

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

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

**Carlsbad Field Office**  
**OCAD Artesia**

Lease Serial No.  
M100844

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

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	8. Well Name and No. RUDOLPH FEDERAL 2H
2. Name of Operator MACK ENERGY CORPORATION      Contact: JERRY W SHERRELL E-Mail: jerrys@mec.com	9. API Well No. 30-015-44499-00-X1
3a. Address P O BOX 960 ARTESIA, NM 88211-0960	3b. Phone No. (include area code) Ph: 575-748-1288
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  Sec 21 T16S R28E SWSW 940FSL 330FWL 32.902988 N Lat, 104.188370 W Lon	10. Field and Pool or Exploratory Area CROW FLATS
	11. County or Parish, State EDDY COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

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

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

Mack Energy Corporation respectfully requests approval to set a kick off plug and continue drilling the Rudolph Federal 2h as a horizontal well. Proposed BHL 940 FSL & 2613 FWL.

We are currently idling drilling rig awaiting approval to continue drilling.

Lease NMNM100844 covers all of section 21 T16S R28E.

Production string will be upgraded to 5.5 L-80 17# BTC Casing.  
Cement Lead 275sx 13.2# yield 1.83, tail 495sx 13# yield 1.48

- All previous COAs still apply.

*OC 12-13-17*  
Accepted for record - NMOCD

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
DEC 12 2017

RECEIVED

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #397157 verified by the BLM Well Information System  
For MACK ENERGY CORPORATION, sent to the Carlsbad  
Committed to AFMSS for processing by MUSTAFA HAQUE on 12/07/2017 (18MH0010SE)**

Name (Printed/Typed) JERRY W SHERRELL	Title PRODUCTION CLERK
Signature (Electronic Submission)	Date 12/06/2017

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

Approved By <u>MUSTAFA HAQUE</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>12/07/2017</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <u>Carlsbad</u>

Title 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)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

District I  
1625 N. French Dr. Hobbs, NM 58220  
Phone: (505) 393-6161 Fax: (505) 393-6160  
District II  
811 S. First St. Artesia, NM 88210  
Phone: (505) 748-1233 Fax: (505) 748-1234  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6778 Fax: (505) 334-6779  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87508  
Phone: (505) 476-4460 Fax: (505) 476-4462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office  
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-44499	<sup>2</sup> Pool Code 14860	<sup>3</sup> Pool Name Crow Flats; San Andres
<sup>4</sup> Property Code 319788	<sup>5</sup> Property Name RUDOLPH FEDERAL	
<sup>7</sup> OGRID No. 13837	<sup>6</sup> Operator Name MACK ENERGY CORPORATION	
		<sup>8</sup> Well Number 2H
		<sup>9</sup> Elevation 3605.6

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	16 S	28 E		940	SOUTH	330	WEST	EDDY

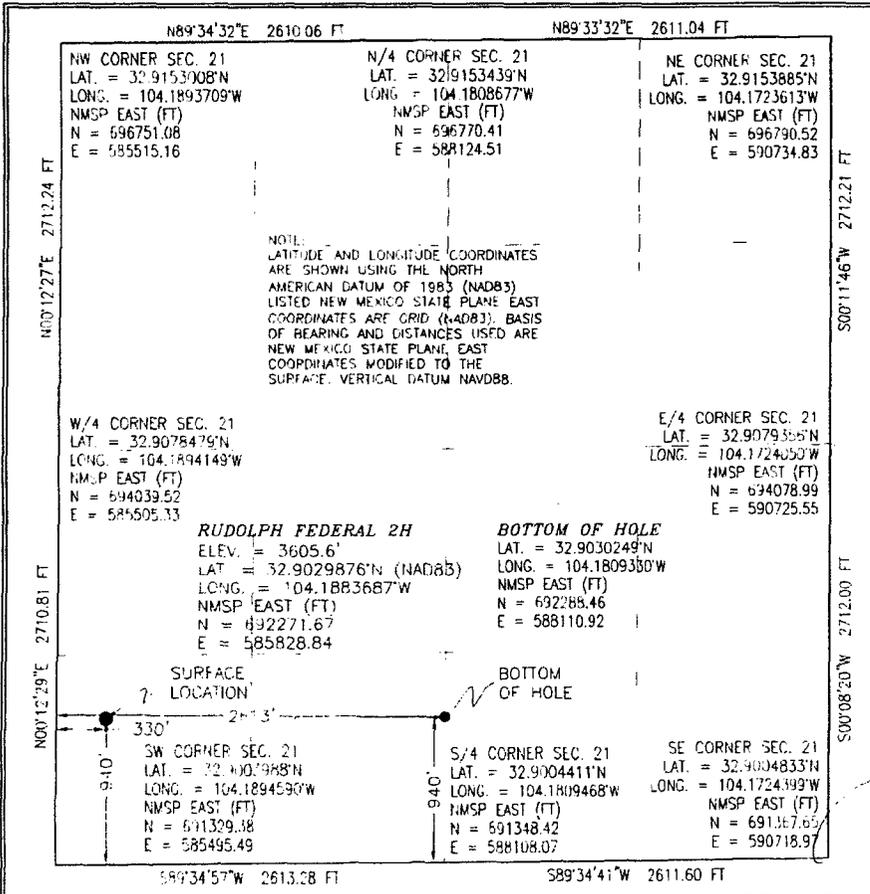
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	21	16 S	28 E		940	SOUTH	2613	WEST	EDDY

<sup>12</sup> Dedicated Acres 80	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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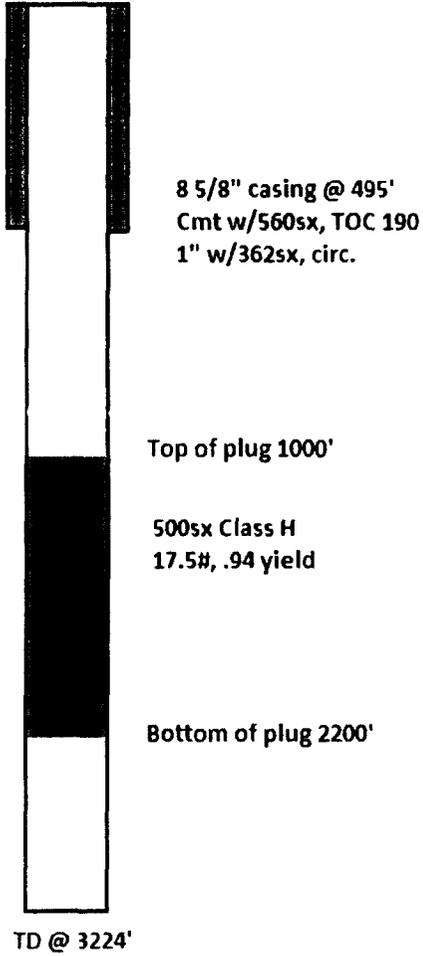
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><b><sup>16</sup> OPERATOR CERTIFICATION</b></p> <p>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 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.</p> <p><u>Jerry W. Sherrell</u> 12/6/2017 Signature Date</p> <p>Jerry W. Sherrell Printed Name</p> <p>jerryse@mecc.com E-mail Address</p>		<p><b><sup>17</sup> SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DECEMBER 6, 2017 Date of Survey</p> <p><u>[Signature]</u> Signature and Seal of Professional Surveyor</p> <p>Certificate Number: FELIMON F. JARAMILLO, PLS 12797 SURVEY NO. 51887</p>	
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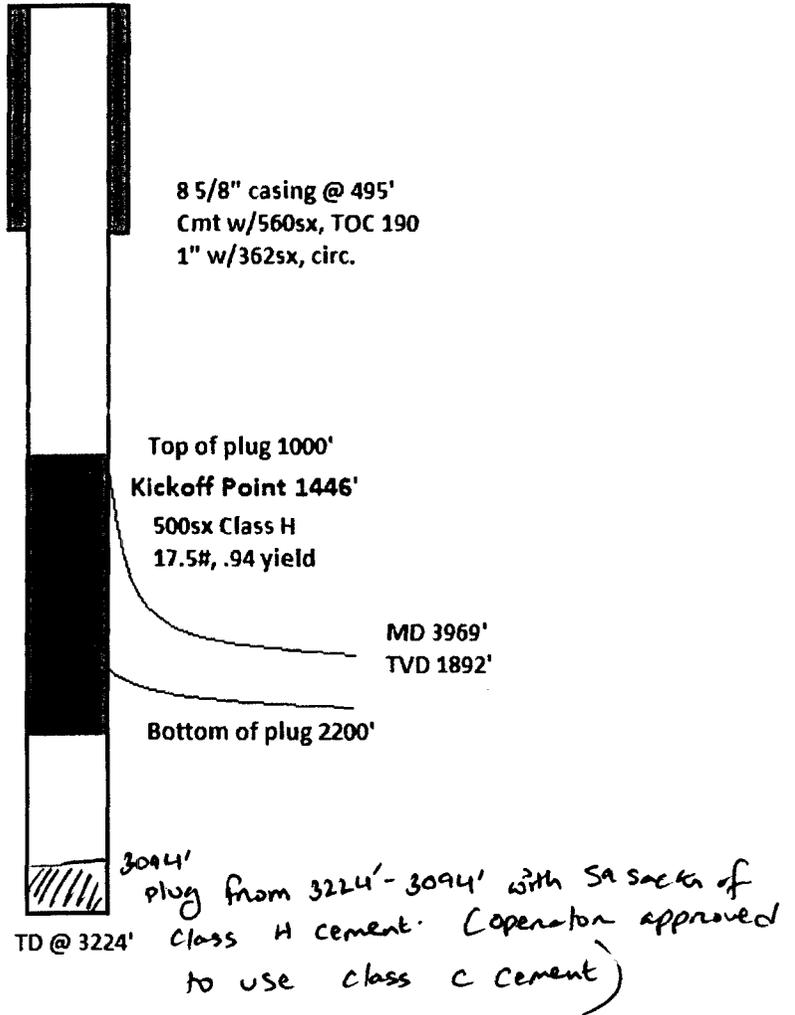


Mack Energy Corporation  
Rudolph Federal 2H 30-015-44499

Before



After



# **Mack Energy**

**Eddy County, NM  
Sec 21 T16S R 28E  
Rudolf Fed #2**

**Lateral**

**Plan: Plan #1**

## **Standard Planning Report**

**06 December, 2017**

Planning Report

<b>Database:</b>	EDM 5000.1	<b>Local Co-ordinate Reference:</b>	Site Sec 21 T16S R 28E
<b>Company:</b>	Mack Energy	<b>TVD Reference:</b>	KB=17.5 @ 3623.1usft
<b>Project:</b>	Eddy County, NM	<b>MD Reference:</b>	KB=17.5 @ 3623.1usft
<b>Site:</b>	Sec 21 T16S R 28E	<b>North Reference:</b>	Grid
<b>Well:</b>	Rudolf Fed #2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral		
<b>Design:</b>	Plan #1		

<b>Project</b>	Eddy County, NM		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Sec 21 T16S R 28E				
<b>Site Position:</b>		<b>Northing:</b>	692,271.67 usft	<b>Latitude:</b>	32° 54' 10.755 N
<b>From:</b>	Map	<b>Easting:</b>	585,828.84 usft	<b>Longitude:</b>	104° 11' 18.127 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.08 °

<b>Well</b>	Rudolf Fed #2					
<b>Well Position</b>	+N/-S	0.0 usft	<b>Northing:</b>	692,271.67 usft	<b>Latitude:</b>	32° 54' 10.755 N
	+E/-W	0.0 usft	<b>Easting:</b>	585,828.84 usft	<b>Longitude:</b>	104° 11' 18.127 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft	<b>Ground Level:</b>	3,605.6 usft

<b>Wellbore</b>	Lateral				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	HDGM	12/6/2017	(°)	(°)	(nT)
			7.40	60.58	48,194

**Design** Plan #1

<b>Audit Notes:</b>	
<b>Version:</b>	Phase: PLAN Tie On Depth: 1,446.8
<b>Vertical Section:</b>	Depth From (TVD) +N/-S +E/-W Direction
	(usft) (usft) (usft) (°)
	0.0 0.0 0.0 89.58

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
1,446.8	0.86	213.09	1,446.7	-2.9	-2.5	0.00	0.00	0.00	0.00	
2,075.6	87.55	89.38	1,859.0	-3.6	389.3	14.00	13.79	-19.68	-123.74	
2,686.9	87.55	89.38	1,885.1	3.1	1,000.0	0.00	0.00	0.00	0.00	
2,798.4	89.78	89.38	1,887.7	4.3	1,111.4	2.00	2.00	0.00	0.00	
3,687.0	89.78	89.38	1,891.1	13.9	2,000.0	0.00	0.00	0.00	0.00	
3,689.0	89.82	89.41	1,891.1	13.9	2,002.0	2.39	1.93	1.42	36.30	
3,969.1	89.82	89.41	1,892.0	16.8	2,282.1	0.00	0.00	0.00	0.00	Rudolf Fed #2 Lateral

Planning Report

Database: EDM 5000.1  
 Company: Mack Energy  
 Project: Eddy County, NM  
 Site: Sec 21 T16S R 28E  
 Well: Rudolf Fed #2  
 Wellbore: Lateral  
 Design: Plan #1

Local Co-ordinate Reference: Site Sec 21 T16S R 28E  
 TVD Reference: KB=17.5 @ 3623.1usft  
 MD Reference: KB=17.5 @ 3623.1usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,446.8	0.86	213.09	1,446.7	-2.9	-2.5	-2.5	0.00	0.00	0.00	
Tie-On Point BLD 14°/100'										
2,075.6	87.55	89.38	1,859.0	-3.6	389.3	389.3	14.00	13.79	-19.68	
EOB HLD 87.55° Inc.										
2,686.9	87.55	89.38	1,885.1	3.1	1,000.0	1,000.0	0.00	0.00	0.00	
BLD 2°/100'										
2,798.4	89.78	89.38	1,887.7	4.3	1,111.4	1,111.4	2.00	2.00	0.00	
EOB HLD 89.78° Inc.										
3,687.0	89.78	89.38	1,891.1	13.9	2,000.0	2,000.0	0.00	0.00	0.00	
BLD 2.39°/100'										
3,689.0	89.82	89.41	1,891.1	13.9	2,002.0	2,002.0	2.39	1.93	1.42	
EOB HLD 89.82° Inc.										
3,969.1	89.82	89.41	1,892.0	16.8	2,282.1	2,282.1	0.00	0.00	0.00	
TD at 3969.1										

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rudolf Fed #2 Lateral - plan hits target center - Point	0.00	0.00	1,892.0	16.8	2,282.1	692,288.46	588,110.92	32° 54' 10.890 N	104° 10' 51.359 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
1,446.8	1,446.7	-2.9	-2.5	Tie-On Point BLD 14°/100'
2,075.6	1,859.0	-3.6	389.3	EOB HLD 87.55° Inc.
2,686.9	1,885.1	3.1	1,000.0	BLD 2°/100'
2,798.4	1,887.7	4.3	1,111.4	EOB HLD 89.78° Inc.
3,687.0	1,891.1	13.9	2,000.0	BLD 2.39°/100'
3,689.0	1,891.1	13.9	2,002.0	EOB HLD 89.82° Inc.
3,969.1	1,892.0	16.8	2,282.1	TD at 3969.1

