BEFORE THE OIL CONSERVATION DIVISION
ENERGY AND MINERALS DEPARTMENT
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
CONOCO INC. FOR APPROVAL TO INITIATE
A WATERFLOOD PROJECT, BLINEBRY FORMATION
IN SECTIONS 33 AND 34, T-20S, R-38E AND
SECTIONS 2 AND 3, T-21S, R-37E, LEA COUNTY
NEW MEXICO

A P P L I C A T I O N

Applicant, CONOCO INC., respectfully requests authority to institute a waterflood project in the Blinebry Oil and Gas Pool by injection of water into the Blinebry Formation through nine (9) injection wells located on leases operated by Conoco Inc. and Southland Royalty Company, as described below, and in support thereof will show:

1. Applicant is operator and co-owner of the Warren Unit, the following portion of which will contain the subject secondary recovery project: S/2 NE/4 and SE/4 of Section 33; S/2 NW/4, SW/4 and SW/4 SE/4 of Section 34, T-20S, R-38E, Lea County, New Mexico.

2. Applicant is operator and co-owner of the Hawk B-3 Lease consisting of the N/2 NW/4 and NE/4 of Section 3, T-21S, R-37E, Lea County, New Mexico.

3. Southland Royalty Company is operator of the NW/4 of Section 2, T-21S, R-37E, Lea County, New Mexico.

4. Conoco Inc. and Southland Royalty Company will enter into a leaseline agreement for the conduct of a waterflood project covering the above described lands.

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

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

7. That the granting of this application will not impair the correlative rights of any party.

WHEREFORE, applicant respectfully requests that this application be set for hearing before the Division's duly appointed examiner, and upon hearing, an order be entered authorizing the initiation of the waterflood project as described above.

Respectfully submitted,

CONOCO INC.

By M K Mosley

M. K. Mosley
Division Manager of Production
Hobbs, New Mexico

HAI:rej
12-22-81

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? [ ] yes [x] no

II. Operator: Conoco, Inc.

Address: P. O. Box 460, 726 E. Michigan, Hobbs, New Mexico 88240

Contact party: Mark Mosely, Division Manager Phone: 505 393-4141

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

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

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

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

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or clo ";
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: Hugh Ingram Title Conservation Coordinator

Signature: _____ Date: 12-22-81

* 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. _____

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

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.

ATTACHMENT TO APPLICATION FOR AUTHORIZATION TO INJECT

III. Well Data: Attached as Exhibits Nos. 1-9.

IV. This is not an expansion of an existing project.

V. Attached as Exhibit No. 10.

VI. Attached as Exhibit No. 11.

VII. 1. Average Injection Rate: 400 BWPD per well
Maximum Injection Rate: 800 BWPD per well
Total Volume: 2,000,000 BW per well

2. Open System.

3. Average Surface Injection Pressure: 1000 psi
Maximum Surface Injection Pressure: 1200 psi

4. Source: City of Hobbs - Treated Sewage Effluent.
The following water analyses are attached as Exhibits Nos. 12-16:
Analyses:
   a. Blinebry produced water
   b. Sewage effluent
   c. Sewage effluent plus brine
   d. 50% Blinebry produced water and 50% sewage effluent
   e. 50% Blinebry produced water and 50% sewage effluent plus brine.

Compatibility: Analyses (d) and (e) indicated no compatibility problems with the mixing of injection and produced waters.

VIII. The Blinebry is the middle member of the Yeso Formation in the Leonardian series and Permian System. Five major cycles of deposition occured in the Blinebry resulting in five potentially productive zones, separated by highly resistive beds. Only the upper three zones, contained in a 300-foot gross interval, are productive in the project area from an average of 46 feet of net pay. Net pay in this area is found at a maximum depth of 6100 feet. The porous zones are composed primarily of a fine granular to fine crystalline, tan to brown, silty dolomite with numerous small anhydritic inclusions and shale partings. These zones are characterized by intercrystalline porosity with low permeability.

The Ogallala (Quarternary Aquifer) is the only fresh water aquifer overlying the proposed injection zone. The base of the Ogallala is estimated to be at 200' in this area.

IX. No stimulation program is proposed at this time.

X. Log sections of the nine proposed injection wells showing the Blinebry Formation are attached as Exhibits Nos. 17-25.

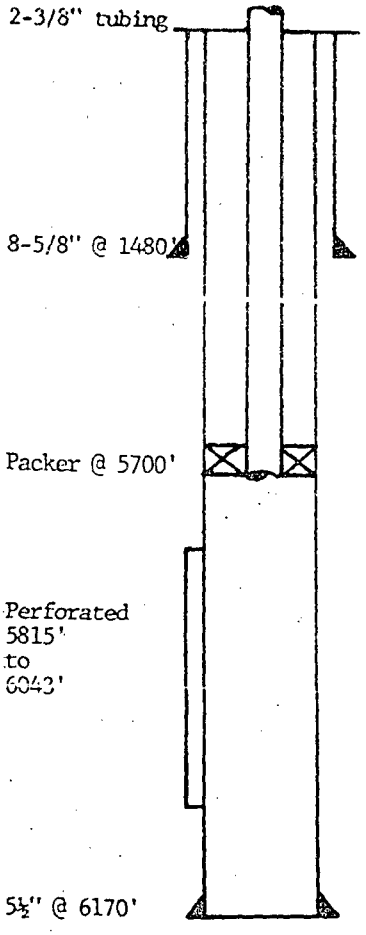
XI. The only producing fresh water well in this area is the Continental Water Sales Fresh Water Well, located in the NW, NE, Section 10, T21S, R37E. A water analysis from this well is attached as Exhibit No. 26.

XII. Not applicable.

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
CONOCO, INC.	WARREN UNIT			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
80	1980' FNL & 1980' FEL	33	20S	38E

Schematic



Tabular Data

Surface Casing

Size 8-5/8" Cemented with 790 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size NONE" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5½" Cemented with 2010 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 7-7/8"

Total depth 6173'

Injection interval

5815 feet to 6043 feet

(perforated or ~~open hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (brand and model) packer at 5700 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of field or Pool (if applicable) BLINEBRY OIL AND GAS POOL

3. Is this a new well drilled for injection? ___ Yes XX No

If no, for what purpose was the well originally drilled? OIL AND GAS PRODUCTION.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) NO

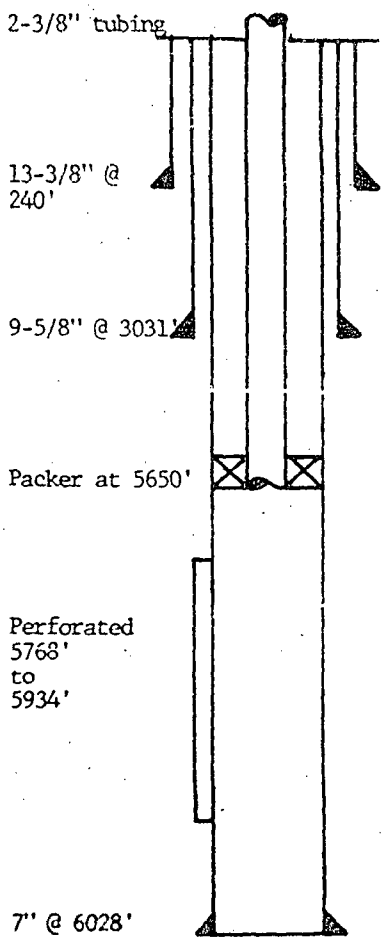
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. NONE

EXHIBIT 1

INJECTION WELL DATA SHEET

OPERATOR		LEASE			
CONOCO, INC.		WARREN UNIT			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE	
20	1980' FNL & 660' FWL	34	20S	38E	

Schematic



Tabular Data

Surface Casing

Size 13-3/8" Cemented with 265 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 17½

Intermediate Casing

Size 9-5/8" Cemented with 1238 sx.

TOC 800 feet determined by TEMP SURVEY

Hole size 12¼

Long string

Size 7" Cemented with 504 sx.

TOC 2400 feet determined by TEMP SURVEY

Hole size 8-3/4

Total depth 6030'

Injection interval

5768 feet to 5934 feet

(perforated or ~~open hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 packer at 5650 feet

(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of field or Pool (if applicable) BLINEBRY OIL & GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

If no, for what purpose was the well originally drilled? OIL AND GAS PRODUCTION

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

NO

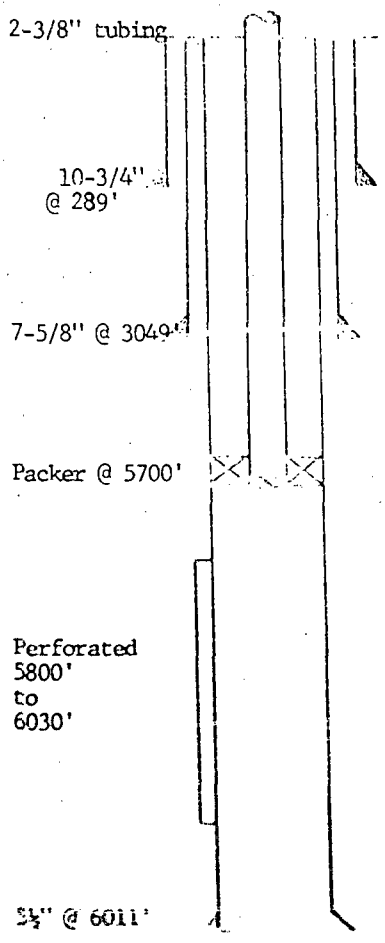
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

NONE

EXHIBIT 2

CONOCO INC.		WARREN UNIT		
Well No.	Footage Location	Section	Township	Range
17	1980' FSL & 660' FEL	33	20S	38E

Schematic



Tabular Data

Surface Casing

Size 10-3/4 " Cemented with 250 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size 7-5/8 " Cemented with 1045 sx.

TOC 800 feet determined by TEMP SURVEY

Hole size 9-7/8

Long string

Size 5½ " Cemented with 730 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 6-3/4

Total depth 6012

Injection interval

5800 feet to 6030' feet

(perforated ~~or open hole~~; indicate which)

NOTE: ON CONVERSION, THIS WELL WILL BE DEEPENED TO A TD OF 6050' AND PERFORATED 5986'-6030'.

Tubing size 2-3/8 lined with PLASTIC

Packer at 5700 feet

BAKER MODEL AD-1

(Brand and type)

(Material and type of any other lining over casing (e.g. cement, plastic, etc.)).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL & GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

NO

5. Give the name and depths of any overlying and/or underlying oil or gas zones (pool) in this area.

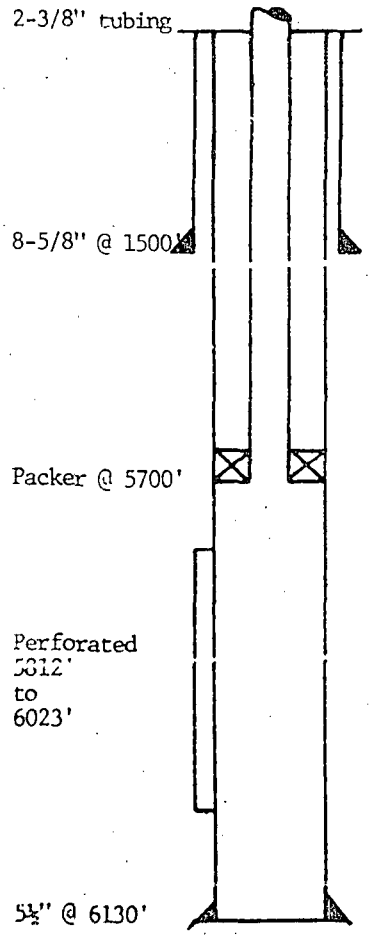
NONE

EXHIBIT 3

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
CONOCO, INC.	WARREN UNIT			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
75	1980' FSL & 1980' FWL	34	20S	38E

Schematic



Tabular Data

Surface Casing

Size 8-5/8" Cemented with 730 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size NONE" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5½" Cemented with 577 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 7-7/8

Total depth 6130'

Injection interval

5812 feet to 6023 feet

(perforated or ~~open hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (brand and model) packer at 5700 feet

(or describe any other casing/tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL & GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

NO

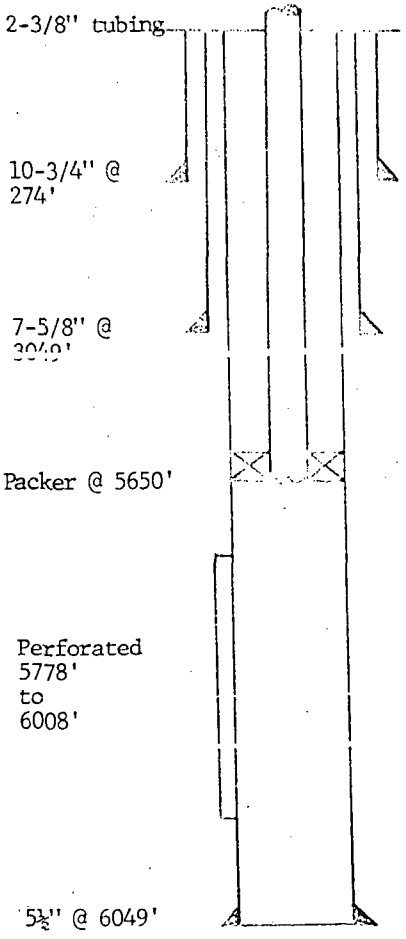
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

NONE

EXHIBIT 4

Operator	Field			
CONOCO INC.	WARREN UNIT			
Well No.	Footage Location	Section	Township	Range
16	660' FSL & 1980' FEL	33	20S	38E

Schematic



Tabular Data

Surface Casing

Size 10-3/4 " Cemented with 250 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size 7-5/8 " Cemented with 1111 sx.

TOC 250 feet determined by TEMP SURVEY

Hole size 9-7/8

Long string

Size 5½ " Cemented with 541 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 6-3/4

Total depth 6050'

Injection interval

5778 feet to 6008 feet

(perforated ~~or open hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (Brand and model) packer at 5650 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL AND GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

NO

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

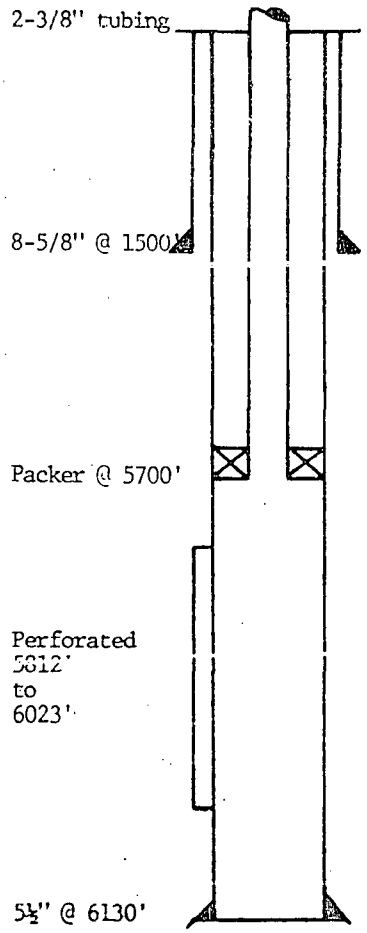
NONE

EXHIBIT 5

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
CONOCO, INC.	WARREN UNIT			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
75	1980' FSL & 1980' FWL	34	20S	38E

Schematic



Tabular Data

Surface Casing

Size 8-5/8" Cemented with 730 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size NONE" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5½" Cemented with 577 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 7-7/8

Total depth 6130'

Injection interval

5812 feet to 6023 feet

(perforated or ~~open-hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (brand and model) packer at 5700 feet

(or describe any other casing/tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL & GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

If no, for what purpose was the well originally drilled? OIL AND GAS PRODUCTION

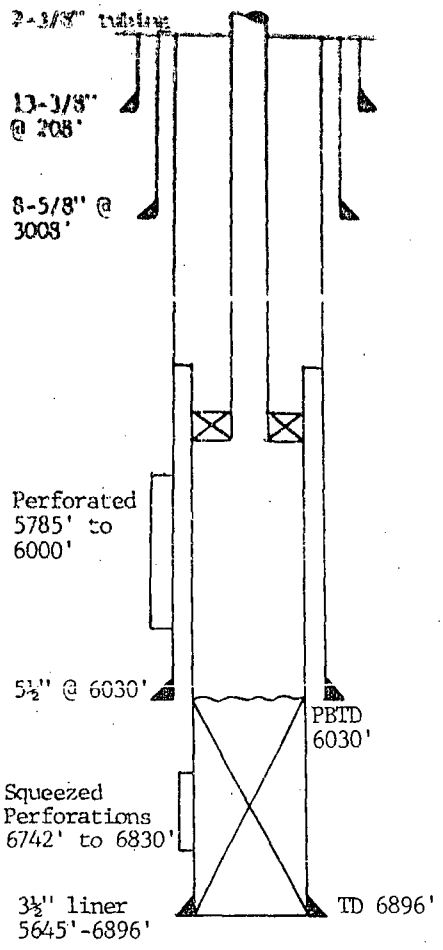
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

NO

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

NONE

EXHIBIT 4



Surface casing

Size 13-3/8" cemented with 340 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 17½"

Intermediate casing

Size 8-5/8" cemented with 1750 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 11"

Long string

Size 5½" Cemented with 250 sx.

TOC 4780 feet determined by TEMP SURVEY

Hole size 7-7/8"

Total depth 6030' (original)

Injection interval

5785 feet to 6000 feet

(perforated ~~or open-hole~~, indicate which)

LINER- HOLE DEEPENED AND LINER SET FOR RECOMPLETION TO DRINKARD.

Size 3½" Cemented with 100 SX.

TOC 5645 feet determined by CIRCULATION.

Hole Size 4-3/4.

Total Depth 6896'.

NOTE: ON CONVERSION, THIS WELL WILL BE PLUGGED BACK TO 6030' AND REPERFORATED FROM 5785'-6000'.

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (brand and model) packer at 5650 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL AND GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

YES, DRINKARD FORMATION: PERFORATED 6742'-6830' & CURRENTLY PRODUCING 1.5 BOPD AND 10 MCFGPD FROM THE DRINKARD (7-81)

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

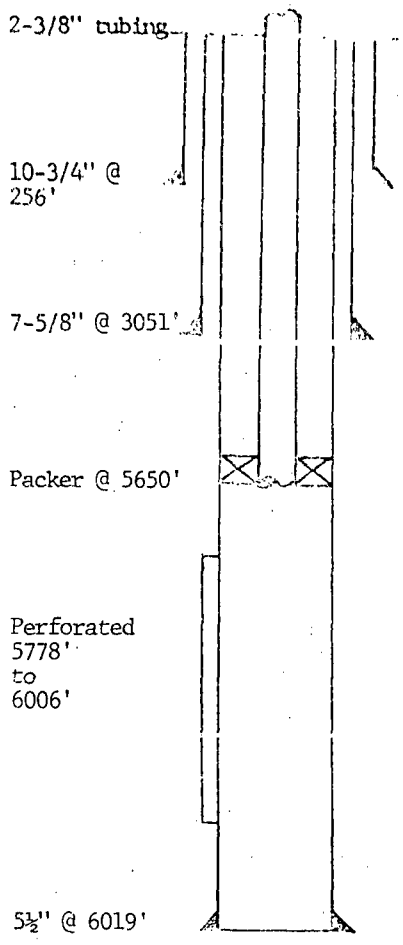
DRINKARD: TOP OF PAY AT 6742'

EXHIBIT 9

CONOCO INC.

WARREN UNIT

Well No.	Footage Location	Section	Township	Range
14	660' FSL & 660' FWL	34	20S	38E



Surface Casing

Size 10-3/4 " Cemented with 250 sx.

TOC SURFACE feet determined by CIRCULATION

Hole size 12¼

Intermediate Casing

Size 7-5/8 " Cemented with 1150 sx.

TOC 1290 feet determined by TEMP SURVEY

Hole size 9-7/8

Long string

Size 5½ " Cemented with 330 sx.

TOC 3350 feet determined by TEMP SURVEY

Hole size 6-3/4

Total depth 6020'

Injection interval

5778 feet to 6006 feet

(perforated ~~or open hole~~, indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (type and model) packer at 5650 feet

(or describe any other casing tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of field or Pool (if applicable) BLINEBRY OIL & GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

NO

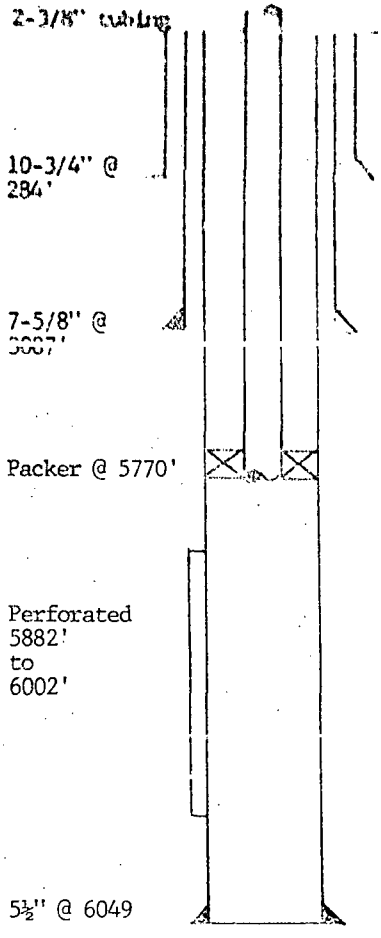
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

NONE

EXHIBIT 6

CONOCO INC. WARREN UNIT

12 660' FSL & 1980' FWL 34 20S 38E



Surface
Size 10-3/4 Sacks cmt 250
TOC SURFACE Determined by CIRCULATION
Hole size 12¼

Intermediate
Size 7-5/8 Cemented with 1255
TOC 30 Feet determined by TEMP SURVEY
Hole size 9-7/8

Long string
Size 5½ Cemented with 466
TOC 3355 Feet determined by TEMP SURVEY
Hole size 6-3/4
Total depth 6050'

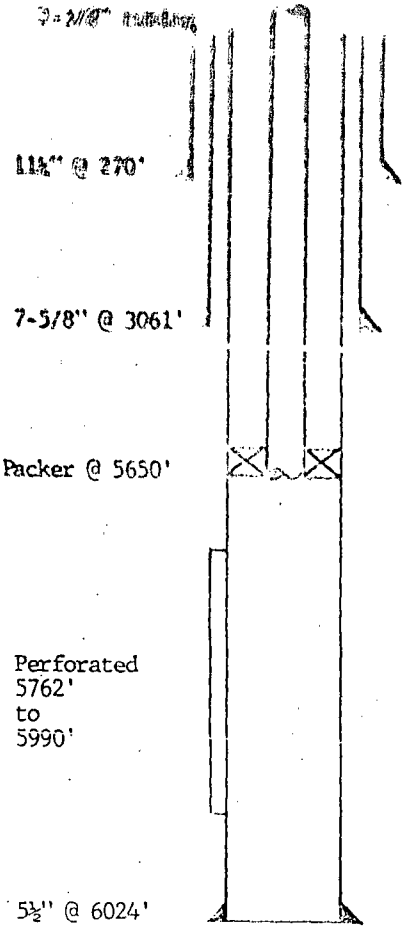
Injection interval
5882 feet to 6002 feet
(perforated ~~or open hole~~; indicate which)

Tubing size 2-3/8" lined with PLASTIC (material) set in a
BAKER MODEL AD-1 (brand and model) packer at 5770 feet
(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY
2. Name of Field or Pool (if applicable) BLINEBRY OIL & GAS POOL
3. Is this a new well drilled for injection? / / Yes /X/ No
   If no, for what purpose was the well originally drilled?
   OIL AND GAS PRODUCTION
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   NO
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   NONE

EXHIBIT 7



SURFACE

11¾"

17½"

7-3/8" 920

1515 TEMP SURVEY

Hole size 9-7/8"

Size 5½ 389

3190 TEMP SURVEY

Hole size 6-3/4"

Total depth 6025'

Injection interval

5762 feet to 5990 feet

(perforated ~~indicate which~~)

Tubing size 2-3/8" lined with PLASTIC (material) set in a

BAKER MODEL AD-1 (brand and model) packer at 5650 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation BLINEBRY

2. Name of Field or Pool (if applicable) BLINEBRY OIL AND GAS POOL

3. Is this a new well drilled for injection? / / Yes /X/ No

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

OIL AND GAS PRODUCTION

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

NO

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

NONE

EXHIBIT 8

WELLS WHICH PENETRATE THE PROPOSED INJECTION ZONE

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZE NO. GALLONS	SAND FRAC NO. LBS SAND
CONOCO INC.										
Hawk B-3 No. 2	O	1-53	8114'	13 3/8	250	250	Surface	7795-8090 (Sqzd)	1250	12,000
O- 3-21S-37E				9 5/8	3133	1370	Surface			
				7	8113	940	2950	5796-6079	2000	10,000
Hawk B-3 No. 3	O	1-52	8010'	10 3/4	265	250	Surface	7677-7848	500	-
P- 3-21S-37E				7 5/8	3149	1045	585			
				5 1/2	8009	573	Surface			
Hawk B-3 No. 5	O	3-52	8025'	10 3/4	274	225	Surface	7700-7856 (Sqzd)	500	12,000
R- 3-21S-37E				7 5/8	3147	1150	650			
				5 1/2	8024	625	3200	5646-5997	7000	72,400
Hawk B-3 No. 8	O	6-51	8191'	10 3/4	265	250	Surface	8062-8172 (Sqzd)	9500	-
P- 3-21S-37E				7 5/8	3149	1210	975	6360-6420 (Sqzd)	1000	6,000
				5 1/2	8187	550	3115	6265-6337	1000	6,000
Hawk B-3 No. 10	O	10-52	8302'	13 3/8	269	260	Surface	8166-8260 (Sqzd)	12000	10,000
O- 3-21S-37E				9 5/8	3149	1408	600			
				7	8301	940	3125	6660-6760	7000	20,000
Hawk B-3 No. 12	O	3-50	6747'	13 3/8	199	250	Surface	6625-6689	1000	-
B- 3-21S-37E	G			9 5/8	2969	1525	725			
				7	6746	875	3000	5670-5860	4000	-
Hawk B-3 No. 14	O	12-54	6020'	10 3/4	290	300	Surface	5758-84	1000	6,000
A- 3-21S-37E				7 5/8	3038	1150	650	5826-76	1000	6,000
				5 1/2	6019	310	3650	5960-82	1000	6,000
Hawk B-3 No. 15	O	11-55	6025'	11 3/4	270	375	Surface	5762-5990	3000	18,000
E- 3-21S-37E				7 5/8	3061	920	1515			
				5 1/2	6024	389	3190			

EXHIBIT 11

WELLS WHICH PENETRATE THE PROPOSED INJECTION ZONE

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZE NO. GALLONS	SAND FRAC NO. LBS SAND
COMMCO INC.										
Hawk B-3 No. 2	O	1-53	8114'	13 3/8	250	250	Surface	7795-8090 (Sqzd)	1250	12,000
O- 3-21S-37E				9 5/8	3133	1370	Surface			
				7	8113	940	2950	5796-6079	2000	10,000
Hawk B-3 No. 3	O	1-52	8010'	10 3/4	265	250	Surface	7677-7848	500	-
F- 3-21S-37E				7 5/8	3149	1045	585			
				5 1/2	8009	573	Surface			
Hawk B-3 No. 5	O	3-52	8025'	10 3/4	274	225	Surface	7700-7856 (Sqzd)	500	12,000
K- 3-21S-37E				7 5/8	3147	1150	650			
				5 1/2	8024	625	3200	5646-5997	7000	72,400
Hawk B-3 No. 8	O	6-51	8191'	10 3/4	265	250	Surface	8062-8172 (Sqzd)	9500	-
F- 3-21S-37E				7 5/8	3149	1210	975	6360-6420 (Sqzd)	1000	6,000
				5 1/2	8187	650	3115	6265-6337	1000	6,000
Hawk B-3 No. 10	O	10-52	8302'	13 3/8	269	260	Surface	8166-8260 (Sqzd)	12000	10,000
O- 3-21S-37E				9 5/8	3149	1408	600			
				7	8301	940	3125	6660-6760	7000	20,000
Hawk B-3 No. 12	O	3-50	6747'	13 3/8	199	250	Surface	6625-6689	1000	-
K- 3-21S-37E	G			9 5/8	2969	1525	725			
				7	6746	875	3000	5670-5860	4000	-
Hawk B-3 No. 14	O	12-54	6020'	10 3/4	290	300	Surface	5758-84	1000	6,000
A- 3-21S-37E				7 5/8	3038	1150	650	5826-76	1000	6,000
				5 1/2	6019	310	3650	5960-82	1000	6,000
Hawk B-3 No. 15	O	11-55	6025'	11 3/4	270	375	Surface	5762-5990	3000	18,000
B- 3-21S-37E				7 5/8	3061	920	1515			
				5 1/2	6024	389	3190			

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX. CEMENT USED	TOP OF CEMENT	INTERVAL	ECORD OF TREATMENTS ACIDIZED NO. GALLONS	SAND FRAC NO. LBS. SAND
Hawk B-3 No. 16 C -3-21S-37E	O	11-56	6480	10 3/4	265	265	Surface	5770-5886 (Sqzd)	2000	12,000
				7 5/8	3049	900	1740			
				5 1/2	6479	500	2903	6343-6406 (Sqzd)	2000	10,000
				4	6237-5920	34	6234	6697-6741	1250	40,000
Hawk B-3 No. 17 D- 3-21S-37E	O	4-57	6010	10 3/4	259	250	Surface	5750-5966	4000	21,000
				7 5/8	3154	1500	1525			
				5 1/2	6010	350	3025			
Hawk B-3 No. 18 G- 3-21S-37E	O	4-57	5973	10 3/4	268	250	Surface	5700-5925	250	-
				7 5/8	3119	1150	1150	5754-5941 (Sqzd)	3000	12,000
				5 1/2	5974	400	400	5824-5956	2000	40,000
Hawk B-3 No. 19 E -3-21S-37E	O	5-58	6830	13 3/8	211	250	Surface	5753-5980	2000	15,000
				9 5/8	3029	1210	820	6338-6428 (Sqzd)	2500	10,000
				7	6829	770	3038	6610-6782 (Sqzd)	15,500	-
Hawk B-3 No. 20 F -3-21S-37E	O	11-49	6782	13 3/8	222	250	Surface	5783-6042	3000	18,000
				9 5/8	2819	650	875	6642-6708 (Sqzd)	2000	-
				7	6781	675	3272			
Hawk B-3 No. 22 L -3-21S-37E	G	11-62	6800	9 5/8	1310	625	Surface	5607-6039	4000	47,500
				7	6800	650	2200	6149-6471 (Sqzd)	1500	20,000
								6526-6636 (Sqzd)	13,500	13,000
Hawk B-3 No. 23 A -4-21S-37E	O	6-57	5950	10 3/4	270	250	Surface	5758-5902	2000	11,250
				7 5/8	3149	1150	1425			
				5 1/2	5950	400	3100			
Hawk B-3 No. 24 G -3-21S-37E	O	4-80	6875	8 5/8	1395	674	Surface	6541-6782	21,672	-
				5 1/2	6875	2782	Surface			
Warren Unit No. 12 N-34-20S-38E	O	9-54	6198	10 3/4	252	250	Surface	5814-6160	10,000	18,000
				7 5/8	3049	1120	600			
				5 1/2	6197	415	2885			
Warren Unit No. 13 O-34-20S-38E	O	10-54	6050	10 3/4	284	250	Surface	5882-6002	2000	8,000
				7 5/8	3087	1255	30			
				5 1/2	6049	466	3355			

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX. CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZE NO. GALLONS	SAND FRAC NO. LBS SAND
Warren Unit No. 14	O	12-54	6020	10 3/4	256	250	Surface	5778-6006	2000	10,000
M-34-20S-38E				7 5/8	3051	1150	1290			
				5 1/2	6019	336	3350			
Warren Unit No. 15	O	2-55	6050	10 3/4	249	250	Surface	5780-6014 (Sqzd)	1500	10,000
P-33-20S-38E				7 5/8	3049	1150	Surface	5806-6010	2000	21,000
				5 1/2	6048	680	Surface			
Warren Unit No. 16	O	3-55	6050	10 3/4	274	250	Surface	5778-6006	1500	28,000
O-33-20S-38E				7 5/8	3049	1111	250			
				5 1/2	6049	541	Surface			
Warren Unit No. 17	O	6-55	6012	10 3/4	289	250	Surface	5800-5968	2000	-
I-33-20S-38E				7 5/8	3049	1045	800			
				5 1/2	6011	730	Surface			
Warren Unit No. 18	O	9-55	6008	13 3/8	263	250	Surface	5796-5999	3000	18,000
L-34-20S-38E				9 5/8	3049	954	1450			
				7	6007	540	2890			
Warren Unit No. 19	O	10-55	5992	13 3/8	286	250	Surface	5784-5942	7000	18,000
H-33-20S-38E				9 5/8	3048	1225	750			
				7	5984	511	2935			
Warren Unit No. 20	O	11-55	6030	13 3/8	240	265	Surface	5768-5934	3000	-
E-34-20S-38E				9 5/8	3031	1238	800			
				7	6028	504	2400			
Warren Unit No. 21	O	11-56	6700	13 3/8	274	300	Surface	5816-5952	2000	2,000
E-33-20S-38E				9 5/8	3049	1500	1225			
				7	6699	400	4825			
Warren Unit No. 26	O	4-58	5800	13 3/8	257	300	Surface	5786-6202	3900	-
M-27-20S-38E	G			9 5/8	3132	2000	900	6345-6586		
	G			7	6679	240	4200	6679-6800	10000	-

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX. CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZED NO. GALLONS	SAND FRAC NO. LBS SAND
Warren Unit No. 34	O	8-75	6975	9 5/8	1470	600	Surface	5815-79	-	-
C-34-20S-38E				7	6975	1225	2425	6538-6625	-	-
Warren Unit No. 38	O	12-75	7045	9 5/8	1500	600	Surface	5805-92	1350	40,000
F-34-20S-38E				7	7040	900	2500	6504-6663 (Sqzd)	1800	40,000
Warren Unit No. 75	O	8-75	6130	8 5/8	1500	730	Surface	5812-6023	4800	35,000
K-34-20S-38E				5 1/2	6130	577	Surface	5734-73 (Sqzd)	-	-
Warren Unit No. 76	O	6-79	6150	8 5/8	1425	700	Surface	5815-6080	5000	132,000
J-33-20S-38E				5 1/2	6150	1693	Surface			
Warren Unit No. 80	O	6-80	6173	8 5/8	1480	790	Surface	5815-6043	2100	148,000
G-33-20S-38E				5 1/2	6170	2010	Surface			
Warren Unit No. 84	O	10-81	6170	8 5/8	1447	700	Surface	5792-6078	1500	111,000
C-33-20S-38E				5 1/2	6170	1100	3800			
GULF OIL CORPORATION										
Harry Leonard F No. 10	O	5-54	5950	13 3/8	375	425	Surface	5844-5950	7000	80,000
G- 2-21S-37E				8 5/8	3024	1550	317			
				5 1/2	5844	560	3100			
SHELL OIL COMPANY										
Livingston No. 8	O	9-52	8030	13 3/8	215	250	Surface	6500-6686	19,600	63,000
N- 3-21S-37E				8 5/8	3153	1600	Surface	5655-5854	18,000	20,000
				5 1/2	4336-7000	810	4330			
State Sec. 2 No. 2	O	10-49	6760	13 3/8	224	300	Surface	6660-6760	1500	-
L - 2-21S-37E				8 5/8	2936	2000	Surface	6592-6639	2000	23,392
				5 1/2	6660	600	Surface			
State Sec. 2 No. 8	O	11-51	8156	13 3/8	219	250	Surface	5691-5945	9000	49,700
L- 2-21S-37E				8 5/8	3149	2000	Surface			
				5 1/2	2969-8018	875	2950	8018-8156 (Sqzd)	1000	-

COMPANY, WELL AND LOCATION	TYPE WELL	DATE DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZE NO. GALLONS	SAND FRAC NO. LBS. SAND
State Sec. 2 No. 11	O	1-52	8015	13 3/8	211	250	Surface	6408-6562	2000	15,000
L- 2-21S-37E				8 5/8	3140	2000	Surface			
				5 1/2	2926-8014	850	2400	7698-7850 (Sqzd)	-	-
State Sec. 2 No. 15	O	6-52	8147	13 3/8	728	250	Surface	8010-8147 (Sqzd)	5500	-
K- 2-21S-37E				8 5/8	3148	1600	Surface	7048-7255	29,700	8,500
				5 1/2	2950-8010	870	2900	6381-6500	6800	25,000
State Sec. 2 No. 17	O	7-54	5952	13 3/8	250	250	Surface	5721-5952	15,500	70,000
K- 2-21S-37E				8 5/8	3126	1500	Surface			
				5 1/2	5816	100	5101			
Taylor Glenn No. 1	O	9-47	8590	13 3/8	301	250	Surface	5649-5850	17,600	25,000
K- 3-21S-37E				8 5/8	3879	3000	Surface	6491-6730	10,700	43,000
				5 1/2	8060	675	2915			
Taylor Glenn No. 2	O	2-50	6780	13 3/8	222	300	Surface	6147-6436	1250	85,000
I- 3-21S-37E				8 5/8	2920	2200	Surface	6574-6780	5800	40,000
				5 1/2	6665	600	6620			
Taylor Glenn No. 3	O	11-51	8224	13 3/8	219	250	Surface	5800-6045	12,000	29,000
I- 3-21S-37E	G			8 5/8	3150	2000	Surface	8102-8224	1500	-
				5 1/2	2960-8102	800	2960			
Taylor Glenn No. 4	O	5-52	8119	13 3/8	200	250	Surface	7804-8082	2000	48,000
I- 3-21S-37E				8 5/8	3147	2200	Surface			
				5 1/2	2999-8115	875	2990			
Taylor Glenn No. 5	O	10-52	8361	13 3/8	225	250	Surface	6583-6809	13,000	57,000
J- 3-21S-37E				8 5/8	3147	2200	Surface	7905-75	1000	10,000
				5 1/2	2965-8355	850	2900	8042-8291 (Sqzd)	1000	-
Taylor Glenn No. 6	O	7-52	6707	13 3/8	225	250	Surface	5663-6093	9000	55,500
J- 3-21S-37E				8 5/8	3147	2000	Surface	6660-6707	6000	-
				5 1/2	2920-6660	600	2900			

COMPANY, WELL AND LOCATION	TYPE WELL	DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZED NO. GALLONS	SAND FRAC NO. LBS. SAND
Taylor Glenn No. 7	O	9-56	5935	13 3/8	306	350	Surface	5682-5862	10,700	90,300
H- 4-21S-37E				8 5/8	3150	1400	Surface			
				5 1/2	5935	150	4961			
Taylor Glenn No. 8	O	11-56	5930	13 3/8	307	300	Surface	5638-5930	4600	20,000
E- 3-21S-37E				8 5/8	3150	1200	Surface			
				5 1/2	5810	200	4512			
Taylor Glenn No. 9	G	1-63	6000	7 5/8	272	275	Surface	5655-5933	14,750	58,500
F- 3-21S-37E				4 1/2	6000	375	Surface			
Taylor Glenn No. 10	O	2-75	6805	8 5/8	1361	600	Surface	6182-6394	2100	49,000
F- 3-21S-37E	G			5 1/2	6805	1025	3300	6574-6758	6300	49,000
Taylor Glenn No. 11	O	9-75	6870	8 5/8	1380	400	Surface	6575-6752	9000	42,000
E- 3-21S-37E				5 1/2	6870	860	Surface			
SOUTHLAND ROYALTY										
State No. 2	O	8-51	8620	13 3/8	171	165	Surface	6525-6795	20,700	-
E-2 -21S-37E				9 5/8	3004	1600	Surface	6627-7562 (Sqzd)	-	-
				5 1/2	8519	550	4255			
State No. 5	O	2-53	6850	13 3/8	200	225	Surface	5375-5439 (Sqzd)	3000	-
F- 2-21S-37E				8 5/8	3015	1625	Surface	5805-5945 (Sqzd)	10,000	-
				5 1/2	5980	225	4715	6746-6832	6000	25,000
				3 1/2	5955-6850	75	5955			
State No. 6	O	3-54	6030	13 3/3	208	240	Surface	5785-6000 (Sqzd)	6000	-
D- 2-21S-37E				8 5/8	3008	1750	Surface	6742-6830	6500	97,000
				5 1/2	6030	250	4780			
				3 1/2	5645-6896	100	5645			

COMPANY, WELL AND LOCATION	TYPE WELL	DRILLED	T.D.	CONSTRUCTION SIZE CSG.	DEPTH	NO. SX CEMENT USED	TOP OF CEMENT	INTERVAL	RECORD OF TREATMENTS ACIDIZED NO. GALLONS	SAND FRAC NO. LBS. SAND
State No. 7 G- 2-21S-37E	O	6-54	6061	13 3/8	215	250	Surface	5790-5962	16,000	-
				8 5/8	3030	1600	2100	6538-6866	6,000	55,000
				5 1/2	6030	225	4930			
				3 1/2	5708-6945	100	5708			
State No. 8 E- 2-21S-37E	O	1-56	6010	13 3/8	218	200	Surface	5878-5988	8,000	130,000
				8 5/8	3092	2200	Surface			
				5 1/2	6010	200	4200			
State No. 9 F- 2-21S-37E	G	7-62	5780	13 3/8	329	325	Surface	5682-5780	13,000	14,500
				4 1/2	5682	570	2560			

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : CONOCO
DATE : 11-02-81
FIELD,LEASE&WELL : WARREN BLINEBRY
SAMPLING POINT:
DATE SAMPLED : 10-29-81

SPECIFIC GRAVITY = 1.071
TOTAL DISSOLVED SOLIDS = 135176
PH = 7.25

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	306.	6145.
MAGNESIUM	(MG)+2	173.	2107.
SODIUM	(NA),CALC.	1871.	43022.
ANIONS			
BICARBONATE	(HCO3)-1	3.6	219.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	35.3	1700
CHLORIDES	(CL)-1	2312.	81981.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	0-1	6 PTS
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		5.6
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.919
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-.07
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 12

UNICHEM INTERNATIONAL

401 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : CONOCO
DATE : 11-3-81
FIELD,LEASE&WELL : SEWAGE EFFLUENT
SAMPLING POINT:
DATE SAMPLED : 11-2-81

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 1055
PH = 7.39

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	5	100.
MAGNESIUM	(MG)+2	1	12.1
SODIUM	(NA),CALC.	9.8	225.
ANIONS			
BICARBONATE	(HCO3)-1	5	305.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	2.3	112.
CHLORIDES	(CL)-1	8.4	299.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	0	0
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		2.6
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	1.37
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-6.9
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 13

UNICHEM INTERNATIONAL

601 NORTH TEEL P O BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY CONOCO
DATE 11-3-81
FIELD,LEASE&WELL : SEWAGE EFFLUENT PLUS BRINE
SAMPLING POINT
DATE SAMPLED : 11-2-81

SPECIFIC GRAVITY = 1.029
TOTAL DISSOLVED SOLIDS = 43350
PH = 6.95

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	150.3	3072.
MAGNESIUM	(MG)+2	33.3	405.
SODIUM	(NA),CALC.	564.	12969.
ANIONS			
BICARBONATE	(HCO3)-1	4.9	298.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	12.7	610
CHLORIDES	(CL)-1	733.	25994.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	0	0
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		.33
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.281
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-1.8
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 14

UNICHEM INTERNATIONAL

601 NORTH LEECH P O BOX 1495

HOBBS, NEW MEXICO 88240

COMPANY : CONOCO
DATE : 11-3-81
FIELD,LEASE&WELL : 50% WARREN BLINEBRY 50% SEWAGE EFFLUENT
SAMPLING POINT:
DATE SAMPLED : 11-2-81

SPECIFIC GRAVITY = 1.06
TOTAL DISSOLVED SOLIDS = 89401
PH = 7.22

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	130	3605.
MAGNESIUM	(MG)+2	210	2552.
SODIUM	(NA),CALC.	1230.	78290.
ANIONS			
BICARBONATE	(HCO3)-1	2	122.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	17.5	843.
CHLORIDES	(CL)-1	1551	54987.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	0	0
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		4.7
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.071
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-2.4
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 15

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1499

HOBBS, NEW MEXICO 88240

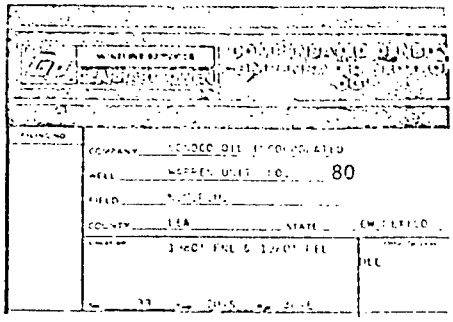
COMPANY : CONOCO
DATE : 11-3-81
FIELD,LEASE&WELL : 50% WARREN BLINEBRY 50% SEWAGE EFFLUENT PLUS BRINE
SAMPLING POINT:
DATE SAMPLED : 11-2-81

SPECIFIC GRAVITY = 1.072
TOTAL DISSOLVED SOLIDS = 107045
PH = 7.2

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	133.	2672
MAGNESIUM	(MG)+2	193.	2350.
SODIUM	(NA).CALC.	1539.	35389.
ANIONS			
BICARBONATE	(HCO3)-1	4.9	298.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	28.1	1350
CHLORIDES	(CL)-1	1833	64985.
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	0	0
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		.65
BARIUM	(BA)+2	NOT RUN	
STRONTIUM	(SR)+2	NOT RUN	

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	910
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	.13
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 16



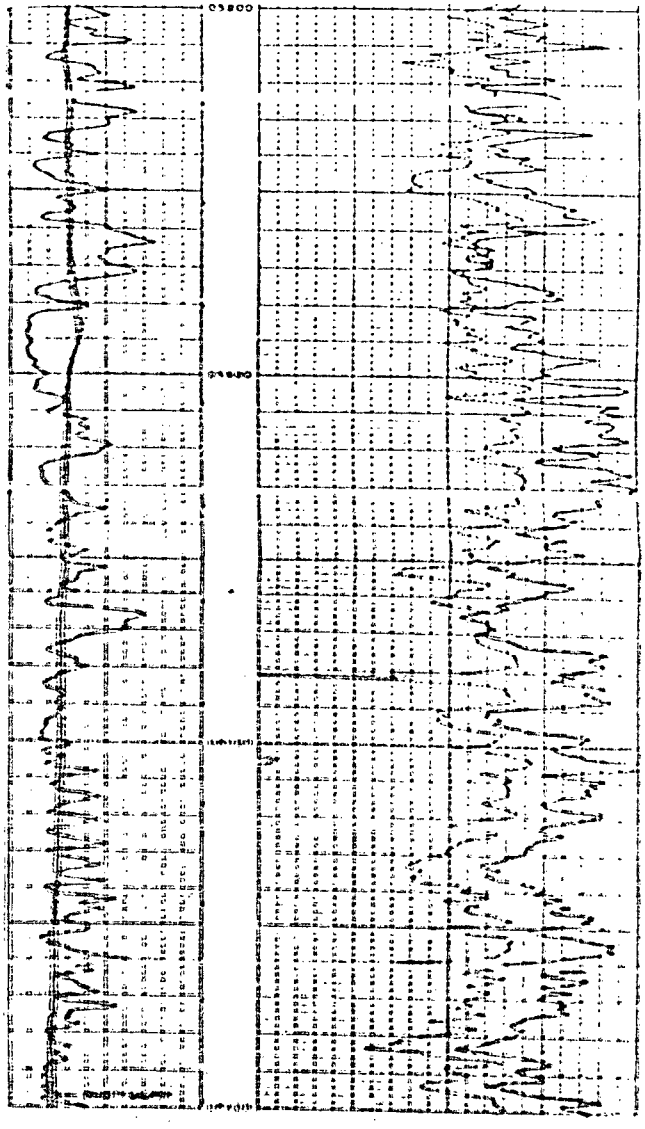


EXHIBIT 17

RADIOACTIVITY LOG

WELEX JET SERVICES, Inc.

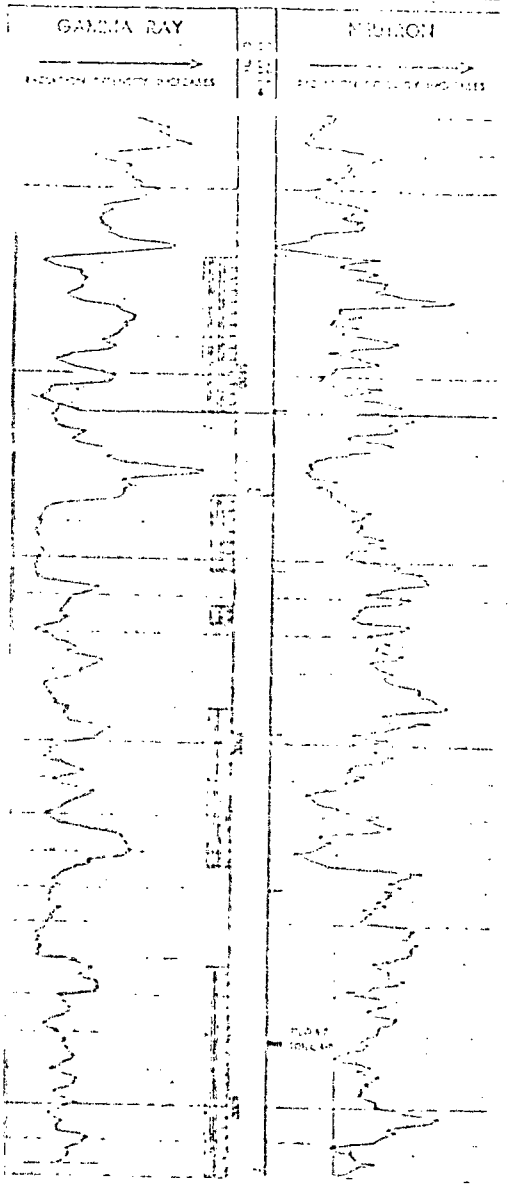


EXHIBIT 18

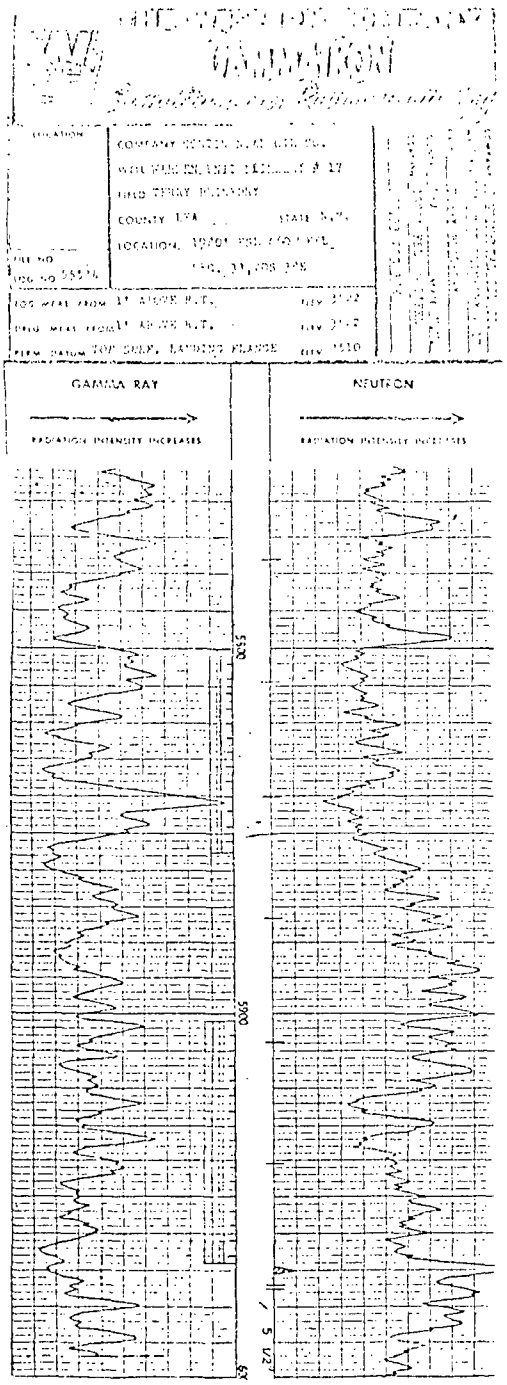

GAMMA RAY
RADIATION INTENSITY INCREASES
NEUTRON
RADIATION INTENSITY INCREASES
5550
5600

EXHIBIT 19

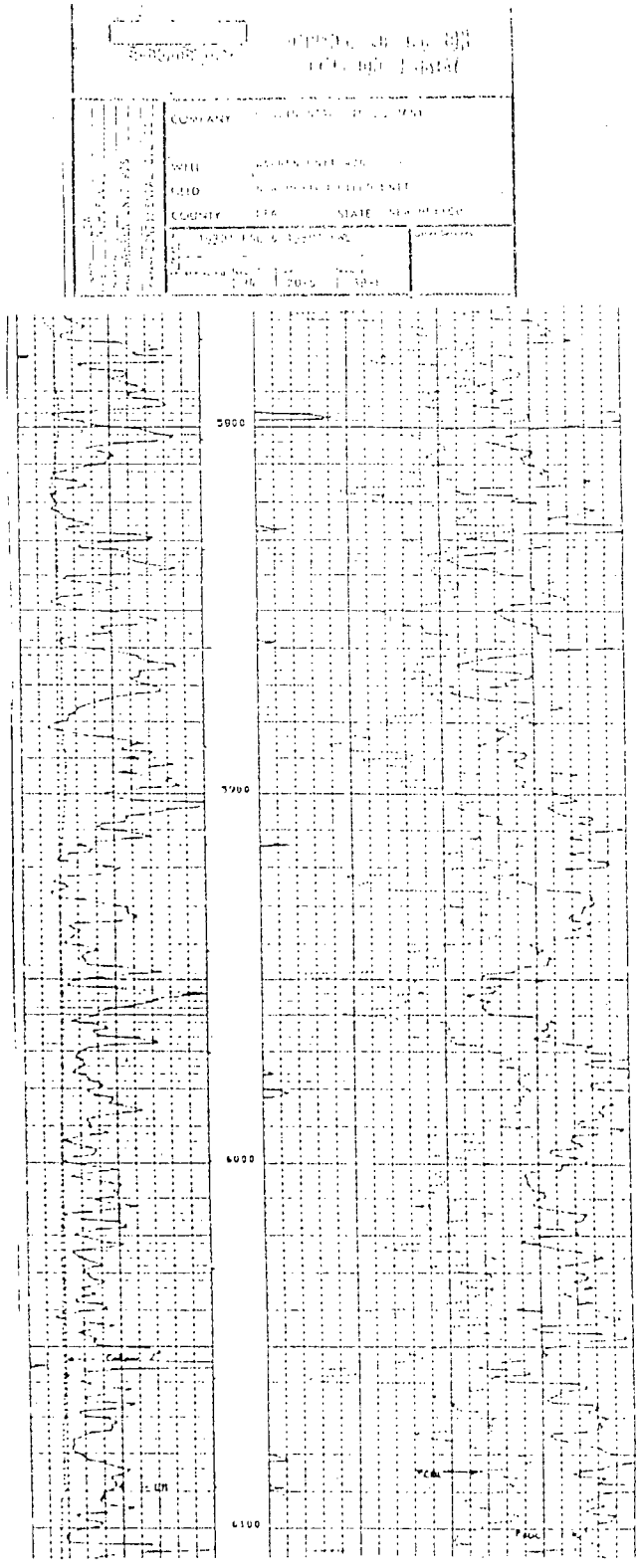


EXHIBIT 20

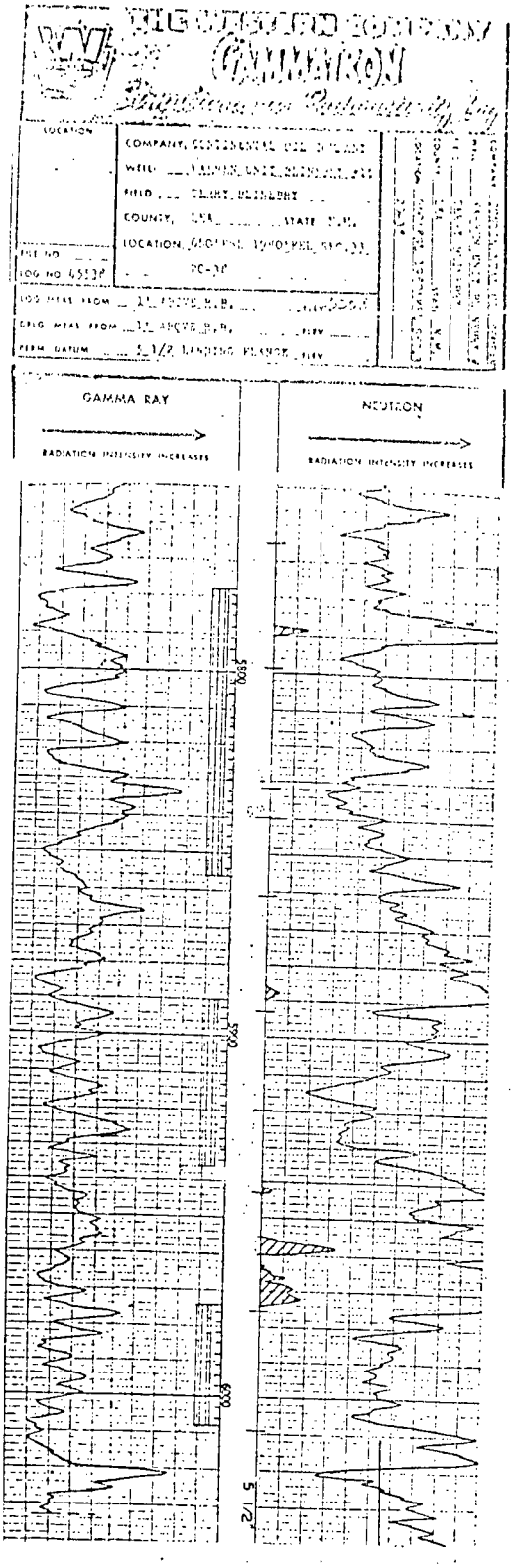

GAMMA RAY
RADIATION INTENSITY INCREASES
NEUTRON
RADIATION INTENSITY INCREASES

EXHIBIT 21

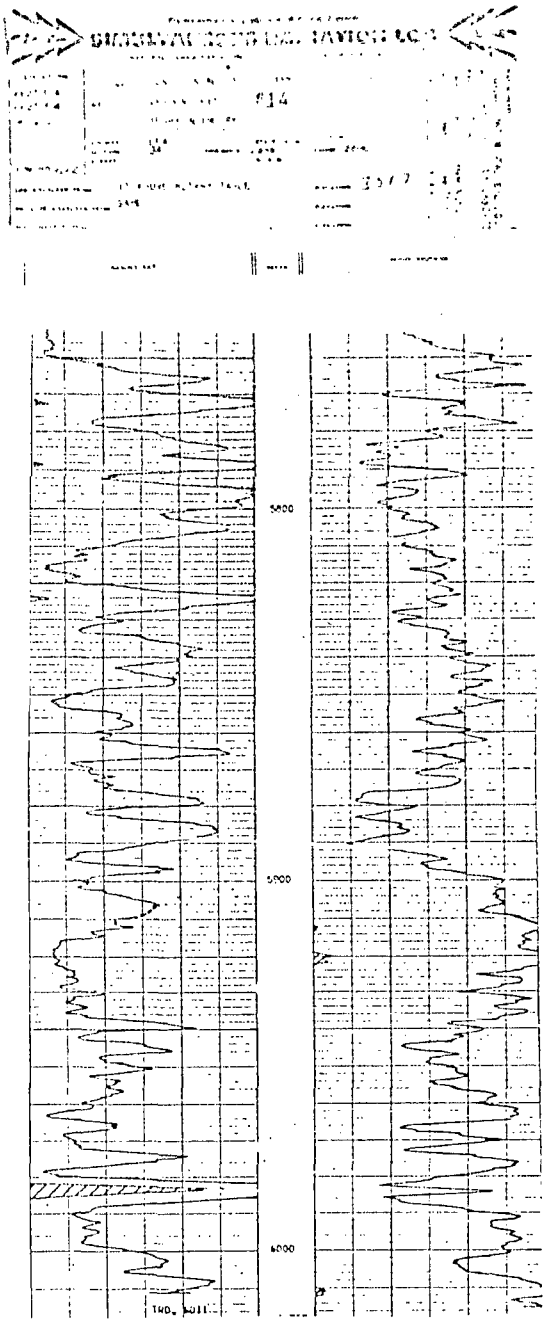


EXHIBIT 22

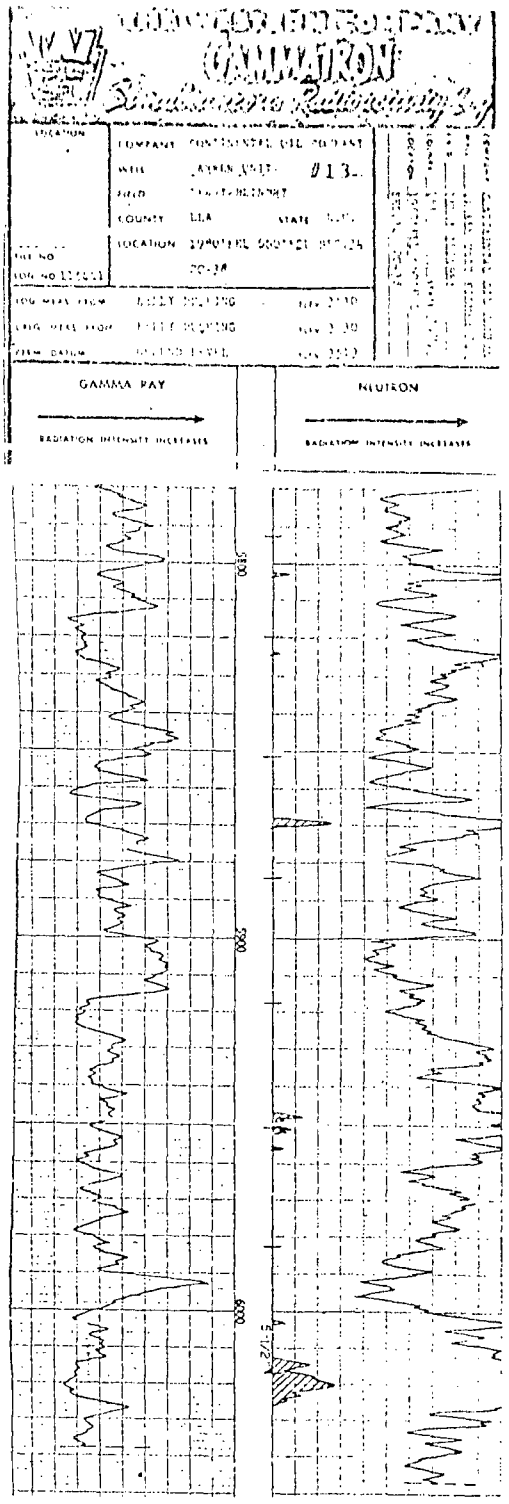

GAMMA RAY
RADIATION INTENSITY INCREASES
NEUTRON
RADIATION INTENSITY INCREASES
5100
5000
4900

EXHIBIT 23

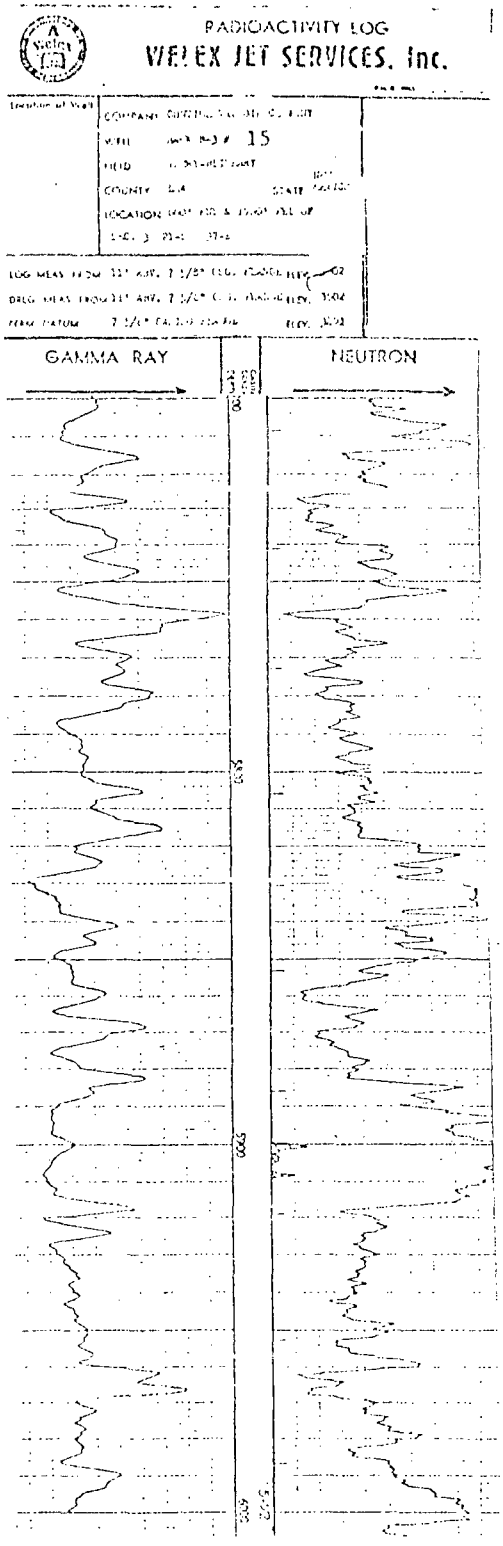

RADIOACTIVITY LOG
VELEX JET SERVICES, Inc.
WELL 15
GAMMA RAY
NEUTRON

EXHIBIT 24

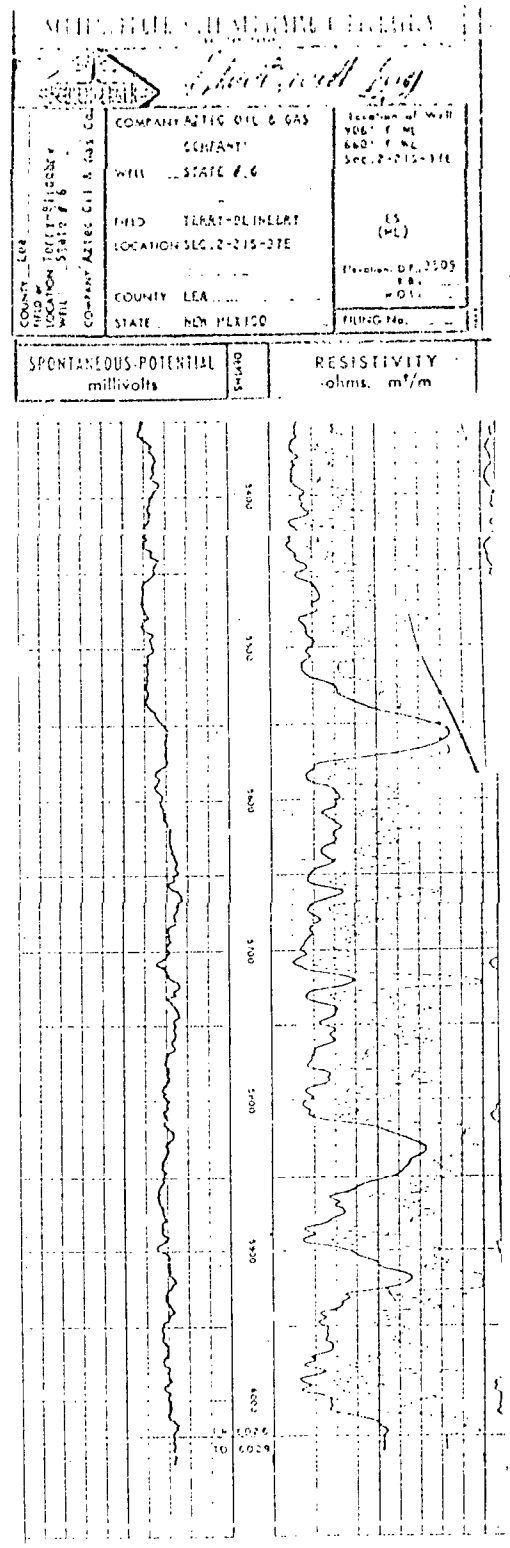

Electrical Log
COMPANY AZTEC OIL & GAS
COMPANY
WELL STATE #6
FIELD TERRY-BLINEBRY
LOCATION SEC. 2-21S-37E
COUNTY LEA
STATE NEW MEXICO
Elevation of Well
660' FNL
660' FWL
Sec. 2-21S-37E
ES
(PL)
Elevation D.F. 3505
FILING No.
COUNTY LEA
FIELD TERRY-BLINEBRY
LOCATION 660' FNL & 660' FWL Sec. 2-21S-37E
WELL STATE # 6
COMPANY AZTEC OIL & GAS CO.
SPONTANEOUS-POTENTIAL
millivolts
SCALE
RESISTIVITY
ohms. m²/m

EXHIBIT 25

UNICHEM INTERNATIONAL

401 NORTH LEECH P O BOX 1369

HOBBS, NEW MEXICO 88240

COMPANY : CONOCO
DATE : 11-03-81
FIELD,LEASE&WELL : WATER SALES FRESH WATER Continental Well
SAMPLING POINT :
DATE SAMPLED : 10-29 81

SPECIFIC GRAVITY = 1.001
TOTAL DISSOLVED SOLIDS = 2120
PH = 6.95

		MG/L
CATIONS		
CALCIUM	(CA)+2	236.
MAGNESIUM	(MG)+2	196.
SODIUM	(NA),CALC.	181.
ANIONS		
BICARBONATE	(HCO3)-1	286.
CARBONATE	(CO3)-2	0
HYDROXIDE	(OH)-1	0
SULFATE	(SO4)-2	435.
CHLORIDES	(CL)-1	783.
DISSOLVED GASES		
CARBON DIOXIDE	(CO2)	NOT RUN
HYDROGEN SULFIDE	(H2S)	0
OXYGEN	(O2)	NOT RUN
IRON(TOTAL)	(FE)	.7
BARIUM	(BA)+2	NOT RUN
STRONTIUM	(SR)+2	NOT RUN

SCALING INDEX	TEMP
	30C
	86F
CARBONATE INDEX	.486
CALCIUM CARBONATE SCALING	LIKELY
SULFATE INDEX	-1.0
CALCIUM SULFATE SCALING	UNLIKELY

EXHIBIT 26