

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

480' FSL & 1600' FEL

At proposed prod. zone

760' FSL & 1650' FEL

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

41.5 road miles SW Hobbs, NM

15. DISTANCE FROM PROPOSED*

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

480'

16. NO. OF ACRES IN LEASE

1720.2

17. NO. OF ACRES ASSIGNED TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

150'

19. PROPOSED DEPTH

14,400'

20. ROTARY OR CABLE TOOLS

Rotary

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

3659' GL

CAPITAN CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*

June 15, 1999

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" J-55	48# LTC	500'	Circ. 450 sx "C" WITNESS
12 1/4"	9 5/8" J-55	40# LTC	5,600'	Circ. 1440 sx "C" WITNESS
7 7/8"	5 1/2" N-80	20# LTC	1,200'	See below.
7 7/8"	5 1/2" N-80	17# LTC	12,680'	See below.
7 7/8"	5 1/2" N-80	20# LTC	13,880'	500 sx Super "C" + add.

Mud Program:

0' - 500': Fresh water Gel/Lime:
500' - 3,200': Brine mud:
3,200' - 5,600': Fresh water mud w/add:
5,600' - 11,150': Cut Brine mud:
1,150' - 12,300': Cut Brine mud:
2,300' - 13,000': Cut Brine mud:
3,000' - 14,400': Cut Brine mud:

Mud Wt.

- Vis.

- W/L Control

8.8 - 9.2 ppg 34 - 36 No W/L control
10.2 ppg 28 No W/L control
8.4 ppg 28 No W/L control
10.0 ppg 28 No W/L control
9.4 - 9.7 ppg 28 No W/L control
9.4 - 9.7 ppg 34 - 36 W/L control 10 cc +/-
9.4 - 9.8 ppg 40 - 42 W/L control 6 cc +/-

BOP Program:

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 12 1/4" and will be tested daily.

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

George R. Smith

TITLE

Agent for:

Chi Operating, Inc.

DATE

March 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 property or that the applicant is qualified to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

(ORIG. SGD.) M. J. CHÁVEZ

STATE DIRECTOR

APPROVED BY

TITLE

DATE

JUN 9 1999

*See Instructions On Reverse Side

RECEIVED

MAR 18 '99

BLM
ROSWEIL, NM

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-34677	Pool Code 80850	Pool Name Lynch; Quail Ridge Morrow, West
Property Code 24691	Property Name GREENSTONE FEDERAL COM	Well Number 1
OGRID No. 4378	Operator Name CHI OPERATING, INC.	Elevation 3659'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	20 S	34 E		480	SOUTH	1600	EAST	LEA

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
0	19	20 S	34 E		760	SOUTH	1650	EAST	LEA
Dedicated Acres 320	Joint or Infill	Consolidation Code C	Order No.						

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

LOT 1 40.03 AC.	LC-029512A OXY USA et al	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>George R. Smith</u> Signature George R. Smith, agent for: Printed Name Chi Operating, Inc. Title March 17, 1999 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JANUARY 21, 1999</p> <p>Date Surveyed Signature & Seal Professional Surveyor NEW MEXICO 99-11-0045 Certificate No. RONALD EIDSON 3239 GARY EIDSON 12641</p>
LOT 2 40.06 AC.		
LOT 3 40.08 AC.	NM-13276 OXY USA 3657.8' — 3658.0' O 3658.9' — 3660.7' DETAIL	
LOT 4 40.11 AC.	<p>BOTTOM HOLE</p> <p>760' 480'</p> <p>1650'</p> <p>1600'</p> <p>SEE DETAIL</p>	

APPLICATION FOR DRILLING
CHI OPERATING, INC.
Greenstone Federal Com., Well No. 1
480' FSL & 1600' FEL, Sec. 19-R20S-R34E
Lea County, New Mexico
Lease No.: NM-13276
(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:

Rustler	1,500'	Bone Spring 2nd sand	10,000'
Top of Salt	1,700'	Bone Spring 3rd sand	10,000'
Base of Salt	3,100'	Wolfcamp	11,200'
Yates	3,250'	Strawn	12,400'
Delaware	5,550'	Atoka	12,600'
Bone Spring	8,500'	Morrow Clastic	13,100'
Bone Spring 1st sand	9,500'	Lower Morrow	13,600'
		T.D	14,400'

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 below 5500' and Bone Spring below 8500'.

Gas: Possible in the Morrow below 13,100'.

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: T.D. to 3100': LDT-CNL, DLL/msfl, GR.

3100' to surface: LDT/GR

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 = 5760 psi with a temperature of 205°.

10. H₂S: A Drilling Operations Plan, Exhibit "F", is being submitted to cover this contingency.

11. Anticipated starting date: June 16, 1999.

Anticipated completion of drilling operations: Approximately 4 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.

Greenstone Federal Com., Well No. 1
480' FSL & 1600' FEL, Sec. 19-T19S-R34E
Lea County, New Mexico
Lease No.: NM-13276
(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 USGS/BLM Lea, NM topo map showing the location of the proposed well as staked. The well site location is approximately 47 road miles northeast of Carlsbad, NM or 42 miles southwest of Hobbs, NM. Traveling east of Carlsbad on U.S. Highway 62/180 and county roads, there will be 41 miles of paved highway, plus 5.5 miles of county and existing gravel oilfield roads.
- B. Directions: Travel east from Carlsbad, NM on U. S. Highway 62/180 for approximately 41 miles; turn south .6 mile east of MM 76 onto County Rd. C-27 at a Read & Stevens sign. Continue south on County Rd C-27 for 3.9 miles, then turn southwest and then west on an oilfield road for 1.45 miles. Turn north (right) .2 mile to the West Lynch Fed. #1 well site. The proposed well is 150 feet northeast of this well. The proposed well site will be accessed from the northwest corner of the existing well site..

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 50-75 feet of new access road 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibits "A" and "B".
- 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
- D. Culverts: None.
- E. Cuts and Fills: None.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: An off lease Right of Way will be required for the 1.5 miles from the county road to the lease in Sec. 19.

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 no production facilities on the lease at this time for Chi Operating, Inc..
 - B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery will be installed on the drilling pad. A gas line hook up will be made on or near the existing well pad since it will cover part of the GPM gas line.
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 $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 8-T20S-R34E. 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 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: A maximum of 290' X 175', plus 100' X 100' mud/reserve pits on the southeast.
- C. Cut & Fill: The location will require leveling of 4- 6 foot sand dunes on the north with fill to the south, but not to cut below the highest surface location of the GPM pipeline
- 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 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 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 duney area of the Querecho Plains with an overall .7% slope to the south from an elevation of 3659' GL.
- B. Soil: The topsoil at the well site is a light brown colored course to fine sand of the Pyote and Maljamar Fine Sands Series.
- C. Flora and Fauna: The vegetation cover is a sparse grass cover of threeawn, black grama and sand dropseed, along with plants of mesquite, broomweed, yucca, shinnery oak brush, 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 in the area, except production facilities.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.

11. OTHER INFORMATION: cont.....

- 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:

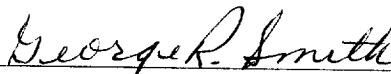
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

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.

March 17, 1999



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