CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: PURVIS OPERATING CO. Well: HOUSTON "A" WELL NO. 1

Contact: JIM PURVIS Title: PRESIDENT Phone: 915-682-7346

DATE IN 10-28-94 RELEASE DATE 11-14-94 DATE OUT 12-2-94

Proposed Injection Application is for: __ WATERFLOOD __ Expansion __ Initial

Original Order: R- _____ __ Secondary Recovery __ Pressure Maintenance

SENSITIVE AREAS Y SALT WATER DISPOSAL

__WIPP __ Capitan Reef __ Commercial Operation

Data is complete for proposed well(s)? YES Additional Data _____

AREA of REVIEW WELLS

26 Total # of AOR 17 # of Plugged Wells

YES Tabulation Complete ↘ Schematics of P & A's

YES Cement Tops Adequate __ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) DEVONIAN

Source of Water AREA PRODUCED WATER (GLADIOLA & WOLFBONE) Compatible ↘

PROOF OF NOTICE

↘ Copy of Legal Notice ↘ Information Printed Correctly

↘ Correct Operators ↘ Copies of Certified Mail Receipts

__ Objection Received __ Set to Hearing _____ Date

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact: __ Telephoned __ Letter _____ Date Nature of Discussion _____

2nd Contact: __ Telephoned __ Letter _____ Date Nature of Discussion _____

3rd Contact: __ Telephoned __ Letter _____ Date Nature of Discussion _____

SWD-576

PURVIS OPERATING CO.

One Fasken Center, Suite 960

P. O. Box 11006
Midland, Texas 79702
Phone (915) 682-7346
Fax (915) 683-9584

October 25, 1994

Oil Conservation Division
District I
P. O. Box 1980
Santa Fe, New Mexico 88241

Re: **Application for Authorization to Inject**
Houston "A" No. 1 well
Gladiola Field
Lea County, New Mexico

Gentlemen:

Enclosed please find Form C-108, and attachments, regarding the above captioned matter.

Yours very truly,

PURVIS OPERATING CO.

Sandie Brown
Land Administrator

SSB

STATE OF NEW ME: O
ENERGY AND MINERALS DEP. TMENT

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: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: PURVIS OPERATING CO.

Address: P. O. BOX 11006, MIDLAND, TEXAS 79702-8006

Contact party: J. H. (JIM) PURVIS Phone: (915) 682-7346

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

• VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

•VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

• X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

• XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: J. H. PURVIS Title PRESIDENT

Signature: J. H. Purvis Date: 10/14/94

• 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. _____

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.

VI. Table of wells (25) within area of review and schematics of P & A wells (7) are attached.

VII. Data on proposed operation:

1. Average Rate – 3000 BWPD (Initially, est. 1500 BWPD)
   Maximum Rate – 6000 BWPD
2. Closed system
3. Average Injection pressure – vacuum
   Maximum injection pressure – vacuum
4. Water Sources: Gladiola Wolfcamp and Devonian produced water
5. N/A

VIII. Proposed injection zone is a Devonian age Dolomite at approx. depth of 11,940' which has a gross thickness of about 300'. Fresh water in this area is the Ogalalla from near surface to a depth of some 300'.

IX. Proposed stimulation is 4000 gals. of 15% HCl Acid.

X. Logs have been filed with OCD.

XI. Chemical analyses (4) of fresh water wells are attached.

XII. Applicant attests that examination of all available geologic and engineering data indicates that no hydologic connection exists between the proposed injection interval and overlying fresh water zones.

XIII. Proof of Notice in an area newspaper and to lease operators within one–half mile are attached.

PURVIS OPERATING CO.

HOUSTON "A" #1 WELL

Gladiola Field

Lea County, New Mexico

APPLICATION FOR AUTHORIZATION TO INJECT

MAIL LIST

1. Oil Conservation Division
P.O. Box 2088
Sante Fe, New Mexico 87504-2088

2. Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241-1980

SURFACE OWNER

3. Clinton Houston — CERT #P 429 459 568
P.O. Box 245
Tatum, New Mexico 88267

LEASEHOLD OPERATORS WITHIN AREA OF REVIEW

4. E/2 OF E/2 & W/2 SE/4, SEC. 24, T12S, R37E, — CERT #P 429 459 571
Barbara Fasken
303 W. Wall Street, Suite 1900
Midland, Texas 79701

5. W/2 NE/4 OF SEC. 24, T12S, R37E — CERT #P 429 459 570
Wadi Petroleum, Inc.
1440 S. Walters Road, #400
Houston, Texas 77014

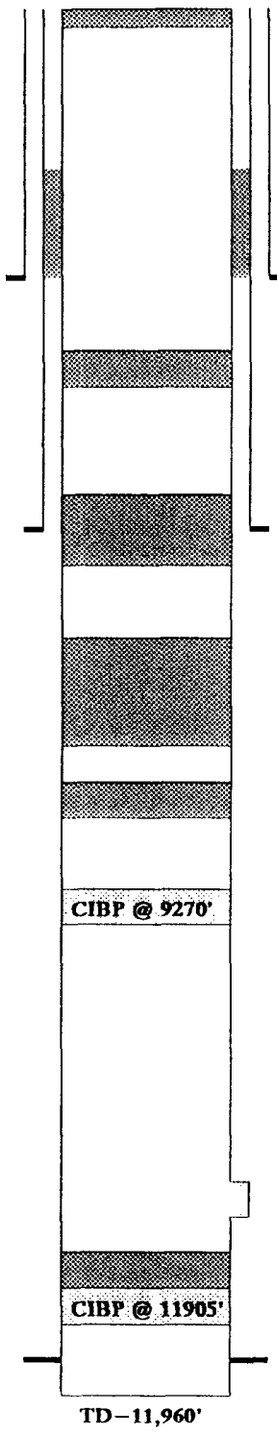
6. NE/4 OF SW/4, SEC. 19, T12S, R38E — CERT #P 429 459 569
Yates Petroleum Corporation
105 So. 4th Street
Artesia, New Mexico 88210

7. NW/4 OF SW/4, SEC. 19, T12S, R38E
S/2 OF SW/4, SEC. 19, T12S, R38E
NW/4 OF NW/4, SEC. 30, T12S, R38E
NE/4 OF NE/4, SEC. 25, T12S, R37E
UNLEASED

INJECTION WELL DATA SHEET

PETRUS OIL COMPANY, L.P.	HOUSTON "A"	LEA COUNTY, N.M.		
OPERATOR	LEASE			
1	2310' FSL & 330' FWL	19	12S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

SCHEMATIC



TUBULAR DATA

SURFACE CASING

Size 13-3/8" Cemented with 255 sx.
TOC @ surface as determined by circulation
Hole size 17-1/2"

INTERMEDIATE CASING

Size 9-5/8" Cemented with 690 sx.
TOC above 2298'; as circ. 540 sx. to DV tool
@ 2298' & 150 sx. through DV tool
Hole size 12-3/4"

LONG STRING

Size 7" Cemented with 630 sx.
TOC NR feet determined by NR
Hole size 8-3/4"
Total depth 11,960'

INJECTION INTERVAL

11,875 Feet to 11,960 Feet
Perforated & Open Hole

NOTE: All CMT & CIBP's will be removed so as to inject into the original DEV open hole and perforations 11,875'-885' (Top DEV @ 11,875')

Tubing size 2-7/8" lined with plastic set in a Baker/Elder lockset (nickel plated internally and externally) packer at 11,830'

OTHER DATA:

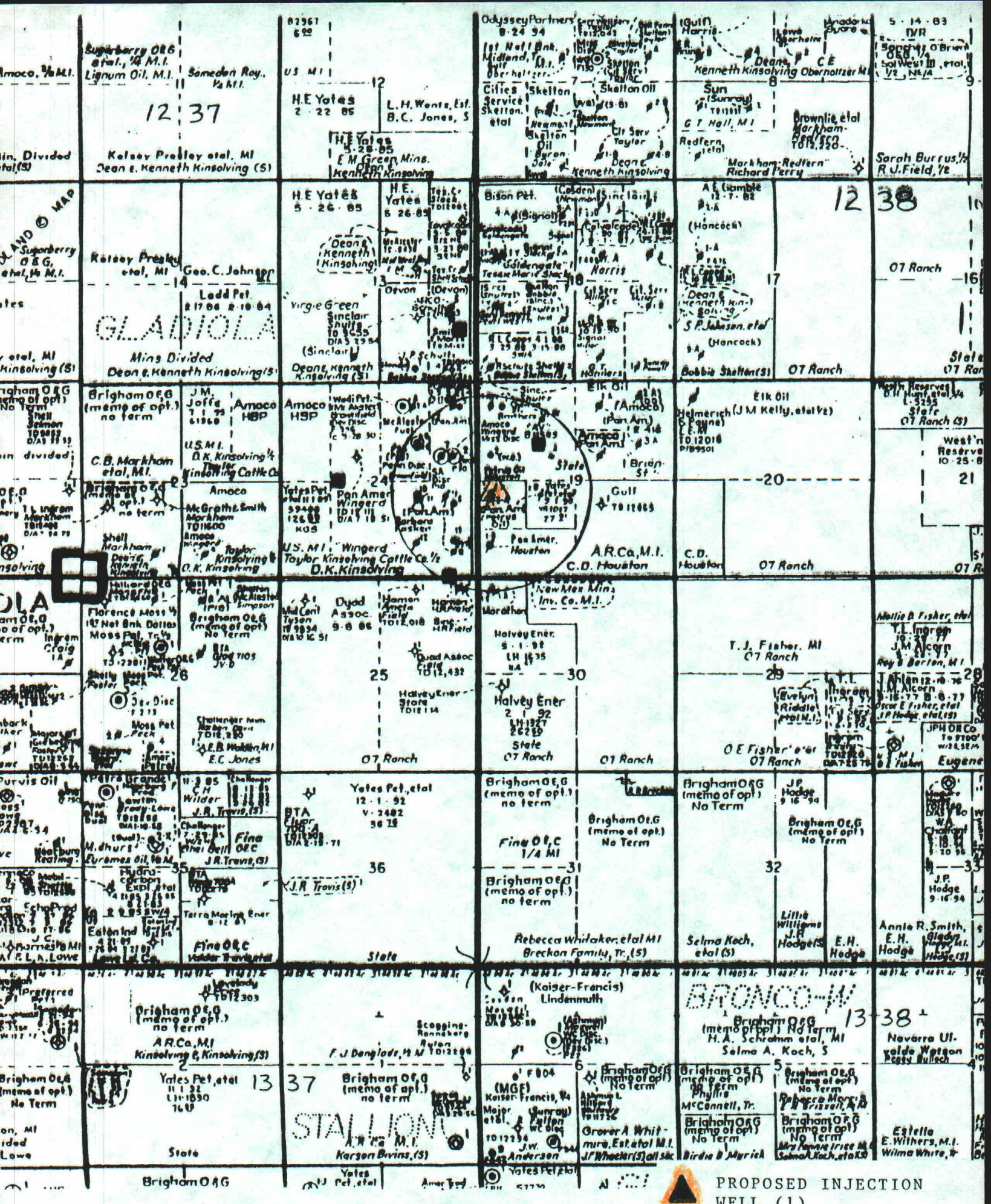
1. Name of the injection formation: DEVONIAN (DEV)
2. Name of Field or Pool: GLADIOLA
3. Is this a new well drilled for injection? NO

If no, for what purpose was the well originally drilled? DEVONAIN PRODUCING WELL 11/53, P&A 9/26/87

4. Has the well ever been perforated in any other zone? List all such perforated intervals and give plugging detail:

NO

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area: MISSISSIPPIAN @ DEPTH OF ABOUT 11,100' AND WOLFCAMP @ DEPTH OF ABOUT 9,400'


GLADIOLA
STALLION
BRONCO
PROPOSED INJECTION WELL (1)
FRESH WATER WELL (4)

PURVIS OPERATING CO.

Houston "A" #1 Well
Gladiola Field
Lea County, New Mexico

APPLICATION FOR AUTHORITY TO INJECT

WELLS (25) WITHIN AREA OF REVIEW

1. **Gulf Oil Corp. #3 Lea "AV" State** Oil
Unit D, 660' FNL & 330' FWL, S19, T12S, R38E
Compl. 5/20/53 TD – 9,610' PB – 9,506'
Perf. 9,385'–9,590' (Wolfcamp)
OWWO: 4/28/55 Repaired 7" Csg. leak 6,771'–6,803' by sqz. w/ 130 sx., TOC – 6,310', DO & resumed Wolfcamp production

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	369	450
12–1/4	9–5/8	4,519	3,280
8–3/4	7	9,609	275

P & A 6/30/61 Schematic Attached

2. **Purvis Operating Co. #1 Lea "AV" State** Oil
(Formerly Brothers Production Co.)
Unit D, 660' FNL & 660' FWL, S19, T12S, R38E
Compl. 8/05/52 TD – 11,975'
Perf. 11,933'–971' (Devonian)
OWWO: 9/25/71 PB to 9,702', perf. 9,414'–9,588' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/4	13–3/8	368	500
12–1/4	9–5/8	4,500	1,825
8–3/4	7	11,974	1,350

3. **Gulf Oil Corp. #5 Lea "AV" State** Oil
Unit C, 990' FNL & 1650' FWL, S19, T12S, R38E
Compl. 8/26/57 TD – 11,954'
Perf. 11,902'–952' (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/4	13–3/8	265	450
12–1/4	8–5/8	4,550	1,840
7–7/8	5–1/2	11,954	1,710

P & A 4/18/77 Schematic Attached

4. **Purvis Operating Co. #4 Lea "AV" State** Oil
(Formerly Brothers Production Co.)
Unit F, 1980' FNL & 1980' FWL, S19, T12S, R38E
Compl. 9/12/57 TD – 12,000'
Perf. 11,960'–997' (Devonian)
OWWO: 11/07/71 CIBP @ 11,770' w/ 1.5 sx. cmt., CIBP 9,636', perf. 9,442'–9,576' (Wolfcamp)
OWWO: 9/13/94 CIBP @ 9,345', perf. 9,103'–9,207' (Wolfcamp), SSG & water, tight, SI.

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/4	13–3/8	267	400
11	8–5/8	4,533	1,940
7–7/8	5–1/2	12,000	1,600

5. **Purvis Operating Co. #2 Lea "AV" State** Oil
(Formerly Brothers Production Co.)
Unit E, 330' FWL & 1980' FNL, S19, T12S, R38E
Compl. 5/02/53 TD – 11,955'
Open Hole 11,866'–955' (Devonian)
OWWO: 10/22/62 CIBP @ 11,800' w/ 2 sx. cmt., perf. Mississippian 11,758'–770', no show of oil or gas, CIBP @ 9,645' w/ 2 sx. cmt., PBD – 9635, perf. 9,400'–9,588' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/4	13–3/8	376	500
12–1/4	9–5/8	4,520	2,282
8–3/4	7	11,885	610

6. **Amoco Production Co. #1–19 State "B"** Oil
Unit K, 2310' FSL & 1650' FWL, S19, T12S, R38E
Compl. 6/4/57 TD – 11,980'
Perf. 11,958'–11,968' (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT SX.
17–1/4	13–3/8	342	350
11	8–5/8	4,645	650
7–7/8	5–1/2	11,980	1,200

P & A 9/13/71 Schematic Attached

7. **Pan American Petroleum Corp. #2 Houston "A"** Oil
Unit L, 2210' FSL & 330' FWL, S19, T12S, R38E
Compl. 4/27/54 TD – 9,816'
Perf. 9,470'–9,536' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	316	325
12–1/4	9–5/8	4,500	600
8–3/4	5–1/2	9,816	185

P & A 12/01/67 Schematic Attached

8. **Pan American Petroleum Corp. #1 Houston "B"** Oil
Unit M, 990' FSL & 330' FWL, S19, T12S, R38E
Compl. 2/10/54 TD – 9,820' PBTD – 9,575'
Perf. 9,498'–9,556' (Wolfcamp– PF 9,614'– 30' & 9,762'– 72', sqz. w/ cmt. ret.@ 9,575')
OWDD: 1/29/57 Drilled to new TD–11,971', set 5" liner 9,140'–11,971', perf. 11,908'–953' (Devonian)
OWWO: 8/01/69 PF 10,842'–948', tst water, sq. 100 sx. CIBP @ 11,700', perf. Penn 10,004'–176', no shows (water).

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	314	225
12–1/4	9–5/8	4,472	590
8–3/4	7	9,818	300
NR	5" liner	9,140'–11,971'	200

P & A 8/15/69 Schematic Attached

9. **Barbara Fasken #5 Wingerd** Oil
Unit A, 660' FNL & 460' FEL, S24, T12S, R37E
Compl. 9/30/52 TD – 11,905'
Open Hole 11,845'–905' (Devonian)
OWWO: 9/06/67 PB @ 11,840', perf. 11,814'–822'
OWWO: 1/24/74 CIBP @ 11,770', perf. 9,412'–9,560' (Wolfcamp)
OWWO: 2/18/80 Sqz. 9,412'–9,560', DO to 11,905', CIBP @ 11,835'

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.	
17–1/2	13–3/8	346	500	
12–1/2	9–5/8	4,504	690	DV @ 2,214'
8–3/4	7	11,845	630	

10. **Pan American Petroleum Corp. #3 Wingerd** Oil
Unit A, 660' FNL & 660' FEL, S24, T12S, R37E
Compl. 3/13/52 TD – 9,820'
Perf. 9,607'–9,618' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/4	13–3/8	334	500
12–1/4	9–5/8	4,500	600
8–3/4	7	9,818	300

P & A 1/26/68 Schematic Attached

11. **Barbara Fasken #2 Wingerd** Oil
Unit H, 1980' FNL & 660' FEL, S24, T12S, R37E
Compl. 12/10/51 TD – 11,855' PBD – 11,690'
Perf. 11,777'–800' (Devonian)
OWWO: 5/09/74 Csg. leaks 5,364', 5,584' 6,110' & 6,440' isolated w/ pkr. @ 7,288' on 2–3/8" tbg. @ 7,297'
OWWO: 3/08/83 set CIBP @ 11,725'w/ 35' cmt., found csg. leaks 5,397'–6,485', cmt. ret. 5,203', sqz. 1,000 sx., DO to 11,678', perf. 11,142'–222' (Mississipian)
OWWO: 10/90 DO cmt.& CIBP @ 11,725', ran 3–1/2" tbg. w/ pkr. @ 11,034' for SWD into Miss/Dev perfs, 11,142'–11,800', Dev. began flowing oil, which is still the case now.

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	334	500
12–1/4	9–5/8	4,674	625
8–3/4	7	11,855	935

12. **Pan American Petroleum Corp. #7 Wingerd** Oil
Unit H, 1980' FNL & 990' FEL, S24, T12S, R37E
Compl. 7/24/53 TD – 9,820'
Perf. 9,580–94' (Wolfcamp)
OWWO: 10/14/63 Spot 25 sx. across perfs 9,580'–94', cmt. ret. @ 5,548', perf. 5,220'–30' & 5,528'–38", CIBP @ 5,250', sqz. 5,220'–30', w/ 100 sx., cmt. ret. @ 5,195', perf. 5,104'–12', sqz. w/ 72 sx., DO to 5,195' PBD, perf. 5,170'–5,104' (San Andres)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
18	13–3/8	323	360
12–1/4	9–5/8	4,490	690
7–7/8	5–1/2	9,820	300

P & A 1/11/68 Schematic Attached

13. **McAlester Fuel Co. #1 Brownfield "B"** Oil
Unit G, 1650' FNL & 1650' FEL, S24, T12S, R37E
Compl. 5/23/52 TD – 11,985'
Perf. 11,815'–11,845' (Devonian)
OWWO: 9/21/69 PF 11,882'–902', BP @ 11,804', PF 11,758'–792', BP @ 10,450', PF 10,350'–405', CIBP 10,330', perf. 10,282'–298' (Penn.)
OWWO: 1/20/70 CIBP 10,000', perf. 9,310'–9,584', TA'd w/ 18' cmt. on pkr. @ 9,270'

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
18–1/2	13–3/8	364	400
12–1/4	9–5/8	4,473	1,968
8–3/4	5–1/2	11,980	1,235

P & A 7/26/71 Schematic Attached

14. **McAlester Fuel Co. #2 Brownfield "B"** P&A
Unit G, 1750' FNL & 1650' FEL, S24, T12S, R37E
Compl. 7/31/52 TD – 10,350'
Perf. 9,572'–93' (Wolfcamp)
OWWO: 4/05/60 Sqz. perfs. 9,572'–93', DO to 10,323', perf. 10,265–10,310', no show, CIBP @ 9,510', perf. 9,457'–79', test SSO, pkr. @ 9,445' w/ 50 sx. cmt., PBTD 8,890'

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	367	400
12–1/4	9–5/8	4,474	1,657
8–3/4	5–1/2	10,345	674

P & A 4/01/63 Schematic Attached

15. **Barbara Fasken #6 Wingerd** Oil
Unit I, 660' FNL & 1980' FSL, S24, T12S, R37E
Compl. 7/13/53 TD – 12,035'
Perf. 11,900'–940' (Devonian)
OWWO: 12/02/58 Set cmt. ret. @ 11,880' sqz. 11,900'–940', perf. 11,835'–860' (Devonian)
OWWO: 4/03/63 PB to 11,850', sqz. 11,835'–60' w/ 100 sx., perf. 11,830'–840' (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.	
17–1/2	13–3/8	321	255	
12–1/4	9–5/8	4,500	690	DV @ 2,280 w/
8–3/4	7	12,034	630	150 sx.

16. **Pan American Petroleum Corp. #9 Wingerd** Oil
Unit I, 2210' FSL & 890' FEL, S24, T12S, R37E
Compl. 11/4/53 TD – 9,820'
Perf. 9,589'–9,603' (Wolfcamp)
OWWO: 8/16/55 Cmt. ret. @ 9,585', perf 9,386'–9,568' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	300	325
12–1/4	9–5/8	4,499	690
8–3/4	7	9,819	300

P & A 12/29/67 Schematic Attached

17. **Barbara Fasken #10 Wingerd** Oil
Unit J, 2310' FSL & 1650' FEL, S24, T12S, R37E
Compl. 4/17/54 TD – 12,016' PB – 11,968'
Perf. 11,641'–11,872' (Devonian)
OWWO: 2/03/58 Add perfs. 11,904'–53'
OWWO: 6/24/60 Cmt. ret. @ 11,890', att. sqz. 11,904'–53' communicated w/ hole
OWWO: 5/01/73 Cmt. ret. @ 11,792', sqz. below w/ 50 sx., left 62' cmt. on ret., PBTD – 11,730' (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.	
17–1/2	13–3/8	315	325	
12–1/4	9–5/8	4,493	540	DV @ 2,275 w/
7–7/8	5–1/2	12,015	640	150 sx.

18. **Pan American Petroleum Corp. #11 Wingerd** Oil
Unit J, 2110' FSL & 1650' FEL, S24, T12S, R37E
Compl. 5/23/54 TD – 9,823' PBD – 9,785'
Perf. 9,575'–9,692' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	316	325
12–1/4	9–5/8	4,529	690
8–3/4	7	9,823	300

P & A 1/10/68 Schematic Attached

19. **Barbara Fasken #13 Wingerd** Oil
Unit P, 990' FSL & 660' FEL, S24, T12S, R37E
Compl. 10/24/56 TD – 12,945' PBTD – 11,975'
Attempt Ellenburger Compl. Perf. 12,721'–736', cmt. ret. 12,529' w/ 100 sx., perf. 12,450'–70', cmt. ret. 12,210' w/ 150 sx., perf. 12,318'–32', cmt. ret. 12,240' w/ 100 sx., perf. 12,200'–18', cmt. ret. 12,148' w/ 100 sx., perf. 12,006'–20', CIBP @ 11,990' w/ 2 sx. cmt.
Perf. 11,862'–898' (Devonian)
OWWO: 4/26/84 CIBP @ 11,791', perf. (Miss) 11,192'–232', tstd. water
OWWO: 6/07/84 Sqz. 11,192'–232' w/ 250 sx. (165 in fm.), DO cmt. & CIBP @ 11,791', return well to Devonian production.

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	318	380
12–1/4	9–5/8	4,600	1,500
8–3/4	5–1/2	12,945	1,000

20. **Amoco Production Corp. #8 Wingerd** Oil & SWD
Unit P, 660' FSL & FEL, S24, T12S, R37E
Compl. 9/20/53 TD – 9,820'
Perf. 9,610'–36' (Wolfcamp)
OWWO: 10/61 Converted well to SWD thru perfs. 9,610'–36' by Commission Order R–2019 on 7/13/61

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	323	225
12–1/4	9–5/8	4,495	690
8–3/4	7	9,818	300

P & A 6/14/71 Schematic Attached

21. **Fina Oil and Chemical Co. #12 Wingerd** Oil
Unit O, 990' FSL & 1650' FEL, S24, T12S, R37E
Compl. 9/01/55 TD – 11,987'
Perf. 11,865'–11,900' (Devonian)
OWWO: 3/16/91 CIBP 10,710', perf. 10,662–702' (Cisco) swab wtr., perf. 9,517'–9,820' (Wolfcamp), set cmt. ret. @ 10,630', attempt sqz. w/ 100sx., tbg. stuck, left fish in hole, TOF 10,189', TA'd well.

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.	
17–1/2	13–3/8	300	325	
12–1/4	8–5/8	4,500	690	DV @ 2,312 w/
7–7/8	5–1/2	11,986	600	100 sx.

P & A 5/04/93 Schematic Attached

22. **Sinclair Oil & Gas #1 H.R. Fields** Oil
Unit A, 330' FNL & FEL, S25, T12S, R37E
Compl. 6/19/53 TD – 9,654' PB – 9,624'
Perf. 9,512'–47' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
15–1/2	10–3/4	663	300
9	7–5/8	4,507	1,200
6–3/4	5–1/2	9,654	300

P & A 2/24/67 Schematic Attached

23. **Jake L. Hamon #1 H.R. Fields** Oil
Unit A, 330' FNL & 467' FEL, S25, T12S, R37E
Compl. 6/22/57 TD – 11,953'
Perf. 11,940'–950' (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	383	400
12–1/4	9–5/8	4,516	1,970
8–3/4	5–1/2	11,953	200

P & A 3/29/66 Schematic Attached

24. **Amini Oil Corp. #1 State E – 476 "A"** Oil
Unit D, 330' FNL & 380' FWL, S30, T12S, R38E
Compl. 11/11/53 TD – 9,660' PB – 9,616'
Perf. 9,558'–9,603' (Wolfcamp)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	359	400
12–1/2	9–5/8	4,506	1,600
7–7/8	5–1/2	9,658	1,435

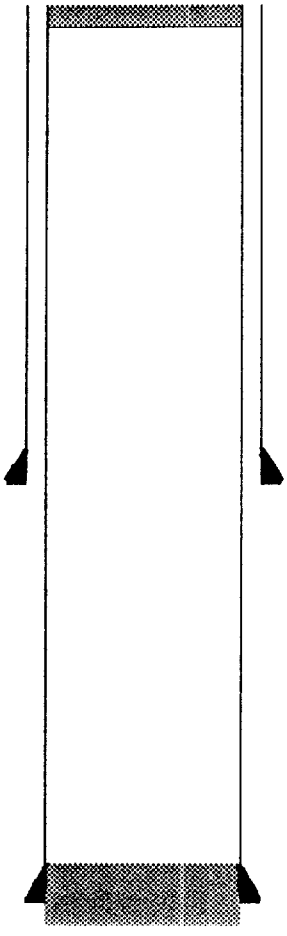
P & A 12/05/69 Schematic Attached

25. **Amini Oil Corp. #2 State E – 476 "A"** Oil
Unit D, 330' FNL & 486' FWL, S30, T12S, R38E
Compl. 10/05/57 TD – 11,990'
Open Hole 11,969' – TD (Devonian)

Hole Size, in.	CSG. Size, in.	CSG. Depth, ft.	CMT. SX.
17–1/2	13–3/8	364	350
12–1/4	9–5/8	4,524	1,559
8–3/4	5–1/2	11,969	680

P & A 12/03/69 Schematic Attached

OPERATOR		DATE P&A	
Gulf Oil Corp.		June 30, 1961	
LEASE	WELL NO.		LOCATION
Lea "AV" State	3		Unit D, Sec. 19, T12S, R38E



SPOT CMT PLUG @ 50'–SURFACE

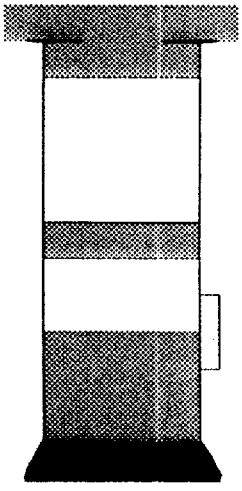
13–3/8" CSG AT 369' WITH 450 SX

SPOT CMT PLUG 4450'–4550'

9–5/8" CSG AT 4519' WITH 3280 SX

SPOT CMT PLUG 5850'–5950'

SPOT CMT PLUG 6120'–6220'



CUT 7" AND PULLED 6179'

CSG LEAK 6771'–6803' SQZD W/ 130 SX & TOC 6310'

SPOT CMT 9250'–9350'

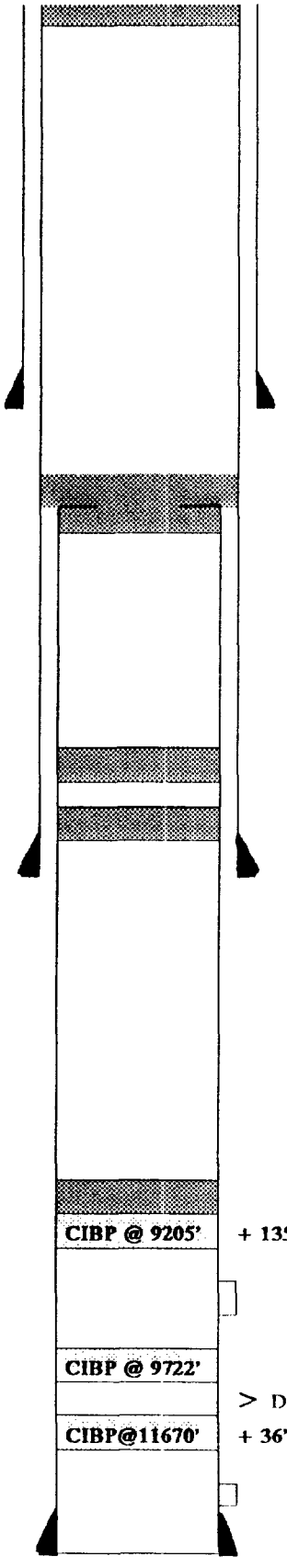
PF 9385'–9590' (WO)

7" CSG AT 9609' WITH 275 SX

PBD – 9506'

TD – 9610'

OPERATOR		DATE P&A	
Gulf Oil Corp.		April 18, 1977	
LEASE	WELL NO.		LOCATION
Lea "AV" State	5		Unit C, Sec. 19, T12S, R38E



SPOT 20 SX @ 61' – SURFACE

13–3/8" CSG AT 265' WITH 450 SX

CUT 5–1/2" AND PULLED 2486'
SPOT 75 SX ACROSS 5–1/2" STUB TO 2300'

SPOT 12 SX (109') ACROSS 5–1/2" CSG CUT @ 4295'

SPOT 12 SX (109') ACROSS 5–1/2" CSG CUT @ 4489'

8–5/8" CSG AT 4550' WITH 1840 SX

PF 9396'–9598' (WO)

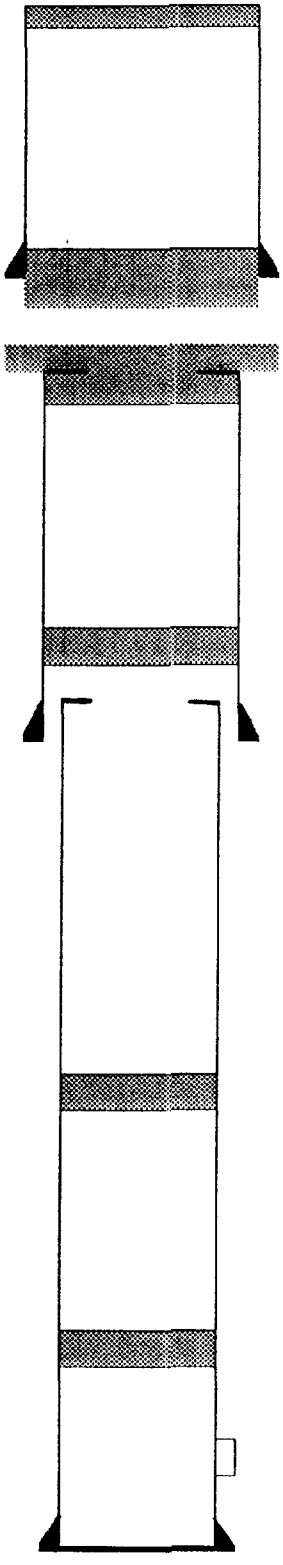
PF 11,902'–11,952' (DEV)

5–1/2" CSG AT 11954' WITH 1710 SX

TD – 11,954'

FILE0009.WK3

OPERATOR		DATE P&A	
Amoco Production		September 13, 1971	
LEASE	WELL NO.		LOCATION
State "B"	1–19		Unit K, Sec. 19, T12S, R38E



SPOT 10 SX @ SURFACE

SPOT 50 SX 295'–344'

13–3/8" CSG AT 342' WITH 350 SX

CUT 8–5/8" AND PULLED 980'
SPOT 50 SX 920'–1010'

8–5/8" CSG AT 4645' WITH 650 SX

CUT 5–1/2" AND PULLED 4582'
SPOT 50 SX 4450'–4530'

SPOT 30 SX 8050'–8300'

SPOT 50 SX 11500'–11598'

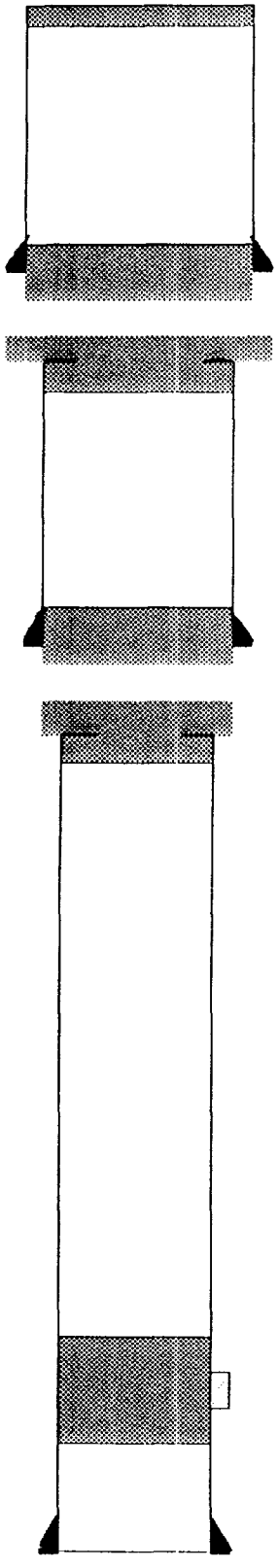
PF 11958'–11968' (DEV)

5–1/2" CSG AT 11,980' WITH 1200 SX

TD – 11980'

FILE0006.WK3

OPERATOR		DATE P&A
Pan American Petroleum Corp.		December 1, 1967
LEASE	WELL NO.	LOCATION
Houston "A"	2	Unit L, Sec. 19, T12S, R38E



SPOT 10 SX @ SURFACE

SPOT 25 SX IN & OUT OF 13–3/8" CSG

13–3/8" CSG AT 316' WITH 325 SX

CUT 9–5/8" AND PULLED 1220'
SPOT 25 SX IN & OUT OF 9–5/8" STUB

SPOT 20 SX IN & OUT OF 9–5/8" @ 4500'

9–5/8" CSG AT 4500' WITH 600 SX

CUT 5–1/2" AND PULLED 5020'
SPOT 25 SX IN & OUT OF 5–1/2" STUB

SPOT 15 SX 9460'–9550'

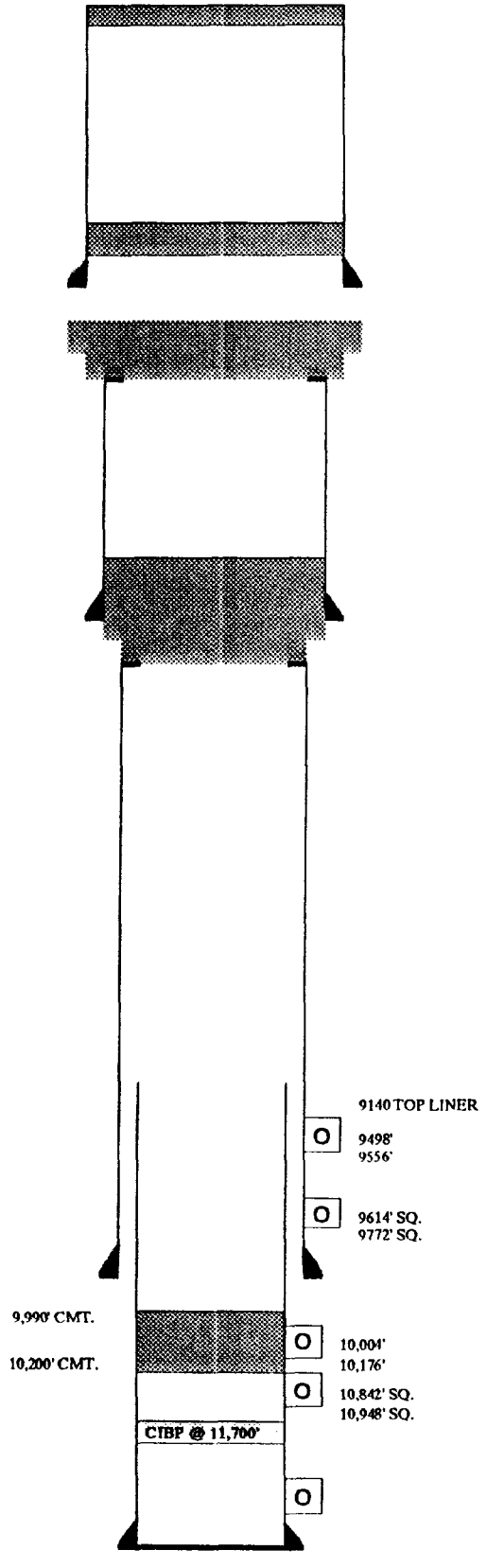
PF 9470'–9536' (WO)

5–1/2" CSG AT 9816' WITH 185 SX

TD – 9816'

FILE0007.WK3

OPERATOR		DATE P&A	
Pan American Petroleum Corp.		August 15, 1969	
LEASE	WELL NO.		LOCATION
Houston "B"	1		Unit M, Sec. 19, T12S, R38E



SPOT 10 SX. @ SURFACE

SPOT 50 SX. 290'–250'

13–3/8" CSG @ 314' WITH 225 SX.

CUT 9–9/8" AND PULL @ 710'
SPOT 25 SX. 710'–560'

9–5/8" CSG @ 4,472' WITH 590 SX.

CUT 7" AND PULL @ 4,478'
SPOT 75 SX. 4,450'–4,200'

ORIGINAL COMPLETION:
TD 9,820' PBTD 9,575'
PF 9614'–30' & 9762'–72', SQZ. W/ CMT. RET. @ 9,575'
PF 9,498'–9,556' (WO)

SPOT 50 SX. 10,200'–9,990'

OLD WELL DRILLED DEEPER (1/29/57):
DRILLED NEW HOLE 9,820'–11,971'
SET 5" LINER 9,140'–11,971' W/ 200 SX. & PF (DEV) 11,908'–953'
OWWO: (8/1/69): PF 10,842'–948', TEST WATER. SQZ W/ 100 SX.,
PF (PENN) 10,004'–176', NO SHOW (WATER)

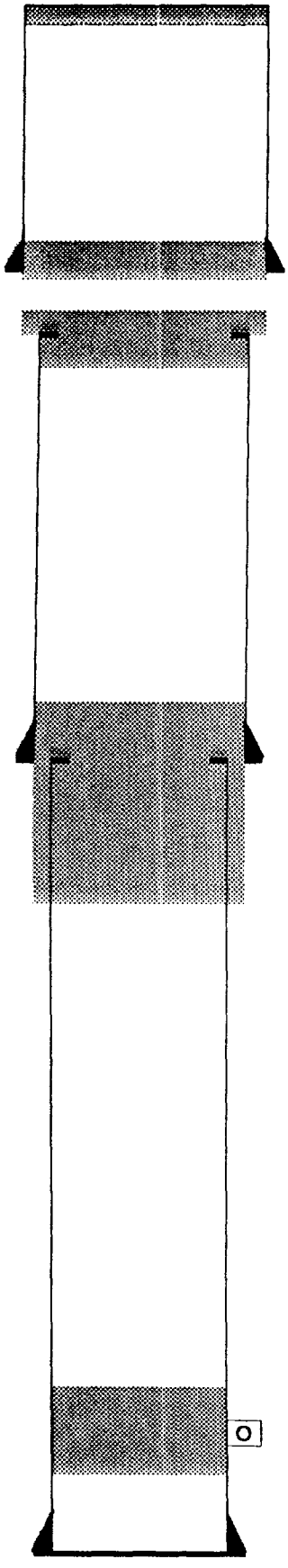
7" CSG @ 9,818'WITH 300 SX.

PF 11,908'–11,953' (DEV)
5" LINER @ TD WITH 200 SX.

TOTAL DEPTH 11,971'

PANANB.WK3

OPERATOR		DATE P&A
Pan American Petroleum Corp.		January 26, 1968
LEASE	WELL NO.	LOCATION
Wingerd	3	Unit A, Sec. 24, T12S, R37E



SPOT 10 SX. PLUG @ SURFACE

13–3/8" CSG @ 334' WITH 500 SX.

SPOT 25 SX. IN & OUT OF 13–3/8" @ 334'

CUT 9–5/8" AND PULLED 900'
SPOT 25 SX. IN & OUT OF 9–5/8" STUB

9–5/8" CSG @ 4,500' WITH 600 SX.

CUT 7" AND PULLED 4,500'
SPOT 25 SX. IN & OUT OF 7" STUB

SPOT 30 SX. 9,700'–9,600'

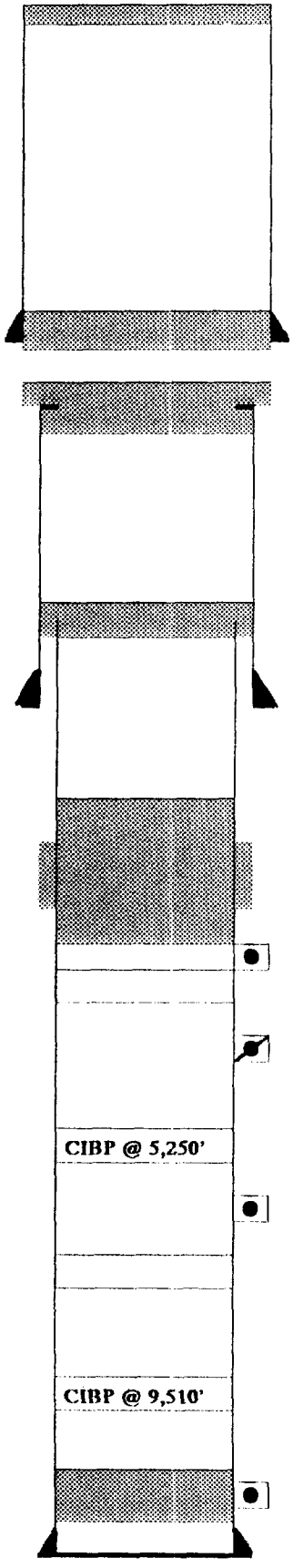
PF 9,607'–9,618' (WO)

7" CSG @ 9,818' WITH 300 SX.

TOTAL DEPTH 9,820'

PANAMW.WK3

OPERATOR		DATE P&A
Pan American Petroleum Corp.		January 11, 1968
LEASE	**WELL NO.**	**LOCATION**
Wingerd	7	Unit H, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

SPOT 25 SX. IN & OUT OF 13–3/8"

13–3/8" CSG @ 323' WITH 360 SX.

CUT 9–5/8" AND PULLED 924'
SPOT 25 SX. IN & OUT OF STUB

CUT 5–1/2" AND PULED 4,424'
SPOT 25 SX. IN & OUT OF STUB

9–5/8" CSG @ 4,490' WITH 690 SX.

SPOT 20 SX. 5,175'–5,100'

PF 5,104'–12' BLOCK SQZ. CSG. W/ 72 SX. BEHIND 5–1/2" CSG.

PF 5,170'–5,104' (SA)
CMT. RET. @ 5,195' (PBD)

PF 5,220'–5,230', SQZD. W/ 100 SX.

PF 5,528'–5,538 (SA)

CMT. RET. @ 5,548'

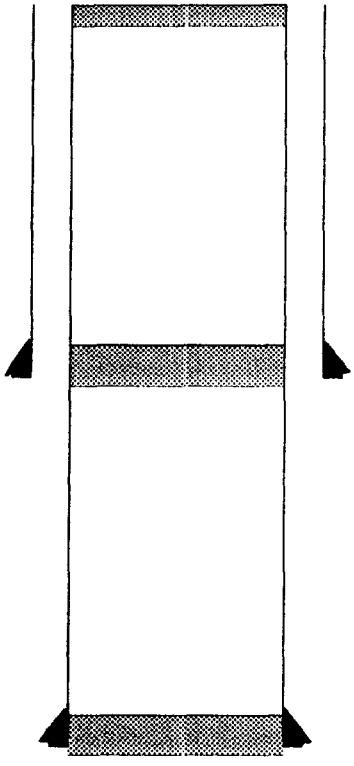
SPOT 25 SX. CMT. ACROSS PERFS. 9,580'–94'

PF 9,580'–9,594' (WO)

5–1/2" CSG. @ 9,820' WITH 300 SX.
TOTAL DEPTH 9,820'

PANAM7.WK3

OPERATOR		DATE P&A
McAlester Fuel Co.		July 26, 1971
LEASE	WELL NO.	LOCATION
Brownfield "B"	1	Unit G, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

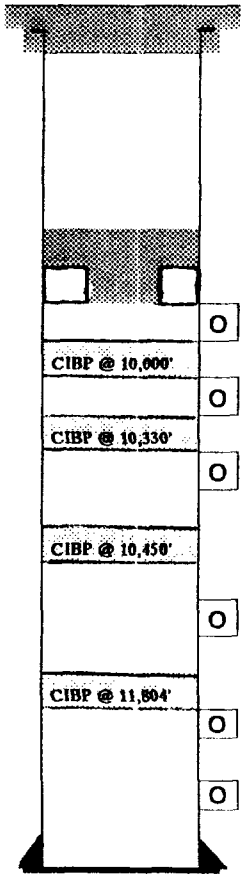
SPOT 25 SX. @ 365'

13–3/8" CSG @ 364' WITH 400 SX.

SPOT 35 SX. 4,473'

9–5/8" CSG @ 4,473' WITH 1,968 SX.

CUT 5–1/2" AND PULLED 5,155'
SPOT 25 SX. 5,155'



PACKER @ 9,270' W/ 18' CMT. ON TOP

PF 9,310'–9,584' (WO)

PF 10,282'–10,298' (PENN)

PF 10,350'–405' (PENN)

PF 11,758'–792' (DEV)

PF 11,815'–845' (DEV)

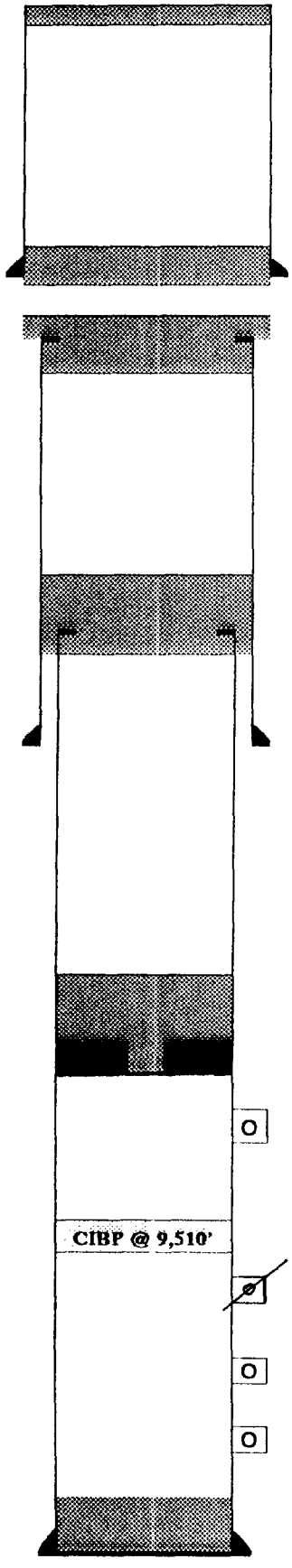
PF 11,882'–902' (DEV)

5–1/2" CSG. @ 11,980' WITH 1,235 SX.

TOTAL DEPTH 11,985'

MCALE1.WK3

OPERATOR		DATE P&A	
McAlester Fuel Co.		April 1, 1963	
LEASE	WELL NO.		LOCATION
Brownfield "B"	2		Unit G, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

SPOT 25 SX. @ 370'–338'

13–3/8" CSG. @ 367' WITH 400 SX.

CUT 9–5/8" AND PULLED 684'
SPOT 25 SX. @ 700'–660'

CUT 5–1/2" AND PULLED 4,026'
SPOT 25 SX. @ 4,050'–3,968'

9–5/8" CSG. @ 4,474' WITH 1,657 SX.

PACKER @ 9,445' W/ 50 SX. CMT. ON TOP, PBTD 8,890'

PF 9,457'–9,479' (WO)

PF 9,572'–9,593', SQZD. W/ 150 SX. & PBD–10,323'

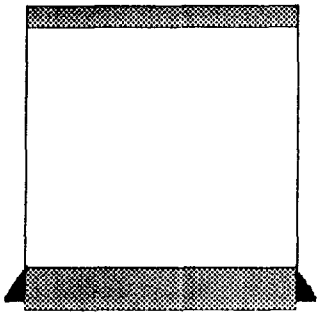
PF 10,295'–10,310' & 10,265'–280' (DEV)

5–1/2" CSG. @ 10,345' WITH 674 SX.

TOTAL DEPTH 10,350'

McALE2.WK3

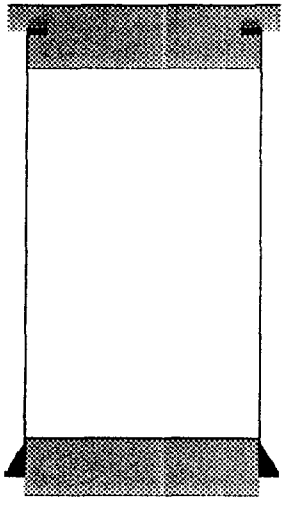
OPERATOR		DATE P&A
Pan American Petroleum Corp.		December 29, 1967
LEASE	WELL NO.	LOCATION
Wingerd	9	Unit I, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

SPOT 25 SX. IN & OUT OF 13–3/8" @ 300'

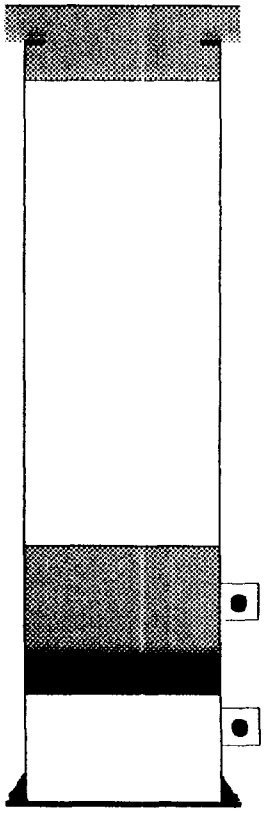
13–3/8" CSG. @ 300' WITH 325 SX.



CUT 9–5/8" AND PULLED 1,000'
SPOT 25 SX. IN & OUT OF 9–5/8" STUB

SPOT 25 SX. IN & OUT OF 9–5/8" @ 4,499'

9–5/8" CSG. @ 4,499' WITH 690 SX.



CUT 7" & PULLED 5,450'
SPOT 25 SX. IN & OUT OF 7" STUB

SPOT 50 SX. 9,585'–9,300'

PF 9,386'–9,568' (WO)

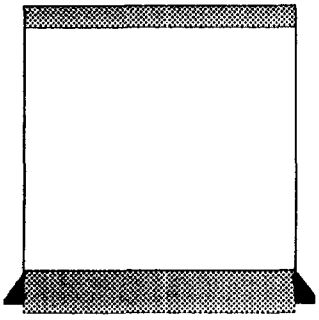
CMT. RET. @ 9,585'

PF 9,589'–9,603' (WO)
7" CSG. @ 9,819' WITH 300 SX.

TOTAL DEPTH 9,820'

PANAM9.WK3

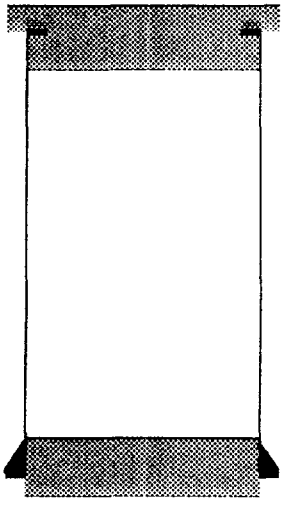
OPERATOR		DATE P&A
Pan American Petroleum Corp.		January 10, 1968
LEASE	WELL NO.	LOCATION
Wingerd	11	Unit J, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

SPOT 25 SX. IN & OUT OF 13–3/8"

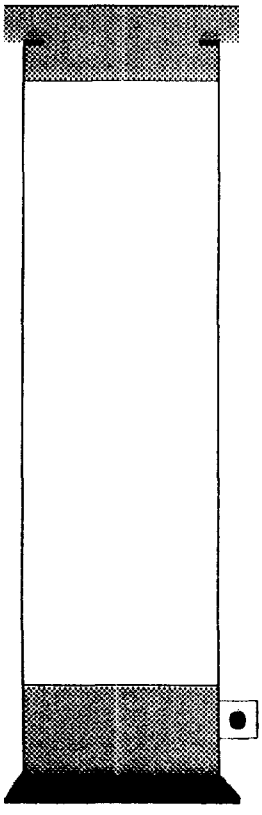
13–3/8" CSG. @ 316' WITH 325 SX.



CUT 9–5/8" AND PULLED 700'
SPOT 25 SX. IN & OUT OF 9–5/8" STUB

SPOT 20 SX. IN & OUT OF 9–5/8" @ 4,529'

9–5/8" CSG. @ 4,529' WITH 690 SX.



CUT 7" & PULLED 4,700'
SPOT 25 SX. IN & OUT OF 7" STUB

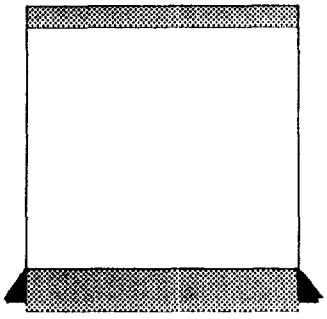
SPOT 40 SX. 9,785'–9,550'

PF 9,575'–9,692' (WO)
7" CSG. @ 9,823' WITH 300 SX.

TOTAL DEPTH 9,823' PB–9,785'

PANAM11.WK3

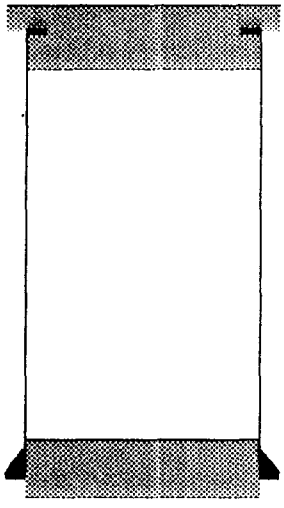
OPERATOR		DATE P&A	
Amoco Production Corp.		June 14, 1971	
LEASE	WELL NO.		LOCATION
Wingerd	8		Unit P, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

SPOT 50 SX. IN & OUT OF 13–3/8" @ 323'

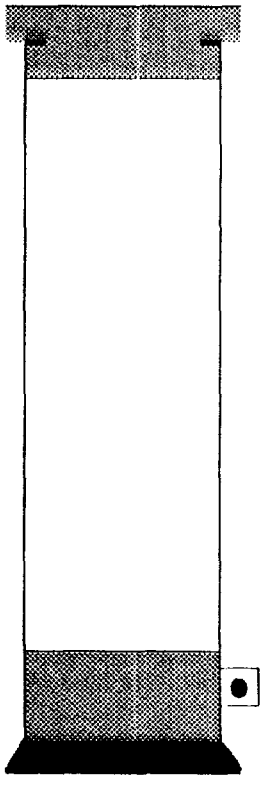
13–3/8" CSG. @ 323' WITH 225 SX.



CUT 9–5/8" AND PULLED 985'
SPOT 25 SX. IN & OUT OF 9–5/8" STUB

SPOT 25 SX. IN & OUT OF 9–5/8" @ 4,495'

9–5/8" CSG. @ 4,495' WITH 690 SX.



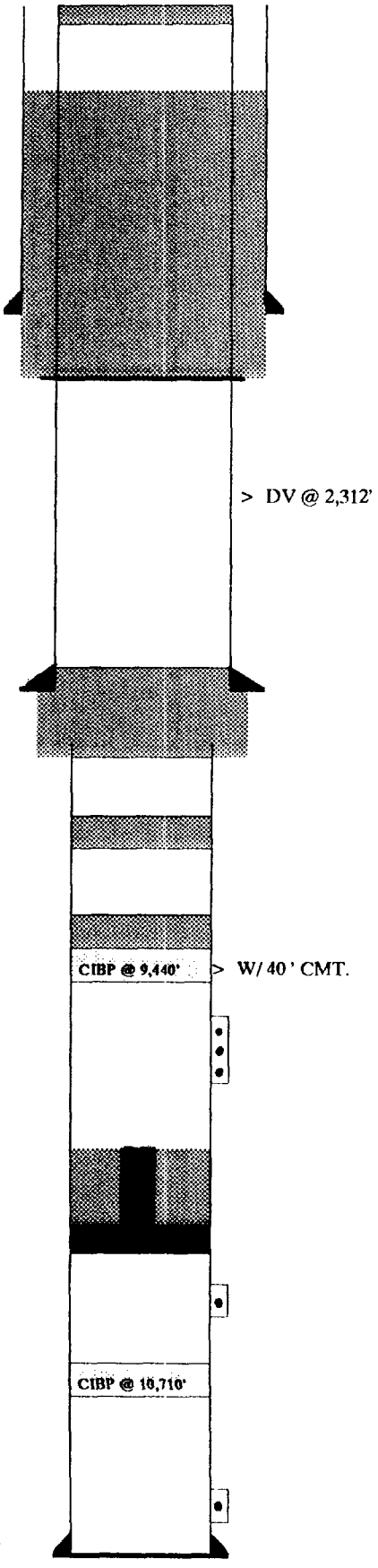
CUT 7" & PULLED 5,008'
SPOT 25 SX. IN & OUT OF 7" STUB

SPOT 75 SX. 9,770'–9,400' (CALC.)

PF 9,610'–9,636' (WO)
PBTD 9,770'
7" CSG. @ 9,818' WITH 300 SX.

TOTAL DEPTH 9,820'

OPERATOR		DATE P&A
Fina Oil & Chemical Co.		May 5, 1993
LEASE	**WELL NO.**	**LOCATION**
Wingerd	12	Unit O, Sec. 24, T12S, R37E



SPOT 10 SX. @ SURFACE

13–3/8" CSG. @ 300' WITH 325 SX.

SPOT 90 SX. IN & OUT (50'–360') OF 13–3/8" THRU CSG. CUT

8–5/8" CSG. @ 4,500' WITH 690 SX.

CUT 5–1/2" AND PULLED 4,860'
SPOT 220 SX. @ 4,909' ACROSS 5–1/2" AND INTO 8–5/8" CSG.

SPOT 25 SX. @ 6,909'

PF 9,517'–9,820' (WO)

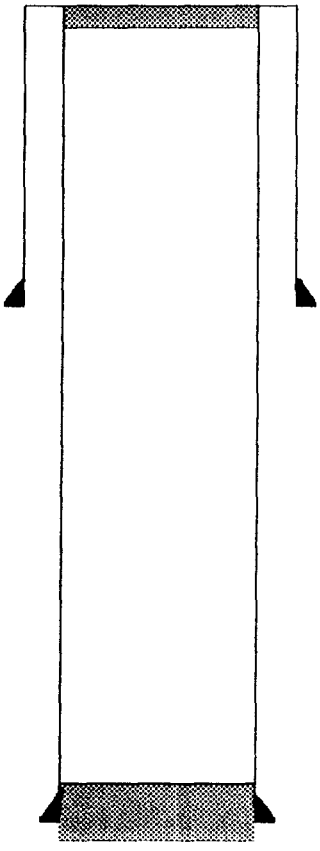
CMT. RET. @ 10,630 W/ 441' 2–7/8" TBG. CMTD. IN, TOF 10,189'

PF 10,662'–10,702' (CISCO)

PF 11,865'–11,900' (DEV)
5–1/2" CSG. @ 11,986' WITH 600 SX.
TOTAL DEPTH 11,987'

FINA12.WK3

OPERATOR		DATE P&A	
Sinclair Oil & Gas Co.		February 24, 1967	
LEASE	WELL NO.		LOCATION
H.R. Fields	1		Unit A, Sec. 25, T12S, R37E

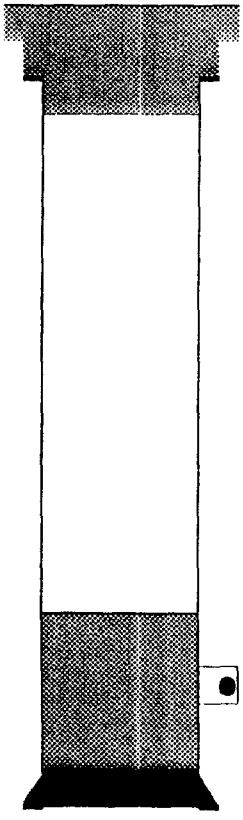


SPOT 10 SX. @ SURFACE

10–3/4" CSG. @ 663' WITH 300 SX.

SPOT 25 SX. CMT. 4,457'–4,567'

7–5/8" CSG. @ 4,507' WITH 1,200 SX.



CUT & PULLED 5–1/2" @ 4,800 '
(FILLED HOLE WITH HEAVY MUD)
SPOT 25 SX. CMT. 4,714'–4,820' (ACROSS STUB)

SPOT 25 SX. CMT. 9,400'–9,624' (ACROSS PERFS.)

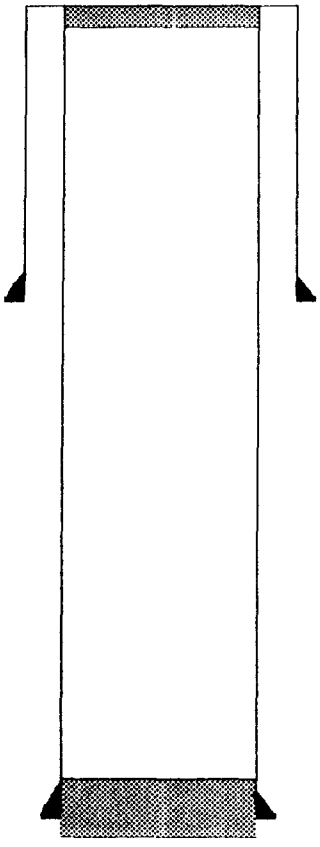
PF 9,512'–47' (WO)

5–1/2" CSG. @ 9,654' WITH 300 SX.

TOTAL DEPTH 9,654' PB–9,624'

SINCL1.WK3

OPERATOR		DATE P&A	
Jake L. Hamon		March 29, 1966	
LEASE	WELL NO.		LOCATION
H.R. Fields	1		Unit A, Sec. 25, T12S, R37E

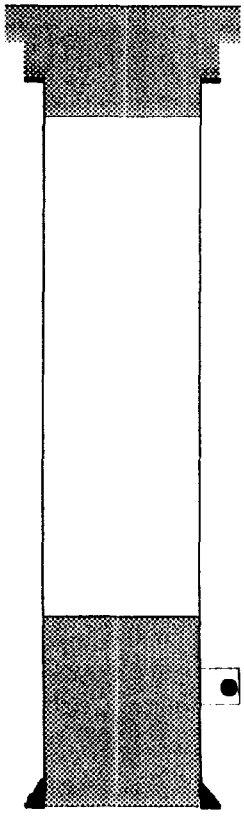


SPOT 10 SX. @ SURFACE

13–3/8" CSG. @ 383' WITH 400 SX.

SPOT 30 SX. CMT. 4,466'–4,566'

9–5/8" CSG. @ 4,516' WITH 1,970 SX.



SHOT & PULLED 5029.54' OF 5–1/2" CSG.
SPOT 25 SX. CMT. 4,950'–5,050'

SPOT 25 SX. CMT. 11,733'–953'

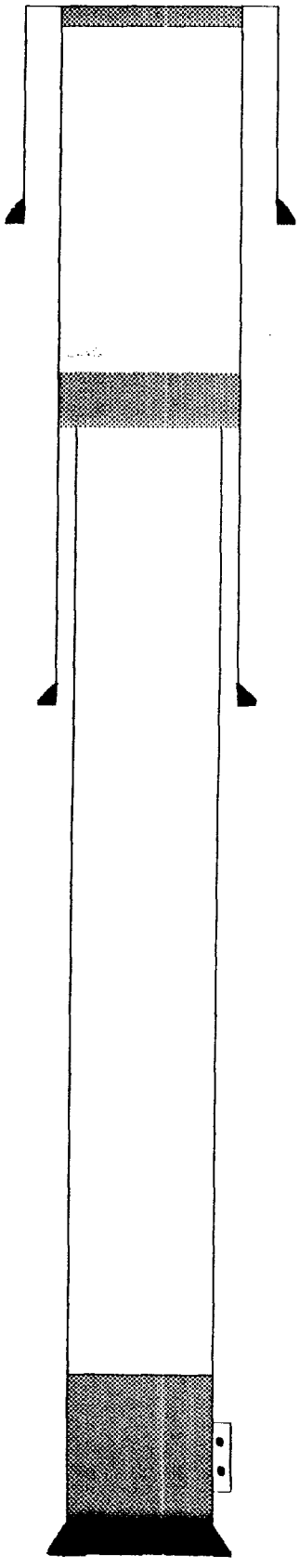
PF 11,940'–950' (DEV)

5–1/2" CSG. @ 11,953' WITH 200 SX.

TOTAL DEPTH 11,953'

JAKE1.WK3

OPERATOR		DATE P&A
Amini Oil Corp.		December 5, 1969
LEASE	**WELL NO.**	**LOCATION**
State E – 476 "A"	1	Unit D, Sec. 30, T12S, R38E



SPOT 10 SX. @ SURFACE

13–3/8" CSG. @ 359' WITH 400 SX.

SHOT & PULLED 5–1/2" @ 2,758' & SPOT 25 SX. CMT.

9–5/8" CSG. @ 4,506' WITH 1,600 SX.

SPOT 30 SX. CMT. 9,550'
(FILLED CSG. W/ MUD)

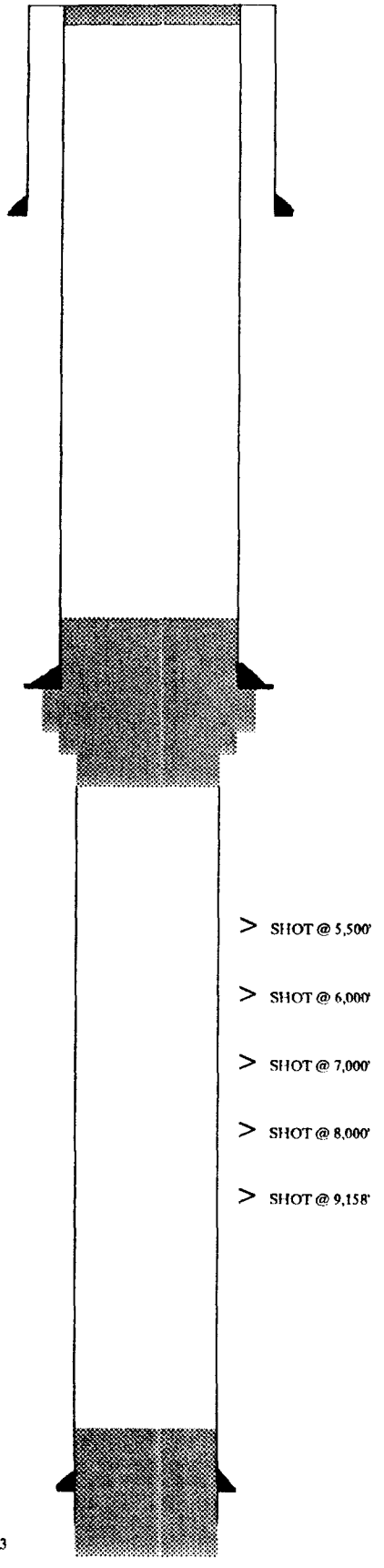
PF 9,558'–9,603' (WO)

5–1/2" CSG. @ 9,658' WITH 1,435 SX.

TOTAL DEPTH 9,660' PB–9,616'

AMINI1.WK3

OPERATOR		DATE P&A	
Amini Oil Corp.		December 3, 1969	
LEASE	WELL NO.		LOCATION
State E – 476 "A"	2		Unit D, Sec. 30, T12S, R38E



SPOT 10 SX. @ SURFACE

13–3/8" CSG. @ 364' WITH 350 SX.

9–5/8" CSG. @ 4,524' WITH 1,559 SX.

SHOT & PULLED 5–1/2" @ 4,622'
SPOT 50 SX. CMT. @ 4,622' (UP INSIDE 9–5/8")

SPOT 30 SX. CMT. @ 11,900
(FILLED CSG. W/ MUD)

OPEN HOLE: 11,969'–TD (DEV)

5–1/2" CSG. @ 11,969' WITH 680 SX.

TOTAL DEPTH 11,990'

AMINI2.WK3

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. 893130
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 19 BLOCK SURVEY T-12S&R-38E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken @ Houston Ranch House (kitchen faucet). 8-21-93
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020			
pH When Sampled				
pH When Received	7.32			
Bicarbonate as HCO_3	220			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	512			
Calcium as Ca	170			
Magnesium as Mg	21			
Sodium and/or Potassium	91			
Sulfate as SO_4	132			
Chloride as Cl	278			
Iron as Fe	0.05			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	912			
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohm-s/m at 77° F	7.20			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	1.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By, Waylan C. Martin, M.A.

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

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

LABORATORY NO. 893131
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 24 BLOCK SURVEY T-12S&R-37E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Kinsolving fresh water well (windmill). 8-21-93
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0015			
pH When Sampled				
pH When Received	7.32			
Bicarbonate as HCO_3	307			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	100			
Calcium as Ca	27			
Magnesium as Mg	8			
Sodium and/or Potassium	162			
Sulfate as SO_4	103			
Chloride as Cl	67			
Iron as Fe	0.54			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	674			
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohm/m at 77° F	12.42			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Whylan C. Martin, M.A.

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

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

LABORATORY NO. 893128
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 13 BLOCK SURVEY T-12S&R-37E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Skelton Ranch House (garden hose). 8-21-93
NO. 2
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0011			
pH When Sampled				
pH When Received	7.40			
Bicarbonate as HCO_3	244			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	244			
Calcium as Ca	85			
Magnesium as Mg	8			
Sodium and/or Potassium	64			
Sulfate as SO_4	104			
Chloride as Cl	54			
Iron as Fe	0.05			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	559			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	0.0			
Resistivity, ohm/m at 77° F.	15.22			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No 3

By
Waylan C. Martin, M.A.

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

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

LABORATORY NO. 893129
SAMPLE RECEIVED 8-23-93
RESULTS REPORTED 8-24-93

TO: Mr. Carl Brown
303 West Wall Street, Suite 1901
Midland, TX 79701

COMPANY Barbara Fasken LEASE
FIELD OR POOL Gladiola
SECTION 24 BLOCK SURVEY T-12S&R-37E COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Bill Green Fresh water well (garden hose). 8-21-93
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F	1.0024			
pH When Sampled				
pH When Received	6.93			
Bicarbonate as HCO_3	273			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	720			
Calcium as Ca	220			
Magnesium as Mg	41			
Sodium and/or Potassium	263			
Sulfate as SO_4	169			
Chloride as Cl	632			
Iron as Fe	0.90			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,598			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohmsm at 77° F.	3.89			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	0.0			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By
Waylan C. Martin, M.A.

PURVIS OPERATING CO.

One Fasken Center, Suite 960

P. O. Box 11006
Midland, Texas 79702
Phone (915) 682-7346
Fax (915) 683-9584

October 13, 1994

Oil Conservation Division
P.O. Box 2088
Sante Fe, New Mexico 87504-2088

Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241-1980

Re: Purvis Operating Co. Application for Administrative Approval of Authorization to Inject Saltwater, Devonian Formation, Houston "A" No. 1 Well, Unit L, 2310 FSL & 330' FWL, Section 19, T12S, R38E, Gladiola Saltwater Disposal System, Lea Co., N.M.

Gentlemen;

Please be advised that I, Clinton Houston, and Wife, Beverta Houston, as surface owners of land, on which the subject well is located, do hereby consent to the use of the subject well for saltwater disposal purposes as described, including the installation of the necessary surface facilities, pipelines, etc.,.

Let either of us know if there are any questions.

Yours truly,

Clinton Houston

Clinton Houston

Beverta Houston

Beverta Houston

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

October 11 , 19 94

and ending with the issue dated

October 11 , 19 94

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 11 day of

October , 19 94

Marlene Reeves
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
October 11, 1994
NOTICE OF APPLICATION FOR AUTHORIZATION TO INJECT

Purvis Operating Co., P.O. Box 11006, Midland, Texas 79702-8006, Phone (915) 682-7346, (J.H. Purvis) has applied to the New Mexico Oil Conservation Division for a permit to reinject produced water into Houston "A" Lease well #1 located 2310' FSL & 330' FWL, Sec. 19, T12S, R38E, Lea County. This well is in the Gladiola field and the proposed injection interval is 11,875' - 11,960' in the Devonian zone. Expected maximum injection rate is 6000 BWPD on a vacuum. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87504 within 15 days.

P 429 459 568

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

Sent to	CLINTON HOUSTON
Street and No.	P.O. BOX 245
P.O., State and ZIP Code	TATUM, N.M. 88267
Postage	$ 1.47
Certified Fee	2.00
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	$3.67
Postmark or Date	10-14-94

SWD WELL APPLICATION

PS Form **3800**, June 1991

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

MR. CLINTON HOUSTON
P.O. BOX 245
TATUM, NEW MEXICO 88267

4a. Article Number
P 429 459 568

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)
Reverta Houston

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

6. Signature (Agent)

PS Form **3811**, December 1991 *U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 429 459 569

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

Sent to	YATES PETROLEUM CORP.
Street and No.	105 SO. 4TH STREET
P.O., State and ZIP Code	ARTESIA, N.M. 88210
Postage	$ 1.67
Certified Fee	2.00
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	$3.67
Postmark or Date	10-14-94

SWD WELL APPLICATION

PS Form **3800**, June 1991

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

YATES PETROLEUM CORP.
105 SO. 4TH STREET
ARTESIA, NEW MEXICO 88210

4a. Article Number
P 429 459 569

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
OCT 17 1994

5. Signature (Addressee)

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

6. Signature (Agent)
Kathryn Person

PS Form **3811**, December 1991 *U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 429 459 570

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

Sent to	WADI PETROLEUM, INC
Street and No.	1440 S. WALTERS ROAD, #400
P.O., State and ZIP Code	HOUSTON, TEXAS 77014
Postage	$1.67
Certified Fee	2.00
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	$3.67
Postmark or Date	10-14-94

SWD WELL APPLICATION

PS Form 3800, June 1991

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

WADI PETROLEUM, INC.
1440 S. WALTERS ROAD, #400
HOUSTON, TEXAS 77014

4a. Article Number
P 429 459 570

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

5. Signature (Addressee)

7. Date of Delivery
10/17/94

6. Signature (Agent)

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

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 *U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

P 429 459 571

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

Sent to	BARBARA FASKEN
Street and No.	303 W. WALL ST. SUITE 1900
P.O., State and ZIP Code	MIDLAND, TEXAS 79701
Postage	$1.67
Certified Fee	2.00
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	$3.67
Postmark or Date	10-14-94

SWD WELL APPLICATION

PS Form 3800, June 1991

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

BARBARA FASKEN
303 W. WALL STREET
SUITE 1900
MIDLAND, TEXAS 79701

4a. Article Number
P 429 459 571

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

5. Signature (Addressee)

7. Date of Delivery
10-17-94

6. Signature (Agent)

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

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 *U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

'94 OCT 31 AM 8 52

BRUCE KING
GOVERNOR

OCTOBER 27, 1994

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

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

RE: Proposed:
MC_____
DHC_____
NSL_____
NSP_____
SWD X
WFX_____
PMX_____

Gentlemen:

I have examined the application for the:

Purvis Operating Company — Houston A #1-L-19-12-38
Operator — Lease & Well No. Unit S-T-R

and my recommendations are as follows:

No Rec - Lots of opposition from Land owners

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed