

NOTE:

Previous Well Name: Stake Your Claim Federal, Well No. 1
Date APD Approved: July 21, 19

N. M. Oil Cons. Division

8. 1ST ST.

ARTESIA, NM 88210-2924

Form 3160-3
(August 1999)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

5. Lease Serial No. NM-0560353

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Munchkin Federal, Well No. 1

9. API Well No.

10. Field and Pool, or Exploratory
Benson Bone Spring

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 1-T19S-R30E

12. County or Parish.
Eddy13. State
NM1a. Type of Work: ☒ DRILL☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other☐ Single Zone ☐ Multiple Zone

2. Name of Operator Chi Operating, Inc

3a. Address

PO Box 1799 Midland, TX 79702

3b. Phone No. (include area code)

(915) 685-5001

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

At surface

1060' FSL & 2210' FWL

At proposed prod. zone

Same

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

16 miles S. Loco Hills, NM

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

1060'

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

N/A

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

3509' GL

22. Approximate date work will start*

10/23/00

23. Estimated duration

20 days

24. Attachments

SECRETARY'S POTASH**CAPTAN 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

George R. Smith

Name (Printed/Typed)

George R. Smith

Date

09/20/00

Title

Agent for: Chi Operating, Inc.

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Office

Application approval does not warrant or certify the 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.

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)

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****SPECIAL STIPULATIONS****ATTACHED***George R. Smith*
George R. Smith, agent

RECEIVED

RECEIVED

RECEIVED

RECEIVED
SEP 20 1960
FBI
RECEIVED NM

RECEIVED

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
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		Pool Name Benson Bone Spring	
Property Code	Previous APD Name: STAKE YOUR CLAIM FEDERAL		Property Name New Name: Munchkin Federal		Well Number 1
GRID No.	Operator Name CHI OPERATING, INC.				Elevation 3509

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	1	19-S	30-E		1060	SOUTH	2210	WEST	EDDY

¹¹ 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

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

¹⁶ 	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>George R. Smith</i> George R. Smith, agent for: Printed Name: Chi Operating, Inc. Title: May 25, 1999 Date:	
	¹⁸ 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 belief. MAY 21 1999 Date of Survey Signature and Seal of Professional Surveyor: 	
	Certificate Number NM PR&PS NO. 5412	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐OTHER ☐SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Chi Operating, Inc.

915/685-5001

3. ADDRESS AND TELEPHONE NO.

P. O. Box 1799

Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1060' FSL & 2210' FWL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

16 road miles S. Loco Hills, NM

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drg. unit line, if any)

503'

16. NO. OF ACRES IN LEASE

2160.32

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.

948'

19. PROPOSED DEPTH

6700'

20. ROTARY OR CABLE TOOLS

Rotary

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

3509' GL

22. APPROX. DATE WORK WILL START*

June 7, 1999

23.

SECRETARY'S POTASH

PROPOSED CASING AND CEMENT CANYON CONTROLLED WATER BURN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48.0#STC	450' 475'	Circ. 450 s
* 11"	8 5/8" J-55	32.0#LTC	3,200'	Circ 900 sx "C"
7 7/8"	5 1/2" N-80	15.5#LTC	6,700'	600 sx "C"

Mud Program:

0' - 450': Fresh water w/Gel spud mud
 450' - 3200': Brine mud
 3200' - 6700': Controlled brine mud

Mud Wt.

8.4- ppg
 10.2 ppg
 8.6- 8.7 ppg

Vis.

34-36
 28-32
 28-32

W/L Control

No W/L control
 No W/L control
 No W/L control

BOP Program:

A 10" 3000 psi wp Shaffer Type "E" double hydraulic ram BOP will be installed on the 13 3/8" casing.
 Casing and BOP will be tested before drilling out with 11". BOP will be tested daily.

*NOTE: If severe lost circulation is NOT encountered, the 11" hole will be reduced at 3200' to 7 7/8" and drill ahead WITHOUT setting the 8 5/8" casing. The 5 1/2" casing will be cemented in two stages with 1600 sx of "C" + add. circulated to surface.

APPROVAL SUBJECT TO
 GENERAL REQUIREMENTS AND
 SPECIAL STIPULATIONS

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

24.

SIGNED

George R. Smith

TITLE

Agent for:
Chi Operating, Inc.

DATE

May 25, 1999

(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

H/F Spleto RIA

TITLE

Acting

DATE

7-21-99

*See Instructions On Reverse Side

APPLICATION FOR DRILLING

CHI OPERATING, INC.

Munchkin Federal, Well No. 1

Previous Name : Stake Your Claim Federal, Well No. 1

1060' FSL & 2210' FWL, Sec. 1-T19S-R30E

Eddy County, New Mexico

Lease No.: NM-0560353

(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:

Anhydrite	400'	Delaware	4050'
Yates	2200'	Bone Spring	6250'
Seven Rivers	2450'	B/S Avalon Sand	6500'
Queen	3100'	T.D.	6700'

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: None expected

4. Proposed Casing Program: See Form 3160-3.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
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: 0' to 3950': GR/CNL

3950' to T.D.: GR/CAL/CNL/LDT/DLL/MSFL

or: 0' to T.D.: GR/CAL/CNL/LDT/DLL/MSFL

Coring: As required.

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 = 2680-3350 with a temperature of 128°.
10. H₂S: None expected.
11. Anticipated starting date: October 23, 2000.
Anticipated completion of drilling operations: Approximately 20 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.

Munchkin Federal, Well No. 1

Previous Name: Stake Your Claim Federal, Well No. 1

1060' FSL & 2210' FWL, Sec. 1 -T19S-R30E

Eddy County, New Mexico

Lease No.: NMLC-0560353

(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 Hackberry Lake Topo map showing the location of the proposed well as staked. The well site location is approximately 36 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82, NM Hwy 360 and county roads No. 250 and 251, there will be 33 miles of paved highway, plus 3 miles of existing gravel oilfield roads.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 14 miles, turn southeast on NM Hwy 360 for approximately 13 miles to paved County Rd #251. Turn north on #251 for 1.8 mile to County Rd. # 250, then turn right on #250 for 3.8 miles to top of Nimenim Ridge. Turn south onto a gravel oilfield road just west of a cattle guard with a recent pipeline buried near the road. Continue south for .8 mile to a large tank battery; turn right (west) for .25 mile to a pump jack, then south (left) for .63 mile to a P/A well site with a gas line tap. Turn right (west) for a .3 mile, then south .1 mile to another P/A well site. The proposed access road will start at the southeast corner of this well pad and run south for approximately 750 feet to the NW corner of the proposed well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 750 feet of new access roads 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibit "A".
- B. Construction: The new access road will be constructed by grading and topping with compacted caliche. The existing access road will be graded and repaired as required.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. Cuts and Fills: No cuts or fills required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: An off lease ROW No. NM-102279 was issued with the previous APD covering the existing access road in the E2 of Sec. 1-T19S-R30E.

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 production-process equipment and tank battery 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 and proposed access roads

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from a pit on the location if available or from a Federal pit in the NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 26-T18S-R30E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access roads.

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 land fill 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, 400' X 400'.
- B. Mat Size: 250' X 175', plus 100' X 100' reserve pits on the north.
- C. Cut & Fill: The location will require a cut of 4-5 foot cut on the north with fill to the south.
- 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 needed 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 well site and access road are located in a area on top of the Niminem Ridge with small hummocky dunes. There is an overall 4-5% slope to the south from an elevation of 3509' GL.
- B. Soil: The topsoil at the well site is a deep reddish brown colored sandy loam with considerable scatter of caliche rock on the surface with more rock to the south side. The soil is of the Simona Gravelly Fine Sandy Loam complex series on the north side and Rock Land series on the south side.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of threeawn, grama, dropseed, fluff grass, along with plants of mesquite, broomweed, yucca, javalina bush, 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 an intermittent drainage system and playa 400 feet to the south of the location.
- E. Residences and Other Structures: None in the area except oil field equipment and tank batteries.
- 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. An archaeological survey is being conducted by Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

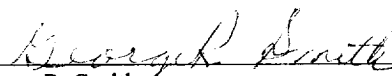
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls
Chi Operating, Inc.
P. O. Box 1799
Midland, Texas 79701
Office Phone: (915) 685-5001
Home Phone: (915) 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.

September 19, 2000



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

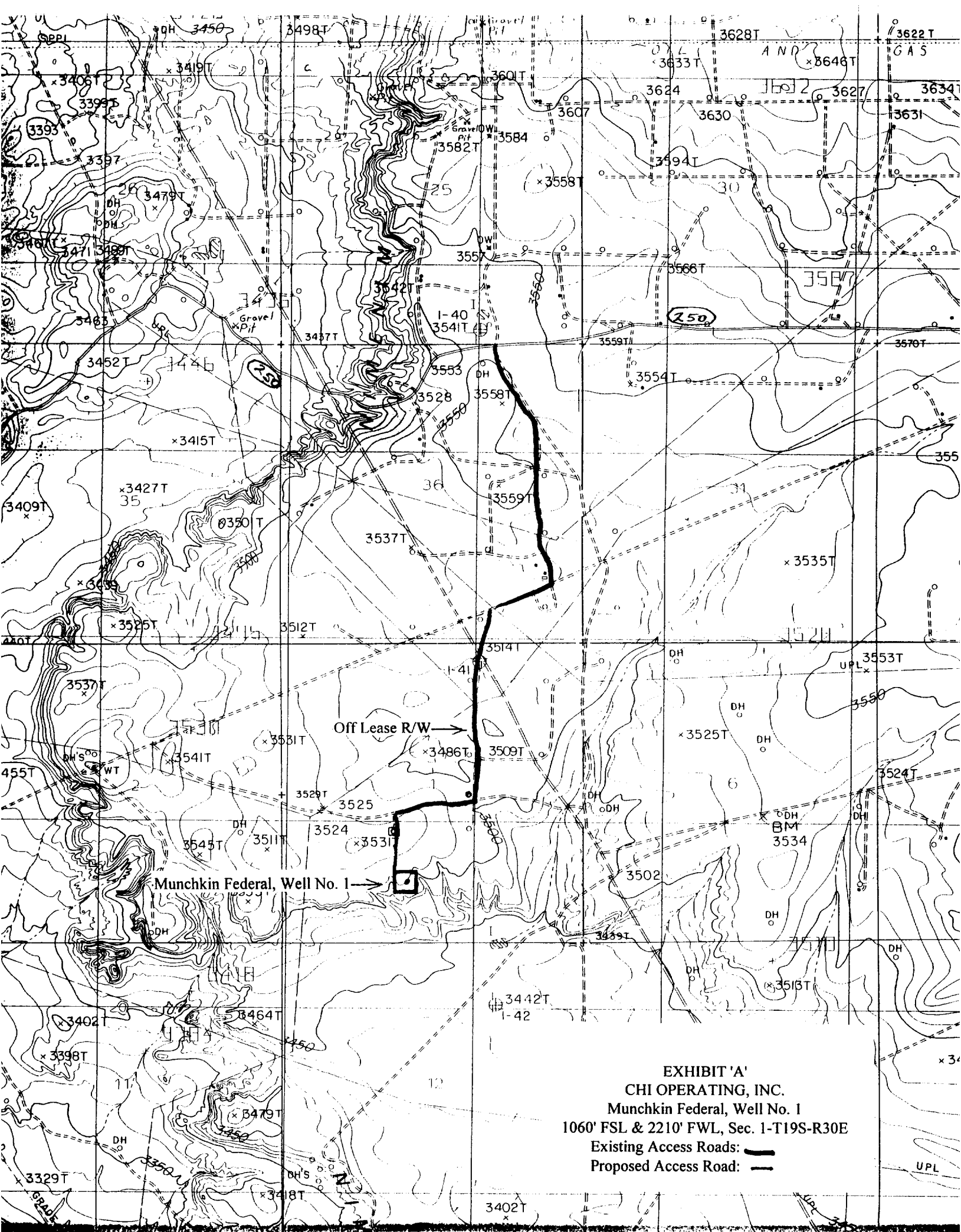


EXHIBIT 'A'
CHI OPERATING, INC.
Munchkin Federal, Well No. 1
1060' FSL & 2210' FWL, Sec. 1-T19S-R30E
Existing Access Roads: —
Proposed Access Road: —

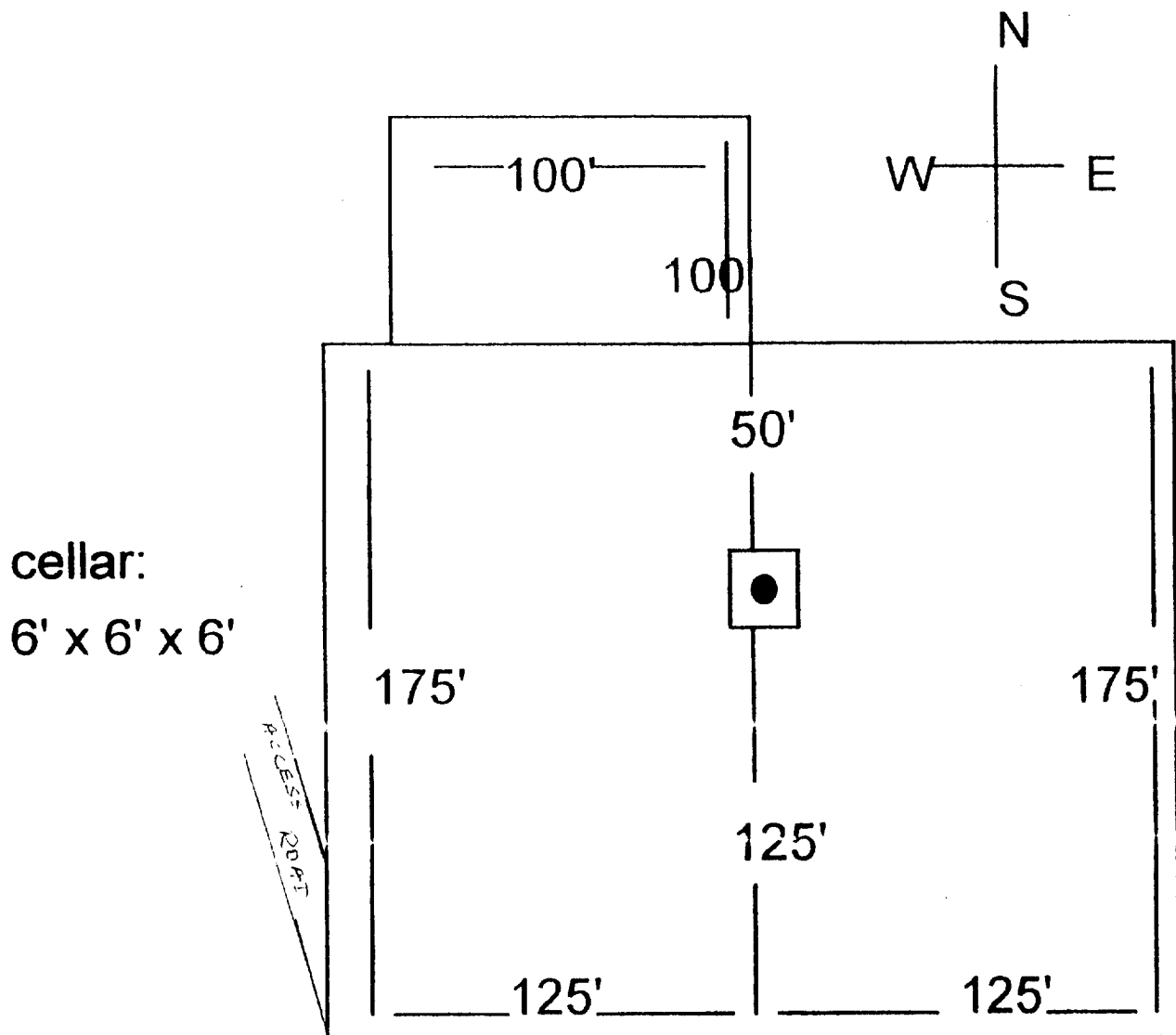
RIG PLAT

L & M Rig #1

L & M Rig #2

or

L & M Rig #3



RIG #3^{or}1

BLOWOUT PREVENTOR ARRANGEMENT

10" SHAFFER TYPE "E", 3000 psi WP

80 GALLON, 4 STATION KOOMEY ACCUMULATOR

3000 psi WP CHOKE MANIFOLD

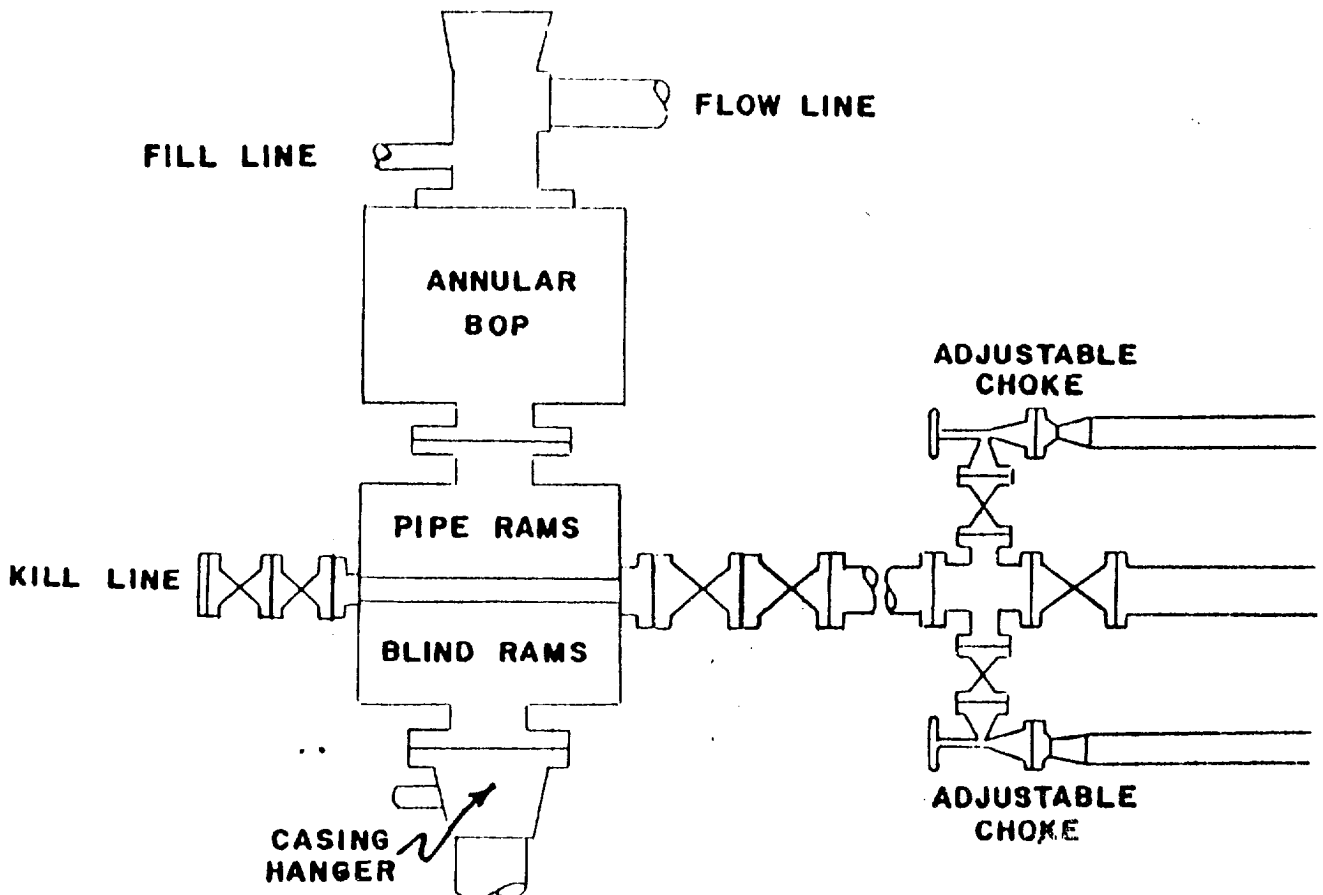


EXHIBIT "E"
CHI OPERATING, INC.
Munchkin Federal, Well No. 1
BOP Specifications