

OCD-ARTESIA

E-0625
FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL - 5 2006

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-01119	
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		8. Lease Name and Well No. 35860 Avalon Hills Fed. Com., Well #1	
3b. Phone No. (include area code) (432) 685-5001		9. API Well No. 30-015-35007	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) 1740' 990' FNL & 990' FEL At proposed prod. zone same		10. Field and Pool, or Exploratory Burton Flats Morrow	
14. Distance in miles and direction from nearest town or post office* 7.2 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) 990'	16. No. of Acres in lease 731.87	17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 467'	19. Proposed Depth 700' 11,450	20. BLM/BIA Bond No. on file NM-1616	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3231' GL	22. Approximate date work will start* March 23, 2006	23. Estimated duration 4-6 weeks	
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. | 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 <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 2/9/06
Title Agent for Chi Operating, Inc.		
Approved by (Signature) <i>/s/ Tony J. Herrell</i>	Name (Printed/Typed) <i>/s/ Tony J. Herrell</i>	Date JUN 30 2006
Title 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.

h.
Witness Surface &
Intermediate Casing*GRS.*
George R. Smith, agent

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

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED
29.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM-01119
2. Name of Operator Chi Operating, Inc.		6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 1799 Midland, TX 79702	3b. Phone No. (include area code) 432/685-5001	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T, R., M., or Survey Description) 1240' FNL & 1190' FEL, Sec. 5-T21S-R27E (New location) 990' FNL & 990' FEL, Sec. 5-T21S-R27E (Previous location)		8. Well Name and No. Avalon Hills Federal Com., #1
		9. API Well No.
		10. Field and Pool, or Exploratory Area Burton Flats Morrow
		11. County or Parish, State Eddy

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Chi Operating, Inc. requests that the Application for Permit to Drill, submitted February 9, 2006, be changed to reflect a move, as suggested by Barry Hunt, BLM, to improve location site.. The access road will still come in the to the southeast corner of the location. The pits will be moved from the SE to the south and "V" door to the west. Nothing else will be changed on the APD. New elevation will be 3231' GL. See new survey plat and Exhibits.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

George R. Smith

Title Agent for Chi Operating, Inc.

Signature

George R. Smith

Date March 9, 2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

/s/ Tony J. Herrell

Name

(Printed/Typed)

/s/ Tony J. Herrell

Title

FIELD MANAGER

Conditions of approval, if any, are attached. Approval of this notice does not warrant 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.

Office

CARLSBAD FIELD OFFICE

Date

JUN 30 2006

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.

(Continued on next page)

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 73280	³ Pool Name Burton Flats Morrow
⁴ Property Code	⁵ Property Name AVALON HILLS FEDERAL COM	⁶ Well Number 1
⁷ OGRID No. 4378	⁸ Operator Name CHI OPERATING, INC.	⁹ Elevation 3231

¹⁰ Surface Location

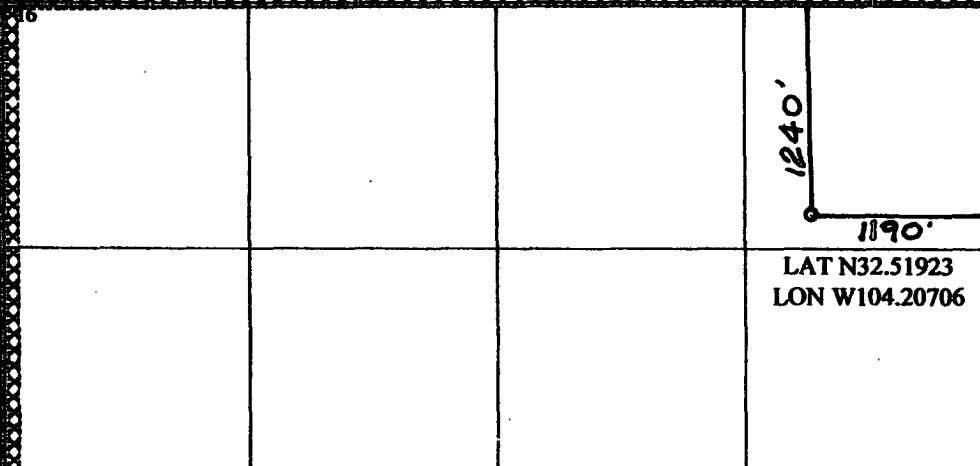
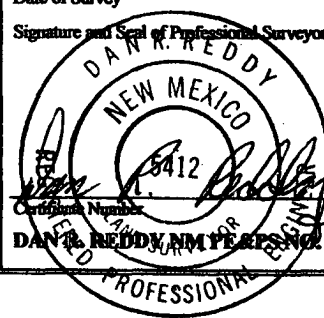
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	5	21-S	27-E		1240	NORTH	1190	EAST	EDDY

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 Acre 320	¹³ Joint or Infill	¹⁴ Consolidation Code Com.	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.

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>George R. Smith</u> Date: <u>3/9/06</u> George R. Smith, agent Printed Name
	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. FEBRUARY 25, 2006 Date of Survey Signature and Seal of Professional Surveyor:  Certification Number: <u>5412</u> DAN R. REDDY, NM P.E.S. NO. 5412 PROFESSIONAL SURVEYOR

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Avalon Hills Federal Com., Well No. 1
990' FNL & 990' FEL, Sec. 5-T21S-R27E
Eddy County, New Mexico
Lease No.: NM-01119
(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	WITNESS
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.

CHI Operating, Inc.

Avalon Hills Federal Com., Well No. 1

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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: March 23, 2006.

Anticipated completion of drilling operations: Approximately 40 - 50days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Avalon Hills Federal Com., Well No. 1
990' FNL & 990' FEL, Sec. 5-T21S-R27E
Eddy County, New Mexico
Lease No.: NM-01119
(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 7.2 road miles north of Carlsbad, NM. Traveling north of Carlsbad on CR Road #206 there will be approximately 5.6 miles of paved and 1.7 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 1.6 miles. Turn southwest on a side road for .1 miles to the Exxon Delaware Unit #816 well pad. The proposed access road will start at the southeast corner of the pad on the south side. The proposed access will run southwest for approximately 300 feet to the southeast 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 300 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: There will be some cuts and leveling as the road leaving the Exxon well
- 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. A 4.5" 2200 psi steel gas pipeline will be buried back to the SE corner of the Exxon Delaware Unit #816 well site.

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 State pit located in the NE4SE4 Sec. 36 T20S-R27E. 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, 500' X 500'.
- B. Mat Size: 275' X 185', plus 130' X 135' reserve pits on the southeast.
- C. Cut & Fill: There will a 3-4 foot cut on the south/southwest with fill to the north/northeast.
- 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 3.5% slope to the northeast from an elevation of 3231'.
- B. Soil: The topsoil at the well site is a moderately dark loamy fine sandy soil of the Tonuco loamy sands land series. There is a considerable scatter of rock caliche on the surface and platy, indurated caliche at a depth of surface to 7 inches.
- C. Flora and Fauna: The vegetation consists of a sparse grass cover of dropseed, three awn, some bluestem and bush muhly along with plants of broomweed, mesquite, javalina bush, creosote bush, yucca, 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: Alkali Lake is approximately 1 mile southeast of the location.
- E. Residences and Other Structures: None in the immediate vicinity except oilfield equipment on well locations.
- 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.

Chi Operating, Inc.

Avalon Hills Federal Com., Well No. 1

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12. OPERATOR'S REPRESENTATIVE:

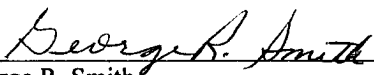
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

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

February 9, 2006



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

TRIMBLE/SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24 d 22
Well To Be drilled for Trimble/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/FO, 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 Trimble

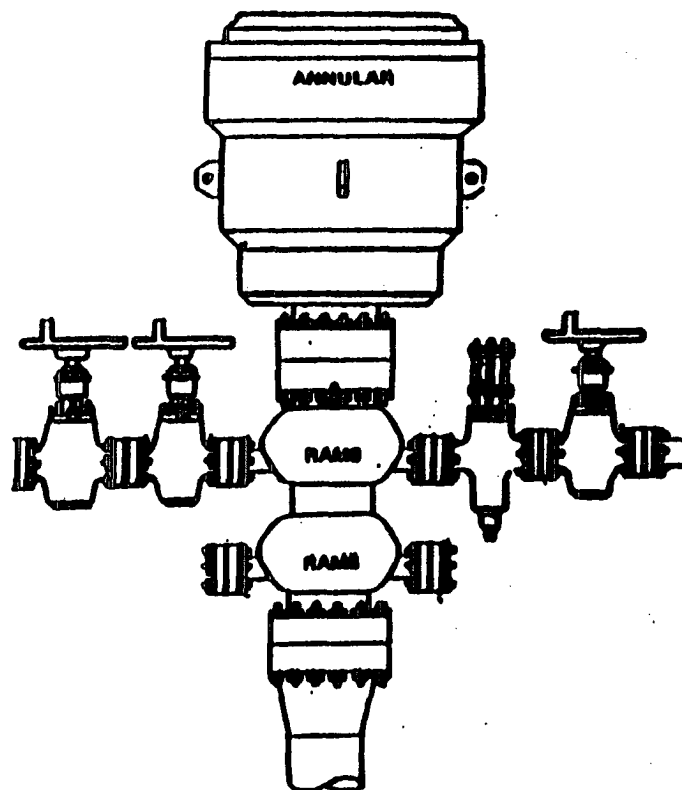
Rams in top gate: 4 1/2 pipe

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 Trimble/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

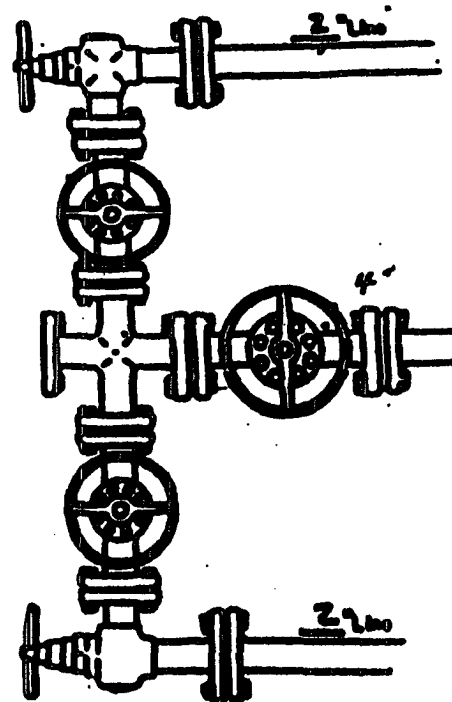
Valve Types Used:

Cameron - F or FC

Shaffer - B Floseal

WKM - type 2

Chokes - Cameron H2 or TC unibolt



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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

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
Facility or well name: Avalon Hills Federal Com., Well No 1 API U/L or Qtr/Qtr NENE Sec 5 T 21S R 27E
County: Lea Latitude N 32.51992 Longitude W 104.20640 NAD: 1927X 1983 Surface Owner Federal ☒ 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 1,000 +/- bbl

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

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

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: February 8, 2006

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: JUL 14 2006

Date: Gery Guye
Deputy Field Inspector
District II - Artesia

Printed Name/Title Signature *Gery Guye*

Conditions of Approval Cave and Karst

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 12 mil plastic liner.

Buried Cuttings Pit:

A 70X100 foot cuttings pit will be utilized for this location. The cuttings pit will be lined with 4 oz. felt and a layer of 20 mil. plastic. Upon completion of the well all excess fluids will be vacuumed off the cuttings pit and allowed to dry. The pit liner will then be folded over the cuttings, covered with a 20 mil plastic cover and then covered with at least three feet of top soil.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Cementing:

All casing strings will be cemented to the surface.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater than 75 percent occur simultaneously while drilling in any cave-

bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Pressure Tests:

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

Differential Shut-off Systems:

A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence or absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Chi Operating, Inc.
Well Name & No. Avalon Hills Fed Com #1
Location: 1240' 990' FNL, 990' FEL, Section 5, T. 21 S., R. 27 E., Eddy County, New Mexico
Lease: NM-01119 1190'

per attached SN dated 3-9-06 [Signature]

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

3. 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.

4. 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.

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

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

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. A variance to use the 5000 psi BOPE as a 3000 psi BOPE to the top of the Wolfcamp at approximately 8995 feet is approved.

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

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- 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 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.

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NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

July 17, 2006
CHI Operating, Inc.
Midland, TX 79702

**RE: Condition of Approval for Chi Operating, Inc., Avalon Hills Federal Com. # 1
Application to drill, that is to be located in lot 1 of Section 5, Township 21 South, Range 26
East, Eddy County, NM
API # 30-015-35007**

Dear Sirs/Madams,

In regards to the above noted well, the New Mexico Oil Conservation Division (NMOCD) has approved said application to drill the above noted well. A condition of approval (in part) is for representatives with CHI Operating, Inc (Chi) to verify levels of chlorides in the drilling mud (every 100') from the flow line. Chloride readings from the drilling mud are to be taken after 13 3/8" casing is set and continue to the setting depth of the 9 5/8" casing which is to be @ 2400'. Results of these tests are to be submitted to the NMOCD office in Artesia before drilling to total depth of the well.

The NMOCD also notes your detailed mud program and only fresh water mud is to be used in drilling the Capitan Reef section of the well bore

Please call our office if there are any questions regarding this matter.

Respectfully yours,

Bryan G. Arrant
Petroleum Engineer Specialist/NMOCD-District II
505-748-1283 ext. 103
CC: Well file
EM: Tim Gum, District II Supervisor