:
32.2
SERVICE
ORDER NO:
512997

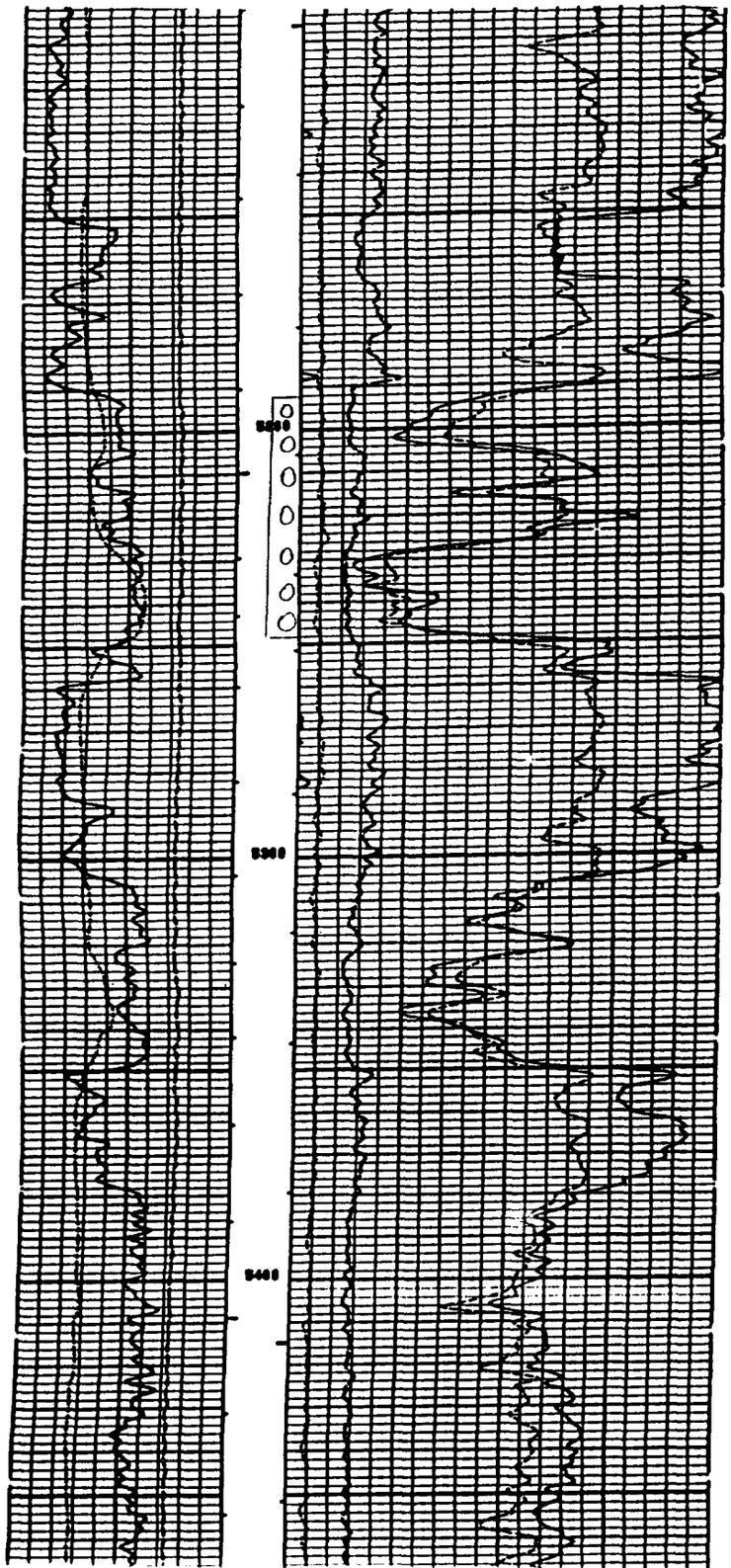


EXHIBIT "I"
Page 1 of 3

HALLIBURTON LOGGING SERVICES, INC.

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY MERIDIAN OIL. INC

WELL FEDERAL 21 NO 4

FIELD WEST CORBIN -DELAWARE-

COUNTY LEA STATE NM

API NO

LOCATION 779 FNL AND 1943 FWL

OTHER SERVICES DLLMG FMS

SEC 21 TWP 18-S RGE 33-E

PERMANENT DATUM G L ELEV 3846 | ELEV : K B 3862

LOG MEASURED FROM K B 16 FT ABOVE PERM. DATUM | D F NR

DRILLING MEASURED FROM K B | G L 3846

DATE	12/11/89			
RUN NO	ONE			
DEPTH-DRILLER	5500			
DEPTH-LOGGER	5490			
BTM LOG INTER.	5436			
TOP LOG INTER.	SURFACE			
CASING-DRILLER	8 625@362	@	@	@
CASING-LOGGER	351			
BIT SIZE	7.875			
TYPE FLUID IN HOLE	BRINE			
DENS : VISC	10 ? : 32.0	:	:	:
PH : FLUID LOSS	9.0 : 5.0	:	:	:
SOURCE OF SAMPLE	PIT			
RM @ MEAS. TEMP	0.10 @47	@	@	@
RMF @ MEAS. TEMP	0.10 @47	@	@	@
RMC @ MEAS. TEMP	NA @NA	@	@	@
SOURCE RMF : RMC	MEAS :MEAS	:	:	:
RM @ BHT	0.043@110	@	@	@
TIME SINCE CIRC.	4 HOURS			
TIME ON BOTTOM	1:00 AM			
MAX REC TEMP	110 @B. H	@	@	@
EQUIP : LOCATION	4551 :HOBBS	:	:	:
RECORDED BY	BAEZA			
WITNESSED BY	B. MALDRING			

MOI Federal "21" #4

Perfs: 5156' - 5246'

IPP: 36 BOPD

210 BWPD

30 MCFGPD

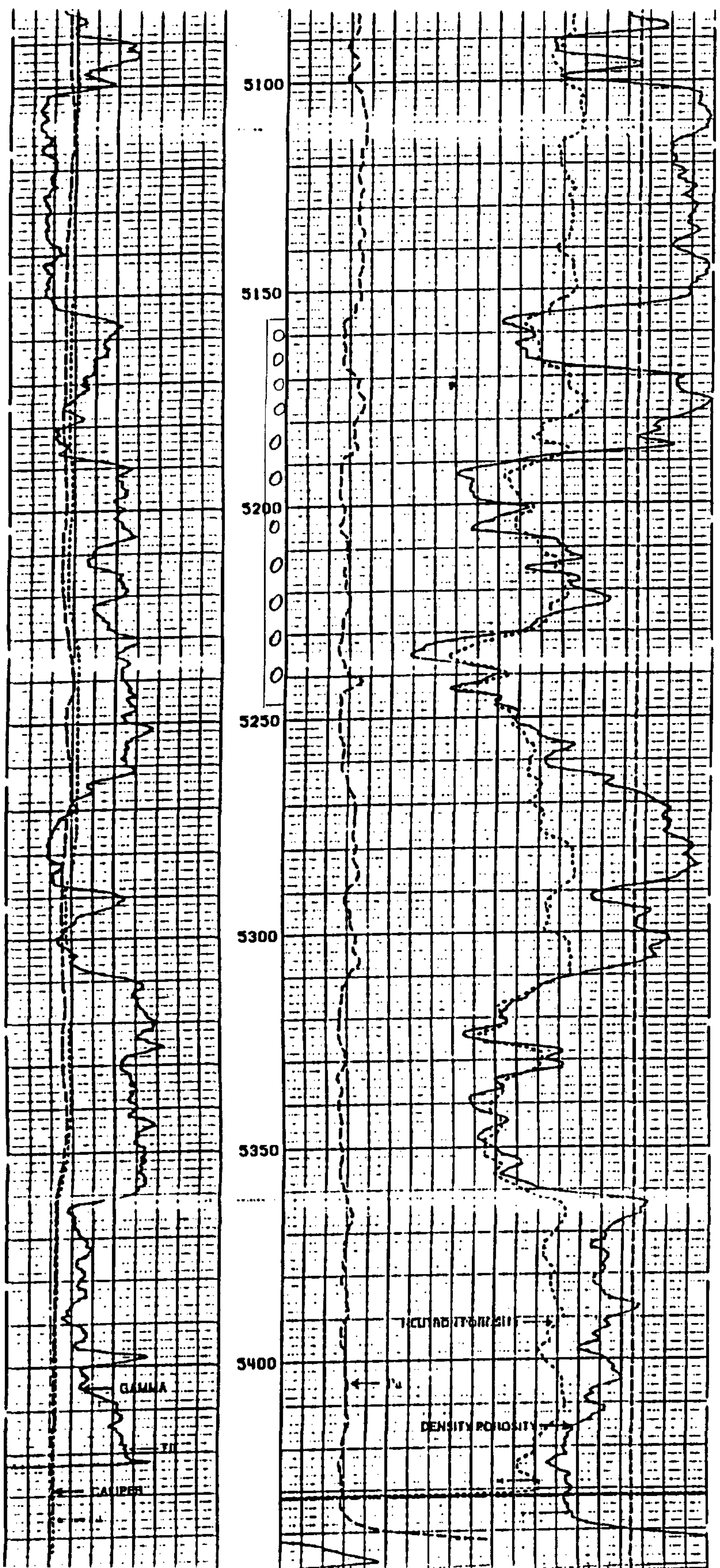


EXHIBIT "I"

Page 3 of 3

HALLIBURTON LOGGING SERVICES, INC.

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY ____ WELL ____ FIELD ____ COUNTY ____ ST ____

COMPANY MERIDIAN OIL INC.

WELL STATE -16- NO. 8

FIELD WEST CORBIN -DELAWARE-

COUNTY LEA STATE NM

API NO. NA
LOCATION
480 FEL AND 660 FSL

SEC. 16 TWP 18-S RGE 33-E

OTHER SERVICES
DLL-MSFL

PERMANENT DATUM G. L. ELEV. 3866
LOG MEASURED FROM K. B. 16 FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM K. B.

ELEV.: K.B. 3882
D.F. NA
G.L. 3866

DATE	3/6/91			
RUN NO.	ONE			
DEPTH-DRILLER	5500			
DEPTH- LOGGER	5504			
BTM. LOG INTER.	5501			
TOP LOG INTER.	SURF.			
CASING-DRILLER	8.625@480	@	@	@
CASING- LOGGER	480			
BIT SIZE	7.875			
TYPE FLUID IN HOLE	BRINE			
DENS. | VISC.	10.5 | 32.0	|	|	|
PH | FLUID LOSS	10.0 | 11.4	|	|	|
SOURCE OF SAMPLE	CIRCULATED			
RM @ MEAS. TEMP.	0.06 @70	@	@	@
RMF @ MEAS. TEMP.	NA @NA	@	@	@
RMC @ MEAS. TEMP.	NA @NA	@	@	@
SOURCE RMF | RMC	NA | NA	|	|	|
RM @ BHT	0.04 @112	@	@	@
TIME SINCE CIRC.	NA			
TIME ON BOTTOM	2:20 AM			
MAX. REC. TEMP.	112 @8.0	@	@	@
EQUIP. | LOCATION	4551 | HOBBS	|	|	|
RECORDED BY	HAEZE			
WITNESSED BY	HANSEN			

MOI State "16" #8

Perfs: 5200' - 5260'
IPP: 200 BOPD
115 BWPD
100 MCFGPD

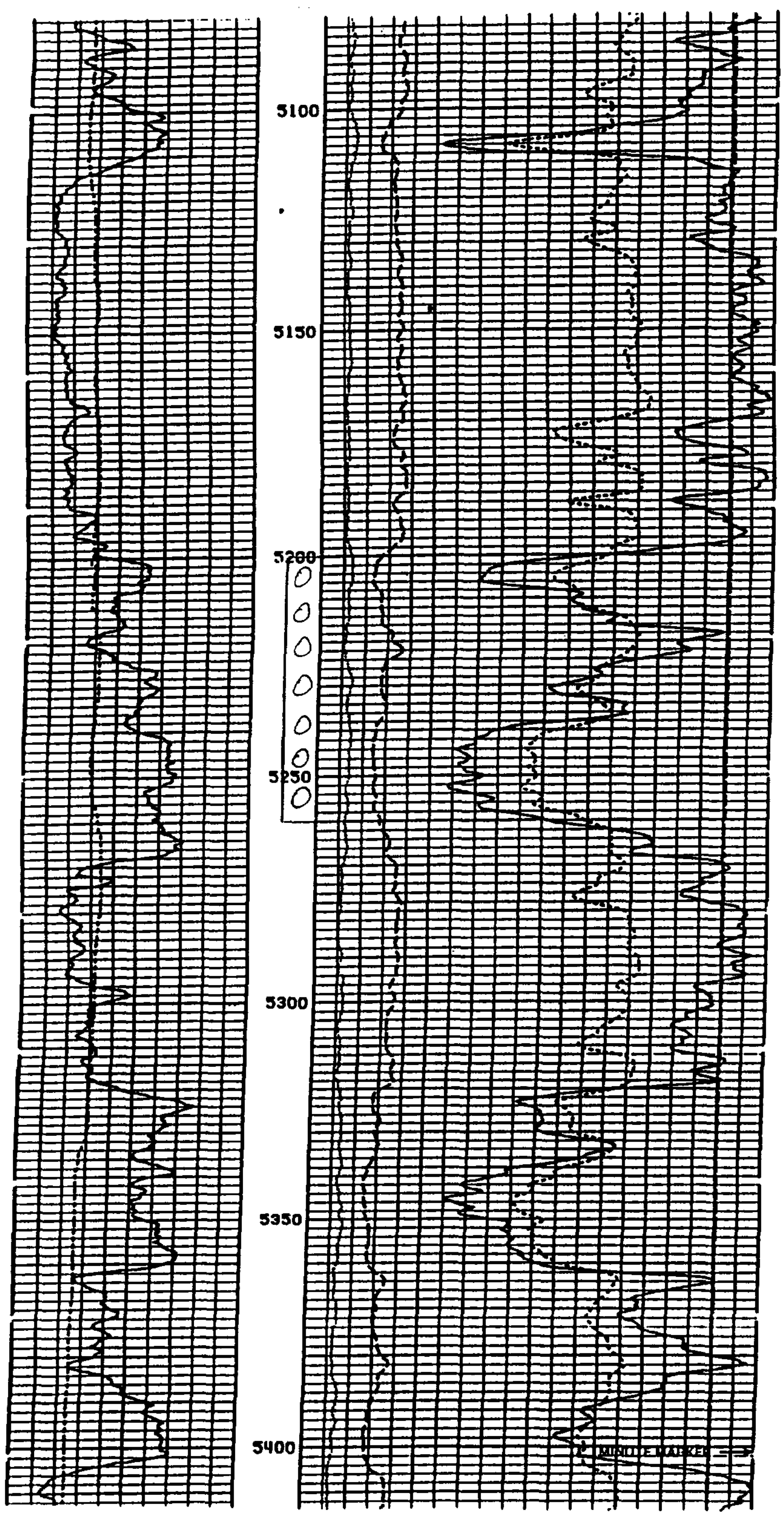


EXHIBIT "I"
Page 2 of 3

MOI State "16" #4

Perfs: 5192' - 5248'
IPP: 168 BOPD
353 BWPD
85 MCFGPD

COMPENSATED NEUTRON / LITHO-DENSITY

CSU

COMPANY: MERIDIAN OIL INCORPORATED

WELL: ST. 16 #4

FIELD: S. CORBIN WOLFCAMP
COUNTY: LEA
STATE : NEW MEXICO
NATION: USA
LOCATION: 760' FWL & 540' FSL

SEC: 16 TWP: 18S RGE: 33E

PERMANENT DATUM: G.L. ELEVATIONS-
ELEV. OF PERM. DATUM: 3851.0 F KB: 3868.0 F
LOG MEASURED FROM: K.B. DF: 3867.0 F
17.0 F ABOVE PERM. DATUM GL: 3851.0 F
DRLG. MEASURED FROM: K.B.

DATE: 6 JUL 89
RUN NO: ONE

DEPTH-DRILLER: 11460.0 F
DEPTH-LOGGER: 11434.0 F
BTM. LOG INTERVAL: 11433.0 F
TOP LOG INTERVAL: 57.0 F

CASING-DRILLER: 2900.0 F
CASING-LOGGER: 2896.0 F
CASING: 8 5/8
WEIGHT:
BIT SIZE: 7 7/8
DEPTH:

OTHER SERVICES-
DLL
MSFL

PROGRAM
TAPE NO:
32.2
SERVICE
ORDER NO:
512997

ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
P.O. BOX 1980
HOBBS, N.M. 88241-1980

BEST COPY available

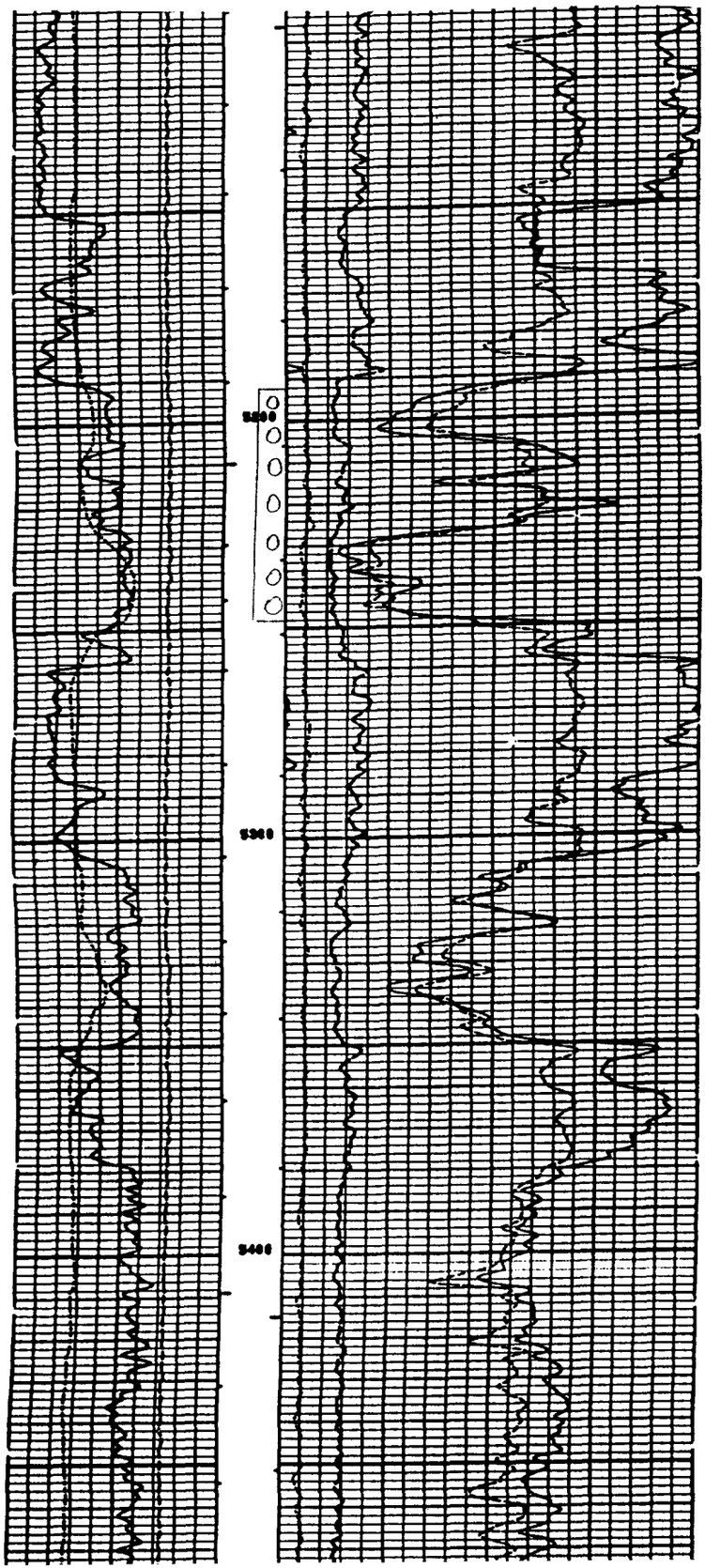


EXHIBIT "I"
Page 1 of 3

HALLIBURTON LOGGING SERVICES, INC.

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY MERIDIAN OIL INC.

WELL STATE -16- NO. 8

FIELD WEST CORBIN -DELAWARE-

COUNTY LEA STATE NM

API NO. NA

LOCATION
460 FEL AND 660 FSL

OTHER SERVICES
DLL-MSFL

SEC. 16 TWP. 18-S RGE 33-E

PERMANENT DATUM G. L. ELEV. 3866 ELEV.: K.B. 3882
LOG MEASURED FROM K. B. 16 FT. ABOVE PERM. DATUM D.F. NA
DRILLING MEASURED FROM K. B. G.L. 3866

DATE	12/6/91			
RUN NO.	ONE			
DEPTH-DRILLER	5500			
DEPTH- LOGGER	5504			
BTM. LOG INTER.	5501			
TOP LOG INTER.	SURF.			
CASING-DRILLER	8.625@430	@	@	@
CASING- LOGGER	430			
BIT SIZE	7.875			
TYPE FLUID IN HOLE	BRINE			
DENS. ; VISC.	10.0 ; 32.0			
PH ; FLUID LOSS	10.0 ; 11.4			
SOURCE OF SAMPLE	CIRCULATED			
RM @ MEAS. TEMP.	0.08 @70	@	@	@
RMF @ MEAS. TEMP.	NA @NA	@	@	@
RMC @ MEAS. TEMP.	NA @NA	@	@	@
SOURCE RMF ; RMC	NA ; NA			
RM @ BHT	0.04 @172	@	@	@
TIME SINCE CIRC.	NA			
TIME ON BOTTOM	17:30 HR			
MAX. REC. TEMP.	172 °F	@	@	@
EQUIP. ; LOCATION	3951 ; HOBBS			
RECORDED BY	HARKEN			
WITNESSED BY	HANSEN			

MOI State "16" #8

Perfs: 5200' - 5260'
IPP: 200 BOPD
115 BWPD
100 MCFGPD

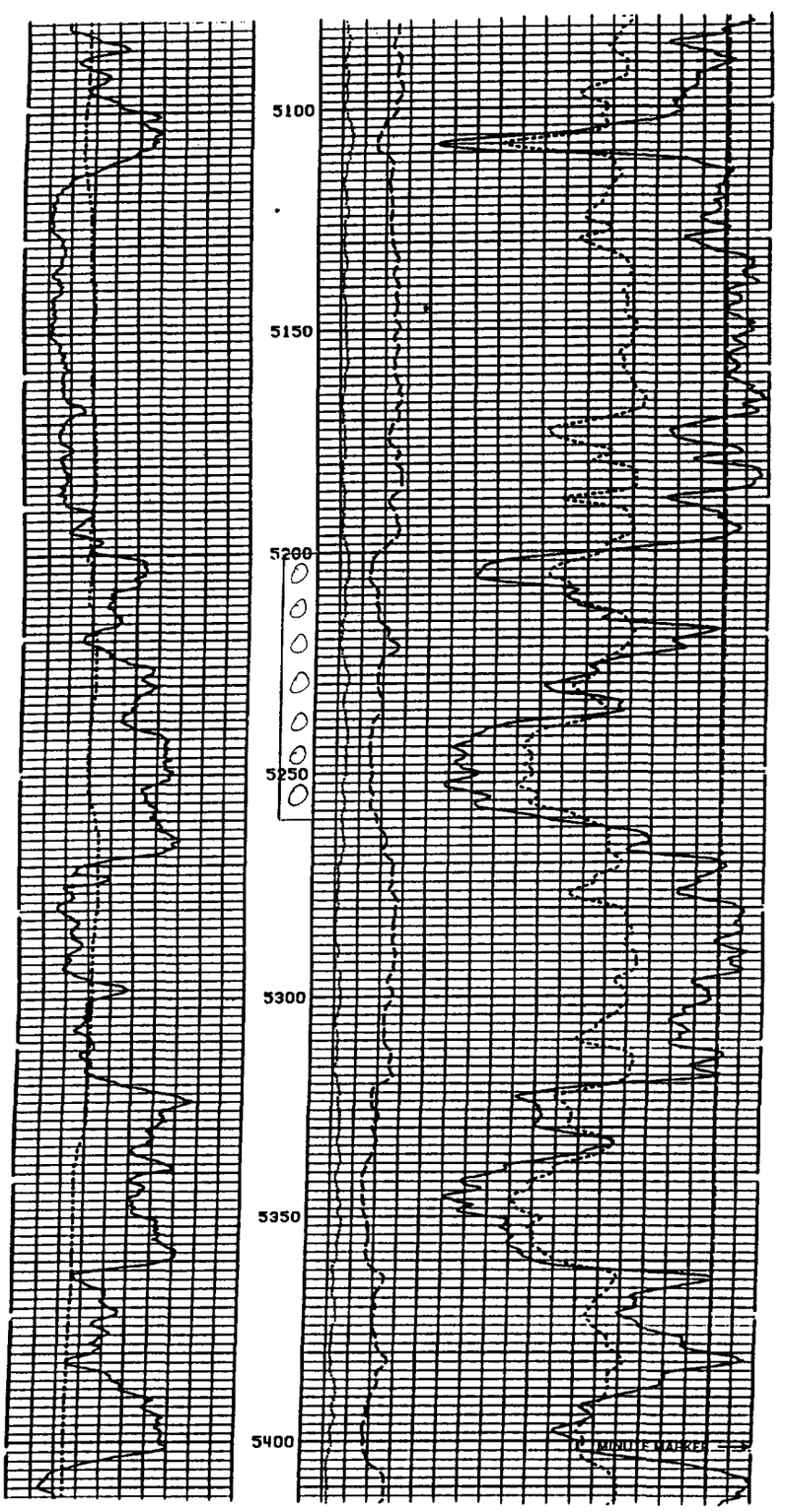


EXHIBIT "I"
Page 2 of 3

HALLIBURTON LOGGING SERVICES, INC.

DUAL SPACED NEUTRON LOG

COMPANY MERIDIAN OIL, INC

WELL FEDERAL 21 NO 4

FIELD WEST CORBIN -DELAWARE-

COUNTY LEA STATE NM

API NO

LOCATION
779 FNL AND 1943 FWL

OTHER SERVICES
DLLMG
FMS

SEC 21 TWP 18-S RGE 33-E

PERMANENT DATUM G L ELEV 3846 ELEV.: K.B. 3862
LOG MEASURED FROM K. B 16 FT ABOVE PERM. DATUM D.F. NA
DRILLING MEASURED FROM K. B. G.L. 3846

DATE	12/11/89			
RUN NO	ONE			
DEPTH-DRILLER	5500			
DEPTH- LOGGER	5498			
BTM LOG INTER	5436			
TOP LOG INTER	SURFACE			
CASING-DRILLER	8 625@362	@	@	@
CASING- LOGGER	358			
BIT SIZE	7 875			
TYPE FLUID IN HOLE	BRINE			
DENS : VISC	10 3 : 31 0	-	-	-
PH : FLUID LOSS	8 0 : 15 0	-	-	-
SOURCE OF SAMPLE	PIT			
RM @ MEAS TEMP	@	@	@	@
RMF @ MEAS TEMP	@	@	@	@
RMC @ MEAS TEMP	NA @	@	@	@
SOURCE RMF : RMC	MEAS : MEAS	-	-	-
RM @ BHT	@	@	@	@
TIME SINCE CIRC	4 HOURS			
TIME ON BOTTOM	6:00 AM			
MAX REC TEMP		@	@	@
EQUIP : LOCATION		-	-	-
RECORDED BY				
WITNESSED BY				

MOI Federal "21" #4

Perfs: 5156' - 5246'
IPP: 36 BOPD
210 BWPD
30 MCFGPD

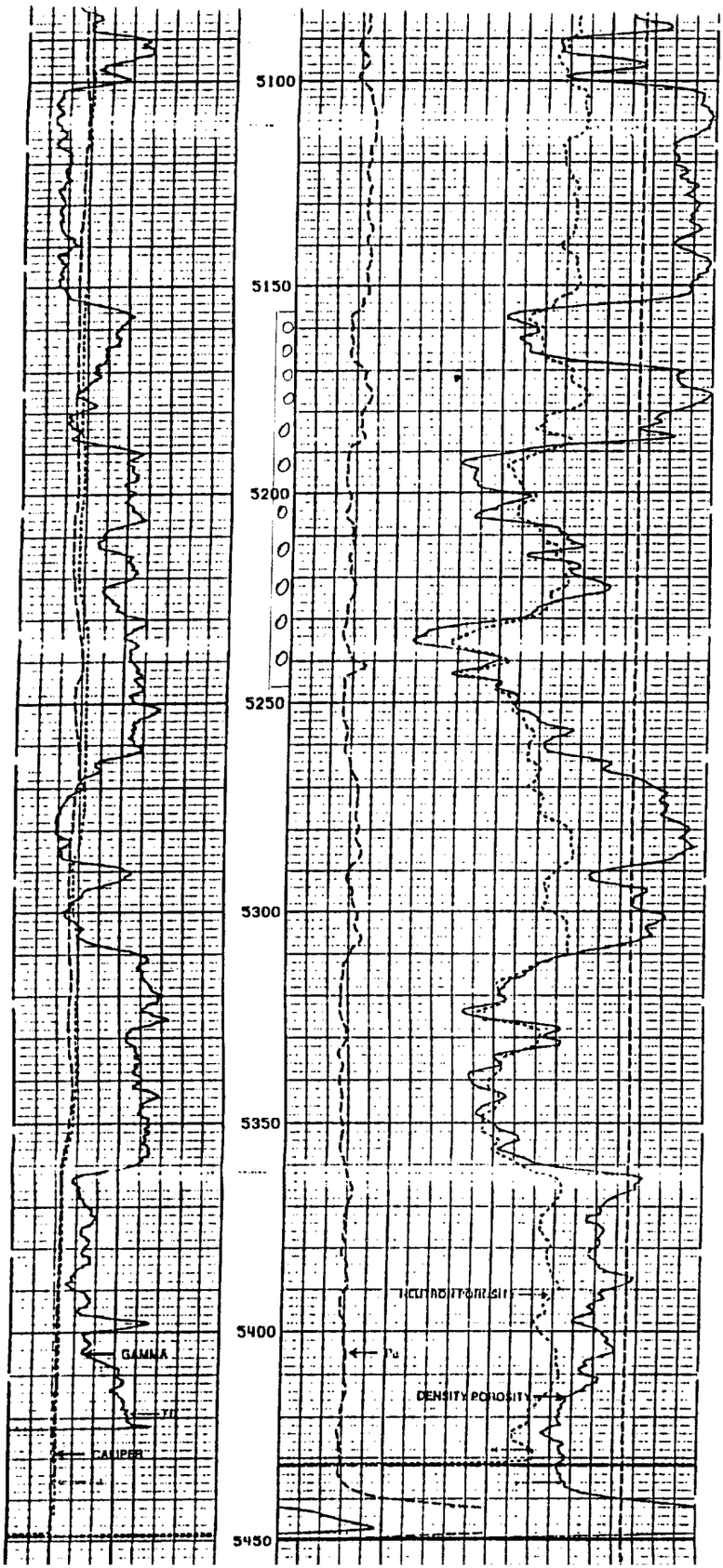
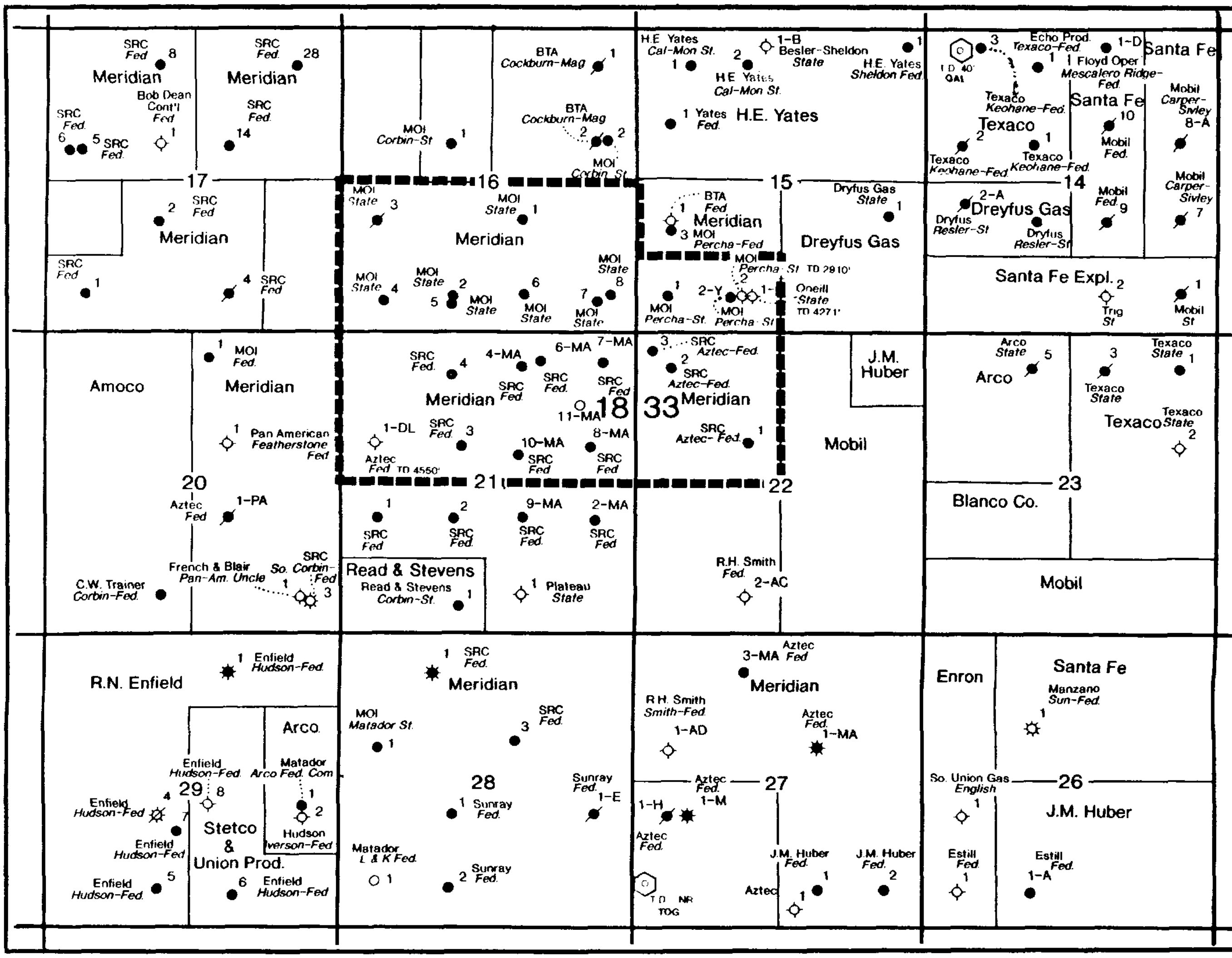


EXHIBIT "I"
Page 3 of 3

Township 18 South, Range 33 East



SCALE
1" = 2000'

0 — 1 Mile — 2 Miles

0 2000' 4000' 6000' 8000' 10000'

⬡ *NEAREST WATERWELLS TO E.C.D.U.* — QAL = QUATERNARY Alluvium; TOG = TERTIARY Ogallala

▬▬▬▬ PROPOSED WATERFLOOD UNIT BOUNDARY

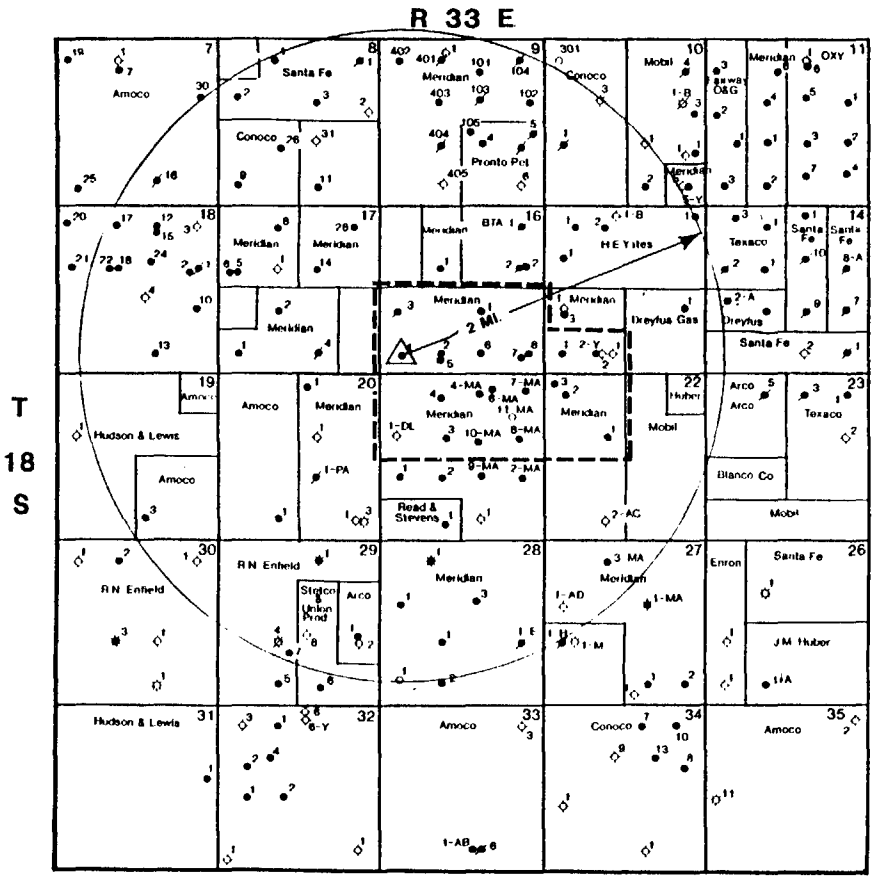
Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
A. SZANTAY	9-94	Chet Babin	9/94	BM-4240

EXHIBIT J



SCALE
1" = 4000'

0 1 2 Miles
0' 4000' 8000'

MOI
△ *State "16" #4*
PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

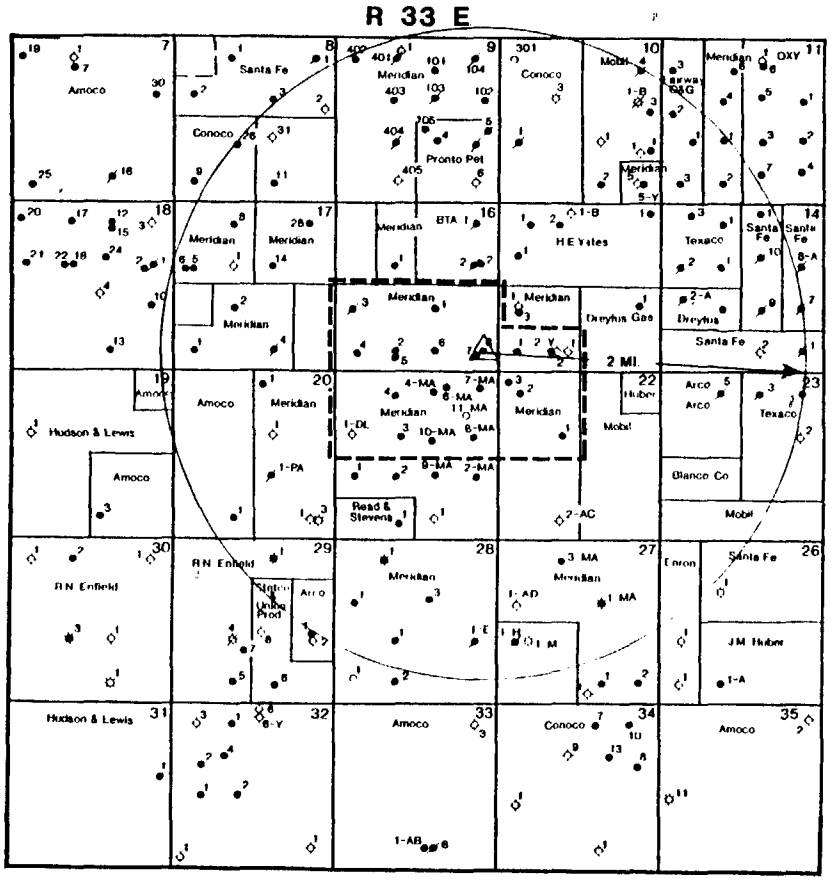
Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	8-84			BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT E-1



SCALE
1" = 4000'

0 1 2 Miles

0' 4000' 8000'

MOI

△ *State "16" #8*

PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres

State Acreage = 400 Acres

Total Acreage = 880 Acres

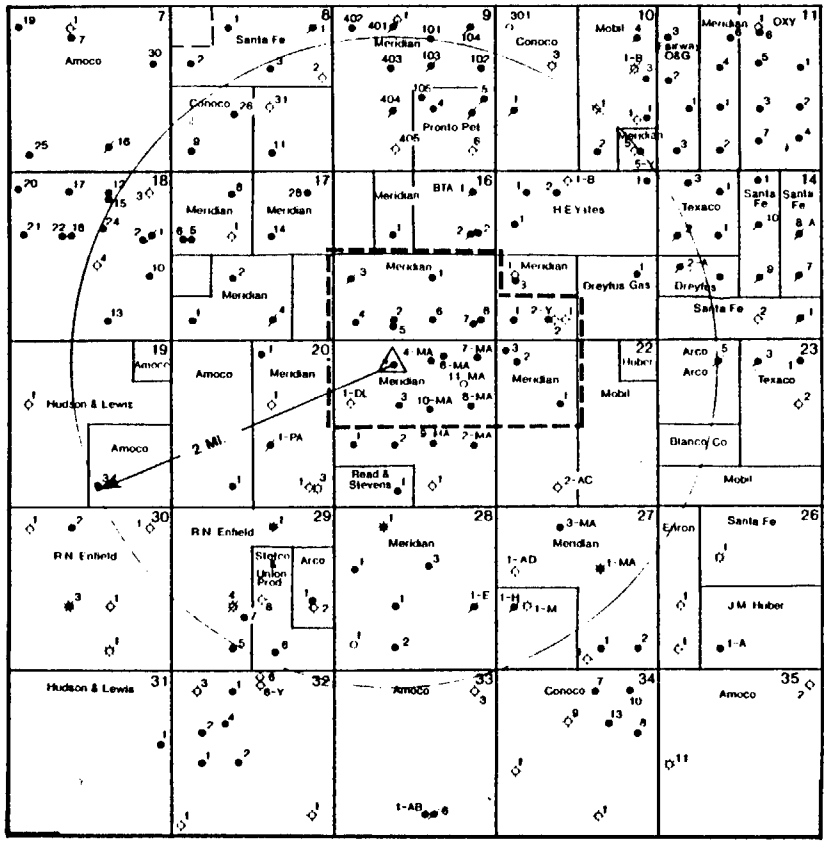
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	9-94			BM-4240
GEOPHYSICIST	DATE			DRAWN BY

R 33 E

T 18 S



SCALE
1" = 4000'

0 1 2 Miles

0' 4000' 8000'

SRC

△ *Fed "21" #4*

PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres

State Acreage = 400 Acres

Total Acreage = 880 Acres

MERIDIAN OIL

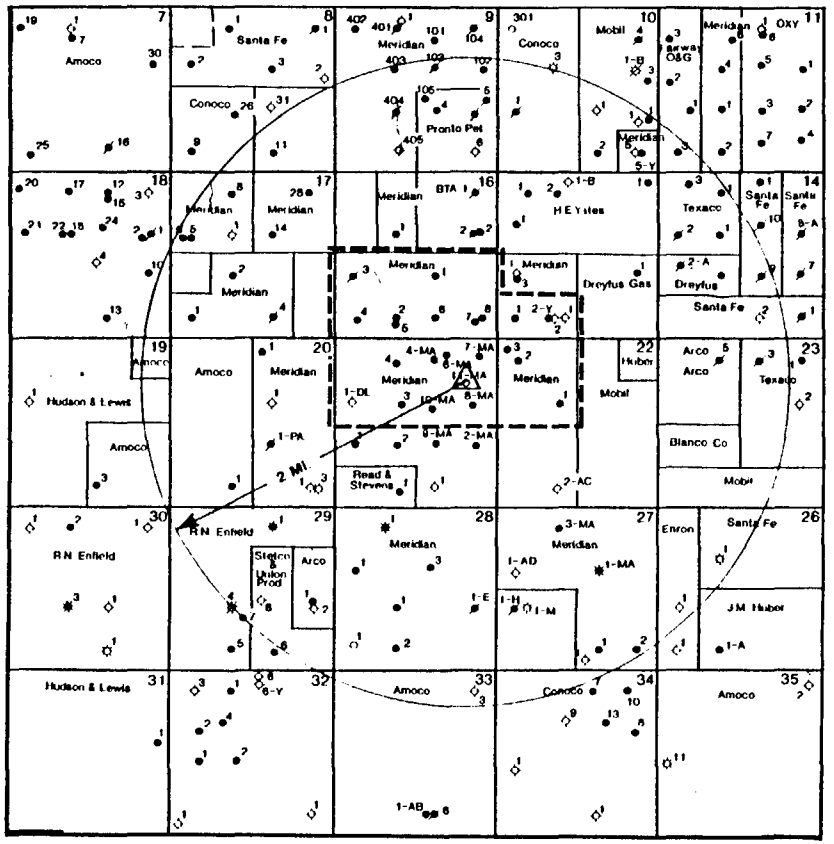
E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	2-94			BM-4240
GEOPHYSICIST	DATE			

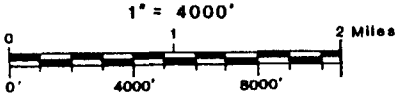
EXHIBIT E-3

R 33 E

T 18 S



SCALE
1" = 4000'



MOI

△ *FED "MA" #11*

PROPOSED INJECTOR

------ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres

State Acreage = 400 Acres

Total Acreage = 880 Acres

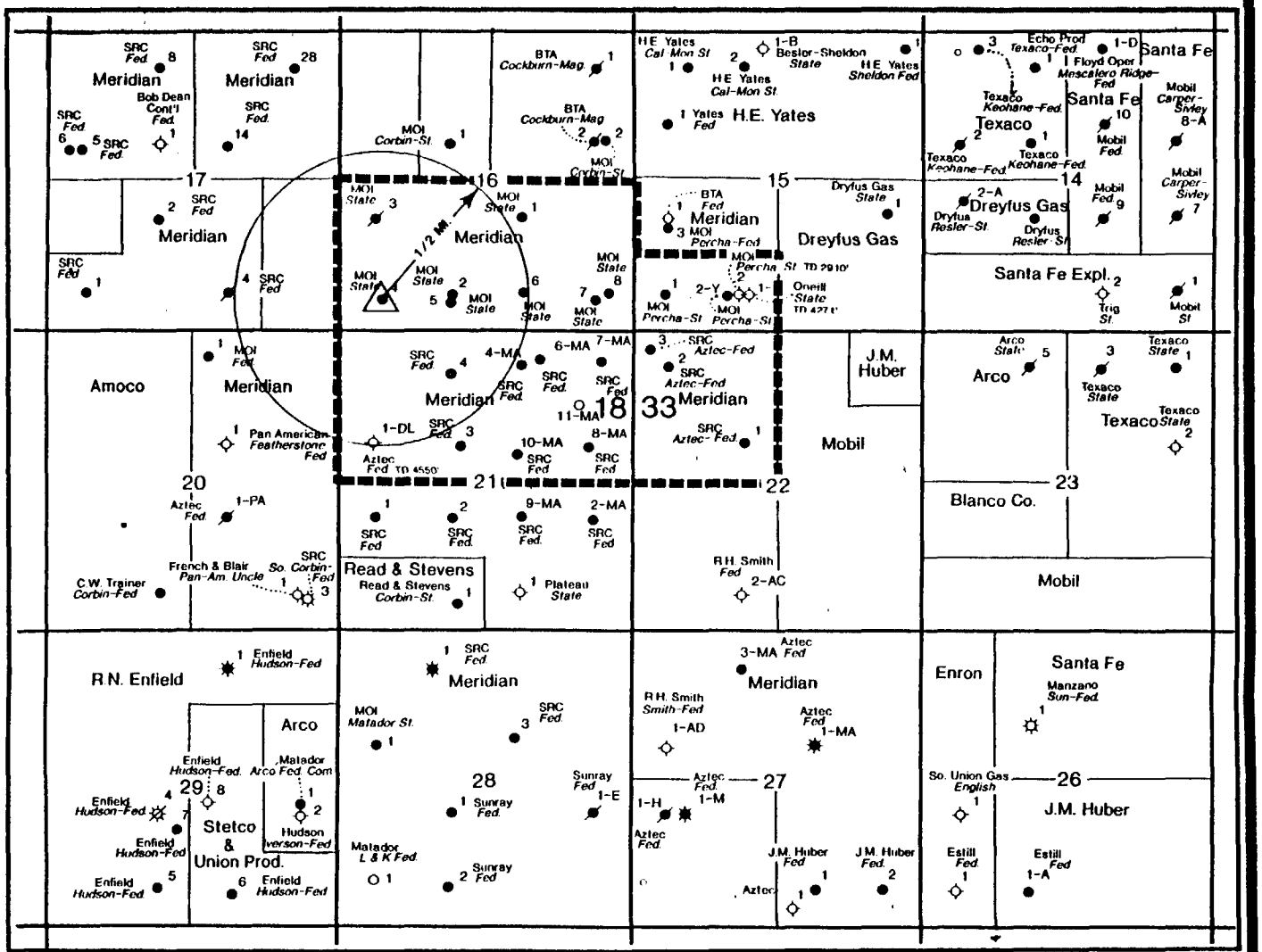
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

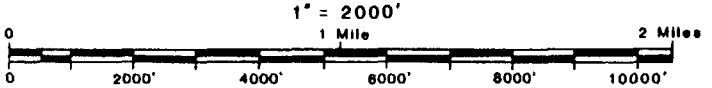
GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
Chet Babin	8-94			BM-4240
GEOPHYSICIST	DATE			DRAWN BY

EXHIBIT E-4

Township 18 South, Range 33 East



SCALE
1" = 2000'



MOI
△ *State "16" #4*

PROPOSED INJECTOR

▬▬ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

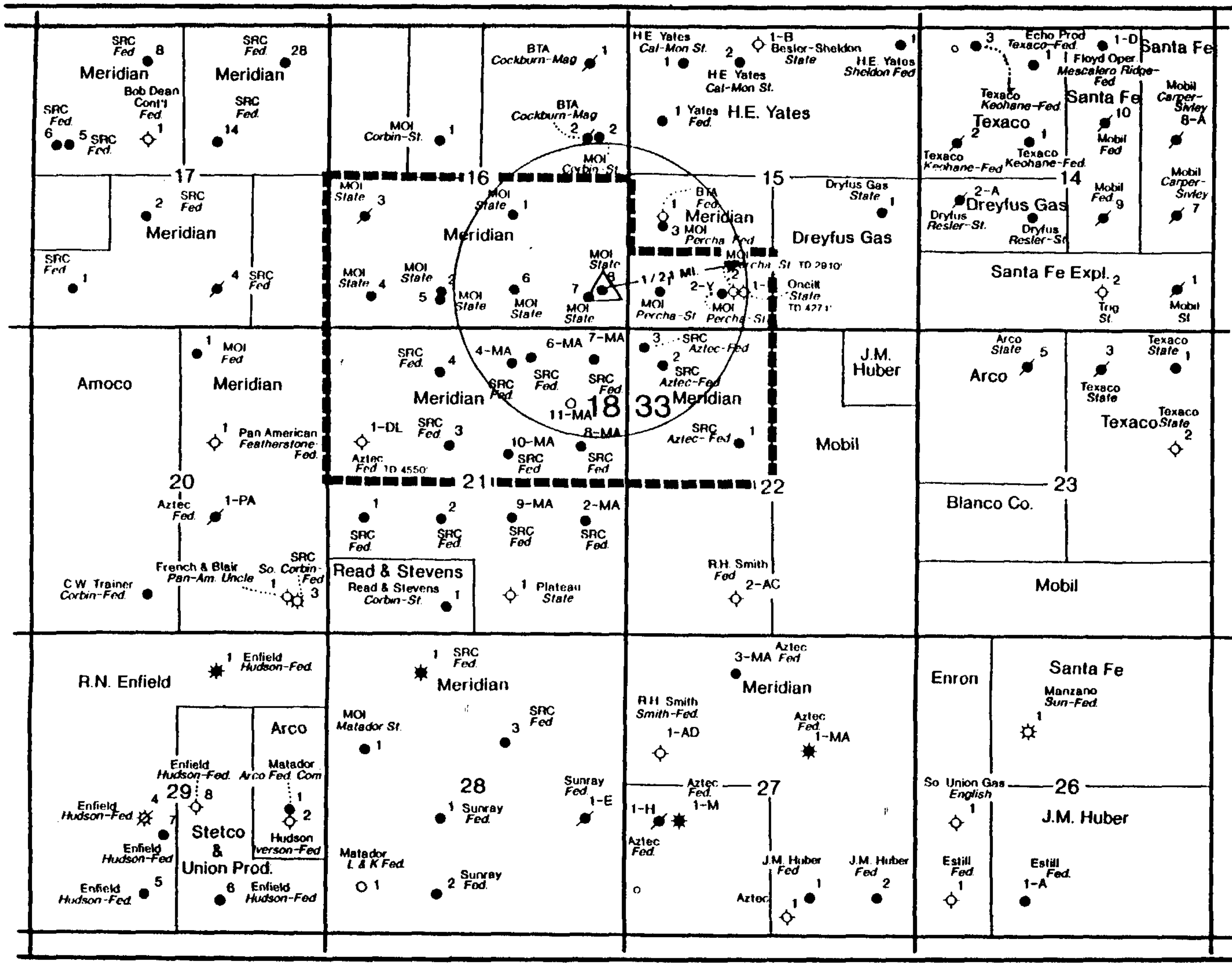
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A SZANTAY	9-94	Chet Babin	0794	BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT E-1

Township 18 South, Range 33 East



MOI
State "16" #8

PROPOSED INJECTOR

SCALE
1" = 2000'

0 | 1 Mile | 2 Miles
0 | 2000' | 4000' | 6000' | 8000' | 10000'

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

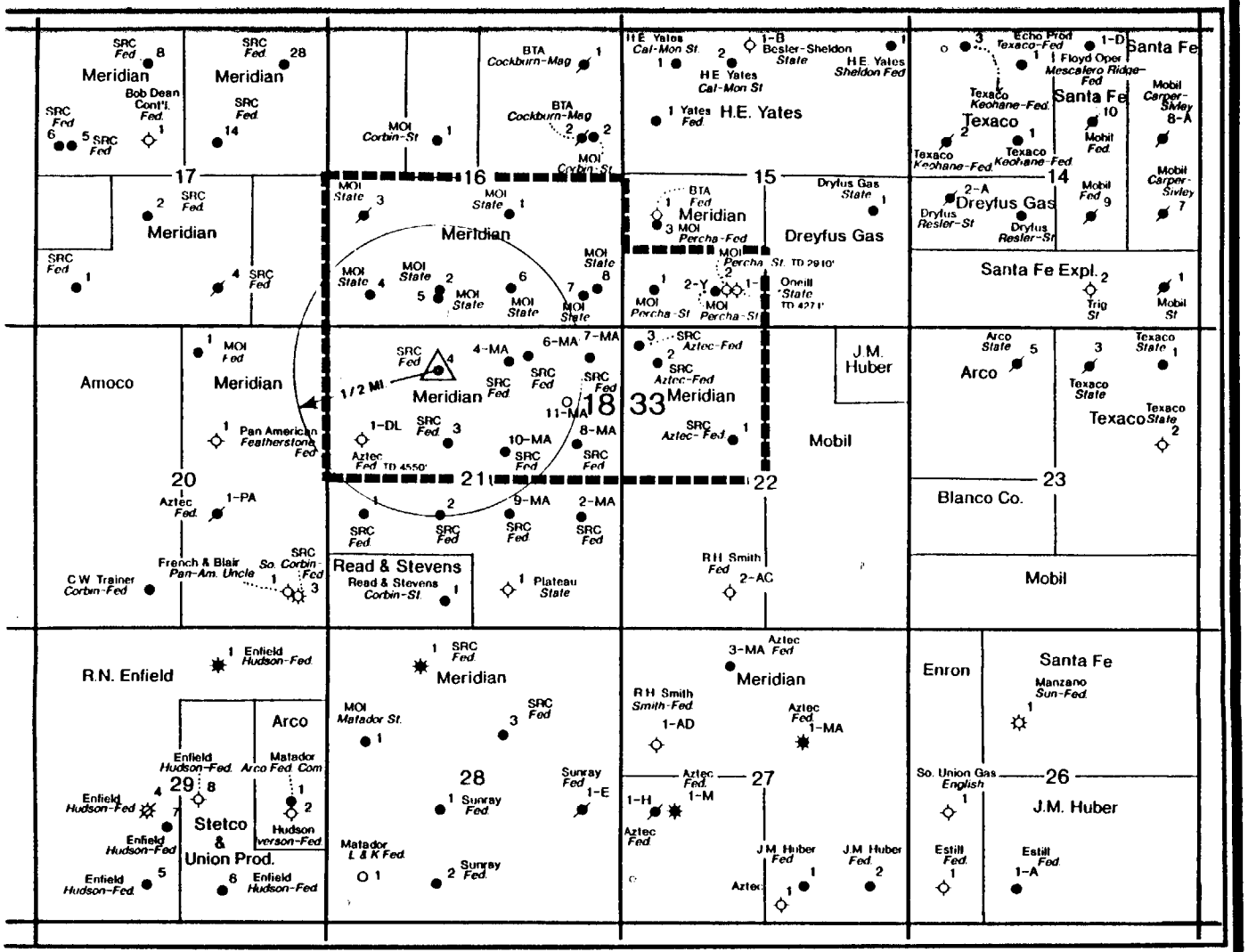
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

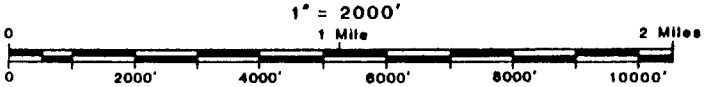
Geologist	Date	Revised by	Date	File No
A. SZANTAY	6-94	Chet Babin	[illegible]	BM-4240
Geophysicist	Date			Drafted by

EXHIBIT E-2

Township 18 South, Range 33 East



SCALE
1" = 2000'



SRC
Fed "21" #4
PROPOSED INJECTOR

▬▬▬ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

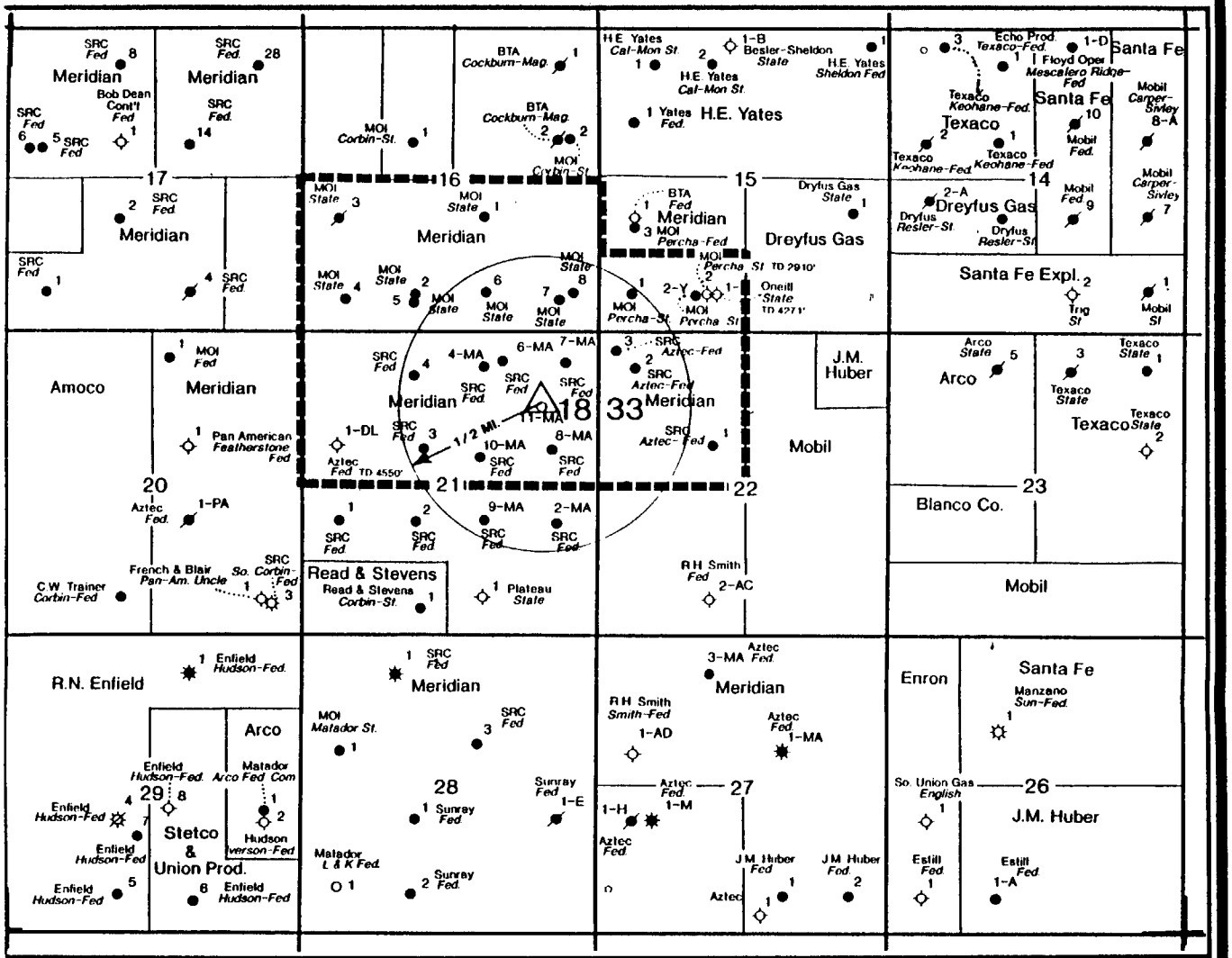
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A. SZANTAY	6-84	Chad Babin	8/84	BM-4240
DRAFTSPERSON	DATE			DRAFTED BY

EXHIBIT F-3

Township 18 South, Range 33 East



SCALE
1" = 2000'

0 — 1 Mile — 2 Miles
0 — 2000' — 4000' — 6000' — 8000' — 10000'

MOI
△ *FED "MA" #11*
PROPOSED INJECTOR

PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

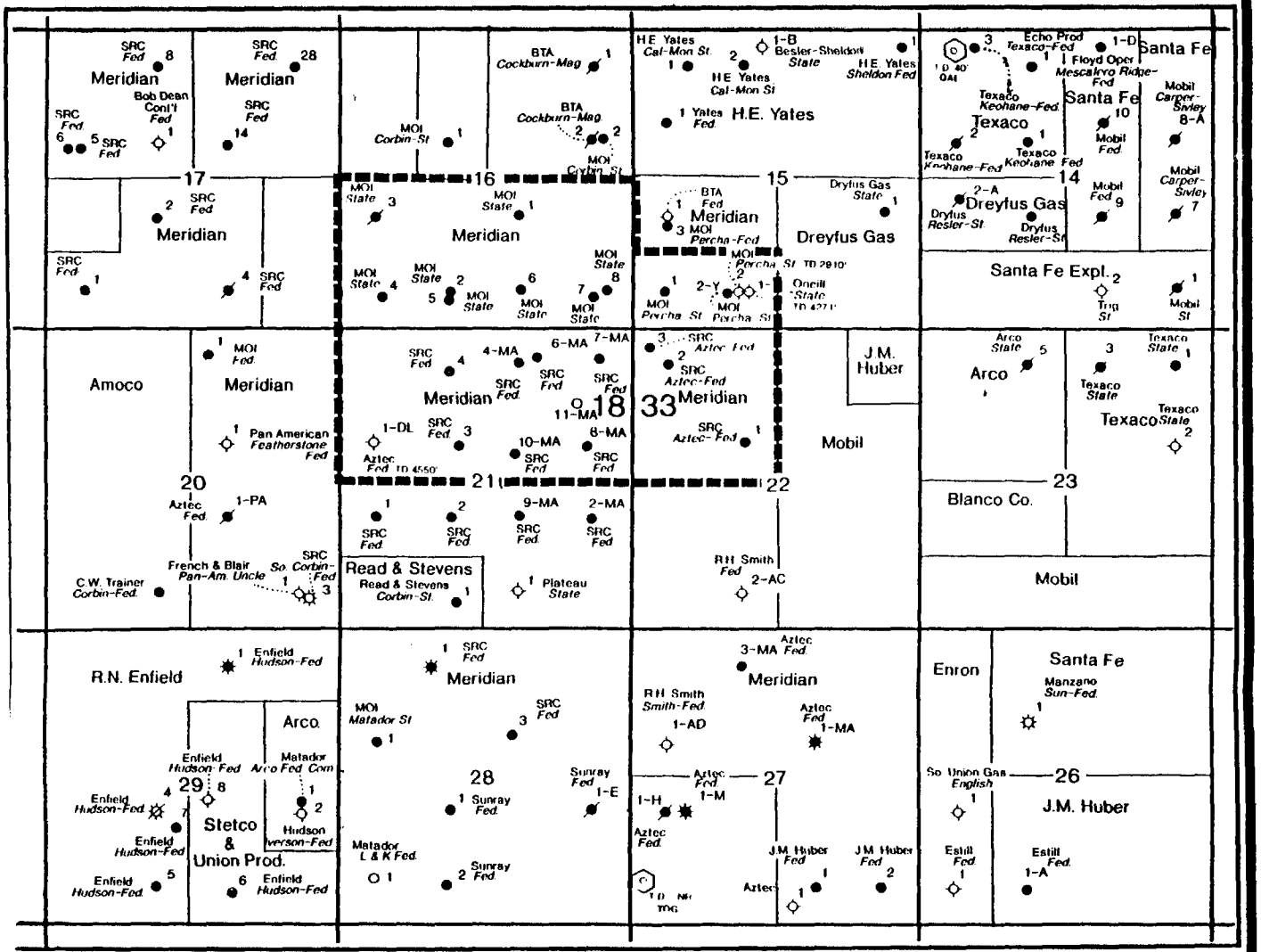
MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO
A SZANYI	8-84	Chel Bahn	8/84	BM-4240
GEOPHYSICIST	DATE			DRAFTED BY

EXHIBIT E-4

Township 18 South, Range 33 East



SCALE
1" = 2000'

0 — 1 Mile — 2 Miles

0 — 2000' — 4000' — 6000' — 8000' — 10000'

⬡ *NEAREST WATERWELLS TO E.C.D.U.* — QAL = QUATERNARY Alluvium; TOG = TERTIARY Ogallala

▬▬ PROPOSED WATERFLOOD UNIT BOUNDARY

Federal Acreage = 480 Acres
State Acreage = 400 Acres
Total Acreage = 880 Acres

MERIDIAN OIL

E. CORBIN DELAWARE UNIT
CORBIN DELAWARE W. FIELD
LEA COUNTY, NEW MEXICO

GEOLOGIST	DATE	REVISED BY	DATE	FILE NO.
A. SZANTAY	9-94	Chet Babin	9/94	BM-4240
DRAFTSPERSON	DATE			DRAFTED BY

EXHIBIT J