January 20, 1994

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Attention: Ben Stone

Re: Application for Expansion of Waterflood;
Order R-4019; R-4020; WFX-648
Texaco Exploration and Production Inc.
Cooper Jal Unit
Jalmat and Langlie Mattix Formations
T-24-S, R-36 & 37-E
Lea County, New Mexico

Gentlemen:

Texaco Exploration and Production Inc. respectfully requests administrative approval for the conversion of six wells on the Cooper Jal Unit, Enhanced Oil Recovery Project, to downhole commingled injection. Two of the six wells designated in this application will be converted from existing downhole commingled production wells to downhole commingled injectors. The remaining four wells will be modified from dualled injectors to downhole commingled injectors for the purpose of secondary recovery by water injection. This work will help maintain reservoir pressure and recover additional oil reserves that would otherwise be left in place.

Texaco E&P Inc. respectfully requests that the Cooper Jal Unit Waterflood Project covered by R-4019, R-4020 and WFX-648 be expanded to include the modification of the six wellbores to downhole commingled injection wells. Administrative approval, or a NMOCD sponsored hearing is requested so that the necessary operations can be advanced in a prudent manner. If you have any questions concerning the application, please contact Michael Alexander at (505) 397-0411.

Yours very truly,

Michael C. Alexander
Production Engineer

MCA/

Attachments
File
Chrono

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Texaco Exploration & Production Inc.

Address: P. O. Box 730, Hobbs, New Mexico 88240

Contact party: Michael Alexander, Prod. Engr Phone: (505) 393-7191

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? [X] yes [ ] no
If yes, give the Division order number authorizing the project R-4019;R-4020;WFX-648.

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: Michael C. Alexander Title Production Engineer

Signature: [signature] Date: 1/20/94

* 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. R-4019, Aug. 19, 1970; R-4020, Aug. 19, 1970; WFX-648, Oct. 1, 1993

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

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.

1-21-94

NEW MEXICO OIL CONSERVATION DIVISION - Form C-108

III. INJECTION WELL DATA

Cooper Jal Unit : Jalmat & Langlie Mattix Pools

134	- Unit Letter M,	330'FSL &	1650'FWL,	Section 24,	T24S, R36E
135	- Unit Letter O,	990'FSL &	1980'FEL,	Section 24,	T24S, R36E
120/236	- Unit Letter C,	660'FNL &	1980'FWL,	Section 24,	T24S, R36E
133/240	- Unit Letter K,	1980'FSL &	1916'FWL,	Section 19,	T24S, R37E
146/233	- Unit Letter I,	1650'FSL &	990'FEL,	Section 13,	T24S, R36E
147/207	- Unit Letter E,	2310'FNL &	330'FWL,	Section 19,	T24S, R37E

All pertinent data for each of the above proposed injection wells is included on the well schematic sheets in this application.

V. SUBJECT AREA MAPS AND AREA OF REVIEW

A map of the subject area, Cooper Jal Unit, including all wells within a 2 mile radius is attached. Also attached is a map showing each of the subject well's 1/2 mile radius circle or area of review.

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW

The current Cooper Jal Unit waterflood was developed under NMOCD Order R-4019, Langlie Mattix Pool, and R-4020, Jalmat Pool, dated August 19, 1970. Since completion of the original hearing, eight new wells have been completed to the subject horizon. Three of the new wells were completed by Reserve Oil & Gas Company, well numbers 151, 153 and 154. During 1993, Texaco drilled five new wells during 1993, numbers 401, 402, 403 ,404 and 405, to initiate an enhanced recovery project on the Cooper Jal Unit.

The intent of this application is to seek approval, either through a NMOCC administrative approval, or through a New Mexico Oil Conservation Commission sponsored hearing to modify the subject wells for injection. This application is pursuant to the continuation of an Enhanced Oil Recovery Project on the Cooper Jal Unit, which will enhance the recovery of additional reserves from the Jalmat and Langlie Mattix Pools.

To date the following wells within a half mile radius of the proposed injection wells on the Cooper Jal Unit have been plugged and abandoned :

T-24-S, R-36-E

Section 13	: well(s)	: Myers 'B' No. 1
Section 23	: well(s)	: None
Section 24	: well(s)	: None
Section 25	: well(s)	: CJU No. 144
Section 26	: well(s)	: C. D. Woolworth No.'s 1 & 5

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW (continued)

T-24-S, R-37-E

Section 18	well(s)	None
Section 19	well(s)	J.J. Thomas No. 1 & Thomas No. 1
Section 30	well(s)	None

All wells not previously completed on the Cooper Jal Unit or within the area of review on the C-108 application approved October 1, 1993(WFX-648), are included in the attachments to this application.

VII. PROPOSED OPERATION

The proposed average injection rate per well is 500 BWIPD (800 BWIPD for downhole commingled injectors) with a maximum anticipated rate of 600 BWIPD (1200 BWIPD for DHC injectors). Maximum pressure will not exceed 1500 psi plant operating pressure. The average wellhead injection pressure will not exceed 600 psi, on the two new injectors, until a step rate test establishes a higher limit. The system will be closed.

VIII. GEOLOGICAL DATA

Based on current geological and engineering data and a petrophysical rock-properties evaluation, there is no evidence of any natural or artificially created open faults within the unitized interval or above.

IX. PROPOSED STIMULATION PROGRAM

The subject wells will be stimulated using 2,000 to 8,000 gallons of 20% NEFE HCl acid. Rock salt blocks or ball sealers will be utilized during the jobs.

JALMAT POOL
(Cooper-Jal Unit Area)
Lea County, New Mexico

ler No. R-4020, Authorizing Reserve Oil and Gas Company Institute a Waterflood Project in the Cooper-Jal Unit Area, mat Pool, Lea County, New Mexico, August 25, 1970.

plication of Reserve Oil and Gas Company a Waterflood Project, Lea County, New xico.

CASE NO. 4404
Order No. R-4020

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 0 a.m. on August 19, 1970, at Santa Fe, New Mexico, before aminer Daniel S. Nutter.

NOW, on this 25th day of August, 1970, the Commission, a orum being present, having considered the testimony, the cord, and the recommendations of the Examiner, and being ly advised in the premises,

FINDS:
(1) That due public notice having been given as required law, the Commission has jurisdiction of this cause and the bject matter thereof.

(2) That the applicant, Reserve Oil and Gas Company, seeks thority to institute a waterflood project in the Cooper-Jal it Area, Jalmat Pool, by the injection of water into the Tansill, ites, and Upper and Middle Seven Rivers formations through injection wells in Township 24 South, Ranges 36 and 37 East, MPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced ate of depletion and should properly be classified as "stripper" ells.

(4) That the proposed waterflood project should result in the covery of otherwise unrecoverable oil, thereby preventing ste.

(5) That the subject application should be approved and the oject should be governed by the provisions of Rules 701, 702, d 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:
(1) That the applicant, Reserve Oil and Gas Company, is here- authorized to institute a waterflood project in the Cooper- l Unit Area, Jalmat Pool, by the injection of water into the ansill, Yates, and Upper and Middle Seven Rivers formations rough the following-described 23 wells in Lea County, New exico:

Operator / Lease	Well No.	Unit	Section	Township	Range
merada					
Falby →	3	K	19	24S	37E
	(a dual completion)				
	4	M	19	24S	37E
Cities Service					
Jack "A" Federal	1	M	18	24S	37E
	(a dual completion)				
Continental					
Jack Federal 19 →	1	E	19	24S	37E
	(a dual completion)				
	4	C	19	24S	37E
Humble					
Hunter	3	E	24	24S	36E
→	4	C	24	24S	36E
	(a dual completion)				
Thomas	1	O	23	24S	36E
	3	M	24	24S	36E
Petroleum Corporation of Texas					
M. Dunn	1	O	13	24S	36E
→	2	I	13	24S	36E
Harrison	1	C	25	24S	36E
	7	E	25	24S	36E
Phillips	2	I	24	24S	36E
Thomas	1	O	24	24S	36E
	4	K	24	24S	36E
Reserve Oil and Gas Company					
Van Zandt	2	A	25	24S	36E
	4	G	25	24S	36E
Atlantic Richfield Company					
Dunn SCP	1	G	24	24S	36E
	3	A	24	24S	36E
Texaco					
Fristoe "B"	1	E	30	24S	37E
	3	C	30	24S	37E
Texas Pacific					
Myers "B" Federal	1	A	26	24S	36E

(2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Jalmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

LANGLIE-MATTIX POOL
(Cooper-Jal Unit Area)
Lea County, New Mexico

Order No. R-4019, Authorizing Reserve Oil and Gas Company to Institute a Waterflood Project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, August 25, 1970.

Application of Reserve Oil and Gas Company for a Waterflood Project, Lea County, New Mexico.

CASE NO. 4403
Order No. R-4019

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9:30 a.m. on August 19, 1970, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of August, 1970, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Reserve Oil and Gas Company, seeks authority to institute a waterflood project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, by the injection of water into the Lower Seven Rivers and Queen formations through 26 injection wells in Township 24 South, Ranges 36 and 37 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Reserve Oil and Gas Company, is hereby authorized to institute a waterflood project in the Cooper-Jal Unit Area, Langlie-Mattix Pool, by the injection of water into the Lower Seven Rivers and Queen formations through the following-described 26 wells in Lea County, New Mexico:

Operator Lease	Well No.	Unit	Section	Township	Range
Amerada Falby →	3 (a dual completion)	K	19	24S	37E
Cities Service Hansen-Jack	1	K	18	24S	37E
Jack "A" Federal	1 (a dual completion)	M	18	24S	37E
Continental Oil Company Jack Federal 19 →	1 (a dual completion)	E	19	24S	37E
	8	C	19	24S	37E
Harlan Bates	1	E	18	24S	37E
Humble E. Hunter →	4 (a dual completion)	C	24	24S	36E
Petroleum Corporation of Texas M. Dunn →	2 (a dual completion)	I	13	24S	36E
	4	O	13	24S	36E
Harrison	6	F	25	24S	36E
	8	D	25	24S	36E
Phillips	4	P	24	24S	36E
Thomas	6	J	24	24S	36E
	7	K	24	24S	36E
Reserve Oil and Gas Company Andrews	2	A	18	24S	37E
Hunter	3	M	13	24S	36E
	5	K	13	24S	36E
Gutman	1 (a dual completion)	G	18	24S	37E
Russell "A"	1	I	18	24S	37E
Van Zandt	5	B	25	24S	36E
	7	H	25	24S	36E
Atlantic Richfield Company Bates	1	C	18	24S	37E
Dunn SCP	5	H	24	24S	36E
	6	A	24	24S	36E
Texaco Fristoe "B"	5	D	30	24S	37E
Texas Pacific Bates	1	O	18	24S	37E

(2) That the subject waterflood project is hereby designated the Reserve Cooper Jal Langmat Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

ATTACHMENTS

A. NOTICE OF INTENT

B. SCHEMATICS OF SUBJECT WELLS

C. MAPS OF SUBJECT AREA

D. TABULATION OF WELLS IN AREA OF REVIEW

E. SCHEMATICS OF ALL WELLS IN AREA OF REVIEW NOT PREVIOUSLY SUBMITTED

A. NOTICE OF INTENT

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

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

January 16, 19 94

and ending with the issue dated

Janaury 16, 19 94

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 18 day of

January, 19 94

Marlene Perrin
Notary Public.

My Commission expires
March 15, 1997
(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.

LEGAL NOTICE
January 16, 1994
LEGAL NOTICE

Notice is hereby given of the application of Texaco Exploration & Production Inc., Attention: Terry L. Frazier, Area Manager, P.O. Box 730, Hobbs, New Mexico, 88240, Telephone (505) 393-7191, to the New Mexico Oil Conservation Commission, Energy and Minerals Department, for approval of the following wells to be converted to water injection for the purpose of secondary oil recover.

Lease/Unit Name: **Cooper Jal Unit**

Convert to Injection and Down Hole Commingle Jalmat and Langlie Mattix injection in the following two Downhole Commingled Producers:

Well Number (s) and Location (s):

134 - Unit Letter M, 330'FSL & 1650'FWL, Section 24, T24S R36E

135 - Unit Letter O, 990'FSL & 1980'FEL, Section 24, T24S, R36E

Convert the current Dual Injectors to Down Hole Commingled Jalmat and Langlie Mattix injectors in the following four wells:

Well Number (s) and Location (s):

120/236 - Unit Letter C, 660'FNL & 1980'FWL, Section 24, T24S, R36E

133/240 - Unit Letter K, 1980'FSL & 1916'FWL, Section 19, T24S, R37E

146/233 - Unit Letter I, 1650'FSL & 990'FEL, Section 13, T24S, R36E

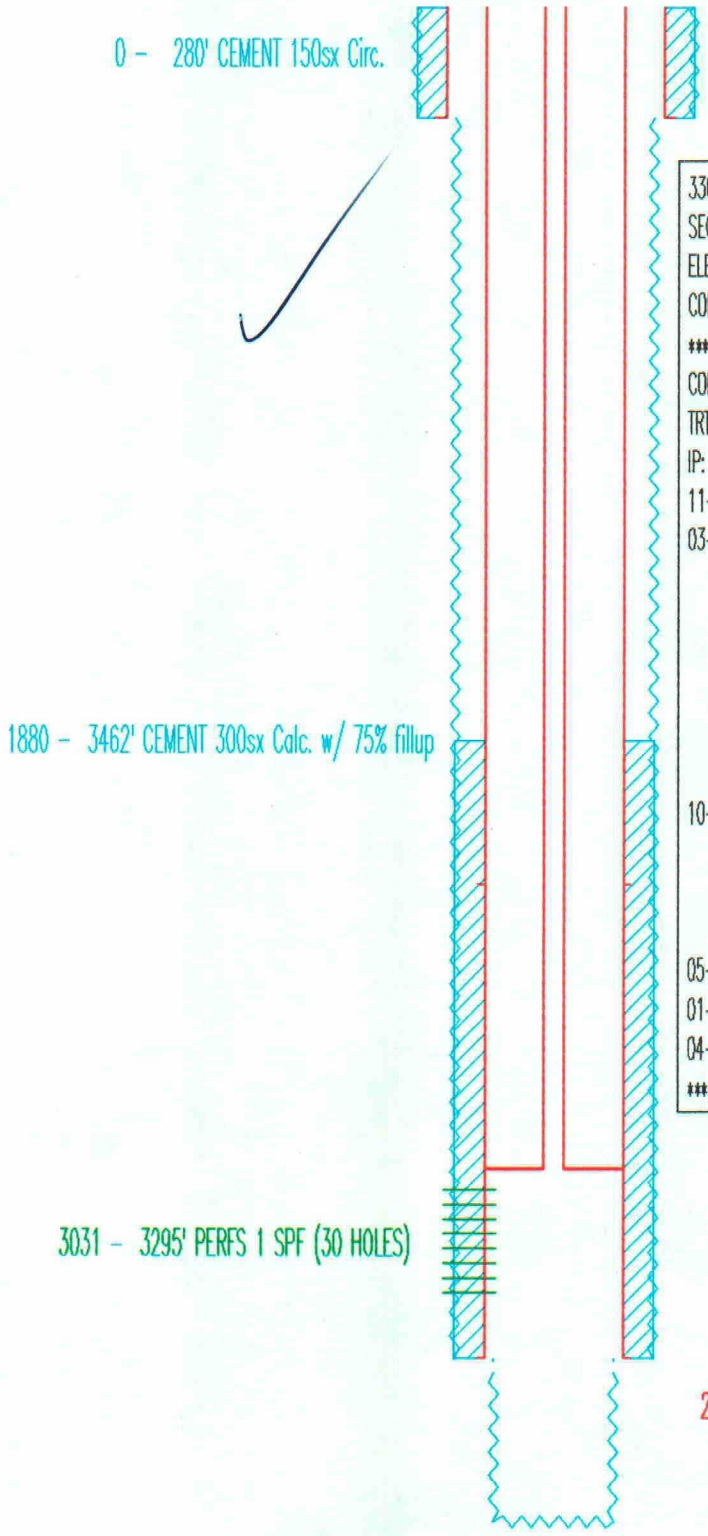
147/207 - Unit Letter E, 2310'FNL & 330'FWL, Section 19, T24S, R37E

The injection formations are **Jalmat (Tansill/Yates/Seven Rivers) and Langlie Mattix (Seven Rivers/Queen/Grayburg)** at a depth from **3006** feet to **3680** feet below the surface of the ground. Expected maximum injection rate is **1000** barrels per day and expected maximum injection pressure is **600** pounds per square inch on the two Conversions to injection and **1400** pounds per square inch on the prior dualed injectors. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days of this publication.

B. SCHEMATICS OF SUBJECT WELLS

PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 134
API# 3002509644



0 - 280' CEMENT 150sx Circ.

1880 - 3462' CEMENT 300sx Calc. w/ 75% fillup

3031 - 3295' PERFS 1 SPF (30 HOLES)

KB ELEV: 3321'
TD: 3570'

0 - 280' 11 " OD HOLE

0 - 280' 8.625" OD 28.00#/ft J-55 SURF CSG

330 FSL & 1650 FWL
SEC 24 , TWN 24 S, RANGE 36 E
ELEVATION: 3310 GL
COMPLETION DATE: 07-18-54

****

COMPLETION INTERVAL: 3462 - 3570 (7 RVRS/QUEEN-OH)
TRT: FRAC 5K gals OIL / 7.5K # sd. (3462-3570)
IP: 237 BOPD, 320 MCFD, 0 BWPD (FL)
11-07-75 C/O TO 3570'. ACID 1.5K gals.
03-15-79 NO FILL. LOGGED WELL. PERF JALMAT 3031,34,37,40, 3042,69,71,74,78,81,84,87,3107,09,11,13,15,35, 3139,42,53,55,57,3223,25,27,91,93 & 3295 (ALL 1 SPF, .32 EHD, 30 HOLES). SET BP @ 3351'. ACID 3K gals; FRAC 49K gals X-L GEL / 36K # 20/40 sd & 18K # 10/20 sd (3 EQ. STAGES w/ RS BLOCKS, MAX CONC. 2 ppg). C/O TO 3570'.
10-11-82 C/O LM OH 3469-3570 (101' FILL). FRAC LM w/ 13K gals X-L GEL / 6K gals CO2 / 23.5K # 20/40 SD & 13.5K # 10/20 sd (1 STAGE!, MAX CONC. 3ppg, MAX RATE 9.5 BPM). C/O LM OH TO 3570'.
05-20-87 TAG FILL @ 3521' (49' FILL). DID NOT C/O.
01-21-89 C/O FILL 3521-3570' (49' FILL).
04-15-94 CONVERT TO DHC INJECTOR.

****

280 - 3465' 7.875 " OD HOLE

0 - 2975' 2.375" OD 4.70#/ft J-55 TBG CMT LINED

2975 - 2979' LATCH-IN PACKER BAKER AD-1

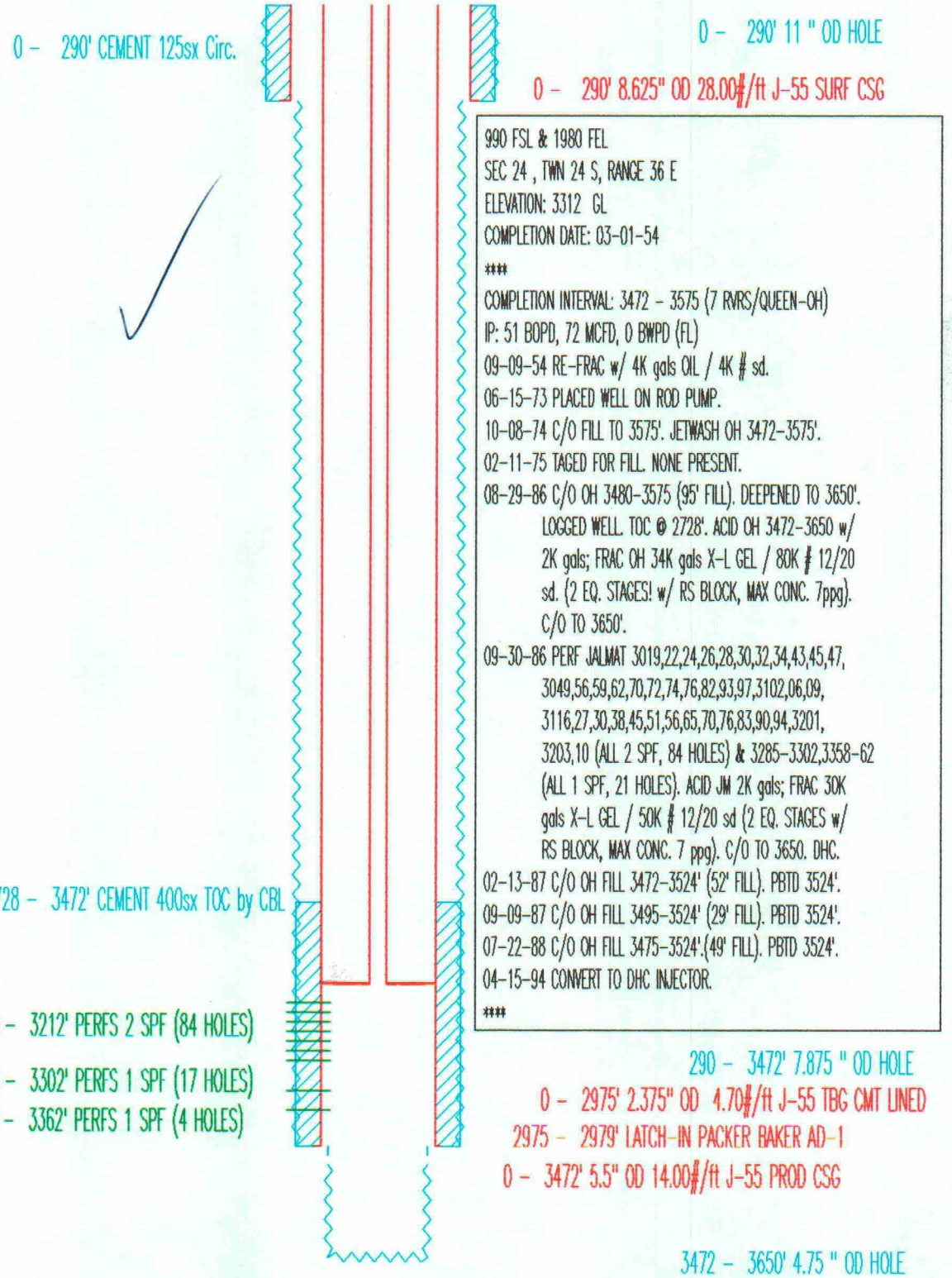
0 - 2250' 5.5" OD 14.00#/ft J-55 PROD CSG UNKNOWN WT.

2250 - 3462' 5.5" OD 17.00#/ft J-55 PROD CSG "TIGHT CSG" PROB. 17#

3465 - 3570' 4.75 " OD HOLE

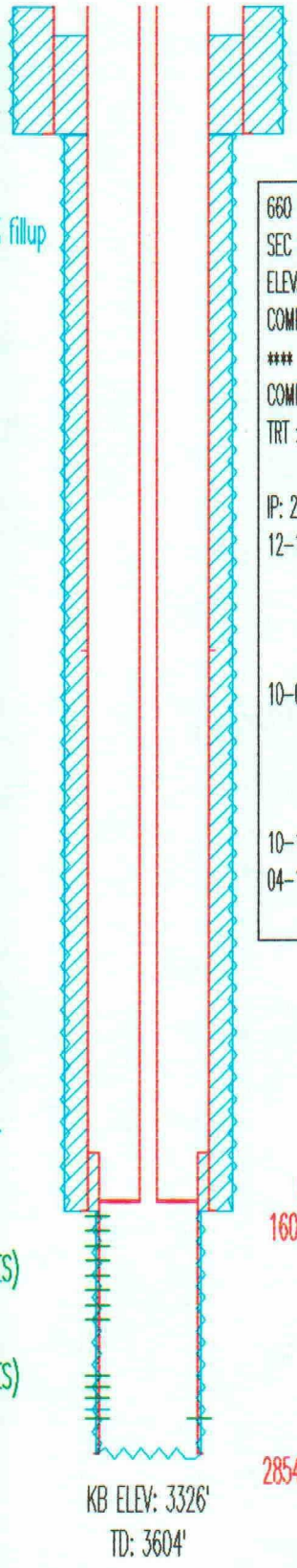
PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 135
API# 3002509641



PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 120/236
API# 3002509631



0 - 315' CEMENT 150sx Circ.

70 - 3000' CEMENT 650sx Calc. w/ 75% fillup

2854 - 3604' CEMENT 45sx Cmt Circ.

3011 - 3270' PERFS 1 SPF (81 HOLES)

3408 - 3492' PERFS 1 SPF (37 HOLES)

3500 - 3516' PERFS 4 SPF (68 HOLES)

KB ELEV: 3326'

TD: 3604'

0 - 315' 12.25" OD HOLE

0 - 315' 8 5/8" OD 29.75#/ft J-55 SURF CSG

660 FNL & 1980 FWL
SEC 24 , TWN 24 S, RANGE 36 E
ELEVATION: 3315 GL
COMPLETION DATE: 11-11-51
****
COMPLETION INTERVAL: 3000 - 3195 (YATES-OH)
TRT : HYDRA-FRAC 1.5K gals KEROSENE, 500# NAPALM, 800# OTTAWA SD AND 70bbl OIL.
IP: 207 BOPD, 337 MCFD, 0 BWPD (FL)
12-19-54 DEEPENED TO LM. DRILLED TO 3604'. SET 4-1/2" LINER 2854 - 3604'. PERFED LM 3500-3512' (4 SPF 68 HOLES). FRAC 6K gals OIL / 6K # sd. IP : 581.2 BOPD, 389 MCFPD, 0 BWPD (FL).
10-07-71 CONVERTED TO DUAL INJECTOR. PERFED JM 3011 - 3270 (1 SPF 81 HOLES) & PERFED LM 3408 - 3492 (1 SPF 37 HOLES). ACID LM w/ 1.6K gals & ACID JM w/ 3.86K gals. SET DUAL PKRS.
10-14-88 DUAL PKR. EQUIP. PLUGGED UP. WELL SI.
04-15-94 PROPOSED : PULL DUAL INJ. EQUIP.; CO LM; ACIDIZE; PLACE ON DHC INJECTION.

315 - 3000' 7.625" OD HOLE

0 - 2975' 2.375" OD 4.70#/ft J-55 TBG IPC

2975 - 2979' RETRV. PACKER BAKER AD-1

0 - 1600' 5 1/2" OD 15.50#/ft J-55 PROD CSG

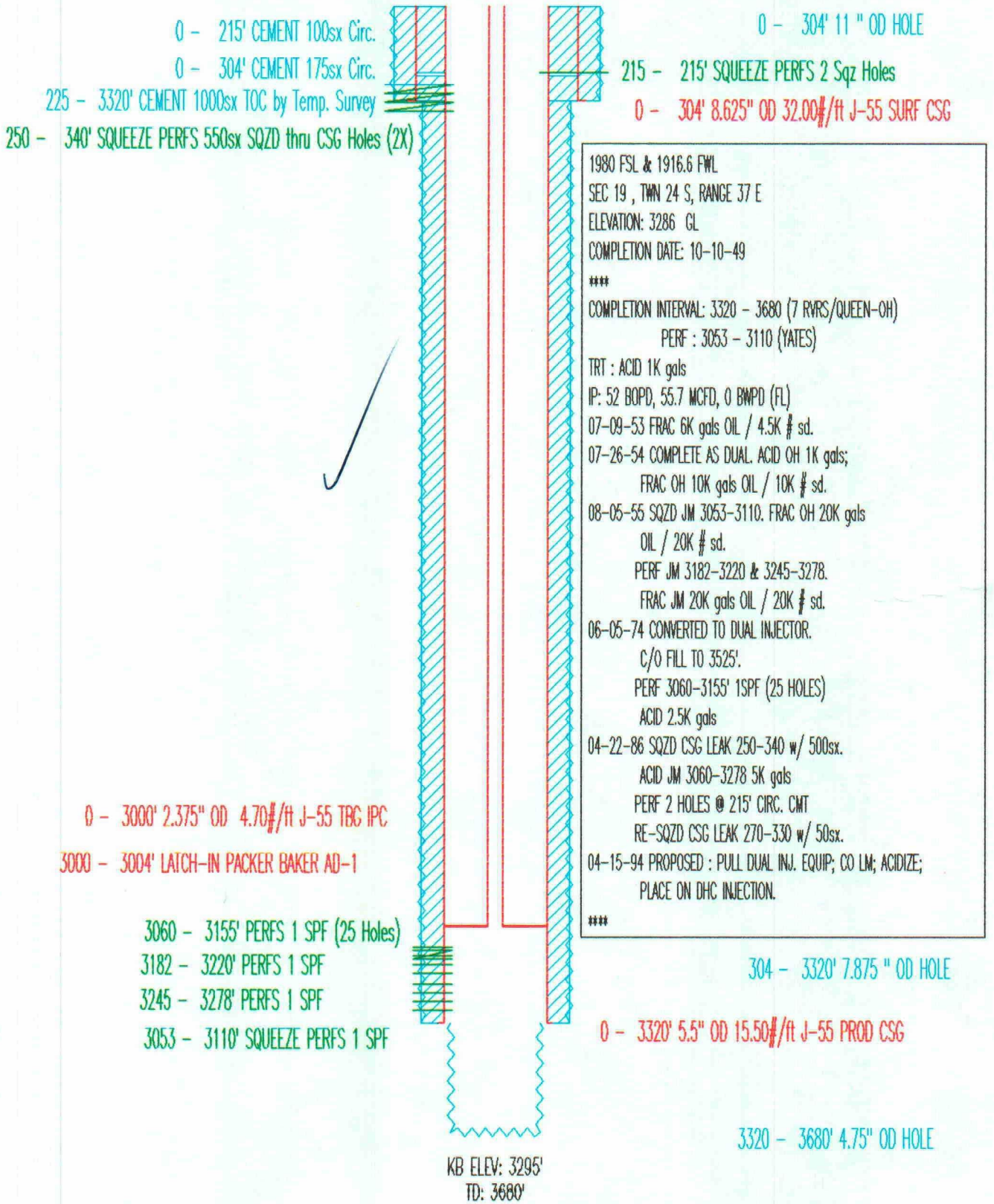
1600 - 3000' 5 1/2" OD 17.00#/ft J-55 PROD CSG

3000 - 3604' 4.75" OD HOLE

2854 - 3604' 4 1/2" OD 9.50#/ft FJ J-55 LINER

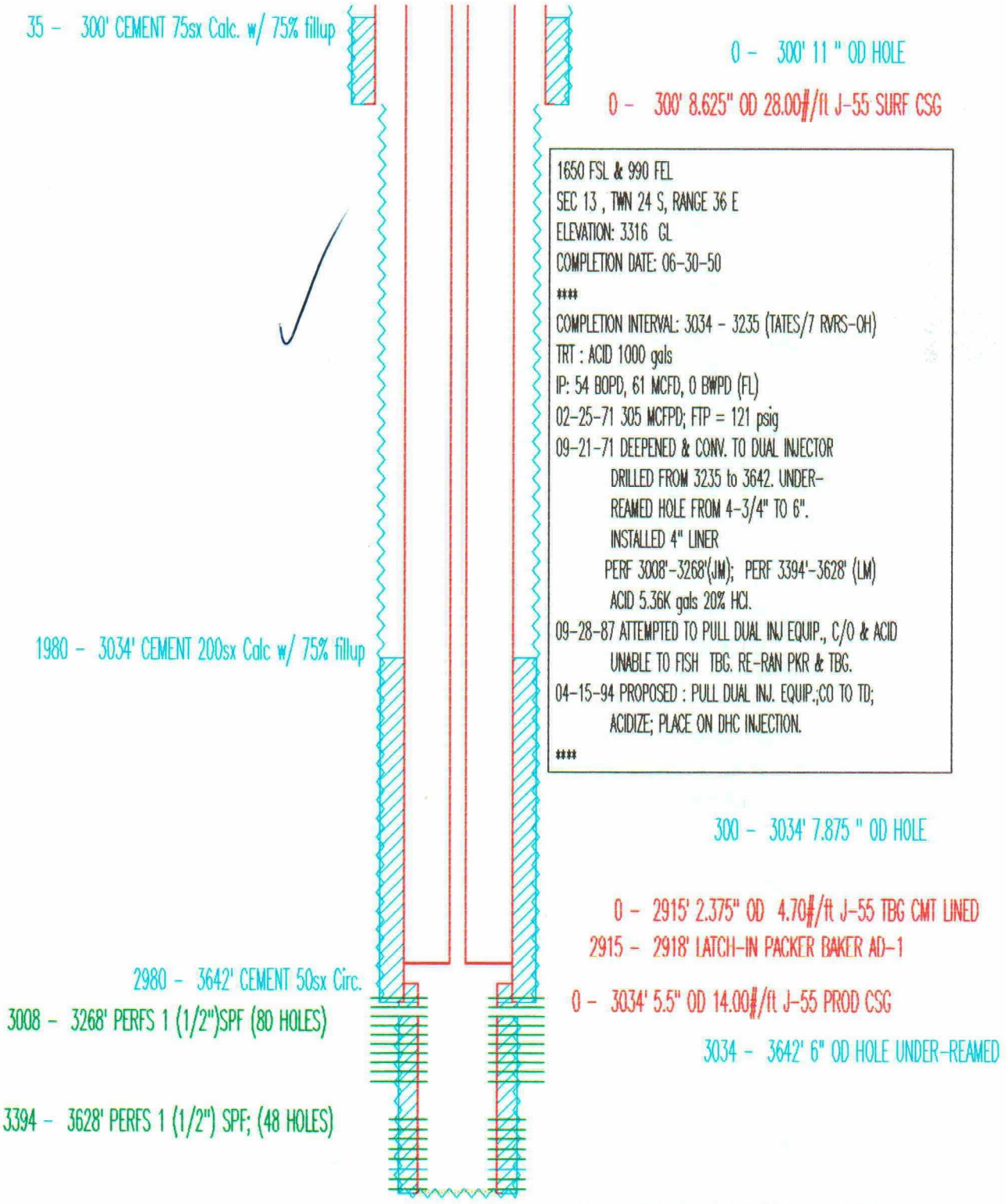
PREVIOUSLY NO. 310
PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 133/240
API# 3002511161



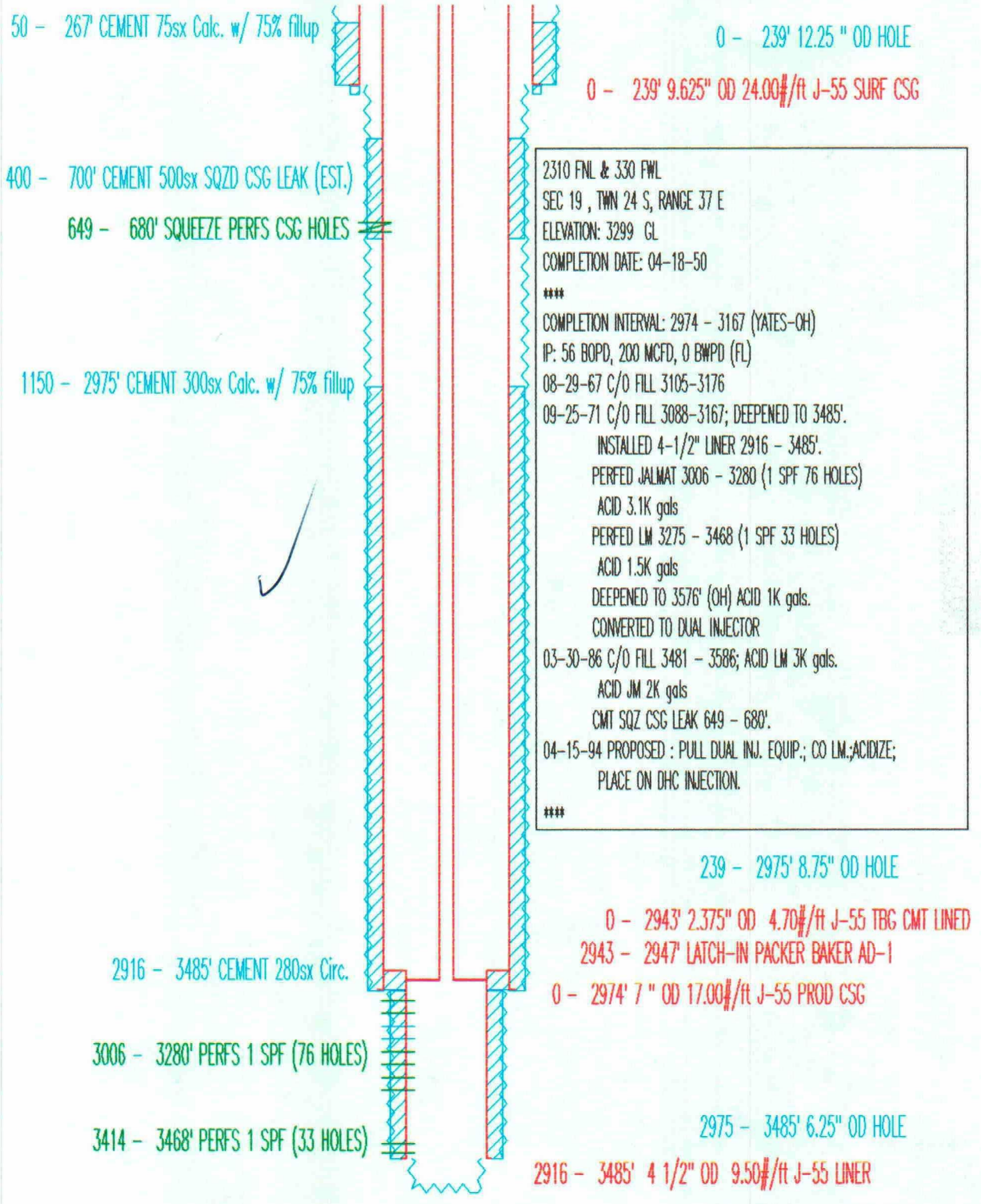
PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 146/233
API# 3002509560



PROPOSED DHC INJECTOR

TEXACO E & P INC.
COOPER JAL UNIT NO. 147/207
API# 3002511166

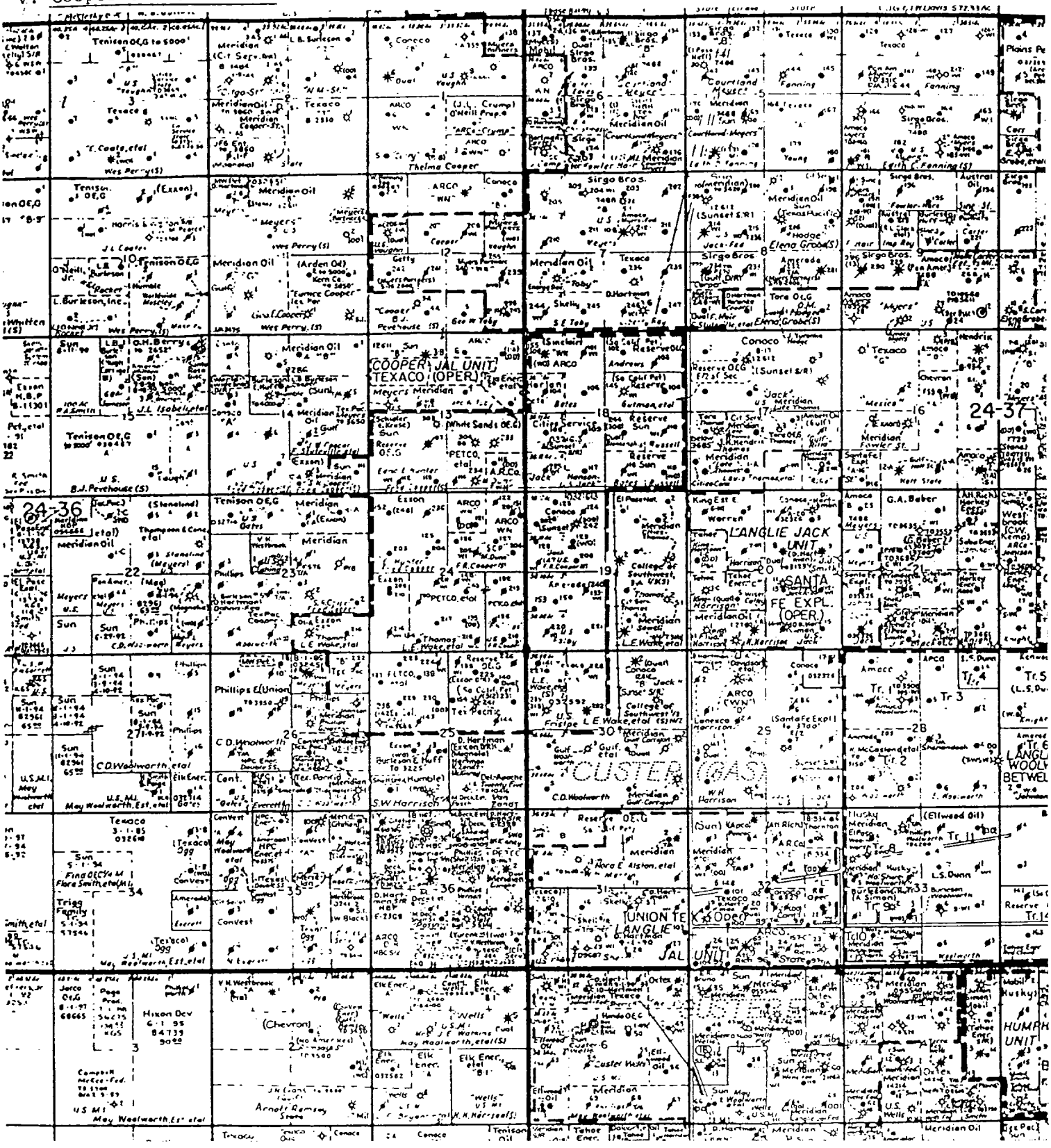


C. MAPS OF SUBJECT AREA

COOPER JAL UNIT

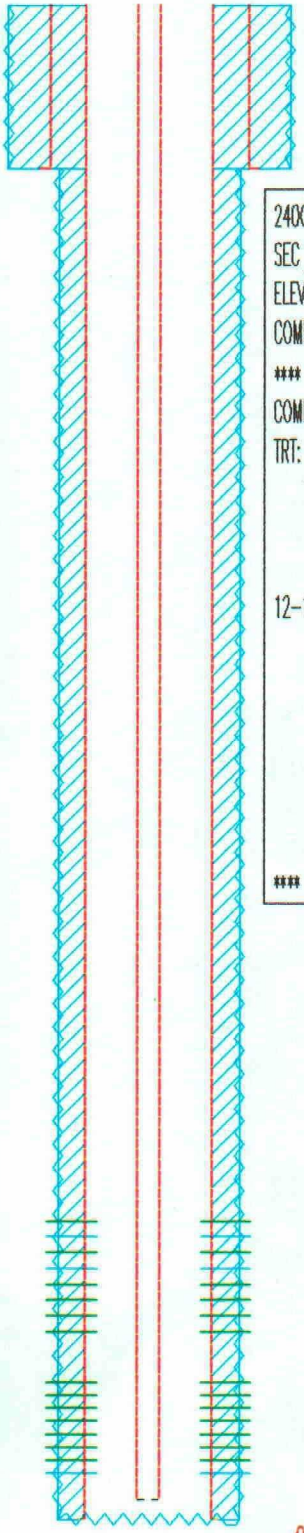
JALMAT & LANGLIE MATTIX FIELDS

V. Cooper Jal Unit Area



SCALE : 1" = 4400'

TEXACO E & P INC.
COOPER JAL UNIT NO. 401
API# 3002532268



0 - 400' CEMENT 186sx Circ.

0 - 400' 12.25" OD HOLE

0 - 400' 8.625" OD 24.00#/ft WC-50 SURF CSG

2400 FSL & 1130 FWL, UNT. LETTER L
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3287 GL
COMPLETION DATE: 11-13-93
***
COMPLETION INTERVAL: 3408 - 3635 (7 RVRS/QUEEN-OH)
TRT: FRAC 29K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &
30K # 16/30 RCS. PLACE ON PMP TEST.
(LM PERFS 3408-12, 37-42, 67-75, 88-91, 3529-32,
3563-66, & 3630-35 ; 31' NET, 62 - 0.56" HOLES)
12-15-93 SET BP. PERF JALMAT (3011-28, 46-50, 63-66,
3081-95, 3110-18, 27-29, 59-64, 3206-09, 18-28,
3270-72 & 3278-85 ; 75' NET , 150 - 0.56" HOLES;
2 SPF, 120 DEG)
FRAC 43K GAL 30# XL-GEL, 180K # 12/20 BRADY &
40K # 12/20 RCS.
IP: 35 BOPD, 150 BWPD, 30 MCFPD (PMP) DHC
***

0 - 3750' CEMENT 870sx CIRC.

400 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

3700 - 3701' SEATING NIPPLE

3011 - 3285' PERFS 2SPF, 150 HOLES

3408 - 3635' PERFS 2 SPF, 62 HOLES

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

KB ELEV: 3297'
TD: 3750'

D. TABULATION OF WELLS IN AREA OF REVIEW

COOPER JAL UNIT

TABULATION OF WELLS IN AREA OF REVIEW

WELL NAME	WELL NO.	CURRENT STATUS	CURRENT ZONE	TOWNSHIP	RANGE	SECTION	UNIT LETTER	TD	SCHEMATIC INCLUDED IN APPL. WFX-426
Myers 'B'	1	P & A	LM	T - 24 - S	R - 36 - E	13	F	3686'	NO
Toby	7	PRODUCER	LM	T - 24 - S	R - 36 - E	13	G	3850'	NO
Toby	2	PRODUCER	LM	T - 24 - S	R - 36 - E	13	H	3800'	NO
Toby	1	PRODUCER	LMJM	T - 24 - S	R - 36 - E	13	H	3615'	YES
Meridian	'A' No. 3	Notice of Intent; NEVER DRILLED		T - 24 - S	R - 37 - E	23	A	0'	NA
S. R. Cooper	2	PRODUCER	LM	T - 24 - S	R - 36 - E	23	P	3179'	YES
C.D. Woolworth	1	P & A	JM	T - 24 - S	R - 36 - E	26	H	3190'	NO
C.D. Woolworth	5	P & A	JMLM	T - 24 - S	R - 36 - E	26	A	3504'	YES
Phillips-Goldstar	2	PRODUCER	JM	T - 24 - S	R - 36 - E	26	H	3400'	NO
Thomas	1	PRODUCER	LM	T - 24 - S	R - 37 - E	19	B	3725'	NO
J.J. Thomas	1	P & A	LM	T - 24 - S	R - 37 - E	19	B	3676'	NO
Thomas	2	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	G	3680'	NO
Cities-Thomas	4	PRODUCER	LM	T - 24 - S	R - 37 - E	19	G	3700'	NO
Cities-Thomas	3	PRODUCER	LM	T - 24 - S	R - 37 - E	19	H	3700'	NO
A. Sowell	2	PRODUCER	LM	T - 24 - S	R - 37 - E	19	I	3718'	NO
Thomas 'A'	3	PRODUCER	LM	T - 24 - S	R - 37 - E	19	J	3750'	NO
Thomas 'A'	4	PRODUCER	LM	T - 24 - S	R - 37 - E	19	O	3691'	YES
Thomas	1	P & A	LM	T - 24 - S	R - 37 - E	19	O	3663'	NO
A. Sowell	1	PRODUCER	LM	T - 24 - S	R - 37 - E	19	P	3700'	NO
Jack 'B'	2	PRODUCER	JMLM	T - 24 - S	R - 37 - E	30	B	3650'	NO
CJU	101	INJECTOR	LM	T - 24 - S	R - 37 - E	18	C	3572'	YES
CJU	102	PRODUCER	LM	T - 24 - S	R - 37 - E	18	B	3580'	YES
CJU	103	INJECTOR	LM	T - 24 - S	R - 37 - E	18	A	3589'	YES
CJU	104	INJECTOR	LM	T - 24 - S	R - 37 - E	18	E	3655'	YES
CJU	105	PRODUCER	LM	T - 24 - S	R - 37 - E	18	F	3733'	YES
CJU	106	PRODUCER	LM	T - 24 - S	R - 37 - E	18	H	3587'	YES
CJU	107	INJECTOR	LM	T - 24 - S	R - 36 - E	13	K	3611'	YES
CJU	108	PRODUCER	LMJM	T - 24 - S	R - 37 - E	18	L	3640'	YES
CJU	109	INJECTOR	LM	T - 24 - S	R - 37 - E	18	K	3638'	YES
CJU	110	INJECTOR	LM	T - 24 - S	R - 37 - E	18	I	3587'	YES
CJU	111	PRODUCER	LM	T - 24 - S	R - 36 - E	14	P	3595'	YES
CJU	112	INJECTOR	LM	T - 24 - S	R - 36 - E	13	M	3617'	YES
CJU	113	PRODUCER	LM	T - 24 - S	R - 36 - E	13	N	3615'	YES
CJU	114	INJECTOR	LM	T - 24 - S	R - 36 - E	13	O	3540'	YES
CJU	115	PRODUCER	LMJM	T - 24 - S	R - 36 - E	13	P	3668'	YES
CJU	116/235	INJECTOR	LMJM	T - 24 - S	R - 37 - E	18	M	3641'	YES
CJU	117	PRODUCER	JM	T - 24 - S	R - 37 - E	18	N	3648'	YES
CJU	118	INJECTOR	LM	T - 24 - S	R - 37 - E	18	O	3628'	YES
CJU	119	PRODUCER	LM	T - 24 - S	R - 37 - E	18	P	3597'	YES
CJU	120/236	INJECTOR	LMJM	T - 24 - S	R - 36 - E	24	C	3604'	YES
CJU	121	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	B	3560'	YES
CJU	122	INJECTOR	LM	T - 24 - S	R - 36 - E	24	A	3552'	YES
CJU	123	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	D	3650'	YES
CJU	124	INJECTOR	LM	T - 24 - S	R - 37 - E	19	C	3530'	YES
CJU	125	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	F	3655'	YES
CJU	126	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	G	3560'	YES
CJU	127	INJECTOR	LM	T - 24 - S	R - 36 - E	24	H	3541'	YES
CJU	128	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	E	3675'	YES
CJU	129	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	F	3670'	YES
CJU	130	INJECTOR	LM	T - 24 - S	R - 36 - E	24	K	3550'	YES
CJU	132	PRODUCER	LM	T - 24 - S	R - 36 - E	24	I	3640'	YES
CJU	133/240	INJECTOR	LMJM	T - 24 - S	R - 37 - E	19	K	3680'	YES
CJU	134	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	N	3570'	YES
CJU	135	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	O	3650'	YES
CJU	136	INJECTOR	LM	T - 24 - S	R - 36 - E	24	P	3540'	YES
CJU	137	SI PRODUCER	LM	T - 24 - S	R - 36 - E	25	D	3560'	YES
CJU	138	PRODUCER	LMJM	T - 24 - S	R - 36 - E	25	C	3635'	YES
CJU	139	INJECTOR	LM	T - 24 - S	R - 36 - E	25	B	3545'	YES
CJU	140	PRODUCER	LMJM	T - 24 - S	R - 36 - E	25	A	3615'	YES
CJU	141	INJECTOR	LM	T - 24 - S	R - 37 - E	30	D	3535'	YES
CJU	143	INJECTOR	LM	T - 24 - S	R - 36 - E	25	F	3550'	YES
CJU	144	PA	NONE	T - 24 - S	R - 36 - E	25	H	3490'	YES

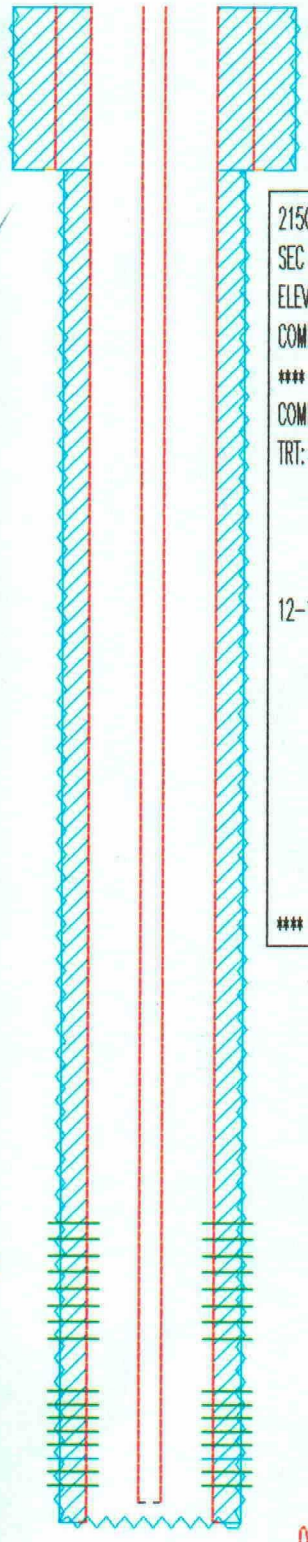
COOPER JAL UNIT

TABULATION OF WELLS IN AREA OF REVIEW

WELL NAME	WELL NO.	CURRENT STATUS	CURRENT ZONE	TOWNSHIP	RANGE	SECTION	UNIT LETTER	TD	SCHEMATIC INCLUDED IN APPL. WFX-426
CJU	145/302	INJECTOR	LM	T - 24 - S	R - 37 - E	18	G	3591'	YES
CJU	146/233	INJECTOR	LMJM	T - 24 - S	R - 36 - E	13	I	3642'	YES
CJU	147/207	INJECTOR	LMJM	T - 24 - S	R - 37 - E	19	E	3576'	YES
CJU	148	INJECTOR	LM	T - 24 - S	R - 36 - E	24	J	3550'	YES
CJU	150	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	L	3824'	YES
CJU	151	PRODUCER	LM	T - 24 - S	R - 36 - E	24	A	3662'	YES
CJU	152	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	D	3757'	YES
CJU	153	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	L	3711'	YES
CJU	154	PRODUCER	LM	T - 24 - S	R - 36 - E	25	G	3655'	YES
CJU	155/301	PRODUCER	LM	T - 24 - S	R - 37 - E	18	D	3720'	YES
CJU	201	INJECTOR	JM	T - 24 - S	R - 36 - E	24	A	3237'	YES
CJU	202	PRODUCER	JM	T - 24 - S	R - 37 - E	19	D	3224'	YES
CJU	203	INJECTOR	JM	T - 24 - S	R - 36 - E	24	E	3195'	YES
CJU	204	PRODUCER	JM	T - 24 - S	R - 36 - E	24	F	3188'	YES
CJU	205	INJECTOR	JM	T - 24 - S	R - 36 - E	24	G	3251'	YES
CJU	206	PRODUCER	JM	T - 24 - S	R - 36 - E	24	H	3230'	YES
CJU	208	PRODUCER	JM	T - 24 - S	R - 37 - E	19	F	3169'	YES
CJU	209	PRODUCER	LMJM	T - 24 - S	R - 36 - E	24	L	3681'	YES
CJU	210	PRODUCER	JM	T - 24 - S	R - 36 - E	24	L	3191'	YES
CJU	211	INJECTOR	JM	T - 24 - S	R - 36 - E	24	K	3244'	YES
CJU	213	INJECTOR	JM	T - 24 - S	R - 36 - E	24	I	3220'	YES
CJU	215	PRODUCER	JM	T - 24 - S	R - 36 - E	23	P	3193'	YES
CJU	216	INJECTOR	JM	T - 24 - S	R - 36 - E	24	M	3210'	YES
CJU	217	PRODUCER	JM	T - 24 - S	R - 36 - E	24	N	3244'	YES
CJU	218	INJECTOR	JM	T - 24 - S	R - 36 - E	24	O	3250'	YES
CJU	219	PRODUCER	JM	T - 24 - S	R - 36 - E	24	P	3208'	YES
CJU	220	INJECTOR	JM	T - 24 - S	R - 37 - E	19	M	3350'	YES
CJU	221	PRODUCER	LMJM	T - 24 - S	R - 37 - E	19	N	3770'	YES
CJU	222	INJECTOR	JM	T - 24 - S	R - 36 - E	26	A	3193'	YES
CJU	223	PRODUCER	JM	T - 24 - S	R - 36 - E	25	D	3188'	YES
CJU	224	INJECTOR	JM	T - 24 - S	R - 36 - E	25	C	3230'	YES
CJU	225	PRODUCER	JM	T - 24 - S	R - 36 - E	25	B	3318'	YES
CJU	226	INJECTOR	JM	T - 24 - S	R - 36 - E	25	A	3223'	YES
CJU	227	PRODUCER	JM	T - 24 - S	R - 37 - E	30	D	3148'	YES
CJU	228	INJECTOR	JM	T - 24 - S	R - 37 - E	30	C	3134'	YES
CJU	229	PRODUCER	JM	T - 24 - S	R - 36 - E	25	E	3700'	YES
CJU	230	PRODUCER	JM	T - 24 - S	R - 36 - E	25	F	3226'	YES
CJU	231	PRODUCER	JM	T - 24 - S	R - 36 - E	25	H	3192'	YES
CJU	232	PRODUCER	JM	T - 24 - S	R - 37 - E	30	F	3130'	YES
CJU	234	INJECTOR	JM	T - 24 - S	R - 36 - E	13	O	3228'	YES
CJU	237	SI PRODUCER	JM	T - 24 - S	R - 36 - E	23	O	3602'	YES
CJU	238	INJECTOR	JM	T - 24 - S	R - 36 - E	25	E	3589'	YES
CJU	239	INJECTOR	JM	T - 24 - S	R - 37 - E	30	E	3180'	YES
CJU	241	INJECTOR	JM	T - 24 - S	R - 36 - E	25	G	3580'	YES
CJU	242	INJECTOR	JM	T - 24 - S	R - 37 - E	19	C	3191'	YES
CJU	244	PRODUCER	LMJM	T - 24 - S	R - 37 - E	18	J	3601'	YES
CJU	245	PRODUCER	JM	T - 24 - S	R - 36 - E	24	J	3560'	YES
CJU	303	GAS	JM	T - 24 - S	R - 36 - E	13	K	3165'	YES
CJU	304	SI GAS	JM	T - 24 - S	R - 36 - E	13	J	3211'	YES
CJU	401	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	K	3750'	NO
CJU	402	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	K	3750'	NO
CJU	403	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	D	3750'	NO
CJU	404	PRODUCER	JMLM	T - 24 - S	R - 36 - E	24	B	3750'	NO
CJU	405	PRODUCER	JMLM	T - 24 - S	R - 37 - E	19	N	3750'	NO

E. SCHEMATICS OF ALL WELLS IN AREA OF REVIEW NOT PREVIOUSLY SUBMITTED

TEXACO E & P INC.
COOPER JAL UNIT NO. 402
API# 3002532292



0 - 400' CEMENT 186sx Circ.

0 - 400' 12.25" OD HOLE

0 - 400' 8.625" OD 24.00#/ft WC-50 SURF CSG

2150 FSL & 50 FWL, UNT. LETTER L
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3294 GL
COMPLETION DATE: 11-18-93
***
COMPLETION INTERVAL: 3426 - 3658 (7 RVRS/QUEEN-OH)
TRT: FRAC 29K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &
30K # 16/30 RCS. PLACE ON PMP TEST.
(LM PERFS 3450-58, 80-92, 3501-11, 41-43, 53-55,
3587-91, 3625-27, 44-51, & 55-63 ; 55', 110 HOLES)
12-15-93 SET BP. PERF JALMAT (3006-15, 20-34, 37-39,
3046-49, 61-68, 71-74, 87-3102, 10-12, 17-21,
3132-41, 49-51, 55-58, 68-70, 73-75, 78-80,
3210-17, 23-28, & 3277-95 ; 111' NET ,
222 - 0.56" HOLES; 2 SPF, 120 DEG)
FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20
BRADY SD. & 40K # 12/20 RCS.
IP: 40 BOPD, 350 BWPD, 30 MCFPD (PMP) DHC
***

0 - 3750' CEMENT 870sx CIRC.

400 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

3700 - 3701' SEATING NIPPLE

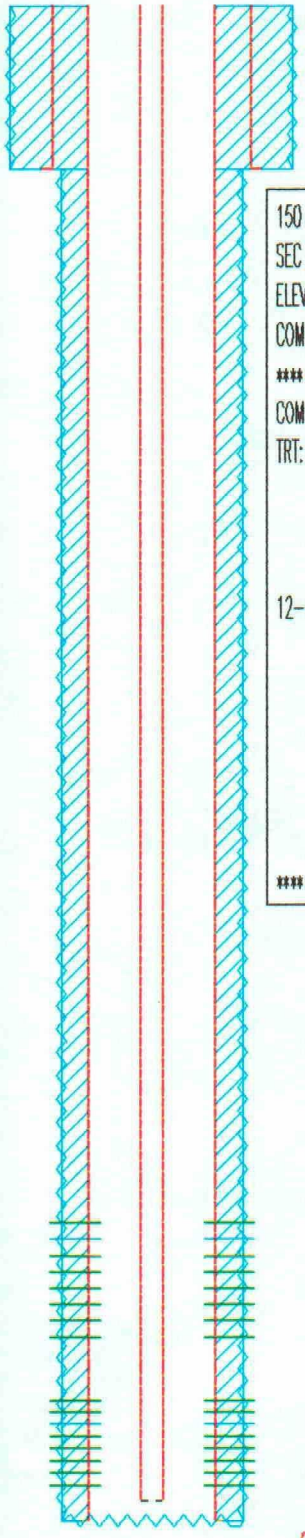
3006 - 3295' PERFS 2SPF, 218 HOLES

3426 - 3658' PERFS 2 SPF, 78 HOLES

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

KB ELEV: 3304'
TD: 3750'

TEXACO E & P INC.
COOPER JAL UNIT NO. 403
API# 3002532286



0 - 400' CEMENT 152sx Circ.

0 - 400' 12.25" OD HOLE

0 - 400' 8.625" OD 24.00#/ft WC-50 SURF CSG

150 FNL & 100 FWL, UNT. LETTER D
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3308 GL
COMPLETION DATE: 11-30-93
****
COMPLETION INTERVAL: 3450 - 3663 (7 RVRS/QUEEN-OH)
TRT: FRAC 29K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &
30K # 16/30 RCS. PLACE ON PMP TEST.
(LM PERFS 3450-58, 80-92, 3501-11, 41-43, 53-55,
3587-91, 3625-27, 44-51, & 55-63 ; 55', 110 HOLES)
12-15-93 SET BP. PERF JALMAT (3010-21, 24-40, 51-80,
3091-3109, 19-21, 26-29, 39-44, 48-50, 53-55,
3157-62, 78-80, 3212-18, 28-31, 82-87, & 3290-92
111', 222 - 0.56" HOLES; 2 SPF, 120 DEG)
FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20
BRADY SD & 40K # 12/20 RCS.
IP: 41 BOPD, 101 BWPD, 9 MCFPD (PMP) DHC
****

0 - 3750' CEMENT 785sx CIRC.

400 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

3700 - 3701' SEATING NIPPLE

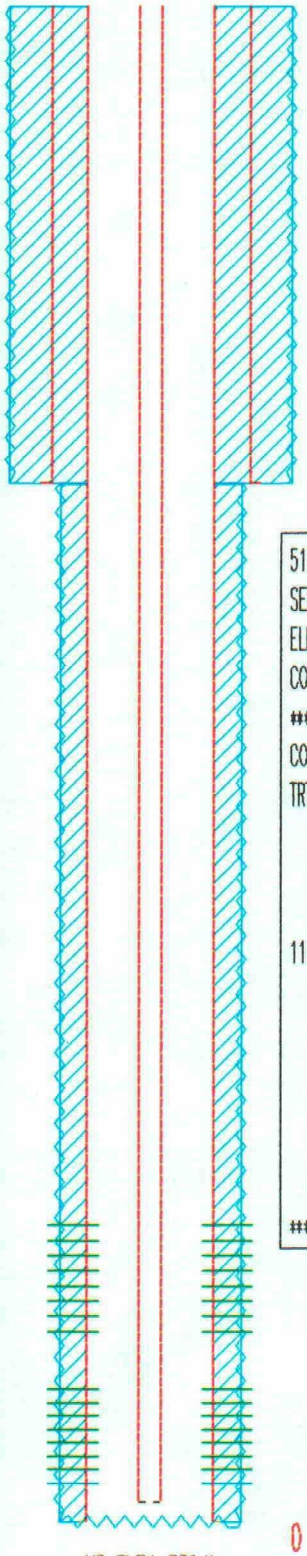
3010 - 3292' PERFS 2SPF, 222 HOLES

3450 - 3663' PERFS 2 SPF, 110 HOLES

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

KB ELEV: 3318'
TD: 3750'

TEXACO E & P INC.
COOPER JAL UNIT NO. 404
API# 3002532218



0 - 1180' CEMENT 568sx Circ.

0 - 1180' 12.25" OD HOLE

0 - 1180' 8.625" OD 24.00#/ft WC-50 SURF CSG

0 - 3750' CEMENT 890sx CIRC.

510 FNL & 2310 FEL, UNT. LETTER B
SEC 24 , TWN 24 S, RANGE 36 E
ELEVATION: 3314 GL
COMPLETION DATE: 11-03-93
****
COMPLETION INTERVAL: 3423 - 3655 (7 RVRS/QUEEN-OH)
TRT: FRAC 51K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &
30K # 16/30 RCS. PLACE ON PMP TEST.
(LM PERFS 3423-29, 54-59, 85-88, 3502-05, 11-15,
3557-60, 91-96 & 3649-55 ; 35', 70 - 0.56" HOLES)
11-31-93 SET BP. PERF JALMAT (3013-16, 18-24, 29-41,
3049-69, 83-94, 3104-06, 09-13, 15-22, 31-38,
3142-45, 67-71, 3204-13, 19-22 & 3272-79 ;
98' NET, 196 - 0.56" HOLES 2SPF, 120 DEG)
FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20
BRADY SD. & 40K # 12/20 RCS.
IP: 60 BOPD, 180 BWPD, 265 MCFPD (PMP) DHC
****

3013 - 3279' PERFS 2SPF, 196 HOLES

1180 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

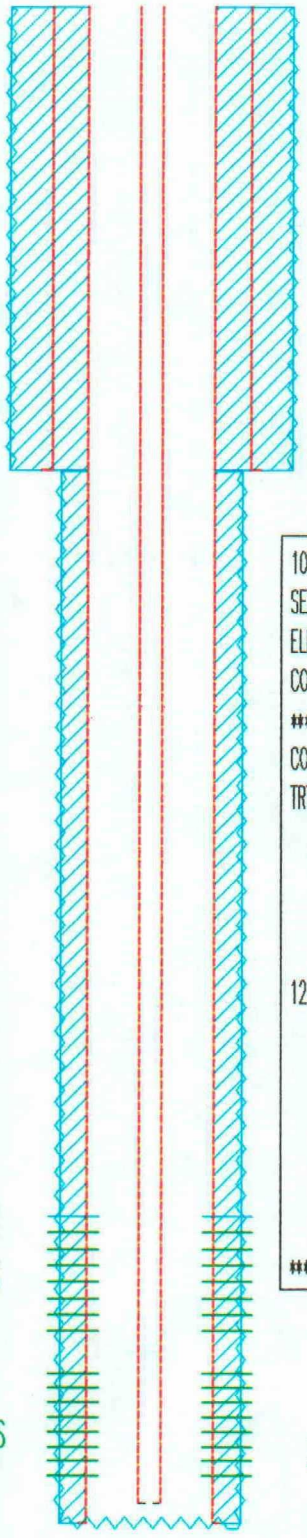
3700 - 3701' SEATING NIPPLE

3423 - 3655' PERFS 2 SPF, 70 HOLES

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

KB ELEV: 3324'
TD: 3750'

TEXACO E & P INC.
COOPER JAL UNIT NO. 405
API# 3002532269



0 - 1140' CEMENT 590sx Circ.

0 - 1140' 12.25" OD HOLE

0 - 1140' 8.625" OD 24.00#/ft WC-50 SURF CSG

0 - 3750' CEMENT 826sx CIRC.

1055 FSL & 1385 FWL, UNT. LETTER N
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3279 GL
COMPLETION DATE: 11-14-93
***
COMPLETION INTERVAL: 3376 - 3632 (7 RVRS/QUEEN-OH)
TRT: FRAC 46K gals 30# XL-GEL/ 106K # 16/30 BRADY sd. &
30K # 16/30 RCS. PLACE ON PMP TEST.
(LM PERFS 3376-79, 90-93, 3420-23, 42-51, 59-72,
3547-51, 66-68, 85-89, 3612-17, 20-22, 25-27 &
3630-32 ; 52', 104 - 0.56" HOLES)
12-04-93 SET BP. PERF JALMAT (2988-95, 3004-15, 27-35,
3040-54, 64-68, 77-81, 98-3104, 11-19, 22-28,
3133-37, 52-55, 57-59, 84-91, 98-3207, &
3259-73 ; 107' NET, 214 - 0.56" HOLES 2SPF 120DEG)
FRAC JALMAT W/ 43K GALS 30# XL-GEL, 180K # 12/20
BRADY SD. & 40K # 12/20 RCS.
IP: 40 BOPD, 350 BWPD, 30 MCFPD (PMP) DHC
***

2988 - 3273' PERFS 2SPF, 214 HOLES

1140 - 3750' 7.875 " OD HOLE

0 - 3700' 2.875" OD 6.40#/ft WC-50 TBG

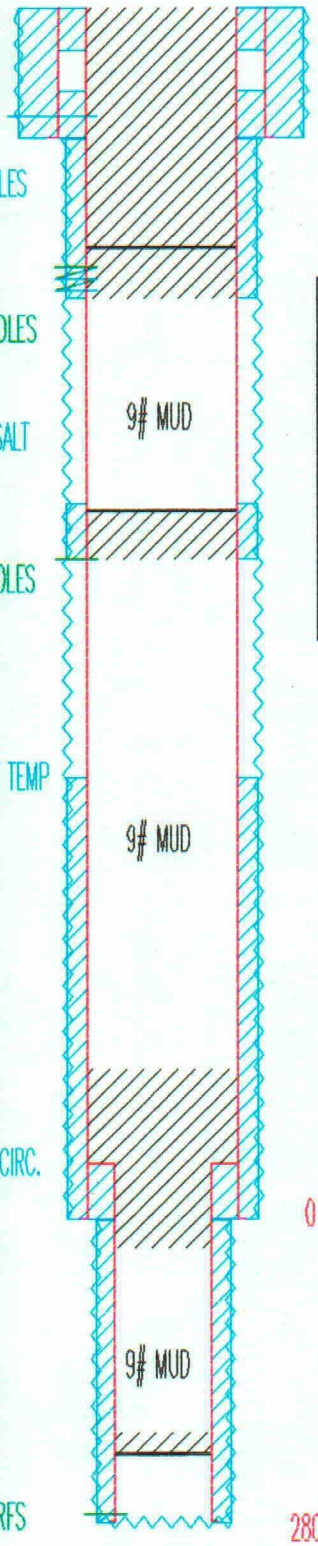
3376 - 3632' PERFS 2 SPF, 104 HOLES

3700 - 3701' SEATING NIPPLE

0 - 3750' 5.5" OD 15.50#/ft WC-50 PROD CSG

KB ELEV: 3289'
TD: 3750'

MERIDIAN OIL INC.
MYERS 'B' NO. 1
API# UNKNOWN



0 - 575' CEMENT PLUG

0 - 312' CEMENT 425sx CIRC.

297 - 258' SQUEEZE PERFS 4 SQZ HOLES

200 - 700' CEMENT SQZD THRU HOLES

575 - 579' RETAINER

579 - 700' CEMENT PLUG

624 - 683' SQUEEZE PERFS CSG HOLES

1200 - 1335' CEMENT SQZD @ TOP OF SALT

1215 - 1219' RETAINER CMT

1219 - 1335' CEMENT PLUG

1335 - 1336' SQUEEZE PERFS 4 SQZ HOLES

1870 - 2946' CEMENT 300sx TOC BY TEMP

2580 - 3015' CEMENT PLUG

2809 - 3686' CEMENT 400sx CIRC.

3465 - 3515' CEMENT PLUG

3515 - 3519' CIBP

3652 - 3667' PERFS

9# MUD

9# MUD

9# MUD

KB ELEV: 3317.4'

TD: 3686'

0 - 100' CEMENT BRAIDENHEAD SQZD

0 - 312' 13.25" OD HOLE

0 - 312' 9.625" OD 36.00#/ft J-55 SURF CSG

2310 FNL & 1650 FWL UNT. LETTER F
SEC 13 , TWN 24 S, RANGE 36 E
ELEVATION: 3318 GL
COMPLETION DATE: 01-15-50
###
COMPLETION INTERVAL: 3562 - 3667 (7 RVRS/QUEEN)
TRT: 2.5K GALS 15%
IP: NO RPT.
###

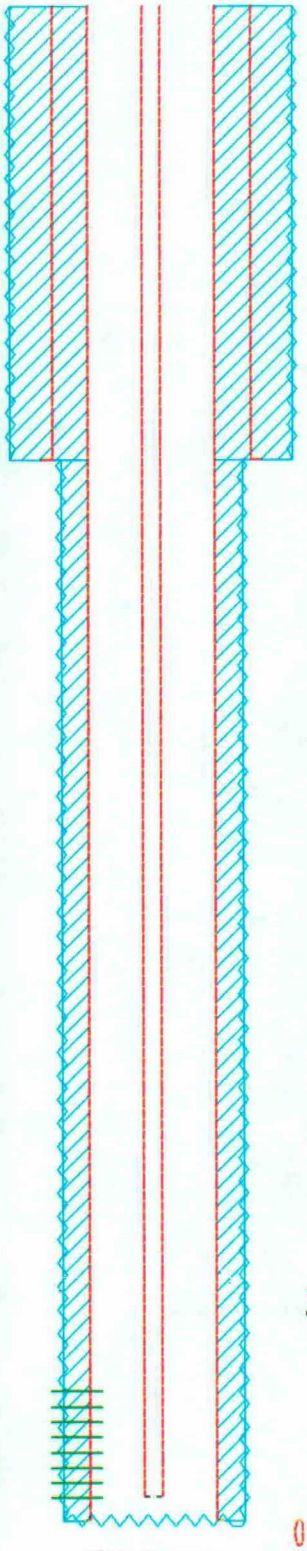
312 - 2946' 8.875" OD HOLE

0 - 2946' 7" OD 23.00#/ft J-55 INT CSG

2946 - 3686' 6.25" OD HOLE

2809 - 3684' 4.5" OD 12.60#/ft J-55 FJ LINER

ZIA ENERGY, INC.
TOBY NO. 7
API# 3002529844



0 - 1150' CEMENT 925sx CIRC.

0 - 1150' 12.25" OD HOLE

0 - 1150' 8.625" OD 24.00#/ft J-55 SURF CSG

1980 FNL & 1980 FEL UNT. LETTER G
SEC 13 , TWN 24 S, RANGE 36 E
ELEVATION: 3312 GL
COMPLETION DATE: 03-19-87
****
COMPLETION INTERVAL: 3520 - 3792 (7 RVRS/QUEEN)
TRT: 2.5K GALS 15% ; 80K GAL 160K # SD.
IP: 60 BOPD, 107 MCFD, 52 BWPD (FLOWING)
****

0 - 3850' CEMENT 800sx CIRC.

1150 - 3850' 7.875" OD HOLE

0 - 3787' 2.375" OD 4.70#/ft J-55 TBG

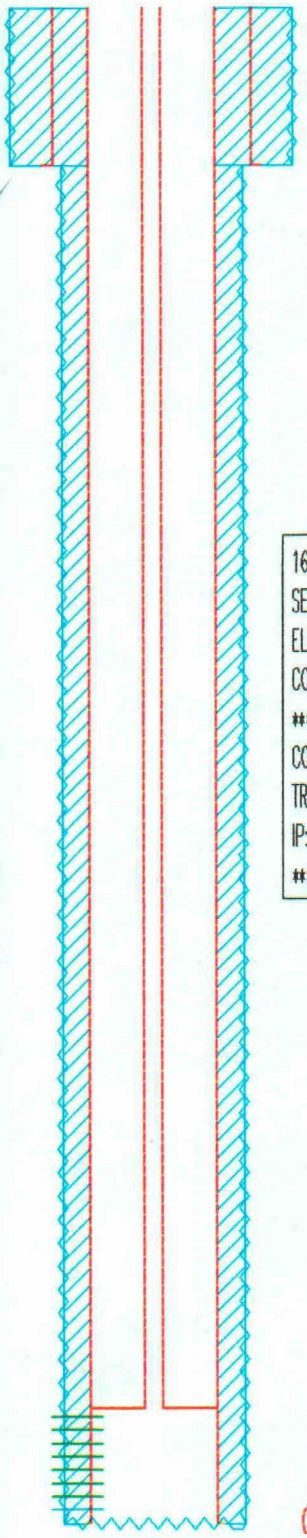
3787 - 3788' SEATING NIPPLE

3520 - 3792' PERFS

0 - 3850' 5.5" OD 14.00#/ft J-55 PROD CSG

KB ELEV: 3325'
TD: 3850'

ZIA ENERGY, INC.
TOBY NO. 2
API# 3002529126



0 - 393' CEMENT 350sx CIRC.

0 - 393' 12.25" OD HOLE

0 - 393' 8.625" OD 24.00#/ft J-55 SURF CSG

1650 FNL & 990 FEL UNT. LETTER H
SEC 13 , TWN 24 S, RANGE 36 E
ELEVATION: 3304 GL
COMPLETION DATE: 03-15-85
***
COMPLETION INTERVAL: 3533 - 3767 (7 RVRS/QUEEN)
TRT: 2.5K GALS 15% ; 80K GAL 160K # SD.
IP: 19 BOPD, 52 MCFD, 98 BWPD (FLOWING)
***

0 - 3800' CEMENT 1050sx CIRC.

393 - 3800' 7.875" OD HOLE

0 - 3510' 2.375" OD 4.70#/ft J-55 TBG

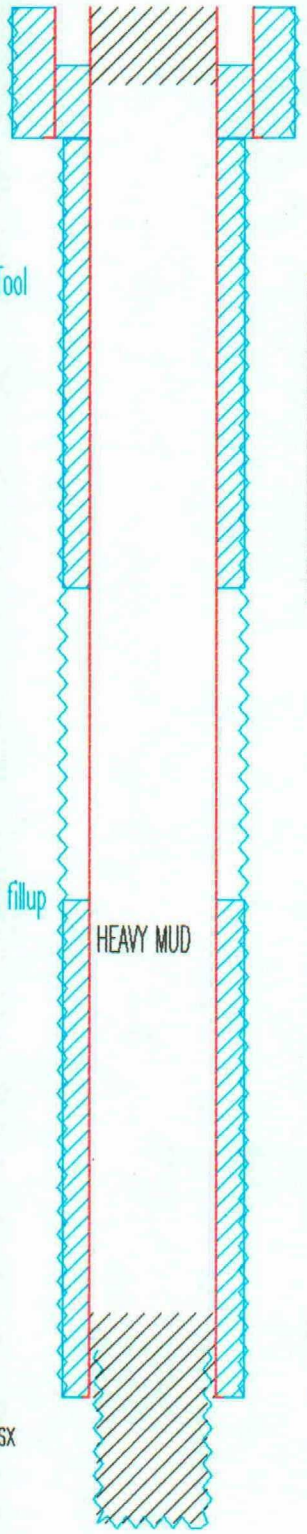
3510 - 3514' LATCH-IN PACKER

3533 - 3764' PERFS

0 - 3800' 5.5" OD 14.00#/ft J-55 PROD CSG

KB ELEV: 3315'
TD: 3800'

HAYNES V-T DRILLING INC.
C. D. WOOLWORTH NO. 1
API# UNKNOWN



0 - 274' 12.25" OD HOLE

0 - 274' 8.625" OD 28.00#/ft J-55 SURF CSG

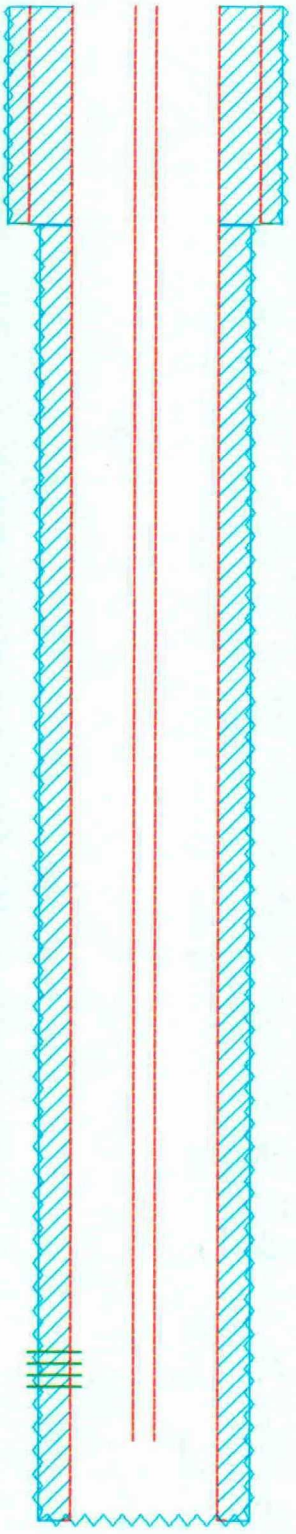
1650' FNL & 330' FEL UNT. LETTER H
SEC 26 , TWN 24 S, RANGE 36 E
ELEVATION: 3317 GL
COMPLETION DATE: 11-20-51
###
COMPLETION INTERVAL: 2928 - 3190 (YATES/7 RVRS-OH)
IP: UNKNOWN
###

274 - 2928' 7.875" OD HOLE

0 - 2928' 5.5" OD 15.50#/ft J-55 PROD CSG

2829 - 3190' 4.75" OD HOLE

TOLA PRODUCTION INC.
PHILLIPS-GOLDSTAR NO. 2
API# 3002526429



0 - 484' CEMENT 300sx CIRC.

0 - 3400' CEMENT 700sx CIRC.

3017 - 3099' PERFS

KB ELEV: 3320'
TD: 3400'

0 - 486' 10.25" OD HOLE

0 - 486' 8.625" OD 28.00#/ft J-55 SURF CSG

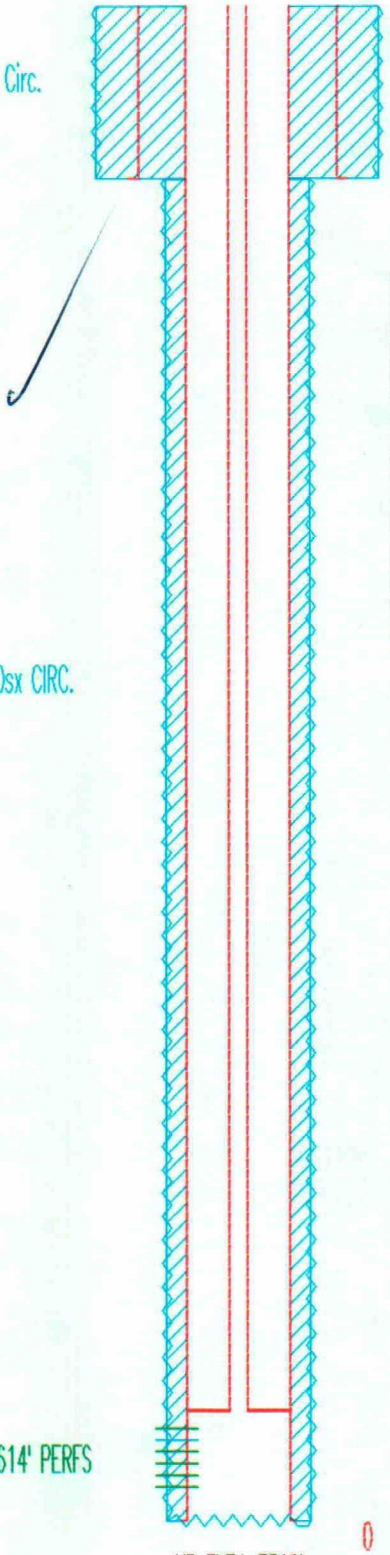
1674 FNL & 472 FEL
SEC 26 , TWN 24 S, RANGE 36 E
ELEVATION: 3309 GL
COMPLETION DATE: 08-15-79
****
COMPLETION INTERVAL: 3017 - 3099 (YATES)
TRT: A/ 4KL GALS; F/50K GALS & 103K # SD.
IP: 0 BOPD, 45 MCFD, 215 BWPD (FL)
TEMPORARILY ABANDONED
****

486 - 3400' 7.875 " OD HOLE

0 - 3220' 2.375" OD 4.70#/ft J-55 TBG

0 - 3400' 5.5" OD 17.00#/ft J-55 PROD CSG

DOYLE HARTMAN INC.
CITIES THOMAS NO. 1
API# 3002525400



0 - 417' CEMENT 260sx Circ.

0 - 417' 12.25" OD HOLE

0 - 417' 8.625" OD 36.00#/ft J-55 SURF CSG

990 FNL & 1650 FEL UNT LETTER B
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3299 GL
COMPLETION DATE: 11-22-76
###
COMPLETION INTERVAL: 3446 - 3614 (7 RIVERS/QUEEN)
TRT : A/ 4000 gals; F/40K GALS, 55K # SD.
IP: 12 BOPD, 450 MCFD, 0 BWPD (FL)
###

0 - 3696' CEMENT 1200sx CIRC.

417 - 3696' 6.25" OD HOLE

0 - 3425' 2.375" OD 4.70#/ft J-55 TBG

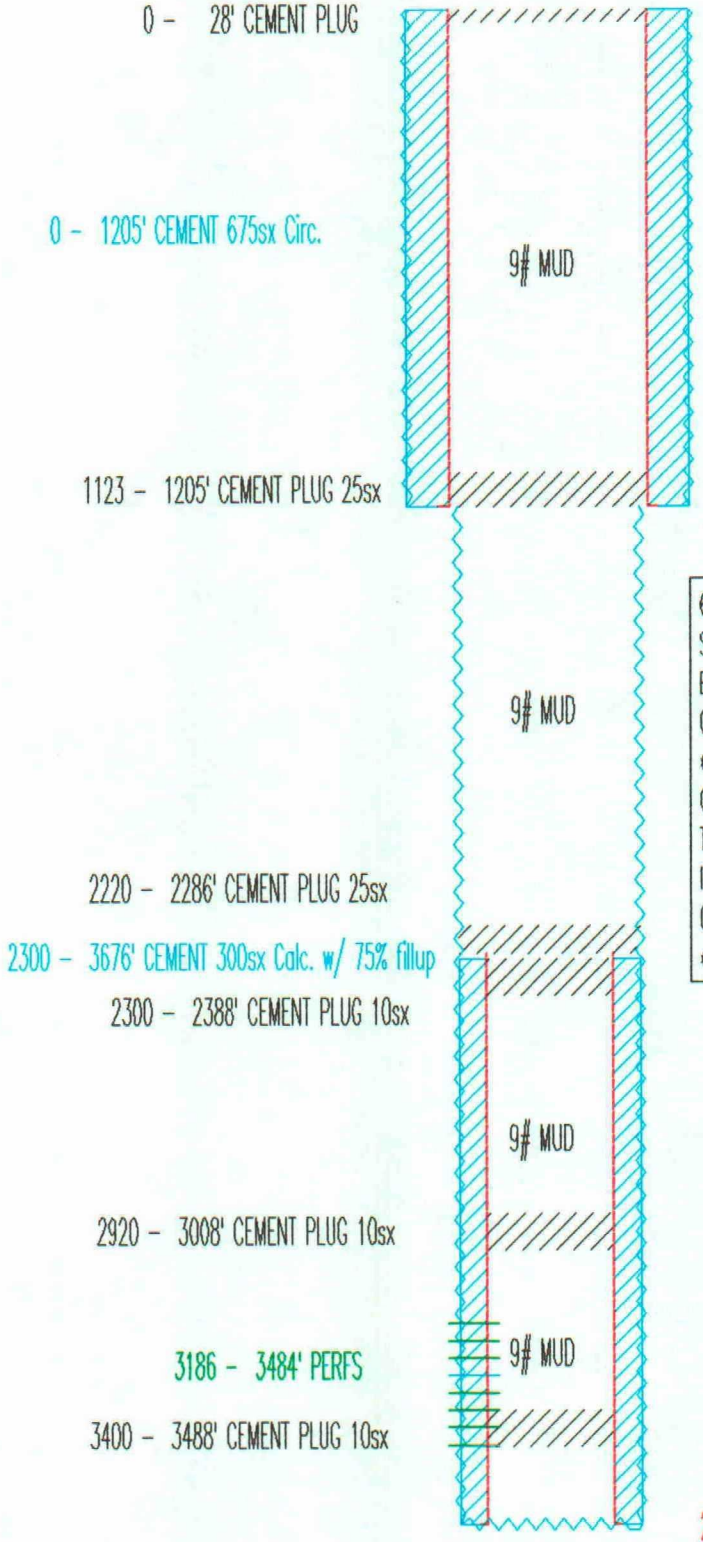
3425 - 3429' LATCH-IN PACKER

3446 - 3614' PERFS

0 3696' 4.5" OD 11.60#/ft J 55 PROD CSG

KB ELEV: 3310'
TD: 3725'

EL PASO NATURAL GAS CORP.
J.J. THOMAS NO. 1
API# UNKNOWN



0 - 1205' 12.25" OD HOLE

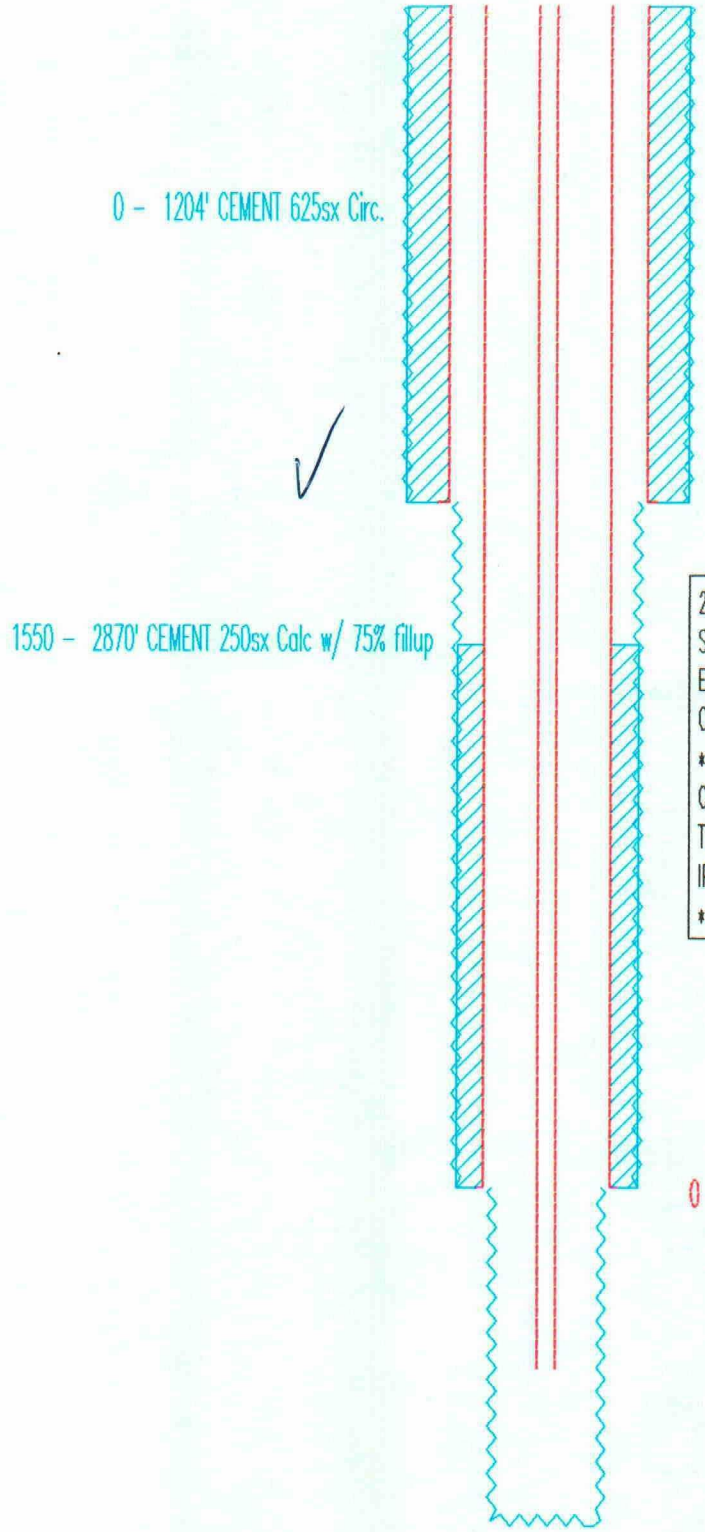
0 - 1205' 8.625" OD 24.00#/ft J-55 SURF CSG

660 FNL & 2173 FEL UNT LETTER B
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3311 GL
COMPLETION DATE: 07-02-59
****
COMPLETION INTERVAL: 3186 - 3484 (YATES/7 RIVERS)
TRT : F/30K GALS, 30 K # SD.
IP: NO RPT.
03-16-60 PLUGGED & ABANDONED. 5-1/2" CSG CUT & PULLED
****

1205 - 3676' 7.875" OD HOLE

2286 - 3676' 5.5" OD 15.50#/ft J-55 PROD CSC CUT & PULLED

OXY USA INC.
THOMAS NO. 2
API# 3002511164



0 - 1204' CEMENT 625sx Circ.

0 - 1204' 12.25" OD HOLE

0 - 1204' 8.625" OD 36.00#/ft J-55 SURF CSG

1550 - 2870' CEMENT 250sx Calc w/ 75% fillup

2310 FNL & 2210 FEL UNT LETTER G
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3293 GL
COMPLETION DATE: 10-02-80
****
COMPLETION INTERVAL: 2870 - 3487 (YATES/7 RIVERS-OH)
TRT : A/ 1500 gals; F/22.5K GALS, 600MCF CO2 & 48K # SD.
IP: 16 BOPD, 132 MCFD, 0 BWPD (PMP)
****

1204 - 2870' 7.875" OD HOLE

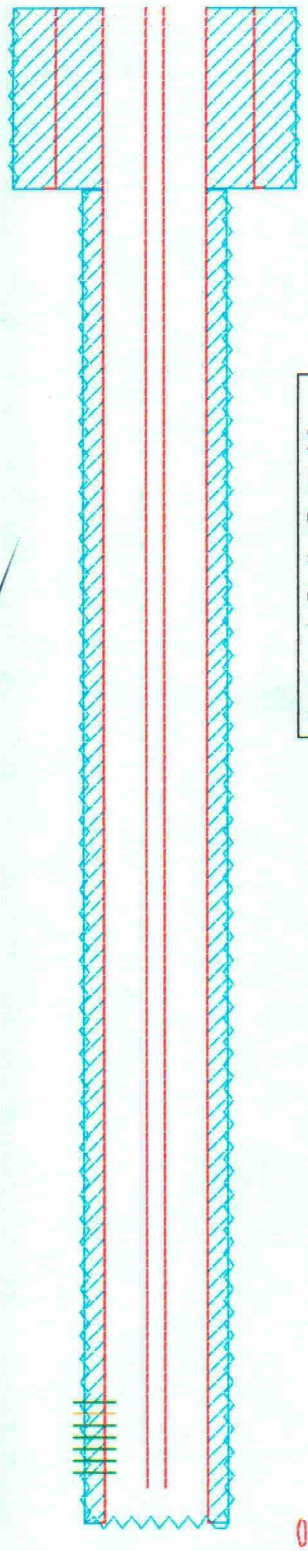
0 - 3315' 2.375" OD 4.70#/ft J-55 TDG

0 - 2870' 5.5" OD 15.50#/ft J-55 PROD CSG

2870 - 3680' 4.75" OD HOLE

KB ELEV: 3304'
TD: 3680'

DOYLE HARTMAN INC.
CITIES THOMAS NO. 4
API# 3002525756



0 - 445' CEMENT 325sx Circ.

0 - 445' 12.25" OD HOLE

0 - 445' 8.625" OD 36.00#/ft J-55 SURF CSG

1980 FNL & 1650 FEL UNT LETTER G
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3285 GL
COMPLETION DATE: 02-13-78
****
COMPLETION INTERVAL: 3418 - 3611 (7 RIVERS/QUEEN)
TRT : A/ 5400 gals; F/60K GALS, 90K # SD.
IP: 69 BOPD, 200 MCFD, 23 BWPD (PMP)
****

0 3733' CEMENT 900sx CIRC.

445 - 3733' 6.25" OD HOLE

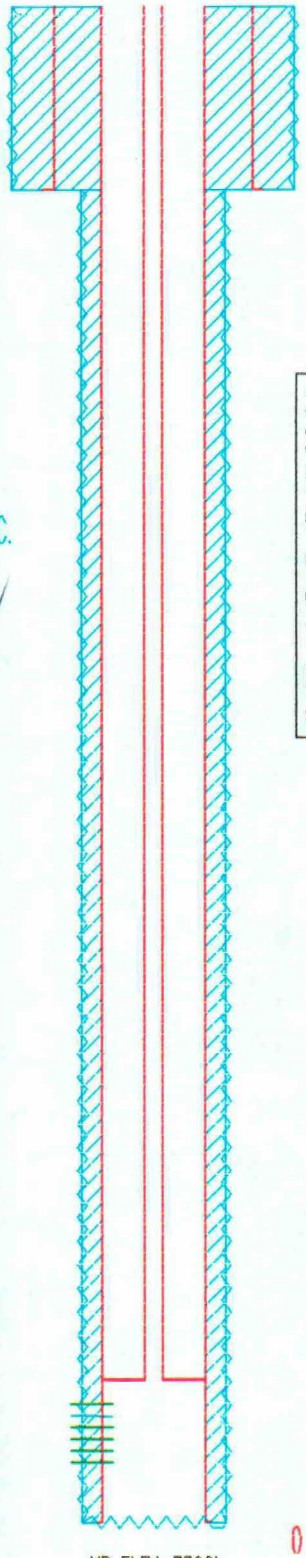
0 - 3650' 2.375" OD 4.70#/ft J-55 TBG

3418 - 3611' PERFS

0 - 3733' 4.5" OD 11.60#/ft J-55 PROD CSG

KB ELEV: 3296'
TD: 3700'

DOYLE HARTMAN INC.
CITIES THOMAS NO. 3
API# 3002525608



0 - 445' CEMENT 300sx Circ.

0 - 445' 12.25" OD HOLE

0 - 445' 8.625" OD 36.00#/ft J-55 SURF CSG

2310 FNL & 660 FEL UNT LETTER H
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3291 GL
COMPLETION DATE: 09-26-77
****
COMPLETION INTERVAL: 3408 - 3555 (7 RIVERS/QUEEN)
TRT : A/ 4000 gals; F/50K GALS, 85K # SD.
IP: 0 BOPD, 292 MCFD, 0 BWPD (FL)
****

0 - 3700' CEMENT 1000sx CIRC.

445 - 3700' 6.25" OD HOLE

0 - 3350' 2.375" OD 4.70#/ft J-55 TBG

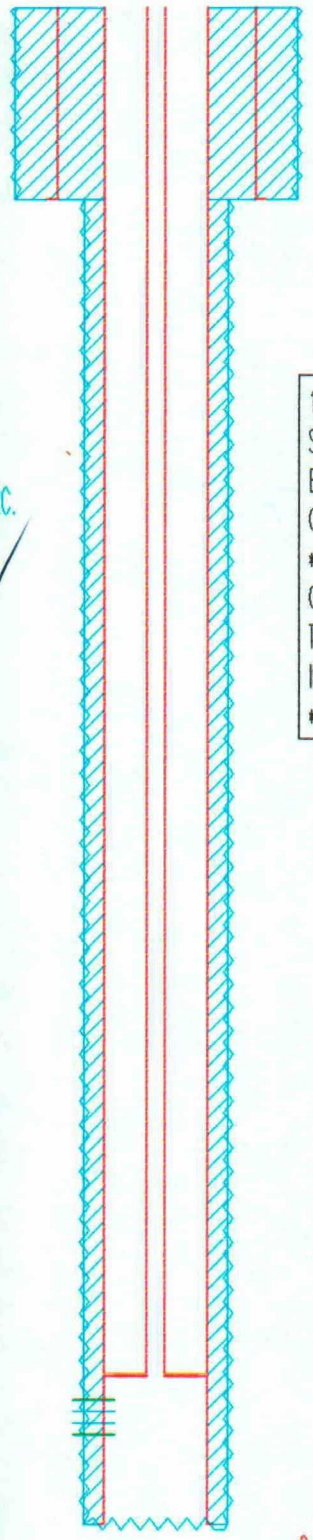
3350 - 3354' LATCH-IN PACKER

3408 - 3555' PERFS

0 - 3700' 4.5" OD 11.60#/ft J-55 PROD CSG

KB ELEV: 3302'
TD: 3700'

DOYLE HARTMAN INC.
A. SOWELL NO. 2
API# 3002525755



0 - 468' CEMENT 325sx Circ.

0 - 468' 12.25" OD HOLE

0 - 468' 8.625" OD 36.00#/ft J-55 SURF CSG

1650 FSL & 660 FEL UNT LETTER I
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3283 GL
COMPLETION DATE: 01-25-78
****
COMPLETION INTERVAL: 3387 - 3479 (7 RIVERS/QUEEN)
TRT : A/ 4500 gals; F/50K GALS, 85K # SD.
IP: 0 BOPD, 288 MCFD, 0 BWPD (FL)
****

0 - 3718' CEMENT 900sx CIRC.

0 - 3350' 2.375" OD 4.70#/ft J-55 TBG

3350 - 3354' LATCH-IN PACKER

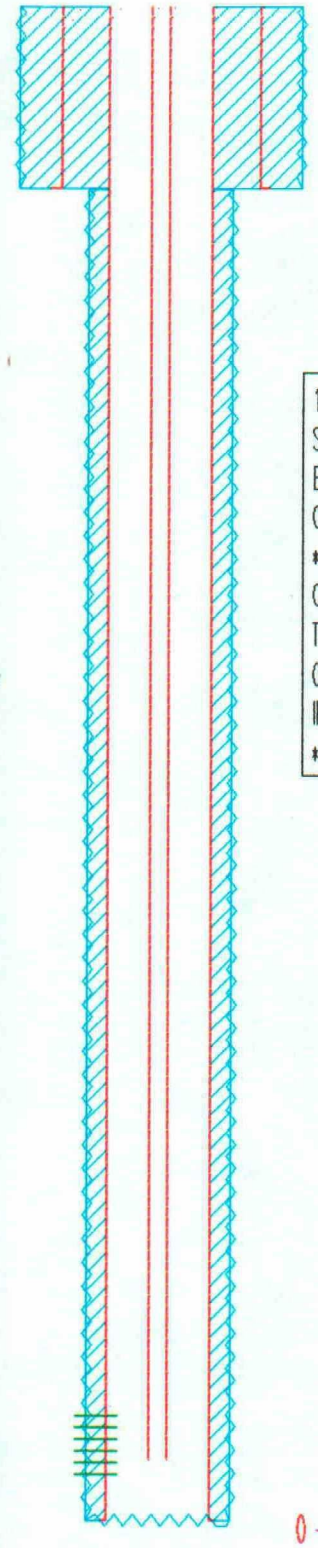
3387 - 3497' PERFS

468 - 3718' 6.25" OD HOLE

0 - 3718' 4.5" OD 11.60#/ft J-55 PROD CSG

KB ELEV: 3294'
TD: 3718'

CITIES SERVICES CO.
THOMAS 'A' NO. 3
API# 3002526139



0 - 449' CEMENT 300sx Circ.

0 - 449' 12.25" OD HOLE

0 - 449' 8.625" OD 36.00#/ft J-55 SURF CSG

1980 FSL & 1980 FEL UNT LETTER J
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3280 GL
COMPLETION DATE: 07-31-82
****
COMPLETION INTERVAL: 3477 - 3636 (7 RIVERS/QUEEN)
TRT : A/ 1500 gals ; 44 BOPD, GOR TSTM
04-27-79 A/4500 GALS; F/36K GALS, 13K GALS CO2 & 33K # SD.
IP: 85 BOPD, 45 MCFD, 0 BWPD (PM)
****

0 - 3750' CEMENT 1000sx CIRC.

449 - 3750' 6.25" OD HOLE

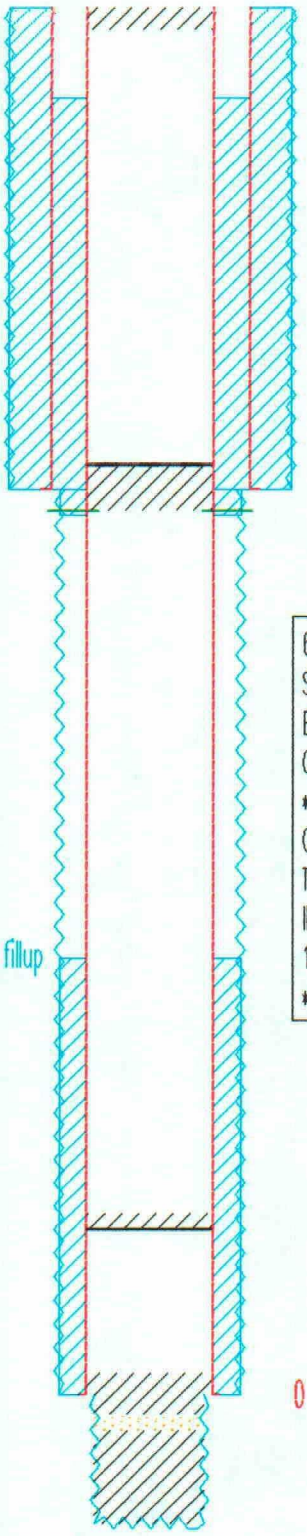
0 - 3600' 2.375" OD 4.70#/ft J-55 TBG

3477 - 3636' PERFS

0 - 3750' 4.5" OD 11.60#/ft J-55 PROD CSG

KB ELEV: 3291'
TD: 3750'

CITIES SERVICES OIL CO.
THOMAS NO. 1
API# UNKNOWN



0 - 50' CEMENT PLUG 10sx

0 - 1162' CEMENT 625sx Circ.

215 - 1225' CEMENT 210sx Calc. w/ 75% fillup

1100 - 1104' RETAINER
1104 - 1212' CEMENT PLUG

1212 - 1213' SQUEEZE PERFS 2 HOLES

2295 - 3351' CEMENT 200sx Calc w/ 75% fillup

2915 - 2950' CEMENT PLUG

2950 - 2954' CIBP

3300 - 3400' CEMENT PLUG 25sx

3400 - 3440' FILL

3440 - 3663' CEMENT PLUG

KB ELEV: 3281'

TD: 3663'

0 - 1161' 12.25" OD HOLE

0 - 1162' 8.625" OD 36.00#/ft J-55 SURF CSG

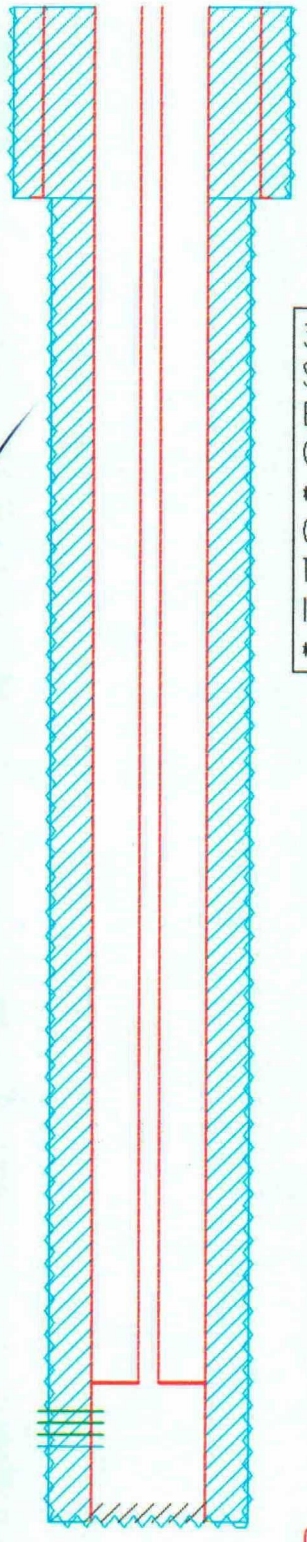
660 FSL & 1980 FEL UNT LETTER O
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3270 GL
COMPLETION DATE: 10-04-50
****
COMPLETION INTERVAL: 3351 - 3443 (7 RIVERS/QUEEN)
TRT : A/ 11K gals (OPPTD 3443')
IP: 0 BOPD, 2.439 MMCFD, 0 BWPD (FL)
10-22-84 PLUGGED & ABANDONED.
****

1161 - 3351' 7.875" OD HOLE

0 - 3351' 5.5" OD 17.00#/ft J-55 PROD CSG

3351 - 3663' 4.75" OD HOLE

DOYLE HARTMAN INC.
A. SOWELL NO. 1
API# 3002525630



0 - 463' CEMENT 300sx Circ.

0 - 463' 11" OD HOLE

0 - 463' 8.625" OD 28.00#/ft J-55 SURF CSG

330 FSL & 990 FEL UNT LETTER P
SEC 19 , TWN 24 S, RANGE 37 E
ELEVATION: 3275 GL
COMPLETION DATE: 09-23-77
****
COMPLETION INTERVAL: 3402 - 3515 (7 RIVERS/QUEEN)
TRT : A/ 4000 gals; F/50K GALS, 80K # SD.
IP: 0 BOPD, 345 MCFD, 0 BWPD (FL)
****

0 - 3700' CEMENT 900sx CIRC.

463 - 3700' 7.875" OD HOLE

0 - 3358' 2.375" OD 4.70#/ft J-55 TBG

3358 - 3362' LATCH-IN PACKER

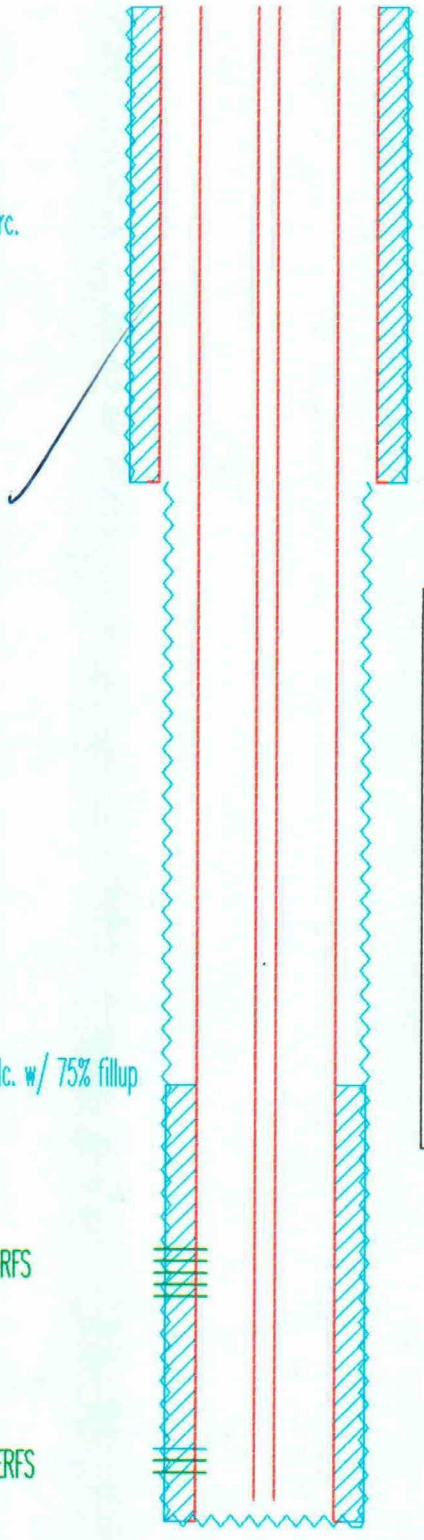
3402 - 3515' PERFS

3657 - 3700' CEMENT PLUG

0 - 3700' 4.5" OD 10.50#/ft J-55 PROD CSG

KB ELEV: 3286'
TD: 3700'

CONTINENTAL OIL CO. INC.
JACK 'B' NO. 2
API# 3002525871



0 - 1142' CEMENT 565sx Circ.

0 - 1142' 11" OD HOLE

0 - 1142' 8.625" OD 28.00#/ft J-55 SURF CSG

330 FNL & 1725 FEL UNT LETTER B
SEC 30 , TWN 24 S, RANGE 37 E
ELEVATION: 3268 GL
COMPLETION DATE: 03-31-78
****
COMPLETION INTERVAL: 3457 - 3533 (7 RVRS/QUEEN)
TRT : A/ 1000 gals; F/FOAM, 23.6K # SD.
IP: 5 BOPD, (TSTM) MCFD, 5 BWPD (FL)
COMPLETED INTERVAL 2994-3108 (YATES/7 RVRS)
TRT: A/ 1500 GALS; F/ 30K GALS, 50K # SD.
IP: 0 BOPD, 234 MCFPD, 4 BWPD.
7-10-78 DHC JALMAT & L. MATTIX (YATES/7 RVRS/QN)
IP: 8 BOPD, 234 MCFPD, 4 BWPD.
****

2595 - 3650' CEMENT 200sx Calc. w/ 75% fillup

1142 - 3650' 7.875" OD HOLE

2994 - 3108' PERFS

0 - 3600' 2.375" OD 4.70#/ft J-55 TBG

3457 - 3533' PERFS

0 - 3650' 5.5" OD 15.50#/ft J-55 PROD CSG

KB ELEV: 3279'
TD: 3650'

Z 004 848 819

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

udean E. Cantrell, Trustee
udean E. Cantrell Living
rust
52 W. Beam Ave.
ukon, Oklahoma 73099

Certified Fee	0.98
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 821

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Fred B. Cooper
RR#1, Box141
Blossom, TX 75416

Certified Fee	0.98
Special Delivery Fee	1.00
Restricted Delivery Fee	1.00
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 302

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to BLM	
Street and No 1717 W. 2nd	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	$2.13
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$4.13
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 817

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Zia Energy, Inc.
P.O. Box 2219
Hobbs, N.M. 88240

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 818

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Meridian Oil Inc.
P.O. Box 51810
Midland, Texas 79710

Certified Fee	0.98
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 820

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Deep Wells Ranch, Inc.
Star Route
Combest Ranch
Jal, N.M. 88252

Certified Fee	0.98
Special Delivery Fee	1.
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 301

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Conoco Inc.
10 Desta Dr, Ste 100W
Midland, TX 79702

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 303

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

OXY USA Inc.
P.O. Box 50250
Midland, Texas 79702

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993

Z 004 848 816

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Doyle Hartman
P.O. Box 10426
Midland, Texas 79702

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$2.98
Postmark or Date	

PS Form 3800, March 1993