C - 108 and ATTACHMENTS

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 19
CASE NO.: 10897
Submitted by: Conoco Inc.
Hearing Date: Jan 20, 1994

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: 10 Desta Drive West, Ste 100W, Midland, TX 79705

Contact party: Jerry W. Hoover Phone: (915) 686-6548

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

IV. Is this an expansion of an existing project? [X] yes [ ] no
If yes, give the Division order number authorizing the project R-6906-B

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: Joe A. Miller Title Engineer

Signature: Joe A. Miller Date: Dec. 17, 1993

* 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 FORM C-108

Conoco's Application to Expand the
Warren Blinebry-Tubb Waterflood Project

III. The data as required by parts A. and B. (side 2) for each proposed injection well is attached in tabular and schematic form.

V. A map identifying 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 is attached.

VI. The tabulated data, requested by part VI., on all wells of public record within the area of review which penetrate the proposed injection zone is attached.

VII. 1. Proposed average and maximum daily injection rates:

500 BWPD/well average
700 BWPD/well maximum

2. The injection system is open.

3. Proposed average and maximum injection pressure:

Average: 1100 psi surface injection pressure
Maximum: .2 psi/ft to top of injection interval

4. The same water source will be used for this second expansion that is currently being used in the Warren Blinebry-Tubb Waterflood project for which compatibility analysis has been already been submitted.

VIII. The proposed zones of injection are the Blinebry and Tubb formations. These zones are located at -2300' SSD and -2880' SSD respectively. Gross thickness are 570' for the Blinebry zone and 300' for the Tubb. Both zones are composed of dolomite and interbedded dolomite and anhydrite. The Blinebry zone is composed of primarily fine granular to fine crystalline silty dolomite with numerous small anhydrite inclusions and shale partings. The Tubb is characterized by numerous small anhydrite inclusions and shale partings. The Tubb is characterized by dolomite which is very familiar to the Blinebry, however, it contains a sandy dolomite interval. Both zones exhibit intercrystalline and intergranular porosity and fairly low permeability (5 md).

The only known, and the deepest, fresh water source overlying the proposed injection interval is the Ogallala aquifer with a maximum depth of +3400'.

IX. The Blinebry and Tubb zones in each injection well will be separately stimulated with small sand fracs totaling approximately 25,000 gallons of cross-link gell and 50,000# of sand per well.

X. Log sections of the injection interval for proposed injection wells that have already been drilled are attached.

XI. Chemical analysis of the only active fresh water well within one mile of each injection well is attached. A list of four reported locations by the Roswell State Engineer's Office is attached, but only one of these wells is active and could be sampled.

XII. There is no evidence of open faults or any other hydrologic connection between the injection interval and any underground source of drinking water.

XIII. Notification of this application has been sent by certified mail to the owner of the surface of the land on which each proposed injection well is located and to each leasehold operator within one-half mile of the the well locations. Proof of notice will be presented at the examiner hearing for this application.

C - 108 Attachment

III. INJECTION WELL DATA

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
No. 10	660' FNL, 2310' FEL	Sec. 28	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 13-3/8" Cemented with 250 sx.
TOC Circ. feet determined by _____
Hole size 17-1/2"

Production Casing

Size 7" Cemented with 1005 sx.
TOC 2950' feet determined by TS
Hole size 8-3/4"
Total Depth 9381'

Injection interval
5805' feet to 6628' feet
(perforated)

Note: Intermediate Casing: Size 9-5/8" @ 2999', Cmt. 1255 sx
TOC: 890'

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? Yes
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   Drinkard 6729-6759 CIBP set at 6700 w/ 1 sx cmt on top.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6628'

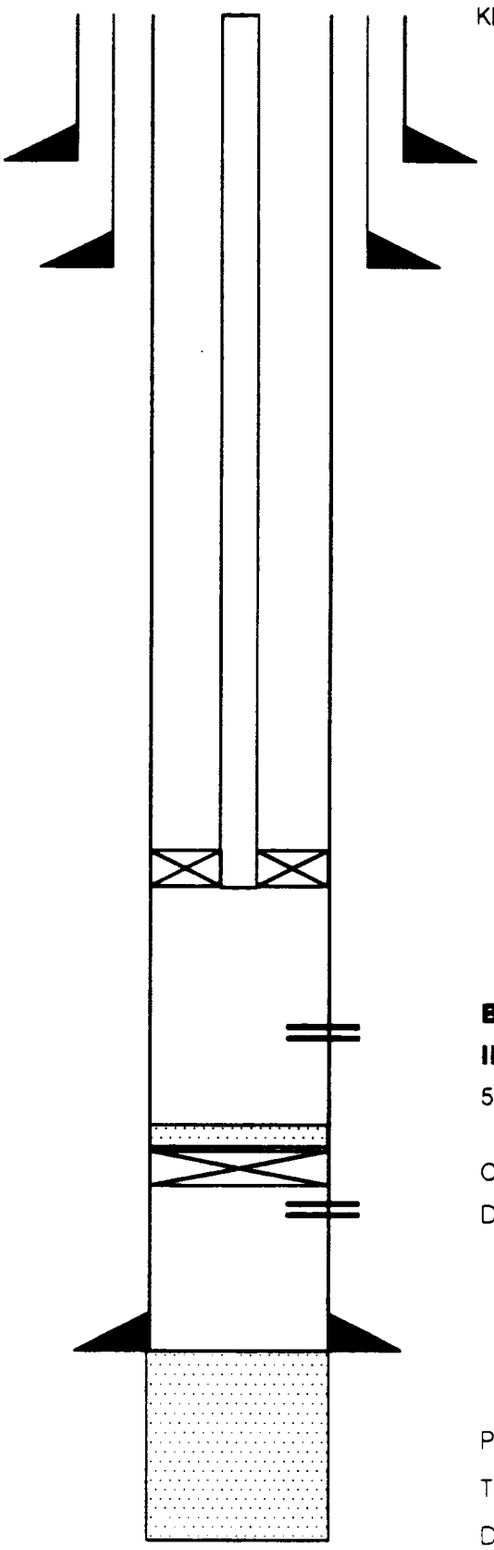
File: WU10inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO.10
NMFU

660' FNL, 2310' FEL, SEC. 28, T-20S, R-38E, LEA CO. NM

GLE 3550'

KBE: 3562'



Surface Casing:
13 3/8", 48# H-40 @ 265'
W/ 250 SX. TOC @ CIRC
HOLE SIZE: 17-1/2"

INTERMEDIATE CASING
9-5/8",36 & 32.3# J-55 & H-40 @ 2999'
W/ 1255 SX. TOC @ 890'
HOLE SIZE: 12-1/4"

TUBING:
2 3/8", 4.7#, J-55, EUE IPC

PACKER:
7" WATSON ARROWSET 1-X PACKER
SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING
7", 23# & 26# J-55 & N-80 @ 7498'
W/ 1005 SX. TOC @ 2950' TEMP SURV
HOLE SIZE: 8-3/4"

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5805'-6628'

CIBP @ 6700' W/ 1 SX
DRINKARD: 6729'-6759'

PBTD: 6767'
TD: 9381'
DATE: 10-18-93

BY: JSS

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
No. 35	1880' FSL, 1980' FWL	Sec. 28	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 600 sx.
TOC Circ. feet determined by _____
Hole size 12 3/4"

Production Casing

Size 7" Cemented with 1585 sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 7090'

Injection interval

5745' feet to 6604' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? Yes
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   Drinkard 6738-6782, RBP set at 6630'
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6604'

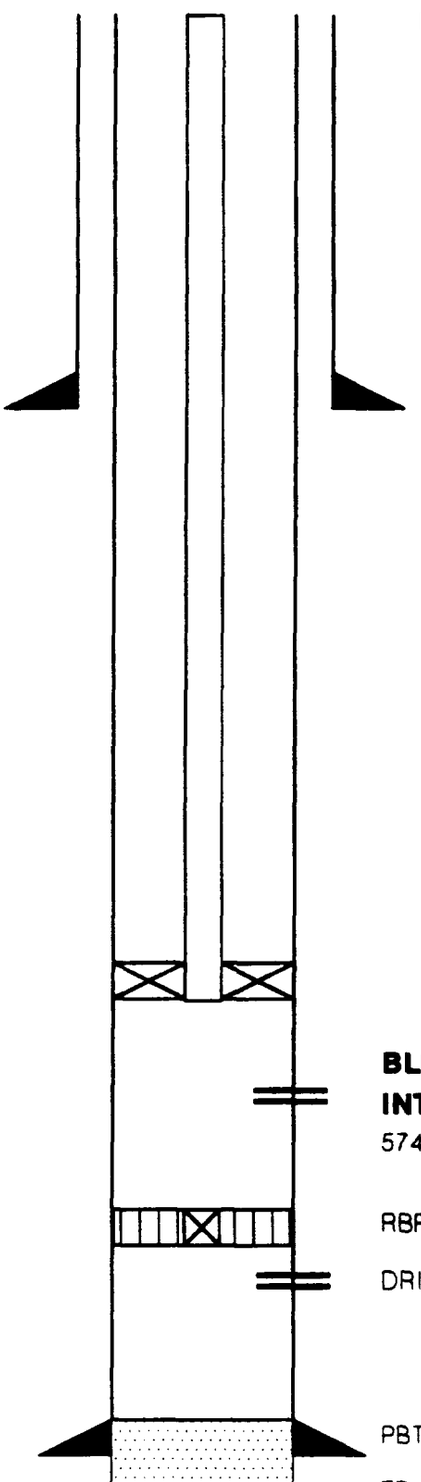
File: WU35inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 35
NMFU

1880' FSL, 1980' FWL, SEC. 28, T-20S, R-38E, LEA CO. NM

GLE: 3531'

KBE: 3547'



SURFACE CASING

9 5/8", 32.30, H-40, @ 1495'

W/ 600 SX. TOC @ CIRC

HOLE SIZE: 12-3/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23 & 26# K-55 @ 7000'

W/ 1585 SX. TOC @ CIRC

HOLE SIZE 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5745'-6604'

RBP @ 6630'

DRINKARD: 6738'-6782'

PBTD: 6630'

TD: 7090'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
36	660' FNL, 660' FWL Sec. 27	T-20S, R-38E, Lea County, NM		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 600sx.
TOC Circ. feet determined by _____
Hole size 13-3/4"

Production Casing

Size 7" Cemented with 1100sx.
TOC 2650 feet determined by CBL
Hole size 8-3/4"
Total Depth 7075'

Injection interval
5956 feet to 6727 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7"Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb 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? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6727', ABO 7009'

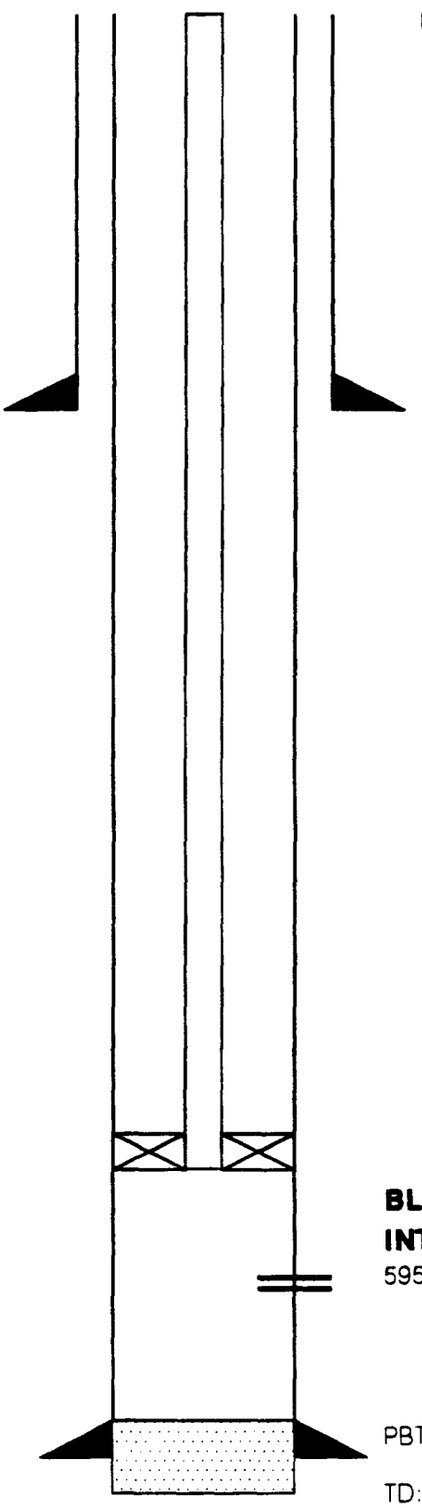
File: WFD36INJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 36
NMFU

660' FNL, 660' FWL, SEC. 27, T-20S, R-38E, LEA CO. NM

GLE: 3552'

KBE: 3561'



SURFACE CASING

9 5/8", 32.3#, K-55, @ 1540'

W/ 600 SX. TOC @ CIRC

HOLE SIZE: 13-3/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5956'-6727'

PRODUCTION CASING

7", 23 & 26# K-55 @ 7074'

W/ 1100 SX. TOC @ 2650' CBL

HOLE SIZE: 8-3/4"

PBTD: 7030'

TD: 7075'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
No. 51	660' FNL, 660' FEL	Sec. 29	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 550 sx.
TOC Circ. feet determined by _____
Hole size 12 1/4"

Production Casing

Size 7" Cemented with 2200 sx.
TOC Circ. feet determined by ___
Hole size 8 3/4"
Total Depth 6770'

Injection interval

5815' feet to 6695' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6695', ABO 6943', McKee 8844'

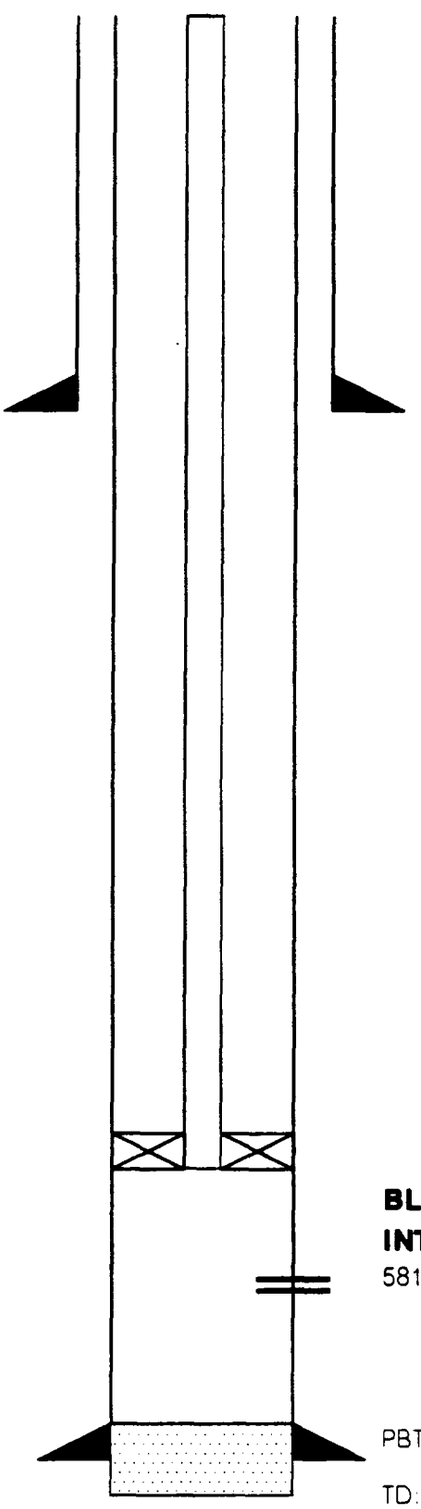
File: WU51inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 51
NMFU

660' FNL, 660' FEL, SEC. 29, T-20S, R-38E, LEA CO. NM

GLE: 3545'

KBE: 3556'



SURFACE CASING

9 5/8", 36#, K-55, @ 1387'

W/ 550 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23 & 26# K-55 @ 6770'

W/ 2200 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5815'-6695'

PBTD: 6720'

TD: 6770'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
No. 61	660' FSL, 660' FWL	Sec. 21	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 700 sx.
TOC Circ. feet determined by _____
Hole size 12 1/4"

Production Casing

Size 7" Cemented with 2550 sx.
TOC Circ. feet determined by _____
Hole size 8 3/4"
Total Depth 6750'

Injection interval

5854' feet to 6729' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6,729', ABO 6970', McKee 8,873'

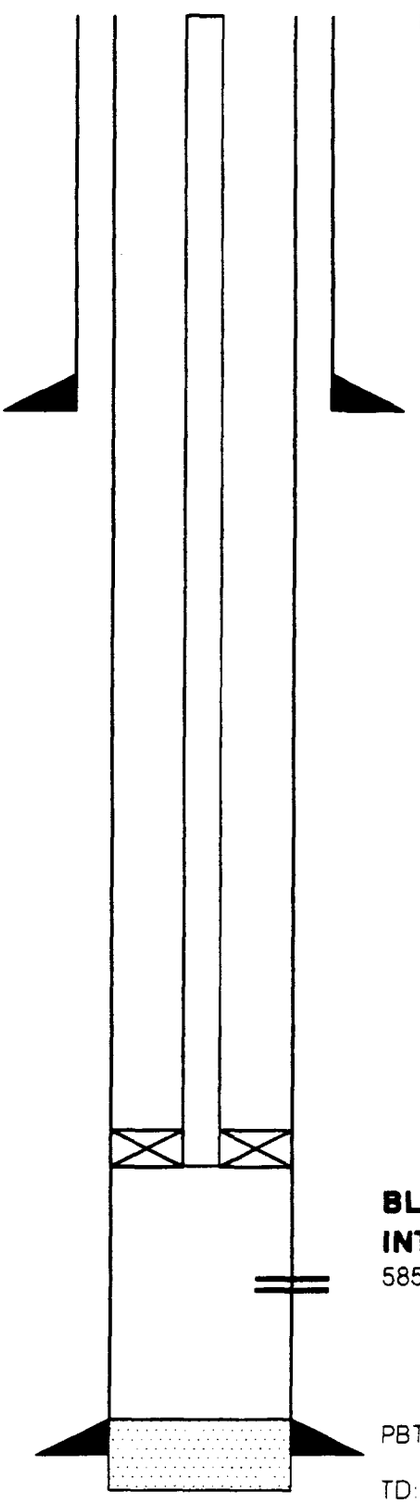
File: WU61inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 61
NMFU

660' FSL, 660' FWL, SEC. 21, T-20S, R-38E, LEA CO. NM

GLE: 3545'

KBE: 3557'



SURFACE CASING
9 5/8", 36#, K-55, @ 1402'
W/ 700 SX. TOC @ CIRC
HOLE SIZE: 12-1/4"

TUBING
2 3/8", 4.7#, J-55, EUE, IPC

PACKER
7"WATSON ARROWSET 1-X PACKER
SET WITHIN 100' OF TOP PERFS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5854'-6729'

PRODUCTION CASING
7", 26#, K-55, @ 6750'
W/ 2550 SX. TOC @ CIRC
HOLE SIZE: 8-3/4"

PBTD: 6700'

TD: 6750'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit
OPERATOR			LEASE
No. 63	660' FSL, 1980' FEL	Sec. 20	T-20S, R-38 E, Lea County, NM
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 520 sx.
TOC Circ feet determined by _____
Hole size 12 1/4"

Production Casing

Size 7" Cemented with 2150 sx.
TOC Circ. feet determined by _____
Hole size 8 3/4"
Total Depth 6775'

Injection interval

5789' feet to 6667' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6,667', ABO 6970', McKee 8,873'

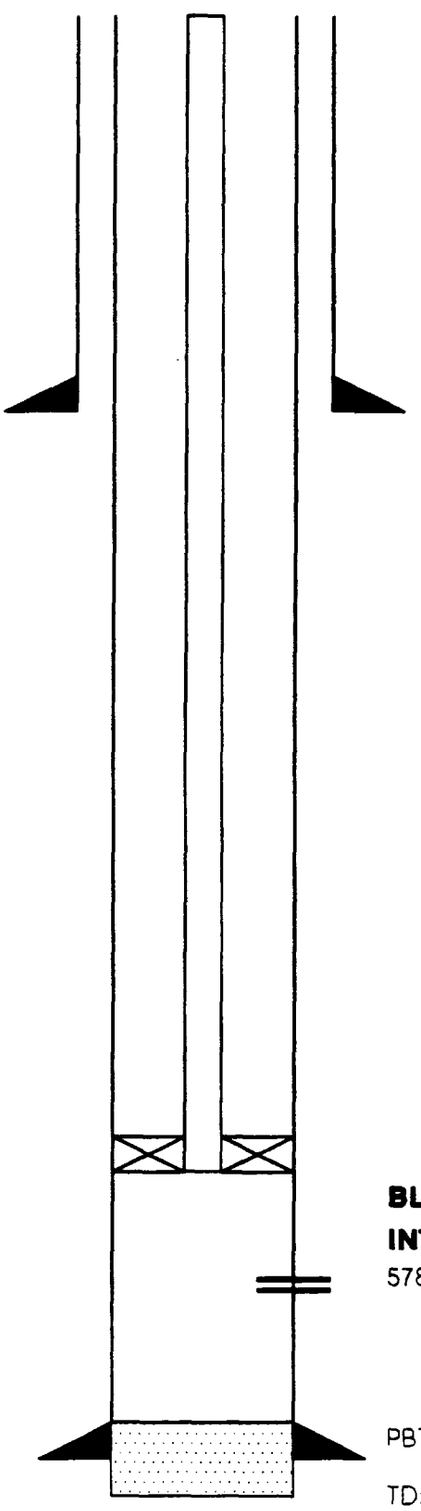
File: WU63inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 63
NMFU

660' FSL, 1980' FEL, SEC.20, T-20S, R-38E, LEA CO. NM

GLE: 3544'

KBE: 3555'



SURFACE CASING
9 5/8", 36#, K-55, @ 1449'
W/ 520 SX. TOC @ CIRC
HOLE SIZE: 12-1/4"

TUBING
2 3/8", 4.7#, J-55, EUE, IPC

PACKER
7"WATSON ARROWSET 1-X PACKER
SET WITHIN 100' OF TOP PERFS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5789'-6667'

PRODUCTION CASING
7", 26#, K-55, @ 6772'
W/ 2150 SX. TOC @ CIRC
HOLE SIZE: 8-3/4"

PBTD: 6728'

TD: 6775'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
No. 78	1980' FSL, 660' FEL	Sec. 20	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 520 sx.
TOC Circ. feet determined by _____
Hole size 12 1/4"

Production Casing

Size 7" Cemented with 2043 sx.
TOC Circ. feet determined by _____
Hole size 8 3/4"
Total Depth 6850'

Injection interval

5828' feet to 6713' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? Yes
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   Drinkard, 6789-6819', RBP set at 6729'.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6713, ABO 6900', McKee 8,800

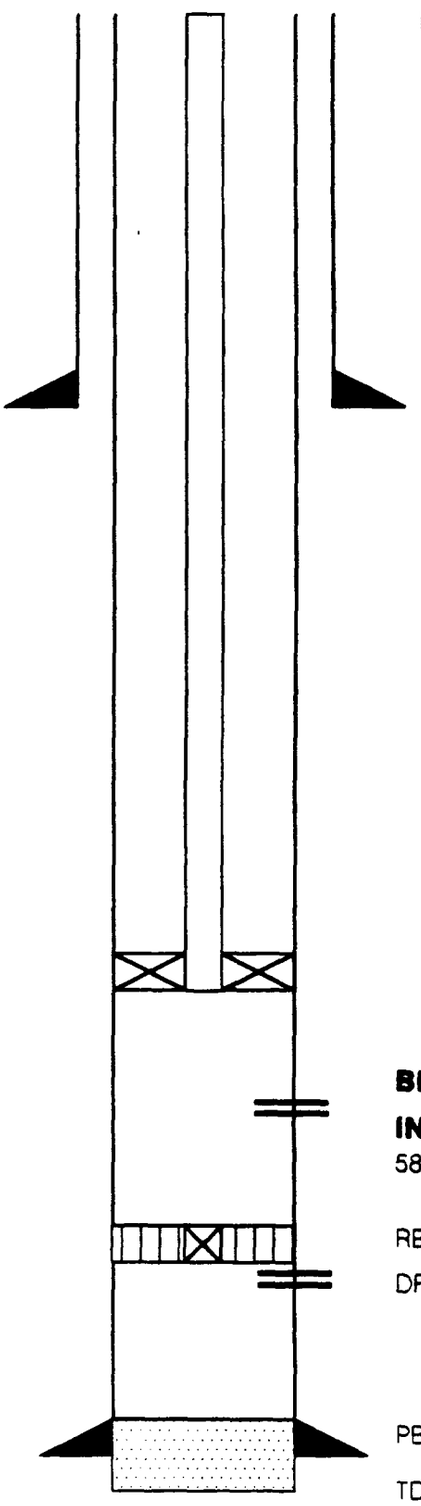
File: WU78inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 78
NMFU

1980' FSL, 660' FEL, SEC. 20, T-20S, R-38E, LEA CO. NM

GLE: 3553

KBE: 3564'



SURFACE CASING
9 5/8", 36#, K-55, @ 1460'
W/ 520 SX. TOC @ CIRC
HOLE SIZE = 12-1/4"

TUBING
2 3/8", 4.7#, J-55, EUE, IPC

PACKER
7" WATSON ARROWSET I-X PACKER
SET WITHIN 100' OF TOP PERFS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5828'-6713'

RBP @ 6729'

DRINKARD: 6789'-6819'

PRODUCTION CASING
7", 26#, K-55, @ 6850
W/2043 SX. TOC @ CIRC
HOLE SIZE = 8-3/4"

PBTD: 6850'

TD: 6850'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit
OPERATOR			LEASE

No. 86	1650'FSL, 890' FEL	Sec. 29	T-20S, R-38 E, Lea County, NM
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP RANGE

Tubular Data
Surface Casing

Size 13-3/8" Cemented with 1232 sx.
TOC Circ. feet determined by _____
Hole size 17-1/2"

Production Casing
Size 7" Cemented with 4580 sx.
TOC 1590' feet determined by TS
Hole size 8-3/4"
Total Depth 9325'

Injection interval
5838' feet to 6743' feet
(perforated)

Note: Intermediate Casing: Size 9-5/8", Cmt. 1255 sx
TOC: 890'

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? Yes
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   Devonian 8161'-8409' squeezed with 125 sxs & cmt ret, ABO 7284'-7465' squeeze with 93 sxs & cmt ret.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6743', ABO 7052', McKee 9100'

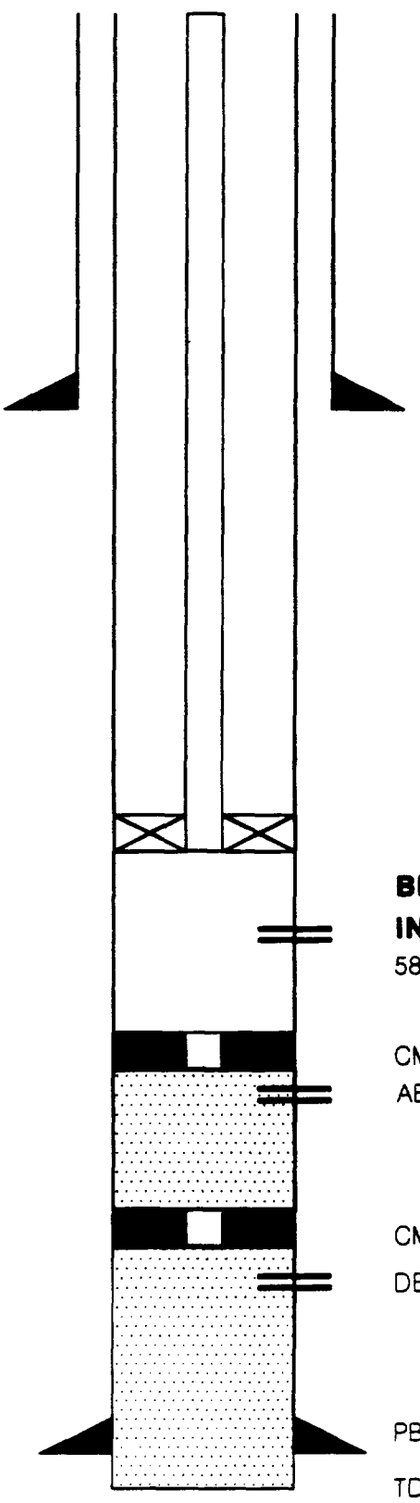
File: WUSSINJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 86
NMFU

1650' FSL, 890' FEL, SEC. 29 T-20S, R-38E, LEA CO. NM

GLE: 3525

KBE: 3542'



SURFACE CASING
13 3/8" 54.50# K-55 @ 1448'
W/ 1232 SX. TOC @ CIRC
HOLE SIZE: 17-1/2"

TUBING
2 3/8", 4.7#, J-55, EUE, IPC

PACKER
7"WATSON ARROWSET 1-X PACKER
SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING
7", 26#, K-55, @ 8600'
W/ 4580 SX. TOC @ 1590' TEMP SURV
HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5838'-6743'

CMT RET @ 7100' W/ 93 SX
ABO: 7284'-7465'

CMT RET @ 8099' W/ 125 SX
DEVONIAN: 8161'-8409'

PBTD: 7040'

TD: 9325'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
No. 99	710' FNL, 660' FEL	Sec. 33	T-20S, R-38 E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 600 sx.
TOC Circ. feet determined by _____
Hole size 12 1/4"

Production Casing

Size 7" Cemented with 1400 sx.
TOC Circ. feet determined by _____
Hole size 8 3/4"
Total Depth 7000'

Injection interval

5698' feet to 6593' feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

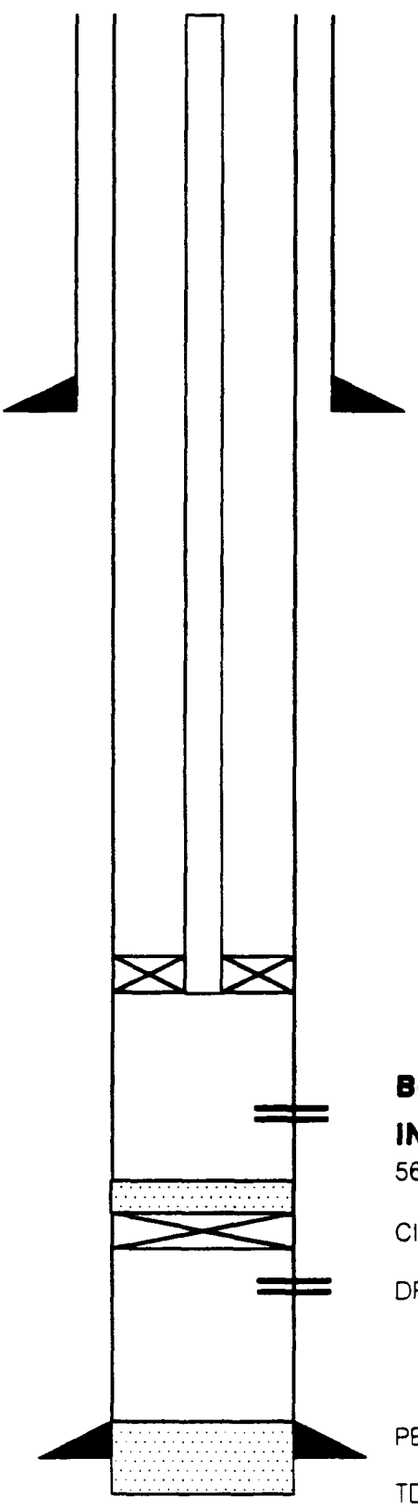
1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry-Tubb Oil & Gas Pool
3. Is this a new well drilled for injection? ___ Yes X No
   If no, for what purpose was the well originally drilled? Oil & Gas
4. Has the well ever been perforated in any other zone(s)? Yes
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
   Drinkard, 6741' - 6811', CIBP set at 6730' with 20' cmt on top.
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6713'

File: WU99Inj.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 99
NMFU
710' FNL, 660' FEL, SEC. 33, T-20S, R-38E, LEA CO. NM

GLE: 3522'

KBE: 3539'



SURFACE CASING
9 5/8", 36#, K-55, @ 1499'
W/ 600 SX. TOC @ CIRC
HOLE SIZE = 12-1/4"

TUBING
2 3/8", 4.7#, J-55, EUE, IPC

PACKER
7" WATSON ARROWSET I-X PACKER
SET WITHIN 100' OF TOP PERFS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)
5698'-6593'

CIBP @ 6730'W/ 20' CMT.

DRINKARD: 6741'-6811'

PRODUCTION CASING
7", 26#, K-55, @ 7000'
W/1400 SX. TOC @ CIRC
HOLE SIZE = 8-3/4"

PBTD: 6944'

TD: 7000'

BY JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
110	2060' FSL, 660' FWL	Sec. 27	T-20S, R-38E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 8-5/8" Cemented with 800sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 5-1/2" Cemented with 1415sx.
TOC Circ. feet determined by ___
Hole size 7-7/8"
Total Depth 6780'

Injection interval
5753 feet to 6606 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 5-1/2" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb 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 & Gas
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6608'

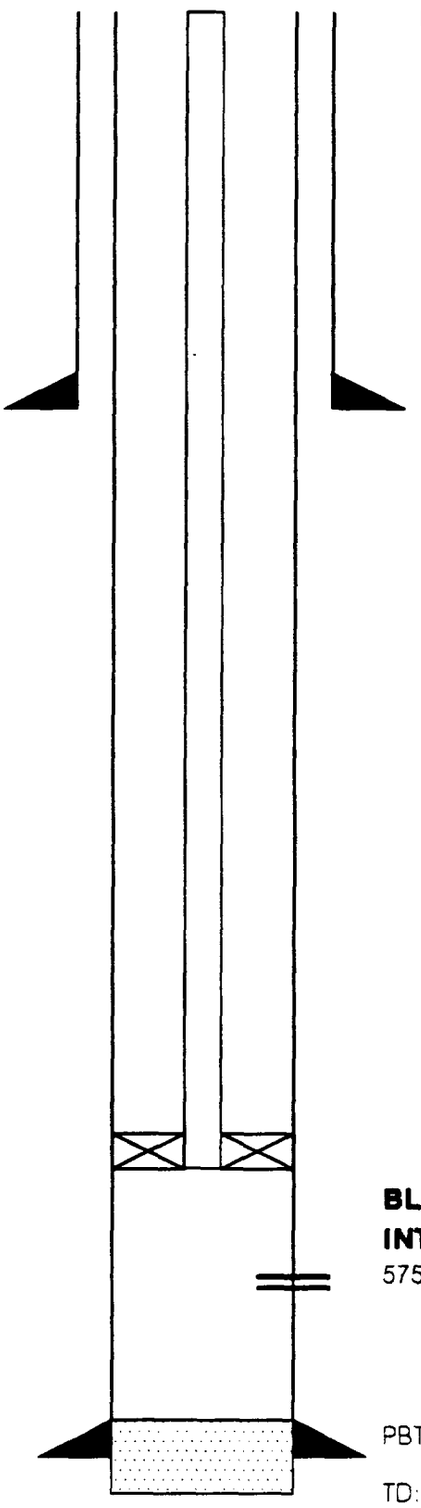
File: WFD110INJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 110
NMFU

2060' FSL, 660' FWL, SEC. 27, T-20S, R-38E, LEA CO. NM

GLE: 3538'

KBE: 3547'



SURFACE CASING

8 5/8", 24#, K-55, @ 1500'

W/ 800 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

5 1/2" WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

51/2"", 17# K-55 @ 6780'

W/ 1415 SX. TOC @ CIRC

HOLE SIZE: 7-7/8"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5753'-6608'

PBTD: 6730'

TD: 6780'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
111	2180' FNL, 660' FEL Sec. 28		T-20S, R-38E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5787 feet to 6627 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

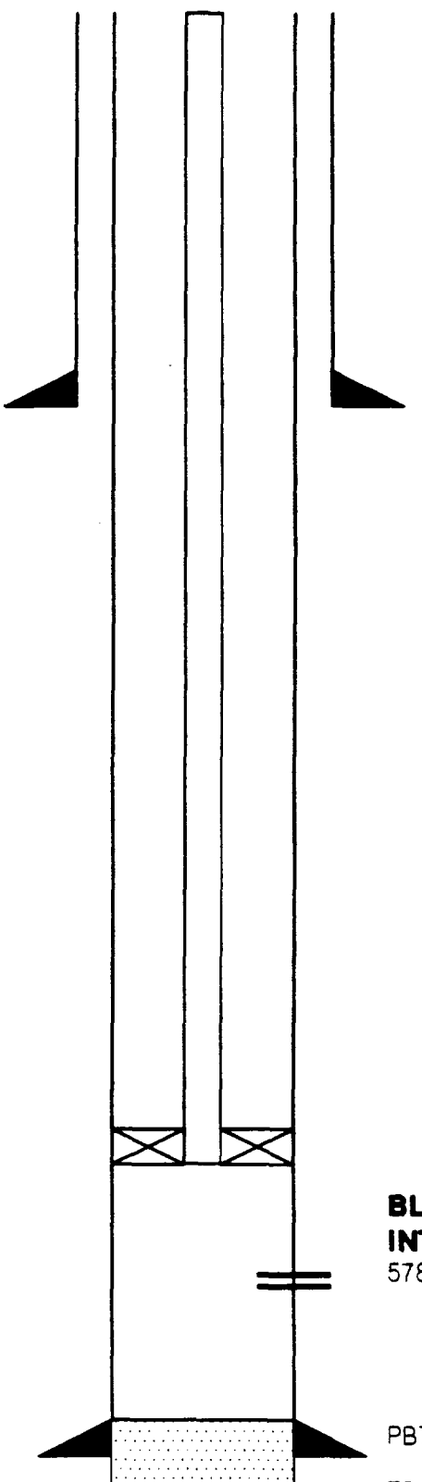
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
3. Is this a new well drilled for injection? X Yes ____ No
   If no, for what purpose was the well originally drilled? Oil & Gas
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6627'

File: WFD111INJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 111
NMFU

2180' FNL, 660' FEL,SEC. 28, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5787'-6627'

PBTD: 6800'

TD: 6850'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
113	660' FSL, 1980' FEL Sec. 28	T-20S, R-38E, Lea County, NM		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5745 feet to 6620 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

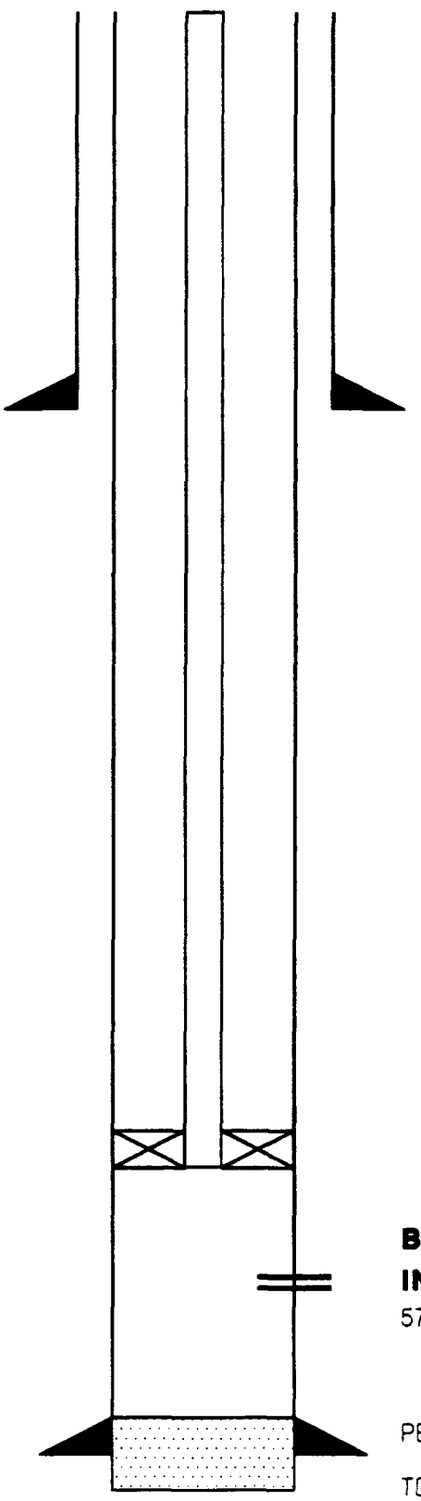
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6620'

File: WFD113INJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 113
NMFU

660' FSL, 1980' FEL,SEC. 28, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5745'-6620'

PBTD: 6800'

TD: 6850'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
114	660' FNL, 1980' FWL	Sec. 28	T-20S, R-38E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5775 feet to 6635 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

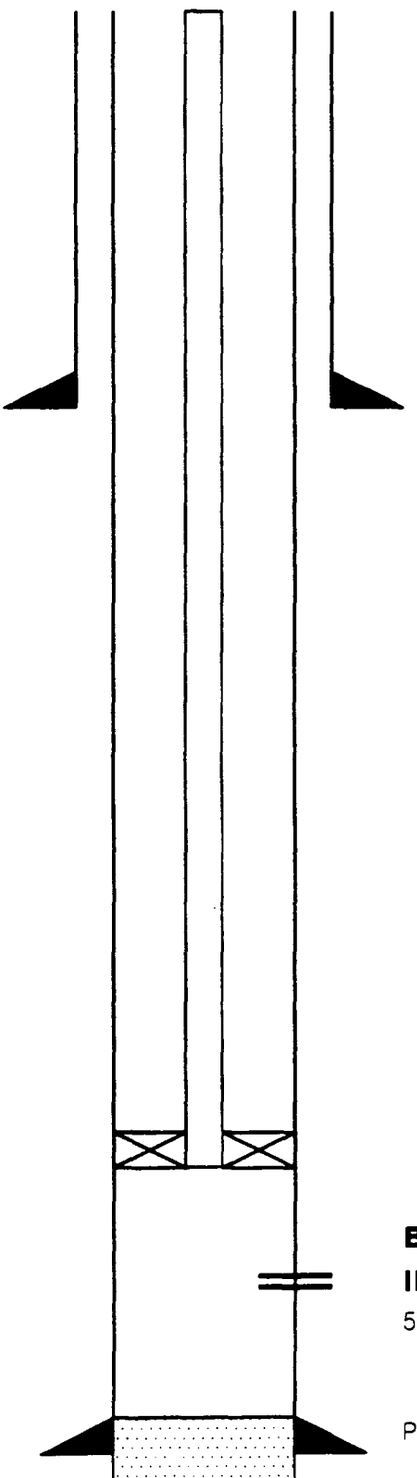
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6635'

File: WFD114INJ.FRM

WELLBORE DIAGRAM
WARREN UNIT NO. 114
NMFU

660' FNL, 1980'FWL, SEC. 28, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5775'-6635'

PBTD: 6800'

TD: 6850'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit	
OPERATOR			LEASE	
115	1980' FNL, 660' FWL	Sec. 28	T-20S, R-38E, Lea County, NM	
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5772 feet to 6637 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

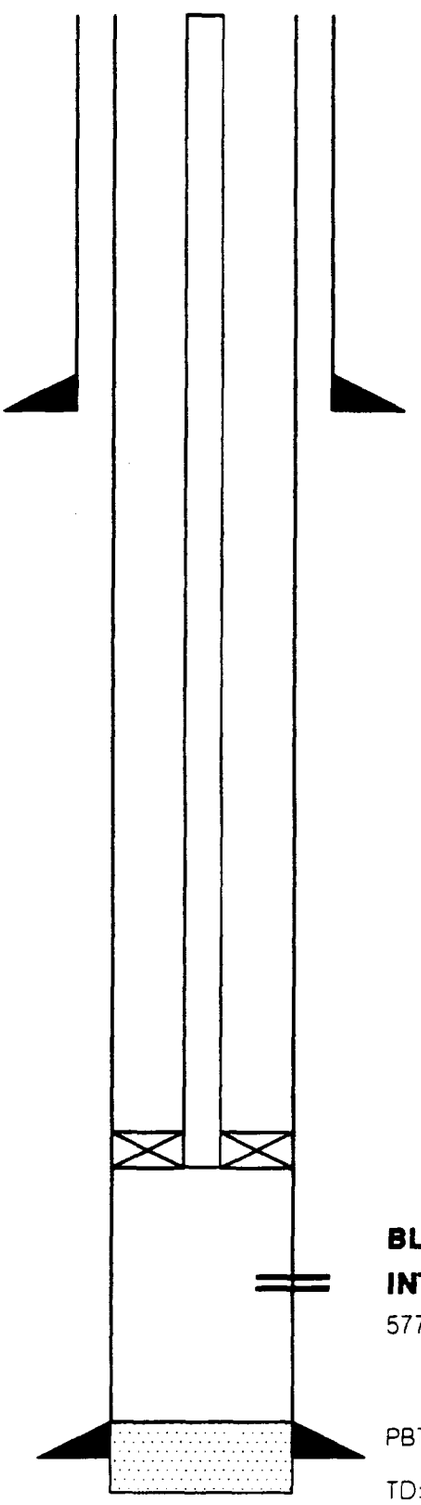
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
   3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6637'

File: WFD115INJ.FORM

WELLBORE DIAGRAM
WARREN UNIT NO. 115
NMFU

1980'FNL, 660' FWL, SEC. 28, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5772'-6637'

PBTD: 6800'

TD: 6850'

BY: JSS

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
118	660' FSL, 660' FWL Sec. 28	T-20S, R-38E, Lea County, NM		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5801 feet to 6676 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

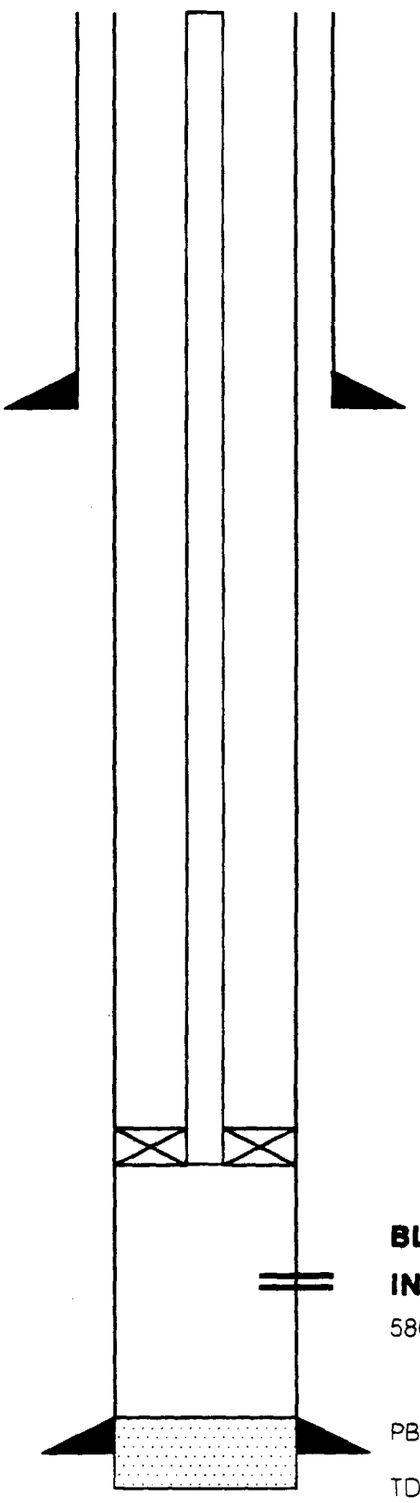
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
   3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6676'

File: WFD118INJ.FORM

WELLBORE DIAGRAM
WARREN UNIT NO. 118
NMFU

660' FSL, 660' FWL, SEC. 28, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5801'-6676'

PBTD: 6800'

TD: 6850'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.			Warren Unit		
OPERATOR			LEASE		
120	1980' FNL, 1650' FEL	Sec. 29	T-20S, R-38E, Lea County, NM		
WELL NO.	FOOTAGE LOCATION		SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5813 feet to 6718 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

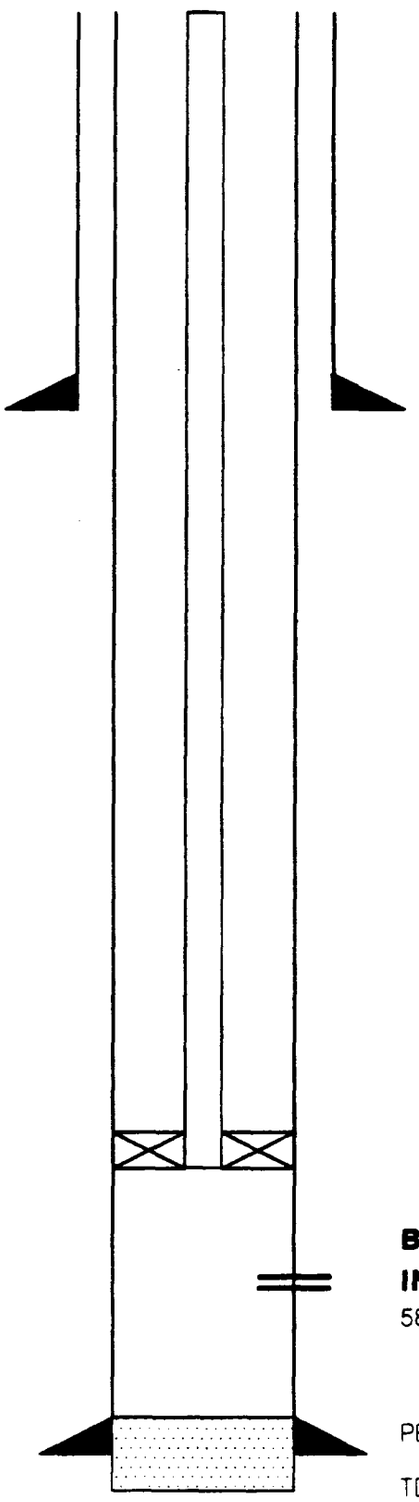
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
   3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6718'

File: WFD120INJ.FORM

WELLBORE DIAGRAM
WARREN UNIT NO. 120
NMFU

1980' FNL, 1650' FEL,SEC. 29, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5813'-6718'

PBTD: 6800'

TD: 6850'

DATE: 10/18/93

PROPOSED WELL SCHEMATIC

INJECTION WELL DATA SHEET

Conoco Inc.		Warren Unit		
OPERATOR		LEASE		
121	660' FSL, 660' FEL Sec. 21	T-20S, R-38E, Lea County, NM		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Tubular Data

Surface Casing

Size 9-5/8" Cemented with 500sx.
TOC Circ. feet determined by _____
Hole size 12-1/4"

Production Casing

Size 7" Cemented with 2000sx.
TOC Circ. feet determined by ___
Hole size 8-3/4"
Total Depth 6850'

Injection interval
5926 feet to 6746 feet
(perforated)

Tubing size 2-3/8" 4.7# J-55 lined with IPC (material) set in a 7" Watson Arrowset 1-X (brand and model)

packer within 100' of top perforation.

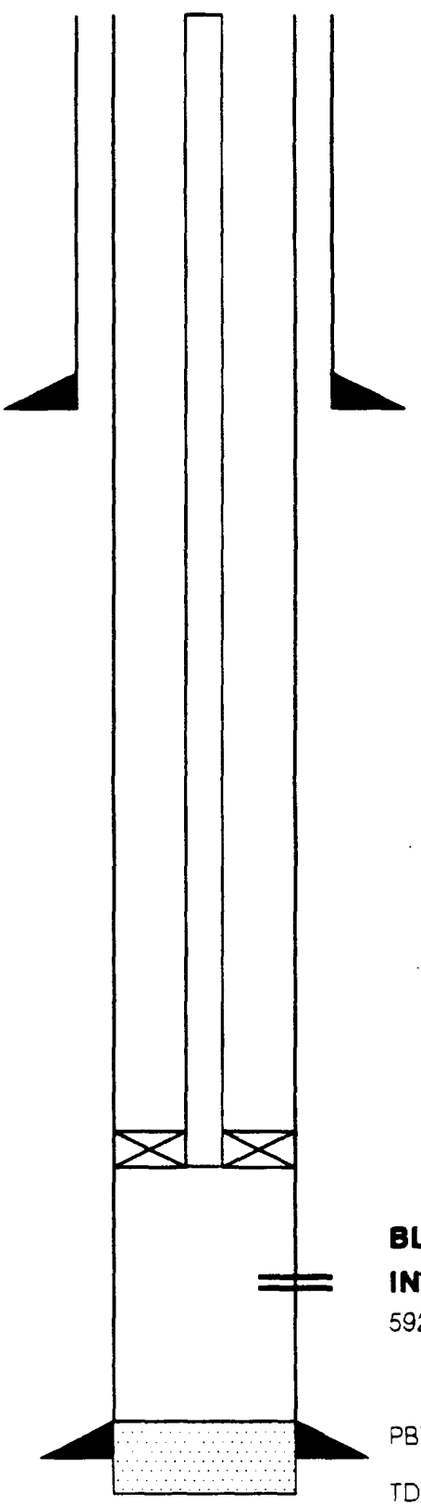
Other Data

1. Name of injection formation Blinebry/Tubb
2. Name of Field or Pool (if applicable) Warren Blinebry - Tubb Oil & Gas Pool
   3. Is this a new well drilled for injection? X Yes ____No
   If no, for what purpose was the well originally drilled? _____
4. Has the well ever been perforated in any other zone(s)? No
   List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
   Drinkard 6746'

File: WFD121INJ.FORM

WELLBORE DIAGRAM
WARREN UNIT NO. 121
NMFU

660' FSL, 660' FEL, SEC. 21, T-20S, R-38E, LEA CO. NM



SURFACE CASING

9 5/8", 36#, K-55, @ 1500'

W/ 500 SX. TOC @ CIRC

HOLE SIZE: 12-1/4"

TUBING

2 3/8", 4.7#, J-55, EUE, IPC

PACKER

7"WATSON ARROWSET 1-X PACKER

SET WITHIN 100' OF TOP PERFS

PRODUCTION CASING

7", 23# K-55 @ 6700'

W/ 2000 SX. TOC @ CIRC

HOLE SIZE: 8-3/4"

BY: JSS

BLINEBRY/TUBB INJECTION INTERVAL (PERFORATED)

5926'-6746'

PBTD: 6800'

TD: 6850'

DATE: 10/18/93

C - 108 Attachment

VI. DATA FOR ALL WELLS WITHIN 1/2 MILE AREA OF REVIEW

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Burger B-20 No.4 Conoco, Inc.	F	2310' FNL, 2010' FWL Sec.20-T20s-R38E	OPU	9118'-9223'	13-3/8" 9-5/8" 7"	412' 4220' 9349'	485 1770 1700	Circ. Circ. Circ.	Visual Returns	7/4/91	11/4/91	9350'/9300'	Warren Mckee
Burger B-20 No.2 Conoco, Inc.	G	1980' FNL, 1980' FEL Sec.20-T20s-R38E	OPU	5863'-6645'	9-5/8" 7"	1430' 6760'	520 1571	Circ. Circ.	Visual Returns	11/17/79	02/15/80	6760'/6722'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Burger B-20 No.3 Conoco, Inc.	H	1980' FNL, 660' FEL Sec.20-T20s-R38E	OPU	5916'-6024'	9-5/8" 7"	1432' 6811'	520 2536	Circ. Circ.	Visual Returns	03/20/80	06/04/80	6840'/6768'	Blinebry Oil and Gas
Warren Unit No. 78 Conoco, Inc.	I	1980' FSL, 660' FEL Sec.20-T20s-R38E	OPU	5837'-6885'	9-5/8" 7"	1460' 6850'	520 2043	Circ. Circ.	Visual Returns	10/25/79	01/24/80	6850'/6850'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 77 Conoco, Inc.	J	1980' FSL, 1980' FEL Sec.20-T20s-R38E	OPU	5832'-6672'	9-5/8" 7"	1428' 6790'	520 1977	Circ. Circ.	Visual Returns	07/23/79	09/05/79	6790'/6748'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Mckee No. 28 Conoco, Inc.	J	1980' FSL, 2310' FEL Sec.20-T20s-R38E	IWA	9020'-9138'	13-3/8" 9-5/8" 7"	265' 2998' 9217'	300 825 550	Circ. 1100' 5950'	Temp. Surv.	09/07/61	12/19/61	9218'/9170'	Warren Mckee
Semu Mckee No. 62 Conoco, Inc.	K	1980' FWL, 1980' FSL Sec.20-T20s-R38E	IWA	9067'-9176'	10-3/4" 7-5/8" 5-1/2"	255' 3999' 9236'	250 1000 310	Circ. 1500' 6160'	Temp. Surv.	07/02/57	09/15/57	9250'/9186'	Warren Mckee
Semu No. 104 Conoco, Inc.	K	1980' FSL, 1650' FWL Sec.20-T20s-R38E	OPU	5786'-6774'	9-5/8" 7"	1385' 7020'	620 2660	Circ. Circ.	Visual Returns	08/09/79	11/27/79	7020'/6679'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Semu McKee No. 59 Conoco, Inc.	M	660' FSL, 660' FWL Sec.20-T20s-R38E	IWA	9060'-9127'	10-3/4" 7-5/8" 5-1/2" 4"(hydril)	229' 3999' 9022' 9209'	250 2000 500 15	Circ. 1400' 5950'	Temp. Surv.	05/05/57	07/17/57	9210'/9210'	Warren Mckee
Semu No. 100 Conoco, Inc.	N	760' FSL, 1650' FWL Sec.20-T20s-R38E	OPU	5795'-6629'	9-5/8" 7"	1355' 6700'	625 2100	Circ. Circ.	Visual Returns	01/14/79	05/01/79	6700'/6658'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Semu Mckee No. 13 Conoco, Inc.	N	660' FSL, 1980' FWL Sec.20-T20s-R38E	OPU	8990'-9142'	10-3/4" 7-5/8" 5-1/2"	264' 2849' 9197'	250 1420 260	Circ. 635' 5100'	Temp. Surv.	07/06/51	09/15/51	9198'/9092'	Warren Mckee

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Warren Mckee No. 27 Conoco, Inc.	O	660' FSL, 2310' FEL Sec.20-T20s-R38E	ORP	8953'-9079'	10-3/4" 7-5/8" 5-1/2"	246' 3999' 9108	260 1550 475	Circ. 1010' 3885'	Temp. Surv.	02/60	05/60	9133'/9101'	Warren Mckee
Warren Unit No. 63 Conoco, Inc.	O	660' FSL, 1980' FEL Sec.20-T20s-R38E	OPU	5808'-6651'	9-5/8" 7"	1449' 6772'	520 2150	Circ. Circ.	Visual Returns	09/14/79	11/27/79	6775'/6728'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 62 Conoco, Inc.	P	660' FSL, 660' FEL Sec.20-T20s-R38E	OPU	5836'-6667'	9-5/8" 7"	1443' 6795'	520 2020	Circ. Circ.	Visual Returns	04/27/80	07/14/80	6795'/6753'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 81 Conoco, Inc.	L	1780' FSL, 660' FWL Sec.21-T20s-R38E	OPU	5866'-6705'	9-5/8" 7"	1507' 6835'	650 1781	Circ. 1650'	Temp. Surv.	06/26/80	08/22/80	6835'/6799'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 61 Conoco, Inc.	M	660' FSL, 660' FWL Sec.21-T20s-R38E	OPU	5856'-6136'	9-5/8" 7"	1402' 6750'	700 2550	Circ. Circ.	Visual Returns	07/15/81	09/01/81	6750'/6700'	Blinebry Oil and Gas
Warren Unit No. 43 Conoco, Inc.	N	660' FSL, 1980' FWL Sec.21-T20s-R38E	OPU	5902'-6596'	9-5/8" 7"	1465' 7025'	625 1605	Circ. 1100'	CBL	11/30/76	01/31/77	7025'/6761'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit B-T No. 36 Conoco, Inc.	D	660' FNL, 660' FWL Sec.27-T20S-R38E	OPU	5885'-6682'	9-5/8" 7"	1540' 7074'	600 1100	Circ. 2650'	CBL	10/16/75	9/25/84	7075'/7030'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 9 Conoco, Inc.	E	1980' FNL, 660' FWL Sec.27-T20S-R38E	OPU	5871'-6647'	13-3/8" 9-5/8" 5-1/2"	269' 3050' 7775'	250 1365 943	Circ. 1150' 3622'	Temp. Surv.	3/21/51	2/29/88	9392'/6344'	Warren Blinebry-Tubb O & G
Warren Unit B-T No.110 Conoco, Inc.	L	2060' FSL, 660' FWL Sec.27-T20S-R38E	OFL	6070'-6597'	8-5/8" 5-1/2"	1500' 6780'	800 1415	Circ. Circ.	Visual Returns	5/93	6/93	6780'/6730'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 26 Conoco, Inc.	M	660' FSL, 660' FWL Sec.27-T20S-R38E	OPU	5786'-6586'	13-3/8" 9-5/8" 7"	257' 3132' 6679'	300 2000 240	Circ. 900' 4200'	Temp. Surv.	4/28/58	5/19/89	6800'/6590'	Warren Blinebry-Tubb O & G
Warren Unit No.98 Conoco, Inc.	A	660' FNL, 660' FEL Sec.28-T20S-R38E	OPU	5840'-6674'	9-5/8" 7"	1500' 7050'	600 1400	Circ. 1600'	CBL	6/1/91	10/11/91	7050'/7001'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 10 Conoco, Inc.	B	660' FNL, 2310' FEL Sec.28-T20s-R38E	OTS OFL	5805'-6234' 6404'-6625'	13-3/8" 9-5/8" 7"	265' 2999' 7498'	250 1255 1005	Circ. 890' 2950'	Temp. Surv.	08/27/52	10/27/52	9381'/6767'	Blinebry Oil and Gas Warren Tubb Gas (Dual)

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Warren Unit No. 94 Conoco, Inc.	F	1340' FNL, 2020' FWL Sec.28-T20s-R38E	OPU OFL	5815'-6281' 6600'-6777'	13-3/8" 7"	1558' 7500'	1200 3025	Circ. Circ.	Visual Returns	09/30/88	12/06/88	7500'/6910'	Blinebry Oil and Gas Warren Drinkard (Dual)
Warren Unit No. 96 Conoco, Inc.	I	2130' FSL, 813' FEL Sec.28-T20S-R38E	OFL OFL	6049'-6195' 6749'-6824'	13-3/8" 7"	1592' 6980'	1460 3260	Circ. 575'	CBL	9/19/90	11/25/90	7000'/6892'	Blinebry Oil and Gas Warren Drinkard (Dual)
Warren Unit No. 8 Conoco, Inc.	J	1980' FSL, 1980' FEL Sec.28-T20S-R38E	OPL OFL	5755'-6210' 6360'-6590'	13-3/8" 9-5/8" 7"	262' 2850' 6921'	250 750 500	Circ. 1000' 5325'	Temp. Surv.	11/3/49	7/6/89	9072'/6692'	Blinebry Oil and Gas Warren Tubb Gas (Dual)
Warren Unit No. 35 Conoco, Inc.	K	1880' FSL, 1980' FWL Sec.28-T20S-R38E	GFO GFL	5791'-5971' 6341'-6580'	9-5/8" 7"	1495' 7000'	600 1585	Circ. Circ.	Visual Returns	9/23/75	2/6/76	7090'/6630'	Blinebry Oil and Gas Warren Tubb Gas (Dual)
Warren No. 1 Marland Production Co.	N	330' FSL & 2310' FWL Sec.28-T20S-R38E	P&A		15" 12-1/2" 8"	575' 800' 2922'	WELL DOES NOT PENETRATE ZONE OF INTEREST			10/25/28	3/17/29	4213'	P & A
Warren Unit No. 95 Conoco, Inc.	P	660' FSL, 660' FEL Sec.28-T20S-R38E	OFL OFL	6042'-6170' 6570'-6792'	13-3/8" 7"	1445' 7448'	1200 2770	Circ. Circ.	Visual Returns	9/23/89	1/11/90	7448'/6865'	Blinebry Oil and Gas Warren Drinkard (Dual)
Warren Unit No. 51 Conoco, Inc.	A	660' FNL, 660' FEL Sec.29-T20s-R38E	OPU	5826'-6695'	9-5/8" 7"	1387' 6770'	550 2200	Circ. Circ.	Visual Returns	09/20/78	11/13/78	6770'/6720'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 50 Conoco, Inc.	B	660' FNL, 1650' FEL Sec.29-T20s-R38E	OPU	5790'-6581'	9-5/8" 7"	1390' 6749'	550 1870	Circ. Circ.	Visual Returns	09/03/78	10/20/78	6750'/6713'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Mckee No. 7 Conoco, Inc.	B	660' FNL, 1980' FEL Sec.29-T20s-R38E	ORP	8924'-9094'	10-3/4" 7-5/8" 5-1/2"	286' 2859' 9144'	225 940 207	Circ. 850' 5975'	Temp. Surv.	2/52	5/52	9145'/9129'	Warren Mckee
Semu Mckee No. 114 Conoco, Inc.	C	810' FNL, 2130' FWL Sec.29-T20s-R38E	IWA	8910'-9014'	10-3/4" 5-1/2"	1421' 9070'	918 3234	Circ. 1880'	Temp. Surv.	9/81	11/81	9100'/9044'	Warren Mckee
Semu No. 58 Conoco, Inc.	C	660' FNL, 1980' FWL Sec.29-T20s-R38E	P & A		10-3/4" 7-5/8" 5-1/2"	255' 4004' 9119'	255 1800 525	Circ. 1700' 4650'	Temp. Surv.	03/10/57	05/23/57	9120'/9115'	P & A
Semu Mckee No. 60 Conoco, Inc.	E	1980' FNL, 990' FWL Sec.29-T20s-R38E	IWA	8966'-9228'	10-3/4" 7-5/8" 5-1/2"	263' 3999' 9398'	250 2150 250	Circ. 800' 6300'	Temp. Surv.	05/08/57	08/28/57	9400'/9151'	Warren Mckee

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Semu No. 99 Conoco, Inc.	F	1980' FNL, 1650' FWL Sec.29-T20s-R38E	OPS	5790'-5942'	9-5/8" 7"	1399' 6036'	570 1670	Circ. Circ.	Visual Returns	08/17/78	09/15/78	6765'/5986'	Blinebry Oil and Gas
Semu Mckee No. 10 Conoco, Inc.	F	1980' FNL, 1980' FWL Sec.29-T20s-R38E	ORP	8881'-9017'	13/3/8" 9-5/8" 7"	226' 2906' 9145'	250 500 900	Circ. 1989' 4665'	Temp. Surv.	03/03/49	07/05/49	9391'/9150'	Warren Mckee
Warren Mckee No. 23 Conoco, Inc.	G	1980' FNL, 1980' FEL Sec.29-T20s-R38E	IWA	8916'-9087'	10-3/4" 7-5/8" 5-1/2"	279' 3999' 9198'	250 2660 260	Circ. 1540' 4675'	Temp. Surv.	09/02/57	11/06/57	9198'/9160'	Warren Mckee
Warren Unit No. 47 Conoco, Inc.	H	1650' FNL, 710' FEL Sec.29-T20s-R38E	OPU	5891'-6678'	9-5/8" 7"	1407' 6688'	625 1155	Circ. 1617'	Calc: *	04/05/78	06/19/78	6776'/6680'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Mckee No. 2 Continental Oil Co.	H	1980' FNL, 660' FWL Sec.29-T20s-R38E	P & A		13-3/8" 9-5/8"	250' 2883'	250 500	Circ. 1829'	Calc: *		11/07/49	9852'/7730'	P & A
Warren Unit No. 52 Conoco, Inc.	I	2310' FSL, 330' FEL Sec.29-T20s-R38E	OPU OPS	5812'-6717'	9-5/8" 7"	1382' 6788'	550 1825	Circ. Circ.	Visual Returns	10/05/78	10/19/78	6788'/6755'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Unit No. 86 Conoco, Inc.	I	1650' FSL, 890' FEL Sec.29-T20s-R38E	OPU	5879'-6704'	13-3/8" 7"	1448' 8600'	1232 4580	Circ. 1590'	Temp. Surv.	01/04/82	06/04/82	9325'/7040'	Blinebry Oil and Gas Warren Tubb Gas (DHC)
Warren Mckee No. 3 Conoco, Inc.	J	1980' FSL, 1980' FEL Sec.29-T20s-R38E	OPS	8947'-9070'	13-3/8" 9-5/8" 7"	262' 2989' 8947'	250 625 900	Circ. 1600' 4330'	Temp. Surv.	9/48	12/48	9070'/9070'	Warren Mckee
Warren Mckee No. 22 Conoco, Inc.	K	2090' FSL, 2090' FWL Sec.29-T20s-R38E	IWA	8954'-9123'	10-3/4" 7-5/8" 5-1/2"	256' 3998' 9195'	250 700 270	Circ. 1375' 5450'	Temp. Surv.	07/12/57	09/18/57	9200'/9161'	Warren Mckee
Warren Unit No. 83 Conoco, Inc.	K	2100' FSL, 1650' FWL Sec.29-T20s-R38E	OPU	5803'-6127'	13-3/8" 5-1/2"	1400' 6200'	1094 2890	Circ. Circ.	Visual Returns	05/06/80	08/12/80	6200'/6157'	Blinebry Oil and Gas
Warren Mckee No. 6 Conoco, Inc.	N	660' FSL, 1980' FWL Sec.29-T20s-R38E	OPU	9011'-9116'	10-3/4" 7-5/8" 5-1/2"	243' 2893' 9159'	200 1145 1650	Circ. 800' 4650'	Temp. Surv.	08/19/50	10/16/50	9160'/9085'	Warren Mckee
Warren Mckee No. 25 Conoco, Inc.	O	990' FSL, 2310' FEL Sec.29-T20s-R38E	IWA	9024'-9132'	10-3/4" 7-5/8" 5-1/2"	263' 4000' 9215'	250 3350 675	Circ. 1575' 5700'	Temp. Surv.	03/04/58	05/06/58	9218'/9188'	Warren Mckee

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Warren Unit No. 24 Conoco, Inc.	O	24' FSL, 2145' FEL Sec.29-T20s-R38E	SWD	4500'-4760'	10-3/4" 7-5/8" 5-1/2"	242' 3999' 4500'	250 2300	Circ. 1650' 3921'	Temp. Surv.	10/16/57	12/16/57	9240'/4760'	San Andres
Tidewater State No. 1 Mudge, E.W. Jr.	A	660' FNL, 660' FEL Sec.32-T20S-R38E	P&A		13-3/8" 8-5/8"	262' 2931'	200 100	72' 2794'	Calc: *	2/1/51	4/2/51	9355'/9150'	P & A
Warren Unit B-T No.99 Conoco, Inc.	A	710' FNL, 660' FEL Sec.33-T20S-R38E	OPL	6051'-6553'	9-5/8" 7"	1499' 7000'	600 1400	Circ. Circ.	Visual Returns	5/15/91	9/17/91	7000'/6944'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 21 Conoco, Inc.	B	660' FNL, 1980' FEL Sec.33-T20S-R38E	OPU	5816'-6093'	13-3/8" 9-5/8" 7"	274' 3049' 6699'	300 1500 400	Circ. 1225' 4825'	Temp. Surv.	11/13/56	5/11/82	6700'/6175'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 84 Conoco, Inc.	C	660' FNL, 1920' FWL Sec.33-T20S-R38E	OPU	5792'-6078'	8-5/8" 5-1/2"	1447' 6170'	696 2350	Circ. Circ.	Visual Returns	8/9/81	11/19/81	6170'/6123'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 91 Conoco, Inc.	F	1650' FNL, 2310' FWL Sec.33-T20S-R38E	OPU	5835'-6285'	8-5/8" 5-1/2"	1430' 6314'	710 1735	Circ. Circ.	Visual Returns	1/12/82	6/5/90	6314'/6295'	Warren Blinebry-Tubb O & G
Warren Unit B-T No. 80 Conoco, Inc.	G	1980' FNL, 1980' FEL Sec.33-T20S-R38E	IWA	5815'-6043'	8-5/8" 5-1/2"	1480' 6170'	709 2010	Circ. Circ.	Visual Returns	4/2/80	1/12/83	6173'/6128'	Warren Blinebry-Tubb O & G

Type of Well
GFL - Gas well flowing.
GFO - Gas well flowing oil.
IWA - Injection well active.
OFL - Oil well flowing.

Type of Well
OPL - Oil well produced by plunger lift.
OPU - Oil well produced by pumping unit.
OPS - Oil well permanently shut-in.
OTS - Oil well temporarily shut-in.

Type of Well
ORP - Oil well produced by submersible pump.
P&A - Well which has been plugged and abandoned.
SWD - Active Salt Water Disposal Well.

* Calculated cement tops utilized a cement yield value of 0.66 ft3/sx.

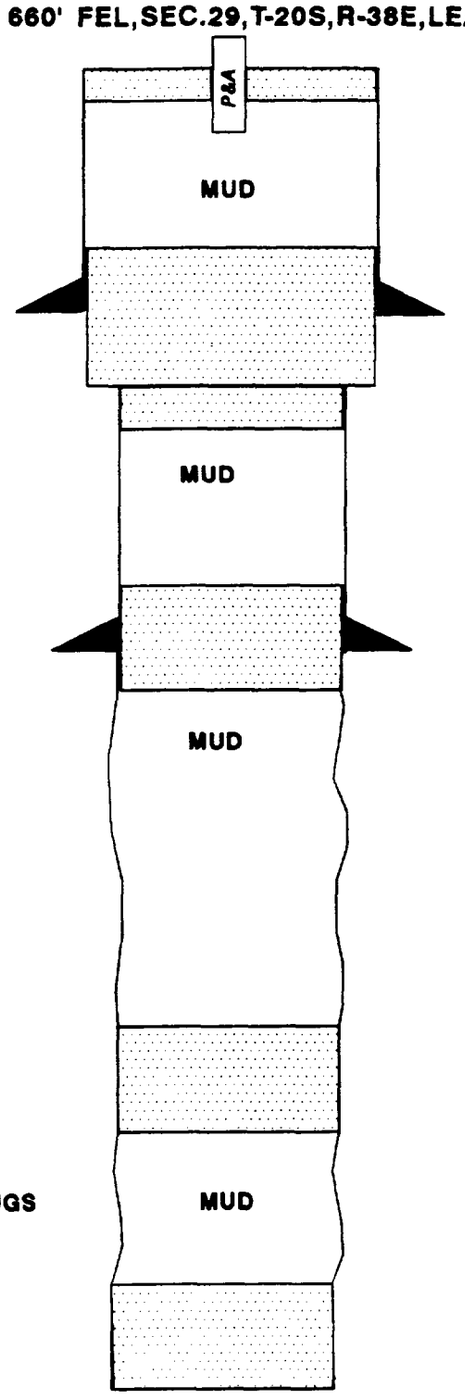
C - 108 Attachment

VI. PLUGGED WELL SCHEMATICS WITHIN 1/2 MILE AREA OF REVIEW

P&A WELLBORE DIAGRAM
WARREN MCKEE UNIT NO.2
NMFU

1980' FNL & 660' FEL,SEC.29,T-20S,R-38E,LEA CO,NM

GLE 3538'
KBE 3548'



33 SX CMT 65'-SURFACE

67 SX CMT 210'-310'

77 SX CMT 410'-510'

50 SX CMT 2825'-2925'

50 SX CMT 6650'-6750'

200 SX CMT TO PBTD

SURFACE CASING
13 3/8" @ 250'
W/ 250 SX. TOC @ CIRC
HOLE SIZE: 17-1/4"

9-5/8" CSG CUT OFF @ 475'

INTERMEDIATE CASING
9-5/8" @ 2883'
W/ 500 SX. TOC @ 1829' CALC
HOLE SIZE: 12-1/4"

GEOLOGIC MARKERS

YATES	**2690'**
SAN ANDRES	**3865'**
GLORIETA	**5410'**
TUBB	**6390'**
BASE PERMIAN	**7630'**
PENN	**7663'**
DEVONIAN	**7973'**
SIMPSON	**8895'**
MONTOYA	**8605'**

HEAVY (12#) MUD BETWEEN ALL PLUGS

TD: 9852'
PBTD: 7730'
DATE: 10/28/93

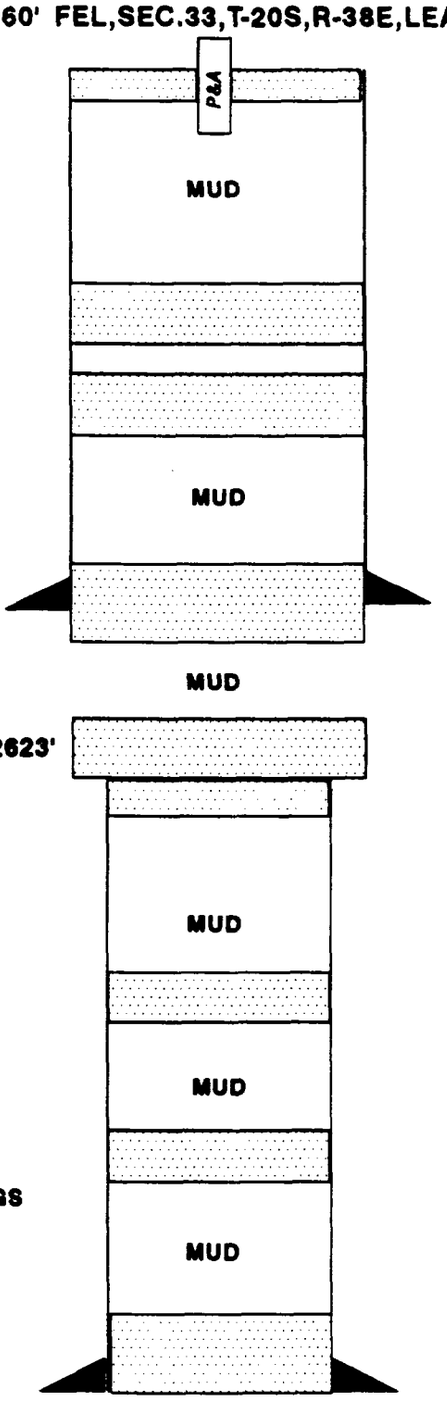
BY J. MILLER

SA, Glor, Blnb, Tubb
Open

P&A WELLBORE DIAGRAM
WARREN UNIT NO.29
NMFU

660' FNL & 660' FEL,SEC.33,T-20S,R-38E,LEA CO,NM

GLE 3521'
KBE 3534'



10 SX CMT 25'-SURFACE

50 SX CMT 465'-615'

50 SX CMT 625'-775'

50 SX CMT 1375'-1485'

50 SX CMT 2500'-2665'

20 SX CMT 2840'-3010'

15 SX CMT 3395'-3540'

15 SX CMT 4075'-4220'

TD 4250'

SURFACE CASING
8-5/8", 24#, J-55 @ 1428'
W/ 450 SX. TOC @ CIRC
HOLE SIZE: 12-1/4"

PRODUCTION CASING PULLED @ 2623'

GEOLOGIC MARKERS

YATES	**2703'**
SEVEN RIVERS	**2960'**
QUEEN	**3522'**
PENROSE	**3665'**
GRAYBURG	**3851'**
SAN ANDRES	**4112'**

HEAVY (12#) MUD BETWEEN ALL PLUGS

PRODUCTION CASING
5-1/2", 14#, J-55 @ 4250'
W/ 280 SX. TOC @ 2640' TEMP SURV
HOLE SIZE: 7-7/8"

BY J MILLER

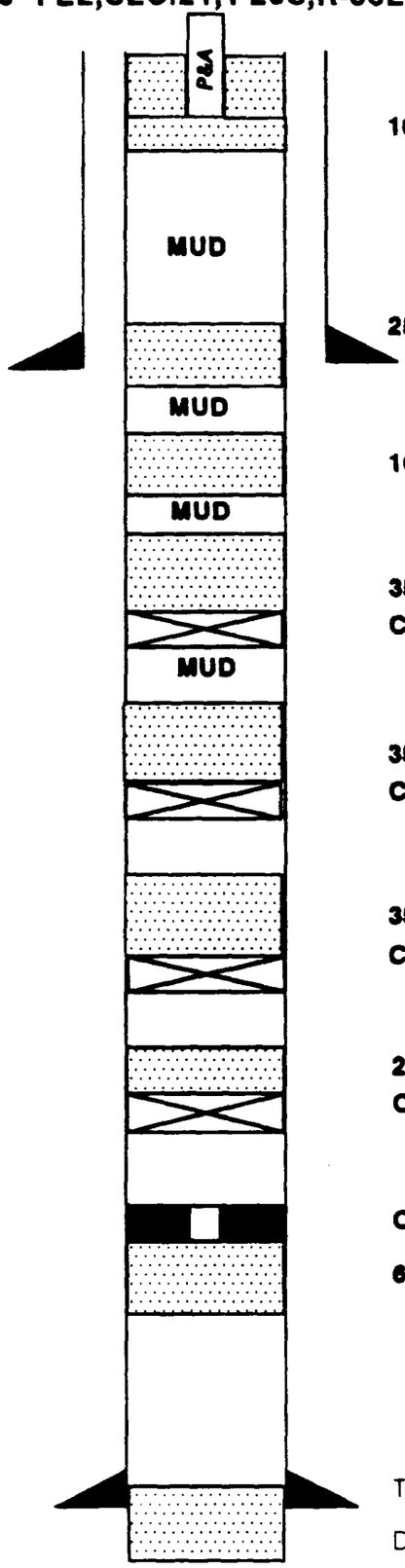
DATE: 10/28/93

P&A WELLBORE DIAGRAM
KORNEGAY NO.1

TAMARACK PET.

1980' FNL & 660' FEL,SEC.21,T-20S,R-38E,LEA CO,NM

GLE: 3562'



10 SX @ SURFACE.

25 SX CMT @ 1638'

100' CMT 3880'-3780'

35' CMT ON TOP OF CIBP
CIBP @ 5700' ABOVE GLORIETTA

35' CMT ON TOP OF CIBP
CIBP @ 5850' ABOVE BLINEBRY

35' CMT ON TOP OF CIBP
CIBP ABOVE TUBB

2 SX CMT ON TOP OF CIBP
CIBP @ 7140' ABOVE DRINKARD

CMT RET @ 7240'

60 SX CMT IN DRINKARD PERFS

SURFACE CASING
9-5/8" @ 1610'
W/ 600 SX. TOC:CIRC
HOLE SIZE:12-1/4"

GEOLOGIC MARKERS

QUEEN	**3820'**
GLORIETTA	**5720'**
BLINEBRY	**6207'**
TUBB	**6710'**
DRINKARD	**7040'**

PRODUCTION CASING
7" @ 7360'
W/ 1100 SX. TOC @ 1650' (TEMP SURVEY)
HOLE SIZE: 8-3/4"

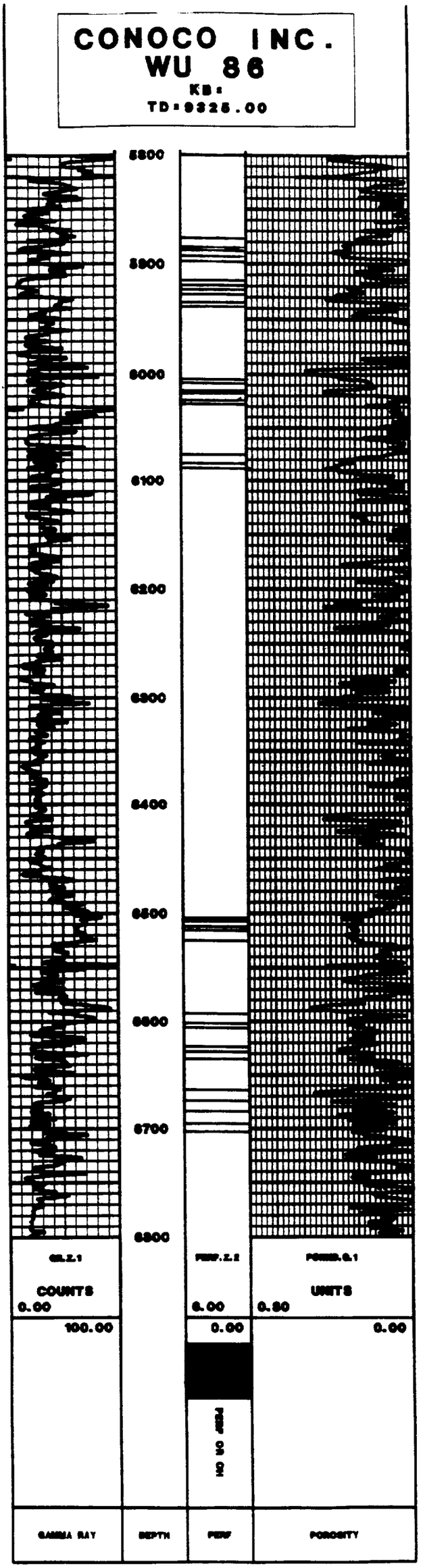
BY: J. MILLER

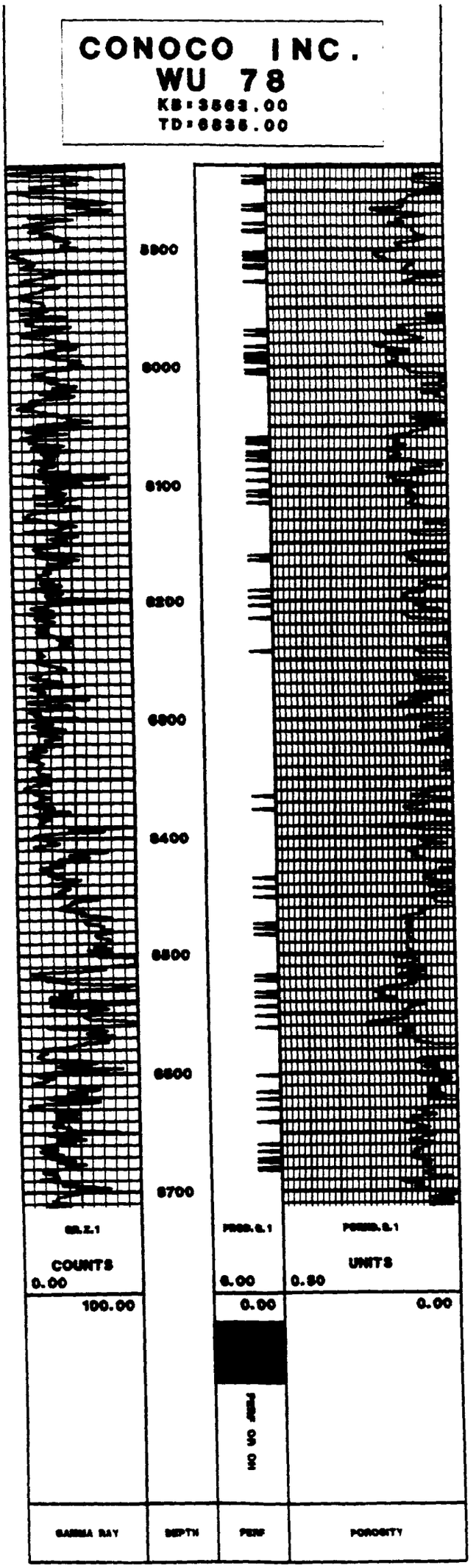
TD: 7360'

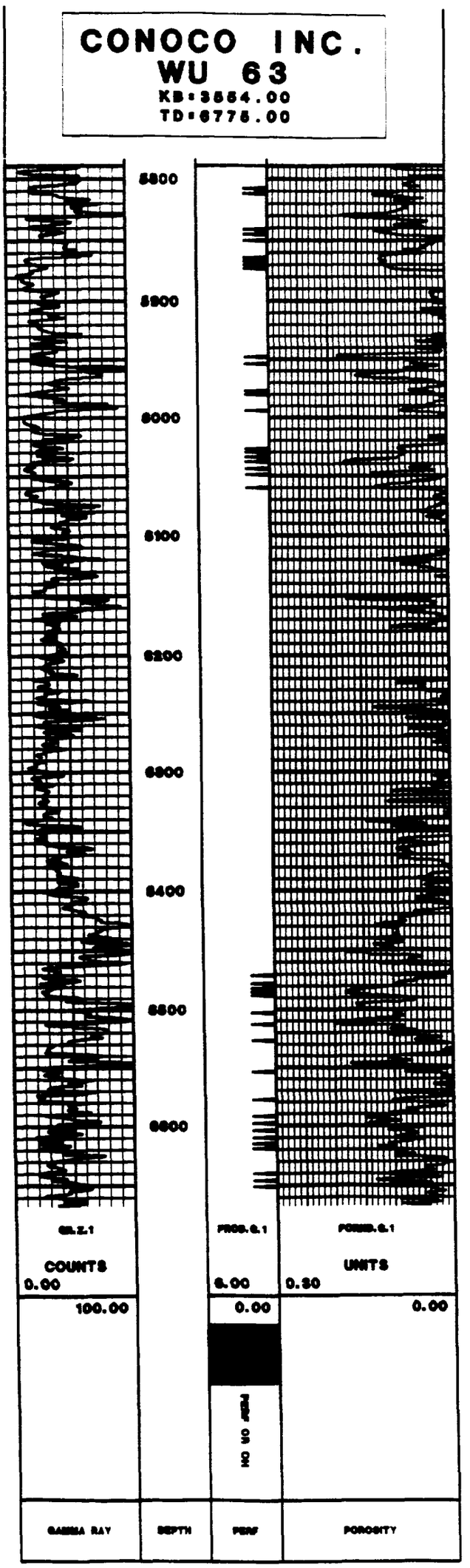
DATE: 1/10/94

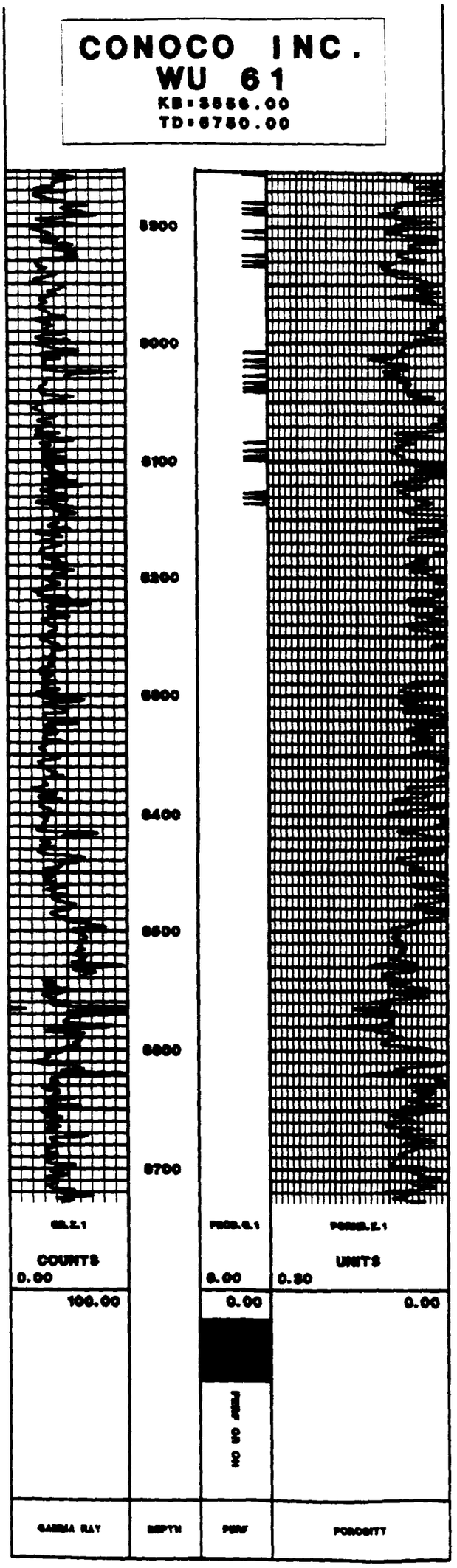
C - 108 Attachment

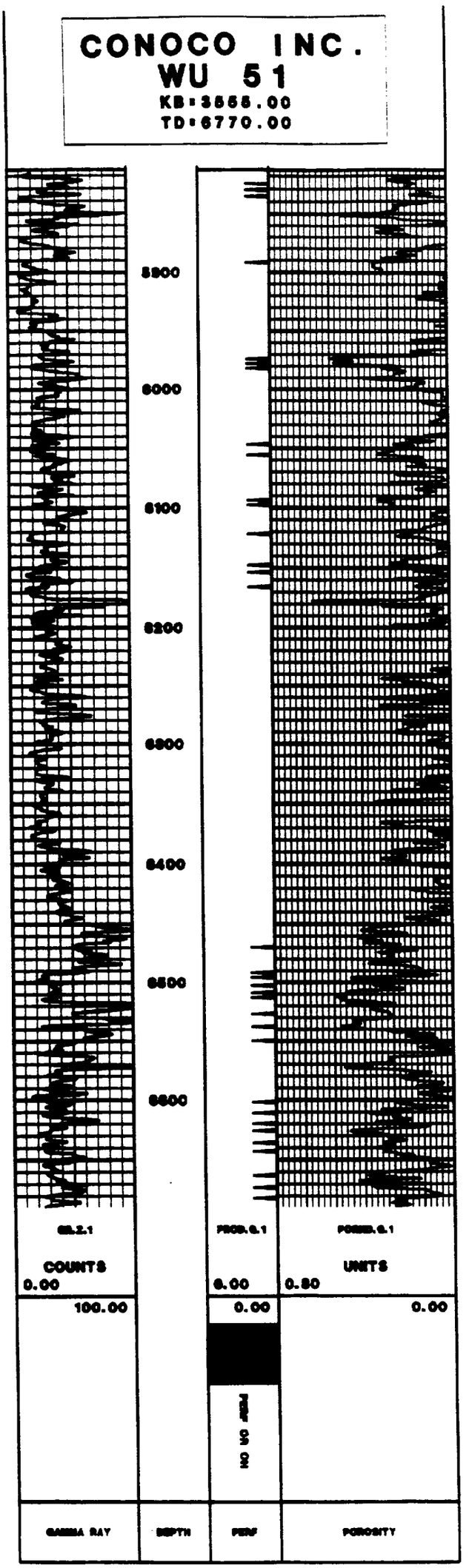
X. LOG SECTIONS FOR INJECTION INTERVAL OF PROPOSED INJECTORS


CONOCO INC.
WU 86
KB:
TD=9325.00
5800
5900
6000
6100
6200
6300
6400
6500
6600
6700
6800
COUNTS
0.00
100.00
0.00
0.00
0.00
0.30
0.00
GAMMA RAY
DEPTH
PERF
POROSITY


CONOCO INC.
WU 78
KB:3563.00
TD:6836.00
5900
6000
6100
6200
6300
6400
6500
6600
6700
COUNTS
0.00
100.00
UNITS
0.50
0.00
0.00
GAMMA RAY
DEPTH
PERF
POROSITY

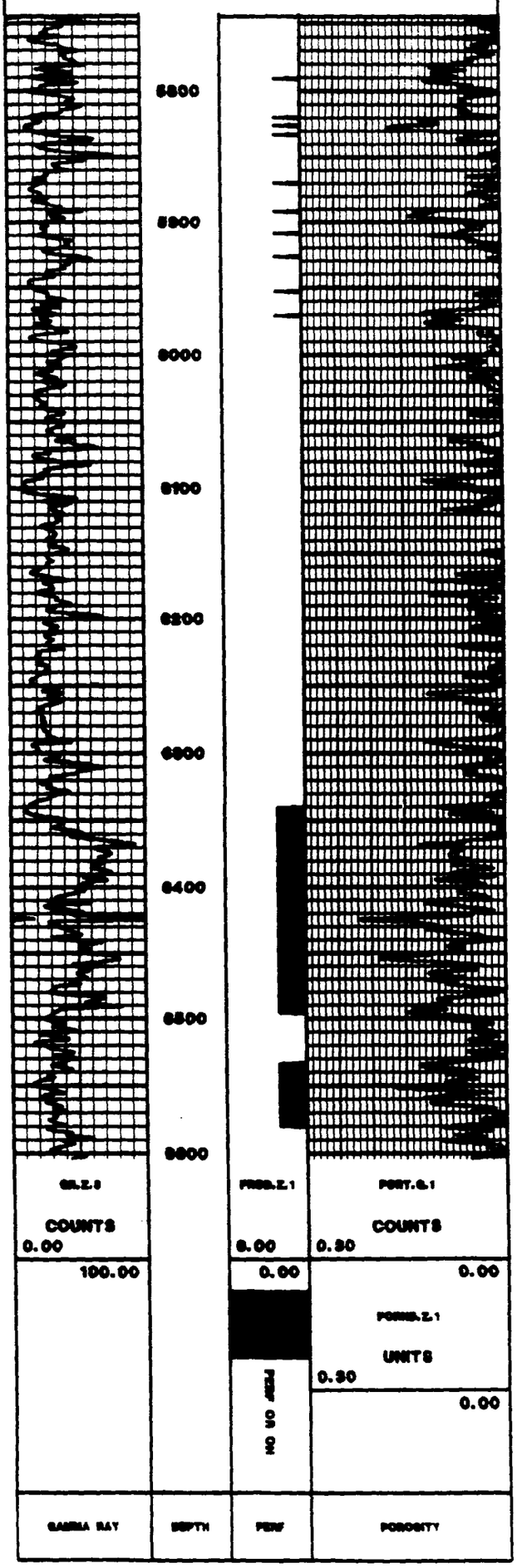

CONOCO INC.
WU 63
KB:3554.00
TD:6775.00
5800
5900
6000
6100
6200
6300
6400
6500
6600
GR.Z.1
COUNTS
0.00
100.00
PROS.G.1
0.00
POROS.G.1
UNITS
0.30
0.00
GAMMA RAY
DEPTH
PERF
POROSITY

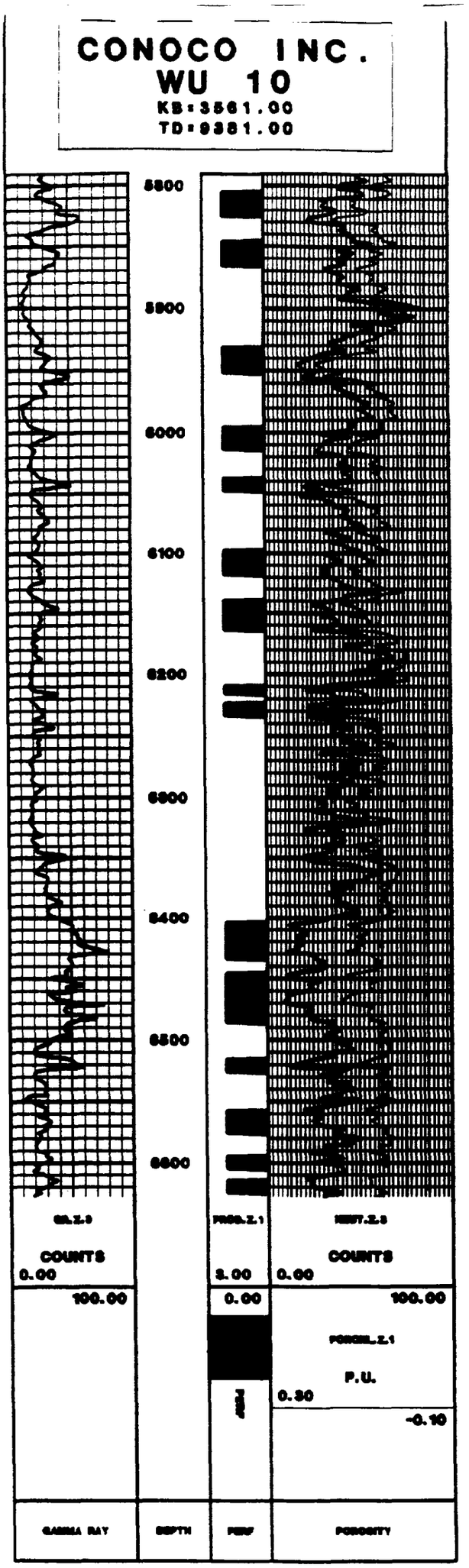

CONOCO INC.
WU 61
KB=3556.00
TD=8750.00
5900
6000
6100
6200
6300
6400
6500
6600
6700
COUNTS
0.00
100.00
0.00
0.00
UNITS
0.30
0.00
GAMMA RAY
DEPTH
PERF
POROSITY

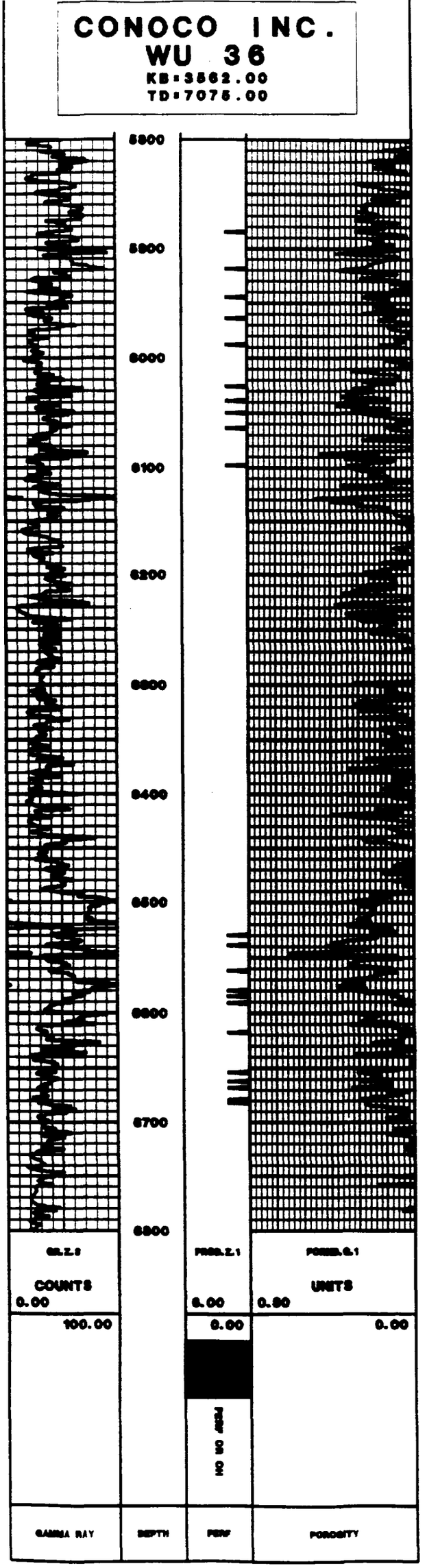

CONOCO INC.
WU 51
KB=3555.00
TD=6770.00
5900
6000
6100
6200
6300
6400
6500
6600
GR.2.1
COUNTS
0.00
100.00
PROB.0.1
0.00
0.00
PERF OS ON
POROS.0.1
UNITS
0.50
0.00
GAMMA RAY
DEPTH
PERF
POROSITY

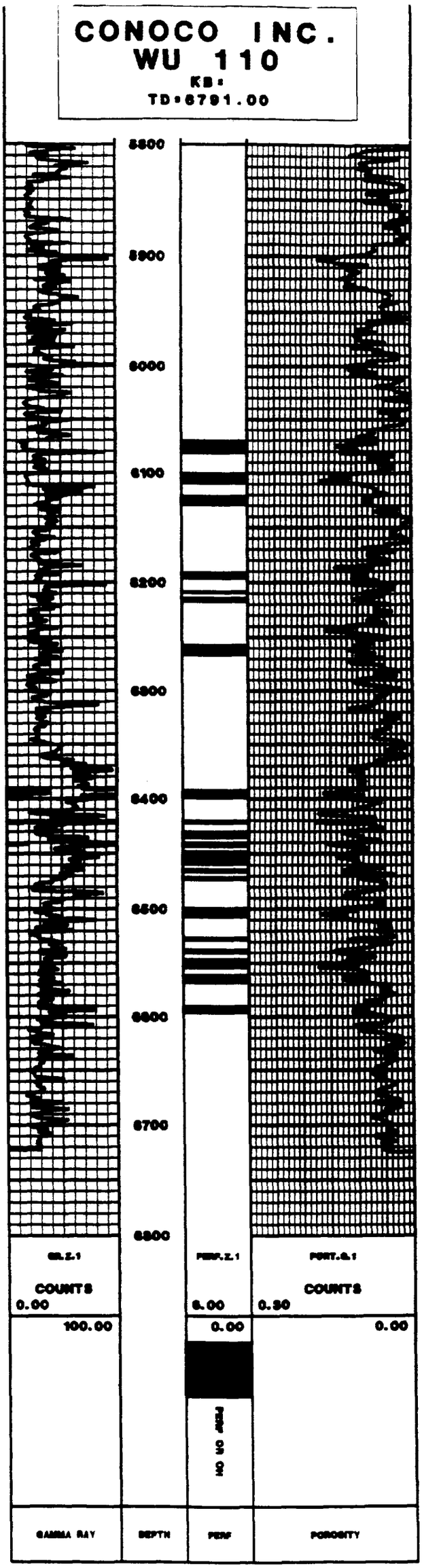
CONOCO INC.
WU 35

KB: 3548.00
TD: 7000.00




CONOCO INC.
WU 10
KB=3561.00
TD=9381.00
5800
5900
6000
6100
6200
6300
6400
6500
6600
COUNTS
0.00
100.00
2.00
0.00
COUNTS
0.00
100.00
P.U.
0.30
-0.10
GAMMA RAY
DEPTH
PERF
POROSITY


CONOCO INC.
WU 36
KB=3562.00
TD=7075.00
5900
6000
6100
6200
6300
6400
6500
6600
6700
6800
COUNTS
0.00
100.00
UNITS
0.00
0.00
0.00
0.00
GAMMA RAY
DEPTH
PERF
POROSITY


CONOCO INC.
WU 110
KB:
TD=6791.00
5800
5900
6000
6100
6200
6300
6400
6500
6600
6700
6800
GR.Z.1
COUNTS
0.00
100.00
PERF.Z.1
0.00
PERF OR OPEN
POR.Z.1
COUNTS
0.30
0.00
GAMMA RAY
DEPTH
PERF
POROSITY

C - 108 Attachment

XI. ANALYSES OF FRESH WATER WELLS WITHIN ONE MILE OF INJECTORS

FRESH WATER WELL LOCATIONS IN T-20S, R-38E IN THE WARREN UNIT AREA,

WITHIN ONE MILE OF PROPOSED NEW INJECTION WELLS IN THE SECOND WATERFLOOD EXPANSION

AS REPORTED BY MR. JOHNNY HERNANDEZ FROM THE FILES OF THE ROSWELL STATE ENGINEER'S OFFICE

INFORMATION FURNISHED BY MR. HERNANDEZ	RESULTS OF FIELD SEARCH
1. Sec. 19 - NE/4 - Stock Well Owner: S & W Cattle Co. Drilled: 1945	No remaining surface evidence of this well was found
2. Sec. 21 - Se/4 NW/4 - Stock Well Owner: Dallas or Robert McCasland Drilled: 6/3/87	No surface evidence of this well was found and Mr. McCasland has no knowledge of a well at this location
3. Sec. 34 - SW/4 SW/4 NE/4 - Stock Well Owner: E. C. Hill Drilled: 2/10/81	This stock well was located, is still active, and a current water analysis was secured
4. Sec. 34 - SW/4 SW/4 NE/4 - Stock Well Owner: E. C. Hill Drilled: 2/18/86	No remaining surface evidence of this well was found.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TEXAS 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

CHEMICAL ANALYSIS OF WATER

Company : Conoco, Inc.
City, St.: 10 Desta Dr., Suite 100W, Midland, TX 79705
Proj.Name: Warren McKee Waterflood Expansion
Location : E.C. Hill Fresh Water Well
Sample 1 : Warren McKee Waterflood

Date : 12/16/93
Lab #: H1453

PARAMETER	RESULT (mg/L) SAMPLE 1
pH	7.1
Hardness ($CaCO_3$)	304
Calcium ($CaCO_3$)	248
Magnesium (as $CaCO_3$)	56
Sulfate (SO_4^-)	117
Chloride (Cl^-)	200
TDS	709
Carbonate	0
Bicarbonate	200
Hydroxide	0
Conductivity (mS/cm)	1.26
Barium	<0.05
Strontium	0.70

Michael R. Fowler

12/15/93
Date

WELLS WITHIN 1/2 MILE WHICH PENETRATE ZONE OF INTEREST
WHICH DO NOT HAVE CEMENT TOPS ABOVE THE PROPOSED INJECTION INTERVAL

Well and Operator	Unit	Location	Type	Interval	Casing Size	Casing Depth	No. Sx Cement	TOC	TOC Method	Spud Date	Compl. Date	TD/PBD	Pool Name
Warren Mckee No. 28 Conoco, Inc.	J	1980' FSL, 2310' FEL Sec.20-T20s-R38E	IWA	9020'-9138'	13-3/8" 9-5/8" 7"	265' 2998' 9217'	300 825 550	Circ. 1100' 5950'	Temp. Surv.	09/07/61	12/19/61	9218'/9170'	Warren Mckee
Semu Mckee No. 62 Conoco, Inc.	K	1980' FWL, 1980' FSL Sec.20-T20s-R38E	IWA	9067'-9176'	10-3/4" 7-5/8" 5-1/2"	255' 3999' 9236'	250 1000 310	Circ. 1500' 6160'	Temp. Surv.	07/02/57	09/15/57	9250'/9186'	Warren Mckee
Semu McKee No. 59 Conoco, Inc.	M	660' FSL, 660' FWL Sec.20-T20s-R38E	IWA	9060'-9127'	10-3/4" 7-5/8" 5-1/2" 4"(hydril)	229' 3999' 9022' 9209'	250 2000 500 15	Circ. 1400' 5950'	Temp. Surv.	05/05/57	07/17/57	9210'/9210'	Warren Mckee
Warren Mckee No. 7 Conoco, Inc.	B	660' FNL, 1980' FEL Sec.29-T20s-R38E	ORP	8924'-9094'	10-3/4" 7-5/8" 5-1/2"	286' 2859' 9144'	225 940 207	Circ. 850' 5975'	Temp. Surv.	2/52	5/52	9145'/9129'	Warren Mckee
Semu Mckee No. 60 Conoco, Inc.	E	1980' FNL, 990' FWL Sec.29-T20s-R38E	IWA	8966'-9228'	10-3/4" 7-5/8" 5-1/2"	263' 3999' 9398'	250 2150 250	Circ. 800' 6300'	Temp. Surv.	05/08/57	08/28/57	9400'/9151'	Warren Mckee

Type of Well
ORP - Oil well produced by submersible pump.
IWA - Injection well active.

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION
EXHIBIT NO. 20
CASE NO.: 10897
Submitted by: Conoco Inc.
Hearing Date: Jan 20, 1994