State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

February 20, 2013

Rhonda S. Rogers
ConocoPhillips Company
3300 North A Street
Midland, TX 79705

RE: Packer Setting Depth Exception
Warren Unit Blinebry Tubb WF Well No. 80 (API No. 30-025-26642)
Unit letter G, Sec 33, T20S, R38E, NMPM
Injection Permit: R-6906-B (March 15, 1991)

Dear Ms. Rogers,

We are in receipt of your request on behalf of ConocoPhillips Company (OGRID 217817) for an exception to the Division's requirement that injection packers shall be set within 100 feet above the permitted injection interval.

Based on the correspondence in this application, the following depths are as stated:
Perforated Injection Interval: 5815 feet to 6043 feet
Correlated top of permitted Blinebry injection interval: 5795 feet
Top of actual Blinebry formation: 5630 feet

For the reasons stated in the application correspondence and because it appears that correlative rights are protected, waste will not occur, and there will not be a danger to fresh water or the environment, the request is granted.

The injection packer within this well shall be set no higher than the top of the Blinebry formation.

Sincerely,

Scott Dawson
Deputy Director

Cc:
Oil Conservation Division - Hobbs District Office
Case No. 10220
API No. 30-025-26642

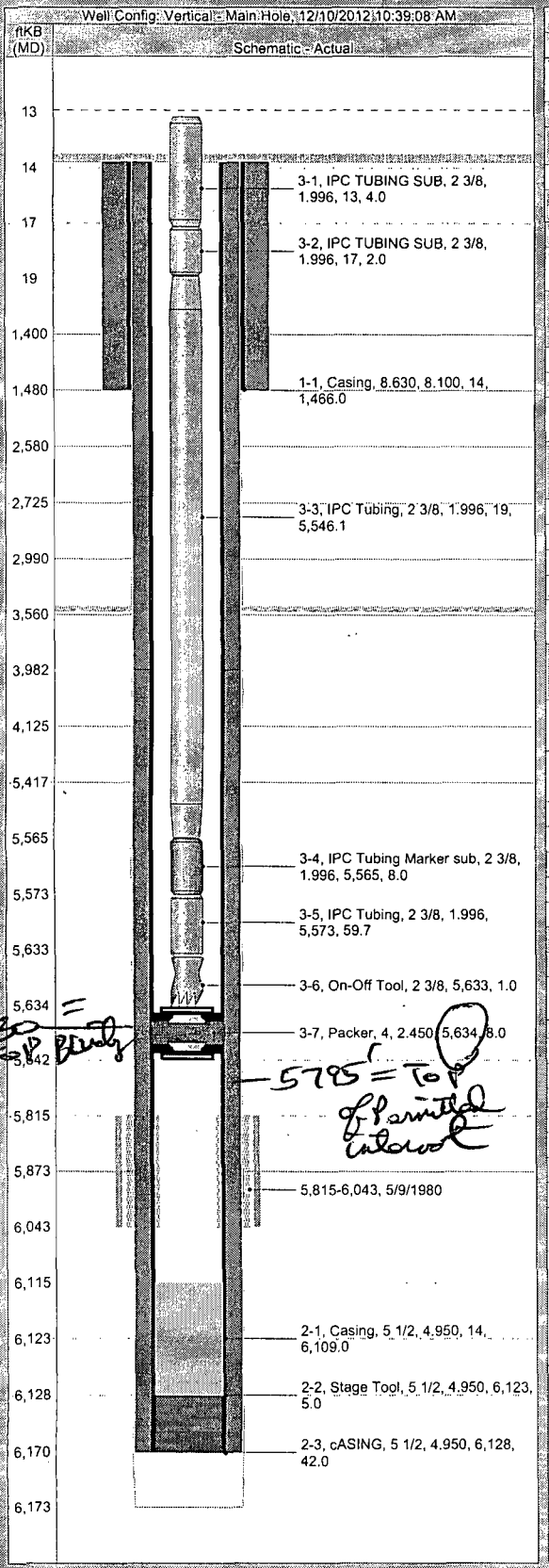
DOWNHOLE WELL PROFILE REPORT

ConocoPhillips

Well Name: WARREN UNIT 080W

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
300252664200	SEC. 33, T20S, R38E	BLINEBRY		NEW MEXICO	Vertical

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
3,511.00	3,525.00	14.00	3,525.00	3,525.00



5630 = Top Blinebry

5795' = Top of Perforated Interval

Wellheads

Type

Wellhead Components

Description	Make	WP (psi)	Service	Top WP (psi)	Top Ring Gasket	Min Bore (in)

Casing Strings

Surface Casing, 1,480.0ftKB

Casing Description	Run Date	Set Depth (ftKB)	Length (ft)
Surface Casing	4/6/1980	1,480.0	1,466.00

Item Description	Jts	OD Nominal (in)	Nominal ID (in)	Wt (lbs/ft)	Grade	Top Thread	Section Length (ft)	Model
Casing	34	8.63	8.100	24.00	K-55	STC	1,466.00	

Production Casing, 6,170.0ftKB

Casing Description	Run Date	Set Depth (ftKB)	Length (ft)
Production Casing	4/17/1980	6,170.0	6,156.00

Item Description	Jts	OD Nominal (in)	Nominal ID (in)	Wt (lbs/ft)	Grade	Top Thread	Section Length (ft)	Model
Casing	156	5 1/2	4.950	15.50	K-55	LTC	6,109.00	
Stage Tool	1	5 1/2	4.950	15.50	K-55	LTC	5.00	
cASING	1	5 1/2	4.950	15.50	K-55	LTC	42.00	

Tubing - Production set at 5,642.0ftKB on 9/13/2012 00:00

Tubing Description	Run Date	Set Depth (ftKB)	String Length (ft)
Tubing - Production	9/13/2012	5,642.0	5,628.80

Item Description	Jts	OD Nominal (in)	Wt (lbs/ft)	Grade	Top Thread	Len (ft)	Model
IPC TUBING SUB	1	2 3/8	4.70	PC	EUE 8RD	4.00	T&C Non-Upset
IPC TUBING SUB	1	2 3/8	4.70	PC	8rd	2.00	T&C Non-Upset
IPC Tubing	181	2 3/8	4.70	PC	8rd	5,546.05	
IPC Tubing Marker sub	1	2 3/8	4.70	PC	8rd	8.00	
IPC Tubing	2	2 3/8	4.70	PC	8rd	59.75	
On-Off Tool	1	2 3/8				1.00	
Packer	1	4	4.70	PC	8rd	8.00	

Other Strings

String Description	Run Date	Set Depth (ft...	Pull Date	Pull Reason

Item Description	Jts	OD (in)	ID (in)	Wt (lbs/ft)	Grade	Top Thread	Len (ft)	Model

Other In Hole

Description	Run Date	Pull Date	Top (ftKB)	Btm (ftKB)	OD (in)	ID (in)
Retrievable Bridge Plug	5/12/2010	5/12/2010	5,728.0	5,730.0	5	
FILL	5/12/2010		6,115.0	6,128.0	5	

Rods

Rod Description	Run Date	Set Depth (ftKB)	String Length (ft)

Item Description	Jts	Make	Model	OD (in)	Wt (lbs/ft)	API Grade	Len (ft)

Perforations

Date	Top (ftKB)	Btm (ftKB)	Zone
5/9/1980	5,815.0	6,043.0	

Stimulations & Treatments

Fracture on 5/10/1980 00:00

Job	Type	Zone	Proppant Frm (lb)
	Fracture		

Stage Type	Start Date	End Date	Top (ftKB)	Btm (ftKB)	Comment
1st Stage			5,815.0	6,043.0	

Report Printed: 12/10/2012

Jones, William V., EMNRD

21897

From: Rogers, Rhonda S <Rhonda.S.Rogers@conocophillips.com>
Sent: Monday, September 10, 2012 1:57 PM
To: Jones, William V., EMNRD
Subject: Warren Unit 80 injection well

Will, this injection well we went out on it and we got return of water thru the casing. We rigged up to avoid a spill and after we fixed it we pressure tested the tubing and the packer to 600# and it held. Rigged down and the water started up again. So we went in with an Casing integrity log and found the best place to place the packer would be at 5640'. Perfs are from 5815'-6043'. Top of Glorieta is at 5417' and top of Blinebry is at ~~5873'~~ 5630 So setting the packer @ ~~5640'~~ 5634 would be 175' above the top perf, but within the ~~Glorieta~~ Blinebry formation.
We are requesting an exception to place the packer at this depth?

Thanks

Rhonda Rogers
CONOCOPHILLIPS COMPANY/MCBU
Staff Regulatory Technician
Phone #: 432-688-9174
Fax #: 432-688-6019
rogerrs@conocophillips.com

ConocoPhillips

"There are many things in life that will catch your eye, but only a few will catch your heart...pursue those..."

Jones, William V., EMNRD

From: Rogers, Rhonda S <Rhonda.S.Rogers@conocophillips.com>
Sent: Friday, September 14, 2012 12:58 PM
To: Jones, William V., EMNRD
Subject: RE: Warren Unit 80 injection well

Will here is the question answered to the unitization of the Blinebry. Sorry for the confusion. I was going by tops filed with the original completion. Have a great weekend. Thanks

Base on the consistent geology correlations around Warren Unit.
The top Blinebry for Warren Unit # 80 is 5630ft MD.
So if we set the packer at 5640ft MD, it is still in the Blinebry Formation.

Rhonda Rogers
CONOCOPHILLIPS COMPANY/MCBU
Staff Regulatory Technician
Phone #: 432-688-9174
Fax #: 432-688-6019
rogerrs@conocophillips.com

"There are many things in life that will catch your eye, but only a few will catch your heart...pursue those..."

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Wednesday, September 12, 2012 4:02 PM
To: Rogers, Rhonda S
Subject: [EXTERNAL]RE: Warren Unit 80 injection well

Rhonda,
Send the permit number allowing injection into that well.
Send the top of the unitized interval (for waterflooding) – ask you Landman for this.
Send a wellbore diagram showing how it will appear after the packer is moved up.

Maybe that will be enough.... Hum...

I will look at it and let you know.

Have a fun week –

Oops, have another emergency I am working on for Conoco in Farmington.
Yikes.

From: Rogers, Rhonda S [mailto:Rhonda.S.Rogers@conocophillips.com]
Sent: Wednesday, September 12, 2012 7:32 AM

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, December 10, 2012 4:57 PM
To: 'Rogers, Rhonda S'
Subject: RE: Warren Unit 80 injection well
Attachments: EddyNM_NASH_53_SWD.pdf

Hello Rhonda,
Looks like R-6906-B in Case 10220 permitted this well for injection. You could print that Permit out and look at Ordering Paragraph (4). That paragraph defined the vertical limits as top of Blinebry at 5865 feet through the base of the Tubb at 6741 feet based on (correlated with) the Conoco Warren Unit #37 in J/27/20S/38E.

It seems there is a disconnect with the top of the Blinebry being at 5630 feet and the top as defined in R-6906-B Paragraph (4). Would you run this by your geologist and Landman and ask about it?

Unless there is a huge difference in structure out there, the Blinebry top in this well #80 would be (legally defined) at similar depths and the new packer depth would be necessarily above the Blinebry and in the Paddock formation – which is fine if only 100 feet above.

But since you need to move the packer up a bit in this well, would you ask your Landman if there is any vertical division of interest between the Paddock and the Blinebry formations within ½ mile of this well? If so, then let me know who owns the rights in the Paddock within ½ mile of this well with some tract identification similar to that attached to this email?

Also look for any production/completions in the Glorieta/Paddock formation within ½ mile of this well and let me know if there are any or have been any.

Depending on whether interests are the same and whether the interval above the Blinebry has produced, we may need to notify those folks identified as owners in the Paddock.

Will

From: Rogers, Rhonda S [mailto:Rhonda.S.Rogers@conocophillips.com]
Sent: Monday, December 10, 2012 12:59 PM
To: Jones, William V., EMNRD
Cc: Maunder, Susan B; Martin, Ashley; Bendele, Dean
Subject: RE: Warren Unit 80 injection well

Will ConocoPhillips is requesting an exception for the setting of the packer over 100' above the top perfs for this injection well. We have the well shut in now. We would like to set the packer, test and start injecting again.
Will I am sending the information you requested on the e-mail below. Attached is the proposed wellbore schematic.
Please let me know if you need anymore information.
Thank you

R-6906-B
Top Blinebry = 5630' MD in THIS well
1 PKR STILL in Blinebry

Jones, William V., EMNRD

From: Rogers, Rhonda S <Rhonda.S.Rogers@conocophillips.com>
Sent: Wednesday, February 20, 2013 8:40 AM
To: Jones, William V., EMNRD
Cc: Bendele, Dean; Larasati, Dewi; Maunder, Susan B; Tischer, Steve P; Martin, Ashley
Subject: FW: Warren Unit 80 injection well

Good morning, William. Here is the answer to the questions you addressed at the end of this e-mail. We are requesting a verbal exception to place the packer over 100' above the top perf. If you need anything else please let me know. Thank you and have a great day.
Subject: RE: Warren Unit 80 injection well

The Top Blinebry:
- The top in the order referred to the top of the **Blinebry Reservoir** (the top of the good Blinebry properties), COP has always had perforation intervals below the **Top Blinebry Reservoir**.
- The **Top Blinebry Reservoir** is 5865 ft MD in WU # 37. It is correlated to WU# 80 at 5795 ft MD. Structurally the **top Blinebry Reservoir** in WU # 80 is 70 higher than in WU # 37.
- The **Current COP Top Blinebry is the Top of Blinebry Formation:**
  - **The Top Blinebry Formation** in WU # 37 is 5710 ft MD which is correlated to the **Top Blinebry Formation** in WU # 80 at 5630 ft MD.

In conclusion the correlation in the order and current correlation referred to 2 different things. The 1st one refers to **Top Blinebry Reservoir** and the 2nd one refers to the **Top Blinebry Formation**. We are requesting that the packer be set inside the Blinebry Formation interval (within 10 feet of the top Blinebry Formation).

Let me know if you have any question.

Thanks,

Dewi

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Monday, December 10, 2012 5:57 PM
To: Rogers, Rhonda S
Subject: [EXTERNAL]RE: Warren Unit 80 injection well

Hello Rhonda,
Looks like R-6906-B in Case 10220 permitted this well for injection. You could print that Permit out and look at Ordering Paragraph (4). That paragraph defined the vertical limits as top of Blinebry at 5865 feet through the base of the Tubb at 6741 feet based on (correlated with) the Conoco Warren Unit #37 in J/27/20S/38E.

It seems there is a disconnect with the top of the Blinebry being at 5630 feet and the top as defined in R-6906-B Paragraph (4). Would you run this by your geologist and Landman and ask about it?

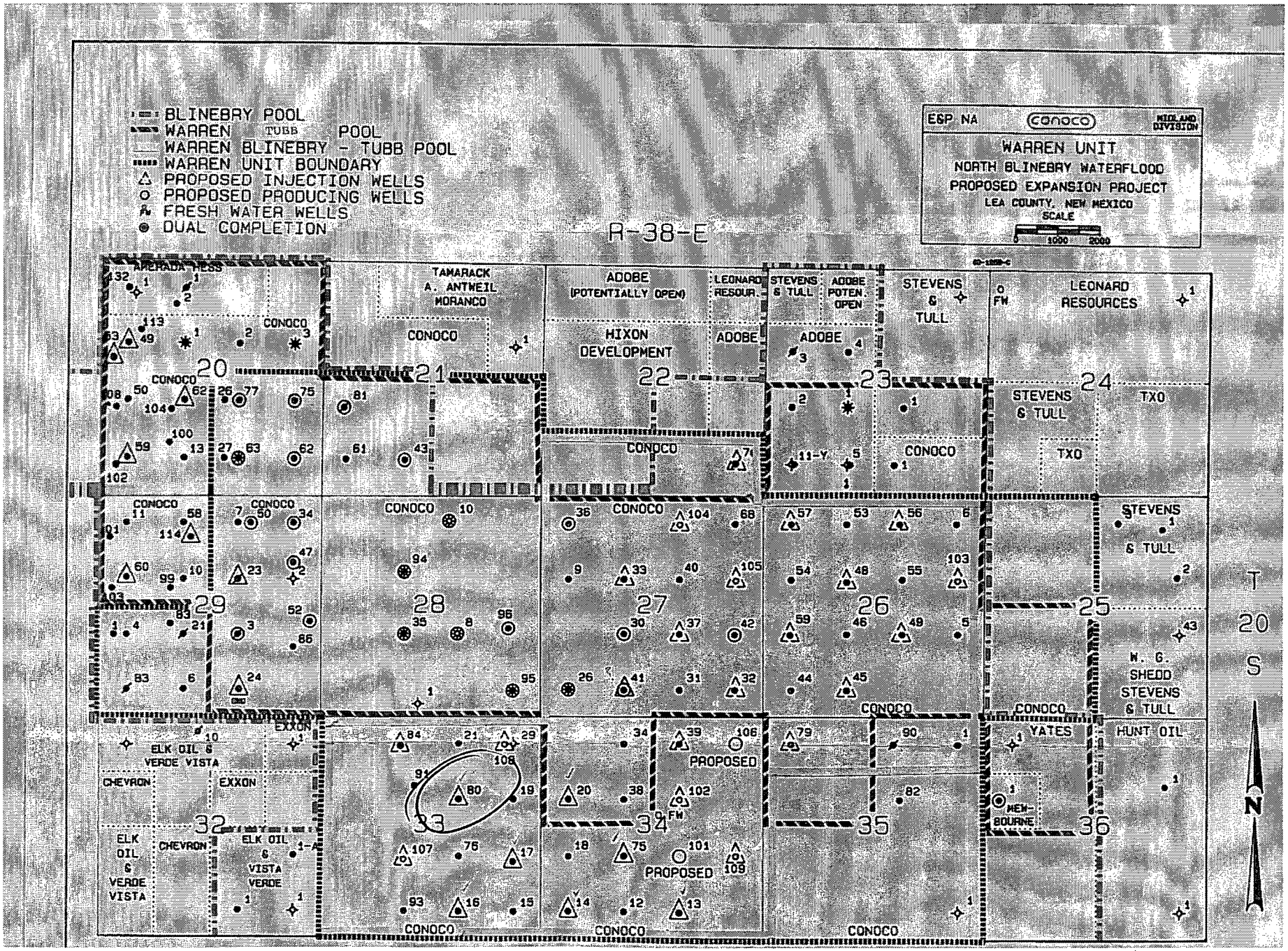
Unless there is a huge difference in structure out there, the Blinebry top in this well #80 would be (legally defined) at similar depths and the new packer depth would be necessarily above the Blinebry and in the Paddock formation – which is fine if only 100 feet above.

Case 10220

3/15/91

EXHIBIT "A"
CASE NO. 10220 - ORDER NO. R-6906-B
Warren Blinebry-Tubb Waterflood Project
Conoco Inc.-Warren Unit Injection Wells,
Township 20 South, Range 38 East, NMPM, Lea County, New Mexico

WELL NO.	LOCATION	SECTION
70	660' FSL and 660' FEL, Unit P	22
56	660' FNL and 1980' FEL, Unit B	26
57	660' FNL and 660' FWL, Unit D	26
48	2030' FNL and 1980' FWL, Unit F	26
103	1980' FNL and 660' FEL, Unit H	26
49	1980' FSL and 1980' FEL, Unit J	26
59	1980' FSL and 660' FWL, Unit L	26
45	660' FSL and 1980' FWL, Unit N	26
104	660' FNL and 1980' FEL, Unit B	27
33	1980' FNL and 1980' FWL, Unit F	27
105	1980' FNL and 660' FEL, Unit H	27
37	1980' FSL and 1980' FEL, Unit J	27
41	660' FSL and 1980' FWL, Unit N	27
32	660' FSL and 660' FEL, Unit P	27
108	Footage Location Unavailable, Unit A	33
84	660' FNL and 1920' FWL, Unit C	33
80 (80)	1980' FNL and 1980' FEL, Unit G	33
17	1980' FSL and 660' FEL, Unit I	33
107	1980' FSL and 1980' FWL, Unit K	33
16	660' FSL and 1980' FEL, Unit O	33
39	660' FNL and 1980' FEL, Unit B	34
20	1980' FNL and 660' FWL, Unit E	34
102	1980' FNL and 1980' FEL, Unit G	34
109	1980' FSL and 660' FEL, Unit I	34
75	1980' FSL and 1980' FWL, Unit K	34
14	660' FSL and 660' FWL, Unit M	34
13	660' FSL and 1980' FEL, Unit O	34
79	660' FNL and 660' FWL, Unit D	35


BLINEBRY POOL
WARREN TUBB POOL
WARREN BLINEBRY - TUBB POOL
WARREN UNIT BOUNDARY
PROPOSED INJECTION WELLS
PROPOSED PRODUCING WELLS
FRESH WATER WELLS
DUAL COMPLETION
ESP NA
conoco
MIDLAND DIVISION
WARREN UNIT
NORTH BLINEBRY WATERFLOOD
PROPOSED EXPANSION PROJECT
LEA COUNTY, NEW MEXICO
SCALE
0 1000 2000
R-38-E
T 20 S
N
ARCADIA LESS
TAMARACK
A. ANTWEIL
MORANCO
ADOBE
(POTENTIALLY OPEN)
LEONARD
RESOUR.
STEVENS
& TULL
ADOBE
POTEN.
OPEN
STEVENS
&
TULL
FW
LEONARD
RESOURCES
HIXON
DEVELOPMENT
ADOBE
CONOCO
TXO
W. G.
SHEDD
STEVENS
& TULL
YATES
HUNT OIL
EXXON
ELK OIL &
VERDE VISTA
CHEVRON
ELK
OIL
&
VERDE
VISTA
PROPOSED
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(11) At the hearing, applicant requested approval for 21 additional wells to be used for injection bringing the total in the project to 28. Seven will be newly drilled wells and 14 will be converted producing wells. Average injection rate would be approximately 500 barrels per well per day at an average pressure of 1700 psi. Maximum injection rate would be 700 barrels at maximum pressure of 2000 psi.

(12) Source water for injection will be sewage effluent from the City of Hobbs.

(13) Applicant submitted data on the proposed injection wells, water wells in the area, and all wells (including plugged wells) within 1/2 mile of the proposed injection which penetrate the zone of interest. This data shows that wells in the area are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone, and includes a statement indicating no evidence of open faults or any other hydrologic connection between the injection zone and the fresh water resources in the area.

(14) The proposed injection interval would be from the top of the Blinebry (75 feet above the Blinebry marker) down to the base of the Tubb formation (top of the Drinkard). These vertical limits are identified in the Conoco-Warren Unit Well No. 37, located in Unit J, Section 27, Township 20 South, Range 38 East, with the Blinebry top at 5,865 feet and the Tubb base at 6,741 feet. This is an overall interval of 876 feet.

Marker on Log
5940
75
5865

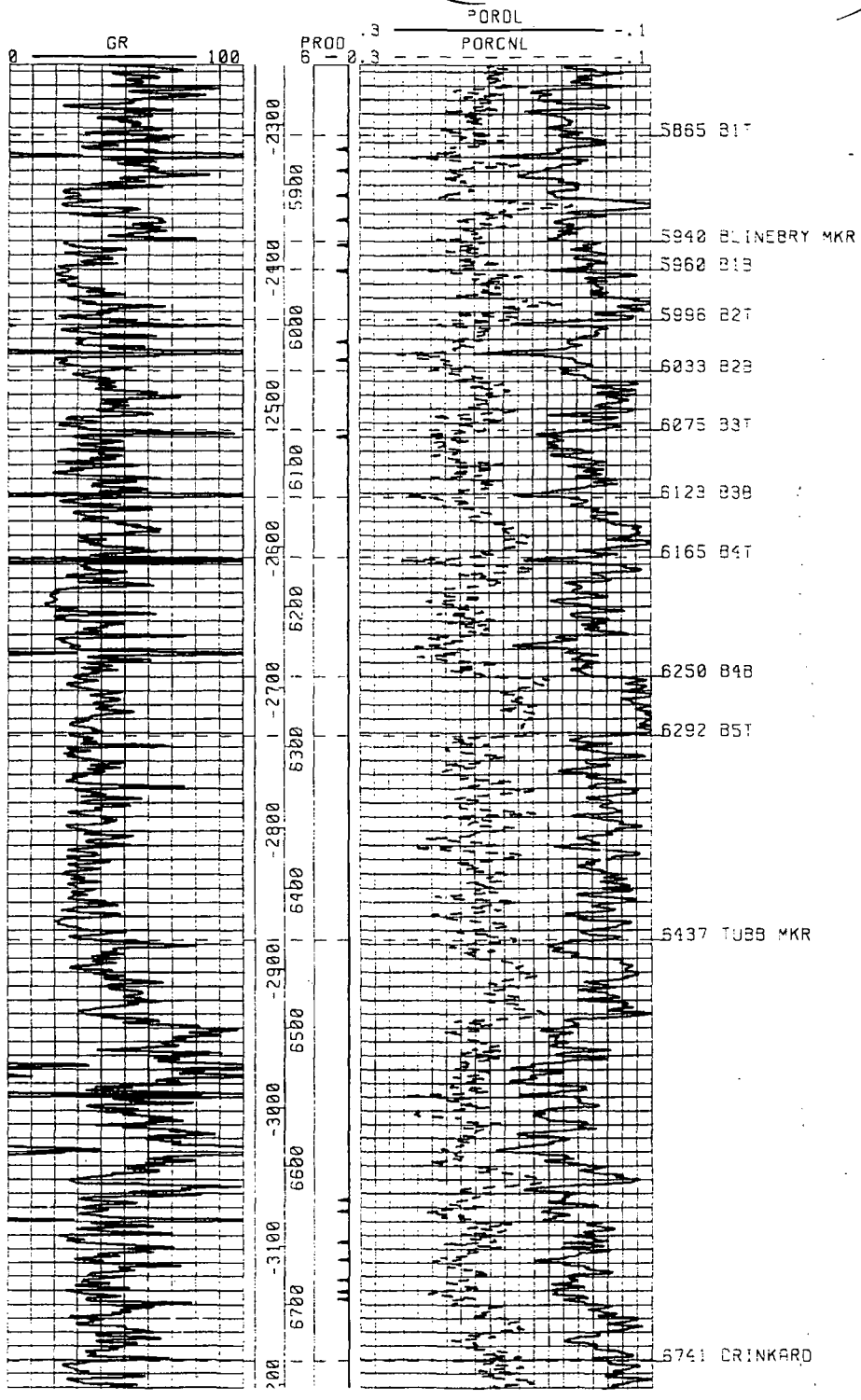
(15) Testimony and exhibits submitted by applicant's witness indicates that plastic coated tubing set in packers will be used in all injection wells with packers set within 100 feet of the top perforations. Injection profiles will be run and the annular space will be monitored in each injection well.

(16) The injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation in any injection well, but the Division Director should have authority to increase the pressure limitation upon a proper showing that a pressure increase would not result in the fracturing of the injection formation or confining strata.

(17) Prior to initiating injection into any of the injection wells, the applicant should be required to pressure test the casing in each of the proposed injection wells from the surface to the proposed packer-setting depth to assure the integrity of said casing.

(18) The operator should give advance notification to the Supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

WU 37 (TYPE LOG)



Current Producer to be Converted to Injection

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
EXHIBIT NO. 24-F
CASE NO. 10220
Submitted by Conoco Inc.
Hearing Date 1-24-91

EXHIBIT 24-F