DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
7/22/05	8/8/05	DLC	7/25/05	WFX	pSEM0530638751

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

813

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name	Signature	Title	Date

e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: **X** Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? **X** Yes _____ No

II. OPERATOR: **MAR OIL & GAS COPR**

ADDRESS: **PO Box 5155, Santa Fe, New Mexico, 87502**

CONTACT PARTY: **Duane C Winkler** PHONE: **505-989-1977 X 103**

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-3115**

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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: **Duane C Winkler** TITLE: **VP Operations**

SIGNATURE:  DATE: **July 20, 2005**

E-MAIL ADDRESS: **dcwinkler@centurytel.net**

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate 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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

VII. DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected
   Respectively, 250 BWPD and 500 BWPD
2. The system is closed or open; **Closed**

3. Proposed average maximum injection pressure; **1700-2000 psig**

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produce water;
   We will be re-injecting produce water

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; **NA**

VIII. GEOLOGICAL DATA

The primary production in the Eumont Hardy field is from the Penrose unit of the Queen formation. In wells #36 & #26 the Penrose productive interval depth is from approximately 3650-3820 feet below ground surface with a gross thickness of 170 feet. The Penrose consists of inter-bedded sandstone with carbonate cement and inter-bedded dolomite. Porosity in the sandstone is as great as 18% in wells #36 & #26 but averages 8%. The Queen formation directly above and below the Penrose sandstone unit consists of dense anhydrite layers.

Other up-hole potential includes zones in the Yates and Seven Rivers formations. Both formations contain a number of sandstone stringers with carbonate cement, inter-bedded dolomite and a predominance of anhydrite. The top of the Yates in wells #36 & #26 is approximately 2600 feet below ground surface with a gross thickness of approximately 250 feet. The top of the Seven Rivers in wells #36& #26 is approximately 2960 feet below ground surface with a gross thickness of approximately 500 feet.

The base of the nearest freshwater aquifer which occurs in an alluvium aquifer is at approximately 90 feet below ground surface as indicated in wells found in sections 4 and 6 on either side of section 5 T21S R37E where the average depth to groundwater is 75 feet and 73 feet respectively.

IX. PROPOSED STIMULATION PROGRAM

1. To be treated with 1000 gallons 15% acid

X. LOG AND TEST DATA

1. Well data has been filed with the OCD
2. Attached chart of current injection pressure, location map of injection wells, list of volume and pressures with produce water analysis

XI. ANALYSIS OF FRESHWATER WELLS

1. Analysis attached

XII. AFFIRMATIVE STATEMENT

RE: Eumont Hardy Unit No 36 & No 26

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water

MAR Oil & Gas Corp

Date: 7/20/05

Duane C Winkler, VP Operations

Side 1

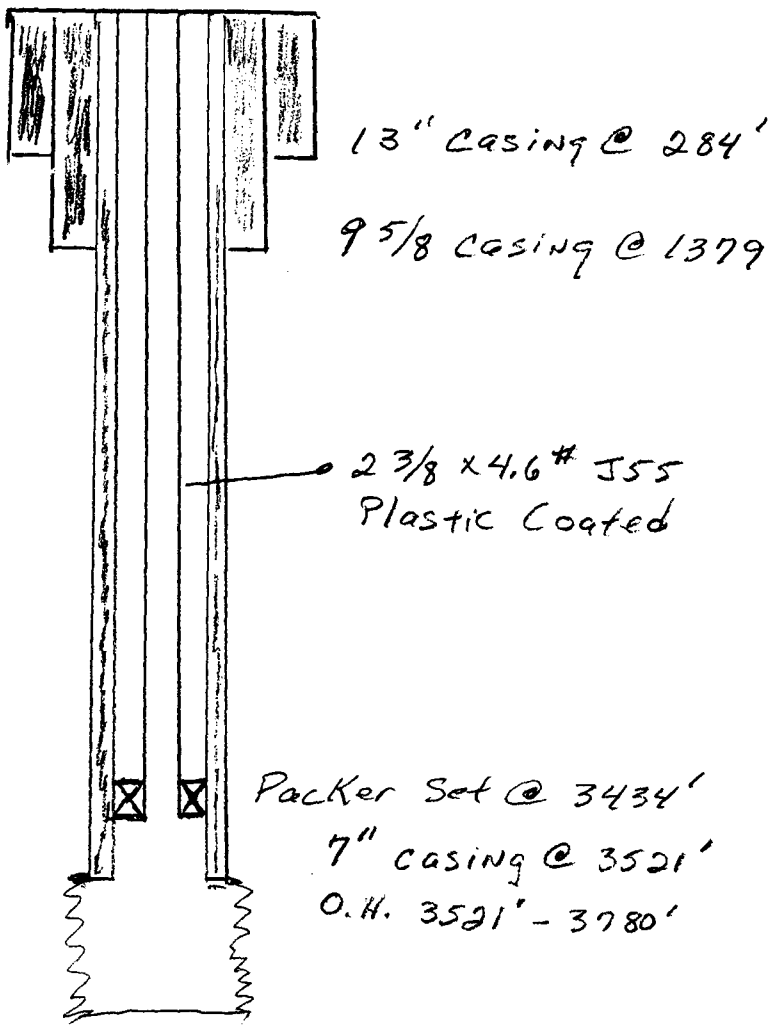
INJECTION WELL DATA SHEET

OPERATOR: **MAR OIL & GAS CORP**

WELL NAME & NUMBER: **Eumont Hardy Unit No 36 API No 30-025-06407**

WELL LOCATION: **1980 FNL & 660 FEL** (FOOTAGE LOCATION) **D** (UNIT LETTER) **5** (SECTION) **21S** (TOWNSHIP) **37E** (RANGE)

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **17"**

Cemented with: **200 sx.**

Top of Cement: **Surface**

Casing Size: **13"**

or _____ ft³

Method Determined: **Circulated**

Intermediate Casing

Hole Size: **12"**

Cemented with: **500 sx.**

Top of Cement: **Surface**

Casing Size: **9 5/8**

or _____ ft³

Method Determined: **Circulated**

Production Casing

Hole Size: **8 3/4**

Cemented with: **300 sx.**

Top of Cement: **1300**

Total Depth: **3780**

Casing Size: **7**

or _____ ft³

Method Determined: **Calculated**

Injection Interval

3521 feet to 3780 feet

Open Hole

INJECTION WELL DATA SHEET

Tubing Size: **2 3/8** Lining Material: **Plastic Coated**

Type of Packer: **Arrow Set Packer**

Packer Setting Depth: **3434**

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

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

2. Name of the Injection Formation: **Yates, Seven Rivers, Queen**

3. Name of Field or Pool (if applicable): **Eumont Hardy Unit Area, Eumont Pool**

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

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: **Underlying-Grayburg**

Side 1

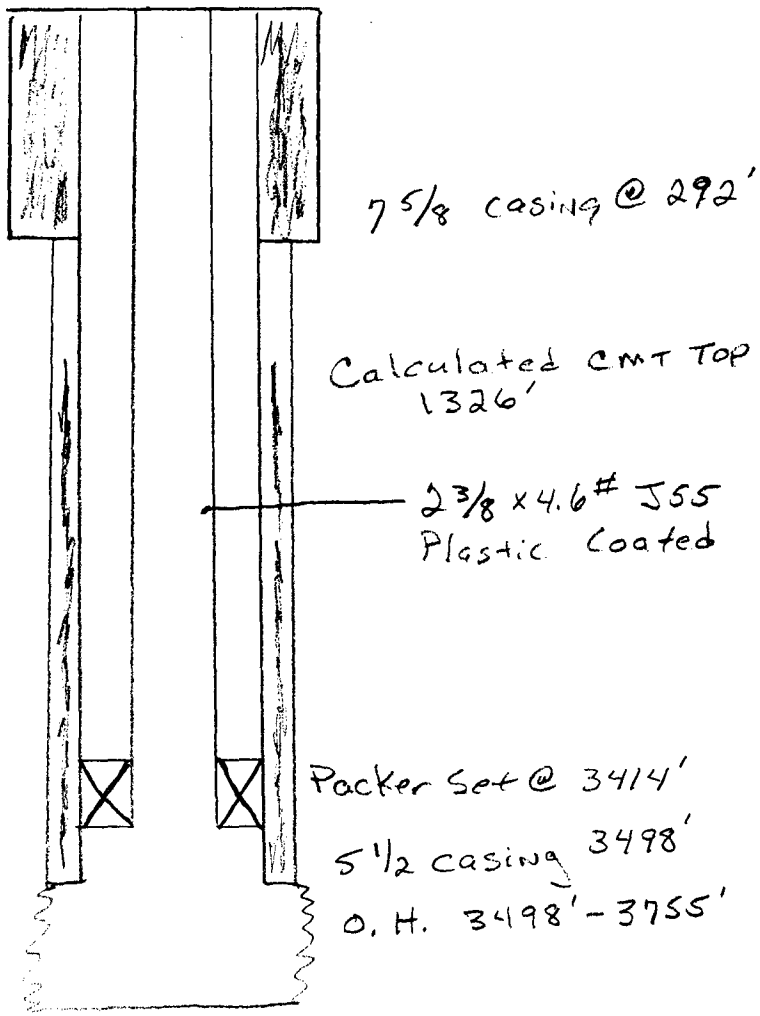
INJECTION WELL DATA SHEET

OPERATOR: **MAR OIL & GAS CORP**

WELL NAME & NUMBER: **Eumont Hardy Unit No 26 API No 30-025-09899**

WELL LOCATION:	660 FNL & 1980 FWL	C	5	21S	37E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **12 1/4**

Casing Size: **7 5/8**

Cemented with: **200 sx.**

or _____ ft³

Top of Cement: **Surface**

Method Determined: **Circulated**

Intermediate Casing

Hole Size:

Casing Size:

Cemented with:

or _____ ft³

Top of Cement:

Method Determined:

Production Casing

Hole Size: **7 7/8**

Casing Size: **5 1/2**

Cemented with: **225 sx**

or _____ ft³

Top of Cement: **1326**

Method Determined: **Calculated**

Total Depth: **3767**

Injection Interval

3498 feet to 3755 feet

Open Hole

INJECTION WELL DATA SHEET

Tubing Size: **2 3/8** Lining Material: **Plastic Coated**

Type of Packer: **Arrow Set Packer**

Packer Setting Depth: **3414**

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes **X** No

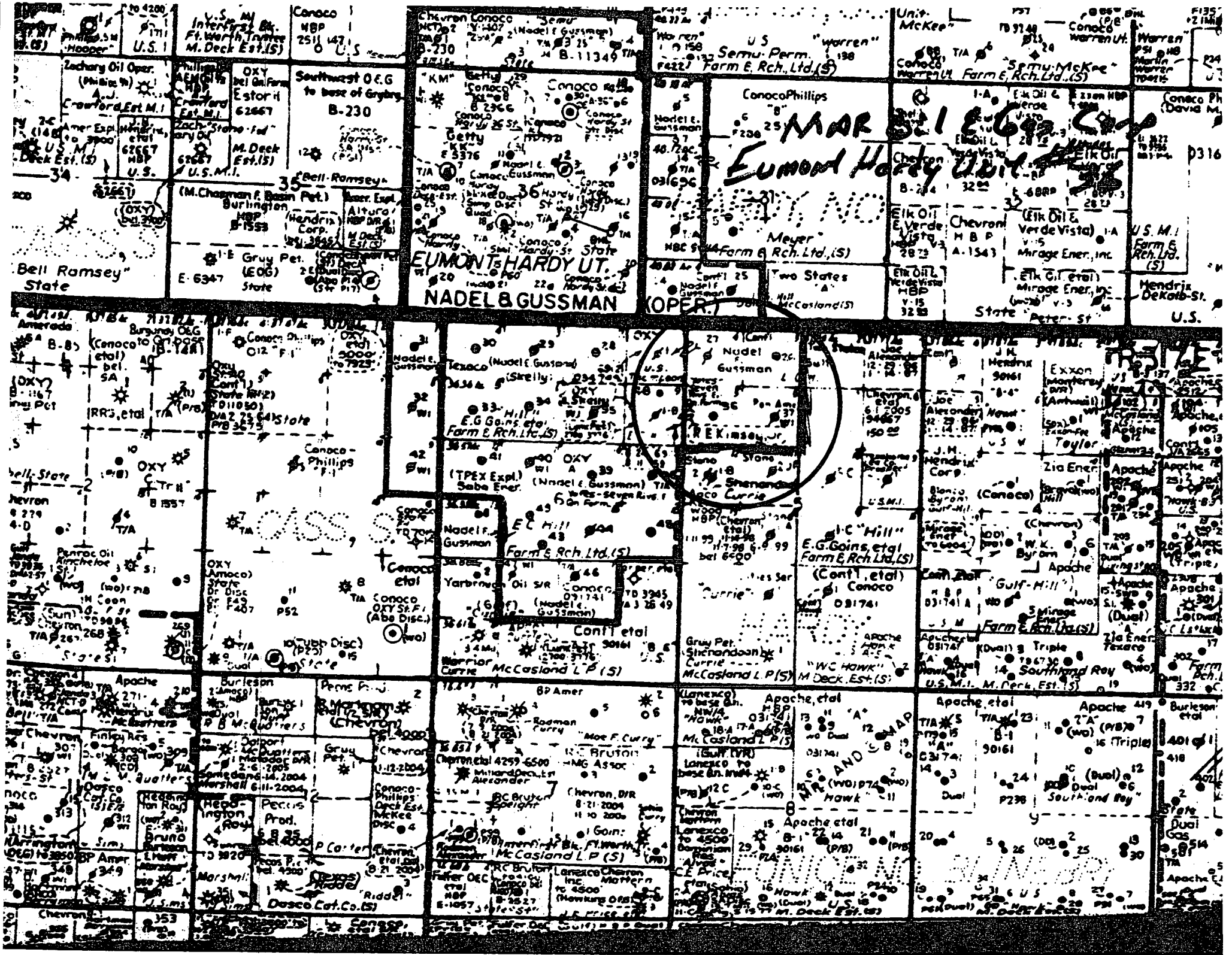
   If no, for what purpose was the well originally drilled? **Oil Well**

2. Name of the Injection Formation: **Yates, Seven Rivers, Queen**

3. Name of Field or Pool (if applicable): **Eumont Hardy Unit Area, Eumont Pool**

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

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: **Underlying-Grayburg**


EUMONT HARDY UT.
NADEL & GUSSMAN
MAR Oil & Gas Corp
Eumont Hardy Unit
Bell Ramsey" State
Meyer
Two States
Shenandoah
Currie
Stone
Yarbrough Oil s/e
Warrior
McCasland L P (S)
Hill
E.G. Goins, etal
Farm E, Rch. Ltd. (S)
Gruy Pet.
Apache
Hawk
Mirage Ener.
Southland Roy
Texaco
Conoco
Chevron
Exxon
Zia Ener.
Taylor
Gulf-Hill
Triple
Dual
Hendrix
Joe Alexander
Elk Oil & Verde Vista
Mirage Ener., Inc
Burlington
Hendrix DeKalb-St.
U.S.
State
Peter-St
Oasis
Oxy
Penroc Oil
Kincheloe
Warren
Semu-Perm.
Semu-McKee
Unit-McKee
Farm E, Rch. Ltd. (S)
Conoco Phillips
Elk Oil & Verde Vista
Chevron
Mirage Ener., Inc
Hendrix DeKalb-St.
U.S.
Bell Ramsey" State
Gruy Pet. (EOG) State
Burlington
Hendrix Corp.
Getty
Conoco
Nadel E. Gussman
Hardy St.
State
Meyer
Two States
Elk Oil & Verde Vista
Chevron
Mirage Ener., Inc
Hendrix DeKalb-St.
U.S.
Texaco
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Southland Roy
Texaco
Conoco
Chevron
Exxon
Zia Ener.
Taylor
Gulf-Hill
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Oasis
Oxy
Penroc Oil
Kincheloe
Warren
Semu-Perm.
Semu-McKee
Unit-McKee
Farm E, Rch. Ltd. (S)
Conoco Phillips
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U.S.
State
Peter-St
Oasis
Oxy
Penroc Oil
Kincheloe

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
OMEGA TREATING
ATTN: JOHN NOGELMEIR
2805 GARDEN CITY HWY.
MIDLAND, TX 79701
FAX TO: (505) 394-9030

Receiving Date: 07/21/05
Reporting Date: 07/22/05
Project Owner: MAR OIL & GAS
Project Name: EUMONT HARDY #104
Project Location: NOT GIVEN

Sampling Date: 07/21/05
Sample Type: PRODUCED WATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	07/21/05	07/21/05	07/21/05	07/21/05	07/21/05	07/21/05
H9983-1 EUMONT HARDY #104	8142	4545	8287	821	86855	666
Quality Control	NR	51	46	4.96	1322	NR
True Value QC	NR	50	50	5.00	1413	NR
% Recovery	NR	102	92.0	99.2	93.6	NR
Relative Percent Difference	NR	12.0	0	0.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	07/21/05	07/21/05	07/21/05	07/21/05	07/21/05	07/22/05
H9983-1 EUMONT HARDY #104	40987	5510	228	348	8.20	79860
Quality Control	960	50.92	NR	986	6.91	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	96.0	102	NR	98.6	98.7	NR
Relative Percent Difference	5.0	7.9	NR	0.8	2	1.1
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

7/22/05
Date

DATE: 9/23/04

OMEGA TREATING CHEMICALS, INC.
2605 GARDEN CITY HYW.
MIDLAND, TEXAS 79701

WATER ANALYSIS REPORT

COMPANY NAME: MAR OIL & GAS

LEASE NAME: FRESH WATER Inj # 27

WELL#\SAMPLE POINT: 660 N 440 W Unit letter D
Sec 5-21 5R-37E

1.	WELLHEAD pH	7.49
2.	H2S (QUALITATIVE)	0.00 PPM
3.	CALCIUM (Ca)	200.00 Mg/L
4.	MAGNESIUM (Mg)	48.60 Mg/L
5.	IRON (Fe)	1.68 PPM
6.	SODIUM	2540.89 Mg/L
7.	CHLORIDE (Cl)	2485.00 Mg/L
8.	BICARBONATE (HCO3)	207.40 Mg/L
9.	SULFATE (SO4)	22.6 Mg/L
10.	TOTAL HARDNESS	700.00 Mg/L
11.	TOTAL DISSOLVED SOLIDS	5506.14 Mg/L
12.	RESISTIVITY	0.93
13.	CARBONATE SCALING TENDENCY	0.39
14.	SULFATE SCALING TENDENCY	-32.89

BOPD ___ BWPD ___

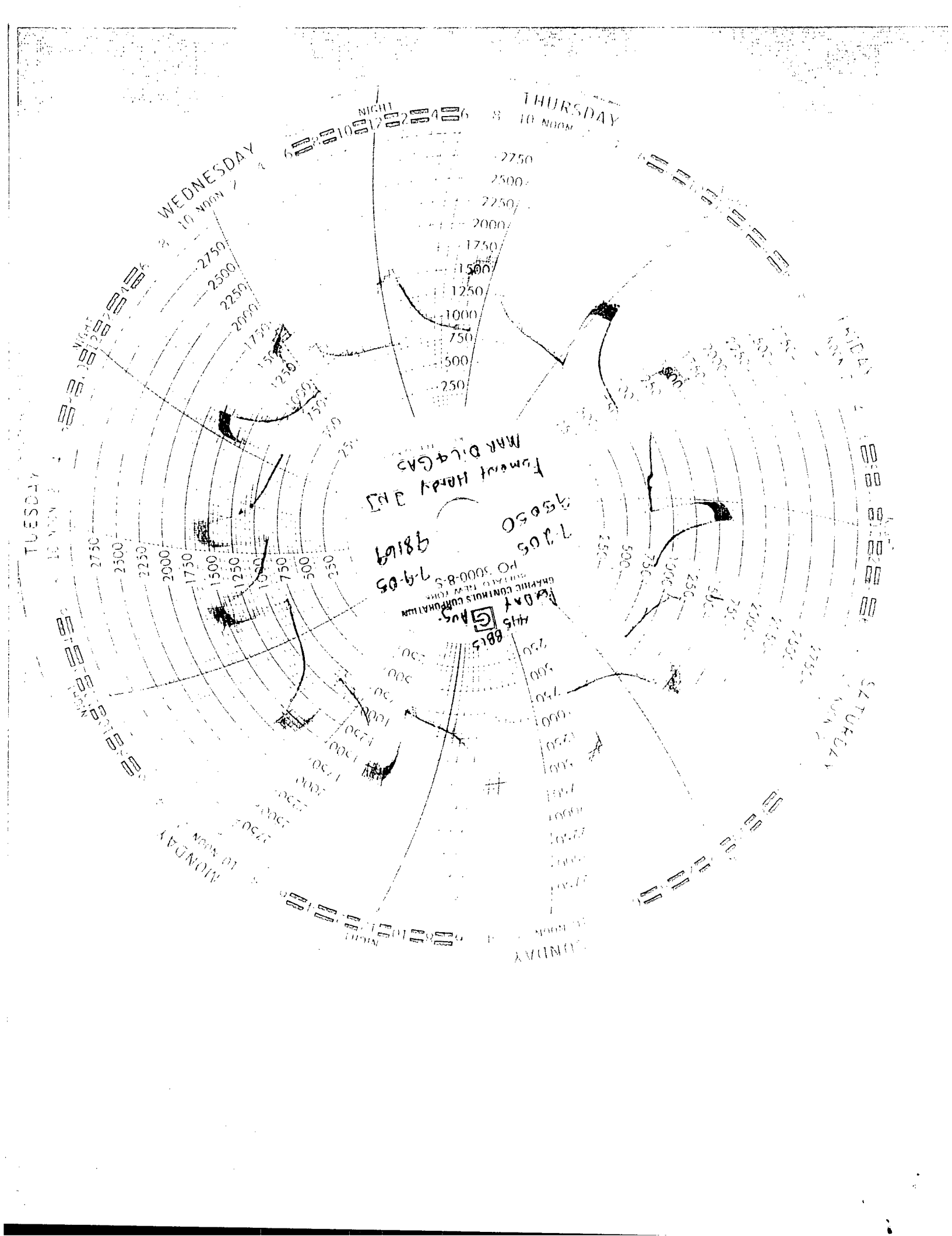
REMARKS: _____

COPIES TO: JOHN NOGELMEIER

MAR OIL & GAS CORP
EUMONT HARDY UNIT
Water Injection Well

July 20, 2005

Description	BWPM	Injection Pressure
Eumont Hardy Unit No 5	1218	1650
Eumont Hardy Unit No 7	2435	1650
Eumont Hardy Unit No 11	1218	1650
Eumont Hardy Unit No 13	1218	1650
Eumont Hardy Unit No 17	1218	1650
Eumont Hardy Unit No 23	1218	1650
Eumont Hardy Unit No 27	1218	1650
Eumont Hardy Unit No 31	1218	1650
Eumont Hardy Unit No 35	1218	1650
Eumont Hardy Unit No 40	1349	1650


NIGHT
THURSDAY
10 NOON
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
WEDNESDAY
TUESDAY
MONDAY
SATURDAY
FRIDAY

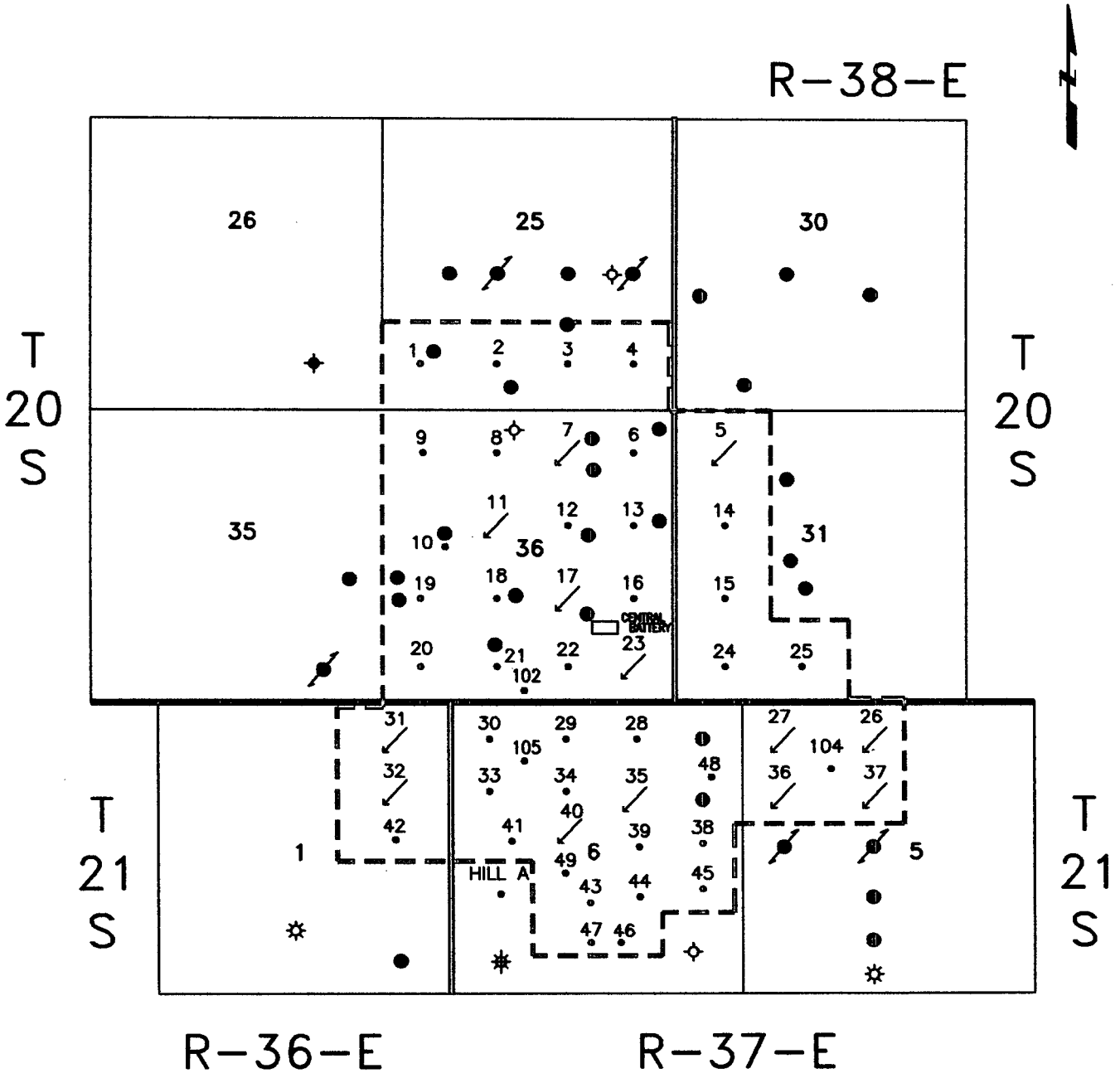
LEGEND — 7/2005 CURRENT OPERATIONS

- OIL WELLS
- WATER INJECTION WELL
- UNIT BOUNDARY

MAR OIL & GAS CORP.

EUMONT HARDY UNIT

LEA COUNTY, NM



REV	DATE	REVISION DESCRIPTION	BY	CHK	APP
P2	07/18/05	CHANGES PER D. WINKLER	MB	DW	
P1	07/14/05	ISSUED FOR CLIENT REVIEW	MB	BNS	

VECO
DURANGO, CO
1-970-259-7211

PROJECT NAME

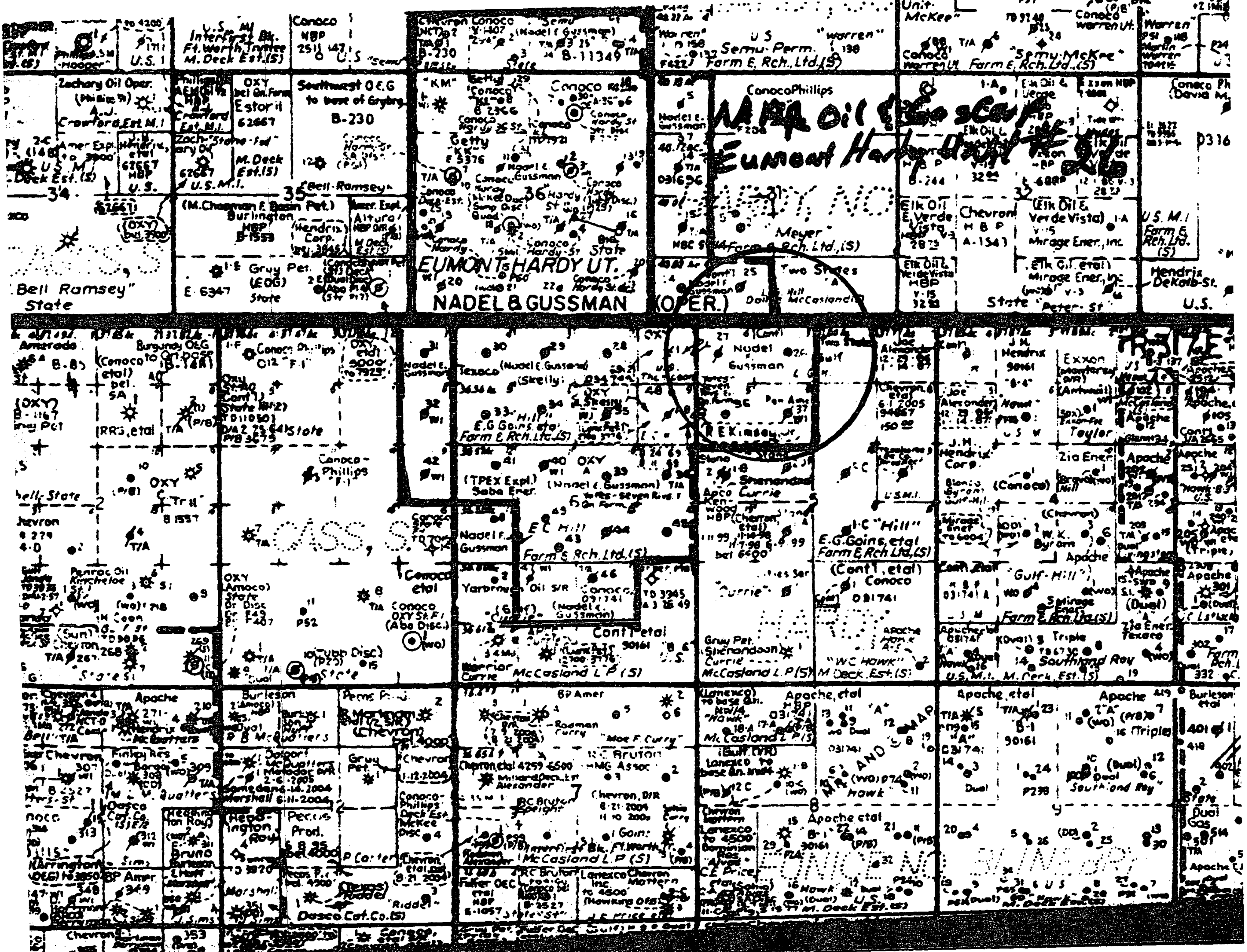
DRAWN: MB
DESIGNED:
CHECKED:
APPROVED: D. WINKLER

MAR OIL AND GAS CORP
WELL LOCATION MAP
EUMONT HARDY UNIT

DRAWING NUMBER: EUMONT HARDY UNIT
SHEET:

SCALE: NTS
DATE: 07/12/05
PROJECT NO.
REV: P2

REV: 07/19/05 12:15 AM BARTLEM PLOT: 07/19/05 12:15 AM BARTLEM FILE: S:\PRJ\MAR OIL AND GAS CORP\412120-00(MAR OIL AND GAS MAPPING SUPPORT)\EUMONT HARDY UNIT-REVP1.DWG


EUMONT HARDY UT.
NADEL & GUSSMAN (OPER.)
"Bell Ramsey" State
ConocoPhillips
Semu-Perm.
Farm E. Rch. Ltd. (S)
Meyer
Two States
E.G. Goins, etal
Farm E. Rch. Ltd. (S)
Conoco
Chevron
Apache
"W C HAWK"
McCasland L.P (S)
M. Deck Est. (S)
Southland Roy
Gulf-Hill
Interfirst Bk. Ft. Worth Tr.
Dasco Cat. Co. (S)
Nadel & Gussman
Shenandoah Currie
Elk Oil E. Verde Vista
Mirage Ener., Inc.
U.S.

AREA OF REVIEW WELL DATA										
LEASE/API	WELL#	LOCATION	TD (PBTD)	TYPE&DATE DRILLED	HOLE SIZE	CASING SIZE & WEIGHT	SETTING DEPTH	SX CMT	TOC	PERFS
Meyer B 31	5	2310 FSL	7830	oil	12 1/4	8 5/8	1525	554	circ	7856-7644
3002534960		1850 FWL		4/30/2000	7 7/8	5 1/2	7831	1717	circ	
		31-20S-38E								
Meyer B 31	2	1980 FSL	3747	oil	12 1/4	7 5/8	280	200	circ	2712-3390
3002507866		1980 FWL		5/3/1976	7 7/8	5 1/2	3496	336	1052	
		31-20S-38E								
Eumont Hardy	15	1980 FSL	3790	oil	15	10 3/4	192	225	circ	3506-3790
Unit		660 FWL		9/5/1938	12 1/4	7 5/8	1364	425	circ	
3002507865		31-20S-38E			7 7/8	5 1/2	3506	425	415	
					7 7/8	4	3506-3790			
Eumont Hardy	24	660 FSL	3790	oil	10 3/4	7 5/8	270	175	circ	open hole
Unit		660 FWL		7/3/1938	7 7/8	5 1/2	3525	200	1700	3525-3790
3002507869		31-20S-38E								
Eumont Hardy	25	600 FSL	3785	oil	12 1/4	7 5/8	286	175	circ	open hole
Unit		1980 FWL		8/24/1938	6 5/8	5 1/2	3528	200	1700	3528-3785
3002507870		31-20S-38E								
Eumont Hardy	16	1980 FSL	3790	oil	15	10 3/4	230	250	circ	open hole
Unit		660 FEL		11/5/1938	9 7/8	7 5/8	1371	425	200	3501-3790
3002506217		36-20S-37E			6 3/4	5 1/2	3501	425	1420	
Eumont Hardy	23	660 FSL	3790	oil	13	10 3/4	224	225	circ	3520-3790
Unit		660 FEL		8/10/1938	9 5/8	7 5/8	1378	425	224	
3002506216		36-20S-37E			6 5/8	5 1/2	3510	425	1378	
					6 5/8	4	3790			
Eumont Hardy	39	3300 FNL	3787	oil	17	13	295	200	circ	open hole
Unit		1980 FEL		11/13/1937	12	9 5/8	1376	500	300	3527-3787
3002506413		6-21S-37E			8 3/4	7	3787	300	1393	
Eumont Hardy	48	1492 FNL	3790	oil	12 1/4	8 5/8	518	300	circ	3716-3735
Unit		560 FEL		9/4/1971	7 7/8	5 1/2	3827	300	2100	
3002523851		6-21S-37E								
Eumont Hardy	28	660 FNL	3720	oil	12	10 3/4	177	150	circ	3720-3780
Unit		1980 FEL		2/5/1938	8 1/4	7	3515	600	743	
3002506423		6-21S-37E								
Eumont Hardy	35	1980 FNL	3791	oil	12 1/2	10 3/4	186	150	circ	open hole
Unit		1980 FEL		7/8/1937	8 1/2	7	3870	500	1125	3530-3791
3002506422		6-21S-37E								
Eumont Hardy	26	660 FNL	3767	oil	12 1/4	7 5/8	292	200	circ	open hole
Unit		1980 FWL		8/11/1938	7 7/8	5 1/2	3498	225	1326	3498-3767
3002509899		5-21S-37E								
Eumont Hardy	27	660 FNL	3755	oil	17	13	311	200	circ	open hole
Unit		440 FWL		3/9/1938	12	9 5/8	1336	500	400	3465-3755
3002506408					8 3/4	7	3755	300	~~3465~~ TOC 1800	
Eumont Hardy	36	1980 FNL	3780	oil	17	13	284	200	circ	open hole
Unit		660 FEL		2/8/1938	12	9 5/8	1379	500	circ	3521-3780
3002506407		5-21S-37E			8 3/4	7	3521	300	1300	
					7		3780	OH		

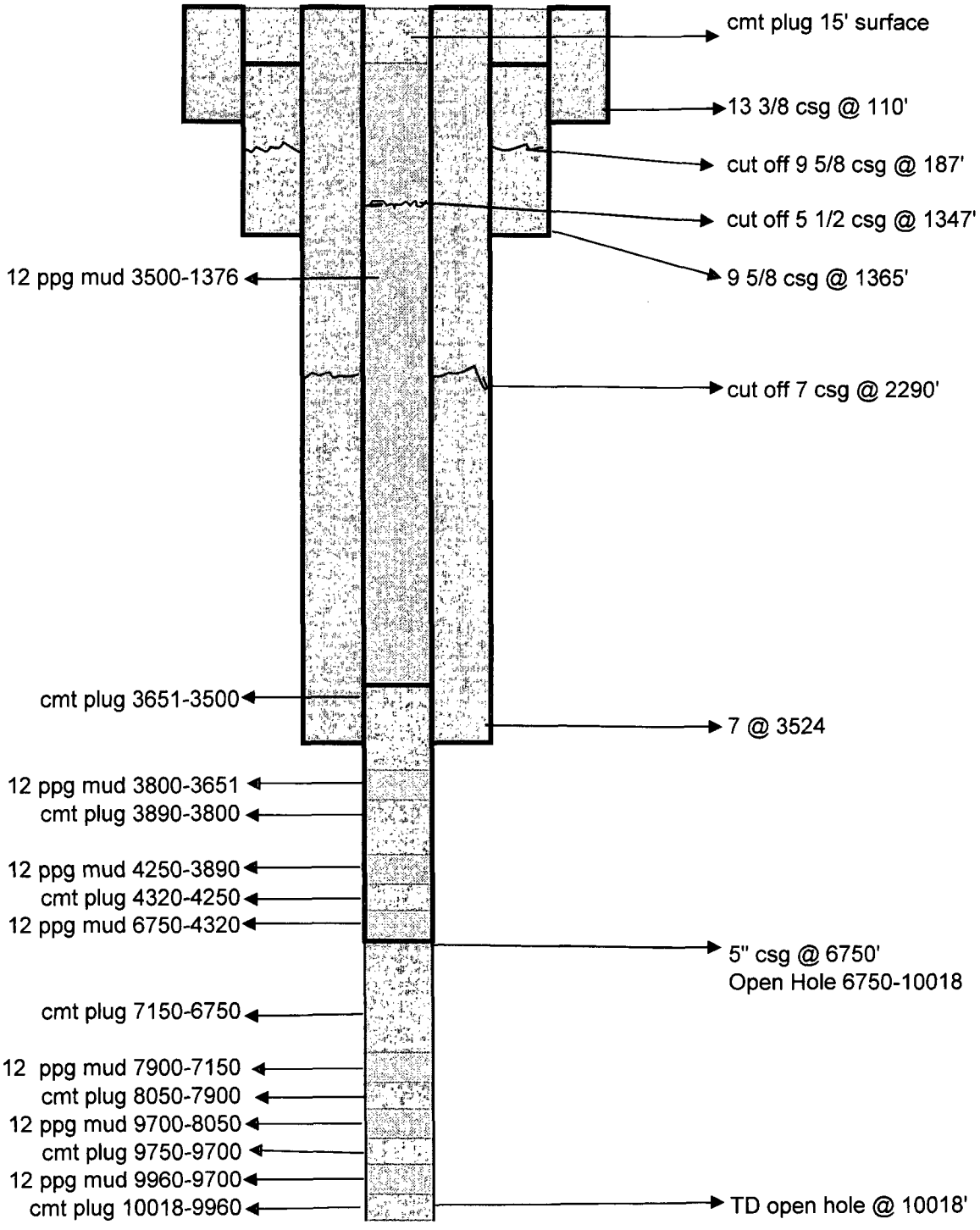
Check

AREA OF REVIEW WELL DATA

LEASE/API	WELL#	LOCATION	TD (PBTD)	TYPE&DATE DRILLED	HOLE SIZE	CASING SIZE & WEIGHT	SETTING DEPTH	SX CMT	TOC	PERFS
Eumont Hardy	37	1980 FNL	3780	oil	17 1/2	13 3/8	258	200	circ	open hole
Unit		1980 FWL		10/4/1938	12	9 5/8	1363	500	300	3512-3780
3002509902		5-21S-37E			8 3/4	7	3512	300	1456	
Eumont Hardy	104	1325 FNL	3902	oil	12 1/4	8 5/8	551	275	circ	2704-3805
Unit		1328 FWL		7/20/2004	7 7/8	5 1/2	3902	1025	circ	
3002536756		5-21S-37E								
JP Alexander B	2	3189 FNL	TD 10018	gas	17	13 3/8	110	100	circ	
3002509898		1980 FWL	PBTD 6750	3/10/1939	12	9 5/8	1365	400	200	
		5-21S-R37E			8 3/4	7	3524	300	2300	
					6 5/8	5 1/2	0-3000			
					6 5/8	5	3000-6750	500	2900	

Cement Plugs	12 ppg mud	Cement Plugs	12 ppg mud	Casing Salvaged
10018-9960	9960-9700	4320-4250	4520-3890	187'--- 9 5/8
9750-9700	9700-8050	3890-3800	3800-3651	2290'--- 7
8050-7900	7900-7150	3651-3500	3500-1376	1347---5
6864-6750	6750-4320	15-surface		

Pan American Petroleum
JP Alexander B No 2
3189 FNL & 1980 FWL Sec 5, T21S, R37E



MAR OIL & GAS CORP
P.O. Box 5155
Santa Fe, NM 87502
Office (505) 989-1977

July 21, 2005

VIA CERTIFIED MAIL: 7004 2510 0005 5237 6449
Return Receipt Requested

CONOCOPHILLIPS
P.O. Box 7500
Bartlesville, OK 74005

To Whom It May Concern:

Enclosed for your review is a copy of MAR OIL & GAS CORP application for authorization to inject for the purpose of secondary recovery in the Eumont Hardy Unit No 36 and Eumont Hardy Unit No 26.

This letter will serve as a notice that MAR OIL & GAS CORP has requested administrative approval from the NMOCD. If you have any objections, you must notify the Oil Conservation Division in Santa Fe at 1200 South St. Francis Dr. Santa Fe. NM 87505, in writing within fifteen (15) days of receiving this letter.

Sincerely,

MAR OIL & GAS CORP

Duane C Winkler
VP Operations

MAR OIL & GAS CORP
P.O. Box 5155
Santa Fe, NM 87502
(505) 989-1977 office

July 21, 2005

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: Step Rate Test

Mr. David Catanach:

MAR OIL & GAS CORP (MAR) has applied for administrative approval to convert Eumont Hardy Unit #36 and Eumont Hardy Unit #26 to water injection wells. MAR drilled the Eumont Hardy Unit No 104, (API # 30-025-36756) on twenty acre. The conversion of the wells is to support a five point secondary recovery.

Eumont Hardy Unit #104 Yates, Seven Rivers and Queen were perforated, acid zed and frac. Enclosed is the final Frac Post Job Report to support step rate test for the Eumont Hardy #36 and #26 injection pressure.
Post Job Report Summary (all calculation from bottom Queen Perforation at 3806')
Flush 2% kcl water 8.45 or gradient of .4394
Page # 8 Job Event Log Time 10:56:53 (load well) static reservoir gradient .7649
Page # 8 Job Event Log Time 11:15:48 (middle fluid rate) reservoir gradient 1.4781
Page # 8 Job Event Log Time 11:33:47 (ISIP) reservoir on closure gradient .9341
Page # 8 Job Event Log Time 11:47:47 (15 min shut in) reservoir gradient .8802
Enclosed is Halliburton Final Post Job Report and Eumont Hardy Unit # 104 well bore diagram. Please contact me at 505-989-1977 for any more support to assist this approval.

Sincerely;

MAR OIL & GAS CORP

Duane C Winkler
VP Operations

Eumont Hardy Unit No 104

NW/SE Sec 5 T21S R37E
1325' FNL, 1328' FWL Unit F
EUMONT HARDY UNIT
Lea County New Mexico

Cores: NA
1.)
2.)
3.)
4.)
5.)

Surface Casing
8 5/8", 24#, J-55, ST&C, set @ 551' KB.
275 sxs Cmt, circulate to surface

Production Casing
5 1/2", 15.5#, J-55, ST&C, set @ 3902' KB.
1025 sxs Cmt, circ to surface

Tubing
2 3/8 J55

Perforations
Yates, Seven Rivers, Queen
2704,18,2802,26,52,2927,2950,3012,39
3300,3344,70
3679,88,3708,16,50,61,87,3805

MAR Oil and Gas

Wellbore Diagram