

1301 W. Grand Avenue

Artesia, NM 88210

UNITED STATES

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

5. Lease Serial No.

NM-97128

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

Diamond Vista 10 Fed. Com., #1

9. API Well No.

30-015-34393

10. Field and Pool, or Exploratory

Diamond Mound Co. Morrow

11. Sec., T., R., M., or B' and Survey or Area

Sec. 10-T16S-R28E

12. County or Parish

Eddy

13. State

NM

1a. Type of Work: ☒ DRILL☐ REENTER

OCT 20 2005

OCD-ARTESIA

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other☐ Single Zone☐ Multiple Zone

2. Name of Operator

Chi Operating, Inc.

4378

3a. Address

P.O. Box 1799 Midland, TX 79702

3b. Phone No. (include area code)

(432) 685-5001

76079

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

1418' FSL &amp; 660' FWL

At proposed prod. zone same

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

22 miles northwest of Loco Hills, NM

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

600

17. Spacing Unit dedicated to this well

320

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

N/A

19. Proposed Depth

9,700'

20. BLM/BIA Bond No. on file

NM-1616

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

3,606' GL

22. Approximate date work will start\*

July 14, 2005

23. Estimated duration

4-6 weeks

## 24. Attachments

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

6/6/05

Title

Agent for Chi Operating, Inc.

Approved by (Signature)

/s/ Joe G. Lara

Name (Printed/Typed)

/s/ Joe G. Lara

Date

OCT 18 2005

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.

APPROVAL FOR 1 YEAR

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.

Roswell Controlled Water Basin

George R. Smith, agent

WITNESS: 13 3/8" CEMENT JOB

79.5

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

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<br>76079                            | Pool Name<br>Diamond Mound E. Morrow |
| Property Code     | Property Name<br>DIAMOND VISTA 10 FEDERAL COM | Well Number<br>1                     |
| OGRID No.<br>4378 | Operation Name<br>CHI OPERATING, INC.         | Elevation<br>3604                    |

Surface Location

|                    |               |                  |               |          |                       |                           |                      |                        |                |
|--------------------|---------------|------------------|---------------|----------|-----------------------|---------------------------|----------------------|------------------------|----------------|
| UL or Lot No.<br>L | Section<br>10 | Township<br>16-S | Range<br>28-E | Lot Idn. | Feet from the<br>1410 | North/South line<br>SOUTH | Feet from the<br>660 | East/West line<br>WEST | County<br>EDDY |
|--------------------|---------------|------------------|---------------|----------|-----------------------|---------------------------|----------------------|------------------------|----------------|

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<br>320 | Joint or Infill | Consolidation Code<br>Comm. | 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

OPERATOR CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*George R. Smith*  
Signature

George R. Smith

Printed Name

Agent

Title and E-mail Address

9/7/05

Date

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.

AUGUST 22, 2006

Date of Survey

Signature of Registered Professional Surveyor

NEW MEXICO  
5412  
REGISTERED LAND SURVEYOR  
NM PROFESSIONAL 5412  
Certificate Number

LAT N 32°56'03.3"  
LON W 104°10'12.6"  
660'

1410'

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

Facility or well name: Diamond Vista 10 Federal Com., Well No 1 API U/L or Qtr/Qtr SWSW Sec 10T 16S R 28E

County: Eddy Latitude N 32°56'02.3" Longitude W 104°10'12.6" 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 20 2005

ODD-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: June 2 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.

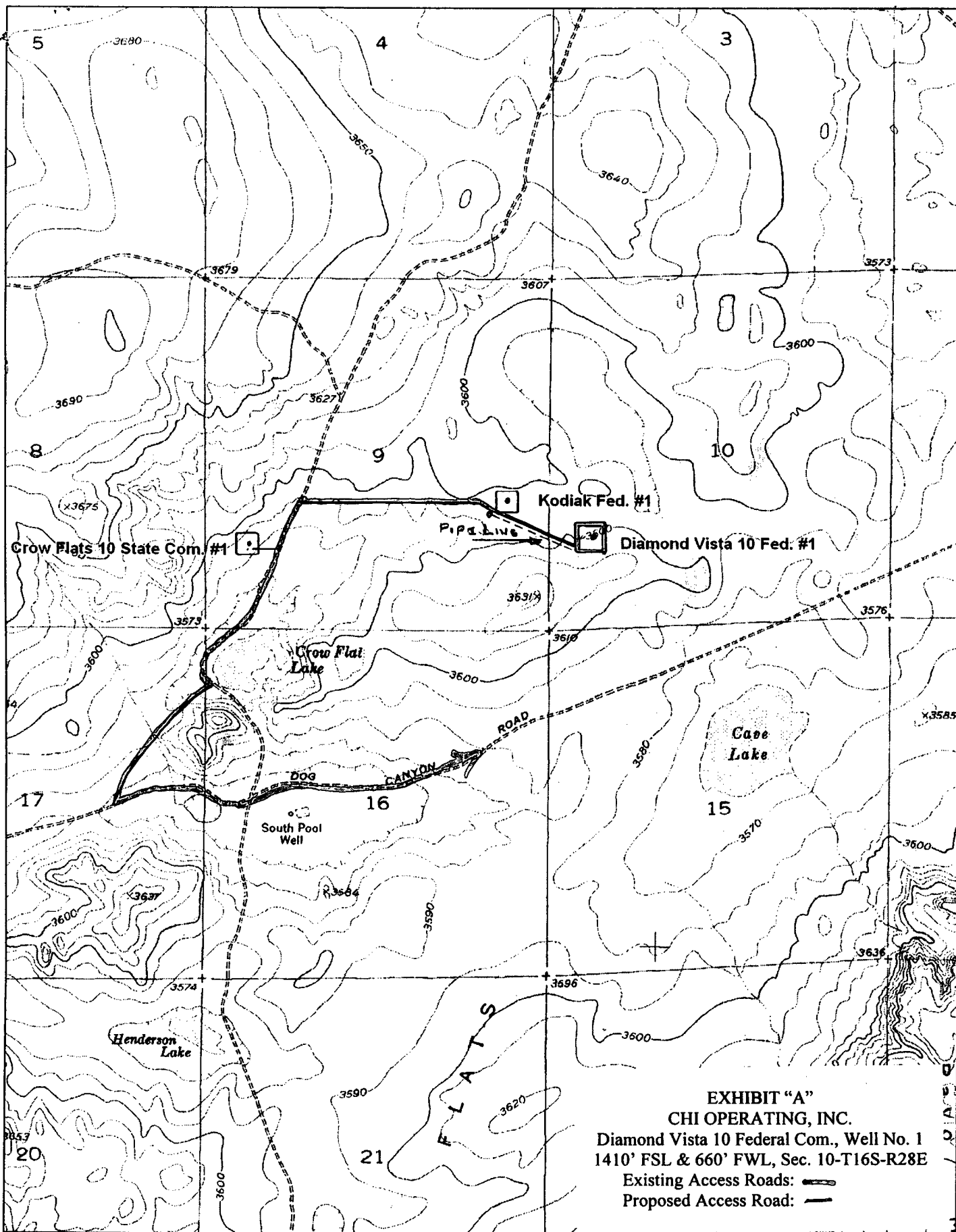
Approval:

Date: OCT 21 2005

Printed Name/Title

Field Supervisor

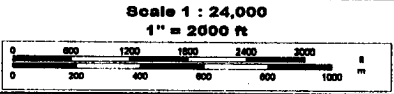
Signature



**EXHIBIT "A"**  
**CHI OPERATING, INC.**  
 Diamond Vista 10 Federal Com., Well No. 1  
 1410' FSL & 660' FWL, Sec. 10-T16S-R28E  
 Existing Access Roads:   
 Proposed Access Road:



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[www.delorme.com](http://www.delorme.com)



# TIMBER//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24 d. 22

Well To Be drilled for TMS2/Sharp

**'All B.O.P' equipment to H2B Film'**

\* All Accumulators are Kormax Type-RD : Dual Power Electrolyte/Air

'Choke Manifold: ' See sheet 2

**4' Valves : Cameron F/FC, Shaller DB Hydraulic**

**2" Check Valve: Cameron Type R**

**2' Valves : Cameron or Shaffer**

**Annular Shaffer** Type: Spherical

Annular PSI: 3000

( If Shaffer: Spherical , If Hydrell: Type OK )

**BOP Type** Shaffer LWS

( If Shaffer: LWS or SL, If Cameron: Type U )

**BOP Size:** 13<sup>5</sup>/<sub>8</sub> " - 5000 PSI

### Rotating Head Type Smith

Rot-Head Furnished By Wise

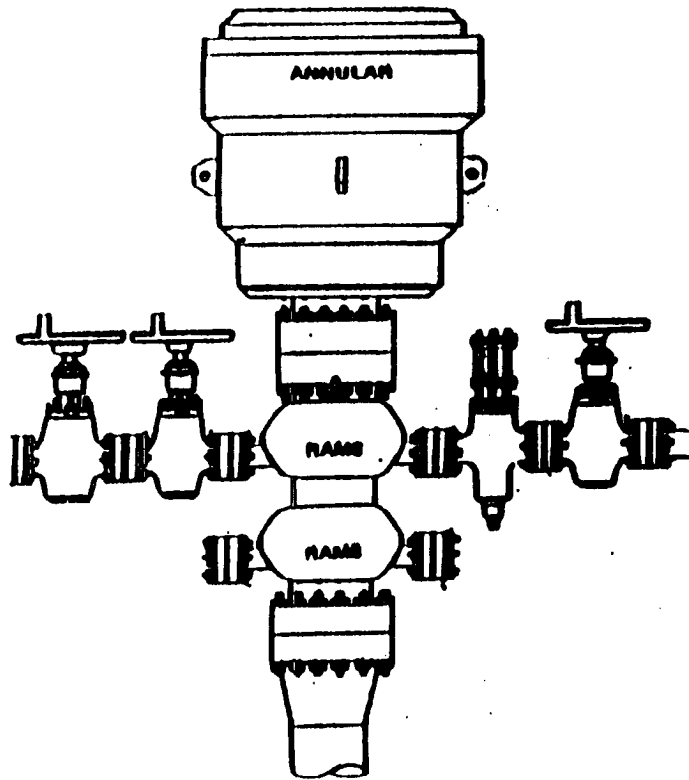
Rams in top gate: 4 1/2 pipe

Rams in bottom: Blinds

**Side Outlets used:**

Bottom X Top     

### 4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24922

Well To Be drilled for Twice / Sharp

• All Valves (1-26) •

### 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**

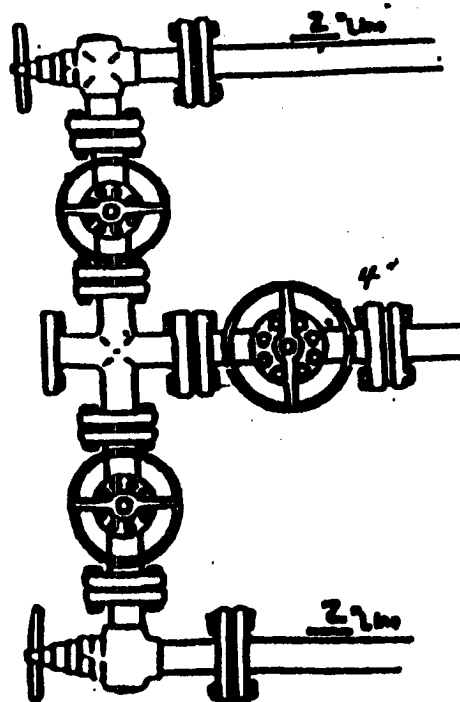


EXHIBIT "E"

CHI OPERATING, INC.

Diamond Vista 10 Federal Com., Well No. 1

## BOP Specifications

## APPLICATION FOR DRILLING

### CHI OPERATING, INC.

Diamond Vista 10 Federal Com., Well No. 1  
1310' FSL & 660' FWL, Sec. 10-T 16S-R28E  
Eddy County, New Mexico  
Lease No.: NM-97128  
(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:

|            |        |                |        |
|------------|--------|----------------|--------|
| San Andres | 1,790' | Wolfcamp       | 6,540' |
| Glorieta   | 31280' | Atoka          | 8,970' |
| Tubb       | 4,560' | Morrow Clastic | 9,140' |
| Abo Shale  | 5,320' | Mississippian  | 9,600' |
|            |        | T.D.           | 9,700' |

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 San Andres below 1790'.

Gas: Possible in the Wolfcamp, Atoka below 8,970' and Morrow below 9,140'.

4. Proposed Casing Program:

| HOLE SIZE | CASING SIZE        | WEIGHT     | GRADE | JOINT | SETTING DEPTH | QUANTITY OF CEMENT                          |
|-----------|--------------------|------------|-------|-------|---------------|---|
| 26"       | 20" (If necessary) |            |       |       | 40'           | Circ to surface                             |
| 17 1/2"   | 13 3/8"            | 48.5/54.5# | H-40  | ST&C  | 400'          | Circ. 300 sx "C" + add to surface.          |
| 11"       | 8 5/8"             | 32#        | J-55  | ST&C  | 1,800'        | Circ. 1000 sx "C" + add. to surface.        |
| 7 7/8"    | 5 1/2"             | 17#        | N-80  | LT&C  | 9,700'        | 1000 sx of "C" + add to 500' above top prod |

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 11" and will be tested daily. See Exhibit "E".

| 6. MUD PROGRAM:                         | MUD WEIGHT     | VIS.    | W/L CONTROL           |
|---|----------------|---------|-----------------------|
| 0' - 400': Fresh water spud:            | 8.4 - 8.5 ppg  | 32 - 36 | No W/L control        |
| 400' - 1,800': Brine mud:               | 10.0 ppg       | 29      | No W/L control        |
| 1,800' - 6,500': Fresh water mud:       | 8.4 ppg        | 28      | No W/L control        |
| 6,500' - 8,870': C.Brine/Brine mud:     | 9.3 - 10.0 ppg | 29      | No W/L control        |
| 8,870' - 9,040': C.Brine/Brine(starch): | 9.3 - 10.0 ppg | 32 - 34 | W/L control 12-15cc   |
| 9,040' - 9,700': (XCD-LSRV-20000):      | 9.3 - 10.0 ppg | 42      | W/L control <8 cc +/- |
| (XCD subject to change)                 |                |         |                       |

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, and stabbing valve.
8. Testing, Logging, and Coring Program:
  - Drill Stem Tests: As deemed necessary.
  - Logging: T.D to 1800': GR/CAL-CNL/LDT-DLL/MICRO  
T.D to surface: GR/CNL
  - Coring: As dictated by logs for the Morrow.

Chi Operating, Inc.  
Diamond Vista 10 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 = 4268 and a surface pressure of 2134 with a temperature of 157°.

10. H<sub>2</sub>S: None expected.

11. Anticipated starting date: July 14, 2005.

Anticipated completion of drilling operations: Approximately 40 days.

## **MULTI POINT SURFACE USE AND OPERATIONS PLAN**

### **CHI OPERATING, INC.**

Diamond Vista 10 Federal Com., Well No. 1  
1310' FSL & 660' FWL, Sec. 10-T16S-R28E  
Eddy County, New Mexico  
Lease No.: NM-97128  
(Exploratory 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 22 road miles northwest of Loco Hills, NM. Traveling east of Artesia, NM on U.S. Highway 82, there will be approximately 20 miles of paved highway and 17.5 miles of gravel County Road #214 and oil field roads.
- B. Directions: Travel east of Artesia, NM on U.S. Highway 82 for approximately 20 miles to County Rd# 214 (Barnaval Draw Rd.). Turn north on #214 for 6.9 miles to a "Y". Take northwest road and continue northwest 3.9 miles to caliche pit on the left. Continue northwest, then southwest, circling Jahie Lake of the Nakee Ishee Lakes. Continue southwest for a total from the pit of 4.9 miles on Dog Canyon Rd past Cave Lake. Turn northeast for 1.3 miles to a road turnoff to the east. The road goes to the Mack Energy Kodiak Fed., Well No. 1. The proposed access road for the Diamond Vista 10 Federal Com., #1 will start at the southwest corner of this well pad and run southeast for approximately 1500 feet to the northwest corner of the proposed location.

#### **2. PLANNED ACCESS ROAD:**

- A. Length and Width: The proposed access road will be constructed to a surface width of 12 feet and will be approximately 1500 feet long. The proposed and existing 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: There may be one turnout at the midsection of the road, increasing the width to 20 feet for passing.
- D. Culverts: None.
- E. Cuts and Fills: None required, except leveling small dunes.
- F. Gates, Cattle guards: None required.
- G. Off lease right of way: An off lease Road and Pipeline Right of Way is being submitted.

#### **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" steel line will be buried parallel to the access road northwest for approximately 1,500' to the pipeline at the Kodiak Fed. well.

**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 will use a Federal pit in NW4SE4 Sec. 1-T16S-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 landfill within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES:**

- A. None required.

**Chi Operating, Inc.**

Diamond Vista 10 Federal Com., Well No. 1

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**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: 250' X 175', plus 110' X 100' reserve pits on the Southeast.
- C. Cut & Fill: The location will require a cutting of 2-3 foot on the east and southeast with fill to the north and west.
- 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 .5 north of Dog Canyon Rd. with a 2.0% slope to the northwest from an elevation of 3606' GL.
- B. Soil: The topsoil at the well site is a reddish brown calcareous loam with a surface scatter of caliche rock and some exposed thin outcrops of limestone and gypsiferous rock. The soil is part of the Largo-Stony land complex.
- C. Flora and Fauna: The vegetation cover has a poor to fair grass stand consisting of three-awn, muhly, grama and other miscellaneous grasses along with plants of mesquite, javalina bush, yucca, broomweed, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, deer, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: Cave Lake, a dry lake, is 3,500 feet to the southeast.
- E. Residences and Other Structures: None in the immediate vicinity except oil field facilities.
- F. Land Use: Cattle grazing.

**Chi Operating, Inc.**

Diamond Vista 10 Federal Com., Well No. 1

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**11. OTHER INFORMATION: cont.....**

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no visible evidence of archaeological, historical or cultural sites in the staked area. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, are conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

**12. OPERATOR'S REPRESENTATIVE:**

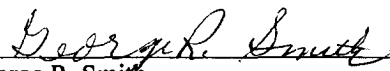
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls  
Chi Operating, Inc.  
P. O. Box 1799  
Midland, Texas 79701  
Office Phone: (915) 685-5001  
Home Phone: (915) 684-6847

**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.

June 3, 2005

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

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: CHI OPERATING, INC.  
Well Name & No. 1 - DIAMOND VISTA 10 FEDERAL COM  
Location: 1410 1310' FSL & 660' FWL - SEC 10 - T16S - R28E - EDDY COUNTY  
Lease: NM-97128  
.....*1410 attached SN dated 9-7-95 (PAP)*.....

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
  - A. Spudding
  - B. Cementing casing: 13-3/8 inch 8-5/8 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.
5. 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 400 feet, below usable water 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 8-5/8 inch intermediate casing is circulate cement to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

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### **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) required for drilling the surface and intermediate casing shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 8-5/8 inch casing shall be 3000 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 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.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

### **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:

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