



Perforations
60' circulate
to surface

COMPANY Mack Energy Corporation
LEASE & WELL NO. Brainard Tract 3 #5
FORMATION _____
COUNTY & STATE Eddy, NM



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8 5/8 331' c/w 25 sxs.

T. salt 354'

Perforations 404' sq. w/60 sxs.

B. salt 955'

Perforations 1005 sq. w/50 sxs.

5 1/2 2111' c/w 25 sxs.

P.B.t.d. 2126'

T.D. 2443'

CONVERSION FACTORS

MULTIPLY	By	TO OBTAIN
Barrels	5.6146	Cubic Feet
Cubic Feet	7.4806	Gallons
Gallons	0.1337	Cubic Feet
Pounds/gal.	7.4806	Pounds/Cu. Ft.

PIPE VOLUMES

0.00545 x I.D. in inches = Cu. Ft./Ft.
0.0407 x I.D. in inches = Gals./Ft.
0.00097 x I.D. in inches = Bbls./Ft.

HYDROSTATIC PRESSURE

FOR WATER:
0.434 x Depth in Feet = PSI.
FOR OTHER FLUIDS:
0.434 x Depth x Sp. Gr. = PSI.

BUREAU OF LAND MANAGEMENT
CARLSBAD RESOURCE AREA

Permanent Abandonment of Wells on Federal Lands

Conditions of Approval

1. Approval: Plugging operations shall commence within 90 days from the approval date of plugging procedure.
2. Notification: Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Eddy County call (505)887-6544 ; for wells in Lea County call (505) 393-3612.
3. Blowout Preventers: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet ; and a 5M system for a well not deeper than 22,727 feet.
4. Mud Requirement: Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of water. Minimum nine (9) pounds per gallon.
5. Cement Requirement: Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either class "C" , for up to 7,500 feet of depth, mixed at 14.8 lbs./gal. with 6.3 gallons of fresh water per sack or class "H" , for deeper than 7,500 feet plugs, mixed at 16.4 lbs./gal. with 4.3 gallons of fresh water per sack.

6. Dry Hole Marker: 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 capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).

7. Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file one original and five copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date well was plugged.

Following the submittal and approval of the Subsequent Report of Abandonment, surface restoration conditions of approval will be developed and furnished to you.