

For (Au) CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES

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

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

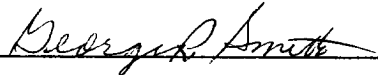
APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | |
|---|---|---|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NM-0331649-A |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name |
| 2. Name of Operator Chi Operating, Inc. | | 7. If Unit or CA Agreement, Name and No. |
| 3a. Address P.O. Box 1799 Midland, TX 79702 | 3b. Phone No. (include area code) (432) 685-5001 | 8. Lease Name and Well No. Midwest Federal Com., Well # 2 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1650' FNL & 660' FWL (CE) At proposed prod. zone same | | 9. API Well No. 30-015-33880 |
| 14. Distance in miles and direction from nearest town or post office* 3.5 road miles SW. of Carlsbad, NM | | 10. Field and Pool, or Exploratory Carlsbad Morrow South |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330' | 16. No. of Acres in lease 440 | 11. Sec., T., R., M., or Blk. and Survey or Area Sec. 34-T22S-R26E |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A | 19. Proposed Depth 12,000' | 12. County or Parish Eddy |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3262' GL | 22. Approximate date work will start* 4/7/04 | 13. State NM |
| 23. Estimated duration 4-6 weeks | | |

24. Attachments

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

| | | |
|--|---|---------------------|
| 25. Signature  | Name (Printed/Typed) George R. Smith | Date 03/4/04 |
| Title Agent for Chi Operating, Inc. | | |
| Approved by (Signature) /s/ Joe G. Lara | Name (Printed/Typed) /s/ Joe G. Lara | Date 07 APR 2004 |
| 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 statement or claim.

*(Instructions on reverse)

Lease Respon:
concerning op

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

all applicable terms, conditions, stipulations, and restrictions thereon.


George R. Smith, agent

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

CARLSBAD CONTROLLED WATER BASIN

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

District II
811 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

Form C-102

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 73960 | Pool Name Carlsbad Morrow South |
| Property Code | Property Name MIDWEST FEDERAL COM | Well Number 2 |
| OGRID No. 4378 | Operation Name CHI OPERATING, INC. | Elevation 3262 |

Surface Location

| | | | | | | | | | |
|---------------------------|----------------------|-------------------------|----------------------|----------|------------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------------|
| UL or Lot No. E | Section 34 | Township 22-S | Range 26-E | Lot Idn. | Feet from the 1650 | North/South line NORTH | Feet from the 660 | East/West line WEST | County 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 |
| Dedicated Acres 320 | Joint or Infill | Consolidation Code Com. | Order No. | | | | | | |

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

| | | |
|--|--|--|
| | OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. | |
| | Signature <i>George R. Smith</i> | |
| | Printed Name George R. Smith | |
| | Title agent | |
| | Date 3/4/04 | |
| | 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 CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. | |
| | Date of Survey FEBRUARY 6, 2004 | |
| | Signature and Seal of Professional Surveyor | |
| | Certificate Number 5412 | |
| | | |

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Midwest Federal Com., Well No. 2
1650' FNL & 660' FWL, Sec. 34-T22S-R26E
Eddy County, New Mexico
Lease No.: NM-0331649
(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:

| | | | |
|-----------------------------------|--------|----------------------|---------|
| Lamar Lime | 1,660' | 3 rd Sand | 8,150' |
| Bell Canyon | 1,825' | Wolfcamp | 8,575' |
| Cherry Canyon | 2,500' | Strawn | 10,150' |
| Brushy Canyon | 3,400' | Atoka | 10,650' |
| 1 st Bone Spring Carb. | 5,010' | Morrow Lime | 11,015' |
| 1 st Sand | 5,990' | Lower Morrow | 11,550' |
| 2 nd Sand | 6,525' | Mississippian | 11,680' |
| | | T.D. | 11,900' |

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 Delaware and Bone Spring 1st sand

Gas: Possible in the Wolfcamp, Upper Penn and Strawn between below 10,150' and Lower Morrow below 11,550'.

4. Proposed Casing Program:

| HOLE SIZE | CASING SIZE | WEIGHT | GRADE | JOINT | SETTING DEPTH | QUANTITY OF CEMENT |
|-----------|-------------|--------|-------|-------|---------------|---|
| 26" | 20" | | | | 40' | Circ to surface |
| 17 1/2" | 13 3/8" | 48.5# | H-40 | ST&C | 400' | Circ. 300 sx "C" + add to surface. WITNESS |
| 12 1/4" | 9 5/8" | 40/36# | J-55 | ST&C | 5,000' | Circ. 1000 sx "C" + add. to surface. |
| *8 3/4" | 7" | 26.0# | N-80 | LT&C | 10,500' | 900 sx "C" + add to 500' above top producing formation. |
| *6 1/8" | 4 1/2" | 11.6# | N-80 | LT&C | 11,900' | Tie back to 7" |
| 7 7/8" | 5 1/2" | 20/17# | N-80 | LT&C | 11,900' | 1000 sx of "C" + add to 500' above top prod formation |

*Note: In the event of high BH pressure this optional string will be used. Will reduce 8 3/4" bit to 7 7/8" at 10,500' if abnormal pressures are not encountered and then run the 5 1/2" to TD.

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 before drilling out with 11" and will be tested daily. See Exhibit "E".

| 6. MUD PROGRAM: | MUD WEIGHT | VIS. | W/L CONTROL |
|---|----------------|---------|-------------------------|
| 0' - 400': Fresh water spud: | 8.4 - 8.5 ppg | 32 - 36 | No W/L control |
| 400' - 5,000': Brine mud: | 9.7 - 10.0 ppg | 29 | No W/L control |
| 5,000' - 8,525': Fresh water mud: | 8.4 - 8.6 ppg | 28 | No W/L control |
| 8,525' - 10,600': Brine mud: | 9.6 - 10.0 ppg | 32 - 34 | W/L control 12-15cc +/- |
| 10,600' - 10,960': Brine/C starch) mud: | 9.5 - 10.0 ppg | 42 - 45 | W/L control <8 cc +/- |

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, and stabbing valve.

8. Testing, Logging, and Coring Program:

Drill Stem Tests: As deemed necessary.

Logging: T.D to 5000': GR/CAL/CNL/LDT/DLL/MSFL

T.D to surface: GR/CNL

Coring: As dictated by logs for the Morrow.

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 = 5236 and a surface pressure of 2618 with a temperature of 180°.

10. H₂S: None expected.

11. Anticipated starting date: April 7 2004.

Anticipated completion of drilling operations: Approximately 30- 40 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Midwest Federal Com., Well No. 2
1650' FNL & 660' FWL, Sec. 34-T22S-R26E
Eddy County, New Mexico
Lease No.: NM-0331649
(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 and environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM minerals map showing the location of the proposed well as staked. The well site location is approximately 2 road miles west of Carlsbad, NM. Traveling west of 62/180 on Hidalgo Rd. there will be approximately 3.5 miles of paved and .3 mile of gravel road.
- B. Directions: Travel west of Highway 62/180 on County Rd. 672 (Hidalgo Road.) for approximately 3.5 miles to the access road turnoff. Turn southeast for .3 mile to the Pogo Production Midwest "L" Fed. #2 well pad and tank battery. The proposed access road will start just north of the existing well pad and run east for 500 feet to the southwest corner of the proposed well site, which is on the east side of the Pogo well pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be constructed to a width of 12 feet (24' Max) and approximately 500 feet in length. The existing and proposed access roads are color coded on Exhibit "A".
- B. Construction: The proposed 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 right of way: None required.

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. Chi Operating, Inc. has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if required, will be installed on the drilling pad.

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 access roads

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from the location, if available, or from a Federal pit located in the NW4SW4 Sec. 5-T23S-R26E. No surface materials will be disturbed except those necessary for actual repairing, 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.
- B. Mat Size: 270' X 175', plus 110' X 120' reserve pits on the north.
- C. Cut & Fill: None.
- 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. Any unguarded pits containing fluids will be fenced 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 as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road are located on an overall 1.25% slope to the northeast from an elevation of 3262'.
- B. Soil: The topsoil at the well site is a light tan loam soil of the Reagan Upton Assn. land complex.
- C. Flora and Fauna: The vegetation consists of a fair grass cover of grama, burrograss, tobosa, three awn, and bush muhly along with plants of yucca, broomweed, mesquite, creosote, 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 except intermittent running Dark Canyon Draw .5 mile south of the location.
- E. Residences and Other Structures: None in the immediate vicinity except oilfield equipment on well locations and the Carlsbad airport 1.1 miles to the southeast.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of archaeological, historical or cultural sites in the staked area. An archaeological survey is being conducted by Archaeological Survey Consultants, P.O. Box 2285, Roswell, NM 88202, 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 use and operations plan is as follows:

John Qualls
Chi Operating, Inc.
P. O. Box 1799
Midland, Texas 79701
Office Phone: (432) 685-5001
Home Phone: (432) 684-8825

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.

March 3, 2004



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

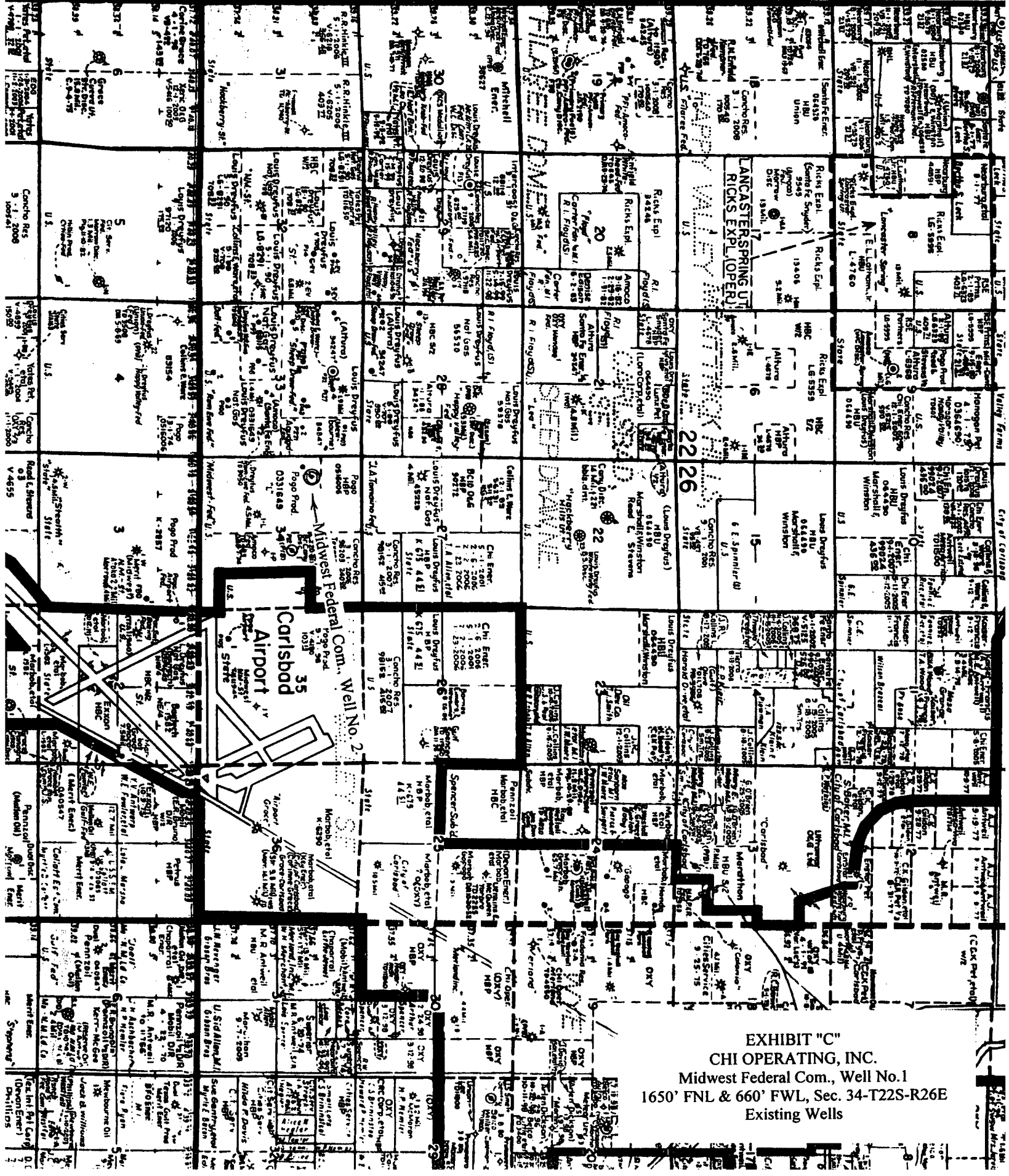
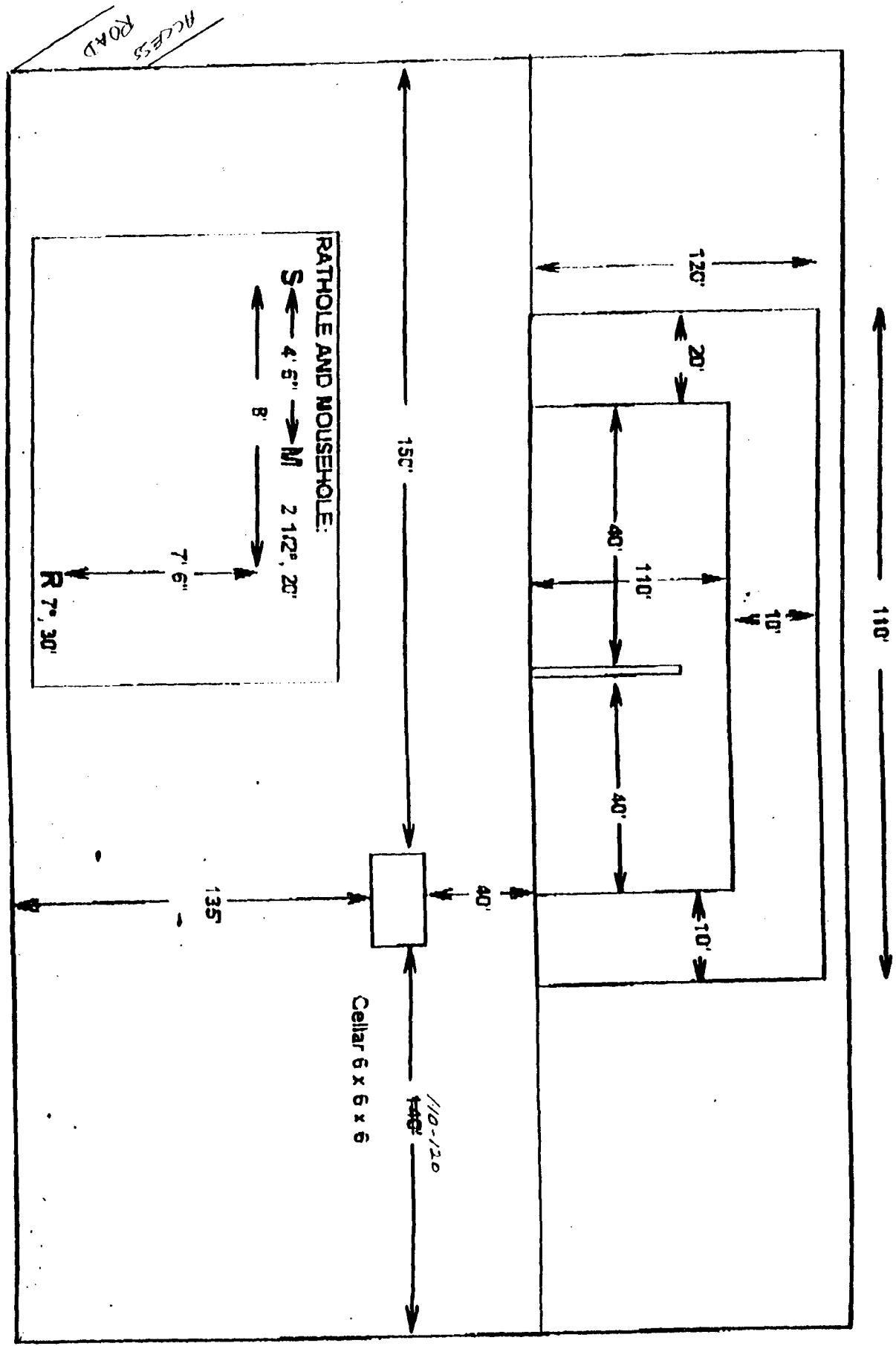


EXHIBIT "C"
CHI OPERATING, INC.
Midwest Federal Com., Well No.1
1650' FNL & 660' FWL, Sec. 34-T22S-R26E
Existing Wells

TMBR/Sharp Rig #22



REV 2/1/95

EXHIBIT "D"
 CHI OPERATING, INC.
 Midwest Federal Com., Well No. 2
 Pad & Pit Layout



TIMBER/SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24 & 22

Well To Be drilled for Timber/Sharp

- * All B.O.P. equipment is H2S Trim *
- * 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 OK)

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 Timbe

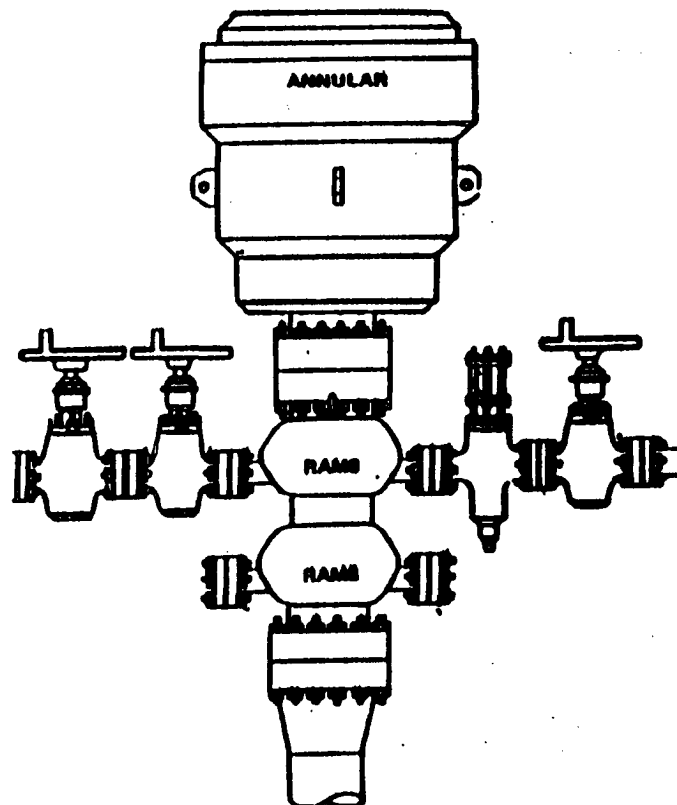
Rams in top gate: 4 1/2" pipe

Rams in bottom: Blinds

Side Outlets used:

Bottom X Top

4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24 & 22

Well To Be drilled for Timber/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

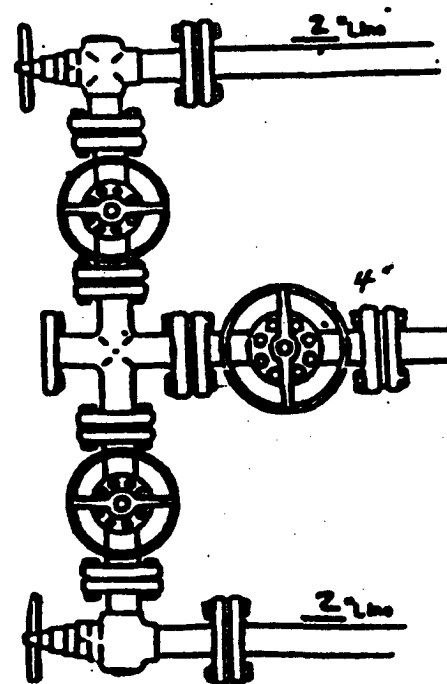


EXHIBIT "E"
CHI OPERATING, INC.
Midwest Federal Com., Well No. 2
BOP Specifications

EXHIBIT "E"
CHI OPERATING, INC.
McIver Federal Com., Well No. 2
BOP Specifications

Phone (915) 685-5001

Chi Operating, Inc.

Fax (915) 687-2662

P.O. Box 1799
Midland, TX 79702

4/14/04

RECEIVED

APR 16 2004

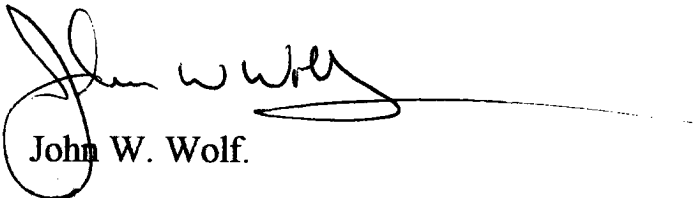
000-ARTESIA

Mr. Bryan Arrant
New Mexico Oil Conservation Division
Subject: Midwest Fed. Com. #2
Section 34 -T22S -R260E
660 FWL & 1650 FNL (W/2)

Dear Bryan,

Chi Operating Inc. has entered into an agreement whereby "Chi" is the operator for the drilling & completion of the Midwest Fed. Com. #2. Following the drilling and completion, Merit Energy, Inc will operate.

Respectfully,



John W. Wolf.

copy/file