

RECEIVED

Oil Cons.  
N.M. DIV-Dist. 2 *665*Form 3160-3  
(April 2004)

DEC 17 2008

1301 W. Grand Avenue  
Artesia, NM 88210

HOBBSD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 20075 Lease Serial No  
NMNM-119274

6 If Indian, Allottee or Tribe Name

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work- ☒ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No

1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone8, Lease Name and Well No. *<30394>*  
Peery Federal #6

2 Name of Operator

Mack Energy Corporation

9 API Well No.

30-005-29074

3a Address

P.O. Box 960 Artesia, NM 88211-0960

3b Phone No (include area code)

(575)748-1288

10. Field and Pool, or Exploratory

Wildcat; Abo

4 Location of Well (Report location clearly and in accordance with any State requirements\*)

At surface 875 FSL &amp; 330 FEL Unit P

At proposed prod zone 965 FSL &amp; 330 FWL Unit M

11. Sec., T R M or Blk and Survey or Area

Sec. 29 T15S R30E

14 Distance in miles and direction from nearest town or post office\*  
10 miles northwest of Loco Hills, NM

12 County or Parish

Chaves

13 State

NM

15 Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drlg unit line, if any) 330

16. No. of acres in lease

640

17. Spacing Unit dedicated to this well

160

18 Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft  
N/A19. Proposed Depth  
MD 12,185'  
TVD 7,765'

20 BLM/BIA Bond No on file

NMB000286

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

3973' GR

22 Approximate date work will start\*

9/21/08

23 Estimated duration

35 days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

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

1. Well plat certified by a registered surveyor

2 A Drilling Plan

3 A Surface Use Plan (if the location is on National Forest System Lands, the  
SUPO shall be filed with the appropriate Forest Service Office)4 Bond to cover the operations unless covered by an existing bond on file (see  
Item 20 above),

5. Operator certification

6. Such other site specific information and/or plans as may be required by the  
authorized officer

25. Signature

*Jerry W. Sherrell*

Name (Printed/Typed)

Jerry W. Sherrell

Date

8/22/08

Title

Production Clerk

Approved by (Signature) *IS/ Angel Mayes*

Name (Printed/Typed)

*IS/ Angel Mayes*

Date

DEC 15 2008

Title

Assistant Field Manager,  
Lands And Minerals

Office

ROSWELL FIELD OFFICE

APPROVED FOR 2 YEARS

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 attachedTitle 18 U.S.C. Section 1001 and Title 43 U.S.C. 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)

DECLARED WATER BASIN

CEMENT BEHIND THE 138"  
CASING MUST BE CIRCULATED  
WITNESS

2008 DEC 15 1:18 PM

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 Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-005-29074</b>	Pool Code <b>—</b>	Pool Name <b>Wildcat; Abo</b>
Property Code <b>303941</b>	Property Name <b>PEERY FEDERAL</b>	Well Number <b>6</b>
OGRID No. <b>013937 13837</b>	Operator Name <b>MACK ENERGY CORPORATION</b>	Elevation <b>3973'</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
P	29	15-S	30-E		875	SOUTH	330	EAST	CHAVES

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
M	29	15-S	30-E		965	SOUTH	330	WEST	CHAVES
Dedicated Acres <b>160</b>	Joint or Infill	Consolidation Code	Order No.						

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>BOTTOM HOLE LOCATION Y=721267.5 N X=616199.5 E</p>		<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=721185.7 N X=620822.9 E LAT.=32.981987° N LONG.=103.939320° W</p>		<p>DETAIL 3964.5' 3972.8' 600' 3972.6' 3972.7' Penetration Point SEE DETAIL 330'</p>	
<p>GRID AZ 271°00'47" HORZ DIST 4625.3'</p>		<p>330' B.H. 965'</p>		<p>875'</p>	

**OPERATOR CERTIFICATION**

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.

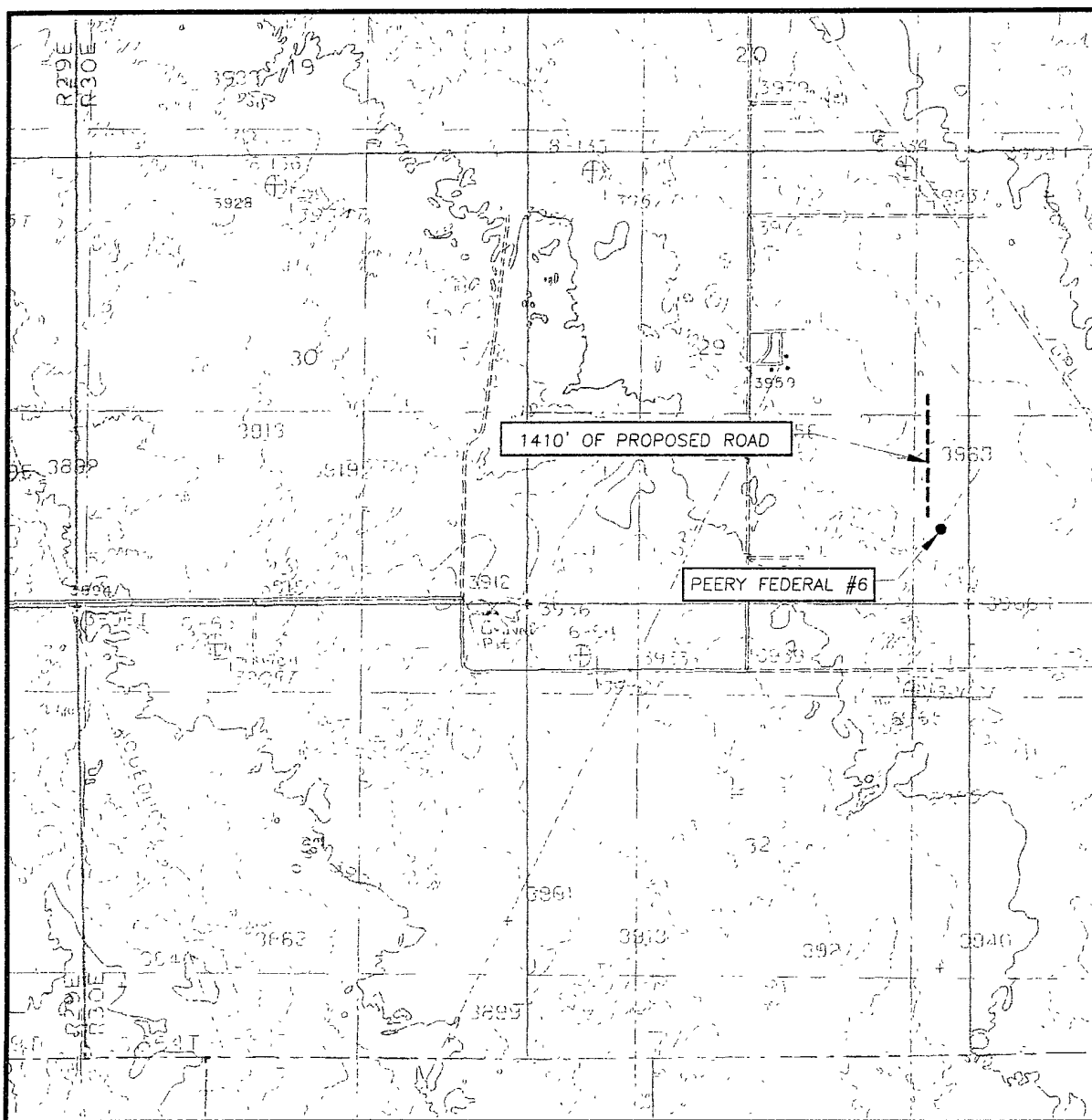
*Jerry W. Sherrell* 8-21-08  
Signature Date  
Jerry W. Sherrell  
Printed Name

**SURVEYOR CERTIFICATION**

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.

DATE SURVEYED: JULY 18, 2008  
Signature & Seal of Professional Surveyor  
*Ronald J. Eidson* 7/23/08  
Certificate No. GARY EIDSON 12641  
RONALD EIDSON 3239

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
HENSHAW TANK, N.M. - 10'

SEC 29 TWP. 15-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY CHAVES STATE NEW MEXICO

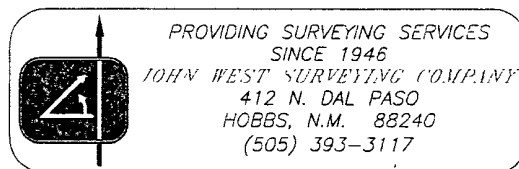
DESCRIPTION 875' FSL & 330' FEL

ELEVATION 3973'

OPERATOR MACK ENERGY CORPORATION

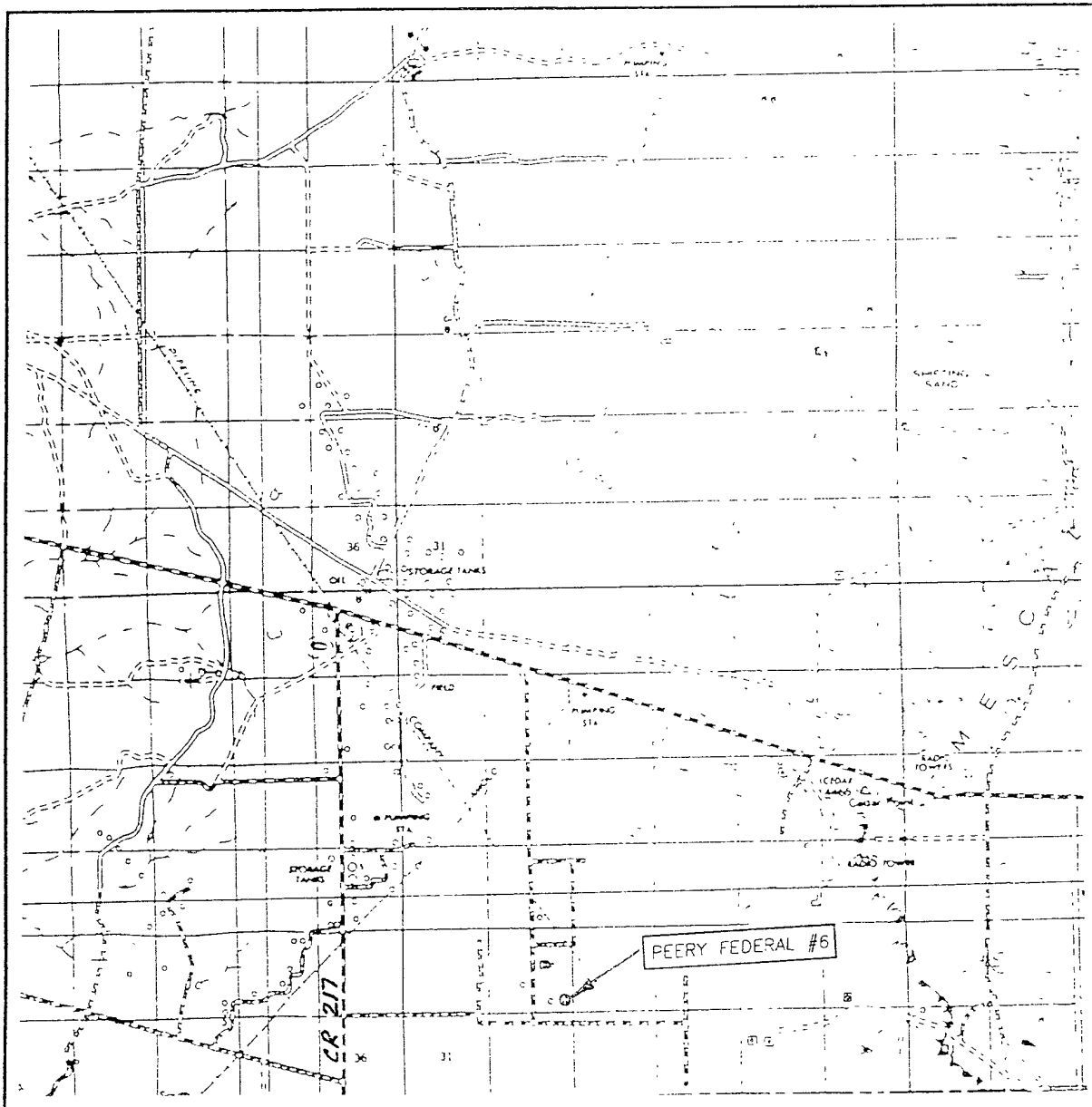
LEASE PEERY FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
HENSHAW TANK, N.M.



PROVIDING SURVEYING SERVICES  
SINCE 1946  
JOHN WEST SURVEYING COMPANY  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117

# VICINITY MAP



SCALE 1" = 2 MILES

SEC 29 TWP 15-S RGE 30-E

SURVEY N.M.P.M.


COUNTY CHAVES STATE NEW MEXICO

DESCRIPTION 875' FSL & 330' FEL

ELEVATION 3973'

OPERATOR MACK ENERGY CORPORATION

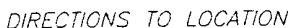
LEASE PEERY FEDERAL



PROVIDING SURVEYING SERVICES  
SINCE 1946  
HOBBS BASE SURVEYING COMPANY  
412 N DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117

WILLIAM J. HAYES

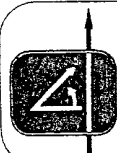
NEW ME 100



100 0 100 200 Feet

Scale: 1"=100'

PEERY FEDERAL #6 WELL  
LOCATED 875 FEET FROM THE SOUTH LINE  
AND 330 FEET FROM THE EAST LINE OF SECTION 29,  
TOWNSHIP 15 SOUTH, RANGE 30 EAST, N.M.P.M.,  
CHAVEZ COUNTY, NEW MEXICO



Survey Date. 7/18/08		Sheet 1 of 1 Sheets	
W.O Number. 08 11.1159		Dr By: LA	Rev 1:N/A
Date: 7/23/08		08111159	Scale: 1"=100'

## DRILLING PROGRAM

### 1. Geologic Name of Surface Formation

Quaternary

### 2. Estimated Tops of Important Geologic Markers:

Yates	1460'	Glorieta	4440'
Seven Rivers	1725'	Tubb	5650'
Queen	2260'	Abo	6425'
San Andres	2905'	WC	7780'
		Strawn	9725'

### 3. Estimated Depths of Anticipated Fresh Water, Oil and Gas:

Water Sand	150'	Fresh Water
Queen	2260'	Oil/Gas
San Andres	2905'	Oil/Gas
Abo	6425'	Oil/Gas
WC	7780'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 450' and circulating cement back to surface will protect the surface fresh water sand. Salt Section will be protected by setting 8 5/8" casing to 2950' and circulating cement back to surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 1/2" production casing, sufficient cement will be pumped to circulate back to surface.

### 4. Casing Program:

Hole Size	Interval	OD Casing	Wt, Grade, Jt, cond, collapse/burst/tension
17 1/2"	0-450'	13 3/8"	48#, H-40, ST&C, New, 3.364/3.365/3.460
12 1/4"	0-2950'	8 5/8"	32#, J-55, ST&C, New, 1.633/13.806/13.100
8 3/4"	0-7850'	5 1/2"	17#, HCP-110, LT&C, New, 2.189/3.364/3.547
6 1/8"	7850-12,185'	4 1/2"	11.6#, HCP-110, LT&C, New, 1.422/3.286/3.563

**5. Cement Program:**

13 3/8" Surface Casing: Class C, 300sx, yield 1.34  
8 5/8" Intermediate Casing: Class C, 850sx, yield 1.34  
5 1/2" Production Casing: Class C, 850sx, yield 1.34  
4 1/2" 2<sup>nd</sup> Production Casing: Set with isolation packers

**6. Minimum Specifications for Pressure Control:**

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (3000 psi WP) minimum preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on bottom. The BOP will be nipped up on the 13 3/8" surface casing and tested to 1000 psi using the rig pump. The BOP will then be nipped up on the 8 5/8" intermediate casing and tested by a 3<sup>rd</sup> party to 2000 psi and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of surface casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #10) will include a Kelly cock and floor safety valve and choke lines and choke manifold (Exhibit #11) with a minimum 3000 psi WP rating.

**7. Types and Characteristics of the Proposed Mud System:**

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-330'	Fresh Water	9.4	28	N.C.
330-1800'	Brine	10.1	30	N.C.
1800'-TD	Cut Brine	9.8	29	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

**8. Auxiliary Well Control and Monitoring Equipment:**

- A. Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

**9. Logging, Testing and Coring Program:**

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be ran from T.D. to 8 5/8 casing shoe.
- B. Drill Stem test is not anticipated.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows and log evaluation.

**10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and estimated maximum bottom hole pressure is 1450 psig. Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H<sub>2</sub>S may be present while drilling of the well, a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

**11. Anticipated Starting Date and Duration of Operations:**

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is September 21, 2008. Once commenced, the drilling operation should be finished in approximately 35 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.



## SURFACE USE AND OPERATING PLAN

### 1. Existing & Proposed Access Roads

- A. The well site and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in Exhibit below. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling well will be done where necessary.
- C. Directions to Location: From the intersection of CR 217 and CR 256, go north on 217 1.8 miles, turn right/east 1.5 miles, turn right/south 0.1 mile, turn left/east 0.65 miles, turn left/north 1 mile, turn right/east 0.4 miles to a proposed road survey. Follow road survey approx 3476' south to this location.
- D. 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.

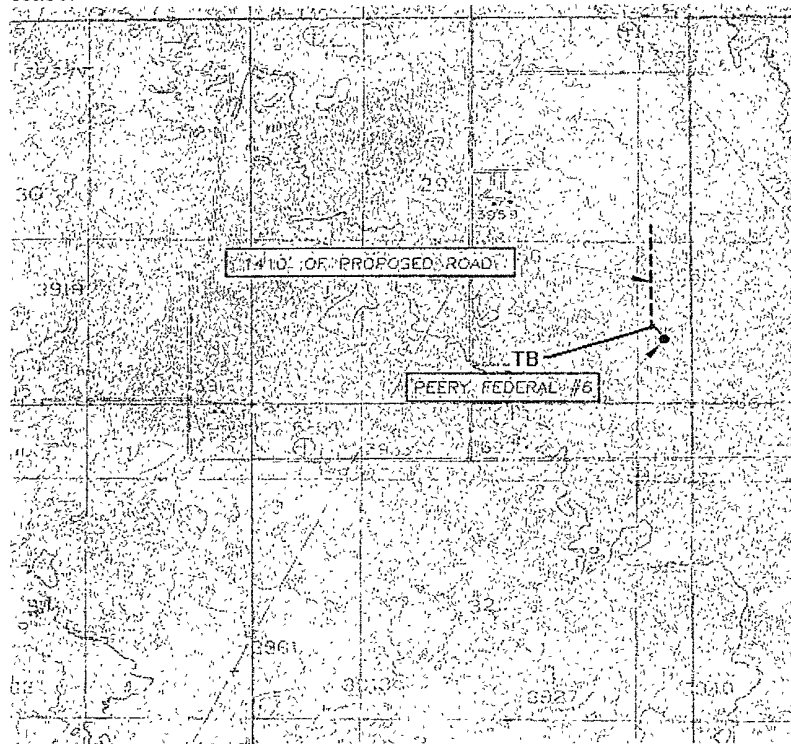


Exhibit #4

**2. Proposed Access Road:**

Exhibit #3 shows the 1410' of new access road. The road will be constructed as follows:

- A. The Maximum width of the running surface will be 14'. The road will be crowned and ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit.
- F. The proposed access road as shown in Exhibit #3 has been centerline flagged by John West Engineering, Hobbs, New Mexico.

**3. Location of Existing Wells & Proposed flow lines for New Wells:**

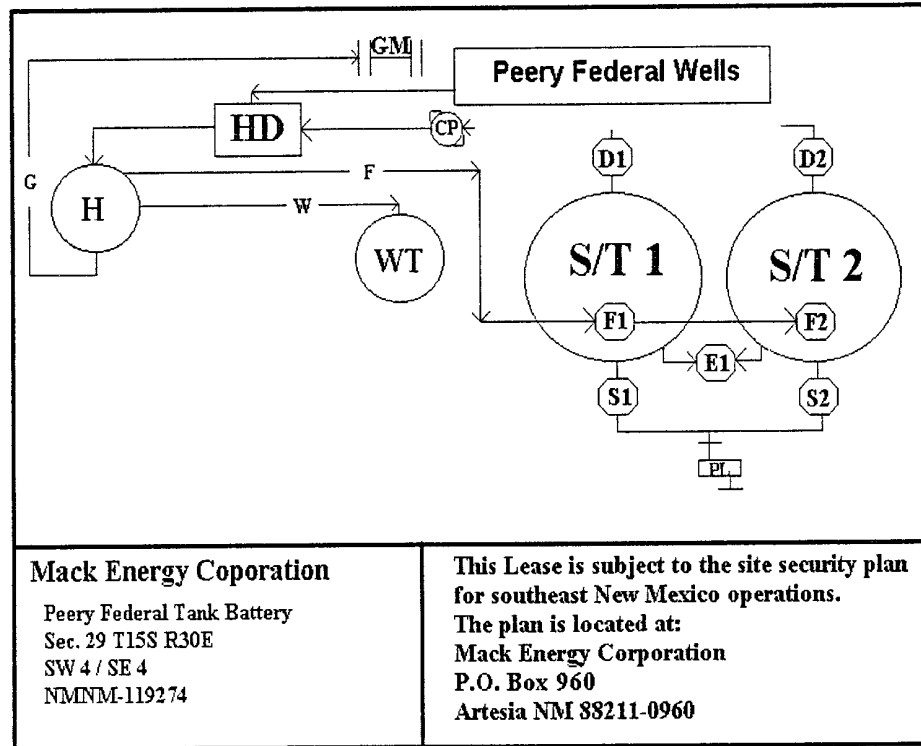
Exhibit #4 shows all existing wells within a one-mile radius of this well. Proposed flow lines, will follow an archaeologically approved route to the #2 well, where the TB is located.

**4. Location of Existing and/or Proposed Facilities:**

- A. Mack Energy Corporation does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
  - 1) Abo Completion: Will be sent to the Peery Federal TB located at the #2 well. The Facility is shown in Exhibit #5.
  - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
  - 3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.

- 4) It will be necessary to run electric power if this well is productive. Power will be run by CVE and they will send in a separate plan for power.

Exhibit #5



A. If the well is productive, rehabilitation plans are as follows:

- 1) Top soil removed from the drill site will be used to recontour the surrounding area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

##### 5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #4. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

##### 6. Source of Construction Materials:

Attached to Form 3160-3  
Mack Energy Corporation  
Peery Federal #6  
SHL 875 FSL & 330 FEL, Sec. 29 T15S R30E  
BHL 965 FSL & 330 FWL, Sec. 29 T15S R30E  
Chaves County, NM

All caliche required for construction of the drill pad and proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit.

**7. Methods of Handling Water Disposal:**

- A. Drill cuttings not retained for evaluation purposes will be disposed into the steel tanks and hauled to an approved facility.
- B. Drilling fluids will be contained in steel tanks using a closed loop system.
- C. Water produced from the well during completion may be disposed into a steel tank. After the well is permanently placed on production, produced water will be collected in tanks (fiberglass) until pumped to an approved disposal system; produced oil will be collected in steel tanks until sold.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. All water and fluids will be disposed of into an approved facility. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

**8. Ancillary Facilities:**

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #6. Dimensions of the pad are shown. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Diagram below shows the proposed orientation of the location. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

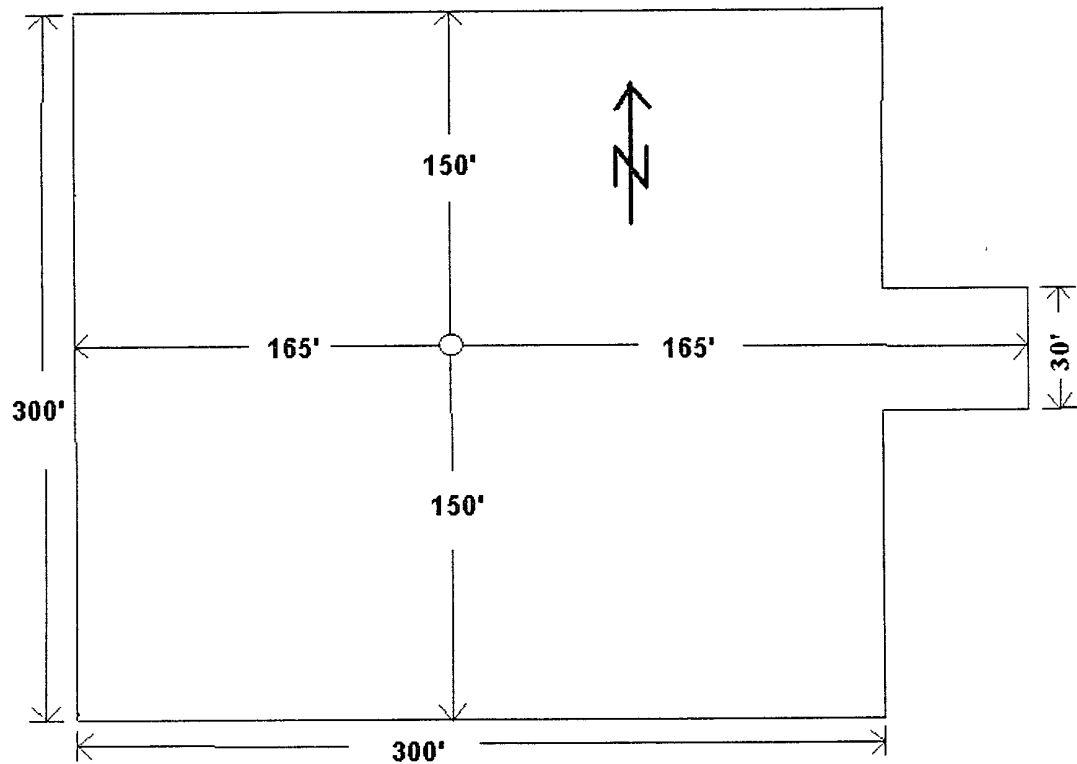


Exhibit #6

Attached to Form 3160-3  
Mack Energy Corporation  
Peery Federal #6  
SHL 875 FSL & 330 FEL, Sec. 29 T15S R30E  
BHL 965 FSL & 330 FWL, Sec. 29 T15S R30E  
Chaves County, NM

**10. Plans for Restoration of the Surface:**

- A. Upon completion of the proposed operations, if the well is completed, any additional caliche required for facilities will be obtained from a BLM approved caliche pit.
- B. In the event of a dry hole. Topsoil removed from the drill site will be used to recontour the area to its original natural level and reseeded as per BLM specifications.

**11. Surface Ownership:**

The well site and lease is located entirely on Federal surface. We have notified the surface lessee of the impending operations. According to BLM the lessee is Bogel Limited Company, Lewis Derrick, PO Box 460 Dexter, NM 88230.

**12. Other Information:**

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass with sagebrush.
- B. There is no permanent or live water in the immediate area.
- C. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

**13. Lessee's and Operator's Representative:**

The Mack Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell  
Mack Energy Corporation  
P.O. Box 960  
Artesia, NM 88211-0960  
Phone (575) 748-1288 (office)

## Mack Energy Corporation

### Hydrogen Sulfide Drilling Operation 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:

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

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

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and 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. **The concentrations of H<sub>2</sub>S of wells in this area from surface to TD are low enough that a contingency plan is not required.**

## II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S 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 reasonable expected to contain H2S.

### 1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

### 2. Protective equipment for essential personnel:

- A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

### 3. H2S detection and monitoring equipment:

- A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

### 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) 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.

### 5. Mud program:

- A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.



**6. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer; drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

**7. Communication:**

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

**8. Well testing:**

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

**EXHIBIT #7**

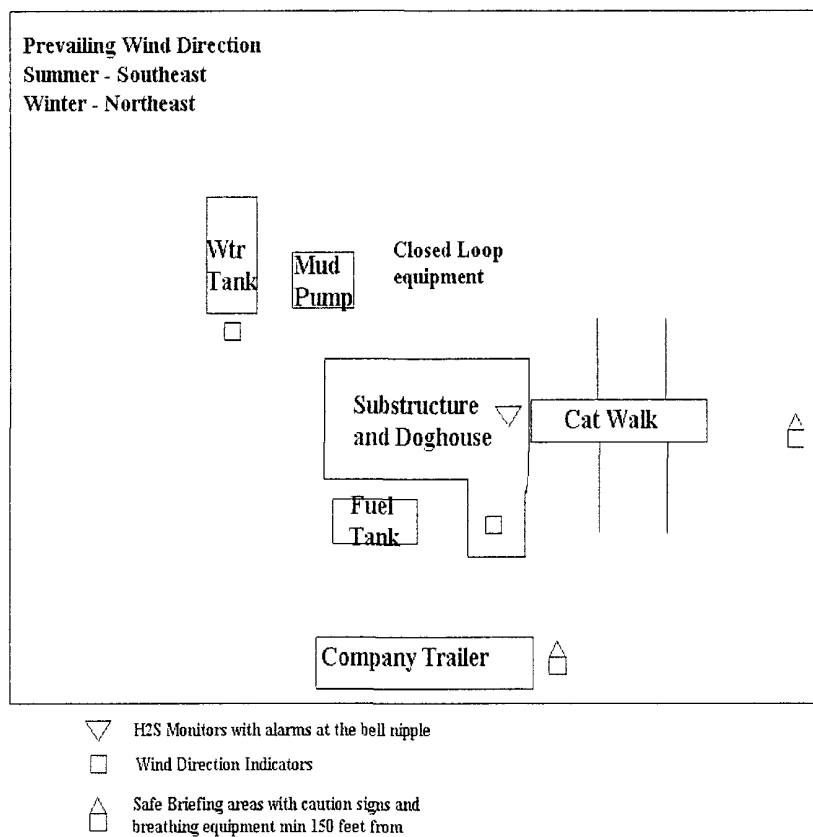
**WARNING**  
**YOU ARE ENTERING AN H<sub>2</sub>S**  
**AUTHORIZED PERSONNEL ONLY**

- 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. CHECK WITH MACK ENERGY FOREMAN AT OFFICE**

**MACK ENERGY CORPORATION**

**1-575-748-1288**

**DRILLING LOCATION H2S SAFTY EQUIPMENT**  
**Exhibit # 8**



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**Attachment to Exhibit #9**  
**NOTES REGARDING THE BLOWOUT PREVENTERS**  
**Peery Federal #6**  
**Chaves County, New Mexico**

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

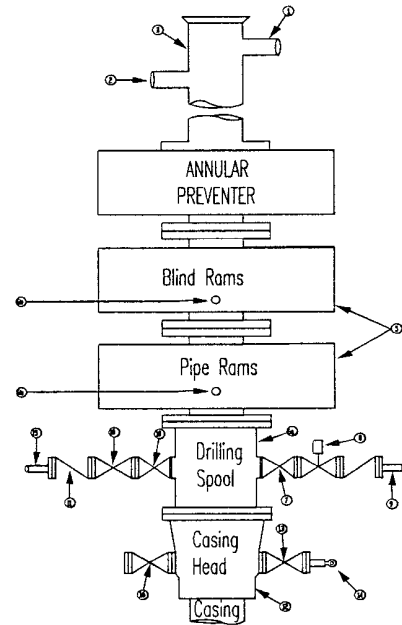
**Mack Energy Corporation**  
**Minimum Blowout Preventer Requirements**  
**3000 psi Working Pressure**  
**3 MWP**  
**EXHIBIT #10**

**Stack Requirements**

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8"	
8	Gate valve-power operated	3 1/8"	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16"	
11	Check valve	2 1/16"	
12	Casing head		
13	Valve Gate Plug	1 13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

**OPTIONAL**

16	Flanged Valve	1 13/16"	
----	---------------	----------	--



**CONTRACTOR'S OPTION TO FURNISH.**

- All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum
- Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
- BOP controls, to be located near drillers' position
- Kelly equipped with Kelly cock.
- Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used
- Kelly saver-sub equipped with rubber casing protector at all times.
- Plug type blowout preventer tester
- Extra set pipe rams to fit drill pipe in use on location at all times
- Type RX ring gaskets in place of Type R.

**MEC TO FURNISH**

- Bradenhead or casing head and side valves.
- Wear bushing If required.

**GENERAL NOTES**

- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager
- All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
- Controls to be of standard design and each marked, showing opening and closing position
- Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, or bean

- sizes, retainers, and choke wrenches to be conveniently located for immediate use
- All valves to be equipped with hand-wheels or handles ready for immediate use
- Choke lines must be suitably anchored
- Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency
- All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
- Casinghead connections shall not be used except in case of emergency.
- Do not use kill line for routine fill up operations

# Mack Energy Corporation

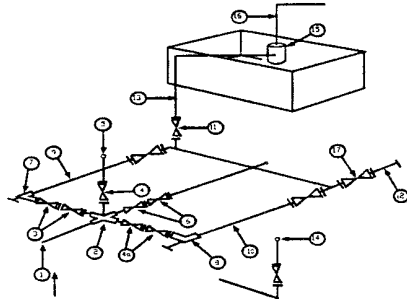
Exhibit #11

## MINIMUM CHOKE MANIFOLD

3,000, 5,000, and 10,000 PSI Working Pressure

3M will be used

3 MWP - 5 MWP - 10 MWP



Mud Pit

Reserve Pit

\* Location of separator optional

Below Substructure

### Minimum requirements

No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	Rating	I.D.	Nominal	Rating	I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure quage			3,000			5,000			10,000
15	Gas Separator		2' x 5'			2' x 5'			2' x 5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

- (1) Only one required in Class 3M
- (2) Gate valves only shall be used for Class 10 M
- (3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

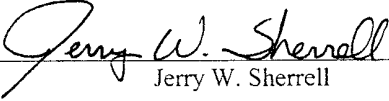
### EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

- 1 All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating
- 2 All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP
- 3 All lines shall be securely anchored
- 4 Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available
- 5 Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes  
As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- 6 Line from drilling spool to choke manifold should be as straight as possible Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees

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CERTIFICATION

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

Date: 8-22-08 Signed:   
Jerry W. Sherrell

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# **Mack Energy**

Chaves County  
Peery Federal #6  
Peery Federal #6  
OH

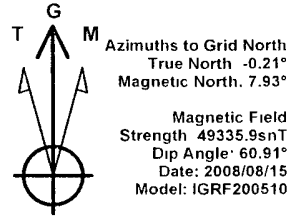
Plan: Plan #1

## **Pathfinder X & Y Survey Report**

15 August, 2008

**PATHFINDER**  
**ENERGY SERVICES**

# Mack Energy Corporation

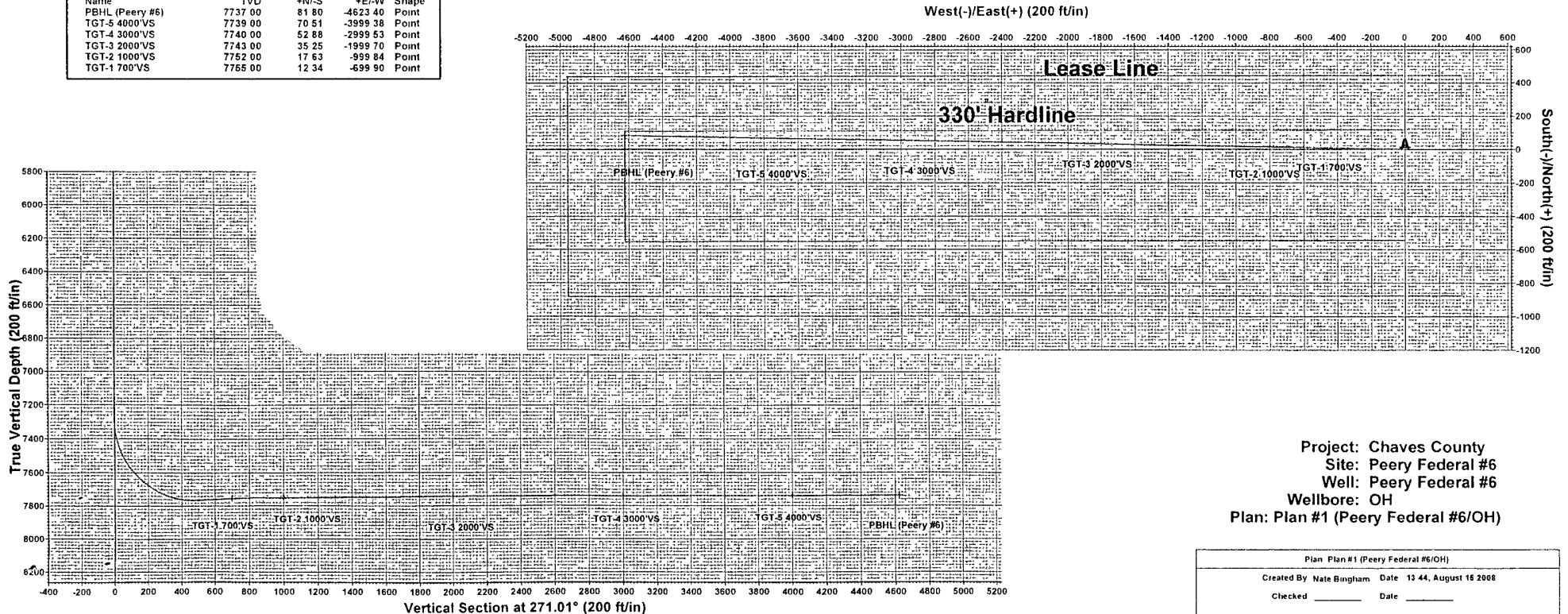


WELL DETAILS Peery Federal #6						
Ground Elevation	3973.00					
RKB Elevation	WELL @ 3991.00ft (Original Well Elev)					
Rig Name	Original Well Elev					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	721185.700	620822.900	32° 58' 55" 155 N	103° 56' 21" 551 W	

PROJECT DETAILS Chaves County  
 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: Grnd

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7288.30	0.00	0.00	7288.30	0.00	0.00	0.00	0.00	0.00	
3	8061.95	92.87	271.01	7765.00	8.83	-501.12	12.00	271.01	501.20	
4	8062.42	92.88	271.01	7764.98	8.84	-501.59	2.00	1.75	501.67	
5	8261.01	92.88	271.01	7755.00	12.34	-699.90	0.00	0.00	700.01	TGT-1 700'VS
6	8416.76	89.76	271.01	7751.41	15.09	-855.56	2.00	180.00	855.69	
7	8561.08	89.76	271.01	7752.00	17.63	-999.84	0.00	0.00	1000.00	TGT-2 1000'VS
8	8599.34	90.53	271.01	7751.90	18.30	-1038.12	2.00	-0.07	1038.28	
9	9561.12	90.53	271.01	7743.00	35.25	-1999.70	0.00	0.00	2000.01	TGT-3 2000'VS
10	9579.20	90.17	271.01	7742.89	35.57	-2017.78	2.00	179.90	2018.09	
11	10561.11	90.17	271.01	7740.00	52.88	-2999.53	0.00	0.00	3000.00	TGT-4 3000'VS
12	10566.69	80.06	271.01	7739.99	52.98	-3005.11	2.00	-179.99	3005.58	
13	11561.11	90.06	271.01	7739.00	70.51	-3999.38	0.00	0.00	4000.00	TGT-5 4000'VS
14	11567.61	90.18	271.04	7738.99	70.63	-4005.88	2.00	11.75	4006.50	
15	12185.24	90.18	271.04	7737.00	81.80	-4623.40	0.00	0.00	4624.12	PBHL (Peery #6)

WELLBORE TARGET DETAILS				
Name	TVD	+N/-S	+E/-W	Shape
PBHL (Peery #6)	7737.00	81.80	-4623.40	Point
TGT-5 4000'VS	7739.00	70.51	-3999.38	Point
TGT-4 3000'VS	7740.00	52.88	-2999.53	Point
TGT-3 2000'VS	7743.00	35.25	-1999.70	Point
TGT-2 1000'VS	7752.00	17.63	-999.84	Point
TGT-1 700'VS	7765.00	12.34	-699.90	Point



Project: Chaves County  
 Site: Peery Federal #6  
 Well: Peery Federal #6  
 Wellbore: OH  
 Plan: Plan #1 (Peery Federal #6/OH)

Plan: Plan #1 (Peery Federal #6/OH)	
Created By: Nate Bingham	Date: 13 44, August 15 2008
Checked: _____	Date: _____



**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6.
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Project: Chaves County	
Map System:	US State Plane 1927 (Exact solution)
Geo Datum:	NAD 1927 (NADCON CONUS)
Map Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

Site:		Peery Federal #6			
Site Position:		Northing:	721,185 700 ft	Latitude:	32° 58' 55.155 N
From:	Map	Easting:	620,822 900 ft	Longitude:	103° 56' 21.551 W
Position Uncertainty:	0 00 ft	Slot Radius:	"	Grid Convergence:	0 21 °

Well	Peery Federal #6					
Well Position	+N/-S	0.00 ft	Northing:	721,185.700 ft	Latitude:	32° 58' 55.155 N
	+E/-W	0.00 ft	Easting:	620,822.900 ft	Longitude:	103° 56' 21.551 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,973.00 ft

<b>Wellbore:</b>	OH
------------------	----

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2008/08/15	8.14	60.91	49,336

<b>Design:</b>	Plan #1
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0 00	0 00	0 00	271 01

Survey Tool Program		Date - 2008/08/15		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	12,184.76	Plan #1 (OH)	MWD	MWD - Standard

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid:
<b>Wellbore:</b>	OH:	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)	
0.00	0.00	0.00	0.00	-3,991.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
100.00	0.00	0.00	100.00	-3,891.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
200.00	0.00	0.00	200.00	-3,791.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
300.00	0.00	0.00	300.00	-3,691.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
400.00	0.00	0.00	400.00	-3,591.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
500.00	0.00	0.00	500.00	-3,491.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
600.00	0.00	0.00	600.00	-3,391.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
700.00	0.00	0.00	700.00	-3,291.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
800.00	0.00	0.00	800.00	-3,191.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
900.00	0.00	0.00	900.00	-3,091.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,000.00	0.00	0.00	1,000.00	-2,991.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,100.00	0.00	0.00	1,100.00	-2,891.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,200.00	0.00	0.00	1,200.00	-2,791.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,300.00	0.00	0.00	1,300.00	-2,691.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,400.00	0.00	0.00	1,400.00	-2,591.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,500.00	0.00	0.00	1,500.00	-2,491.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,600.00	0.00	0.00	1,600.00	-2,391.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,700.00	0.00	0.00	1,700.00	-2,291.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,800.00	0.00	0.00	1,800.00	-2,191.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
1,900.00	0.00	0.00	1,900.00	-2,091.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,000.00	0.00	0.00	2,000.00	-1,991.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,100.00	0.00	0.00	2,100.00	-1,891.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,200.00	0.00	0.00	2,200.00	-1,791.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,300.00	0.00	0.00	2,300.00	-1,691.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,400.00	0.00	0.00	2,400.00	-1,591.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,500.00	0.00	0.00	2,500.00	-1,491.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,600.00	0.00	0.00	2,600.00	-1,391.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003 16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)	
2,700.00	0.00	0.00	2,700.00	-1,291.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,800.00	0.00	0.00	2,800.00	-1,191.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
2,900.00	0.00	0.00	2,900.00	-1,091.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,000.00	0.00	0.00	3,000.00	-991.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,100.00	0.00	0.00	3,100.00	-891.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,200.00	0.00	0.00	3,200.00	-791.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,300.00	0.00	0.00	3,300.00	-691.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,400.00	0.00	0.00	3,400.00	-591.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,500.00	0.00	0.00	3,500.00	-491.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,600.00	0.00	0.00	3,600.00	-391.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,700.00	0.00	0.00	3,700.00	-291.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,800.00	0.00	0.00	3,800.00	-191.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
3,900.00	0.00	0.00	3,900.00	-91.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,000.00	0.00	0.00	4,000.00	9.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,100.00	0.00	0.00	4,100.00	109.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,200.00	0.00	0.00	4,200.00	209.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,300.00	0.00	0.00	4,300.00	309.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,400.00	0.00	0.00	4,400.00	409.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,500.00	0.00	0.00	4,500.00	509.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,600.00	0.00	0.00	4,600.00	609.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,700.00	0.00	0.00	4,700.00	709.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,800.00	0.00	0.00	4,800.00	809.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
4,900.00	0.00	0.00	4,900.00	909.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,000.00	0.00	0.00	5,000.00	1,009.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,100.00	0.00	0.00	5,100.00	1,109.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,200.00	0.00	0.00	5,200.00	1,209.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,300.00	0.00	0.00	5,300.00	1,309.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Gnd
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)	
5,400.00	0.00	0.00	5,400.00	1,409.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,500.00	0.00	0.00	5,500.00	1,509.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,600.00	0.00	0.00	5,600.00	1,609.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,700.00	0.00	0.00	5,700.00	1,709.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,800.00	0.00	0.00	5,800.00	1,809.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
5,900.00	0.00	0.00	5,900.00	1,909.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,000.00	0.00	0.00	6,000.00	2,009.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,100.00	0.00	0.00	6,100.00	2,109.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,200.00	0.00	0.00	6,200.00	2,209.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,300.00	0.00	0.00	6,300.00	2,309.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,400.00	0.00	0.00	6,400.00	2,409.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,500.00	0.00	0.00	6,500.00	2,509.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,600.00	0.00	0.00	6,600.00	2,609.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,700.00	0.00	0.00	6,700.00	2,709.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,800.00	0.00	0.00	6,800.00	2,809.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
6,900.00	0.00	0.00	6,900.00	2,909.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
7,000.00	0.00	0.00	7,000.00	3,009.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
7,100.00	0.00	0.00	7,100.00	3,109.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
7,200.00	0.00	0.00	7,200.00	3,209.00	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
7,288.30	0.00	0.00	7,288.30	3,297.30	0.00	0.00	0.00	0.00	721,185.70	620,822.90	
7,300.00	1.40	271.01	7,300.00	3,309.00	0.00	-0.14	0.14	12.00	721,185.70	620,822.76	
7,325.00	4.41	271.01	7,324.96	3,333.96	0.02	-1.41	1.41	12.00	721,185.72	620,821.49	
7,350.00	7.41	271.01	7,349.83	3,358.83	0.07	-3.98	3.98	12.00	721,185.77	620,818.92	
7,375.00	10.41	271.01	7,374.52	3,383.52	0.14	-7.85	7.85	12.00	721,185.84	620,815.05	
7,400.00	13.41	271.01	7,398.98	3,407.98	0.23	-13.01	13.01	12.00	721,185.93	620,809.89	
7,425.00	16.41	271.01	7,423.14	3,432.14	0.34	-19.44	19.44	12.00	721,186.04	620,803.46	
7,450.00	19.41	271.01	7,446.92	3,455.92	0.48	-27.13	27.13	12.00	721,186.18	620,795.77	

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



Company: Mack Energy  
Project: Chaves County  
Site: Peery Federal #6  
Well: Peery Federal #6  
Wellbore: OH  
Design: Plan #1

Local Co-ordinate Reference: Well Peery Federal #6  
TVD Reference: WELL @ 3991.00ft (Original Well Elev)  
MD Reference: WELL @ 3991.00ft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 2003 16 Single User Db

**Planned Survey**

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,475.00	22.41	271.01	7,470.28	3,479.28	0.64	-36.05	36.05	12.00	721,186.34	620,786.85
7,500.00	25.41	271.01	7,493.13	3,502.13	0.81	-46.18	46.18	12.00	721,186.51	620,776.72
7,525.00	28.41	271.01	7,515.42	3,524.42	1.01	-57.49	57.50	12.00	721,186.71	620,765.41
7,550.00	31.41	271.01	7,537.08	3,546.08	1.23	-69.95	69.96	12.00	721,186.93	620,752.95
7,575.00	34.42	271.01	7,558.07	3,567.07	1.47	-83.54	83.55	12.00	721,187.17	620,739.36
7,600.00	37.42	271.01	7,578.31	3,587.31	1.73	-98.20	98.21	12.00	721,187.43	620,724.70
7,625.00	40.42	271.01	7,597.76	3,606.76	2.01	-113.90	113.92	12.00	721,187.71	620,709.00
7,650.00	43.42	271.01	7,616.36	3,625.36	2.30	-130.59	130.61	12.00	721,188.00	620,692.31
7,675.00	46.42	271.01	7,634.06	3,643.06	2.61	-148.24	148.27	12.00	721,188.31	620,674.66
7,700.00	49.42	271.01	7,650.81	3,659.81	2.94	-166.79	166.82	12.00	721,188.64	620,656.11
7,725.00	52.42	271.01	7,666.57	3,675.57	3.28	-186.20	186.22	12.00	721,188.98	620,636.70
7,750.00	55.42	271.01	7,681.29	3,690.29	3.64	-206.40	206.43	12.00	721,189.34	620,616.50
7,775.00	58.42	271.01	7,694.93	3,703.93	4.01	-227.34	227.37	12.00	721,189.71	620,595.56
7,800.00	61.43	271.01	7,707.46	3,716.46	4.39	-248.97	249.01	12.00	721,190.09	620,573.93
7,825.00	64.43	271.01	7,718.84	3,727.84	4.78	-271.22	271.26	12.00	721,190.48	620,551.68
7,850.00	67.43	271.01	7,729.03	3,738.03	5.18	-294.04	294.09	12.00	721,190.88	620,528.86
7,875.00	70.43	271.01	7,738.02	3,747.02	5.59	-317.36	317.41	12.00	721,191.29	620,505.54
7,900.00	73.43	271.01	7,745.78	3,754.78	6.01	-341.12	341.18	12.00	721,191.71	620,481.78
7,925.00	76.43	271.01	7,752.28	3,761.28	6.44	-365.26	365.31	12.00	721,192.14	620,457.64
7,950.00	79.43	271.01	7,757.50	3,766.50	6.87	-389.70	389.76	12.00	721,192.57	620,433.20
7,975.00	82.43	271.01	7,761.44	3,770.44	7.31	-414.38	414.44	12.00	721,193.01	620,408.52
8,000.00	85.43	271.01	7,764.08	3,773.08	7.74	-439.23	439.30	12.00	721,193.44	620,383.67
8,025.00	88.43	271.01	7,765.42	3,774.42	8.18	-464.19	464.26	12.00	721,193.88	620,358.71
8,050.00	91.44	271.01	7,765.45	3,774.45	8.62	-489.18	489.26	12.00	721,194.32	620,333.72
8,061.95	92.87	271.01	7,765.00	3,774.00	8.83	-501.12	501.20	12.00	721,194.53	620,321.78
8,062.42	92.88	271.01	7,764.98	3,773.98	8.84	-501.59	501.67	2.00	721,194.54	620,321.31
8,100.00	92.88	271.01	7,763.09	3,772.09	9.50	-539.12	539.20	0.00	721,195.20	620,283.78

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991 00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991 00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (%/100ft)	Northing (ft)	Easting (ft)	
8,200 00	92 88	271.01	7,758 06	3,767.06	11 27	-638 98	639 08	0 00	721,196 97	620,183 92	
8,261 01	92 88	271.01	7,755.00	3,764 00	12 34	-699 90	700 01	0 00	721,198 04	620,123 00	
<b>TGT-1 700'VS</b>											
8,300 00	92 10	271 01	7,753 31	3,762 31	13 03	-738 85	738 96	2 00	721,198 73	620,084 05	
8,400 00	90 10	271 01	7,751 39	3,760 39	14 79	-838 81	838 94	2 00	721,200 49	619,984 09	
8,416 76	89 76	271.01	7,751 41	3,760 41	15 09	-855 56	855 69	2.00	721,200 79	619,967 34	
8,500.00	89.76	271 01	7 751 75	3,760 75	16 55	-938 79	938 94	0 00	721,202 25	619,884 11	
8,561 06	89.76	271 01	7,752.00	3,761 00	17 63	-999 84	1,000 00	0 00	721,203 33	619,823 06	
<b>TGT-2 1000'VS</b>											
8,599.34	90 53	271.01	7,751.90	3,760.90	18 30	-1,038.12	1,038.28	2 00	721,204 00	619,784.78	
8,700 00	90 53	271.01	7,750 97	3,759.97	20 08	-1,138.75	1,138 93	0 00	721,205 78	619,684 15	
8,800 00	90.53	271.01	7,750 04	3,759 04	21 84	-1,238.73	1,238 93	0.00	721,207 54	619,584 17	
8,900 00	90 53	271.01	7,749 12	3,758.12	23 60	-1,338 72	1,338 92	0 00	721,209 30	619,484 18	
9,000 00	90.53	271 01	7,748 19	3,757 19	25.36	-1,438.70	1,438 92	0.00	721,211 06	619,384 20	
9,100 00	90 53	271 01	7,747 27	3,756 27	27.13	-1,538.68	1,538 91	0 00	721,212 83	619,284 22	
9,200 00	90 53	271 01	7,746 34	3,755 34	28 89	-1,638.66	1,638.91	0 00	721,214 59	619,184.24	
9,300 00	90 53	271 01	7,745.42	3,754 42	30.65	-1,738 64	1,738 91	0 00	721,216 35	619,084 26	
9,400 00	90 53	271 01	7,744.49	3,753.49	32.41	-1,838 62	1,838 90	0 00	721,218 11	618,984 28	
9,500 00	90.53	271 01	7,743 57	3,752 57	34 17	-1,938.60	1,938 90	0 00	721,219 87	618,884 30	
9,561 12	90.53	271 01	7,743 00	3,752 00	35 25	-1,999 70	2,000 01	0 00	721,220 95	618,823 20	
<b>TGT-3 2000'VS</b>											
9,579 20	90 17	271 01	7,742.89	3,751 89	35 57	-2,017.78	2,018.09	2 00	721,221 27	618,805.12	
9,600 00	90 17	271.01	7,742.83	3,751 83	35 94	-2,038 58	2,038 89	0 00	721,221 64	618,784 32	
9,700 00	90.17	271 01	7,742 53	3,751.53	37 70	-2,138 56	2,138 89	0 00	721,223 40	618,684.34	
9,800.00	90 17	271 01	7,742 24	3,751 24	39 46	-2,238.55	2,238.89	0 00	721,225 16	618,584 35	
9,900 00	90 17	271 01	7,741 95	3,750 95	41 22	-2,338.53	2,338 89	0 00	721,226 92	618,484 37	
10,000 00	90 17	271 01	7,741 65	3,750 65	42 99	-2,438 51	2,438 89	0 00	721,228 69	618,384.39	



**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Planned Survey										
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,100.00	90.17	271.01	7,741.36	3,750.36	44.75	-2,538.50	2,538.89	0.00	721,230.45	618,284.40
10,200.00	90.17	271.01	7,741.06	3,750.06	46.51	-2,638.48	2,638.89	0.00	721,232.21	618,184.42
10,300.00	90.17	271.01	7,740.77	3,749.77	48.28	-2,738.47	2,738.89	0.00	721,233.98	618,084.43
10,400.00	90.17	271.01	7,740.47	3,749.47	50.04	-2,838.45	2,838.89	0.00	721,235.74	617,984.45
10,500.00	90.17	271.01	7,740.18	3,749.18	51.80	-2,938.43	2,938.89	0.00	721,237.50	617,884.47
10,561.11	90.17	271.01	7,740.00	3,749.00	52.88	-2,999.53	3,000.00	0.00	721,238.58	617,823.37
<b>TGT-4 3000'VS</b>										
10,566.69	90.06	271.01	7,739.99	3,748.99	52.98	-3,005.11	3,005.58	2.00	721,238.68	617,817.79
10,600.00	90.06	271.01	7,739.96	3,748.96	53.57	-3,038.42	3,038.89	0.00	721,239.27	617,784.48
10,700.00	90.06	271.01	7,739.86	3,748.86	55.33	-3,138.40	3,138.89	0.00	721,241.03	617,684.50
10,800.00	90.06	271.01	7,739.76	3,748.76	57.09	-3,238.39	3,238.89	0.00	721,242.79	617,584.51
10,900.00	90.06	271.01	7,739.66	3,748.66	58.85	-3,338.37	3,338.89	0.00	721,244.55	617,484.53
11,000.00	90.06	271.01	7,739.56	3,748.56	60.62	-3,438.36	3,438.89	0.00	721,246.32	617,384.54
11,100.00	90.06	271.01	7,739.46	3,748.46	62.38	-3,538.34	3,538.89	0.00	721,248.08	617,284.56
11,200.00	90.06	271.01	7,739.36	3,748.36	64.14	-3,638.32	3,638.89	0.00	721,249.84	617,184.58
11,300.00	90.06	271.01	7,739.26	3,748.26	65.91	-3,738.31	3,738.89	0.00	721,251.61	617,084.59
11,400.00	90.06	271.01	7,739.16	3,748.16	67.67	-3,838.29	3,838.89	0.00	721,253.37	616,984.61
11,500.00	90.06	271.01	7,739.06	3,748.06	69.43	-3,938.28	3,938.89	0.00	721,255.13	616,884.62
11,561.11	90.06	271.01	7,739.00	3,748.00	70.51	-3,999.38	4,000.00	0.00	721,256.21	616,823.52
<b>TGT-5 4000'VS</b>										
11,567.61	90.18	271.04	7,738.99	3,747.99	70.63	-4,005.88	4,006.50	2.00	721,256.33	616,817.02
11,600.00	90.18	271.04	7,738.88	3,747.88	71.21	-4,038.26	4,038.89	0.00	721,256.91	616,784.64
11,700.00	90.18	271.04	7,738.56	3,747.56	73.02	-4,138.24	4,138.89	0.00	721,258.72	616,684.66
11,800.00	90.18	271.04	7,738.24	3,747.24	74.83	-4,238.23	4,238.89	0.00	721,260.53	616,584.67
11,900.00	90.18	271.04	7,737.92	3,746.92	76.64	-4,338.21	4,338.89	0.00	721,262.34	616,484.69
12,000.00	90.18	271.04	7,737.60	3,746.60	78.45	-4,438.19	4,438.89	0.00	721,264.15	616,384.71
12,100.00	90.18	271.04	7,737.27	3,746.27	80.26	-4,538.18	4,538.89	0.00	721,265.96	616,284.72

**Pathfinder Energy Services**  
Pathfinder X & Y Survey Report



<b>Company:</b>	Mack Energy	<b>Local Co-ordinate Reference:</b>	Well Peery Federal #6
<b>Project:</b>	Chaves County	<b>TVD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Site:</b>	Peery Federal #6	<b>MD Reference:</b>	WELL @ 3991.00ft (Original Well Elev)
<b>Well:</b>	Peery Federal #6	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 2003.16 Single User Db

Planned Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
12,185.24	90.18	271.04	7,737.00	3,746.00	81.80	-4,623.40	4,624.12	0.00	721,267.50	616,199.50	
PBHL (Peery #6)											

Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
TGT-4 3000'VS	- plan hits target	0.00	0.00	7,740.00	52.88	-2,999.53	721,238.580	617,823.370	32° 58' 55.788 N 103° 56' 56.762 W
- Point									
TGT-5 4000'VS	- plan hits target	0.00	0.00	7,739.00	70.51	-3,999.38	721,256.210	616,823.520	32° 58' 55.998 N 103° 57' 8.500 W
- Point									
PBHL (Peery #6)	- plan hits target	0.00	0.00	7,737.00	81.80	-4,623.40	721,267.500	616,199.500	32° 58' 56.132 N 103° 57' 15.825 W
- Point									
TGT-2 1000'VS	- plan hits target	0.00	0.00	7,752.00	17.63	-999.84	721,203.330	619,823.060	32° 58' 55.366 N 103° 56' 33.288 W
- Point									
TGT-3 2000'VS	- plan hits target	0.00	0.00	7,743.00	35.25	-1,999.70	721,220.950	618,823.200	32° 58' 55.577 N 103° 56' 45.025 W
- Point									
TGT-1 700'VS	- plan hits target	0.00	0.00	7,755.00	12.34	-699.90	721,198.040	620,123.000	32° 58' 55.303 N 103° 56' 29.767 W
- Point									

Checked By: _____	Approved By: _____	Date: _____
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# EXHIBIT A

## PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

Décember, 2008

OPERATORS NAME: Mack Energy Corporation  
LEASE NO.: NM-119274  
WELL NAME & NO: Peery Federal #6H  
SURFACE HOLE FOOTAGE: 875' FSL & 330' FEL  
BOTTOM HOLE FOOTAGE: 965' FSL & 330' FWL  
LOCATION: Section 29, T. 15 S., R. 30 E.  
COUNTY: Chaves County, New Mexico

### 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.

### I. 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).

### II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

The project falls within the area covered by the Permian Basin Memorandum of Agreement (MOA). The Permian Basin MOA is an optional method of compliance with Section 106 of the National Historic Preservation Act for energy related projects in a 28 quadrangle area of the Pecos District a portion of which is within the Roswell Field Office. The proponent chose to participate in the Permian Basin MOA by planning to avoid all known NRHP eligible and potentially eligible cultural resources. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the MOA serves as mitigation for the effects of this project on cultural resources. If any skeletal remains that might be human or funerary objects are discovered by any activities, the project proponent will cease activities in the area of discovery and notify the BLM within 24 hours as required by the Permian Basin MOA.

### **III. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). 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.

### **IV. CONSTRUCTION**

#### **A. NOTIFICATION:**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 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 Application for Permit to Drill and Conditions of Approval 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 to be stripped is approximately 6 inches in depth. The topsoil shall be used for interim and final reclamation. The soil shall be stockpiled on the southeast corner of the well pad.

#### **C. CLOSED LOOP SYSTEM: No reserve pit will be used.**

Steel tanks are required for drilling operations: No Pits Allowed.

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. Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Roswell Field Office at (505) 627-0236.

#### **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 need.

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

##### **Road Egress and Ingress**

The access road shall be constructed to access the northwest corner of the well pad. The access road will traverse the west side of the well location and will continue on to another well location

##### **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.

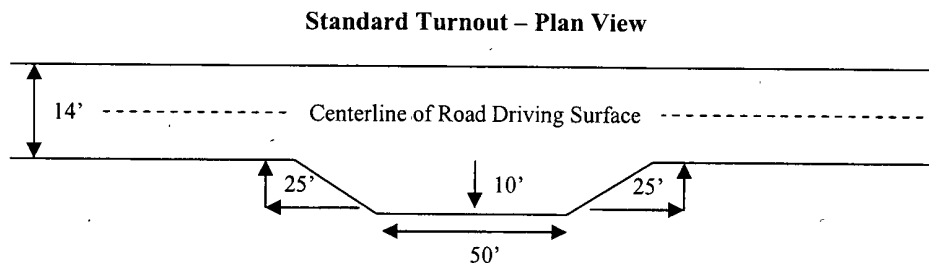
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing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

## Turnouts

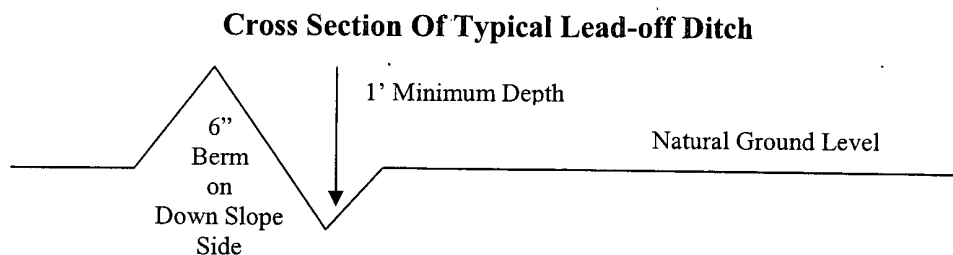
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



## 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.



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

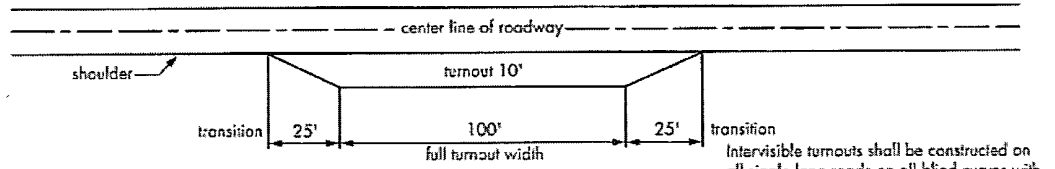
Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

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

## Public Access

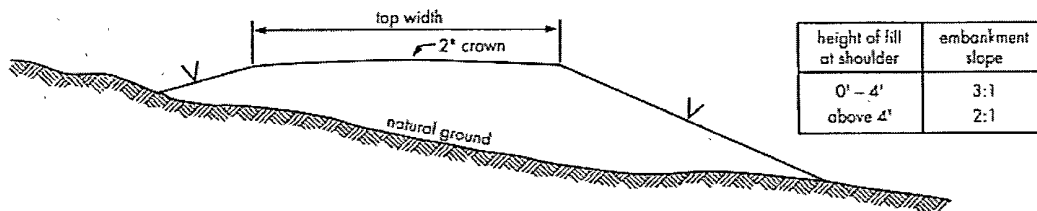
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Figure 1 – Cross Sections and Plans For Typical Road Sections**

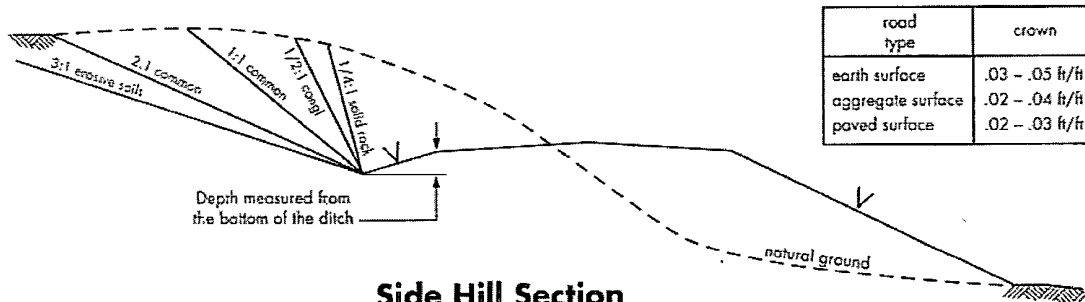


Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional turnouts as needed to keep spacing below 1000 feet.

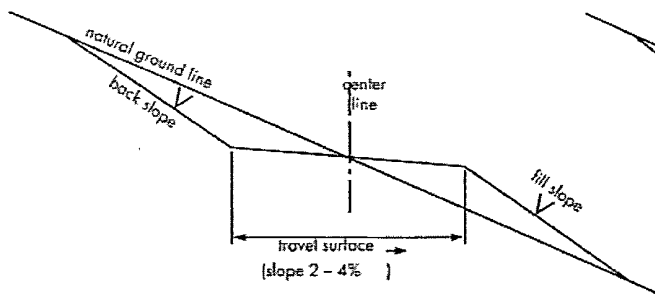
**Typical Turnout Plan**



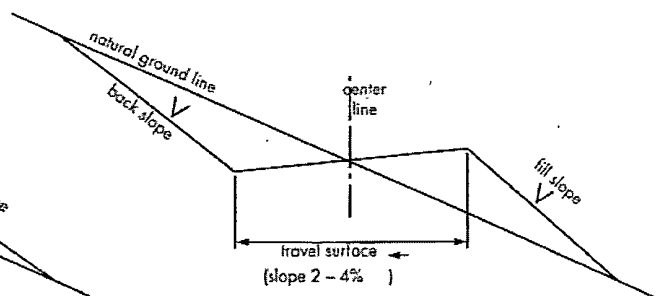
**Embankment Section**



**Side Hill Section**



**Typical Outsloped Section**



**Typical Insloped Section**

## **V. DRILLING**

### **A. DRILLING OPERATIONS REQUIREMENTS:**

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 910-6024. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
  - a. Spudding well
  - b. Setting and/or Cementing of all casing strings

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

#### **BOPE Tests**

3. 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.
4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
5. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion
6. Air, air-mist or fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

### **B. CASING**

1. The 13 3/8 inch usable water protection casing string(s) shall be set at approximately 450 feet opposite competent bedrock. In no way shall the surface casing be set in the Rustler Halite.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered and cemented to the surface.

- a. If cement does not circulate to the surface, the Roswell Field 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 will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).

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 compression strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is **sufficient to circulate to the surface**. If cement does not circulate see B.1.a-d above.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is **sufficient to tie back 500 feet true vertical depth above the uppermost perforation in the pay zone**. If cement does not circulate, 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.

4. There is no required fill of cement behind the 4-1/2 inch production liner since a Isolation Packer will be used for lateral and will not require cementing.

5. 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. Before drilling below the 13-3/8 inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 9-5/8 inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the 13-3/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the 9-5/8 inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.

3. The BOPE shall be installed before drilling below the 13-3/8 inch surface casing and the 9-5/8 inch intermediate casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

b. The tests shall be done by an independent service company.

c. 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.

d. 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 BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

g. The requested variance to test the BOPE prior to **drilling below the 13-3/8 inch surface casing** to the reduced pressure of **1000** psi using the rig pumps is approved.

## **D. DRILLING MUD**

1. Fresh water and non toxic drilling mud shall be used to 450 feet to drill the 17-1/2 inch hole for the 13-3/8 inch surface casing to be set at 450 feet.

## **VI. PRODUCTION**

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

#### **1. Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim re-contouring and re-vegetation of the well location.

#### **2. 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.

#### **3. 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, **Juniper Green, Standard Environmental Colors**.

## **VII. INTERIM RECLAMATION & RESERVE PIT CLOSURE**

### **A. INTERIM RECLAMATION**

If the well is a producer, interim reclamation shall be conducted on the well site within 6 months of well completion. 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 operator 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.

## **B. DPC SEED MIXTURE – Closed Loop System**

During reclamation, the removal of caliche is important to increasing the success of re-vegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, 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 re-vegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be re-vegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

The following seed mixture shall be used for interim reclamation and upon abandonment of the well on all areas of disturbance:

Sand Hills CP-2 Ecological Site		
Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Sand bluestem	( <i>Andropogon hallii</i> )	0.50 lb.
Little bluestem	( <i>Schizachyrium scoparium</i> )	0.50 lb.
Sideoats grama,	( <i>Bouteloua curtipendula</i> )	1.50 lbs.
Sand dropseed	( <i>Sporobolus cryptandrus</i> )	0.50 lb.
Spike dropseed	( <i>S. contractus</i> )	0.50 lb.
Mesa dropseed	( <i>S. flexuosus</i> )	0.50 lb.
Plains bristlegrass	( <i>Setaria macrostachya</i> )	2.00 lbs.
Desert or Scarlet	( <i>Sphaeralcea ambigua</i> )	0.50 lb.
Globemallow or	( <i>S. coccinea</i> )	
Buckwheat	( <i>Eriogonum spp.</i> )	1.50 lbs.
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE		8.00 lbs.

IF ONE SPECIES IS NOT AVAILABLE, INCREASE ALL OTHER PROPORTIONATELY. NO LESS THAN SIX (6) SPECIES WITH A MINIMUM OF ONE (1) FORB. NO LESS THAN 8.0 POUNDS PLS PER ACRE SHALL BE APPLIED. CERTIFIED WEED FREE SEED.

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

a. 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.

b. All casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. The well location and identity shall be permanently inscribed. A weep hole shall be left in the metal plate that is welded in place.

## **IX. Range Requirement**

The operator shall keep traffic to a minimum, with the speed limit less than 20 MPH. When conflicts with livestock do arise as a result of the access road and well pad construction, in consultation with the allottee, measures will be taken to resolve the conflicts.

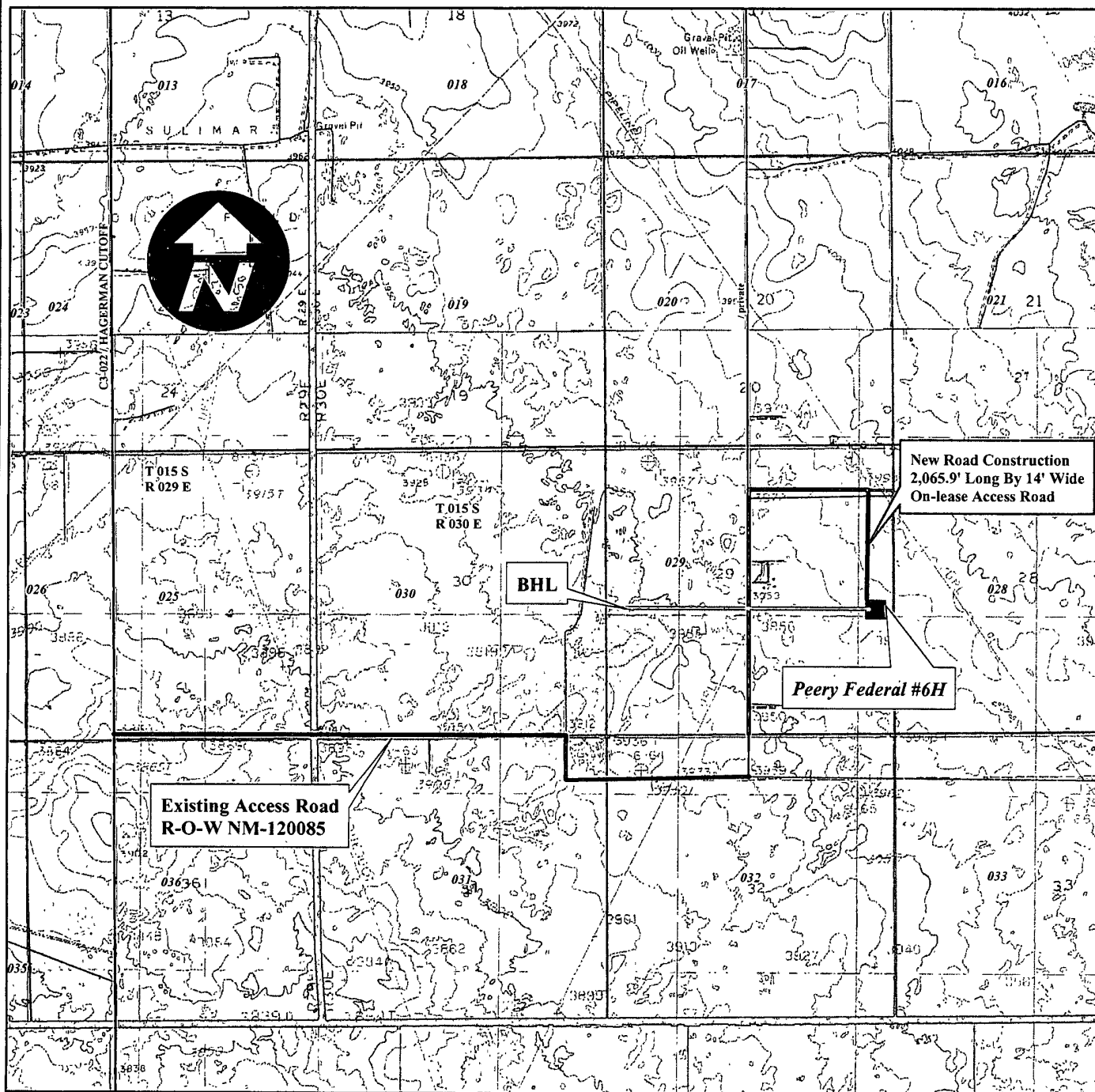
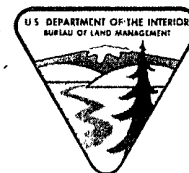
## **X. Wildlife Requirement**

The operator shall cover with netting open top storage tanks and install cones on separator stacks.



**EXHIBIT B**  
**Peery Federal #6H**  
**NMNM-119274**

**Surface Location; 875' FSL & 330' FEL**  
**Bottom Hole Location; 965' FSL & 330' FWL**  
**Section 29, T. 15 S., R. 30 E.,**  
**Chaves County New Mexico**



No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by the BLM. Spatial information may not meet National Map Accuracy Standards. This information is subject to change without notification.

0 660 1,320 Feet 2,640 3,960 5,280