Form C-1 State of New Mexico Revised February 10 PO Box 1980, Hobbs, NM 88241-1980 Energy, Minerals & Natural Resourses Department Instructions de District II 811 S. 1st Street Artesia, NM 88210-1404 OIL CONSERVATION DIVISION Submit to Appropriate District Q State Lease - 6 Co PO Box 2088 District III 1000 Rio Brazos Rd, Aztec, NM 87410 Santa Fe, NM 87504-2088 Fee Lease - 5 Cop Fee Lease - 5 Copies Amended Report Deep BL Selugback, OR ADD A ZONE District IV PO Box 2088, Santa Fe, NM 87504-2088 APPLICATION FOR PERMIT TO DRILL, RE-ENTER OGRID Number Operator Name and Address Mack Energy Corporation 013837 P.O. Box 960 API Number Artesia, NM 88211-0960 30**-**015-**3** Well No. Property Name Property Code 2 White Oak State 021114 Surface Location Feet from the North/South line UL or lot no. Section Township Range Lot Idn Feet from the East/West line County Eddy 330 South 1650 East 17S 28E O 23 Proposed Bottom Hole Location If Different From Surface Lot Idn Feet from the North/South line Feet from the East/West line County Township UL or lot No. Section Proposed Pool 1 Proposed Pool 2 halee! Queen Grayburg SA Work Type Code Lease Type Code Ground Level Elevation Well Type Code Cable/Rotary 3679 O R N Spud Date Contractor Multiple Proposed Depth Formation 9/22/00 LaRue No 3300 San Andreas Proposed Casing and Cement Program Estimated TOC Casing weight/foot Setting Depth Sacks of Cement Hole Size Casing Size 350 Circ 12 1/4 8 5/8 24 Surface 15 Sufficient to Circ 4 1/2 3300 7 7/8 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary Mack Energy Corporation proposes to drill to 2501 run 8 5/8" casing and cement. Drill to 3300', run 4 1/2" casing and cement.

Put well on production Put well on production. Note: On Production string, a fluid caliber will be run, will figure cement, with 25% excess, attempt to circulate. I hereby certify that the information given above is true and complete to the best OIL CONSERVATION DIVISION of my knowledge and belief ORIGINAL SIGNED BY TIM W. GUM Signature Approval by: BOX MIRTER THE SUPERVIOUR Printed name: Crissa D. Carter

Approval Date:

Attached

Conditions of Approval:

1920**0**0

Title

Date

9/18/00

Production Analyst

(505)748-1288

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DISTRICT I P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994 Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-07:9

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV P.O. BOX 2088, SANTA FE, N.M. 87504-2088

API Number

Property Code

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

□ AMENDED REPORT

Well Number

WELL LOCATION AND ACREAGE DEDICATION PLAT

Property Name

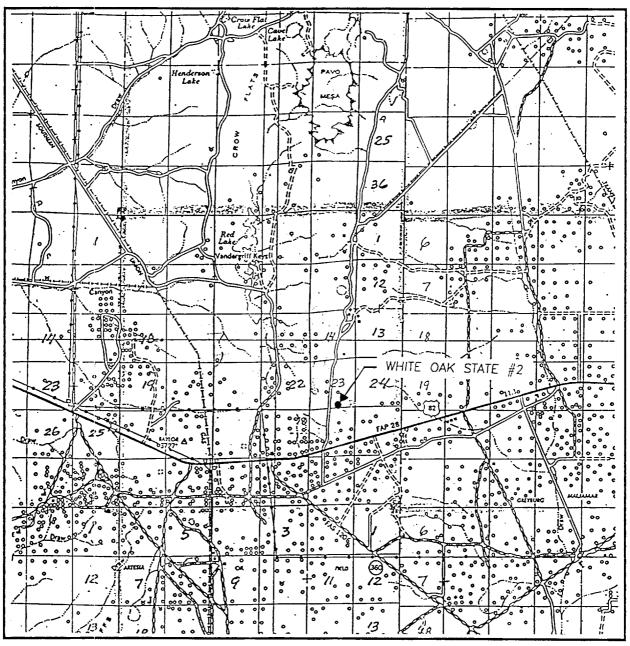
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Pool Name Queen Grayburg SA

Pool Code

OCRED No. O13837 MACK ENERGY CORPORATION Surface Location UL or lot No. Section Township Range Let idn Feet from the North/Sauth line Feet from the East/West line County Dottom Hole Location I Different From Surface UL or lot No. Section Township Range Let idn Feet from the North/Sauth line Feet from the East/West line County Dottom Hole Location I Different From Surface UL or lot No. Section Township Range Let idn Feet from the North/Sauth line Feet from the East/West line County A0 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 OPERATOR CERTIFICATION Jersby certify the two surfaces in the said conspicts to the last of may monoiside and tailor. SURVEYOR CERTIFICATION Jersby certify the two surfaces in the said president and complete to the last of may monoiside and tailor. SURVEYOR CERTIFICATION Jersby certify that the said included contained the like same (a stress on the place tail president preside	021114	WHITE OAK STATE							Well Number	
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I hereby certify that the well location shown on this plat was plotted from field notes of sectual surveys made by me or under my supervison and that the same is true and correct to the best of my beliaf. SEPTEMBER 12, 2000 Date Surveyed. Signature & Seal of Professional Surveyor Amala Caulan 9/14/00 OO-11-1073 Certificate No. RONALD J. EIDSON 3239	NO ALLO	WABLE V	OR A	SSIGNED NON-STAN	TO THIS UDARD U	COMPLETION ON THE PROPERTY OF	JNTIL ALL INTER APPROVED BY	OPERATO I hereb contained herei best of my know Signature Crissa I Printed Nam Product: Title	OR CERTIFICAT The certify the the in, In is true and completely. One Carter The contract of the contract of the certification and the certification an	TION formation
GARY EIDSON 1264						.00	1650'	I hereby certify on this plat we actual surveys supervison an correct to the SEPTE Date Surveys Signature & Professional	that the well location platted from field made by me are of that the same is a best of my belief MBER 12, 200 d. Seal of Surveyor	on shown inches of under my true and .

VICINITY MAT



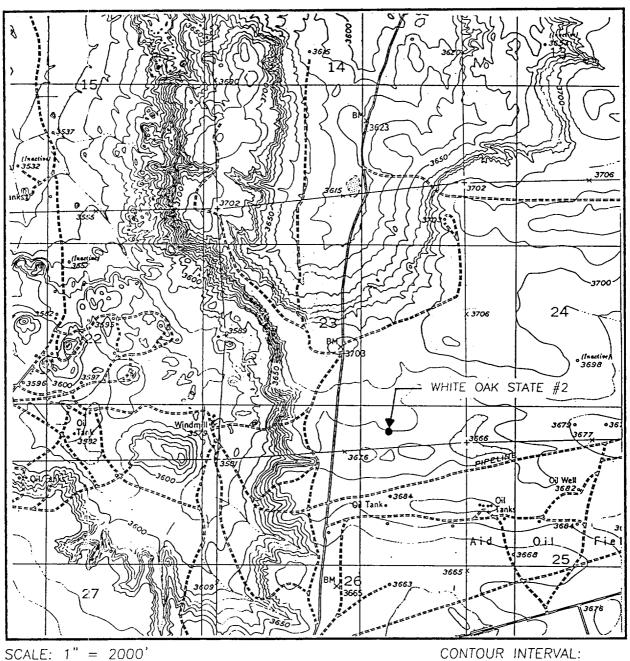
SCALE: 1" = 2 MILES

SEC. 23 T	WP. <u>17-S</u> RGE. <u>28-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION	330' FSL & 1650' FEL
ELEVATION	3679
OPERATOR <u>M</u>	ACK ENERGY CORPORATION
LEASE	WHITE OAK STATE

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505 393-3117



LOCATION VERIFICATION MAP



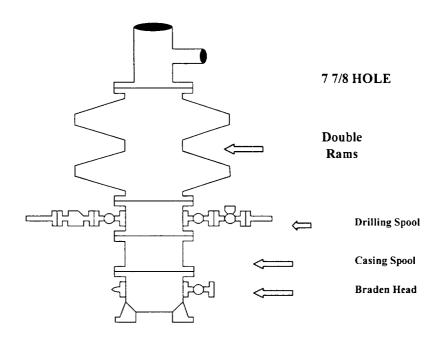
CONTOUR INTERVAL: RED LAKE - 10'

SEC. 23 TWP. 17-5 RGE. 28-E
SURVEYN.M.P.M.
COUNTYEDDY
DESCRIPTION 330' FSL & 1650' FEL
ELEVATION 3679
OPERATOR MACK ENERGY CORPORATIO
LEASE WHITE OAK STATE
U.S.G.S. TOPOGRAPHIC MAP RED LAKE, N.M.

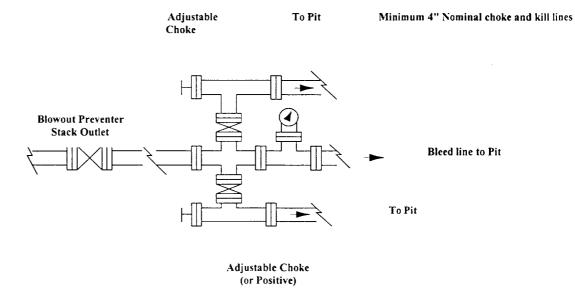
JOHN WEST SURVEYING HOBBS, NEW MEXICO (505 393-3117

Mack Energy Corporation

Exhibit #1 BOPE Schematic



Choke Manifold Requirement (2000 psi WP) No Annular Required



Blowout Preventers Page 1

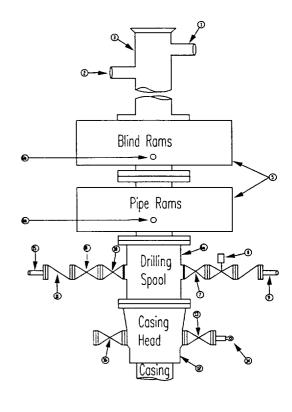
Mack Energy Corporation

Minimum Blowout Preventer Requirements

2000 psi Working Pressure 2 MWP EXHIBIT #2

Stack Requirements

	Stack Nequilemen	14 63	
NO.	Items	Min.	Min.
		I.D.	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.
- 4. 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.
- 7. Plug type blowout preventer tester.
- 8. 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:

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

GENERAL NOTES:

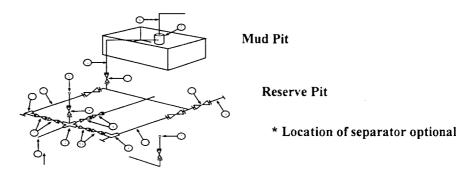
- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure 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.
- 11. Do not use kill line for routine fill up operations.

Blowout Preventers Page 2

Mack Energy Corporation

Exhibit #3
MIMIMUM CHOKE MANIFOLD
3,000, 5,000, and 10,000 PSI Working Pressure
2 M will be used or greater
3 MWP - 5 MWP - 10 MWP



Below Substructure

Mimimum requirements

	3,000 MWP					,000 MWP		1	10,000 MWP		
No.		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	<u> </u>	3"	10,000	
10	Line		2"	3,000	·	2"	5,000	1	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	Ì	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' x5'			2' x5'			2' x5'		
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.
- Line from drilling spool to choke manifold should bee as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees.

Blowout Preventers Page 3