	Conserva 5 N. Fren obbs, NM	ch Drive	, Distr	ict i		
Form 3160 -3	~~~~				PPROVED	
(April 2004)				OMB No Expires M	1004-0137 1arch 31 2007	
UNITED STATES DEPARTMENT OF THE INTERIOR			5 Lease Serial No			
BUREAU OF LAND MANAGEMENT			NMNM-119274			
APPLICATION FOR PERMIT TO DRILL OR REENTER			6 If Indian, Allotee of	or Tribe Name		
la Typeofwork- DRILL REENTER			7 If Unit or CA Agree	ement, Name and No	-	
Ib Type of Well OIl Well Gas Well Other	S	ingle Zone Mult	iple Zone	8, Lease Name and W Peery Federal #10	0H	२५२
2 Name of Operator		1-0-		9 API Well No.	- 29118	
Mack Energy Corporation	3b PhoneNe	(include area code)		10 Field and Pool or F		24-
P.O. Box 960 Artesia, NM 88211-0960	(575)748	· · · ·		10 Field and Pool, or Exploratory 29724		> ` l
4 Location of Well (Report location clearly and maccorounce with an				I I Sec, T R M or Bl		
At surface 1395 FNL & 305 FEL	Uni	+ +			and survey of thea	
At proposed prod zone 1675 FNL & 330 FWL	Unit	E		Sec. 29 T15S R30		
14 Distance in miles and direction from nearest town or post office* 15 miles north of Loco Hills, NM				12 County or Parish Chaves	13 State NM	
15 Distance from proposed* location to nearest property or lease line, ft	16 No of a	cres in lease	17 Space	ng Unit dedicated to this w	ell	Line a
(Also to nearest drlg unit line, if any) 305	640	640 160				
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 12200	MD 13,1	MD 13,157		BIA Bond No on file		
1320	TVD 8,7		NMB0	00286 2 3 Estimated duration		
2   Elevations (Show whether DF, KDB, RT, GL, etc.) 3989' GR	22 Approximate date work will start* 1/1/2010			35 days		
	24. Atta	chments				
The tollowing, completed in accordance with the requirements of Onshe	ore Oil and Gas	Oider No 1, shall be a	ttached to th	nis form		
<ol> <li>Well plat certified by a registered surveyor</li> <li>A Drilling Plan</li> </ol>		4 Bond to cover the Item 20 above).	ie operatior	ns unless covered by an e	xisting bond on file (se	e
<ul> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office)</li> </ul>	n Lands, the	5 Operator certifi 6. Such other site s authorized offi	pecific info	ormation and/or plans as n	nay be required by the	
25 Signature	Name	(Printed'/Typed)			Date	=
Cenur W. Shenel		W. Sherrell		1	1/11/10	
Title Production Clerk						-
Approved by (Signature) /S/ Angel Mayes	Name	(Printedl/Typed) Ange 1	lare	S	Date JAN 27	201
Title Assistant Field Manager,	Office	ROSWELL FI	ELDOF	FICE		
Lands And Minerals Application approval does not warrantor certify that the applicant hole conduct operations thereon Conditions of approval, if any, are attached	ls lega brequita	ble title to those rights	in the subj	ect lease which would ent	PROVED FOR 2	YEAR
Title 18 U S C Section 1001 and Tide 43 U S C Section 1212, make it States any false, fictitious or fraudulent statements or representations as	a crime for any to any matter w	person knowirilly and ithin its juris iction	willfully to	nake to any department o	or agency of the United	-
*(Instructions on page 2)				· · · · · · · · · · · · · · · · · · ·		
<b>Oil Conservation Division</b> Conditions of approval : Approval for drillin	a/workove	r				

ONLY--- CANNOT produce Downhole Commingled until DHC is approved in Santa Fe.

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## United States Department of the Interior Bureau of Land Management Roswell Field Office

Refer To: 3160-3

December 18, 2009

To: AFM, Lands & Minerals, RFO

From: Geologist, RFO

Subject: Geologic Review of Application for Permit to Drill

Operator: Mack Energy Corporation

Well Name and Number: Peery Federal No. 10

Location: 1395' FNL & 305' FEL (SHL) 1675' FNL & 330' FWL (BHL)

Section: 29, T. 15 S., R. 30 E., NMPM

County: Chaves

State: NM

Lease No.: NM-119274

Date APD Rec'd: 12/17/2009

1. Surface Elevation X Surface Geology X

2. Geologic Marker Tops (from reports on surrounding wells):

Geologic Marker	<u>Depth</u>
T/Salt	520'
B/Salt	1476'
Yates	1476
Queen	2235'
San Andres	2936'
Glorieta	4378'
Tubb	5660'
Abo	6442'
Wolfcamp	7775'
Atoka.	9675'
Mississippian	10,132'
Woodford	10,905'
Fusselman	11,192
Montoya	11,705
Ellemburger	11,989'

Mack Energy Corp., Peery Federal No. 10

Page 2

1

Marker beds taken from the IWR of t he Perry Federal No. 2 located in t he SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec. 29, T 15 S., R. 30 E., NMPM.

Geologic Marker	<u>Depth</u>
Rustler	495'
Salado	569'
B/Salt	1303'
Yates	1504'
7 Rvrs.	1658'
Bowers Ss. Mbr.	2058'
Queen	2200'
San Andres	2630'

Markers taken directly from the well log of the Peery Federal No. 7 located in the NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec. 29, T. 15 S., R. 30 E., NMPM.

Geologic Marker	<u>Depth</u>
Rustler	460'
Salado	595'
T/Salt	608'
B/Salt	1312'
Tansill	1425'
Yates	1511'
7 Rvrs.	1649'
Bowers	2016'
Queen	2248'
Grayburg	2450'
San Andres	2920'

Marker tops taken directly from the well log of the Perry Federal No. 6 located in the SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec. 29, T. 15 S., R. 30 E., NMPM.

3. Fresh Water Information: State Engineers' water listing shows fresh water for stock in the Quaternary Alluvium. Surrounding townships and historical well files suggest water maybe as deep as 400 ft.

Deepest Expected Fresh Water: 400 ft.

Does Surface Casing cover all anticipated usable fresh water zones? Yes, drilling with FW to an approximate depth of 450 ft. could protect the usable water. However, this may be just short of the Rustler Anhydrite if such is the case the operator will continue to drill until the top 25 ft of Rustler Anhydrite has been drilled.

Mack Energy Corp., Peery Federal No. 10

## Page 3

The operator will not set water protection casing in the Rustler Halite (salt)

Any polymers for sweeps and such will be water based and non- toxic this is allowable on said conditions.

Controlled Water Basin: Yes - Roswell.

**Remarks:** The operator will be required to measure the drilling rate accurately in order to set the usable water protecting casing string opposite competent bedrock The record of the drilling rate in ft/min. will be submitted to this office along with the caliper - gamma ray - neutron log from total depth to surface as well as all other logs run in the borehole thirty days from completion. Witness surface casing.

Remarks: Witness water protection casing.

4. Geologic Hazards? Yes

H2S X Karst low Abnormal Pressures Other X

Remarks: Although no H2S has been reported in the area, it is always a potential hazard. Possible Mack Energy Corp., Peery Federal No. 6 Page 3

high pressure water zone in the Queen. Possible lost circulation in the Grayburg and San Andres Formations. There is a low potential for karst type features to occur in this area.

5. Other Mineral Deposits: None

6. References:

New Mexico State Engineer's Water Well Listings;

Chaves County H2S List;

Welder, G.E. 1983, Geohydrologic Framework of the Roswell Ground-Water Basin, Chaves and Eddy Conties, New Mexico

Oil and Gas historical well files

7. No active mining claims are located in this vicinity.

Geologist Signature: /s/ J. S. Simitz

## Date: <u>12/18/2009</u>