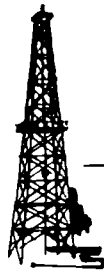


HEYCO

PETROLEUM PRODUCERS



HARVEY E. YATES COMPANY

P.O. BOX 1933

ONE SUNWEST CENTRE

505/623-6601

FAX 505/622-4221

ROSWELL, NEW MEXICO 88202-1933

OIL CONSERVATION DIVISION
DEC 23 1992

December 23, 1992

William J. LeMay
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Request to convert Young Deep Unit #16
to a Water Injection Well

Dear Mr. LeMay,

Please find enclosed three copies for application for administrative approval to convert the aforementioned well to a water injection well. This request is under the previous Order #R-7023 subsequent to case #7595 of May 26, 1982.

Copies are being sent to the Oil Conservation Division District 1 office in Hobbs, New Mexico. The Bureau of Land Management of Carlsbad and the attached mailing list.

If there are any questions regarding this application for administrative approval, please contact my office at 505/623-6601.

Sincerely yours,

Tim W. Gum
Engineer

enclosures

TWG/vjt
OCD.YDU

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Harvey E. Yates Company
Address: P.O. Box 1933, Roswell, N.M. 88202
Contact party: Tim Gum Phone: 505/623-6601
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ yes ☐ no
If yes, give the Division order number authorizing the project R-7023.
- 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: TIM W. GUM Title ENGINEER
Signature: Tim W. Gum Date: 12/23/82
- * 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. Refer to case #7595 before Daniel S. Mutter on May 26, 1982

MAILING LIST
YOUNG DEEP UNIT NO.16 APPLICATION

WILLIAMS & SON CATTLE CO.
ATTN: BILLY WILLIAMS
803 CLAYTON
ARTESIA, NM 88210

BLM
P.O. BOX 1778
CARLSBAD, NM 88220

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

OIL CONSERVATION DIVISION
P.O. BOX 1980
HOBBS, NM 88240

ANADARKO PETROLEUM
P.O. BOX 1330
HOUSTON, TEXAS 77251

BRUCE ANDERSON
1000 LOUISIANA, SUITE 900
HOUSTON, TEXAS 77002

J.F.G. ENTERPRISES
P.O. BOX 100
ARTESIA, NM 88210

BLANCO COMPANY
P.O. BOX 1150
ROSELL, NM 88202

CONCO INC.
P.O. BOX 4783
HOUSTON TEXAS 77210

CHEVRON U.S.A.
P.O. BOX 1635
HOUSTON, TEXAS 77002

SECTION III (A)

WELL DATA

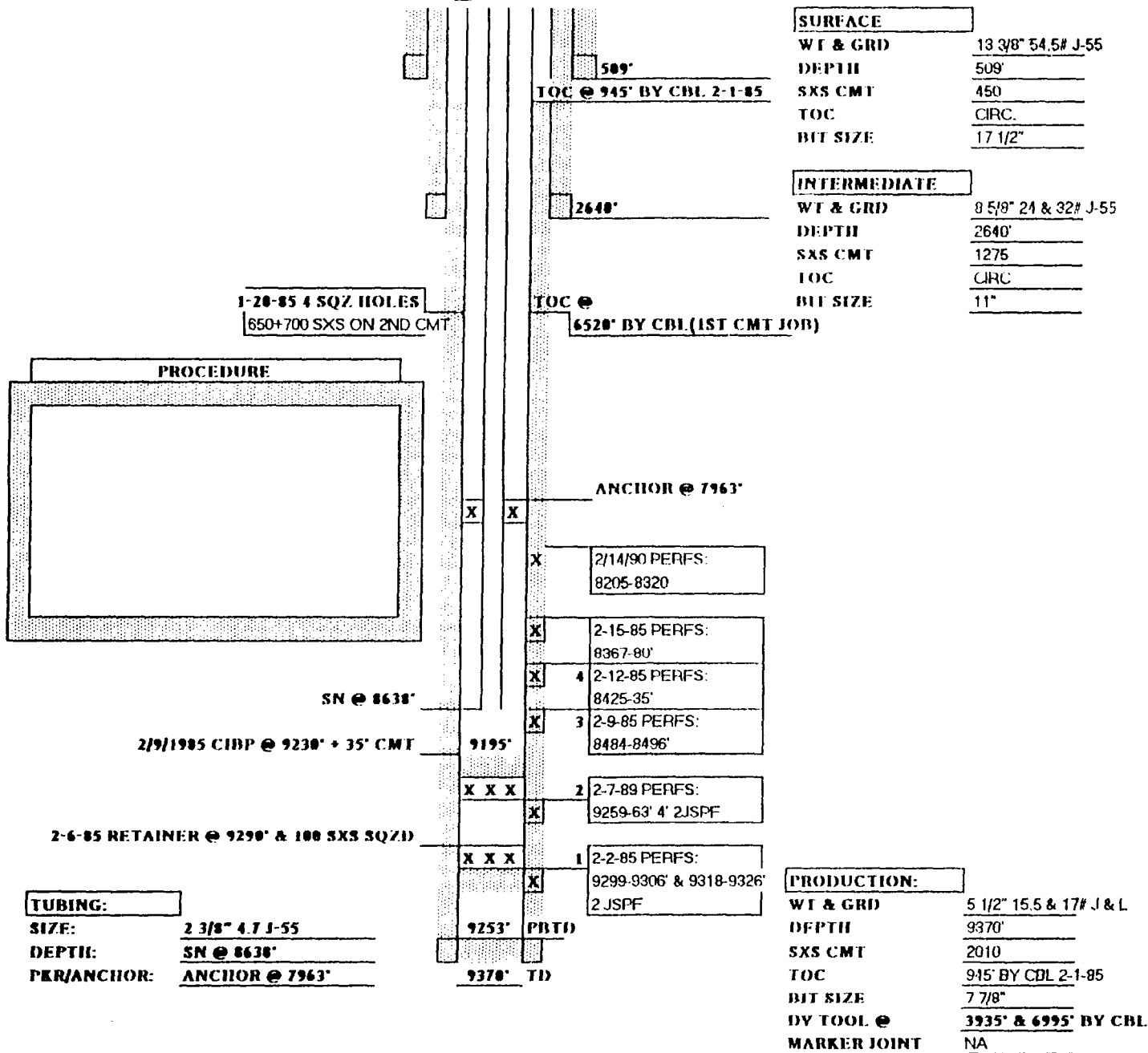
HARVEY E. YATES COMPANY WELLBORE SCHEMATIC & PROCEDURE SHEET

by TIM GUM

OPERATOR: HARVEY E. YATES COMPANY
WELL NAME: YOUNG DEEP UNIT # 16
LEASE # LC-065581 API# 30-025-29047
LOCATION: E, 1980' FNL & 660' FWL
SEC. 9-T-105, R-32E LEA CO., NM
FIELD: NORTH YOUNG BONE SPRING
ELEVATION: 3827.6' GL (11.5' KB)

SPUD DATE: 12/6/84
COMP DATE: 2/21/85
TD 9370'
PBTD: 9195'

CURRENT



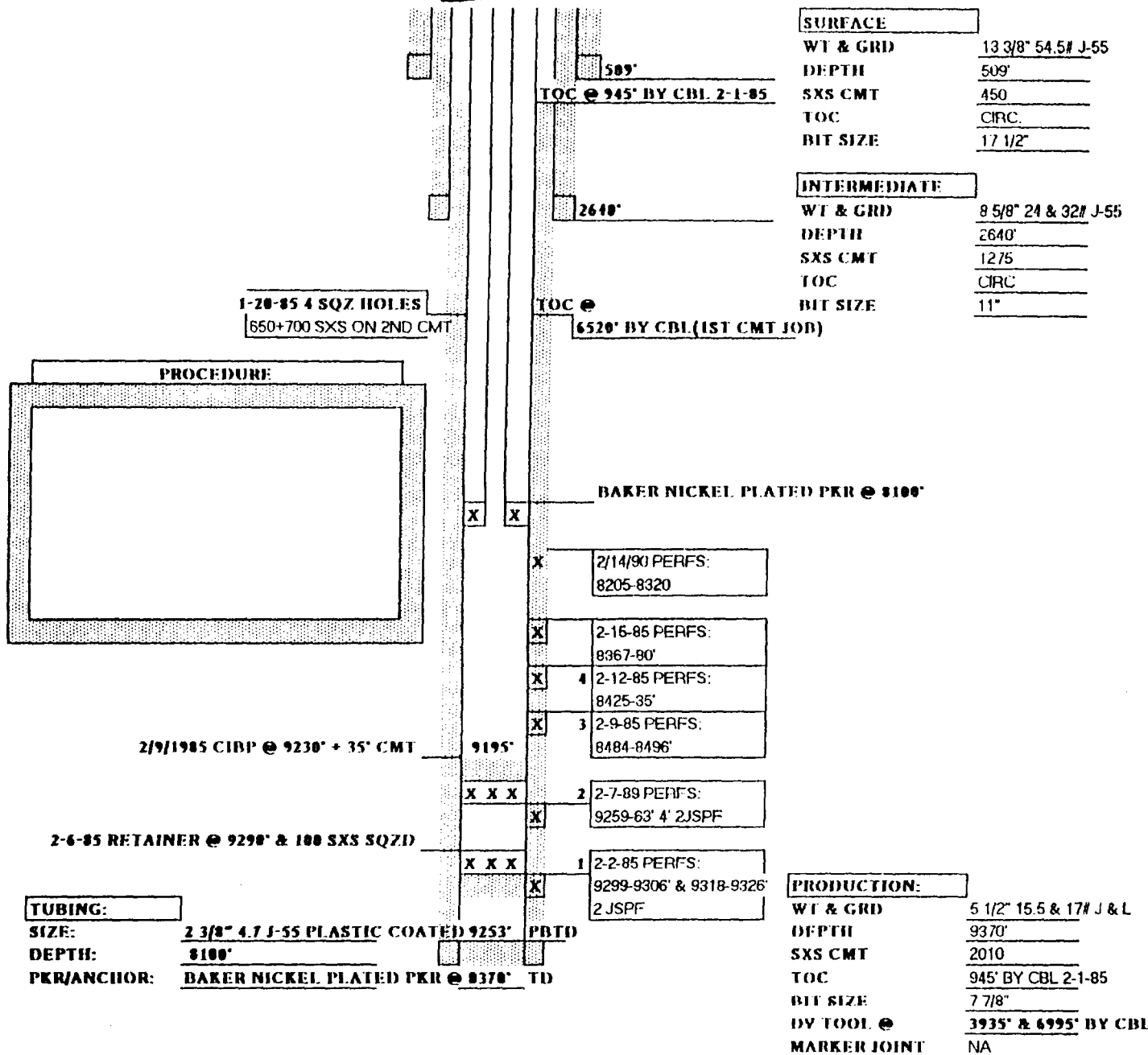
7-Dec-92

HARVEY E. YATES COMPANY WELLBORE SCHEMATIC & PROCEDURE SHEET

by TIM GUM

OPERATOR: HARVEY E. YATES COMPANY
 WELL NAME: YOUNG DEEP UNIT # 16
 LEASE #: LC-065581 API# 30-025-29047
 LOCATION: E. 1900' FNL & 660' FWL
 SEC. 9-T-103, R-32E LEA CO., NM
 FIELD: NORTH YOUNG BONE SPRING
 ELEVATION: 3827.6' GL (11.5' KB)

SPUD DATE: 12/6/84
 COMP DATE: 2/21/85
 TD: 9370'
 PBDT: 9195'

Proposed

SECTION III (B)

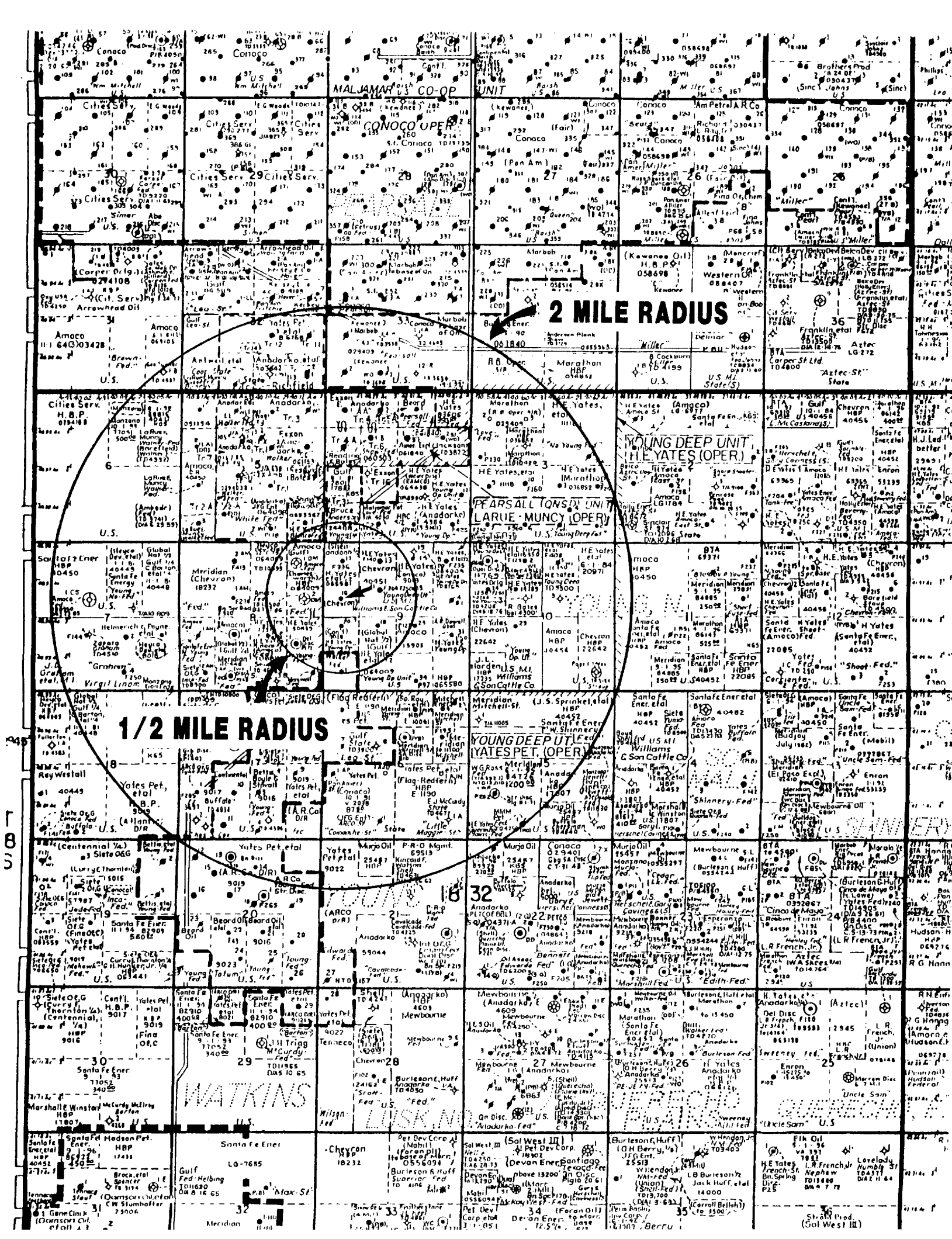
WELL DATA

1. Bone Spring, North Young Bone Spring
2. Injection interval: 8205-8496'
3. Perfs 9299-9326' with cement retainer at 9290'. Perfs 9259-63' with CIBP at 9230' with 35' cement.
4. No producing zones above. Next lower currently producing horizon is the Wolfcamp formation in the Young Deep Unit #1 at a depth of 10,406-10,560'.

SECTION V

MAPS

;



2 MILE RADIUS

1/2 MILE RADIUS

MALJAMAR CO-OP UNIT

CONOCO OPER.

YOUNG DEEP UNIT

PEARLS ALL TONS UNIT

LARRY MUNCY OPER.

YATES PET. OPER.

WATKINS

LISK

SECTION VI

WELL DATA

WELL NAME	YOUNG DEEP UNIT	YOUNG DEEP UNIT	YOUNG DEEP UNIT	YOUNG DEEP UNIT
WELL NUMBER	#17	#13	#18	#20
LEGAL LOCATION	660' FNL & 660' FWL SEC. 9, T18S, R32E LEA, N.M.	660' FNL & 1980' FWL SEC. 9, T18S, R32E LEA, N.M.	2310' FSL & 1980' FWL SEC. 9, T18S, R32E LEA, N.M.	2310' FSL & 660' FWL SEC. 9, T18S, R32E LEA, N.M.
FIELD POOL	N. YOUNG BONE SPRING	N. YOUNG BONE SPRING	N. YOUNG BONE SPRING	N. YOUNG BONE SPRING
SPUD DATE	2/12/85	10/7/84	8/21/91	6/21/90
COMPLETION DATE	4/17/85	11/27/84	9/29/91	10/6/90
TYPE COMPLETION	OIL	OIL	OIL	OIL
TD	9254'	9222'	9291'	12,955'
PBTD	9065'	9100'	9240'	10,321'
COMPLETION INTERVAL	8134-8824' (OA)	8394-9023' (OA)	8760-8956' (OA)	8259-8928' (OA)
CASING DESIGN	13 3/8 534' W/400 SKS 8 5/8 2653' W/1050 SKS 5 1/2 9254' W/1010 SKS	13 3/8 500' W/400 SKS 8 5/8 2660' W/1000 SKS 5 1/2 9222' W/2315 SKS	13 3/8 432' W/425 SKS 8 5/8 2716' W/1200 SKS 5 1/2 9291' W/1575 SKS	13 3/8 417' W/425 SKS 8 5/8 3495' W/1800 SKS 5 1/2 12,955' W/2200 SKS
TUBING	2 3/8 @ 8850'	2 3/8 @ 9052'	2 3/8 @ 9003'	2 3/8 @ 8685'
TOP OF CEMENT	2300' (CBL)	1640' (CBL)	3600' (CBL)	945' (CBL)

WELL NAME	AMOCO PRODUCTION FEDERAL "DM"	AMOCO PRODUCTION FEDERAL "DM"
WELL NUMBER	1	2
LEGAL LOCATION	760' FNL & 960' FEL SEC.8,T18S,R32E. LEA,NM.	1980' FNL & 660' FEL SEC.8,T18S,R32E. LEA,NM.
FIELD POOL		
SPUD DATE	2/15/86	2/16/86
COMPLETION DATE	4/30/87	5/5/87
TYPE COMPLETION	D&A	D&A
TD	10593'	10500'
PBTD	10580'	10471'
COMPLETION INTERVAL	10386-408' 6338-56'	8186-8496'
CASING DESIGN	13 3/8 434"W/450SKS 8 5/8 2800"W/1050SKS 5 1/2 10593' W/1050SKS	13 3/8 416"W/450SKS 8 5/8 2800"W/1500 SKS 5 1/2 10500"W/2650SKS
TUBING	_____	_____
TOP OF CEMENT	CIRC.	CIRC.

7-Dec-92

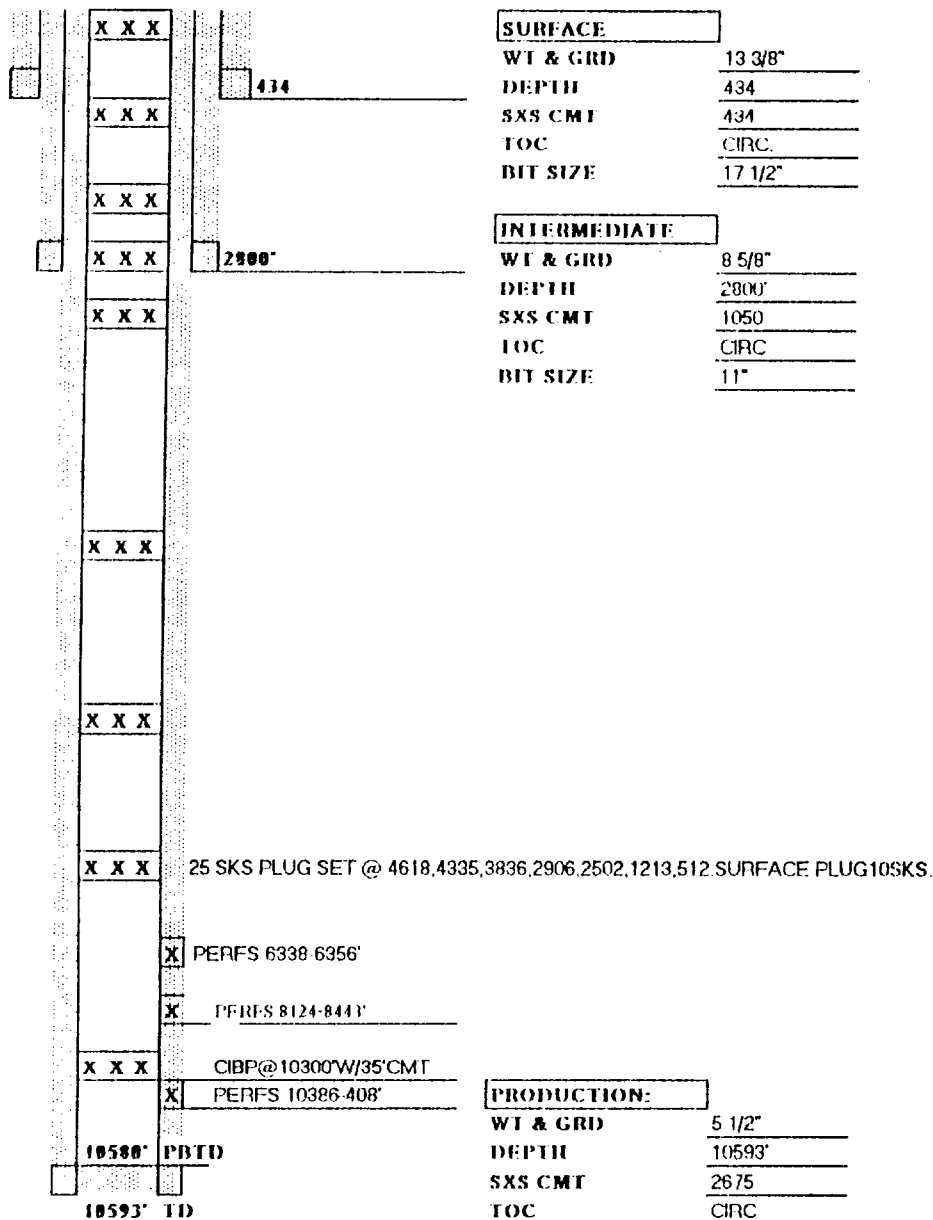
HARVEY E. YATES COMPANY

WELLBORE SCHEMATIC & PROCEDURE SHEET

by TIM GUM

OPERATOR: AMOCO PRODUCTION COMPANY
WELL NAME: FEDERAL "DM" NO.1
LEASE # _____
LOCATION: 760'FNL & 960" FEL
SEC. 8-T-18S, R-32E LEA CO., NM
FIELD: _____
ELEVATION: _____

SPUD DATE: 2/15/86
COMP DATE: 4/30/87
TD 10,593
PBTD: 10580'

**TUBING:**

SIZE: _____
DEPTH: _____
PKR/ANCHOR: _____

HARVEY E. YATES COMPANY

WELLBORE SCHEMATIC & PROCEDURE SHEET

OPERATOR: AMOCO PRODUCTION COMPANY

WELL NAME: FEDERAL "DM" NO.2

LEASE # _____

LOCATION: 1928 FNL & 648" FFL

BEC. D-T-105, R-32E LFA CO., NM

FIELD: _____

ELEVATION: _____

The diagram illustrates a vertical wellbore with a central casing. The casing is divided into sections by horizontal lines. Some sections are labeled with 'X X X' in a box, indicating perforations. Other sections are empty. To the right of the casing, there are two horizontal lines with labels '416' and '2880'' indicating depths or elevations. Below the casing, there is a section labeled '25 SKS PLUG SET (@ 6030.46)'. Further down, there is a section labeled 'PERFS @186-0496'' with a small 'X' in a box next to it. At the bottom, there is a section labeled '10.471' PBTD' and a final section labeled '10500' TD'.

INTERMEDIATE	
WT & GRD	8 5/8"
DEPTH	2800'
SXS CMT	1500
TOC	CIRC
BIT SIZE	11"

25 SKS PLUG SET (@ 6030,4600,4350,3830,2900,2250,850,516.SURFACE PLUG)10SKS

TUBING: _____
SIZE: _____
DEPTH: _____
PKR/ANCHOR: _____

YDU#16C.XLS TWG 2:38 PM 12/7/92

SECTION VII

INJECTION DATA

1. Estimated maximum daily rate of 2200 BW.
2. Closed System - Gas blanket
3. Maximum surface pressure of 1699 psig at maximum rate.
4. See attached water analysis.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W82-419

Harvey E. Yates

Date 4-26-82

Box 1933

Roswell, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by

Date Rec. 4-23-82

Well No. As Marked

Depth

Formation

County

Field

Source

Young Deep Unit #2

Double Eagle Water
(From W82-341)

Resistivity

ND

14.0 @ 74°F.

Specific Gravity

ND

1.001

pH

ND

7.3

Calcium (Ca)

11,500

220

*MPL

Magnesium (Mg)

Nil

12

Chlorides (Cl)

147,000

400

Sulfates (SO₄)

ND

150

Bicarbonates (HCO₃)

ND

195

Soluble Iron (Fe)

ND

Nil

API Gr. of Oil

35.0 @ 60°F.

--

Remarks: Sample from Young Deep Unit #2 had insufficient water available for a complete analysis.

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

By

W. L. Brewer
CHEMIST

NOTICE

SECTION VIII
GEOLOGICAL COMMENTS

RE: Young Deep Unit #16 Conversion to Water Injection

I have done a thorough inspection of all water resource data, drillers logs, electric well logs, and find that fresh water resources would not be in danger of contamination by water injection into the Young Deep Unit #16 well. The proposed injection interval is 8205-8476' in the Bone Spring Carbonate interval. This injection interval is 7900-8200' below any known potable, beneficially used fresh water. The fresh water aquifers are separated from the injection interval by three (3) strings of casing and cement. There is no possible migratory pathway of injection fluids to the shallow aquifers.

A handwritten signature in cursive script, reading "Larry Brooks".

Larry Brooks
CPG #4028

SECTION VIII, Cont'
(Area Fresh Water Wells)

There are no active fresh water wells within the review area, as determined from the New Mexico State Engineer's Office in Roswell, New Mexico.

SECTION IX

NONE

SECTION X

Logs have been submitted previously to the N.M.O.C.D.

SECTION XI AND XII

Not applicable.

SECTION XIII

Please note the attached Affidavit of Publication. A copy of the application has been furnished to each name on the attached mailing list by certified mail.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of _____

one _____ weeks.

Beginning with the issue dated

Dec. 4, 19 92

and ending with the issue dated

Dec. 4, 19 92

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 15th day of

December, 19 92

Gregory R. Kirtz
Notary Public

My Commission expires _____

July 6, 19 94
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE

December 4, 1992

Harvey E. Yates Company proposes to convert the Young Deep Unit No. 16 to Water Injection. This well is located within the North Bone Spring Pressure Maintenance Project. Legal location is Unit E, 1980' FNL & 660' FWL, Sec. 9, T18S, R32E, N.M.P.M., Lea County, New Mexico.

Produced and Ogallala water will be injected at a rate of approximately 2200 barrels per day, at a surface pressure not to exceed 1699 PSIG into the North Young Bone Spring Pool at a depth of 8205-8476'.

Interested parties must file objections or request a hearing with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days.

MAILING LIST
YOUNG DEEP UNIT NO.16 APPLICATION

WILLIAMS & SON CATTLE CO.
ATTN: BILLY WILLIAMS
803 CLAYTON
ARTESIA,NM 88210

BLM
P.O. BOX 1778
CARLSBAD,NM 88220

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

OIL CONSERVATION DIVISION
P.O. BOX 1980
HOBBS,NM 88240

ANADARKO PETROLEM
P.O.BOX 1330
HOUSTON,TEXAS 77251

BRUCE ANDERSON
1000 LOUISIANA,SUITE900
HOUSTON,TEXAS 77002

J.F.G. ENTERPRISES
P.O.BOX 100
ARTESIA,NM 88210

BLANCO COMPANY
P.O.BOX 1150
ROSELL,NM 88202

CONCO INC.
P.O.BOX 4783
HOUSTON TEXAS 77210

CHEVRON U.S.A.
P.O.BOX 1635
HOUSTON,TEXAS 77002



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

June 17, 1993

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Harvey E. Yates Company
P.O. Box 1933
Roswell, NM 88202-1933

Attention: Tim Gum

**RE: Injection Pressure Increase Young Deep Unit Well no. 16; Unit E,
Section 9, Township 18 South, Range 34 East, NMPM, Lea County, New
Mexico**

Dear Mr. Gum:

Reference is made to your request dated June 10, 1993 to increase the surface injection pressure on the above referenced well. This request is based on a step rate tests conducted on this well on June 3, 1993. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

Well and Location	Maximum Injection Surface Pressure
Young Deep Unit Well No. 16 1980' FNL - 660' FWL Unit E, Section 9, Township 18 South, Range 34 East	2220 PSIG
This well is located in Lea County, New Mexico.	

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

William J. LeMay
Director

WJL/BES/amg

cc: Oil Conservation Division - Hobbs
File: PMX-171



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
RECEIVED

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

'93 JAN 4 AM 9 53

12-29-92

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

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

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD _____
WFX ☒ _____
PMX _____

Gentlemen:

I have examined the application for the:

Harvey E. Yates Co. Young Sheep Unit #10-E 9-18-82
Operator _____ Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed