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Form 3160-3 (August 1999) UNITED STATES	. /	RECEIVE	12324	0110 11	APPROVED 5. 1004-0136 rember 30, 2000
DEPARTMENT OF THE I BUREAU OF LAND MANA	NTERIOR	OCD ARTES	242526 A	5. Lease Serial No.	LC-028053A
	RILL OR	REENTER	- 51 81.10	6. If Indian, Allotte	e or Tribe Name
Ia. Type of Work: DRILL REENTE	ER.	031-120			cement, Name and No. $257/15$
lb. Type of Well: 🛄 Oil Well 🔀 Gas Well 🔲 Other		Single Zone 🔲 Mult	iple Zone	8. Lease Name and V Hiawatha Fed	Vell No. eral Com., 4 /
2. Name of Operator Chi Operating, Inc	437	8		9. API Well No.	-131150
3a. Address	3b. Phone N	No. (include area code)		10. Field and Pool, or	
PO Box 1799 Midland, TX 79702 4. Location of Well (Report location clearly and in accordance with	.	15) 685-500	1		Lat; Morrow S Bik. and Survey or Area
At surface 1650' FNL & 990 At proposed prod. zone Same 4. Distance in miles and direction from nearest town or post office* 17 miles NE of Artesia, N		UNIT E		Sec. 10-T1 12. County or Parish. Eddy	13. State NM
5. L'istance from proposed* lication to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 990 '		Acres in lease	17. Spacing	g Unit dedicated to this v 320	vell
8. Distance from proposed location ^e to nearest well, drilling, completed, applied for, on this lease, ft. 660'	19. Propos	ed Depth 10 , 250 '	20. BLM/E	BLA Bond No. on file NM-1616	
1. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	kimate date work will sta	ut*	23. Estimated duration	<u> </u>
3536′_GL		04/24/00 achments		<u>30 days</u>	
The following, completed in accordance with the requirements of Onshor	re Oil and Ga	s Order No.1, shall be at	tached to this	form:	· · · · · · · · · · · · · · · · · · ·
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the	liem 20 above). 5. Operator certific	ation. specific info		existing bond on file (see
S. Signature	1	t (Printed/Typed)			Date
Tile Agent for: Chi Operating		<u>George R. S</u>	mith		04/07/00
Approved by (Signature) (SLAPRY D. GRAV		e (Printed/Typed)	ur.J		Date Av 1 at anon
Tile Assistant Field Manager, Lands And Minerals	Offi	œ		··· 26	×
Application approval does not warrant or certify the the applicant holds le operations thereon.	egal or equita	ble title to those rights in	n the subject	lease which would entitle	e the applicant to conduct

*(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.

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		СНІ	OPERA	TING	, INC	Operator C .	Name				Elevation 3536
						¹⁶ Surface	Location				
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^{ar} Dedicated Acres 32.0	" Joint or		c om	Cede	ⁿ Order	Nø.				1	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL AL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

1650'	LC-028053A		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
990'			Signature Uncertained Name George R. Smith The Agent for: Chi Oper., Inc. Due 04/07/00
			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. MARCH & R: R2000
			REGULATION AND STREET

APPLICATION FOR DRILLING

CHI OPERATING, INC. Hiawatha Federal Com., Well No. 1 1650' FNL & 990' FWL, Sec. 10-T17S-R28E Eddy County, New Mexico Lease No.: LC-028053A (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:

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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	450'	Strawn	8890'
Penrose	1400'	Atoka Morrow	9430'
San Andres	1980'	Morrow Clastic	9730'
Glorietta	3370'	Mississipian	9970'
Tubb	4710'	Chester	10,080'
Wolfcamp	6620'	T.D.	10,250'
Upper Penn	7830'		

- 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 Cisco below 7830'.

Gas: Possible in the Grayburg below 1,750', Atoka below 9,430' and the Morrow below 9730'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT SETT	ING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	425'	Circ. 350 sx "C"
12 1/4"	8 5/8 "	32.0#	J-55	ST&C	2,000'	Circ. 650 sx "C" cement.
7 7/8"	5 1/2"	15.5#	N-80	LT&C	10,250'	475 sx of "H" to 8,000'
		17				

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 12 1/4" and will be tested daily. See Exhibit "E".

6MUD PROGRAM		MUD WEIGHT		W/L CONTROL
0' - 425'	: Fresh water mud:	8.4 - 8.7 ppg	32 - 34	No W/L control
425' - 2000	: Brine mud:	10.0 - 10.2 ppg	28 - 29	No W/L control
2000' - 6600	: Fresh water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
6600' - 9100	: Cut Brine mud:	9.6 - 10.0 ppg	28 - 29	No W/L control
9100' - 9500	: Cut Brine mud:	9.6 - 10.0 ppg	32 - 36	W/L control 10 cc +/-
9500' - 10,250	: Cut Brine mud:	9.6 - 10.0 ppg	42 - 48	W/L control 8 cc +/-

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: Possible in the Strawn and Atoka. Logging: T.D.to 6500': GR-CAL-CNL-LDT-DLL-MICRO

- T.D. to Surface: GR-Neutron
- Coring: As dictated for the Atoka and Morrow.

Chi Operating, Inc. Hiawatha Federal Com., Well No. 1 Page 2

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 = 4200 with a temperature of 164°.

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- 10. H₂S: None expected.
- Anticipated starting date: April 24, 2000. Anticipated completion of drilling operations: Approximately 30 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC. Hiawatha Federal Com., Well No. 1 1650' FNL & 990' FWL, Sec. 10-T17S-R28E Eddy County, New Mexico Lease No.: LC-028053A (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 Public Access map showing the location of the proposed well as staked. The well site location is approximately 17 road miles east of Artesia, NM. Traveling east of Artesia on U.S. Highway 82 and county roads, there will be 13 miles of paved highway, plus 4.0 miles existing gravel County Rd. #208 and oil field road.
- B. Directions: Travel east from Artesia, NM on U. S. Highway 82 for approximately 13 miles to the County Rd #208 (Red Lake Road). Turn north on County Rd. #208 for 3.8 miles to a crossroads and the end of the County Rd #208. Continue north .3 mile on a good gravel road to the start of the proposed access road, 30 feet south of the northwest 400' corner, which will run east for approximately 100 feet to the NW corner of the proposed well pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access roads will be approximately 100 feet long. The proposed and existing roads are color coded on Exhibits "A" and "B".
- 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: Minor cuts of 3 4 foot dunes 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".

Chi Operating, Inc. Hiawatha Federal Com., Well No. 1 Page 2

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 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 the location, if available, or from a Federal pit in NW4 NE4 Sec. 21-T17S-R28E. 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.

Hiawatha Federal Com., Well No. 1 Page 3

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: 280' X 175', plus 110' X 120' reserve pits on the southwest.
- C Cut & Fill: The location will require a 2- foot cut on the south with fill to the north, including leveling 2 4 .sand dunes.
- 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 proposed well site and access road are located on a gentle 1-2% slope to the west/southwest toward Red Lake. The surface of the location has slight slope to the north and to the GPM Pipeline that cuts across the southeast corner of the 400' X 400'. The location has an elevation of 3536' GL.
- B. Soil: The topsoil at the well site is a light tan sandy loam soil with a surface scatter of gypsiferous and limestone rock from the Rock Land escarpment to the east. The soil is part of the Pajarito-Dune land complex.
- C. Flora and Fauna: The vegetation cover has very little to no grass, with the primary cover being plants of mesquite, yucca, fourwing saltbush, broomweed, Russian-thistle, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: Red Lake, a shallow currently dry pond like lake, is 1500 feet to the west.
- E. Residences and Other Structures: None in the immediate vicinity.
- F. Land Use: Cattle grazing.

Chi Operating, Inc. Hiawatha Federal Com., Well No. 1 Page 4

11. OTHER INFORMATION: cont.....

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is some minor evidence of archaeological, historical or cultural sites in the staked 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) 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.

April 7, 2000

1 Directe

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





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BLOWOUT PREVENTOR ARRANGEMENT

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