

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTF-35
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-98124
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. 4378		7. If Unit or CA Agreement, Name and No. 35771
3a. Address P.O. Box 1799 Midland, TX 79702		8. Lease Name and Well No. Paradise 5 Federal, Well #1
3b. Phone No. (include area code) (432) 685-5001		9. API Well No. 30-015-34389
4. Location of Well (Report location clearly and in accordance with any State requirements. *) 1940' FSL & 730' FEL per B Hunt & SN dated 7/13/05 At proposed prod. zone same		10. Field and Pool, or Exploratory Burton Flats Morrow 73280
14. Distance in miles and direction from nearest town or post office* 8.6 road miles N. of Carlsbad, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 5-T21S-R27E
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 1529.88	12. County or Parish Eddy
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1350'	19. Proposed Depth 11,450'	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3247' GL	22. Approximate date work will start* April 25, 2005	17. Spacing Unit dedicated to this well 320
23. Estimated duration 4-6 weeks		20. BLM/BIA Bond No. on file NM-1616
24. Attachments CARLSBAD 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 <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 3/24/05
Title Agent for Chi Operating, Inc.		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date OCT 13 2005
Title ACTING 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)

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

George R. Smith
George R. Smith, agentAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHEDWitness Surface &
Intermediate Casing

29.5

District I
1625 N. French Dr. Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 73280	Pool Name Burton Flats Morrow
Property Code	Property Name PARADISE "5" FEDERAL	Well Number 1
OGRID No. 4378	Operation Name CHI OPERATING INC.	Elevation 3247

Surface Location

UL or Lot No. I*	Section 5	Township 21-S	Range 27-E	Lot Idn.	Feet from the 1940	North/South line SOUTH	Feet from the 780	East/West line EAST	County EDDY
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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	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

<p>*NOTE: SECTION 5, T21S, R27E, N.M.P.M., IS ELONGATED WITH LOTS 1 THRU 16 IN THE NORTH-HALF</p>	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>	
	Printed Name George R. Smith	
<p>LAT N 32°30'26.6" LON W 104°12'21.2"</p> <p>780'</p> <p>1940'</p>	Agent	
	Title and E-mail Address	
	Date July 13, 2005	
	Date	
<p>JUNE 23, 2005</p> <p>NEW MEXICO</p> <p>REGISTERED LAND SURVEYOR</p> <p>5412</p> <p>NM PE&PS #5412</p>	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	
	Signature and Seal of Registered Surveyor	
Certificate Number		

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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
March 12, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Chi Operating, Inc. Telephone: 1-432-685-5001 e-mail address: _____
Address: P.O. Box 1799 Midland, TX 79702 **30-015-34389**
Facility or well name: Paradise 5 Federal, Well No 1 API U/L or Qtr/QtrNESE Sec 5 T 21S R 27E
County: Eddy Latitude N32°50'46.86" Longitude W104°20'54.940" NAD: 1927 1983 X Surface Owner Federal X State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐
Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness current rule at time of drilling mil

Clay ☐ Volume 10,000 +/- bbl

Below-grade tank

Volume: bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not _____

RECEIVED

OCT 17 2005

OGD-ARTESIA

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water. Not Avail. Est. 200-300')

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No

(0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

Ranking Score (Total Points)

-0- points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: March 24, 2005

Printed Name/Title George R. Smith, agent for Chi Operating, Inc. (505) 623-4940

Signature *George R. Smith*

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: **OCT 17 2005**

Printed Name/Title

Field Supervisor

Signature *[Signature]*

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Paradise 5 Federal, Well No. 1
1980' FSL & 660' FEL, Sec. 5-T21S-R27E
Eddy County, New Mexico
Lease No.: NM-98124
(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	440'	Atoka	10,509'
Capitan Reef	880'	Morrow	10,893'
Delaware	2,400'	Morrow Lime	11,109'
Bone Spring	5,003'	Lower Morrow	11,403'
Wolfcamp	8,995'	T.D	11,700'
Strawn	10,185'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:
Water: Surface water between 100' - 300'. Capitan Reef below 880'.
Oil: Possible in the Queen, Delaware and Bone Spring
Gas: Possible in the Atoka below 10,509' and the Morrow below 10,893'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT	
17 1/2"	13 3/8"	48.5#	J-55	ST&C	0" - 600'	Circ. 275 sx "C" + add.	WITNESS
12 1/4"	9 5/8"	36.0#	J-55	ST&C	0' - 2,400'	Circ. 800 sx 65/35 sx "C" + POZ.	WITNESS
7 7/8"	5 1/2"	20.0#	N-80	LT&C	0' - 400'		
7 7/8"	5 1/2"	17.0#	N-80	LT&C	400' - 8,450'		
7 7/8"	5 1/2"	20.0#	N-80	LT&C	8,450' - 11,700'	1500 sx of "H" + add.	

5. Minimum Specifications for Pressure Control Equipment:

A 12" 5000 psi WP Shaffer, LWS Double Gate BOP will be installed on the 13 3/8" casing and tested per order #2.
Request waiver to operate as a 3,000 psi WP system and test to the maximum expected surface pressure of 2,500 psi WP
Casing and BOP will be tested before drilling out with the 11" and will be tested before drilling into the Wolfcamp.

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 600': Fresh water/spud:	8.4 - 8.5 ppg	32 - 36	No W/L control
600' - 2,400': Fresh water mud:	10.0 - 10.1 ppg	29	No W/L control
2400' - 8,500': Fresh water mud:	8.4 - 8.5 ppg	28	No W/L control
8500' - 10,300': Brine mud:	10.0 - 10.1 ppg	29	No W/L control
10,300' - 10,840': Brine/C.Brine(starch):	9.5 - 10+ ppg	32 - 34	W/L control 12-15 cc +/-
10,840' - 11,700': XCD-LSRV-40000	9.5 - 10+ ppg	42 - 45	W/L control 8 cc +/-
(XCD subject to change)			

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: As deemed necessary.

Logging: Intermediate, Depending on mud log shows: 350' - 4350': (GR-CAL-CNL-LDT)(GR-CAL-DLL-MICRO)

T.D. - 2400: (GR-CAL-CNL-LDT)(GR-CAL-DLL-MICRO)

2400: - Surface: GR/CNL.

Coring: As dictated by logs.

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 = 5148 psi and surface pressure of 2574 psi with a BH temperature of 177°.

10. H_2S : None expected. The Mud Log Unit will be cautioned to use a gas trap to detect H_2S and if any is detected the mud weight will be increased along with H_2S inhibitors sufficient to control the gas.

11. Anticipated starting date: April 25, 2005.

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

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Paradise 5 Federal, Well No. 1
1980' FSL & 660' FEL, Sec. 5-T21S-R27E
Eddy County, New Mexico
Lease No.: NM-98124
(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 8.6 road miles north of Carlsbad, NM. Traveling north of Carlsbad on CR Road #206 there will be approximately 5.6 miles of paved and 3.0 miles of gravel road.
- B. Directions: Travel north of Carlsbad on County Rd. 206 for approximately 5.6 miles to the Alkali Road turnoff, which is approximately .9 mile north of the CR 34. Turn northeast on Alkali Road for 1.8 miles. Turn southwest on a side road for 1.2 miles to the start of the proposed access road on the left. The proposed access will run east for 600 feet to the southwest corner of the proposed well site.

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 600 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 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. A 4.5" 2200 psi steel gas pipe line will be buried back to the Yates "C" Fed. #31 well site in the NW4SE4 of Sec. 5-T21S-R27E..

TIMBER//SHARP DRILLING

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

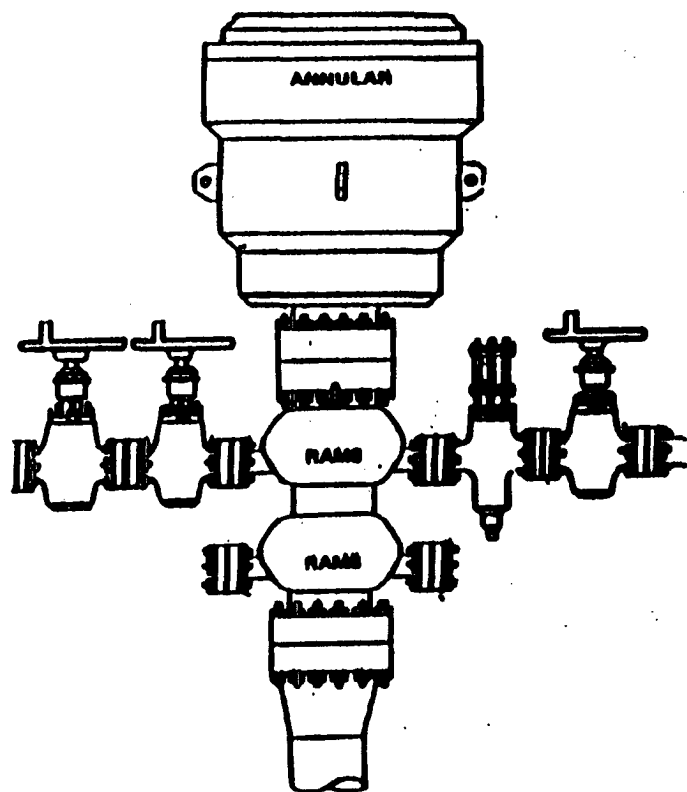
Rams in top gate: 4 1/2" pipe

Rams in bottom: Blinds

Side Outlets used:

Bottom X Top

4" Valves on Tee



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

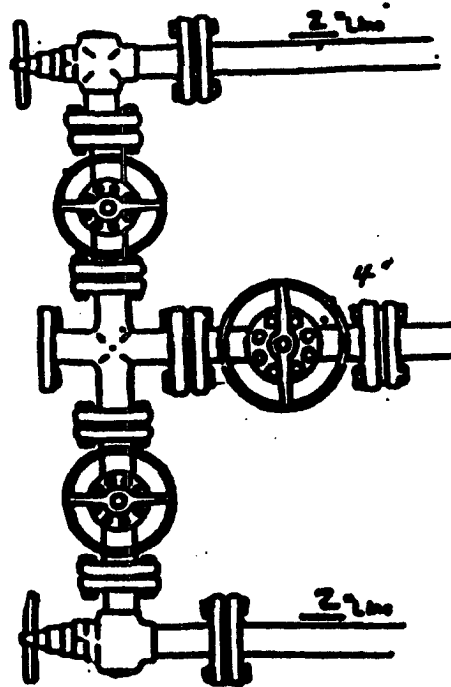


EXHIBIT "E"

CHI OPERATING, INC.

Paradise 5 Federal, Well No. 1

BOP Specifications

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Chi Operating, Inc.
Well Name & No. Paradise 5 Federal #1
Surface Location: 1940' 1980' FSL, 660' FEL, Section 5, T. 21 S., R. 27 E., Eddy County, New Mexico
Lease: NM-98124 780 per BHunt & SN dated 7/13/05

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Well spud

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 600 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is to be circulated to the surface.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 5000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of

4/5/2005

acs

drilling mud for testing is not permitted since it can mask small leaks.

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

NOTE: Fresh water mud will be used to drill to 8500'.