

# N.M. Oil Cons. DIV-Dist. 2

## 1301 W. Grand Avenue

### Artesia, NM 88210

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB NO. 1004-0136

Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.

NMNM 027994 D

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

### APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL

DEEPEN

1b. TYPE OF WELL

OIL  GAS   
WELL WELL

SINGLE  MULTIPLE   
OTHER ZONE ZONE

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P.O. Box 140907 Irving TX 75014 972-401-3111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

SHL 400' FNL & 330' FWL & BHL 1144' FNL & 1570' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

8 miles South of Carlsbad

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O (Also to nearest drlg. unit line, if any)

1144' BHL

16. NO. OF ACRES IN LEASE

1200

17. NO. OF ACRES ASSIGNED TO THIS WELL

Carlsbad Controlled Water Basin  
320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

1850'

19. PROPOSED DEPTH

13000'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3252 GR

22. APPROX. DATE WORK WILL START\*  
4-15-03

### 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13 3/8"	48 #	425'	490 sx circulate
12 1/4"	J-55 9 5/8"	36 #	3200'	1200 sx circulate
7 7/8"	N-80/S-95 5 1/2"	17 #	13000'	1620 sx TOC 2700'

The proposed well will be drilled to a depth of 13000' and completed as a Carlsbad Morrow South producer.

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system. We are requesting a variance for the 13 3/8" surface casing from Onshore Order No. 2, which states all casing strings below the conductor, shall be pressure tested to .22 psi per foot or 1500 # whichever is greater, but not to exceed 70% of the manufactures stated maximum internal yield. Per onshore order 2 the 13 3/8" 48 # H-40 casing should be tested at 70% of its maximum internal yield of 1730 # or 1211 #. During the running of the surface pipe we do not anticipate any pressures greater than 500 #, and are requesting a variance to test the 13 3/8" casing to 500 #

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED

*Zeno Family*

TITLE

Mgr. Ops. Admin

DATE

02-27-02

(This space for Federal or State office use)

PERMIT No.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/s/ LESLIE A. THEISS

TITLE

FIELD MANAGER

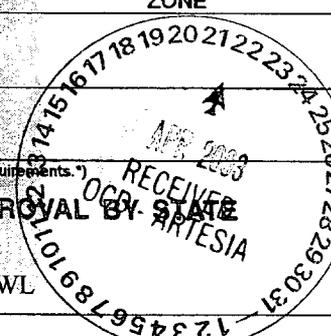
DATE

APR 16 2003

\*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED



W.D

162682

SUBJECT TO LIKE APPROVAL BY STATE

## Hydrogen Sulfide Drilling Operations Plan

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H2S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H2S detectors, warning system and briefing
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
  
- 2 H2S Detection and Alarm Systems
  - A. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
  
- 3 Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
  
- 4 Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
  
- 5 Well control equipment
  - A. See exhibit "E"
  
- 6 Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
  
- 7 Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If location is near any dwelling a closed DST will be performed.

## Hydrogen Sulfide Drilling Operations Plan

- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
  
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

DISTRICT I  
P.O. Box 1880, Hobbs, NM 88241-1880

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code	Pool Name Carlsbad; Morrow, South
Property Code	Property Name MOBIL 12 FEDERAL	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT CO.	Elevation 3252'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	23-S	26-E		400	NORTH	330	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	12	23-S	26-E		1144	FNL	1570	FWL	Eddy

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y	C	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>GEODETIC COORDINATES NAD 27 NME Y = 482059.6 X = 524674.9 LAT. 32°19'30.98"N LONG. 104°15'12.43"W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Zeno Farris</i> Signature Zeno Farris Printed Name Mgr. Operations, Admin. Title February 27, 2003 Date</p>
		<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>FEBRUARY 13, 2003 Date Surveyed L.A. Signature &amp; Seal of Professional Surveyor <i>Ronald J. Eidson</i> 2/14/03 03.11.0188</p> <p>Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12641</p>

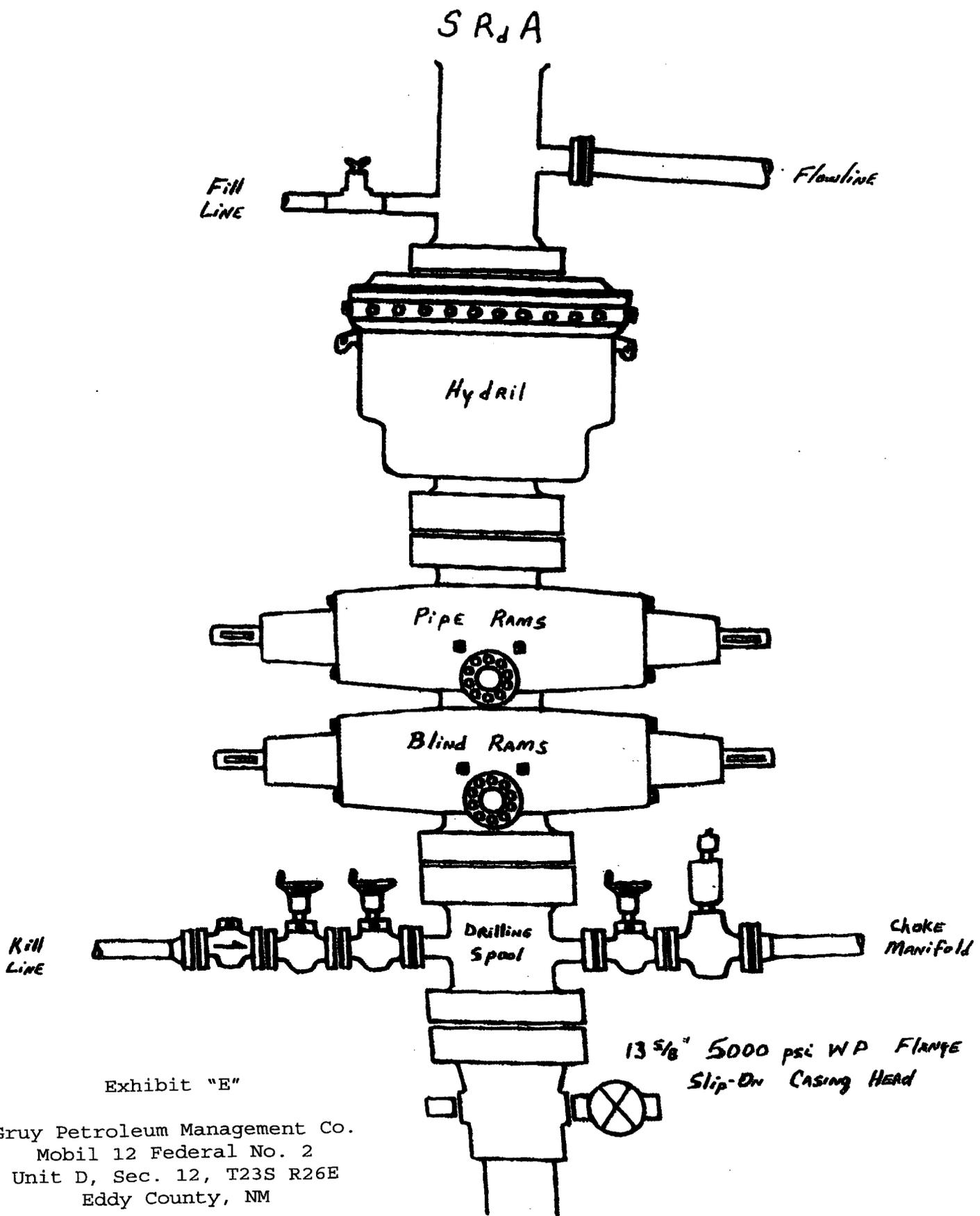


Exhibit "E"

Gruy Petroleum Management Co.  
 Mobil 12 Federal No. 2  
 Unit D, Sec. 12, T23S R26E  
 Eddy County, NM

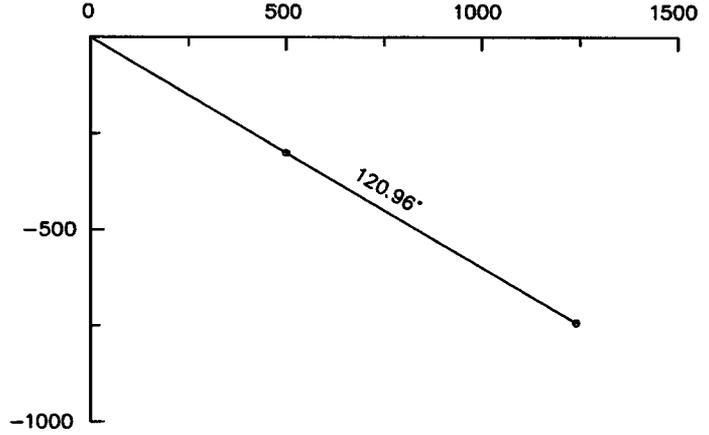
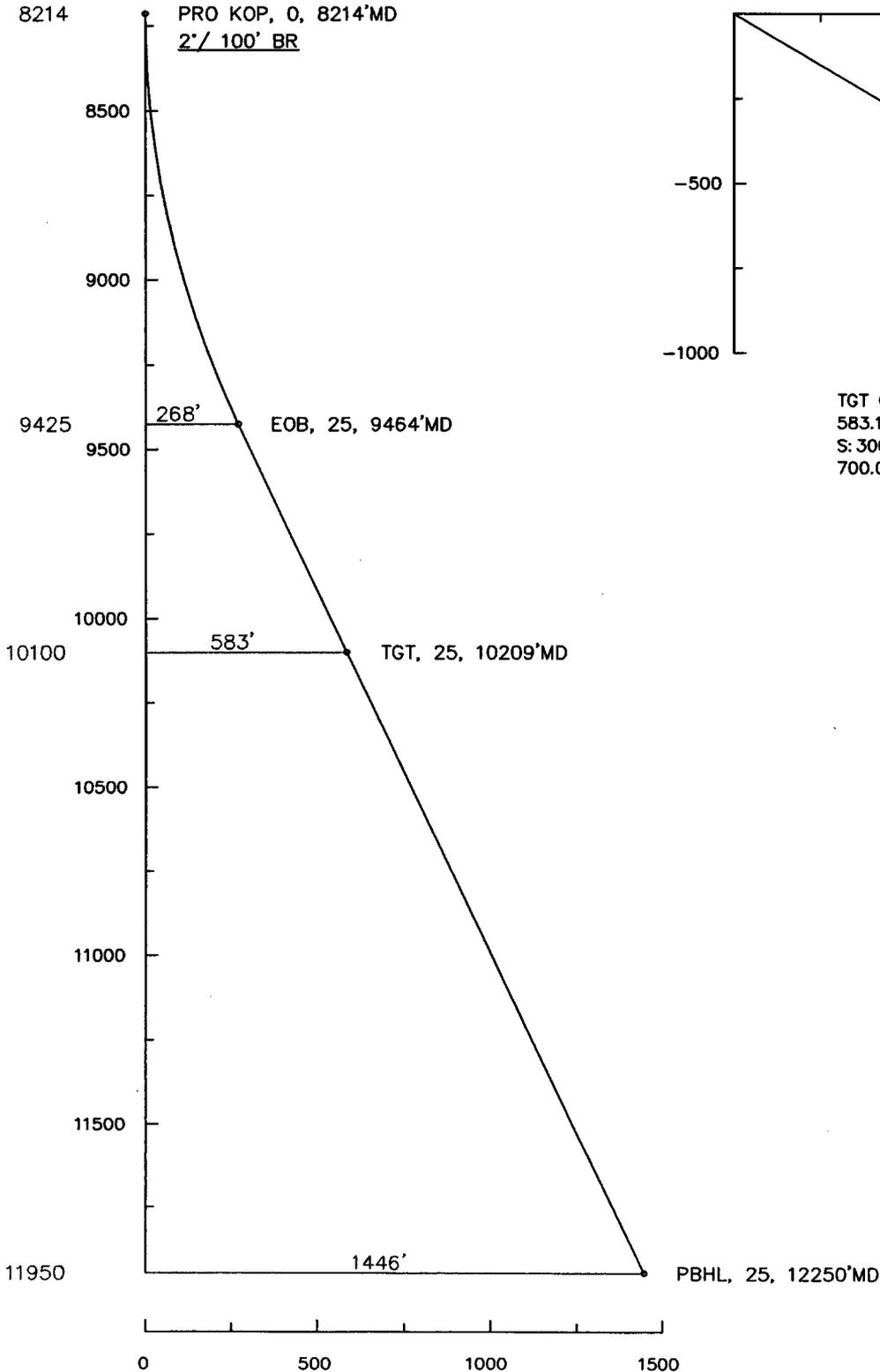
Job Number :	
Company :	Magnum Hunter
Lease/Well :	Mobil 12 Fed Com
Location :	New Mexico



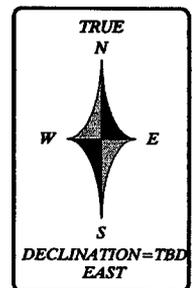
VERTICAL SECTION  
 SCALE: 1 inch = 500'  
 VERTICAL SECTION PLANE= 120.96

SURFACE LOCATION  
 400.00' FNL 330.00' FWL

PLAN VIEW  
 SCALE: 1 inch = 500'



TGT @ 10100.00' TVD	PBHL @ 11950' TVD
583.10' @ 120.96°	1446' @ 120.96°
S: 300.00' E: 500.00'	S: 744' E: 1240'
700.00' FNL 830.00' FWL	1144' FNL 1570' FWL





**Job Number:**  
**Company:** Magnum Hunter  
**Lease/Well:** Mobil 12 Fed Com  
**Location:** New Mexico  
**Rig Name:**  
**RKB:**  
**G.L. or M.S.L.:**

**State/Country:**  
**Declination:**  
**Grid:**  
**File name:** C:\WINSERVE\PLANS\MOBILC.SVY  
**Date/Time:** 19-Feb-03 / 09:46  
**Curve Name:**

**Maverick Directional Services, Inc.**  
**Spring, Texas**  
**Calculated by: Jose Garza**  
**jose@maverickdirectional.com**  
**281-364-1212-Main**  
**281-364-1213-Fax**

**WINSERVE PROPOSAL REPORT**  
*Minimum Curvature Method*  
*Vertical Section Plane 120.96*  
*Vertical Section Referenced to Wellhead*  
*Rectangular Coordinates Referenced to Wellhead*

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
<b>PRO KOP, 0, 8214'MD</b>									
8214.44	.00	120.96	8214.44	.00	.00	.00	.00	.00	.00
8314.44	2.00	120.96	8314.42	1.75	-.90	1.50	1.75	120.96	2.00
8414.44	4.00	120.96	8414.28	6.98	-3.59	5.98	6.98	120.96	2.00
8514.44	6.00	120.96	8513.89	15.69	-8.07	13.46	15.69	120.96	2.00
8614.44	8.00	120.96	8613.14	27.88	-14.34	23.91	27.88	120.96	2.00
8714.44	10.00	120.96	8711.91	43.52	-22.39	37.32	43.52	120.96	2.00
8814.44	12.00	120.96	8810.06	62.60	-32.21	53.68	62.60	120.96	2.00
8914.44	14.00	120.96	8907.50	85.10	-43.78	72.97	85.10	120.96	2.00
9014.44	16.00	120.96	9004.08	110.98	-57.10	95.16	110.98	120.96	2.00
9114.44	18.00	120.96	9099.71	140.21	-72.14	120.23	140.21	120.96	2.00
9214.44	20.00	120.96	9194.26	172.77	-88.89	148.15	172.77	120.96	2.00
9314.44	22.00	120.96	9287.61	208.60	-107.33	178.88	208.60	120.96	2.00
9414.44	24.00	120.96	9379.65	247.67	-127.43	212.38	247.67	120.96	2.00
<b>EOB, 25, 9464'MD</b>									
9464.44	25.00	120.96	9425.15	268.41	-138.10	230.16	268.41	120.96	2.00
9964.44	25.00	120.96	9878.31	479.72	-246.81	411.35	479.72	120.96	.00
<b>TGT, 25, 10209'MD</b>									
10209.05	25.00	120.96	10100.00	583.10	-300.00 <sup>400</sup>	500.00 <sup>330</sup>	583.10	120.96	.00
10709.05	25.00	120.96	10553.15	794.40	-408.72	681.20	794.40	120.96	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
11209.05	25.00	120.96	11006.31	1005.71	-517.44 <sup>12.5°</sup>	862.39 <sup>31.5°</sup>	1005.71	120.96	.00
11709.05	25.00	120.96	11459.46	1217.02	-626.15	1043.59	1217.02	120.96	.00
12209.05	25.00	120.96	11912.62	1428.33	-734.87	1224.78	1428.33	120.96	.00
<b>PBHL, 25, 12250'MD</b>									
12250.30	25.00	120.96	11950.00	1445.76	-743.84	1239.73	1445.76	120.96	.00



Federal Aviation Administration  
 Southwest Regional Office  
 ASW-520  
 Fort Worth, TX 76137-0520

AERONAUTICAL STUDY No.  
 2003-ASW-1057-OE  
 PRIOR STUDY No.

Issued Date: 3/12/2003

ZENO FARRIS  
 GREY PETROLEUM MANAGEMENT CO  
 P O BOX 140907  
 IRVING, TX 75014

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

~~The Federal Aviation Administration has completed an aeronautical study under~~  
 the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the  
 Code of Federal Regulations, part 77, concerning:

Structure Type: DRILLING RIG/MOBIL 12 FEDERAL NO. 2  
 Location: CARLSBAD, NM  
 Latitude: 32-19-31.36 NAD83  
 Longitude: 104-15-14.24  
 Heights: 155 feet above ground level (AGL)  
 3407 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does exceed obstruction standards but would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure should be marked and/or lighted in accordance with FAA Advisory Circular 70/7460-1 K, Obstruction Marking and Lighting. paint/red lights - Chapters 3(Marked), 4, 5 (Red), & 12.

See attachment for additional condition(s) or information.

It is required that the FAA be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Notification should be made to this office during our core business hours (Monday through Friday, 9:00 a.m. to 3:00 p.m.) via telephone at (817) 222-5534. Notification is necessary so that aeronautical procedures can be temporarily modified to accommodate the structure.

It is required that the manager of Cavern City Air Terminal be notified at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

This determination expires on 9/12/2004 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

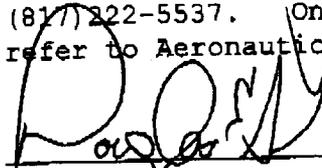
This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (817) 222-5537. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2003-ASW-1057-OE.

  
DOUGLAS E. FELIX  
Specialist

(EBO)

Attachment(s)

**Attachment**

2003-ASW-1057-OE

Site: Mobil 12 Federal Well Number 2

## Conditions for Operation of Temporary Drilling Rig

- Notify the FAA at least 3 business days prior to the drilling rig being erected. Such advance notice is required because a standard instrument approach procedure (SIAP) must be modified to accommodate the drilling rig. This notification should be made to the FAA during normal working hours (Monday through Friday, 9:00 A.M. to 3:00 P.M.) via telephone, at (817) 222-5534.

- The temporary drilling rig shall be obstruction flagged and lighted in accordance with FAA Advisory Circular 70/7460-1 Obstruction Marking and Lighting.

- Coordinate with and RECEIVE APPROVAL from the Cavern City Air Terminal Manager, or his representative, at (505) 887-3060, or (505) 887-1191, at least 3 business days prior to raising the temporary drilling rig and notify the manager when the project is complete and the temporary drilling rig is removed from the site.

- Notify the FAA when the project is complete and the drilling rig is removed from the site. This notification is necessary so that the affected Standard Instrument Approach Procedure can be returned to normal. This notification should be made to the FAA during normal working hours (Monday through Friday, 9:00 A.M. to 3:00 P.M.) via telephone at (817) 222-5534.

NOTE: The temporary drilling rig will affect standard instrument approach procedures (SIAPs) at the Carlsbad Cavern City Air Terminal, Carlsbad, New Mexico as follows:

GPS RWY 21 SIAP: Increase the S-21 MDA from 3580 feet AMSL to 3700 feet AMSL.