Form 3160-3
(December 1990)

88210

30-015-27475 C/4F

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

RECEIVED JUN 28 1993

5. LEASE DESIGNATION AND SERIAL NO.: LC-054988B

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: Jenkins B Federal #7

2. NAME OF OPERATOR: Mack Energy Corporation

9. API WELL NO.: 30-015-27425

3. ADDRESS AND TELEPHONE NO.: P.O. Box 1359, Artesia, NM 88211-1359

10. FIELD AND POOL, OR WILDCAT: Grayburg Jackson SR QN GB SA

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330 FNL 990 FWL — Ut. D
At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20-T17S-R30E D

BUREAU OF LAND MANAGEMENT RECEIVED APR 16 1993 Carlsbad, New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 1 mile NW of Loco Hills

12. COUNTY OR PARISH: Eddy | 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'

16. NO. OF ACRES IN LEASE: 160'

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 5500'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3642.1' GR

22. APPROX. DATE WORK WILL START*: 5/1/93

23. PROPOSED CASING AND CEMENTING PROGRAM — No Water Basin

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8 K-55	54.5#	250'	Sufficient to circ.
12 1/4"	8 5/8 K-55	24#	1100'	Sufficient to circ.
7 7/8"	5 1/2 J-55	17#	5500'	Sufficient to circ.

Mack Energy proposes to drill to a depth sufficient to test the San Andres formation for oil. If productive, 5 1/2 csg will be cemented. If non-productive, the well will be plugged & abandoned in a manner consistent with federal regulation. Specific programs as per Onshore Oil & Gas Order #1 are outlined in the following attachments:

Drilling Program

Surface Use & Operating Plan
Exhibit #1 & 1A - Blowout Preventor Equip
Exhibit #2 - Location & Elevation Plat
Exhibit #3 - Planned Access Road
Exhibit #4 - One-mile Radius Map
Exhibit #5 - Production Facilities Layout
Exhibit #6 - Location Layout
Exhibit #7 - H2S Drilling Operations Plan

Exp 1-30-96

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Crissa D. Carter TITLE Production Clerk DATE 4/6/93

(This space for Federal or State office use)

PERMIT NO. ______ APPROVAL DATE ______

Application approval 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.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /S/ Ron Dunton TITLE (Acting) AREA MANAGER DATE JUN 17 1993

/S/ RON DUNTON

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED
MAR 05 1993

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
MACK ENERGY CORPORATION	JENKINS "B" FEDERAL	7

Unit Letter	Section	Township	Range	County
D	20	17 SOUTH	30 EAST NMPM	EDDY

Actual Footage Location of Well:
330 feet from the NORTH line and 990 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3642.1'	Grayburg San Andres	Grayburg Jackson SR QN GB SA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

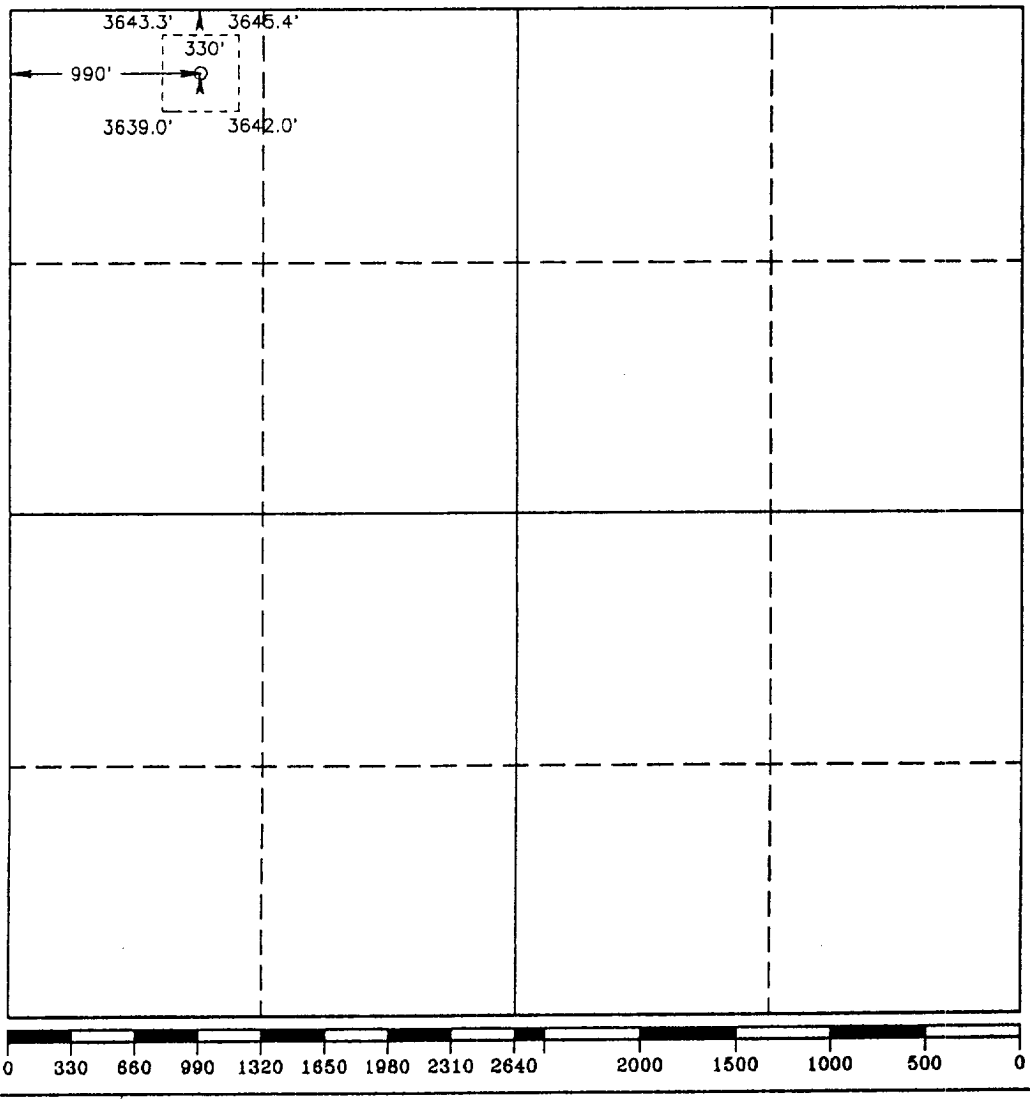
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Crissa D. Carter
Printed Name: Crissa D. Carter
Position: Production Clerk
Company: Mack Energy Corporation
Date: 4/14/93

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: FEBRUARY 26, 1993
Signature & Seal of Professional Surveyor: GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

93-11-0315

DRILLING PROGRAM

Attached to Form 3160-3
Mack Energy Corporation
Jenkin B Federal #7
330'FNL & 990'FWL
NW/4 NW/4, SEC 20 T17S R30E
EDDY CO., N.M.

1. Geologic Name of Surface Formation:

   Quaternary

2. Estimated Tops of Important Geologic Markers:

Quaternary	Surface
Top of Salt	505'
Base of Salt	1025'
Yates	1600'
Queen	2130'
Grayburg	2580'
San Andres	3052'
Glorietta	4325'

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

Water Sand	150'	Fresh Water
Grayburg	2580'	Oil/Gas
San Andres	3052'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sand will be protested by setting 13-3/8" csg to 250' and circulating cement back to surface. Salt will be protected by setting 8-5/8" csg to 1100' 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 csg which will be run at TD.

4. Casing Program:

Hole Size	Interval	OD Csg	Weight,Grade,Jt,Cond.,Type
17-1/2"	0-250	13-3/8	54.5#,K-55,ST&C,NEW,R-3
12-1/4"	0-1100	8-5/8	24#,K-55,ST&C,NEW,R-3
7-7/8"	0-TD	5-1/2"	17#,J-55,ST&C,NEW,R-3

Cement Program:

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

8 5/8" Intermediate Casing: Cement 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 We will run a hole caliper and run sufficiant cement to Circulate to Surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 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. The BOP will be nippled up on the 13-3/8" surface csg and used continuously untill TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before Drilling out of intermediate casing, the ram type BOP and accessory equipment will be tested to 2000 psi. 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 hte BOP equipment will include a kelly cock and floor safety valve and choke lines and choke manifold with 2000 psi WF rating.

6. 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
0-250′	Fresh wtr	8.5	28	N.C
250-1100′	Brine	10	30	N.C
1100-5500′	Brine	10	28	N.C

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

7. Auxiliary Well Control and Monitoring Equipment:

(A) 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.

8. Logging, Testing and Coring Program:

(A) The electric logging program will consist of GR-Dual Laterolog, Spectral Density Dual Spaced Neuton CSNG Log from TD to Base Salt.

(B) No Drillstem test is 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,

9. Abnormal Conditions, Pressures, Temperatures, & 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. No hydrogen sulfide or other hazardous gases or fluids have been encountered while drilling of these well in this area. No major loss circulation zones have been reported in offsetting wells.

10. 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 May 1, 1993. Once commenced, the drilling operation should be finished in approximately 10 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.

Attachment to Exhibit #1
NOTES REGARDING THE BLOWOUT PREVENTERS
Jenkin B Federal No. 7
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 W.P. minimum.

4. All fittings to flanged.

5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi W.P. minimum.

6. All choke and fill lines to be securely anchored, expecially 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.

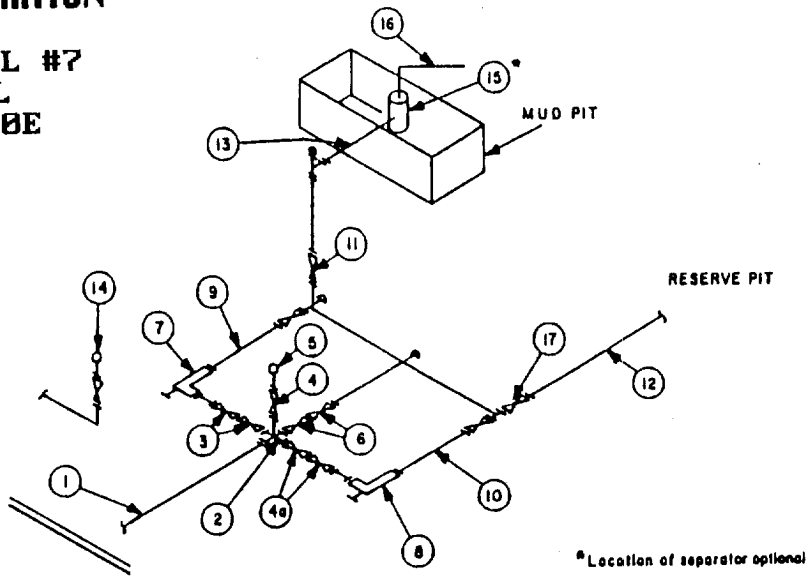
9. Extension wrenches and hand wheels to be properly installed.

10. Blow out preventer control to 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, and meet all API specifications.

MACK ENERGY CORPORATION
EXHIBIT #1-A
JENKINS B FEDERAL #7
330FNL 990FWL
SEC 20 T17S R30E

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



MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			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"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate ☐ Plug ☐(2)	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	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate ☐ Plug ☐(2)	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		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			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	Valves Gate ☐ Plug ☐(2)	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 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

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 be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

2,000 psi Working Pressure

2 MWP

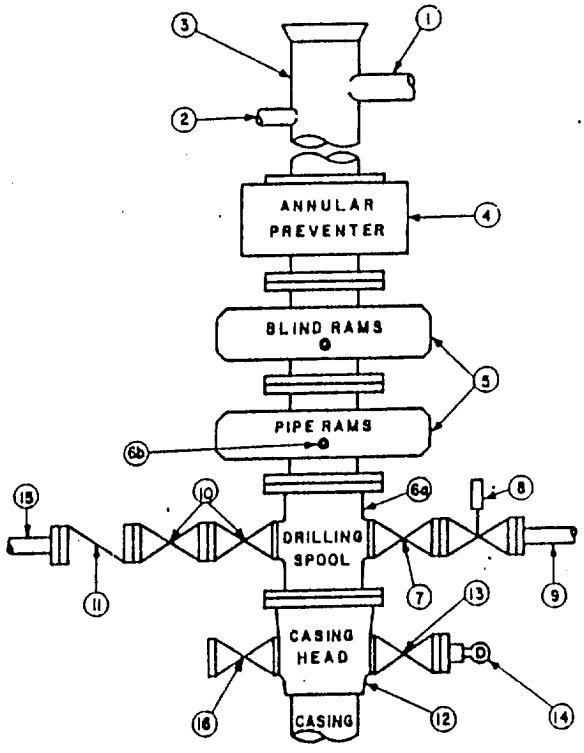
MACK ENERGY CORPORATION
EXHIBIT #1-A
JENKINS B FEDERAL #7
330FNL 990FWL
SEC 20 T17S R30E

STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
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
	—or—		
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	Valves 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"	

CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout prevventer 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.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

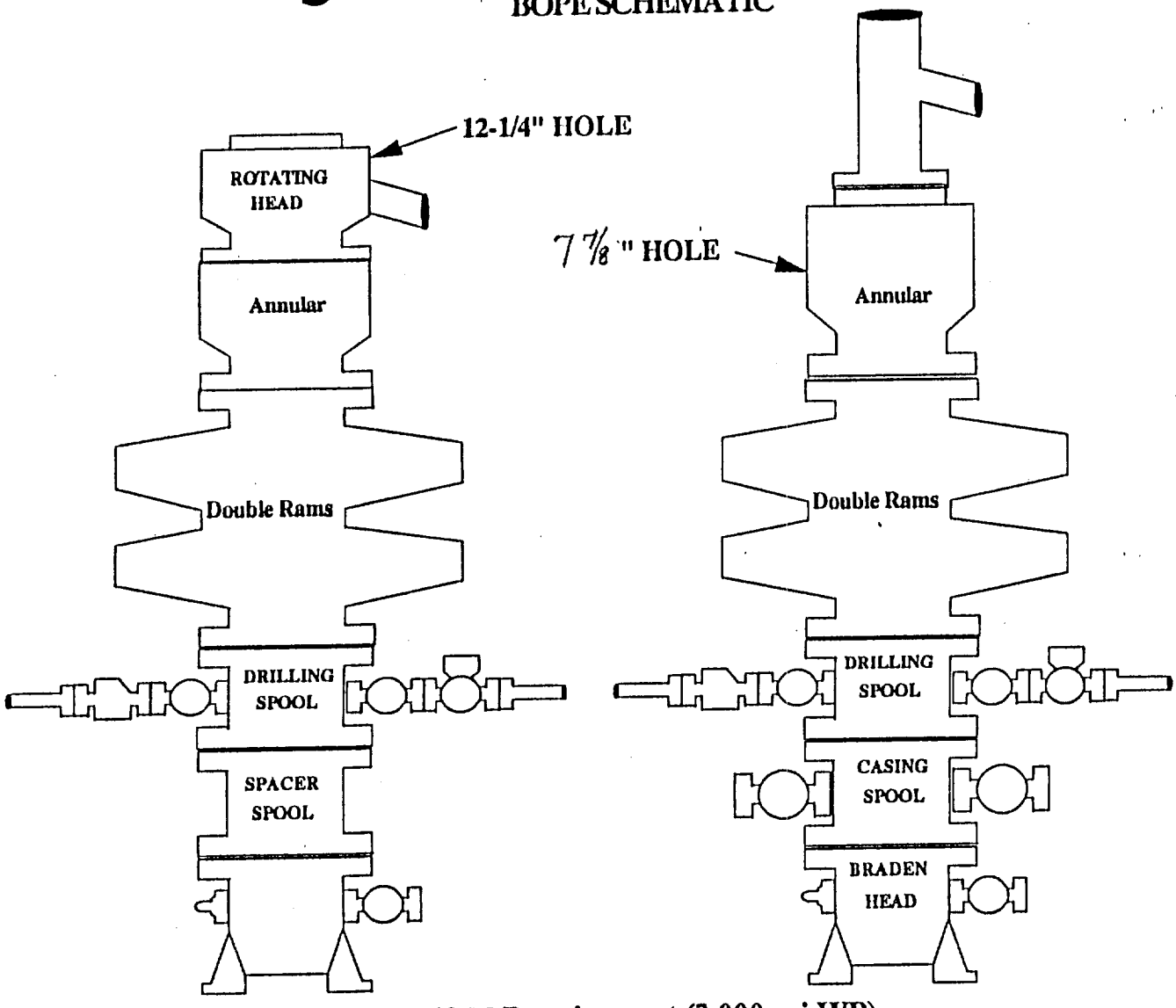
MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

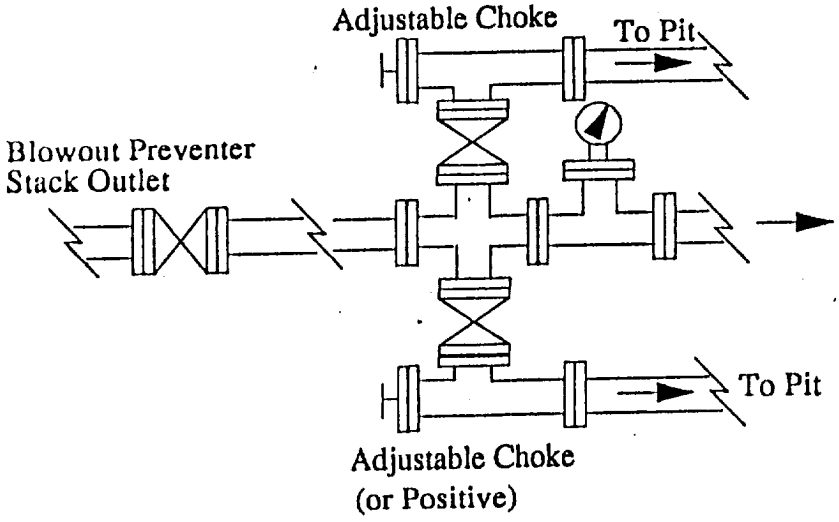
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. 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, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2,000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

BOPE SCHEMATIC



Choke Manifold Requirement (2 000 psi WP)

NO ANNULAR REQ'D



Minimum 4" Nominal choke and kill lines

MACK ENERGY CORPORATION
EXHIBIT #1-A
JENKINS B FEDERAL #7
330FNL 990FWL
SEC 20 T17S R30E

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
Mack Energy Corporation
Jenkin B Federal #7
330'FNL & 990'FWL
NW/4 NW/4, SEC 20 T17S R30E
EDDY CO., N.M.

1. Existing Roads:

   A. The well site and elevation plat for the proposed well is shown in Exhibit #2. It was staked by John West Enginering, Hobbs N.M.

   B. All roads to the location are shown in Exhibit #3. The existing roads are illustrated in pink and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling well be done where necessary as determined during the onsite inspection.

   C. Directions to Location: Go east 24 miles from Artesia, New Mexico on Hwy 82. Turn North .17 miles and .37 miles west and Go .22 Miles North. Turn East .07 miles to Jenkin B Federal #7 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.

2. Proposed Access Road:

   Exhibit #3 shows the 600' of new access road to constructed and is illustrated in Green. The road will be constructed as follows:

   A. The Maximum width of the running surface will be 25'. The road will be crowned and ditched and constructed of 6" of 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. BLM may specify any additions or changes during the onsite inspection.

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.

F. The proposed access road as shown in Exhibit #3 has been centerline flagged by John West Enginering, Hobbs New Mexico.

3. Location of Existing Wells:

Exhibit #4 shows all existing wells within a one mile radius of this well. As shown on this plat there is numerous Grayburg Jackson well which are producing grayburg wells. A list of these wells is shown on the attachment to Exhibit #4.

4. Location of Existing and\or Proposed Facilities:

A. Mack Energy Corporation operates one production facilities on this lease. It is as Follows:

Jenkin B Federal Tank Battery, Unit letter E (Grayburg Jackson)

B. If the well is productive, contemplated facilities will be as follows:

(1) Grayburg Jackson Completion: a 2" steel flowline will be laid along the approved road ROW as shown in Exhibit #3 to the Berry A Federal Tank Battery in Unit F. There will be no Additional oil tank needed to handle the additional production. The facilities are shown in Exhibit #5A.

(2) The tank battery and facilities including all flowlines and piping will be installed according to API specifications.

(3) Any additional caliche which is required for firewalls, etc. 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 separte plan for power.

C. 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).

(2) Caliche from unused portions of the drill pad will be removed. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad 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 a 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 #3. 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. All roads and pads will be constructed of 6" of rolled and compacted caliche.

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 200′ X 50′ X 10′ deep 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 only lined 100′ X 50′ X 10′ the remaining 100′ of pit will not be lined and used only as a emergency pit only. In the event that it is used fluid will be removed in 48 hours. The reserve pit and working pit will be lined (5-7 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 pump to an approved disposal system; produced oil will be collected in steel tanks until sold.

D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.

E. Garbage and trash produced during drilling or completion operations will collected in a trash bin and hauled to a BLM approved land Fill. 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.

F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be clened up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to breakout and fill and as weather permits, the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will be kept in use. 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 Enginering, is shown in Exhibit #6. Dimensions of the pad and pits are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on site inspection. Because the pad is almost level no major cuts will be required.

B. Exhibit #6 shows the planned orientation of reserve pit, working pit and access road. 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 a high quality plastic sheeting (5-7 mil thickness).

10. Plans for Restoration of the Surface:

A. Upon completion of the proposed operations, if the well is to be abandoned, the caliche will be removed from the location and road and returned to the pit from which it was taken. The pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topograghy 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. The caliche from any area of the original drillsite not needed for production operations or facilities will be removed and used for construction of thicker pads or firewalls for the tank battery installation. Any additional caliche required for facilities will be obatained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area and nay unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The wellsite and lease is located entirely on Federal surface.

12. Other Information:

A. The area around the well site is grassland and the top soil is sandy. The vegatation is native scrub grasses 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 compiance with the surface use plan is as follows:

Robert C. Chase
Mack Energy Corporation
P.O. Box 1359
Artesia New Mexico 88210
Phone 505/748-1288 (office)
505/365-7331 (mobile)
505/746-9570 (home)

CERTIFICATION

I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements make 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

Date: 4/15/93

Signed: Mack C. Chase
Mack C. Chase
President

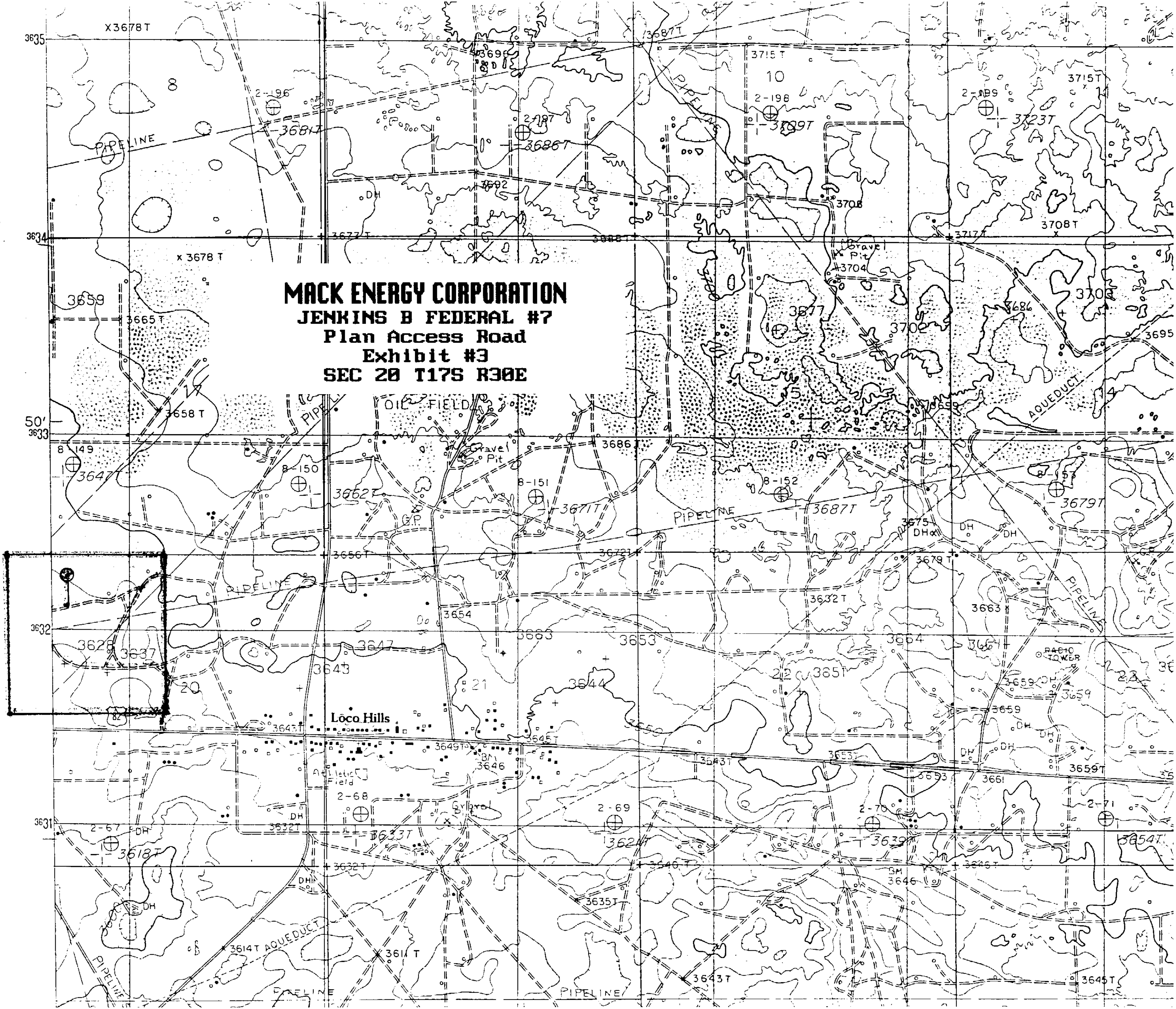
MACK ENERGY CORPORATION

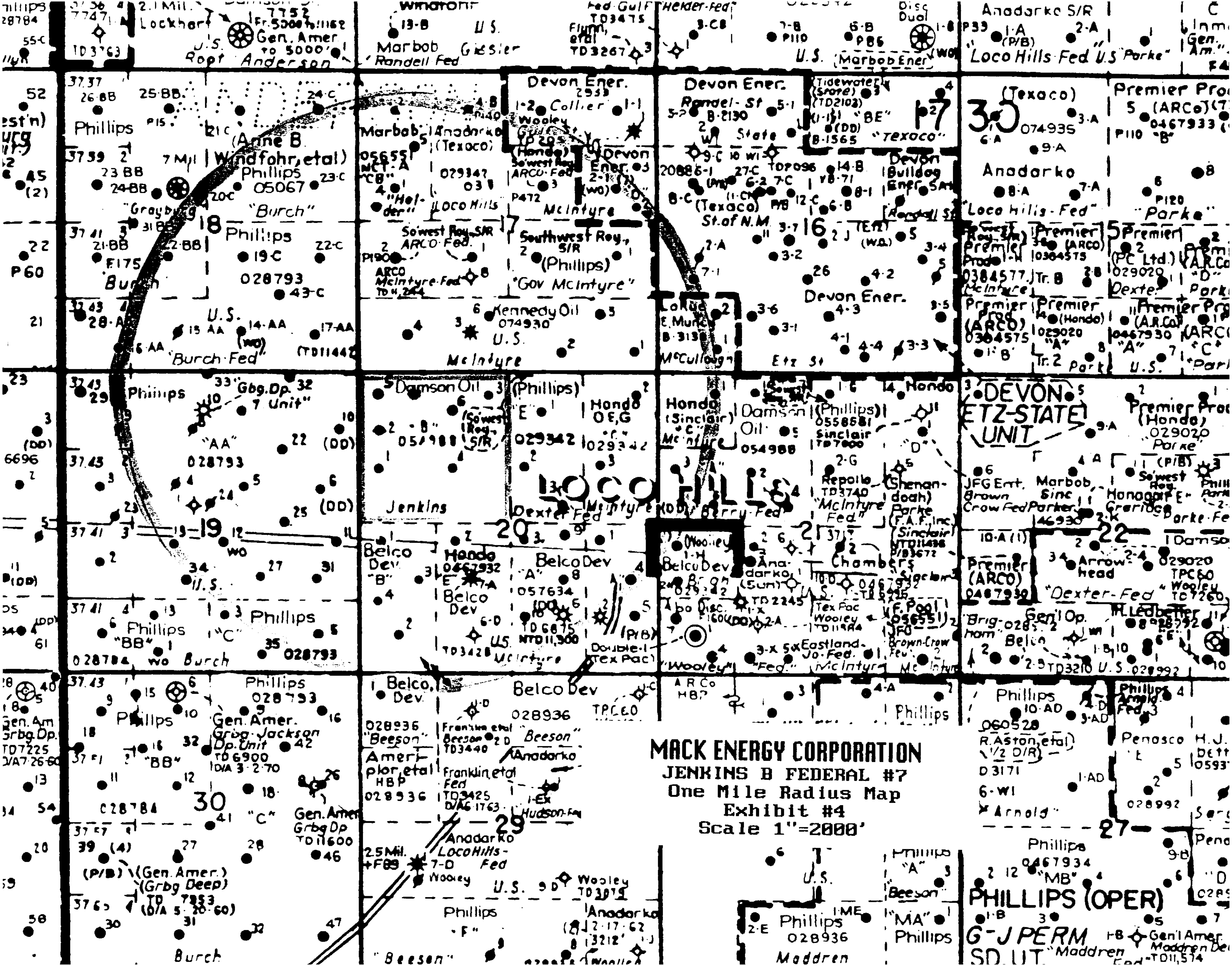
JENKINS B FEDERAL #7

Plan Access Road

Exhibit #3

SEC 20 T17S R30E





MACK ENERGY CORPORATION
JENKINS B FEDERAL #7
One Mile Radius Map
Exhibit #4
Scale 1"=2000'
LOCO HILLS
DEVON ETZ-STATE UNIT
PHILLIPS (OPER)
G-J PERM SD UT
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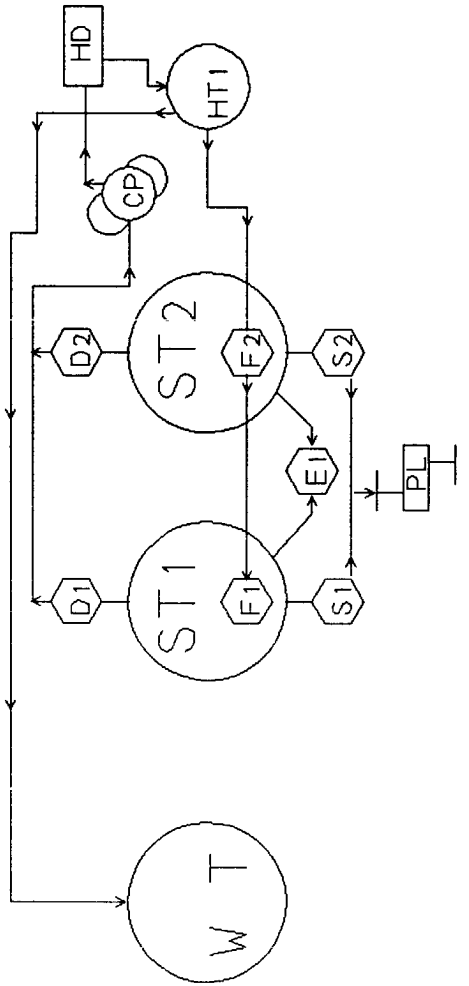
EXHIBIT #5

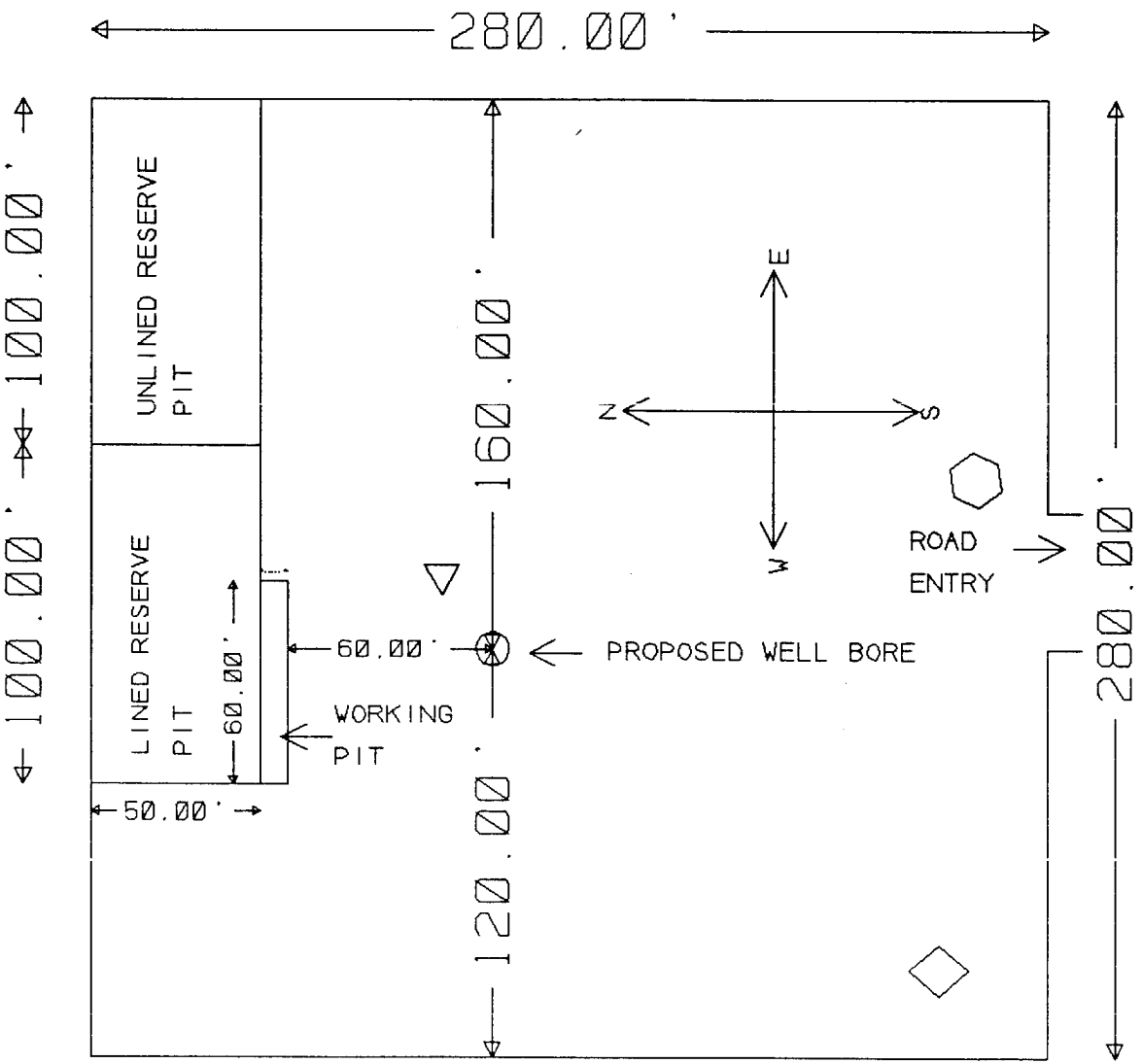


MACK ENERGY

PROPOSED PRODUCTION
FACELITY
EDDY COUNTY N.M.

EXISTING ROAD ENTRY

EXISTING ROAD ENTRY



LEGEND

1 INCH = 56 FEET

EXHIBIT #6

SKETCH OF PROPOSED WELL PAD

JENKINS B FEDERAL #7

NW/4 NW/4 SEC 20 T17S R30E

EDDY COUNTY, NEW MEXICO

MACK ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnell, 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 tubulars are to be used, personnel will 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 the 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. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

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 with electronic igniter or continuous pilot.

   B. Choke manifold with a minimum of one remote choke.

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

   D. Auxiliary equipment to include: annular preventer, rotating head, and flare gun with flares.

2. Protective equipment for essential personnel:

   A. Mark II Surviveair 30-minute units located in the dog house 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.

   B. Caution/Danger signs 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 the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

   A. All drill strings, casings, tubing, wellhead, blowout preventers, 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) communications at field 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.

WARNING

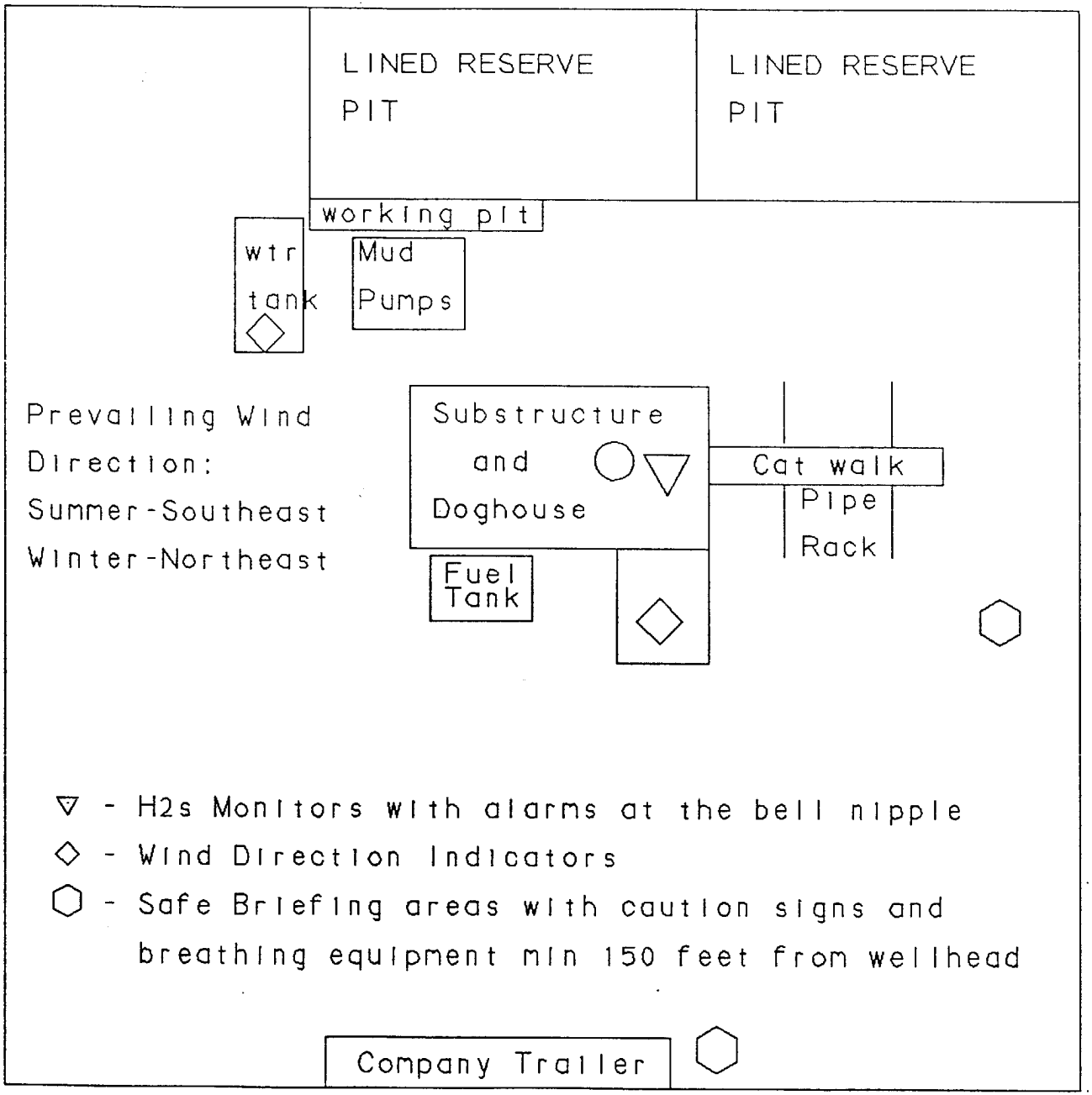
YOU ARE ENTERING AN H2S

AREA - 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. CK WITH MACK ENERGY FOREMAN AT OFFICE

MACK ENERGY CORP.

1-505-748-1288


LINED RESERVE PIT
LINED RESERVE PIT
working pit
wtr tank
Mud Pumps
Prevailing Wind Direction:
Summer-Southeast
Winter-Northeast
Substructure and Doghouse
Cat walk
Pipe Rack
Fuel Tank
▽ - H2s Monitors with alarms at the bell nipple
◇ - Wind Direction Indicators
⬡ - Safe Briefing areas with caution signs and breathing equipment min 150 feet from wellhead
Company Trailer
Location Entrance Warning Sign