

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(505) 393-8161 Fax:(505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(505) 748-1283 Fax:(505) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-8178 Fax:(505) 334-8170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011
Permit 223054

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address MACK ENERGY CORP PO Box 960 Artesia, NM 88211		2. OGRID Number 13837
4. Property Code 316383		3. API Number 30-015-43841
5. Property Name CAVERN 16 STATE		6. Well No. 001H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	16	23S	27E	L	2310	S	200	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
I	16	23S	27E	I	2310	S	200	E	Eddy

9. Pool Information

FOREHAND RANCH;WOLFCAMP (GAS)	76780
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3157
16. Multiple N	17. Proposed Depth 13750	18. Formation Wolfcamp	19. Contractor	20. Spud Date 8/1/2016
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.657	54.5	450	200	0
Int1	12.25	9.625	40	2500	2100	0
Int2	8.75	7	29	9357	850	2000
Prod	6.125	4.5	13.5	13750	400	8300

Casing/Cement Program: Additional Comments

Mack Energy Corporation proposes to drill a 17.5" hole to 450', run 13 3/8" casing and cement. Drill a 12.25" hole to 2500', run 9 5/8" casing and cement. Drill a 8.75" hole to 9357', run 7" casing and cement. Drill a horizontal hole to 13,750', run 4.5" casing and cement. Put well on production.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	4000	Shaffer
Pipe	10000	5000	Shaffer
Blind	10000	5000	Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature: _____ Printed Name: Electronically filed by Jerry Sherrell Title: Production Clerk Email Address: jerrys@mec.com Date: 6/29/2016	OIL CONSERVATION DIVISION Approved By: Paul Kautz Title: Geologist Approved Date: 6/30/2016 Expiration Date: 6/30/2018 Conditions of Approval Attached
Phone: 575-748-1288	

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Form C-102
August 1, 2011
Permit 223054

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-43841	2. Pool Code 76780	3. Pool Name FOREHAND RANCH;WOLFCAMP (GAS)
4. Property Code 316383	5. Property Name CAVERN 16 STATE	6. Well No. 001H
7. OGRID No. 13837	8. Operator Name MACK ENERGY CORP	9. Elevation 3157

10. Surface Location

UL - Lot L	Section 16	Township 23S	Range 27E	Lot Idn L	Feet From 2310	N/S Line S	Feet From 200	E/W Line W	County Eddy
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11. Bottom Hole Location If Different From Surface

UL - Lot I	Section 16	Township 23S	Range 27E	Lot Idn I	Feet From 2310	N/S Line S	Feet From 200	E/W Line E	County Eddy
12. Dedicated Acres 320.00	13. Joint or Infill			14. Consolidation Code			15. 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

<table border="1" style="width: 100%; height: 150px; border-collapse: collapse;"> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td></tr> </table>																	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained 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(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Jerry Sherrell Title: Production Clerk Date: 6/29/2016</p> <hr/> <p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Surveyed By: Frank Jaramillo Date of Survey: 6/24/2016 Certificate Number: 12797</p>

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Form APD Comments

 Permit 223054

PERMIT COMMENTS

Operator Name and Address: MACK ENERGY CORP [13837] PO Box 960 Artesia, NM 88211		API Number: 30-015-43841
		Well: CAVERN 16 STATE #001H
Created By	Comment	Comment Date
jwsherrell	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	6/29/2016

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Form APD Conditions

Permit 223054

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MACK ENERGY CORP [13837] PO Box 960 Artesia, NM 88211	API Number: 30-015-43841
	Well: CAVERN 16 STATE #001H

OCD Reviewer	Condition
kjones	Will require a directional survey with the C-104
kjones	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kjones	Cement is required to circulate on both surface and intermediate1 strings of casing
kjones	If cement fails to circulate, a temperature survey must be performed.