

N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

Chi Operating, Inc.

3a. Address

P.O. Box 1799 Midland, TX 79702

3b. Phone No. (include area code)

(432) 685-5001

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface 660' FNL & 1980' FEL

At proposed prod. zone same

14. Distance in miles and direction from nearest town or post office\*

11 road miles NE. of Carlsbad, NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any) 660'

16. No. of Acres in lease  
280

17. Spacing Unit dedicated to this well  
40

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 1320'

19. Proposed Depth  
6,800'

20. BLM/BIA Bond No. on file  
NM-1616

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3277' GL

22. Approximate date work will start\*  
04/01/04

23. Estimated duration  
3 - 4 weeks

24. Attachments

CAPITAN CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Title

Agent for Chi Operating, Inc.

Approved by (Signature)

/s/ Leslie A. Theiss

Name (Printed/Typed)

George R. Smith

Date

2/06/04

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

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, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

Witness Surface Casing

Lease Responsibility Statement: Chi Operating, Inc. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

George R. Smith, agent

District I  
1625 N. French Dr. Hobbs, NM 88240

District II  
611 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

Revised March 17, 1999  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 48035	Pool Name Old Millman Ranch Bone Spring	
Property Code	Property Name <b>USA "9" FEDERAL</b>			Well Number <b>4</b>
OGRID No. 4378	Operation Name <b>CHI OPERATING, INC.</b>			Elevation <b>3277</b>

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
<b>B</b>	<b>9</b>	<b>20-S</b>	<b>28-E</b>		<b>660</b>	<b>NORTH</b>	<b>1980</b>	<b>EAST</b>	<b>EDDY</b>

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
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Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b> I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.</p>
	Signature <i>George R. Smith</i>
	Printed Name <b>George R. Smith</b>
	Title <b>agent for Chi Oper. Inc.</b>
	Date <b>2/6/04</b>
	<p><b>SURVEYOR CERTIFICATION</b> I HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.</p>
	<p><b>DECEMBER 16, 2003</b> Date of Survey</p>
	<p>Signature and Seal of Professional Surveyor</p>
<p>Certificate Number</p>	

## APPLICATION FOR DRILLING

**CHI OPERATING, INC.**  
USA "9" Federal, Well No. 4  
660' FNL & 1980' FEL, Sec. 9-T20S-R28E  
Eddy County, New Mexico  
Lease No.: NM-13232  
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Chi Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Yates	2,200'	Avalon SD	6,400'
Queen	3,100'	T.D.	6,800'
Delaware	4,050'		
Bone Spring	6,210'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:  
Water: Surface water between 100' - 300'.  
Oil: Possible in the Queen, Delaware and Bone Spring.  
Gas: Possible in the Bone Spring.

#### 4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	J-55	ST&C	450'	Circ. 450 sx "C" + add.
7 7/8"	5 1/2"	15.5#	J-55	ST&C	6,800'	Circ 1660 sx "C" & "H"

Note: If drilling conditions dictate, will ream out with 11" and run following program:

11"	8 5/8"	24.0#	J-55	ST&C	3,000'	Circ.635 sx "C" cement.
7 7/8"	5 1/2"	17.0#	J-55	ST&C	6,800'	Tieback with 535 sx "C"

**WITNESS**

#### 5. Proposed Control Equipment:

A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested as described in Onshore Oil & Gas Order No. 2 before drilling out with the 7 7/8" and will be tested as a 3000 psi wp system. See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 450': Fresh water mud:	8.4 - 8.5 ppg	32 - 38	No W/L control
450' - 6200': Cut Brine w/gel & lime:	9.0 - 9.3 ppg	28 - 30	No W/L control
6200' - 6800': Cut Brine w/gel & starch:	9.0 - 9.3 ppg	29 - 31	W/L control 10cc

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.

#### 8. Testing, Logging, and Coring Program:

Drill Stem Tests: None.  
Logging: T.D. - 3000': GR/CAL/CNL/LDT/DLL/MSFL  
3000 to surface: GR/CNL.  
Coring: None.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 2992 psi and 1496 psi surface pressure with a temperature of 128°.

10. H<sub>2</sub>S: None expected.

11. Anticipated starting date: April 1, 2004.  
Anticipated completion of drilling operations: Approximately 3 to 4 weeks.

**MULTI POINT SURFACE USE AND OPERATIONS PLAN**  
**CHI OPERATING, INC.**  
USA "9" Federal, Well No. 4  
660' FNL & 1980' FEL, Sec. 9-T20S-R28E  
Eddy County, New Mexico  
Lease No.: NM-13232  
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

**1. EXISTING ROADS:**

- A. Exhibit "A" is a portion of a BLM Topographic Artesia Quadrangle map showing the location of the proposed well as staked. The well site location is approximately 30 road miles southeast of Artesia, NM or 11 miles northeast of Carlsbad, NM. Traveling east of Artesia on U.S. Highway 82 and county roads, there will be 27 miles of paved highway, plus 3.3 miles of existing gravel oilfield roads.
- B. Directions: Travel east from Artesia, NM on U. S. Highway 82 for approximately 8.5 miles to SPS power station. Turn southeast (right) onto county road #204 for 3 miles; then south on county road #206 for 12.7 miles to the Angel Ranch road (county road #237); then east on #237 for 2.5 miles to an oilfield road turnoff on the east (left) side of the road leading to a well site on the hill .25 mile east. Turn north at this well site and continue north, parallel to a power line on the west, for 1.75 miles, then take oilfield road on the right for .9 mile where road turns south for .3 mile to a cattle guard on the east. Turn west .1 mile toward the Colt Fed., #1 well site, and then south 1500 feet to the USA "9" Fed., Well No. 2 well site. The start of the proposed access road will start on the southwest corner of this pad and will run west for approximately 1000 feet to the southeast corner staked location and will access the northeast corner of the well pad.

**2. PLANNED ACCESS ROAD:**

- A. Length and Width: There will be approximately 1200 feet of new access road 12 feet wide (24' max.). The proposed and existing access roads are color coded on Exhibit "A".
- B. Construction: The new access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: The existing off lease Right of Way No. 88445 as amended will be used.

**3. LOCATION OF EXISTING WELLS:**

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:**

- A. There are production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities will be installed on the drilling pad. A 3" SDR 11 poly line with a 160 psi pressure rating and < 100 psi operating pressures, will be run parallel to the access roads back to the tank battery and gas separator on the USA "9" Fed. #2

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads or a fast line beside existing roads may be used.

*w/ prior Sundry Notice approval. TSO*

**6. SOURCE OF CONSTRUCTION MATERIALS:**

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from materials on the location, if available, or from a Federal pit in the NW4SE4, Sec. 12-T20S-R27E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES:**

- A. None required.

**9. WELL SITE LAYOUT:**

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 500' X 500'.
- B. Mat Size: 250' X 175', plus 110' X 110' reserve pits on the south.
- C. Cut & Fill: There will be a 2.5'–3' cut on the south and southeast with fill to the north and northwest
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

**10. PLANS FOR RESTORATION OF THE SURFACE:**

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Unguarded pits containing fluids will be fenced and screened until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment or as soon as they are dry enough to be worked.

**11. OTHER INFORMATION:**

- A. Topography: The well site and access road are located in the Burton Flats area and 1.5 miles west of the Palmilla Draw with an overall .5% slope to the southeast from an elevation of 3277' GL.
- B. Soil: The topsoil at the well site is a light colored, well drained, shallow calcareous soil over gypsum soil and rock of the Reeves Gypsum series.
- C. Flora and Fauna: The area vegetation cover is a sparse to fair grass cover of threeawn, gyp grama, gyp dropseed, along with plants of mesquite, broomweed, yucca, Javelina, sage, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: None except petroleum production facilities.
- F. Land Use: Cattle grazing.

**11. OTHER INFORMATION: cont.....**

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of any archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P.O. Box 2285, Roswell, NM 88202, conducted an archaeological survey and their report will be submitted to the appropriate government agencies.

**12. OPERATOR'S REPRESENTATIVE:**


- A. The field representative for assuring compliance with the approved surface use and operations plan is as follows:

John Qualls  
Chi Operating, Inc.  
P. O. Box 1799  
Midland, Texas 79701  
Office Phone: (432) 685-5001  
Cell Phone: (432) 557-8774

**13. CERTIFICATION:**

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

February 6, 2004

  
\_\_\_\_\_  
George R. Smith  
Agent for: Chi Operating, Inc.



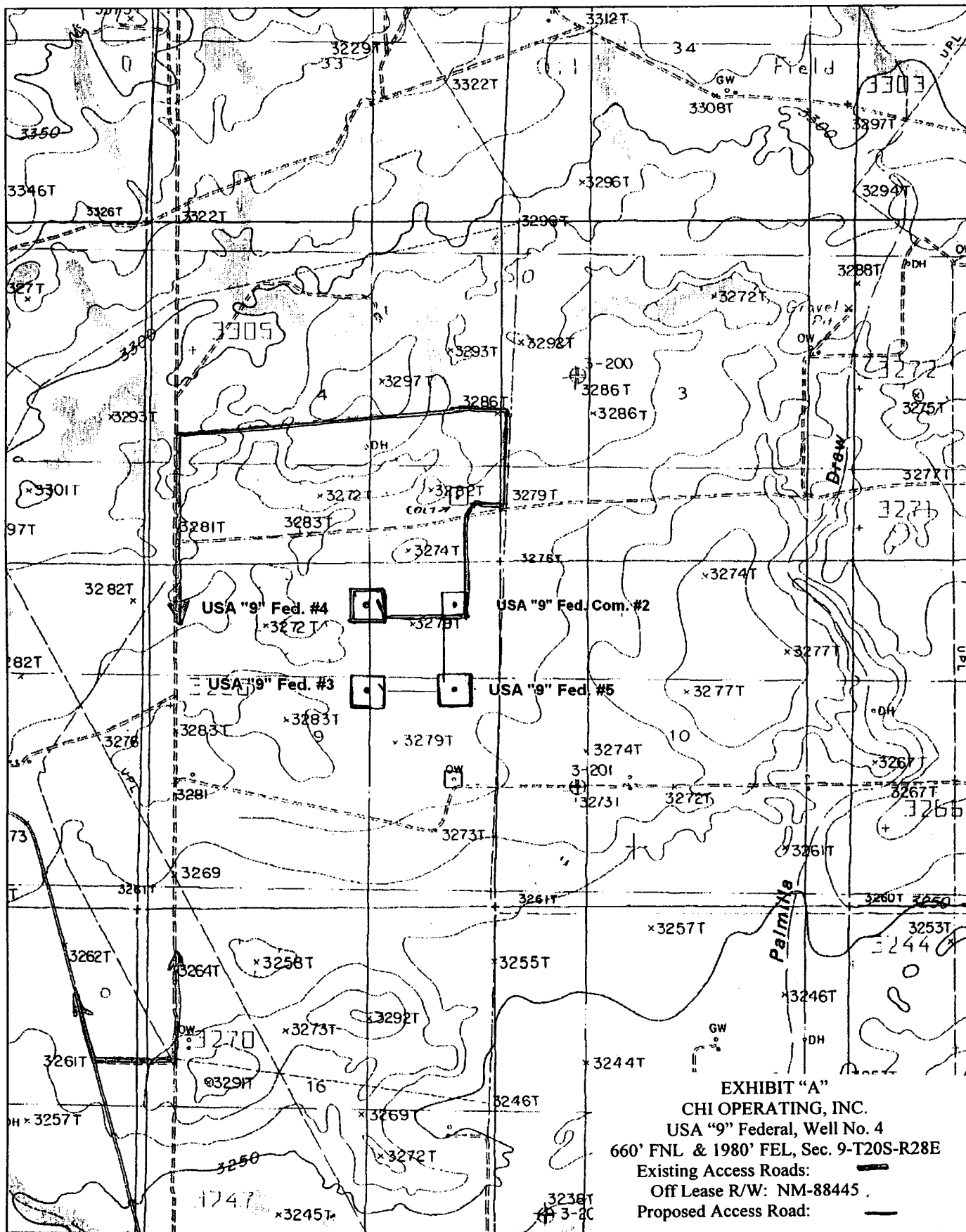


EXHIBIT "A"  
 CHI OPERATING, INC.  
 USA "9" Federal, Well No. 4  
 660' FNL & 1980' FEL, Sec. 9-T20S-R28E  
 Existing Access Roads: ———  
 Off Lease R/W: NM-88445  
 Proposed Access Road: ———

**DELORME**

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 www.delorme.com



2.

## Existing Wells

# TMBR/Sharp Rig #22

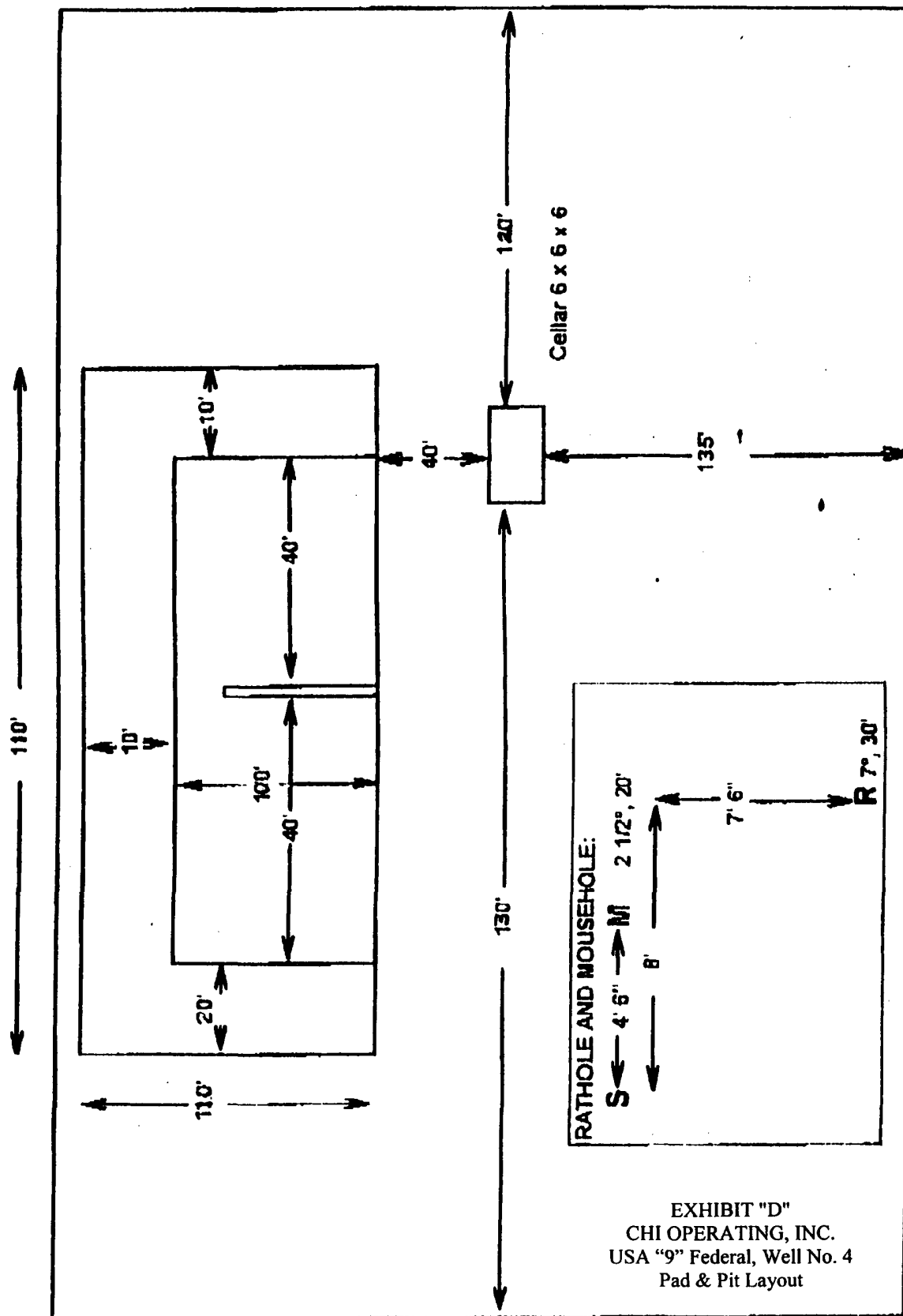


EXHIBIT "D"  
CHI OPERATING, INC.  
USA "9" Federal, Well No. 4  
Pad & Pit Layout

# TIMEBIR//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for Time/Sharp

\* All B.O.P. equipment is H2S Trlin \*

\* All Accumulators are Kookey Type-80 : Dual Power Electric/Air \*

\* Choke Manifold: \* See sheet 2

4" Valves : Cameron F/FC, Shaffer DB Hydraulic

2" Check Valve: Cameron Type R

2" Valves : Cameron or Shaffer

**Annular** Shaffer Type: Spherical

**Annular PSI:** 3000

( If Shaffer: Spherical , If Hydril: Type GK )

**BOP Type** Shaffer LWS

( If Shaffer: LWS or SL, If Cameron: Type U )

**BOP Size:** 13 5/8" - 5000 PSI

Rotating Head Type Smith

Rot-Head Furnished By Time

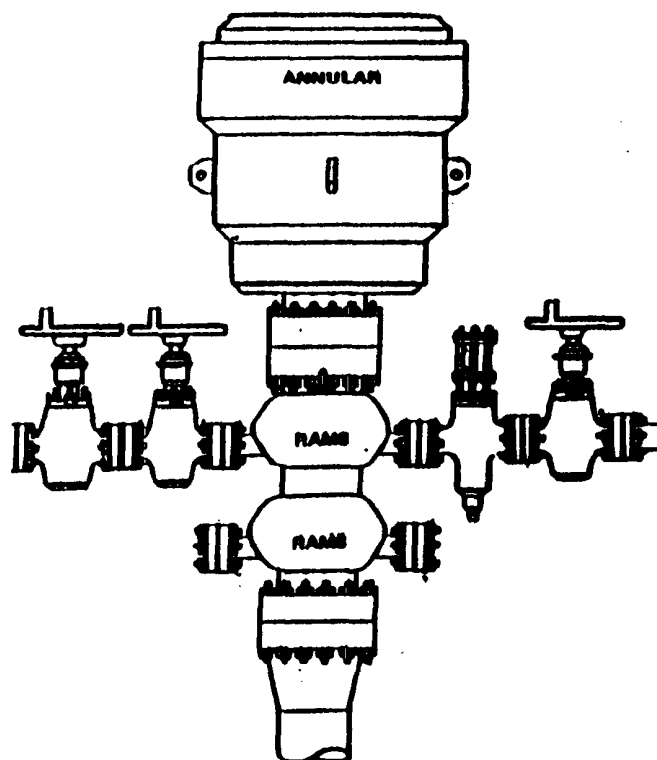
Rams in top gate: 4 1/2" pipe

Rams in bottom: Blinds

Side Outlets used:

Bottom X Top     

4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for Time/Sharp

\* All Valves (H2S) \*

**Choke Manifold:**

Pressure Rating 3,000 or 5,000 (as Req.)

1 - 4" Valves

2 - 2" Valves

2 - 2" Adjustable Chokes

Valve Types Used:

Cameron - F or FC

Shaffer - B Floseal

WKM - type 2

Chokes - Cameron H2 or TC unibolt

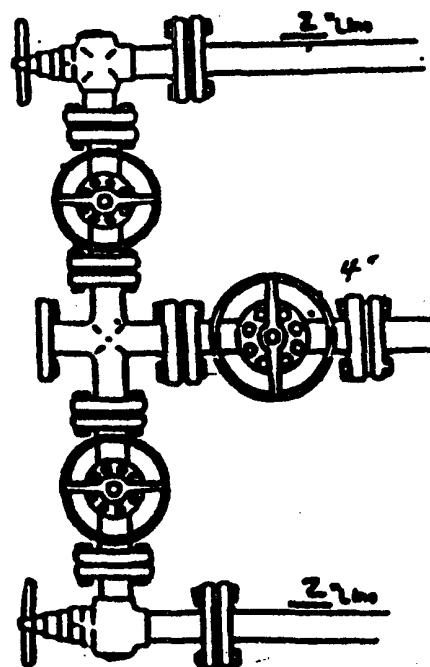


EXHIBIT "E"  
CHI OPERATING, INC.  
USA "9" Federal, Well No. 4  
BOP Specifications