ATS-07-515

OCD-ARTESIA

957

Form 3160-3
(April 2004)

RESUBMITTAL

SEP 13 2007
OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work. [X] DRILL [ ] REENTER	5 Lease Serial No LC-065347
	6 If Indian, Allotee or Tribe Name
	7 If Unit or CA Agreement, Name and No NM-071129
1b Type of Well [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone	8. Lease Name and Well No White City Penn 20 GCU 2 No. 4
2 Name of Operator Cimarex Energy Co. of Colorado	9 API Well No 30-015- 33914
3a Address PO Box 140907; Irving, TX 75014-0907	3b Phone No *(include area code)* 972-401-3111
	10 Field and Pool, or Exploratory White City; Penn (Gas)
4 Location of Well *(Report location clearly and in accordance with any State requirements *)* At Surface 950' FNL & 1980' FWL At proposed prod Zone 800' FNL & 1600' FWL CARLSBAD CONTROLLED WATER BASIN	11 Sec , T R M or Blk and Survey or Area 20-24S-26E
14 Distance in miles and direction from nearest town or post office* 17 miles South of Carlsbad	12 County or Parish Eddy 13 State NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line if any) 950'	16 No of acres in lease 2318.08	17 Spacing Unit dedicated to this well 640 acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1522'	19 Proposed Depth 12000'	20 BLM/BIA Bond No on File NM-2575
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3413' GR	22 Approximate date work will start* 1/1/2008	23 Estimated duration 35-45 days

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 Zeno Farris	Name *(Printed/Typed)* Zeno Farris	Date 06.01.07
Title Manager Operations Administration		
Approved By *(Signature)* /s/ James Stovall	Name (Printed/Typed)	Date SEP 10 2007
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 TWO YEARS

Title 18 U S S 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 page 2)*

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Cimarex Energy Co. of Colorado
5215 North O'Connor Blvd • Suite 1500 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6486
Mailing Address: P O Box 140907 • Irving, TX 75014-0907
A wholly-owned subsidiary of Cimarex Energy Co , a NYSE Listed Company, "XEC"

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land
Management
620 East Greene Street
Carlsbad, NM 88220

Attn: Ms. Linda Denniston

Cimarex Energy Co. of Colorado accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.:	LC-065347 - All but SESW Section 20-24S-26E Fee - SESW Section 20-24S-26E
County:	Eddy County, NM
Formation(s):	Morrow
Bond Coverage:	Statewide BLM Bond
BLM Bond File No.:	NM-2575
Authorized Signature:	Zeno Farris Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager, Operations Administration

Date: June 1, 2007

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 and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		White City Penn (Gas)

Property Code	Property Name	Well Number
	WHITE CITY PENN 20 GAS COM UNIT 2	4

OGRID No.	Operator Name	Elevation
162683	GRUY PETROLEUM MANAGEMENT COMPANY	3413'

Surface Location

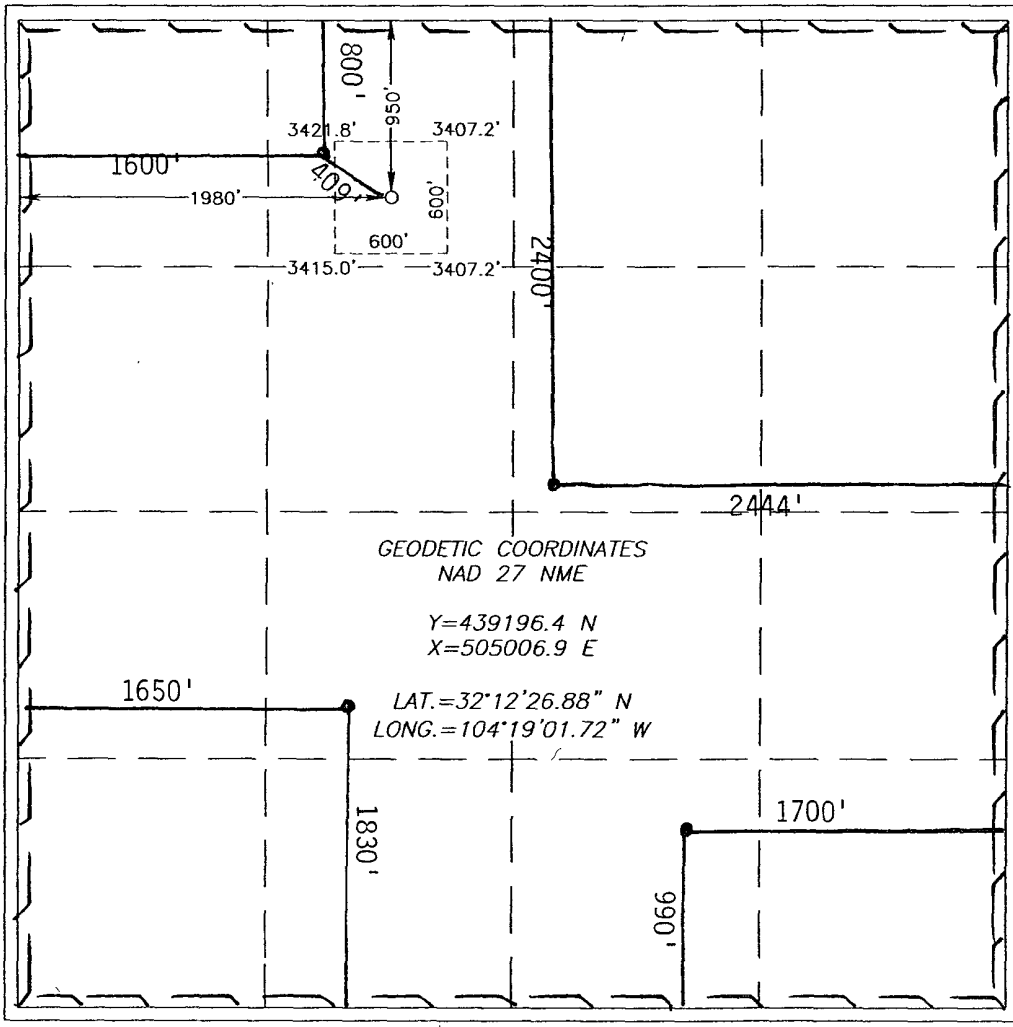
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	20	24-S	26-E		950	NORTH	1980	WEST	EDDY

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
L	20	24-S	26-E		800	NORTH	1600	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640	Y	C	

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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Zeno Farris
Signature

Zeno Farris
Printed Name

Manager Operations Admin
Title

December 15, 2004
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 supervison, and that the same is true and correct to the best of my belief.

NOVEMBER 11, 2004
Date Surveyed JR

Signature & Seal of Professional Surveyor

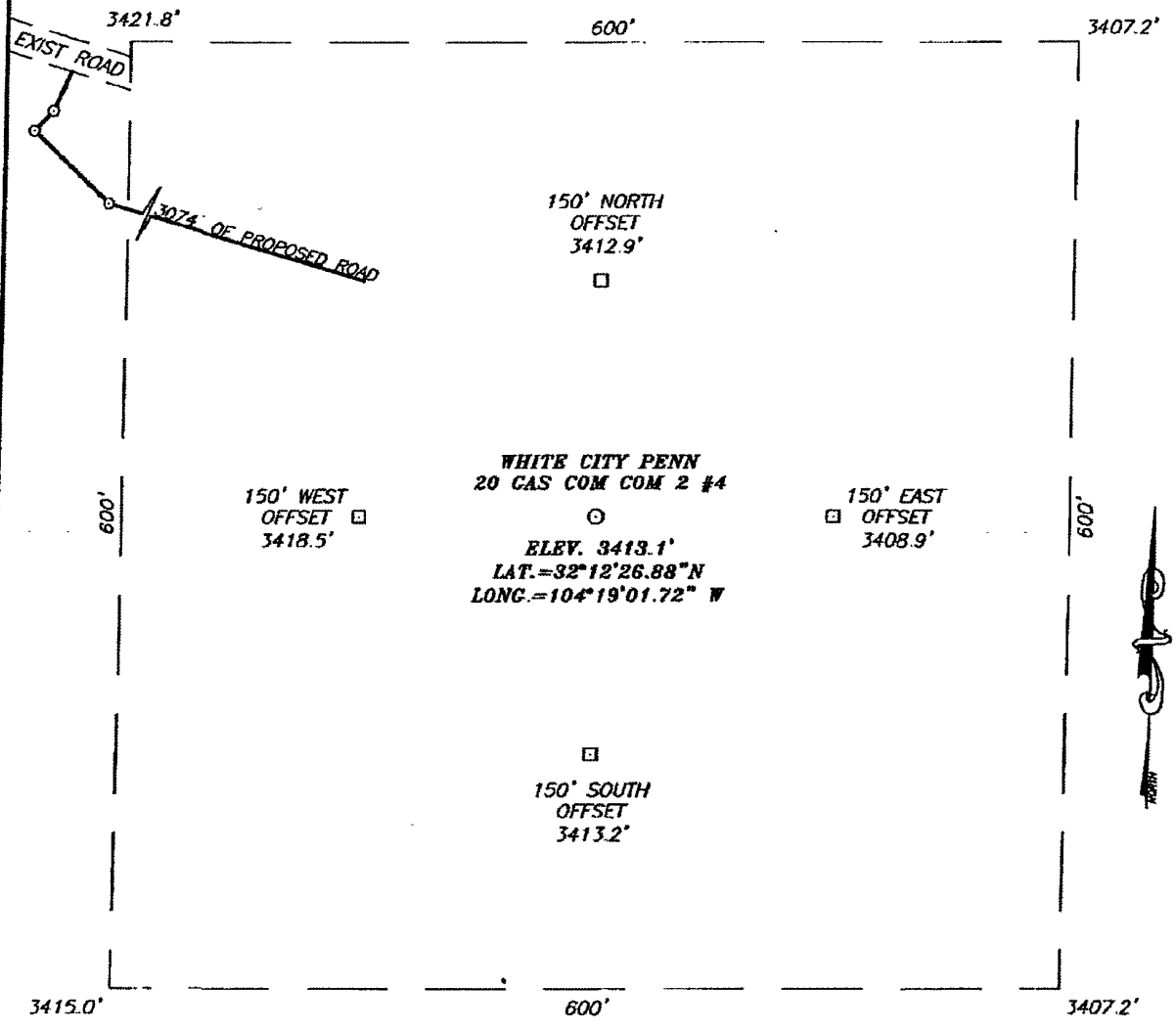
Gary L. Eidson 11/15/04

04.11.1393

Certificate No. GARY EIDSON 12641

SECTION 20, TOWNSHIP 24 SOUTH, RANGE 26 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #720 (BLACK RIVER VILLAGE RD.) AND U.S. HWY 62-180, GO SW ON U.S. HWY. 62-180 FOR APPROX. 0.5 MILES TO A CALICHE ROAD ON THE LEFT, TURN LEFT (SE) AND GO APPROX. 800' TO A PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY FOR APPROX. 0.5 MILES. PROPOSED LOCATION IS APPROX. 850' EAST.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

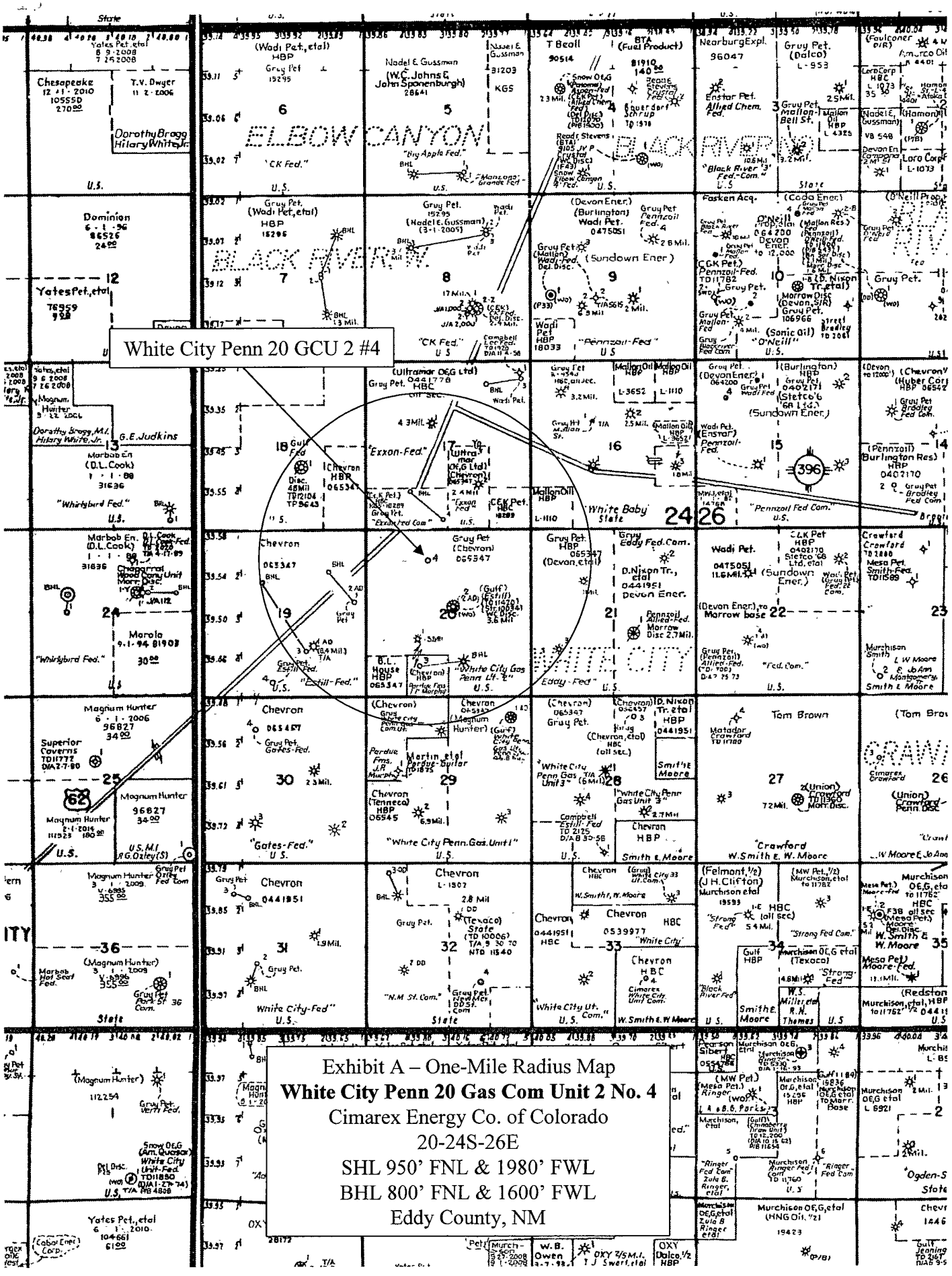
HOBBS, N.M. 88240

(505) 393-3117

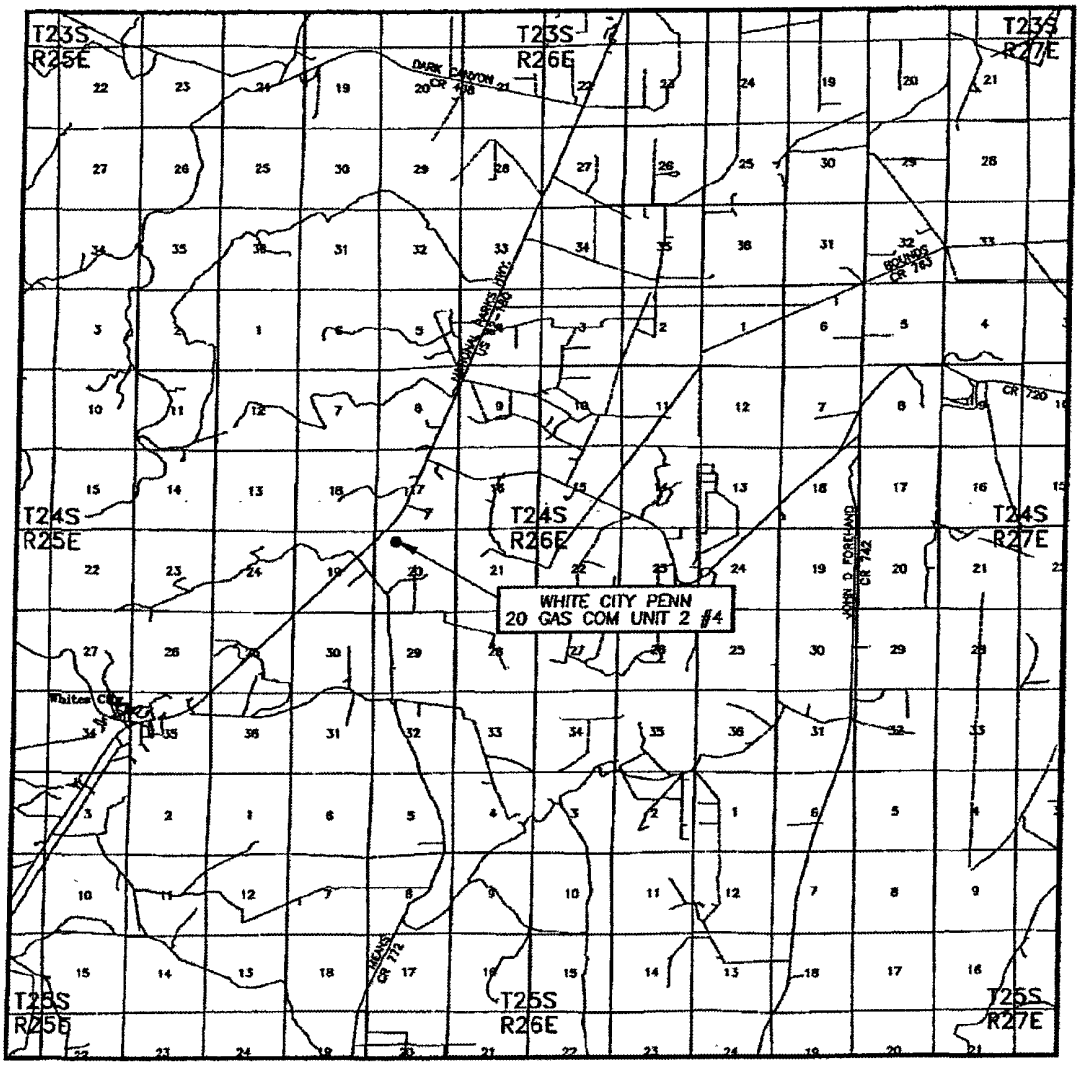
GRUY PETROLEUM MANAGEMENT COMPANY

WHITE CITY PENN 20 GAS COM UNIT 2 #4 WELL
LOCATED 950 FEET FROM THE NORTH LINE
AND 1980 FEET FROM THE WEST LINE OF SECTION 20,
TOWNSHIP 24 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 11/11/04	Sheet 1 of 1 Sheets		
W.O. Number. 04.11.1393	Dr By: J. RIVERO	Rev 1: N/A	
Date: 11/12/04	Disk: CD#10	04111393	Scale: 1"=100'


White City Penn 20 GCU 2 #4
Exhibit A – One-Mile Radius Map
White City Penn 20 Gas Com Unit 2 No. 4
Cimarex Energy Co. of Colorado
20-24S-26E
SHL 950' FNL & 1980' FWL
BHL 800' FNL & 1600' FWL
Eddy County, NM

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 20 TWP. 24-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 950' FNL & 1980' FWL

ELEVATION 3413'

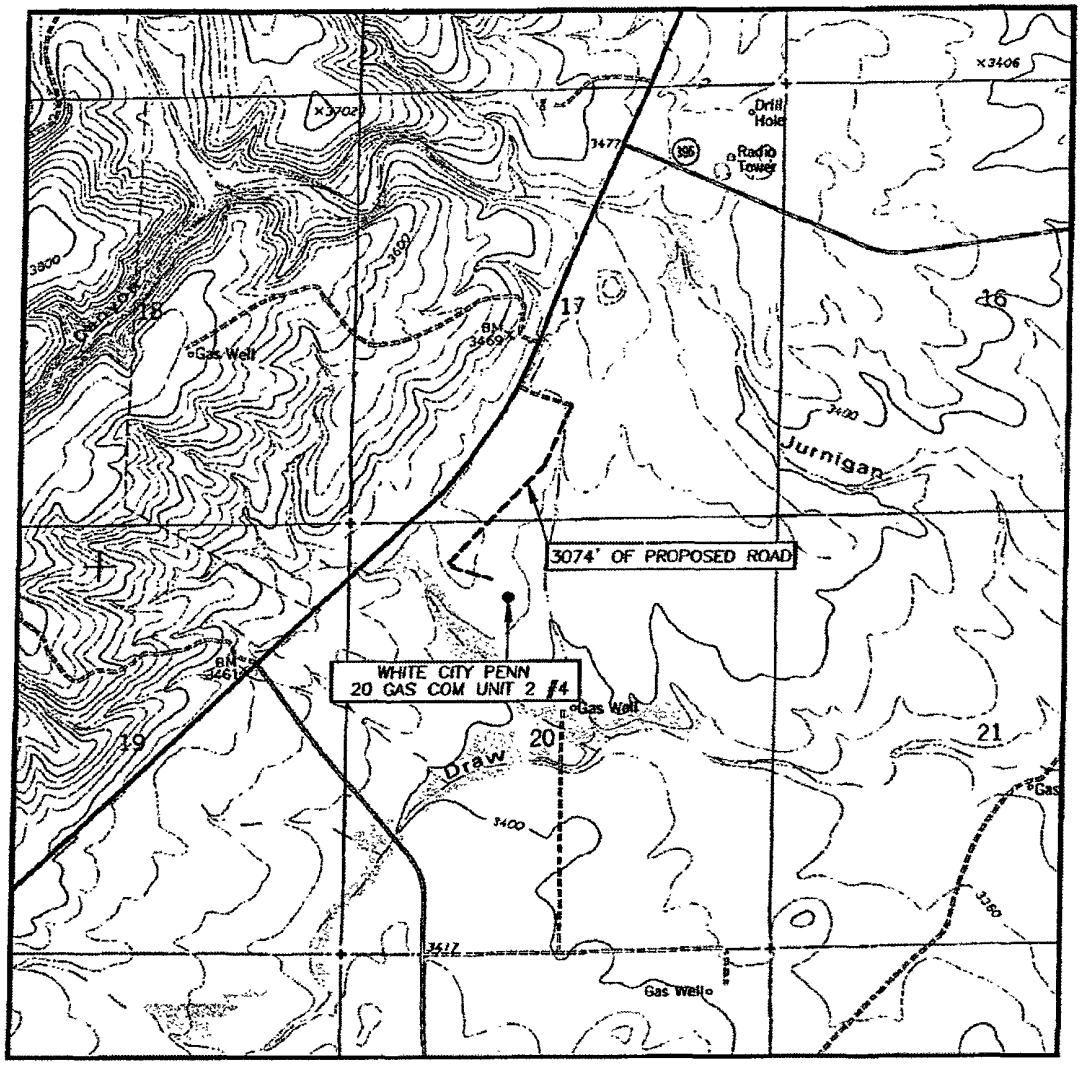
OPERATOR GRUY PETROLEUM MANAGEMENT COMPANY

LEASE WHITE CITY PENN 20 GAS COM UNIT 2

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Exhibit B

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BLACK RIVER VILLAGE, N M – 20'

SEC. 20 TWP 24-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 950' FNL & 1980' FWL

ELEVATION 3413'

OPERATOR GRUY PETROLEUM MANAGEMENT COMPANY

LEASE WHITE CITY PENN 20 GAS COM UNIT 2

U.S.G.S. TOPOGRAPHIC MAP
BLACK RIVER VILLAGE, N.M.

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

Exhibit C

Application to Drill

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1 Location: SHL 950' FNL & 1980' FWL
BHL 800' FNL & 1600' FWL

2 Elevation above sea level: 3413' GR

3 Geologic name of surface formation: Quaternery Alluvium Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 Proposed drilling depth: 12000'

6 Estimated tops of geological markers:

Base Salt	1400'	Strawn	9904'
Delaware	1603'	Atoka	10198'
Bone Spring	5198'	Morrow	10751'
FBSS	6106'	Middle Morrow	11111'
SBSS	6566'	Lower Morrow	11391'
TBSS	8033'		
Wolfcamp	8329'		
Cisco-Canyon	9666'		

7 Possible mineral bearing formation:

Morrow	Gas	Primary

Fresh water will be protected by setting 13 3/8" casing at 250' and cementing to surface. Hydrocarbon zones will be protected by setting 9 5/8" casing cemented to surface and 5 1/2" casing cemented to surface.

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0-250'	New 13-3/8"	48	8-R	ST&C	H-40
12-1/4"	0-2735'	New 9-5/8"	40	8-R	LT&C	J-55
8-3/4"	0-12000'	New 5-1/2"	17	8-R	LT&C	P-110

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.10	1.0	1.50

9 Cementing & Setting Depth:

13-3/8"	Surface	Set 250' of 13-3/8" H-40 48 # ST&C casing. Lead: 100 sx Premium Plus Cmt + 2% CaCl2 + 0.25# Poly-E-Flake + 10# Cal-Seal 60 + 10# Gilsonite (wt 14.8, yld 1.64) Tail: 340 sx Premium Plus + 2% CaCl (wt 14.8, yld 1.34) Circulate cement to surface.
9-5/8"	Intermediate	Set 2735' 9-5/8" 40# J-55 LTC casing. Lead: 500 sx Interfill C + 0.125# Poly-E-Flake (wt 11.9, yld 2.45) Tail: 340 sx Premium Plus + 1% CaCl (wt 14.8, yld 1.34) Circulate cement to surface.
5-1/2"	Production	Set 12000' of 5-1/2" P-110 17# LT&C casing. **First Stage** Lead: 200 sx Interfill C + 0.25% HR-7 + 5# Giosonite Bulk + 0.125# Poly-E-Flake (wt 11.9, yld 2.46) Tail: 700 sx Permian Basin Super H + 0.5% Halad-344 + 0.4% CFR-3 w/o Defoamer + 1# Gilsonite + 0.125# Poly-E-Flake + 0.4% HR-7 (wt 13.0, yld 1.67) **Second Stage - DV Tool @ 7110'** Lead: 600 sx Interfill H + 0.125# Poly-E-Flake (wt 11.9, yld 2.45) Tail: 910 sx Interfill H + 0.5% Halad-344 + 0.4% CFR-3 w/o Defoamer + 1# Salt Bulk + 5# Gilsonite Bulk + 0.125# Poly-E-Flake + 0.2% HR-7 (wt 13.0, yld 1.67) TOC 0'

10 Pressure control Equipment:
Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nippled up on the 9 5/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

We are requesting a variance for the 13-3/8" surface casing and BOP testing from Onshore Order No. 2, which states that all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. We are requesting a variance to test the 13-3/8" casing to 1000 psi using rig pumps. The BOP will be tested to 5000 PSI by an independent service company.

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 250'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water gel spud mud.
250' - 2735'	8.4 - 8.6	28 - 29	May lose circ.	Fresh water mud.
2735' - 12000'	8.4 - 9.7	28 - 29	NC	Fresh water and brine. Use hi-vis sweeps to keep hole clean.

see COA

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Application to Drill

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

12 Testing, Logging and Coring Program:

A. Mud logging program: Two-man unit from 2735' to TD
B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
C. No DSTs or cores are planned at this time.

13 Potential Hazards:

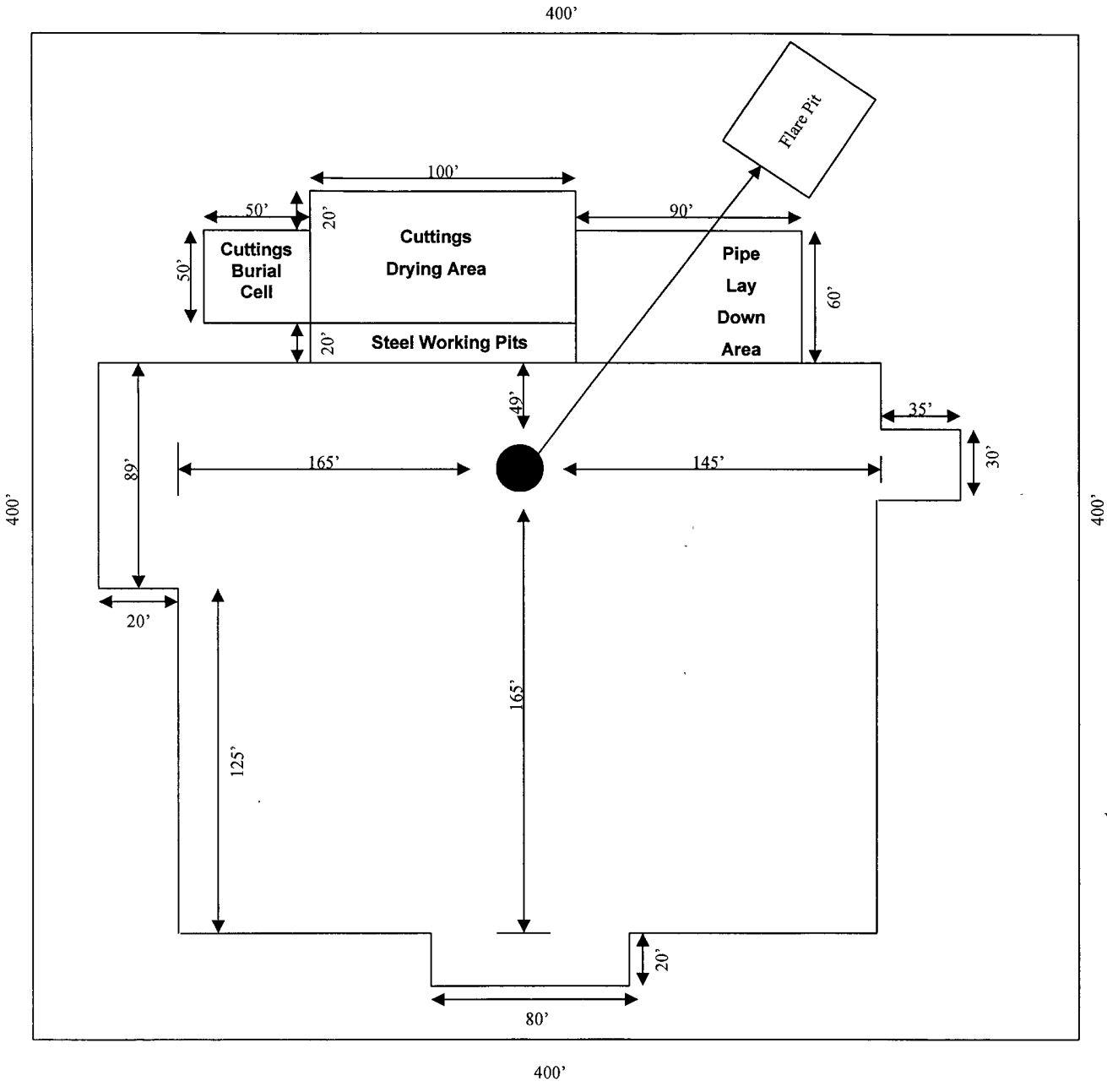
No abnormal pressures or temperatures are expected. The area has a potiential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4500 PSI, estimated BHT 185.

14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 35-45 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Morrow pay will be perforated and stimulated. The well will be tested and potentialed as a gas well.



V-Door North

Rig 80

Cimarex Energy Co. of Colorado

Irving, TX

Exhibit D – Rig Layout
White City Penn 20 Gas Com Unit 2 No. 4
Cimarex Energy Co. of Colorado
20-24S-26E
SHL 950' FNL & 1980' FWL
BHL 800' FNL & 1600' FWL
Eddy County, NM

SR & A

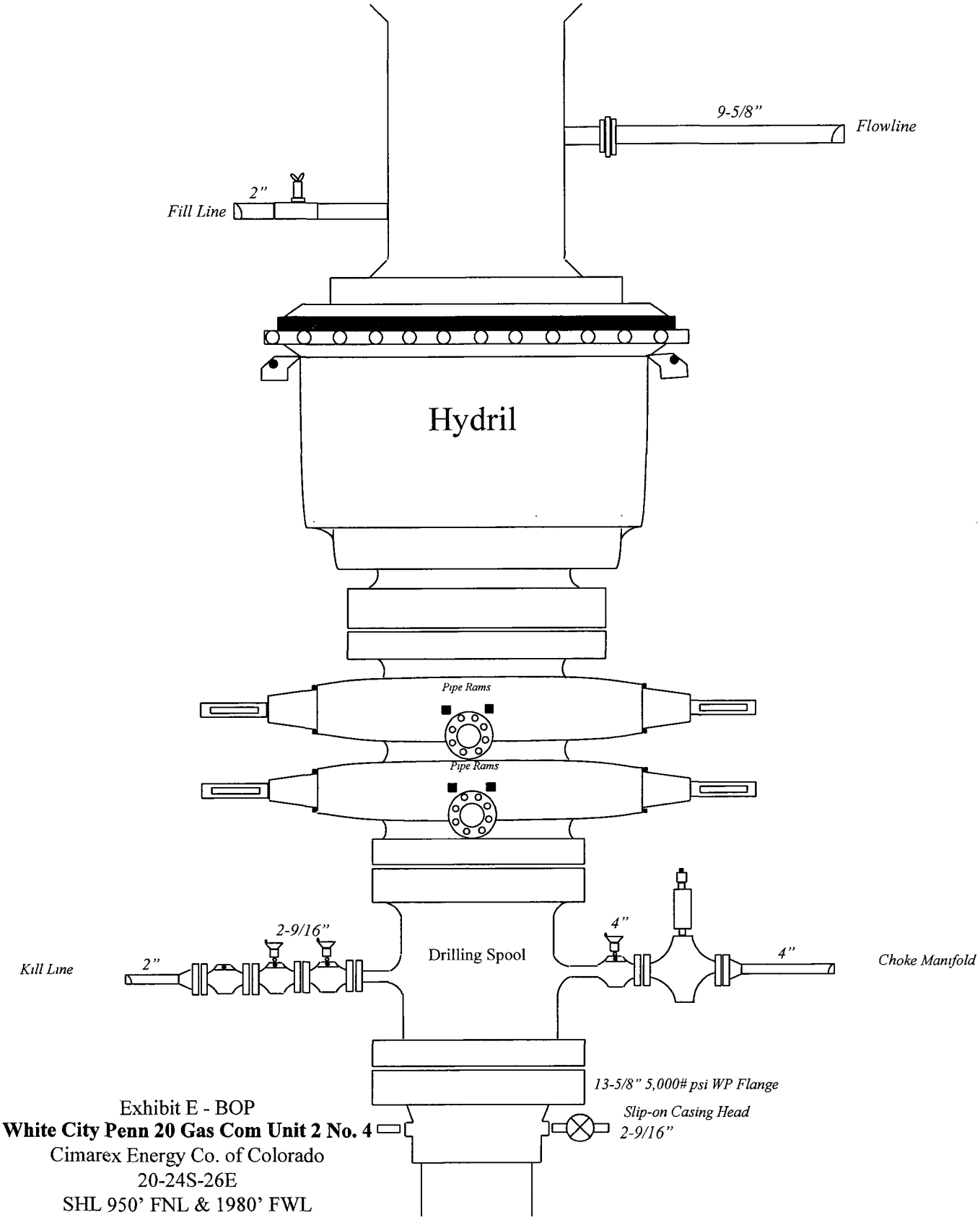


Exhibit E - BOP
White City Penn 20 Gas Com Unit 2 No. 4
Cimarex Energy Co. of Colorado
20-24S-26E
SHL 950' FNL & 1980' FWL
BHL 800' FNL & 1600' FWL
Eddy County, NM

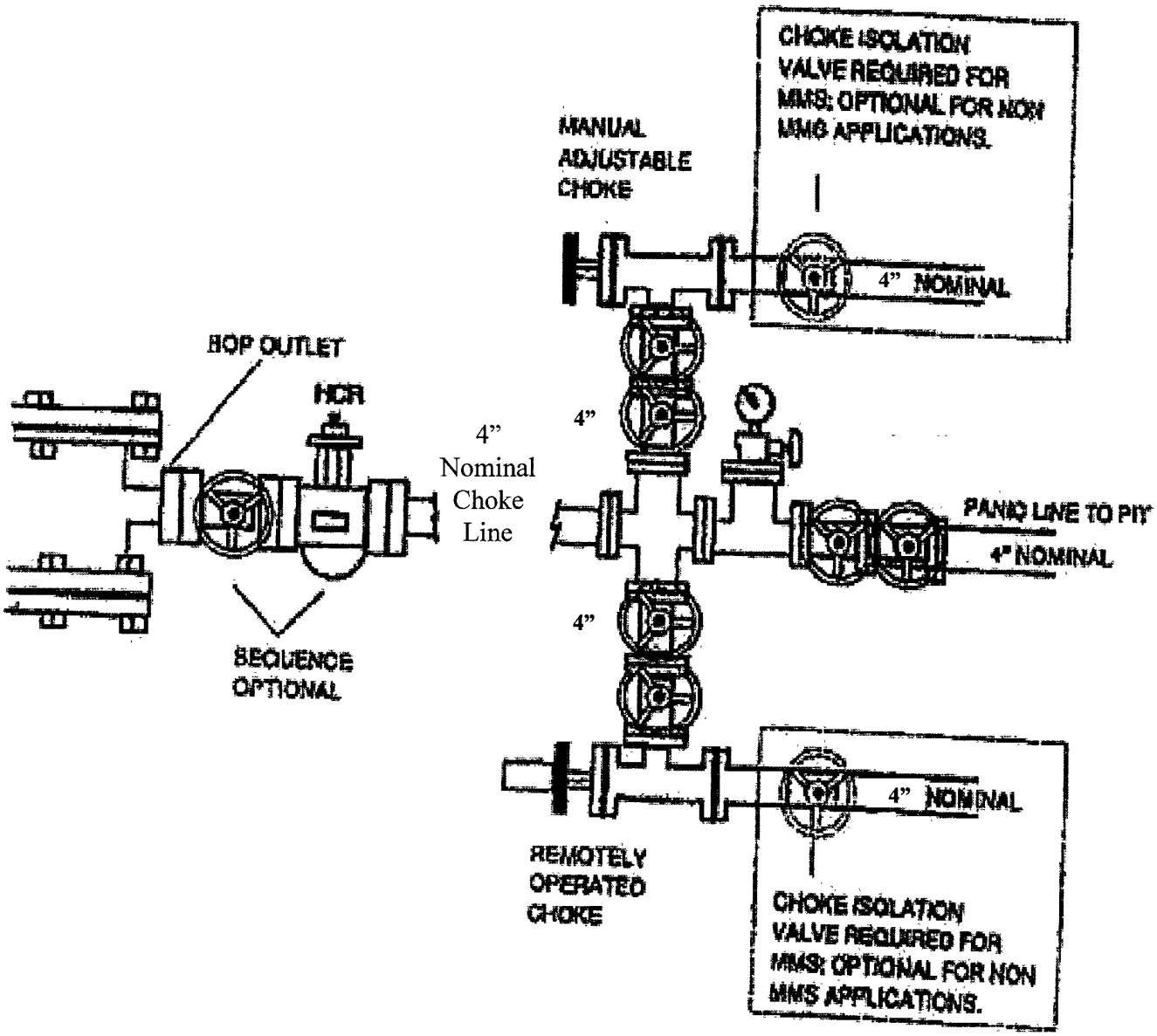


Exhibit E1 – Choke Manifold
White City Penn 20 Gas Com Unit 2 No. 4
Cimarex Energy Co. of Colorado
20-24S-26E
SHL 950' FNL & 1980' FWL
BHL 800' FNL & 1600' FWL
Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems.
D. Principle and operation of H2S detectors, warning system and briefing areas.
E. Evacuation procedure, routes and first aid.
F. Proper use of 30 minute pressure demand air pack.

2 H2S Detection and Alarm Systems

A. H2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

3 Windsock and/or wind streamers

A. Windsock at mudpit area should be high enough to be visible.
B. Windsock at briefing area should be high enough to be visible.

4 Condition Flags and Signs

A. Warning sign on access road to location.
B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H2S present in dangerous concentration). Only emergency personnel admitted to location.

5 Well control equipment

A. See exhibit "E"

6 Communication

A. While working under masks chalkboards will be used for communication.
B. Hand signals will be used where chalk board is inappropriate.
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing not anticipated.

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H2S scavengers if necessary.

Surface Use Plan

Cimarex Energy Co of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

A. Exhibit "A" shows the proposed well site as staked.

B. From the intersection of Co Rd 720 (Black River Village Rd) and US Hwy 62-180, go SW on US Hwy 62-180 for approx 0.5 miles to a caliche road on the left. Turn left (SE) and go approx 800' to a proposed road survey. Follow proposed road survey for approx 0.5 miles. Proposed location is approx 850' East.

2 PLANNED ACCESS ROADS: 3074' of road will be constructed. ROW NM-112794 is on file at the Carlsbad BLM.

3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"

A. Water wells - None known

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells - As shown on Exhibit "A"

E. Abandoned wells - As shown on Exhibit "A"

4 If on completion this well is a producer Cimarex Energy Co. of Colorado will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice.

5 LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 SOURCE OF CONSTRUCTION MATERIAL:

If possible, construction will be obtained from the excavation of drill site. If additional material is needed, it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be seperated by a series of solids removal equipment and hauled to the cuttings drying area and then disposed of in the cuttings burial cell.

B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

C. Salts remaining after completion of well will be picked up by supplier including broken sacks.

D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.

E. Drilling fluids will be contained in steel pits in a closed circulating system. Fluids will be cleaned and reused. Water produced during testing will be contained in the steel pits and disposed of at a state approved disposal facility. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

Surface Use Plan

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

9 WELL SITE LAYOUT

A. Exhibit "D" shows location and rig layout.

B. This exhibit indicates proposed location of the 100' X 100' cuttings drying area.

C. Mud pits in the closed circulating system will be steel pits and the cuttings drying area will be surrounded by a 2' X 2' ring levee and a 2' earthen berm. A 12 mil liner will cover the cuttings drying area and extend a minimum of 2' over the earthen berm where it will be anchored down. A pump off system will pump any accumulated fluids in the ring levee to the rig holding tanks to be cleaned and reused.

D. After drying cuttings will be disposed of in a 50' X 50' cuttings burial cell. The bottom will be lined with a 12 mil liner. Drill cuttings will be hauled from the cuttings drying area and encapsulated in a 12 mil liner. The 12 mil liner will be folded over the cuttings and capped with a 20 mil membrane cap. The cell will be filled with 3' to 4' of top soil and leveled and contoured to conform to the original surrounding area.

E. If the well is a producer, the cuttings burial area and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10 PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and cuttings burial cell will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the drill cuttings will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The cuttings burial area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

Surface Use Plan

Cimarex Energy Co. of Colorado
White City Penn 20 GCU 2 No. 4
~~Unit O~~ Section 20
T24S R26E Eddy County, NM

11 OTHER INFORMATION:

A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.

B. The wellsite is on surface owned by US Department of the Interior's Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

C. An Archaeological survey has been conducted on the location and proposed roads, and this report has been filed with the Bureau of Land Management in the Carlsbad BLM office (NMCRIS 92577).

D. There are no know dwellings within 1 1/2 miles of this location.

12 OPERATOR'S REPRESENTATIVE:

Cimarex Energy Co. of Colorado
P.O. Box 140907
Irving, TX 75014
Office Phone: (972) 443-6489
Zeno Farris

13 CERTIFICATION: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exit; that the statements made in this 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 Cimarex Energy Co. of Colorado and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: Zeno Farris

DATE: June 1, 2007

TITLE: Manager, Operations Administration

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Cimarex Energy Company of Colorado Well Name & #: White City Penn 20 GCU 2 Fed #4
Location 950 F N L & 1980 F W L; Sec. 20, T. 24 S., R. 26 E.
Lease #: LC-065347 County: Eddy State: New Mexico
Bottom Hole: 800 FNL & 1600 FWL, Section 20, T. 24 S., R. 26 E

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (stips attached)
( ) San Simon Swale (stips attached)
( ) Flood plain (stips attached)
(x) Other **See attached Cave/Karst, Visual Resources and Conditions of Approval**

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(x) The BLM will monitor construction of this drill site. Notify the (x) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(x) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____inches in depth. Approximately _____cubic yards of topsoil material will be stockpiled for reclamation.

(x) Other. **V-Door North**

III. WELL COMPLETION REQUIREMENTS

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

(x) Surface Restoration: If the well is a producer, the cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure-Live Seed (PLS), per acre If broadcasting, the seeding rate must be doubled.

( ) A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Plains lovegrass (*Eragrostis intermedia*) 0.5

( ) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus crptandrus)* 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

(x) C. Seed Mixture 3 (Shallow Sites)
Side oats Grama (*Bouteloua curtipendula)* 5.0
Green Spangletop (*Leptochloa dubia*) 2.0
Plains Bristlegrass (*Setaria magrostachya*) 1 0

( ) D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobolus airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture

Painting Requirement:
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, ***shale green***, Munsell Soil Color Chart Number 5Y 4/2.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Conditions of Approval
Cave and Karst

White City Penn 20 GCU 2 Fed. #4
Cimarex Energy Company of Colorado
BLM Office Lease No. LC-065347

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 20 mil plastic liner.

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. Use depth to the deepest expected fresh water as listed in the geologist report.

Fluorescent Dyes:
Thirty-two ounces Florescene (Acid Yellow 73) AND Thirty-two ounces Eosine Y Orange nontoxic dyes will be added to the drilling fluid before the well is spudded **AND** to the pre-flush fluids of the surface interval of casing.

These dyes will track the fluids if lost circulation occurs. Dye amounts have been increased to compensate for the dilution of the dye as it flows through the aquifers.

Arrangements will be made to have BLM witness the two dyes being injected prior to spudding the hole and before the pre-flush of the surface casing. Contact the BLM drilling on call phone at (505) 361-2822 to make arrangements.

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.

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 void (bit drops) of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately 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.

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 of 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
Visual Resources Management

White City Penn 20 GCU 2 Fed. #4
Cimarex Energy Company of Colorado
BLM Office Lease No. LC-065347

III. WELL COMPLETION REQUIREMENTS

(x) Other: Visual Resources

1. PAINTING REQUIREMENT- IN ACCORDANCE WITH NOTICE TO LESSEES (NTL) 87-1 NEW MEXICO, "Painting of Oil Field Facilities to Minimize Visual Impacts": ALL permanent surface production facilities, including the well-drive control system, treatment, storage, power (except specifically approved electrical transmission lines and poles, or other permanent above-ground facilities not otherwise specifically subject to safety coloring requirements), shall be painted by the holder to blend with the dominant natural color of the surrounding landscape. The paint used shall be one of the "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee, and shall be a flat, non-reflective finish. The color specified for this location is:

Standard Environmental Color: Shale Green
Munsell Soil Color Chart Number: 5Y 4/2 (# 657).

Any exception to this Painting Requirement must be approved by the BLM Authorized Officer in writing prior to implementation.

2. LOW PROFILE FACILITIES - All permanent surface production facilities, including the well-drive control system, treatment, storage, power (except specifically approved electrical transmission lines and poles), or other permanent above-ground facilities shall be "low profile", not to exceed 10 feet in height. Any exception to on, Low Profile Facilities must be approved in writing by the BLM Authorized Officer prior to implementation.

3. OTHER - The proposed project is located within a Class Three Visual Resource Area. The project will be built in a manner to minimize visibility. The proposed project will be a linear feature for the life of the project, impacting visual resources.

1. The proposed construction and scenic impacts will be limited to the approved pad size.
2. All above ground facilities, structures, appurtenances, and pipelines will be painted with the non-reflective (flat) paint color Shale Green.
3. Any existing tanks will be replaced or painted non-reflective (flat) paint color Shale Green.
4. Upon completion of the well and installation of the production facilities (if the well is a producer) the pad will be reclaimed back to a minimal size needed for production operations. The pads edges will be recontoured and the extra caliche and pad material will be hauled off-site. After one year, the BLM may require additional site reclamation. Contact the Jim Amos, 505-234-5909, for reclamation instructions prior to the installation of production equipment.
5. The reclaimed areas will be grid rolled and reseeded with seed mix as indicated in the Special Drilling Stipulations.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**Cimarex Energy Co. of Colorado**
Well Name & No.	**4-White City Penn 20 GCU 2**
Location SHL:	**0950 FNL, 1980 FWL, Sec. 20, T-24-S, R-26-E, Eddy County, NM**
Location BHL:	**0800 FNL, 1600 FWL, Sec. 20, T-24-S, R-26-E, Eddy County, NM**
Lease:	**NMLC-065347**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

B. Although H2S has not been reported in this section; it is always a potential hazard.

C. 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.

D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13-3/8** inch surface casing shall be set **in the Anhydrite wherever it occurs between 250' and 465', but not deeper than 465 feet** and cemented to the surface. **This setting depth provides some allowance should the Capitan Reef be encountered and will more easily enable a switch to a brine mud if salt is encountered.**

1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours for a water basin or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Delaware and Bone Spring formations.
Possible high pressure gas bursts in the Wolfcamp formation.
The Pennsylvanian section may be over pressured.
High cave/karst area.

B. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is **for cement to come to surface.** If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5-1/2** inch production casing is **for cement to come to surface.** If cement does not circulate see A.1 thru 4.

D. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

Casing shoe pressure integrity test required for the 9-5/8" shoe according to Onshore Order 2.III.B.1.i.

B. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
5. BOP/BOPE to be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
6. A variance to test **only the surface casing (not BOP/BOPE)** to the reduced pressure of **1000** psi with the rig pumps is approved.

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.

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

Engineer on call phone: 505-706-2779

WWI 071107

BLM Lease #: LC-065347
Company Reference: Cimarex Energy Company of Colorado
Well # & Name: White City Penn 20 GCU 2 Fed. #4

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
CARLSBAD FIELD OFFICE

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting there from the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar. The Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

X Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, out-sloping, in-sloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

X 400 foot intervals.

☐ ____ foot intervals.

☐ locations staked in the field as per spacing intervals above.

☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

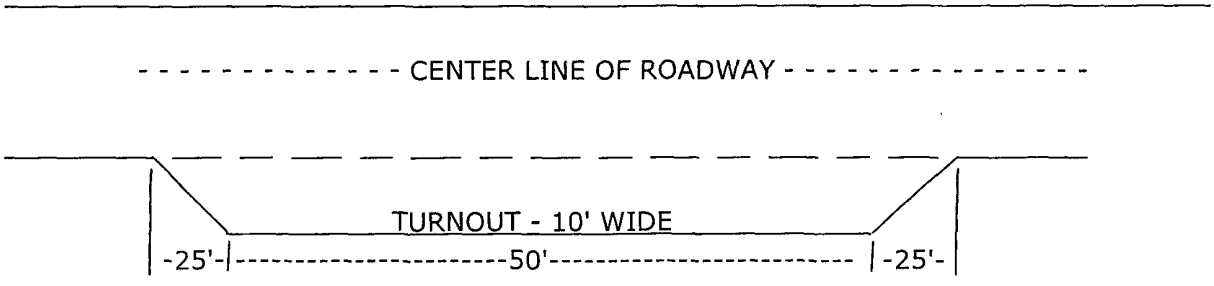
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: