If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction



Form approved.

	Expires:	December 31, 19	91
7	EACE DECICE	VATION AND CEDIAL	NO

OCD - ARTESIA			, , , , , , , , , , , , , , , , , , ,		5. LEASE DESIGNATION	
e e e e e e e e e e e e e e e e e e e	- /				NMNM-10	0529
OLGO APPL	ICATION FOR P	ERMIT TO DR	ILL OR DEE	PEN	6. IF INDIAN, ALLOTTEE	OR TRIBE NAME
In. THE OF WORK				· 		<u> </u>
DR	ILL 🛛		7. UNIT AGREEMENT NA	ME		
b. TYPE OF WELL	Gas OTHER		SINGLE			
OIL S	MULTIPLE ZONE	8. FARM OR LEASE NAME, WEL				
2. NAME OF OPERATOR	- anation				Sabine Federa	l Com #1
Mack Energy Corp	<u> </u>	······································			9. API WELL NO.	3 (7,17)
3. ADDRESS AND TELEPHONE N	0.				30-015-	22.20 1
P.O. Box 960, Arte	esia, NM 88211-0960	(505) 748-	1288	101 OF	10. FIELD AND POOL, OF	
4. LOCATION OF WEL	L (Report location clearly	and in accordance with	any state requirement	23,24 25 262	Wildiai	
At surface	(660 FSL & 1980 F	WL 22	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	11. SEC., T., R., M., OR B AND SURVEY OR AR	LK. EA
At proposed prod. zo		660 FNL & 1980 F	YY L / 178	030 030	Sec 15 T18S	R23E
14. DISTANCE IN MILES A	COUNTY OR PARISH	13. STATE				
	6 miles sou	theast of Hope, N	$\mathbf{M} \setminus \mathbf{S} \mathbf{Y}$	Svisoes Standard	Eddy	NM
15. DISTANCE FROM PROP LOCATION TO NEARES PROPERTY OR LEASE (Also to nearest dr	ST	660	6. NO. OF ACRES IN LEAS	TOTA	/	20
18. DISTANCE FROM PROF TO NEAREST WELL, D OR APPLIED FOR, ON T	RILLING, COMPLETED	N/A	P. PROPOSED DECTAL	11016813	RY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show	whether DF, RT, GR, etc.)				22. APPROX. DATE WORK	WILL START*
	3897' GR	ROSWELL CO	INTROLLED WA	TED BARIN	8/30/20	06
23.		PROPOSED CASING				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DE	РТН	QUANTITY OF CEMEN	т
17 1/2	H-40,13 3/8	48	450		Circ	
12 1/4	Suff to Circ					
7 7/8	J-55, 5 1/2	17	8200		Suff to Circ	
	rgy proposes to drill to /2" casing and cement			• •		-
with federal regula	tion. Specific progran	is as per Onshore	Oil and Gas Orde	r #1 are outlined	d in the following att	achments:

- 1. Surveys
 - Exhibit #1- Well Location Plat
 - Exhibit #2- Vicinity Map
 - **Exhibit #3- Location Verification Map**
- 2. Drilling Program
- 3. Surface Use & Operating Plan Exhibit #4- One Mile Radius Map
 - **Exhibit #5- Production Facilities Layout**
 - **Exhibit #6- Location Layout**

- 4. Certification
- 5. Hydrogen Sulfide Drilling Operation Plan
 - Exhibit #7- H2S Warning Sign Exhibit #8- H2S Safety Equipment
- 6. Blowout Preventers
 - Exhibit #9- BOPE Schematic
 - Exhibit #10- Blowout Preventer Requi
 - Exhibit #11- Choke Manifold

7. Responsibility Statement

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL FOR 1 YEAR

				to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or ed and true vertical depths. Give blowout preventer program, if any.
24.	. 1	7	M	

signed Jerry W. Sherrell TITLE_	Production Clerk	DATE	8/1/2006
Z (
(This space for Federal or State office use)			

PROVAL SUBJECT TO Application approval does not warrant or CONDITIONS OF APPROVAL GENERAL "REQUIREMENTS erations thereon. CONDITIONS OF APPROVAL, IF ANY: AND SPECIAL STIPULATIONS

ATTACHED

*See Instructions On Reverse Side

DISTRICT I RNCE DR., HOBBS, NM 88240 ROPETT II DESCRIPTION OF THE PROPERTY OF THE PROPERTY

State of New Mexico

Energy, Minerals and Natural Resources Departmen

OIL CONSERVATION DIV**OS** 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico \$7505 Form C-102 Revised October 12, 2005 Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION TO LAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Na	me
	97488	Wilder SWOT	LFCAMP
Property Code	P	roperty Name	Well Number
	SABINE	1	
OGRID No.		perator Name	Elevation
013837	MACK ENEI	RGY CORPORATION	3897'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Ν	15	18-S	23-E		660	SOUTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

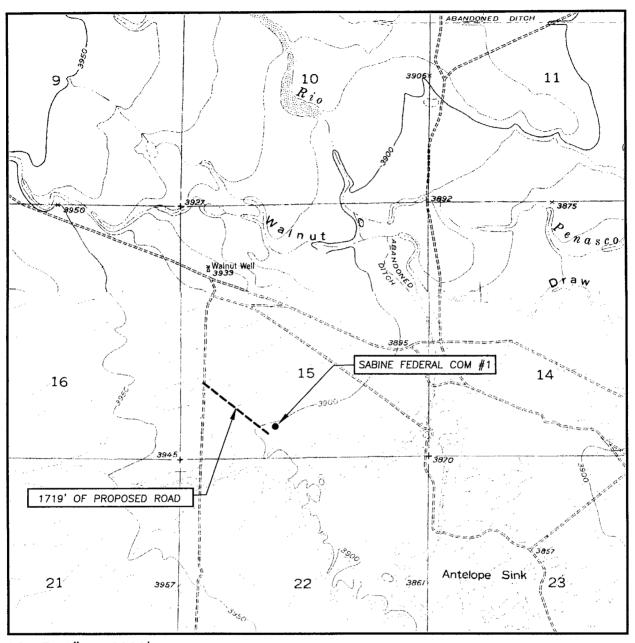
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	15	18-S	23-E		660	NORTH	1980	WEST	EDDY
Dedicated Acre	Joint o	r Infill Co	nsolidation (Code Or	der No.			1	
320									

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

PROJECT AREA BH 1980' PRODUCING AREA	BOTTOM HOLE Y=637907.9 N X=393252.2 E	OPERATOR CERTIFICATION I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
GRID AZ = 00'25'21" DIST = 3964.9'		Jerry W. Sherrell Printed Name SURVEYOR CERTIFICATION 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 corrected the best of my belief.
3904.2' 3899.2'	GEODETIC COORDINATES NAD 27 NME Y=633944.3 N X=393223.0 E LAT.=32.742326 N LONG.=104.680607 W	Date Surveyed Signature & Seal of Professional Surveyor Awy Automatical Surveyor O6.11.1090 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239

SECTION 15, TOWNSHIP 18 SO	OUTH, RANGE 23 EAST,	N.M.P.M., EW MEXICO
3904.2'60	00'	3899.2'
150' I OFF 389	'SET 8.5'	MONTH CONTRACTOR
06 OFFSET □ 3898.4' ELEV. LAT.=32.7	ERAL COM #1 150' EAST OFFSET 3897.3' 3896.7' 742326° N .680607° W	,009,
150' . OFF] SOUTH ISET 16.8'	
3899.4'	00'	3894.4'
DIRECTIONS TO LOCATION		
FROM THE INTERSECTION OF ARMSTRONG RD. AND CO. RD. #10 (BRAID RD.), GO SOUTHEAST ON CO. RD. #10 APPROX. 3.2 MILES. TURN RIGHT AND GO SOUTH AND SOUTHEAST APPROX. 1.5 MILES. TURN	100 0 100 	200 Feet
RIGHT AND GO SOUTH APPROX. 0.4 MILES TO A PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY SOUTHEAST APPROX. 1719 FEET. THIS LOCATION IS APPROX. 212 FEET NORTHEAST.	MACK ENERGY CORI	
PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY	AND 1980 FEET FROM THE WEST LINE OF TOWNSHIP 18 SOUTH, RANGE 23 EAST, EDDY COUNTY, NEW MEXICO.	SECTION 15, N.M.P.M.,
412 N. DAL PASO HOBBS, N.M. 88240	Survey Date: 06/28/06 Sheet 1 W.O. Number: 06.11.1090 Dr By: M.R.	of 1 Sheets Rev 1:N/A
HOBBS, N.M. 86240 (505) 393-3117	W.U. Number: 06.11.1090 Dr By: M.R.	
	, Dian. OD OO 1 1 1000	

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 15 TWP. 18-S RGE. 23-E

SURVEY_____N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 1980' FWL

ELEVATION ______3897'

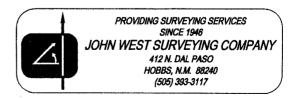
MACK ENERGY CORPORATION

LEASE SABINE FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP

ANTELOPE SINK, N.M.

CONTOUR INTERVAL: ANTELOPE SINK, N.M. – 10' HOPE, N.M. – 10'





DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

San Andres	375'
Glorietta	1700'
Tubb	3000'
Abo Shale	3645'
Wolfcamp	4710'

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas:

Water Sand	750'	Fresh Water
Abo Carbonate	3825'	Oil/Gas
Wolfcamp	4710'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Set 13 3/8" casing to 450' and circulating cement back to surface. Set 9 5/8" casing to 1400' and circulating cement back to surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 1/2" production casing, which will be run at TD.

4. Casing Program:

Hole Siz	e Interval	OD Casing	Weight, Grade, Jt, Cond., Type
17 ½"	0-450'	13 3/8"	48#, H-40, ST&C, New, R-3
12 ¼" 7 7/8"	0-1400' 0-TD	9 5/8" 5 1/2"	36#, J-55, ST&C, New, R-3 17#, J-55, LT&C, New, R-3
			, , , , ,

5. Cement Program:

13 3/8" Surface Casing: Circulate to Surface with Class C w/2% CaCl2.

9 5/8 Intermiate Casing: Circulate to Surface with Class C W/2% CaCl2.

5 1/2" Production Casing: Cement Casing with Class C w/6# Salt & 2/10 of 1% CFR-3 per sack. We will run a hole caliper and run sufficient cement to circulate to surface.

6. Minimum Specifications for Pressure Control:

Drilling Program Page 1

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on bottom. If ran the BOP will be nippled up on the 13 3/8" surface casing and tested to 1500 psi by a 3rd party. The BOP will then be nippled up on the 9 5/8" intermediate casing and tested by a 3rd party to 2000 psi and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #10) will include a Kelly cock and floor safety valve and choke lines and choke manifold (Exhibit #11) with 2000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-1400'	Fresh Water	8.5	28	N.C.
1400'-TD	Cut Brine	9.1	29	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

8. Auxiliary Well Control and Monitoring Equipment:

- A. Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program:

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be ran from T.D. to 9 5/8 casing shoe.
- B. Drill Stem test is not anticipated.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows and log evaluation.

Drilling Program Page 2

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and estimated maximum bottom hole pressure is 2300 psig. Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H2S may be present while drilling of the well a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is August 30, 2006. Once commenced, the drilling operation should be finished in approximately 60 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in Exhibit below. The existing lease roads are illustrated in Blue and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling well will be done where necessary.
- C. Directions to Location: From the intersection of Armstrong Rd. and CR #10 go southeast on CR #10 3.2 miles, turn right/S-SE 1.5 miles, turn right/south .4 mile to a road survey, follow survey southeast 1719' to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

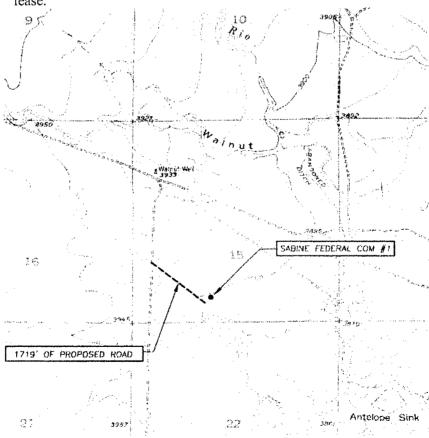


Exhibit #4

2. Proposed Access Road:

Exhibit #3 shows the 1719' of new access road to be constructed. The road will be constructed as follows:

- A. The Maximum width of the running surface will be 14'. The road will be crowned and ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit or reserve pit area.
- F. The proposed access road as shown in Exhibit #3 has been centerline flagged by John West Engineering, Hobbs, New Mexico.

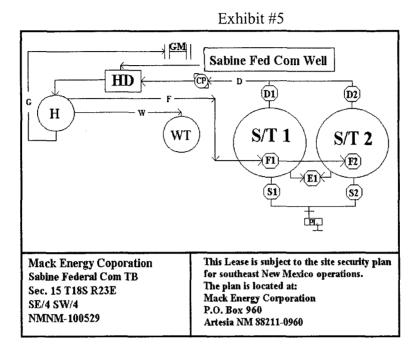
3. Location of Existing Wells & Proposed flow lines for New Wells:

Exhibit #4 shows all existing wells within a one-mile radius of this well. Proposed flow lines, will stay on location a Tank Battery will be constructed on this location.

4. Location of Existing and/or Proposed Facilities:

- A. Mack Energy Corporation does not operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) Wolfcamp Completion: Will be sent to the Sabine Federal Com TB. The Facility is shown in Exhibit #5.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.

4) It will be necessary to run electric power if this well is productive. Power will be run by CVE and they will send in a separate plan for power.



A. If the well is productive, rehabilitation plans are as follows:

- 1) The reserve pit will be back filled after the contents of the pit are dry (within 120 days after the well is completed).
- Topsoil removed from the drill site will be used to recontour the pit area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #4. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit or the reserve pit.

7. Methods of Handling Water Disposal:

- A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
- B. Drilling fluids will be contained in a lined working pit. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit, approximately 125' X 125' X 10' deep with a dividing wall dividing it into two horseshoe style pits and fenced on three sides prior to drilling. It will be fenced on the fourth side immediately following rig removal. The reserve pit will be lined 125' X 125' X 10'. The reserve pit will be lined (12-mil thickness) to minimize loss of drilling fluids and saturation of the ground with brine water.
- C. Water produced from the well during completion may be disposed into the reserve pit or a steel tank (depending on the rates). After the well is permanently placed on production, produced water will be collected in tanks (fiberglass) until pumped to an approved disposal system; produced oil will be collected in steel tanks until sold.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to breakout and backfill and reseeded as per BLM specifications as weather permits. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #6. Dimensions of the pad and pits are shown. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Diagram below shows the proposed orientation of reserve pit, working pit and access road. There is a possibility that the pits will be moved around depending on Caliche in the area. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.
- C. The reserve pit will be lined with high quality plastic sheeting (12 mil thickness).

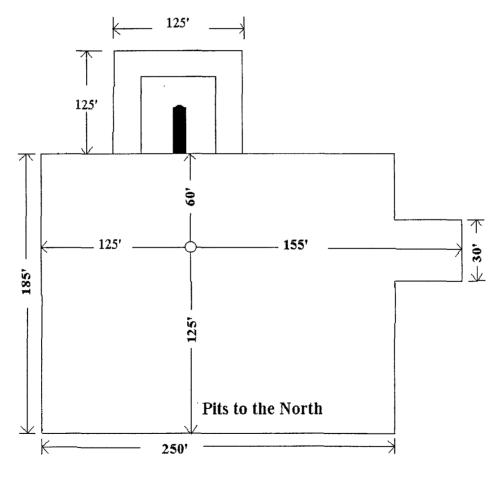


Exhibit #6

10. Plans for Restoration of the Surface:

- A. Upon completion of the proposed operations, the pit area, after allowing drying, will be broken out and leveled. The original topsoil will be returned to the pit area, which will be leveled and contoured to as nearly the original topography as possible.
- B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time that the rig is removed, the reserve pit will be fenced on the rig (fourth) side to prevent livestock from being entrapped. The fencing will remain in place until the pit area is cleaned up and leveled. No oil will be left on the surface of the fluid in the pit.
- D. Upon completion of proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area to its original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The well site is located on Fee surface. We have notified the surface owner JJ Steele Trust, C/O Albert Bach 1603 Washington Artesia, NM 88210 of the impending operations. A surface damage agreement has been negotiated.

12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass with sagebrush.
- B. There is no permanent or live water in the immediate area.
- C. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

13. Lessee's and Operator's Representative:

The Mack Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell Mack Energy Corporation P.O. Box 960 Artesia, NM 88211-0960 Phone (505) 748-1288 (office)

CERTIFICATION

I hereby certify that I, or person under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mack Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 8-1-2006 Signed: Jerry W. Sherrell

Page 10 Surface Use Plan

Mack Energy Corporation

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards an characteristics of hydrogen sulfide (H2S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

H2S Plan Page 11

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

H2S Plan Page 12

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

EXHIBIT #7

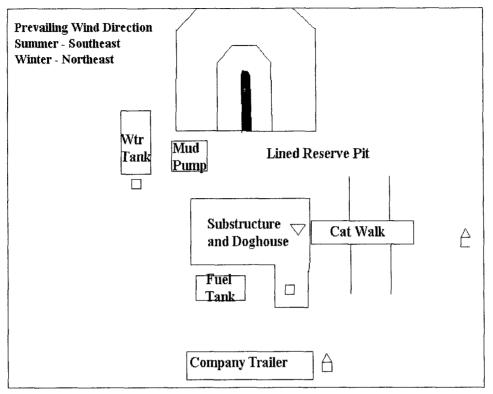
WARNING YOU ARE ENTERING AN H2S AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CHECK WITH MACK ENERGY FOREMAN AT OFFICE

MACK ENERGY CORPORATION 1-505-748-1288

H2S Plan Page 13

DRILLING LOCATION H2S SAFTY EQUIPMENT Exhibit # 8



- ☐ Wind Direction Indicators
- Safe Briefing areas with caution signs and breathing equipment min 150 feet from

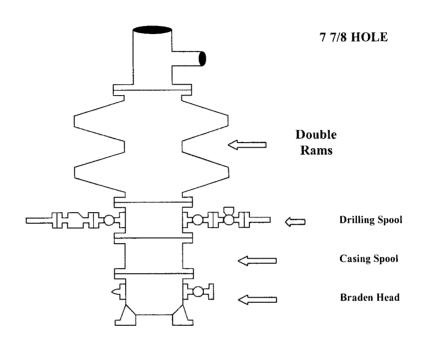
Attachment to Exhibit #9 NOTES REGARDING THE BLOWOUT PREVENTERS Sabine Federal Com #1 Eddy County, New Mexico

- 1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
- 2. Wear ring to be properly installed in head.
- 3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
- 4. All fittings to be flanged.
- 5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
- 6. All choke and fill lines to be securely anchored especially ends of choke lines.
- 7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 8. Kelly cock on Kelly.
- 9. Extension wrenches and hands wheels to be properly installed.
- 10. Blow out preventer control to be located as close to driller's position as feasible.
- 11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

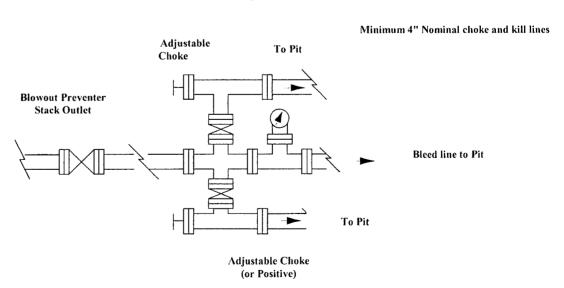
Blowout Preventers Page 15

Mack Energy Corporation

Exhibit #9 BOPE Schematic



Choke Manifold Requirement (2000 psi WP) No Annular Required



Mack Energy Corporation Minimum Blowout Preventer Requirements

2000 psi Working Pressure 2 MWP EXHIBIT #10

Stack Requirements

	Stack Requirement	1112	
NO.	Items	Min.	Min.
		i.D.	Nominal
ı	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"

OPTIC	NAL
-------	------------

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.
- 6. Kelly saver-sub equipped with rubber casing protector at all times.
- 7. Plug type blowout preventer tester.
- 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
- 4. Chokes will be positioned so as not to hamper or delay changing of choke beans.

 Replaceable parts for adjustable choke, or bean

Drilling Spool
Casing Head
Casing Spool

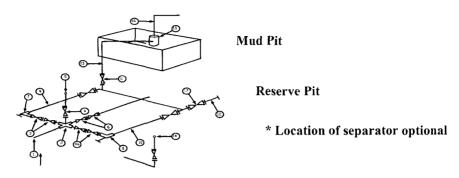
Blind Rams

Pipe Rams

- 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.
- 7. Handwheels and extensions to be connected and ready for
- 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.

Mack Energy Corporation

Exhibit #11
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

Minimum requirements										
		3,000 MWP 5,000 MWP				0,000 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	["		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		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		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.
- 6. 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.

Rinwort Proventers Page 18

United State Department of the Interior

BUREAU OF LAND MANAGEMENT Roswell Resource Area P.O. Drawer 1857 Roswell, New Mexico 88202-1857

Statement Accepting Responsibility for Operations

Operator name:

Mack Energy Corporation

Street or box

P.O. Box 960

City, State

Artesia, NM

Zip Code,

88211-0960

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.:

NMNM-100529

Sabine Federal Com #1

Legal Description of land:

Sec 15-T18S-R23E

SE/4 SW/4

Formation(s) (if applicable):

Penasco Draw; Wolfcamp

Bond Coverage: (State if individually bonded or another's bond)

Individually Bonded

BLM Bond File No.:

NM-2151

Authorized Signature:

Jerry W. Sherrell

Title:

Production Clerk

Date:

7/31/2006

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Mack Energy Corporation Well Name & #: Sabine Federal Cor						
Surface Location: 660' F S L & 1980' F W L; Sec. 15 , T. 18 S						
Bottom Hole Location: <u>660'</u> F N L & <u>1980'</u> F W L; Sec. <u>15</u> , T. <u>18</u> S., R. <u>23</u> E.						
Leasc #: NMNM-100529 County: Eddy State: New Mexico						
The Special stipulations check marked below are applicable to the above described well and conditioned upon compliance with such stipulations in addition to the General Requirements. General Requirements, a copy of which is available from a Bureau of Land Management offi OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 4	The permittee should be familiar with the ce. EACH PERMITTEE HAS THE RIGHT					
This permit is valid for a period of one year from the date of approval or until lease expiration	n or termination whichever is shorter.					
I. SPECIAL ENVIRONMENT REQUIREMENTS						
() Lesser Prairie Chicken (stips attached) () Flood plain (stips attached) (X) Other Aplomado Falcon S	Stips, and Cave/Karst Stips Attached					
II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING						
(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field (505) 393-3612, at least 3 working days prior to commencing construction.	Office at (505) 234-5972 () Hobbs Office					
(X) Roads and the drill pad for this well must be surfaced with $\underline{}$ inches of compact determined to be a producer.	ted caliche upon completion of well and it is					
() All topsoil and vegetation encountered during the construction of the drill site area will be resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the su in depth. Approximatelycubic yards of topsoil material will be stockpiled for reclamate	bject location is approximatelyinches					
(X) Other. Pits North V-Door East						
III. WELL COMPLETION REQUIREMENTS						
() A Communitization Agreement covering the acreage dedicated to the well must be filed date of the agreement must be prior to any sales.	for approval with the BLM. The effective					
(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contour surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped wi with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcastin area cultipacked after seeding.	red to resemble the original contours of the th a depth indicator (set at depth of ½ inch)					
Side Oats Grama (<i>Bouteloua curtipendula</i>) 5.0 Sar Sand Dropseed (<i>Sporobolus cryptandrus</i>) 1.0 Sar	Mixture 2 (Sandy Sites) and Dropseed (Sporobolus crptandrus) 1.0 and Lovegrass (Eragostis trichodes) 1.0 and Enistlegrass (Setaria magrostachya) 2.0					
Side oats Grama (Bouteloua curtipendula) 5.0 Alk	Mixture 4 (Gypsum Sites) kali Sacaton (Sporobolus airoides) 1.0 ur-Wing Saltbush (Atriplex canescens) 5.0					
(X) OTHER SEE ATTACHED SEED MIXTURE						
Seeding should be done either late in the fall (September 15 - November 15, before freeze up take advantage of available ground moisture.	, or early as possible the following spring to					

() Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.

Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

Mack Energy Corporation Sabine Federal Com #1

Well Name & No.

660FNL, 1980FWL, Section 15, T-18-S, R-23-E

Lease:

NMNM-100529

I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 or (505) 361-2822 (After hours) for wells in Eddy County in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: <u>13-3/8</u> inch <u>9-5/8</u> inch <u>5-1/2</u> inch
- C. BOP tests
- 2. Hydrogen Sulfide (H2S) is possible in the area, but the concentrations have been low. Plan is included with APD if Hydrogen Sulfide is encountered.
- 3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
- 7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The <u>13-3/8</u> inch surface casing shall be set at <u>450 feet (below karst area)</u>, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

Possible lost circulation in the Grayburg and San Andres formations.

- 2. The minimum required fill of cement behind the <u>9-5/8</u> inch intermediate casing is <u>circulate cement to the surface</u>. Bottom portion of the San Andres becomes more dolomitic, which results in an increase in porosity. This casing string should be set below the deepest fresh water at 1275' and not deeper than 1400' as proposed in the APD.
- 3. The minimum required fill of cement behind the $\frac{5-1/2}{2}$ inch production casing is <u>cement shall circulate</u> to surface.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <u>9-5/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be <u>1500</u> psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the <u>9-5/8</u> inch casing shall be <u>2000</u> psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

Engineer (after hours): 505-706-2779