

MAY 26 2009  
OCD-ARTESIA

ATS-08-418  
EA-09-276  
Gm

Form 3160-3  
(February 2005)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

# Split Estate

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5 Lease Serial No <b>NMM 115411</b>
1b Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6 If Indian, Allottee or Tribe Name
2 Name of Operator <b>Marbob Energy Corporation</b>		7 If Unit or CA Agreement, Name and No
3a Address <b>P.O. Box 227, Artesia, NM 88211-0228</b>	3b Phone No. (include area code) <b>505-748-3303</b>	8 Lease Name and Well No <b>Really Scary Federal #2H</b>
4 Location of Well (Report location clearly and in accordance with any State requirements*) At surface <del>1750' FSL &amp; 330' FEL</del> <b>1910' FSL &amp; 660' FEL</b> At proposed prod zone <b>BHL: 1750' FSL &amp; 2310' FEL</b> <i>C.L. 01/05/09</i>		9 API Well No <b>30-015-37098</b>
14 Distance in miles and direction from nearest town or post office* <b>About 4.5 miles from Malaga, NM</b> <b>CARLSBAD CONTROLLED WATER BASIN</b>		10 Field and Pool, or Exploratory <b>Willow Lake; Delaware, SW</b>
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) <b>330'</b>	16 No of acres in lease <b>600</b>	11 Sec, T R M or Blk and Survey or Area <b>Section 33, T24S - R28E</b>
18 Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft <b>680'</b> <i>4800 TVD</i> <b>6248 MD</b>	19 Proposed Depth <b>680'</b> <i>4800 TVD</i> <b>6248 MD</b>	12 County or Parish <b>Eddy County</b>
21 Elevations (Show whether DF, KDB, RT, GL, etc) <b>2984' GL</b>	22 Approximate date work will start* <b>03/28/2008</b>	13 State <b>NM</b>
20 BLM/BIA Bond No on file <b>NMB000412</b>		
23 Estimated duration <b>21 Days</b>		

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must be attached to this form

- |  |   |
|--|---|
| 1 Well plat certified by a registered surveyor   | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2 A Drilling Plan  | 5 Operator certification  |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6 Such other site specific information and/or plans as may be required by the BLM             |

25 Signature <i>Nancy T. Agnew</i>	Name (Printed/Typed) <b>Nancy T. Agnew</b>	Date <b>02/28/2008</b>
Title <b>Land Department</b>		

Approved by (Signature) <b>ACTING</b> <i>/s/ Don Peterson</i>	Name (Printed/Typed)	Date <b>MAY 19 2009</b>
Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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, are attached

**APPROVAL FOR TWO YEARS**

Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\*(Instructions on page 2)

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

Form 3160-5  
(August 2007)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No 1004-0137  
Expires July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**5 Lease Serial No  
NMNM 115411

6 If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2**

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2 Name of Operator  
Marbob Energy Corporation

3a Address

P O Box 227, Artesia, NM 88211-0227

3b Phone No (include area code)

575-748-3303

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)  
Surf 1910' FSL & 660' FEL, BHL 1750' FSL & 2310' FEL  
Section 33, T24S - R28E

7 If Unit of CA/Agreement, Name and/or No

8 Well Name and No  
Really Scary Federal #2H

9 API Well No

10 Field and Pool or Exploratory Area  
Willow Lake, Delaware, SW11 Country or Parish, State  
Eddy County, NM**12 CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other well pad layout & location change
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13 Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection )

Marbob Energy Corporation respectfully requests approval for the new attached well pad layout for the above referenced Please add to APD

Marbob Energy Corporation also requests the following location change

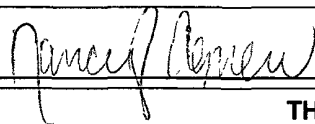
From 1850' FSL & 660' FEL & 1750' FSL & 2310' FEL  
To 1910' FSL & 660' FEL & 1750' FSL & 2310' FEL

14 I hereby certify that the foregoing is true and correct Name (Printed/Typed)

Nancy Agnew

Title Land Department

Signature



Date 01/05/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**FIELD MANAGER**

Title

Date

Conditions of approval, if any, are attached Approval of this notice 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

Office

**CARLSBAD FIELD OFFICE**

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(Instructions on page 2)

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

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-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State EDDYse - 4 Copies  
Fee EDDYse - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-015-37098</b>	Pool Code <b>96855</b>	Pool Name <b>Willow Lake; Delaware Southwest</b>
Property Code <b>36723</b>	Property Name <b>REALLY SCARY FEDERAL</b>	Well Number <b>2H</b>
OGRID No. <b>14049</b>	Operator Name <b>MARBOB ENERGY CORPORATION</b>	Elevation <b>2989'</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>1</b>	<b>33</b>	<b>24-S</b>	<b>28-E</b>		<b>1910</b>	<b>SOUTH</b>	<b>660</b>	<b>EAST</b>	<b>EDDY</b>

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
<b>J</b>	<b>33</b>	<b>24-S</b>	<b>28-E</b>		<b>1750</b>	<b>SOUTH</b>	<b>2310</b>	<b>EAST</b>	<b>EDDY</b>

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
<b>80</b>			

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. SURFACE LOCATION  Y=426246.8 N X=576695.4 E  LAT.=32.171626° N LONG.=104.085462° W</p> <p>BOTTOM HOLE LOCATION Y=426084.4 N X=575046.3 E</p> <p>GRID AZ.=264°22'31" HORIZ. DIST.=1657.4'</p> <p>SEE DETAIL</p>	<p>DETAIL</p> <p>2995.2' 2986.8' 600' 2992.3' 2986.9' 600'</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Nancy T. Agnew</i> Signature Date <i>Nancy T. Agnew</i> Printed Name</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>JANUARY 17, 2009</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor <i>Ronald J. Eidson</i> 09-11-0003</p> <p>Certificate No. GARY G. EIDSON 12641 RONALD J. EIDSON 3239</p>
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED  
OMB No 1004-0137  
Expires July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5 Lease Serial No  
NMNM 115411

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**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

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☒ Oil Well ☐ Gas Well ☐ Other

8 Well Name and No  
Really Scary Federal #2H

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Marbob Energy Corporation

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P O Box 227, Artesia, NM 88211-0227

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10 Field and Pool or Exploratory Area  
Willow Lake, Delaware, SW

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Surf 1850' FSL & 660' FEL, BHL 1750' FSL & 2310' FEL  
Section 33, T24S - R28E

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Eddy County, NM

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Marbob Energy Corporation respectfully requests approval for the new attached well pad layout for the above referenced Please add to APD

OK CRL 04/14/09

14 I hereby certify that the foregoing is true and correct Name (Printed/Typed)

Nancy Agnew

Title Land Department

Signature

*Nancy Agnew*

Date 12/30/2008

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**FIELD MANAGER**

Title

Date

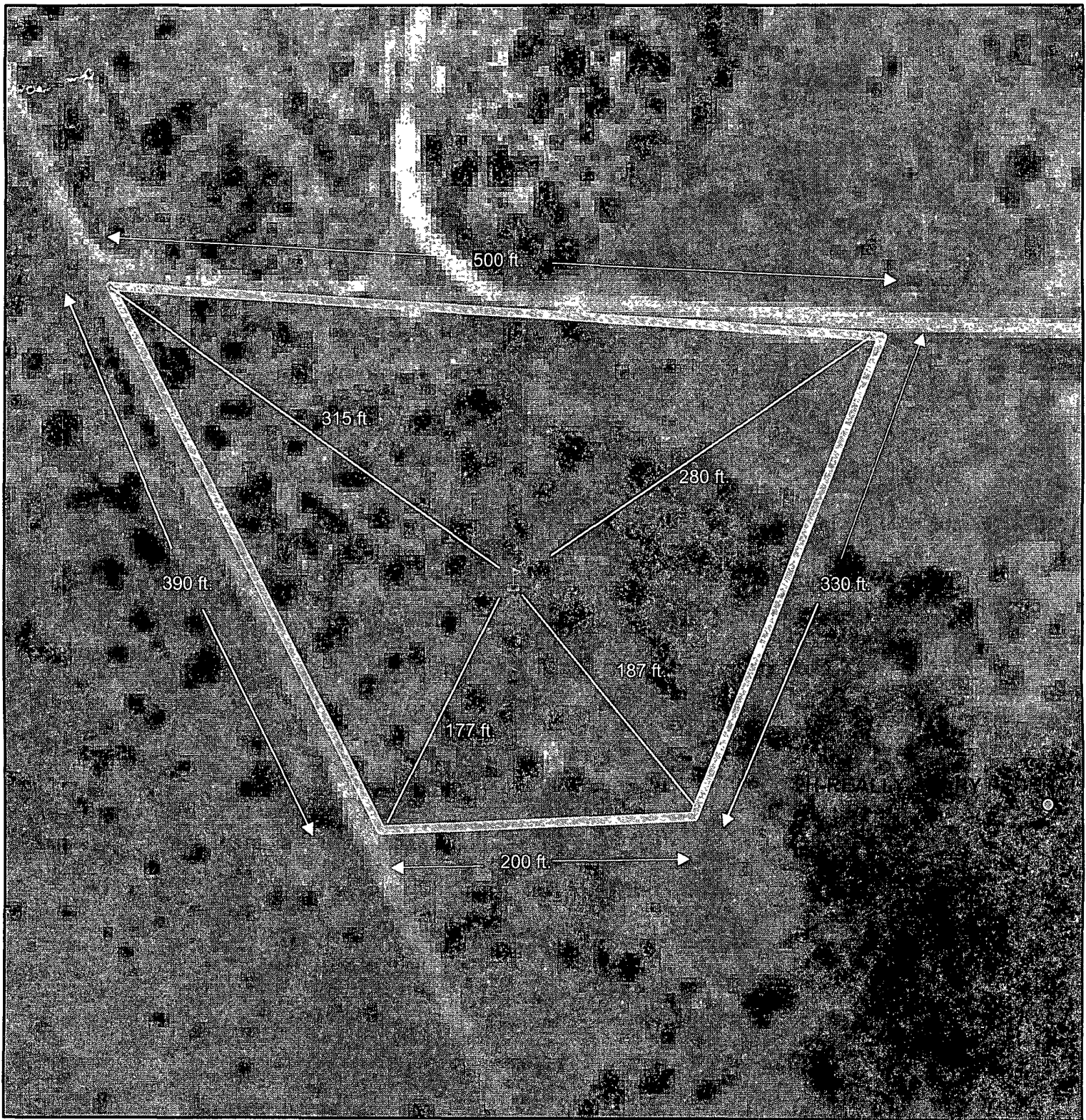
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(Instructions on page 2)



Trape 201d

# **Marbob Energy Really Scary Federal #2H**

Sec. 33--T24S--R28E



Drill Pad Boundary based on Proposed APD surface location



Original APD surface location (1750' FSL, 330' FEL)

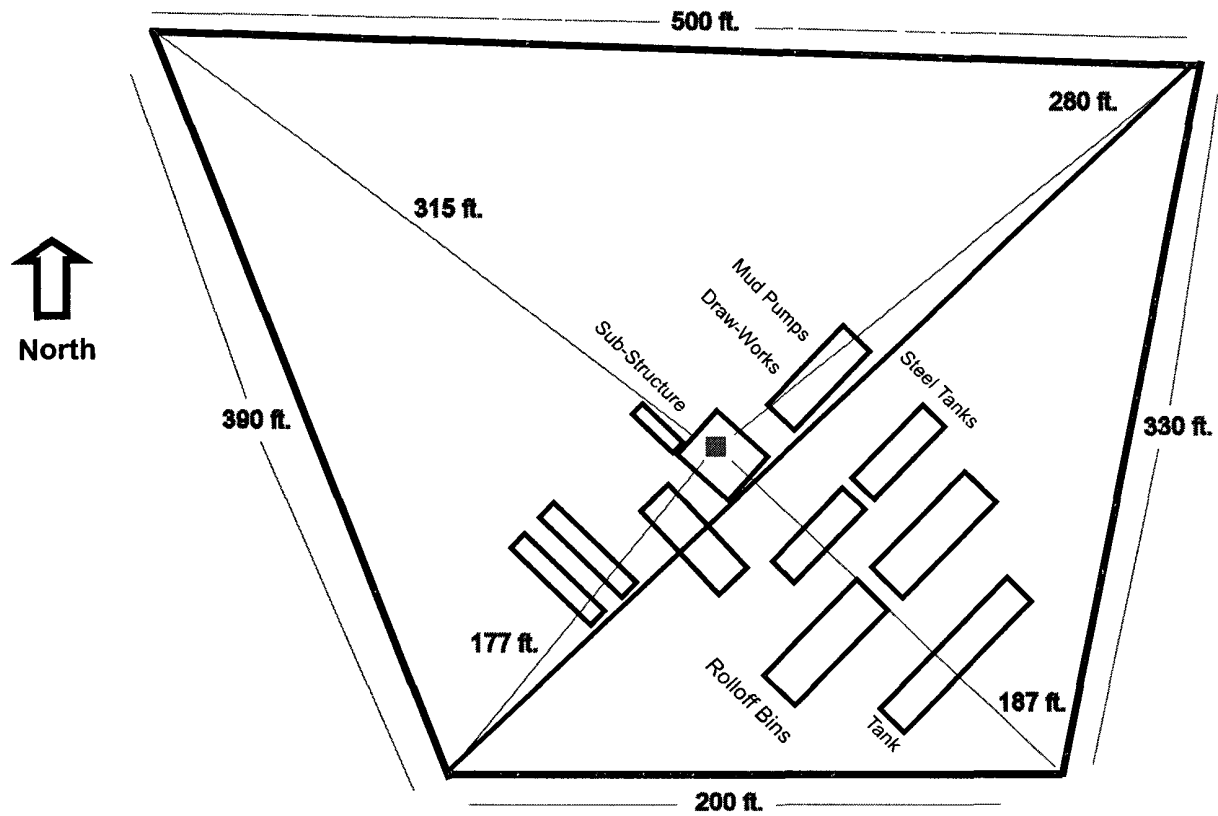


Sundry APD surface location (1850' FSL, 660' FEL)



Proposed APD surface location (1910' FSL, 660' FEL)

## Well Site Lay-Out Plat



Really Scary Federal #2H  
Surf: 1910' FSL & 660' FEL  
BHL: 1750' FSL & 2310' FEL  
Section 33-T24S-R28E  
Eddy County, New Mexico

EXHIBIT THREE

SELF-CERTIFICATION STATEMENT  
FROM LESSEE/OPERATOR

SURFACE OWNER IDENTIFICATION

Federal or Indian Lease No. NMNM-115411

I hereby certify to the Authorized Officer of the Bureau of Land Management that I have reached one of the following agreements with the Surface Owner; or after failure of my good-faith effort to come to an agreement of any kind with the Surface Owner, have provided a bond and will provide evidence of service of such bond to the Surface Owner:

- 1) ✓ I have a signed access agreement to enter the leased lands;
- 2) \_\_\_\_\_ I have a signed waiver from the surface owner;
- 3) \_\_\_\_\_ I have entered into an agreement regarding compensation to the surface owner for damages for loss of crops and tangible improvements.
- 4) \_\_\_\_\_ because I have been unable to reach either 1), 2), or 3) with the surface owner, I have obtained a bond to cover loss of crops and damages to tangible improvements and served the surface owner with a copy of the bond.

Surface owner information: (if available after diligent effort)

Surface Owner Name: Pardue Limited Company

Surface Owner Address: P.O. Box 2018, Carlsbad, NM 88221

Surface Owner Phone Number: (505) 887-9525

Signed this 3<sup>rd</sup> -- day of July, 2007.

Marble Energy Corporation By: Ross Duncan  
(Name of lessee/operator)

I (Surface Owner) accept ✓ do not accept \_\_\_\_\_ the lessee or operator's Surface Owner Agreement under 1, 2, or 3 above

Signed this 3<sup>rd</sup> - day of July, 2007

Pardue Limited Company  
(Signature of Surface Owner if an agreement has been reached)

Attachment 1-1

## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Date: February 28, 2008

Lease #: NMNM 115411  
Really Scary Federal #2H

Legal Description: Sec. 33-T24S-R28E  
Eddy County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Nancy Agnew  
Nancy Agnew  
Land Department



**MARBOB ENERGY CORPORATION  
DRILLING AND OPERATIONS PROGRAM**

**Really Scary Federal #2H  
Surf: 1850' FSL & 660' FEL  
BHL: 1750' FSL & 2310' FEL  
Section 33, T24S – R28E  
Eddy County, New Mexico**

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

1. Geological surface formation: Permian
2. The estimated tops of geologic markers are as follows:

Top of Salt	700'
Base of Salt	2350'
Delaware	2550'
TD Pilot Hole	5200'
<b>TD LATERAL</b>	<b>6250'</b>

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Delaware	2550'	Oil
----------	-------	-----

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 300' and circulating cement back to surface. All intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 13 3/8" casing.

4. **Proposed Casing Program:**

Hole Size	Interval	OD Casing	New or Used	Wt	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17 1/2"	0' - <del>300'</del>	13 3/8"	New	48#	STC	H-40	1.125	1.125	1.6
12 1/4"	300' - 2450'	8 5/8"	New	24#	STC	J-55	1.125	1.125	1.6
7 7/8"	2450' - 6250'	5 1/2"	New	17#	LTC	J-55	1.125	1.125	1.6

\* 8 5/8 collapse design is 1.075 for totally evacuated casing so Marbob will fill the casing every 5 joints to keep safety design factor above 1.125.

## 5. Proposed Cement Program:

- a. 13 3/8" Surf Cement to Surface with 300 Sk "c" wt 14.8 ppg yield 1.34
- b. 8 5/8" Int Cement to surface with 550 sk "c" light wt 12.7 ppg yield 1.91, tail in with 200 sk "c" wt 14.8 ppg yield 1.34
- c. 5 1/2" Prod Cement 1<sup>st</sup> stage with 300 sk acid soluble cement wt 15.0 ppg yield 2.6  
Cement 2<sup>nd</sup> stage with 200 sk "H" light wt 12.7 yield 1.91  
Tail in with 100 sk "H" wt 13.0 yield 1.64 DV Tool @ 4300'  
*See COA -TGC-2200-*

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 200' above the 13 3/8" casing shoe. **All casing is new and API approved.**

## 6. Minimum Specifications for Pressure Control:

Nipple up on 13 3/8 with 2M system testing to ~~1000 psi with rig pumps~~ (1000 psi OK) See COA. Nipple up on 8 5/8 with 2M system and test to 2000 psi with independent tester.

BOP will be operationally checked each 24 hour period. These checks will be noted on the daily tour sheets. A 2" kill line and a 3" choke line will be included in the drilling spool located below the BOP. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 2000 psi WP rating.

## 7. Estimated BHP: 2600 psi

## 8. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Type System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0' - 300'	Fresh Water	8.4	29	N.C.
300' - 2450'	Brine	10.0	29	N.C.
2450' - 6250'	Cut Brine	8.9	29	N.C.

*See COA*

The necessary mud products for weight addition and fluid loss control will be on location at all times.

## 9. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

#### **10. Testing, Logging and Coring Program:**

- a. Drill stem tests will be based on geological sample shows.
- b. The open hole electrical logging program will be:
  - i. Total Depth to Intermediate Casing: Dual Laterolog-Micro Laterolog and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
  - ii. Total Depth to Surface: Compensated Neutron with Gamma Ray
  - iii. No coring program is planned
  - iv. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

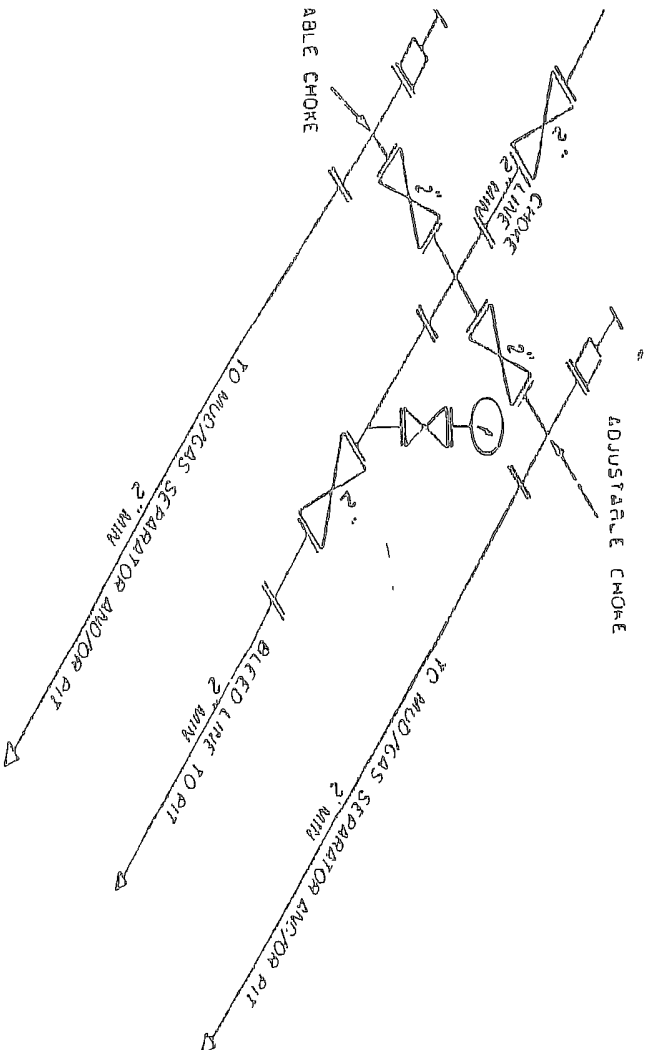
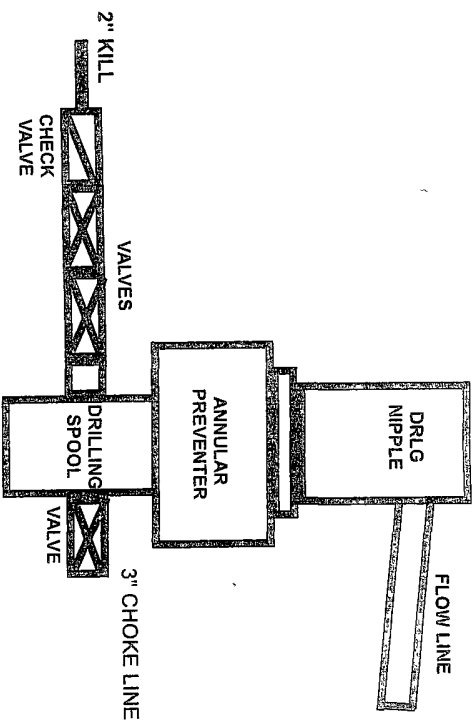
#### **11. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 2600 psi. No H<sub>2</sub>S is anticipated to be encountered.

#### **12. Anticipated starting date and Duration of Operations:**

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 21 days.

## 2M SYSTEM



2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOSES  
MAY VARY

REHBT 009

**Marbob**

**Really Scary Federal #2H**

**Really Scary Federal #2H**

**Really Scary Federal #2H**

**Original Hole**

**Plan: Plan #1**

## **Pathfinder Survey Report**

**25 April, 2008**



Azimuths to Grid North  
True North: -0.13°  
Magnetic North: -0.13°

Magnetic Field  
Strength: 0.05nT  
Dip Angle: 0.00°  
Date: 4/25/2008  
Model: USER DEFINED

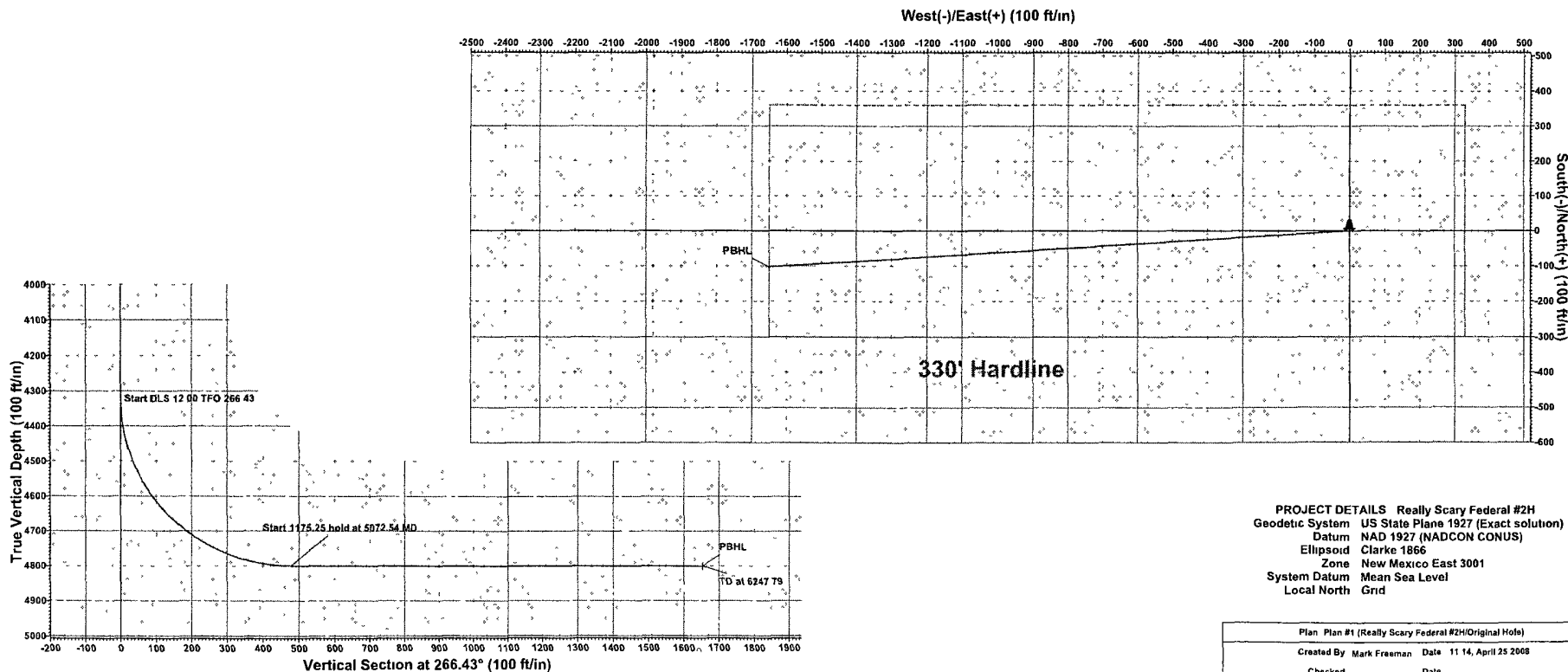
Project: Really Scary Federal #2H  
Site: Really Scary Federal #2H  
Well: Really Scary Federal #2H  
Wellbore: Original Hole  
Plan: Plan #1 (Really Scary Federal #2H/Original Hole)



WELL DETAILS Really Scary Federal #2H						
Ground Elevation 2984.00						
RKB Elevation EST RKB @ 2984.00ft						
Rig Name						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	426187.400	576695.800	32° 10' 17.268 N	104° 5' 7.661 W	

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4322.54	0.00	0.00	4322.54	0.00	0.00	0.00	0.00	0.00
3	5072.54	90.00	266.43	4800.00	-29.76	-476.54	12.00	266.43	477.47
4	6247.79	90.00	266.43	4800.00	-103.00	-1649.50	0.00	0.00	1652.71
									PBHL

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	4800.00	-103.00	-1649.50	426084.400	575046.300	Point



PROJECT DETAILS Really Scary Federal #2H  
Geodetic System US State Plane 1927 (Exact solution)  
Datum NAD 1927 (NADCON CONUS)  
Ellipsoid Clarke 1866  
Zone New Mexico East 3001  
System Datum Mean Sea Level  
Local North Grid

Plan Plan #1 (Really Scary Federal #2H/Original Hole)	
Created By Mark Freeman	Date 11/14, April 25 2008
Checked _____	Date _____

# WHS

## Pathfinder Survey Report

<b>Company:</b> Marbob	<b>Local Co-ordinate Reference:</b> Well Really Scary Federal #2H
<b>Project:</b> Really Scary Federal #2H	<b>TVD Reference:</b> EST RKB @ 2984 00ft
<b>Site:</b> Really Scary Federal #2H	<b>MD Reference:</b> EST RKB @ 2984 00ft
<b>Well:</b> Really Scary Federal #2H	<b>North Reference:</b> Gnd
<b>Wellbore:</b> Original Hole	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> EDM 2003.16 Single User Db

<b>Project</b> Really Scary Federal #2H	
<b>Map System:</b> US State Plane 1927 (Exact solution)	<b>System Datum:</b> Mean Sea Level
<b>Geo Datum:</b> NAD 1927 (NADCON CONUS)	
<b>Map Zone:</b> New Mexico East 3001	

<b>Site</b> Really Scary Federal #2H			
<b>Site Position:</b>	<b>Northing:</b>	426,187 400 ft	<b>Latitude:</b>
<b>From:</b> Map	<b>Easting:</b>	576,695 800 ft	<b>Longitude:</b>
<b>Position Uncertainty:</b> 0 00 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b> 0 13 °

<b>Well</b> Really Scary Federal #2H			
<b>Well Position</b>	<b>Northing:</b>	426,187 400 ft	<b>Latitude:</b>
<b>+N/-S</b> 0 00 ft	<b>Easting:</b>	576,695 800 ft	<b>Longitude:</b>
<b>+E/-W</b> 0 00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b> 2,984 00 ft
<b>Position Uncertainty</b> 0 00 ft			

<b>Wellbore</b> Original Hole					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	4/25/2008	0 00	0 00	0

<b>Design</b> Plan #1				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	2,984 00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0 00	0 00	0 00	266 43

<b>Survey Tool Program</b>		<b>Date</b> 4/25/2008		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
2,984 00	6,247 79	Plan #1 (Original Hole)	MWD	MWD - Standard

<b>Planned Survey</b>								
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
100 00	0 00	0 00	100 00	0 00	0 00	0 00	0 00	0 00
200 00	0 00	0 00	200 00	0 00	0 00	0 00	0 00	0 00
300 00	0 00	0 00	300 00	0 00	0 00	0 00	0 00	0 00
400 00	0 00	0 00	400 00	0 00	0 00	0 00	0 00	0 00
500 00	0 00	0 00	500 00	0 00	0 00	0 00	0 00	0 00
600 00	0 00	0 00	600 00	0 00	0 00	0 00	0 00	0 00
700 00	0 00	0 00	700 00	0 00	0 00	0 00	0 00	0 00
800 00	0 00	0 00	800 00	0 00	0 00	0 00	0 00	0 00
900 00	0 00	0 00	900 00	0 00	0 00	0 00	0 00	0 00
1,000 00	0 00	0 00	1,000 00	0 00	0 00	0 00	0 00	0 00
1,100 00	0 00	0 00	1,100 00	0 00	0 00	0 00	0 00	0 00

# WHS

## Pathfinder Survey Report

<b>Company:</b> Marbob <b>Project:</b> Really Scary Federal #2H <b>Site:</b> Really Scary Federal #2H <b>Well:</b> Really Scary Federal #2H <b>Wellbore:</b> Original Hole <b>Design:</b> Plan #1	<b>Local Co-ordinate Reference:</b> Well Really Scary Federal #2H <b>TVD Reference:</b> EST RKB @ 2984 00ft <b>MD Reference:</b> EST RKB @ 2984 00ft <b>North Reference:</b> Grid <b>Survey Calculation Method:</b> Minimum Curvature <b>Database:</b> EDM 2003 16 Single User Db
--	--

### Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
1,200 00	0 00	0 00	1,200 00	0 00	0 00	0 00	0 00
1,300 00	0 00	0 00	1,300 00	0 00	0 00	0 00	0 00
1,400 00	0 00	0 00	1,400 00	0 00	0 00	0 00	0 00
1,500 00	0 00	0 00	1,500 00	0 00	0 00	0 00	0 00
1,600 00	0 00	0 00	1,600 00	0 00	0 00	0 00	0 00
1,700 00	0 00	0 00	1,700 00	0 00	0 00	0 00	0 00
1,800 00	0 00	0 00	1,800 00	0 00	0 00	0 00	0 00
1,900 00	0 00	0 00	1,900 00	0 00	0 00	0 00	0 00
2,000 00	0 00	0 00	2,000 00	0 00	0 00	0 00	0 00
2,100 00	0 00	0 00	2,100 00	0 00	0 00	0 00	0 00
2,200 00	0 00	0 00	2,200 00	0 00	0 00	0 00	0 00
2,300 00	0 00	0 00	2,300 00	0 00	0 00	0 00	0 00
2,400 00	0 00	0 00	2,400 00	0 00	0 00	0 00	0 00
2,500 00	0 00	0 00	2,500 00	0 00	0 00	0 00	0 00
2,600 00	0 00	0 00	2,600 00	0 00	0 00	0 00	0 00
2,700 00	0 00	0 00	2,700 00	0 00	0 00	0 00	0 00
2,800 00	0 00	0 00	2,800 00	0 00	0 00	0 00	0 00
2,900 00	0 00	0 00	2,900 00	0 00	0 00	0 00	0 00
3,000 00	0 00	0 00	3,000 00	0 00	0 00	0 00	0 00
3,100 00	0 00	0 00	3,100 00	0 00	0 00	0 00	0 00
3,200 00	0 00	0 00	3,200 00	0 00	0 00	0 00	0 00
3,300 00	0 00	0 00	3,300 00	0 00	0 00	0 00	0 00
3,400 00	0 00	0 00	3,400 00	0 00	0 00	0 00	0 00
3,500 00	0 00	0 00	3,500 00	0 00	0 00	0 00	0 00
3,600 00	0 00	0 00	3,600 00	0 00	0 00	0 00	0 00
3,700 00	0 00	0 00	3,700 00	0 00	0 00	0 00	0 00
3,800 00	0 00	0 00	3,800 00	0 00	0 00	0 00	0 00
3,900 00	0 00	0 00	3,900 00	0 00	0 00	0 00	0 00
4,000 00	0 00	0 00	4,000 00	0 00	0 00	0 00	0 00
4,100 00	0 00	0 00	4,100 00	0 00	0 00	0 00	0 00
4,200 00	0 00	0 00	4,200 00	0 00	0 00	0 00	0 00
4,300 00	0 00	0 00	4,300 00	0 00	0 00	0 00	0 00
4,322 54	0 00	0 00	4,322 54	0 00	0 00	0 00	0 00
4,325 00	0 30	266 43	4,325 00	0 00	-0 01	0 01	12 00
4,350 00	3 30	266 43	4,349 98	-0 05	-0 79	0 79	12 00
4,375 00	6 30	266 43	4,374 89	-0 18	-2 87	2 88	12 00
4,400 00	9 30	266 43	4,399 66	-0 39	-6 26	6 27	12 00
4,425 00	12 30	266 43	4,424 22	-0 68	-10 93	10 95	12 00
4,450 00	15 30	266 43	4,448 49	-1 05	-16 88	16 91	12 00
4,475 00	18 30	266 43	4,472 42	-1 50	-24 09	24 13	12 00
4,500 00	21 30	266 43	4,495 94	-2 03	-32 54	32 60	12 00
4,525 00	24 30	266 43	4,518 99	-2 64	-42 20	42 29	12 00
4,550 00	27 30	266 43	4,541 49	-3 31	-53 06	53 16	12 00
4,575 00	30 30	266 43	4,563 40	-4 06	-65 08	65 20	12 00



# WHS

## Pathfinder Survey Report

**Company:** Marbob  
**Project:** Really Scary Federal #2H  
**Site:** Really Scary Federal #2H  
**Well:** Really Scary Federal #2H  
**Wellbore:** Original Hole  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Really Scary Federal #2H  
**TVD Reference:** EST RKB @ 2984 00ft  
**MD Reference:** EST RKB @ 2984 00ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003 16 Single User Db

### Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)
4,600 00	33 30	266 43	4,584 65	-4 88	-78 22	78 37	12 00
4,625 00	36 30	266 43	4,605 17	-5 77	-92 46	92 64	12 00
4,650 00	39 30	266 43	4,624 93	-6 73	-107 75	107 96	12 00
4,675 00	42 30	266 43	4,643 85	-7 75	-124 05	124 29	12 00
4,700 00	45 30	266 43	4,661 89	-8 82	-141 31	141 59	12 00
4,725 00	48 30	266 43	4,679 01	-9 96	-159 50	159 81	12 00
4,750 00	51 30	266 43	4,695 14	-11 15	-178 55	178 90	12 00
4,775 00	54 30	266 43	4,710 26	-12 39	-198 43	198 81	12 00
4,800 00	57 30	266 43	4,724 31	-13 68	-219 06	219 49	12 00
4,825 00	60 30	266 43	4,737 26	-15 01	-240 40	240 87	12 00
4,850 00	63 30	266 43	4,749 08	-16 38	-262 38	262 90	12 00
4,875 00	66 30	266 43	4,759 72	-17 79	-284 96	285 51	12 00
4,900 00	69 30	266 43	4,769 17	-19 24	-308 06	308 66	12 00
4,925 00	72 30	266 43	4,777 39	-20 71	-331 62	332 26	12 00
4,950 00	75 30	266 43	4,784 37	-22 20	-355 57	356 27	12 00
4,975 00	78 30	266 43	4,790 08	-23 72	-379 86	380 60	12 00
5,000 00	81 30	266 43	4,794 51	-25 25	-404 42	405 20	12 00
5,025 00	84 30	266 43	4,797 64	-26 80	-429 17	430 00	12 00
5,050 00	87 30	266 43	4,799 47	-28 35	-454 05	454 93	12 00
5,072 54	90 00	266 43	4,800 00	-29 76	-476 54	477 47	12 00
5,100 00	90 00	266 43	4,800 00	-31 47	-503 94	504 92	0 00
5,200 00	90 00	266 43	4,800 00	-37 70	-603 75	604 92	0 00
5,300 00	90 00	266 43	4,800 00	-43 93	-703 55	704 92	0 00
5,400 00	90 00	266 43	4,800 00	-50 16	-803 36	804 92	0 00
5,500 00	90 00	266 43	4,800 00	-56 40	-903 17	904 92	0 00
5,600 00	90 00	266 43	4,800 00	-62 63	-1,002 97	1,004 92	0 00
5,700 00	90 00	266 43	4,800 00	-68 86	-1,102 78	1,104 92	0 00
5,800 00	90 00	266 43	4,800 00	-75 09	-1,202 58	1,204 92	0 00
5,900 00	90 00	266 43	4,800 00	-81 33	-1,302 39	1,304 92	0 00
6,000 00	90 00	266 43	4,800 00	-87 56	-1,402 19	1,404 92	0 00
6,100 00	90 00	266 43	4,800 00	-93 79	-1,502 00	1,504 92	0 00
6,200 00	90 00	266 43	4,800 00	-100 02	-1,601 81	1,604 92	0 00
6,247 79	90 00	266 43	4,800 00	-103 00	-1,649 50	1,652 71	0 00

### Targets

Target Name	hit/miss, target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL	- plan hits target - Point	0 00	0 00	4,800 00	-103 00	-1,649 50	426,084 400	575,046 300	32° 10' 16 286 N	104° 5' 26 855 W

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

## **MARBOB ENERGY CORPORATION**

### **HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

#### **I. HYDROGEN SULFIDE TRAINING**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

#### **II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H<sub>2</sub>S detection and monitoring equipment:

2 - portable H<sub>2</sub>S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

E. Mud Program:

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

Marbob Energy has conducted a review to determine if an H<sub>2</sub>S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H<sub>2</sub>S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H<sub>2</sub>S Contingency Plan would be necessary.

# **W A R N I N G**

**YOU ARE ENTERING AN H<sub>2</sub>S AREA  
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE**

**MARBOB ENERGY CORPORATION**

**1-505-748-3303**

**MARBOB ENERGY CORPORATION**  
**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**Really Scary Federal #2H**  
**Surf: 1750' FSL & 330' FEL**  
**BHL: 1750' FSL & 2310' FEL**  
**Section 33, T24S – R28E**  
**Eddy County, New Mexico**

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

**1. EXISTING ROADS:**

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by John West Surveying Company.
- b. Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.
- c. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

**DIRECTIONS:**

From the intersection of county road #720 (Black River Village Road) and U.S. Hwy 285, go South on U.S. Hwy 285 approx. 4.0 miles. Turn right and go west approx. 0.7 miles. Turn right and go northwest approx. 0.12 miles to the Really Scary Federal #1 well pad. From the northeast corner of the Really Scary Federal #1 well pad follow proposed road survey northwest approx. 0.2 miles. This location is approx. 210 feet northeast.

**2. PLANNED ACCESS ROAD:**

There is a proposed access road of 907' feet ending on the southwestern side of the well pad.

**3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:**

- A. In the event the well is found productive, the Really Scary Federal #1 tank battery would be utilized and the necessary production equipment will be installed at the well site. A Site Facilities Diagram will be submitted upon completion of facility.
- B. All flowlines will adhere to API standards

- C. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
- D. If the well is productive, rehabilitation plans are as follows:
  - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

**4. LOCATION AND TYPES OF WATER SUPPLY:**

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #2. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, the existing and proposed road shown in Exhibit "2" will be utilized.

**5. CONSTRUCTION MATERIALS:**

All Caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

**6. METHODS OF HANDLING WASTE MATERIAL:**

- a. All trash, junk and other waste material will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.
- b. The supplier, including broken sacks, will pick up slats remaining after completion of well.
- c. A porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- d. Disposal of fluids and cuttings below the fresh water zone will be transported by an approved disposal company.

**7. ANCILLARY FACILITIES:**

No campsite or other facilities will be constructed as a result of this well.

**8. WELLSITE LAYOUT:**

- a. Exhibit 3 shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicates proposed location of fresh water sump pits if utilized and living facilities.

- c. Mud pits in the active circulating system will be steel pits and a closed loop system will be utilized.
- d. A fresh water/Cement Pit will be on the pad and will be closed at the end of drilling operations.

#### **9. PLANS FOR SURFACE RECLAMATION:**

- a. After finishing drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original state.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

#### **10. SURFACE OWNERSHIP:**

The surface is owned by Pardue Limited Surface. We do have a surface agreement.

#### **11. OTHER INFORMATION:**

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, some mesquite bushes and shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. There are no dwellings within 2 miles of location.
- d. A Cultural Resources Examination will be completed by Boone Archeological and forwarded to the BLM office in Carlsbad, New Mexico.

**12. OPERATOR'S REPRESENTATIVE:**

A. Through A.P.D. Approval:

Dean Chumbley, Landman  
Marbob Energy Corporation  
P. O. Box 227  
Artesia, NM 88211-0227  
Phone (505)748-3303  
Cell (505) 748-5988

B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor  
Marbob Energy Corporation  
P. O. Box 227  
Artesia, NM 88211-0227  
Phone (505)748-3303  
Cell (505)748-5489

**CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

2/28/08  
Date

Marbob Energy Corporation

  
\_\_\_\_\_  
Ross Duncan  
Land Department



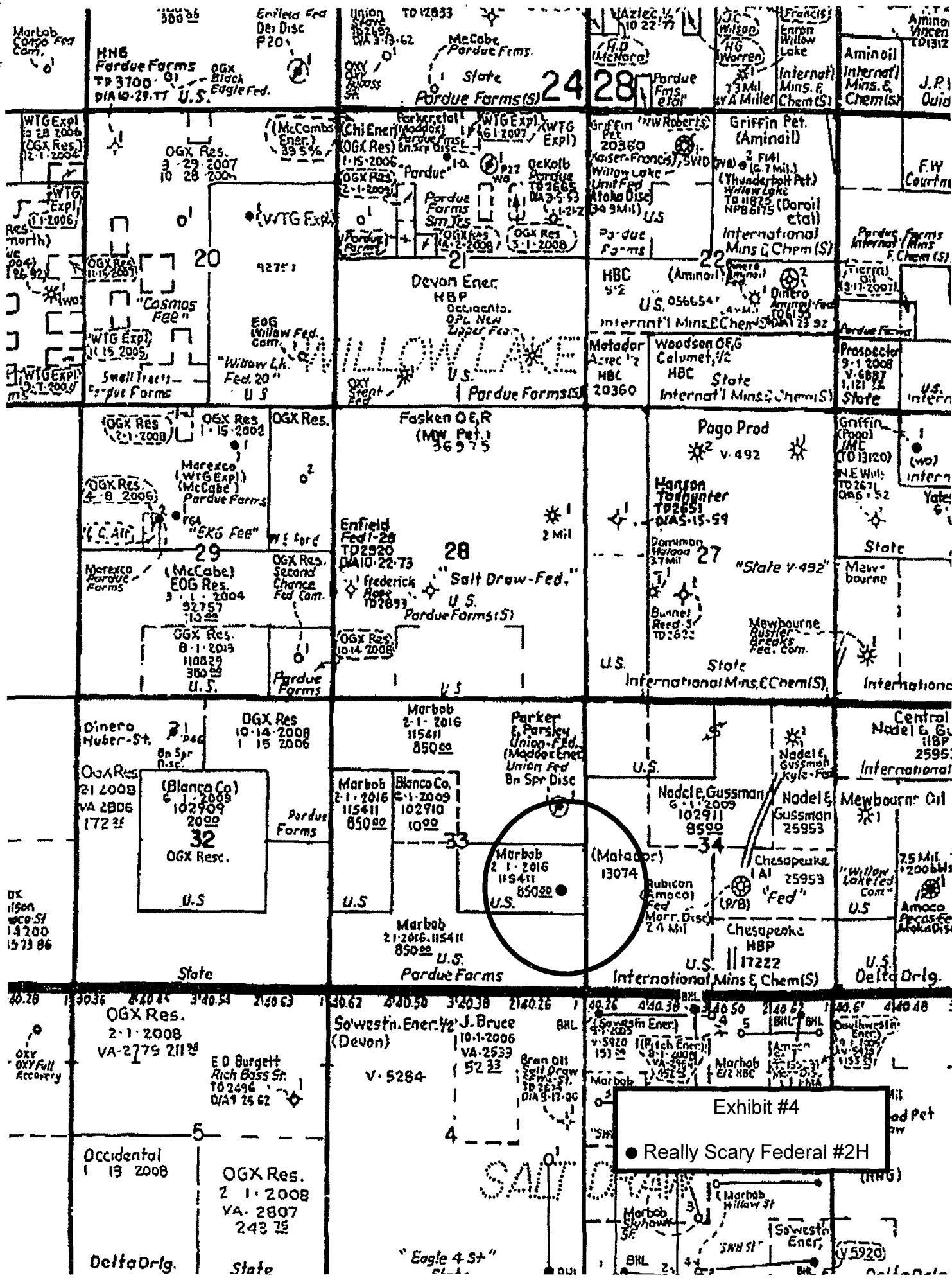


Exhibit #4  
● Really Scary Federal #2H

SALT

"Eagle 4 St"

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy
LEASE NO.:	NMNM115411
WELL NAME & NO.:	Really Scary Federal No 2H
SURFACE HOLE FOOTAGE:	1910' FSL & 660' FEL
BOTTOM HOLE FOOTAGE:	1750' FSL & 2310' FEL
LOCATION:	Section 33, T. 24 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

### TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Special Pad Size and Orientation
  - Monitoring during construction
  - Berming
  - Cave/Karst
- ☒ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☒ **Road Section Diagram**
- ☒ **Drilling**
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☒ **Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. SPECIAL REQUIREMENT(S)**

**Really Scary Hawk Federal # 2H:** Closed Loop System V-Door North

### **CONSTRUCTION MONITOR**

The construction of the well pad will need to be monitored by a BLM employee. Prior to any construction occurring on the well pad location the company must contact Paul Evans from the Carlsbad (BLM) Field Office, 3 days prior to the construction start. This will ensure that the well pad location is constructed to the pad layout design discussed during the onsite inspection and that the well pad location is also constructed to the proper footage discussed during the onsite inspection and submitted by the company.

### **BERMING**

In order to help protect a playa located approximately 200 feet to the south and east of the proposed well pad location a berm will need to be place around the entire well pad location. This will help to ensure that any runoff of fluids or of sediments from rain events will not deposits contaminants or pollutants into the nearby playa and effect the hydrological formations integrity.

### **PAD RESTRICTION**

Due to the sensitive nature of the surrounding wildlife habitat and soils, the drilling pad will be restricted to the dimensions and orientation described on the **attached map**. Following completion of the well, interim reclamation will occur to reduce the caliche-improved area to a minimal size needed for maintenance of the well.

### **Cave and Karst**

**\*\*** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### **Construction:**

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

#### **No Blasting:**

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

#### **Pad Berming:**

The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides of the pad will be bermed.

**Tank Battery Liners and Berms:**

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

**Automatic Shut-off Systems:**

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

**Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

**Rotary Drilling with Fresh Water:**

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

**Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

**Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

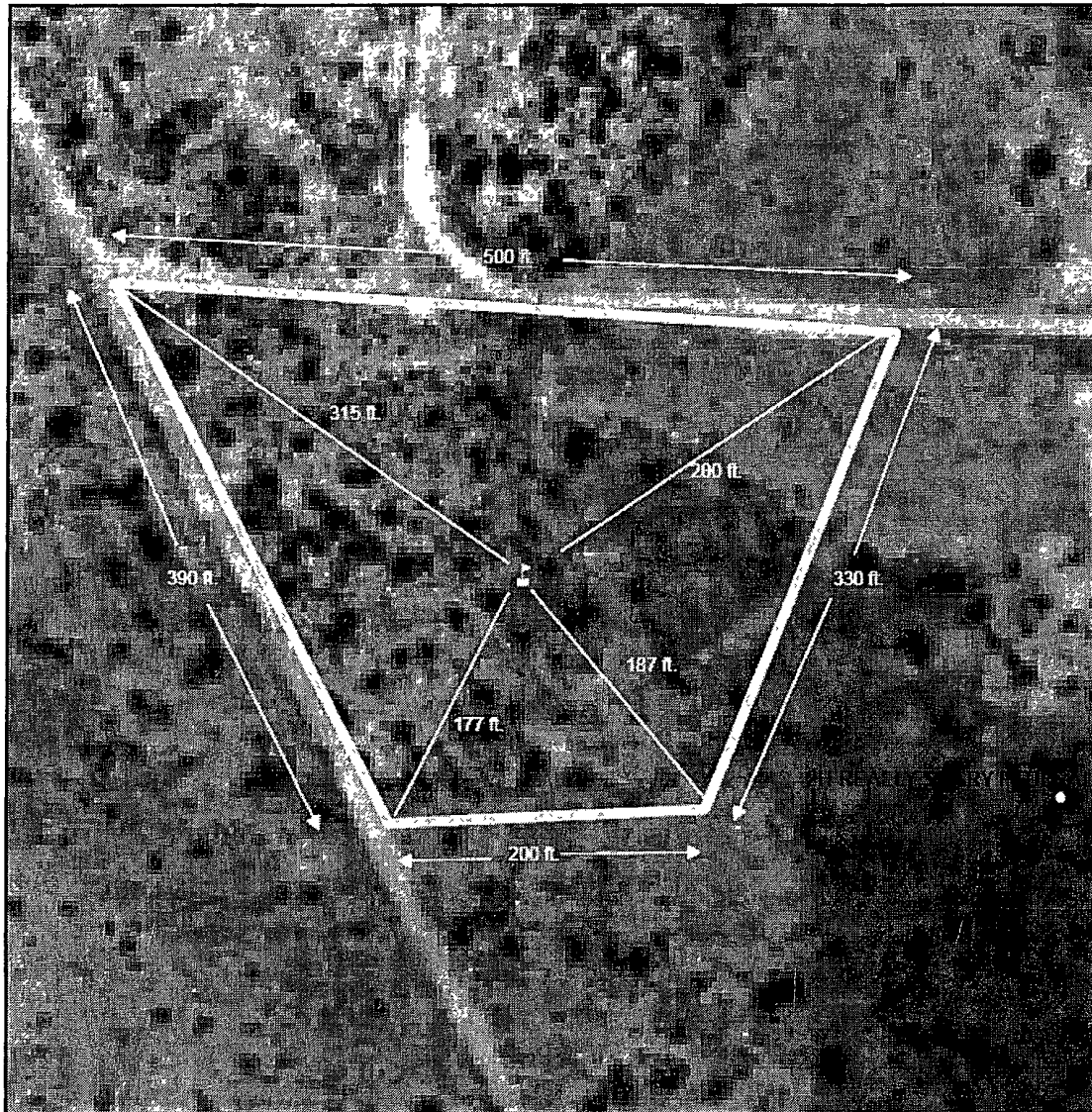
Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

**Abandonment Cementing:**

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.



### Marbob Energy Really Scary Federal #2H

Sec. 33--T24S--R28E

Drill Pad Boundary based on Proposed APD surface location

Original APD surface location (1750' FSL, 330' FEL)

Sundry APD surface location (1850' FSL, 660' FEL)

Proposed APD surface location (1910' FSL, 660' FEL)

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

### **C. Closed Loop System**

**Really Scary Hawk Federal # 2H:** Closed Loop System V-Door North

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## **F. ON LEASE ACCESS ROADS**

### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

### **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### **Crowning**

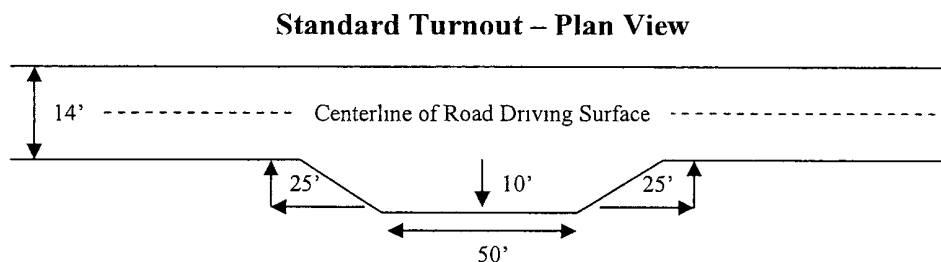
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

### **Ditching**

Ditching shall be required on both sides of the road.

### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



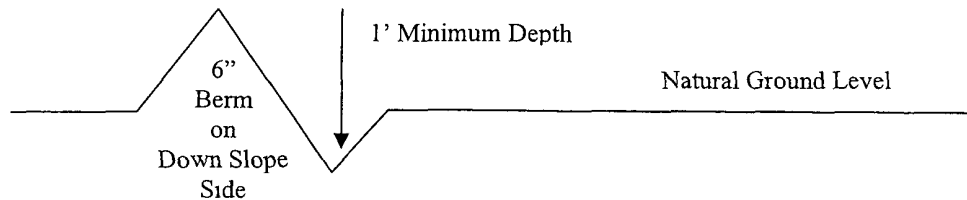


## Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

## Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

## Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

**Fence Requirement**

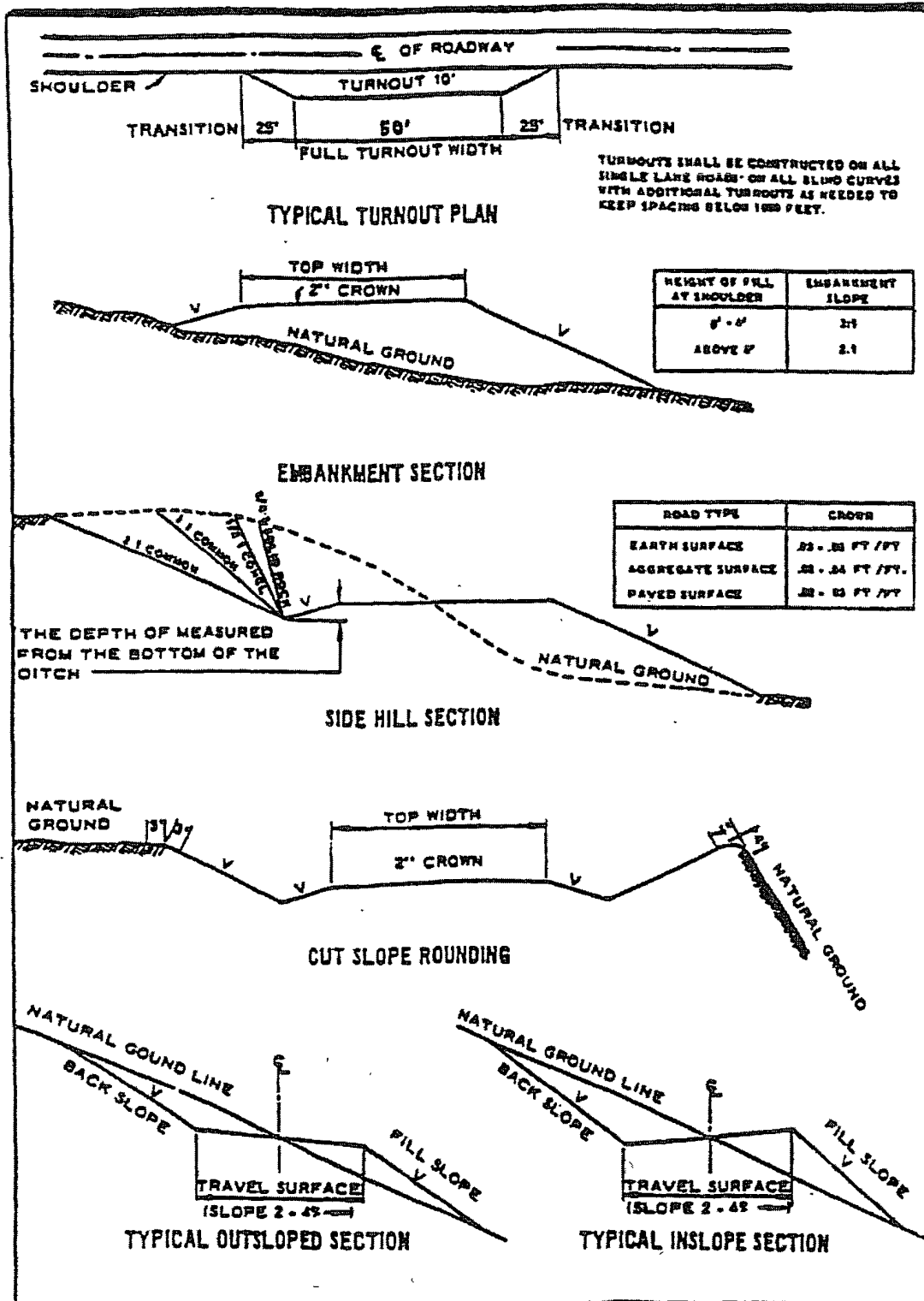
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Critical cave/karst**

**Possible lost circulation in the Triassic Redbeds and the Castile Group**

1. The 13-3/8 inch surface casing shall be set **at approximately 375 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Use fresh water mud to setting depth. Rustler Anhydrite could be deeper.**
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:  
☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst concerns. Casing to be set within the Lamar Limestone.**

**If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.**

**Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - a. First stage to DV tool, cement shall:  
☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

☒ Cement to surface due to critical cave/karst. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

#### C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - e. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

#### D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**RGH 041409**

## **VIII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color  
Shale Green, Munsell Soil Color Chart # 5Y 4/2

### **B. PIPELINES**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

- 5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and



fish and wildlife habitats, at the full expense of the holder.

Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.
7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.
9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
14. The holder shall not use the pipeline route as a road for purposes other than routine

maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

## **IX. INTERIM RECLAMATION**

### **A. INTERIM RECLAMATION**

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

The operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

BLM SERIAL #:  
COMPANY REFERENCE:  
WELL # & NAME:

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass ( <i>Eragrostis intermedia</i> )	0.5
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sideoats grama ( <i>Bouteloua curtipendula</i> )	5.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed  
(Insert Seed Mixture Here)

## **X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS**

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.