

## OCD-ARTESIA

E-06-36

Form 3180-3  
(July 1992)

SUBMIT IN TRIPLICATE\*

FORM APPROVED  
UMB NO. 1004-0136

Expires: February 28, 1995

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT(Other instructions on  
reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

NM-105195

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Wagon Wheel 21 Federal #1

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT

Rocky Arroyo; Morrow Wildcat (Gas)

11. SEC. T., R., M., BLOCK AND SURVEY

OR AREA

Sec. 21-T22S-R22E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

1b. TYPE OF WELL

OIL ☐ GAS ☒  
WELL WELLSINGLE ☒ MULTIPLE ☐  
OTHER ZONE ZONE

2. NAME OF OPERATOR

Cimarex Energy Co.

3. ADDRESS AND TELEPHONE NO.

P.O. Box 140907 Irving TX 75014 972-401-3111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

SHL: 1090' FNL &amp; 200' FWL

BHL: 991' FNL &amp; 760' FWL

Subject to  
Like Approval  
By State

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

27 miles West of Carlsbad, NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, T.O

(Also to nearest drlg. unit line, if any)

200'

16. NO. OF ACRES IN LEASE

10150'

17. NO. OF ACRES ASSIGNED

TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

N/A

19. PROPOSED DEPTH

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4375' GR

22. APPROX. DATE WORK WILL START\*

03-15-06

23

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8"	48 #	1050'	950 sx circulate
12-1/4"	J-55 9-5/8"	40 #	1750'	650 sx circulate
8-3/4"	P-110 5-1/2"	17#	10150'	1920 sx TOC 2700'

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 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. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000# psi, and we are requesting a variance to test the 13-3/8" casing and BOP system to 1000# psi and use rig pumps instead of an independent service company.

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM:

If proposal is to deepen, give data on present productive zone and proposed new productive zone.

If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24

SIGNED

Zero Fami

TITLE

Mgr. Ops. Admin

DATE

02-13-06

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY

James A. Ames

ACTING

TITLE

FIELD MANAGER

DATE

MAR 23 2006

\*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes 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.

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

DISTRICT I  
1325 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 84160	Pool Name Rocky Arroyo; Morrow Wildcat (Gas)
Property Code	Property Name WAGON WHEEL "21" FEDERAL	Well Number 1
OGRID No. 215099	Operator Name CIMAREX ENERGY COMPANY	Elevation 4375'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	22 S	22 E		1090	NORTH	200	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
D	21	22 S	22 E		991	NORTH	760	WEST	EDDY

Dedicated Acres 320	Joint or Infill N	Consolidation Code	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

<p>Wagon Wheel 21 Fed # 1</p> <p>SHL BHL+ Penetration Point</p> <p>SURFACE LOC. Lat - N32°22'51.3" Long - W104°42'58.3" NMSPEC_N 502515.406 (NAD 83)E 423150.648</p> <p>NM-105195</p> <p>4375.7' 4365.4' 4386.1' 4366.3'</p> <p>Producing area</p>	<p>SHL: 1090' FNL &amp; 200' FWL P.P. Atoka: 991' FNL &amp; 760' FWL BHL: 991' FNL &amp; 760' FWL</p> <p>Project Area</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Zeno Farris</p> <p>Signature Zeno Farris</p> <p>Printed Name Mgr Operations Admin</p> <p>Title February 14, 2006</p> <p>Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>DECEMBER 20, 2005</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor</p> <p>W.O. No. 6087</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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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: Cimarex Energy Co. Telephone: 972 443 6489 e-mail address: zfarris@cimarex.com  
Address: P.O. Box 140907, Irving, Tx 75014-0907  
Facility or well name: Wagon Wheel 21 Federal No. 1 API #: 30-015- U/I or Qtr/Qtr<sup>D</sup> Sec 21 T22S R22E  
County: Eddy Latitude 322251.3N Longitude 1044258.3W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	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-	

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.

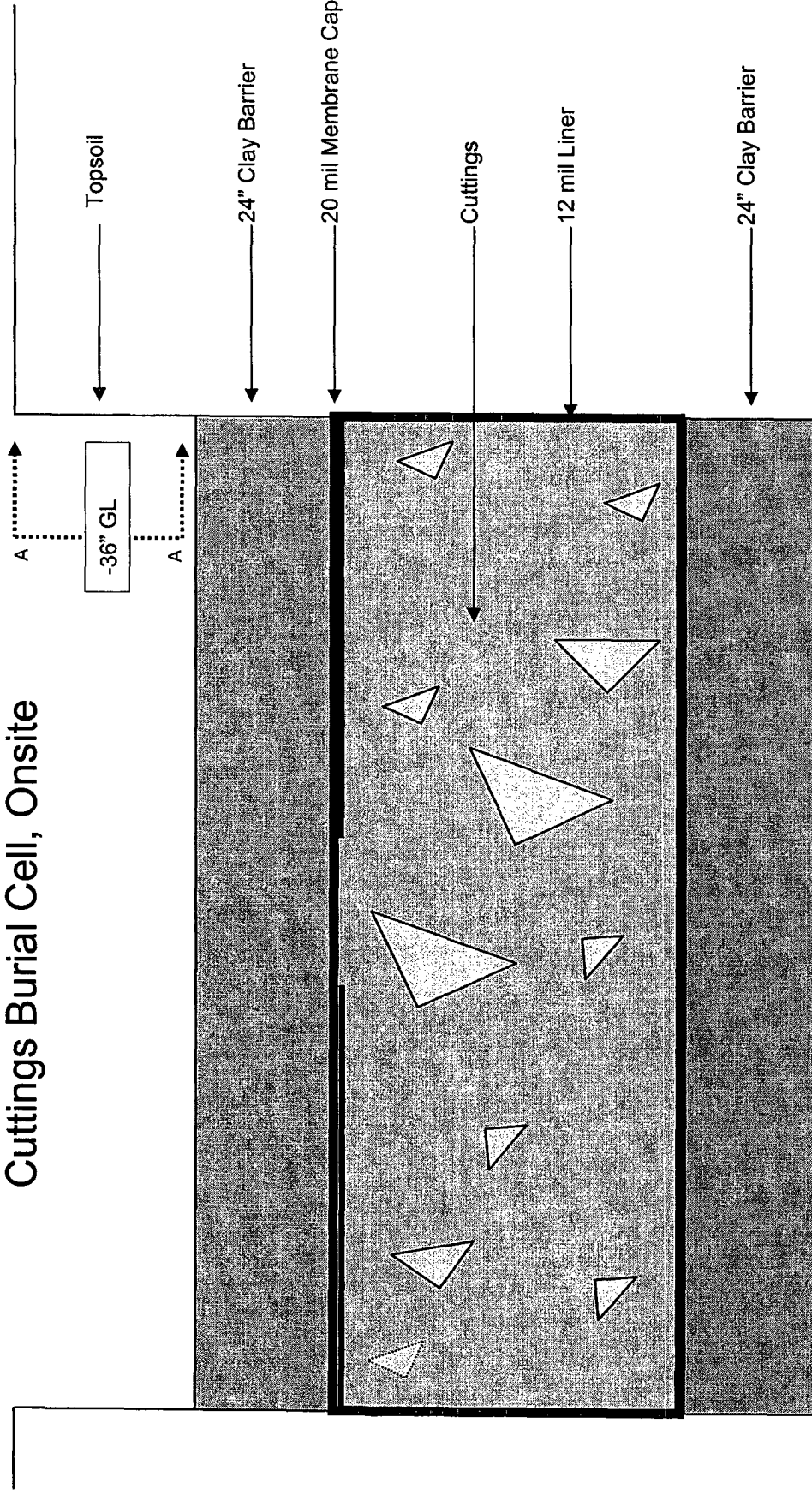
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved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

Date: 02-15-06  
Printed Name/Title Zeno Farris Manager Operations Administration Signature *Zeno Farris*

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: FEB 22 2006  
Date: \_\_\_\_\_ Printed Name/Title Gerry Guye Compliance Office Signature *Gerry Guye*

# Cuttings Burial Cell, Onsite



Cimarex Energy Co.  
5215 N. O'Connor Blvd.  
Suite 1500  
Irving, Texas 75039  
PHONE 972.401.0752  
FAX 972.401.3110



## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management  
620 East Greene Street  
Carlsbad, NM 88220  
Attn: Ms. Betty Hill

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

Lease No.: NM-105195

Legal Description: W/2 Sec 21, T22S-R22E  
Containing 320 acres, Eddy County New Mexico

Formation (S): Morrow/Pennsylvanian

Bond Coverage: Nationwide BLM Bond

BLM Bond File No.: COB000011

Authorized Signature: Zeno Farris  
Representing Cimarex Energy Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: February 15, 2006

## Application to Drill

Cimarex Energy Co.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E 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: 1090' FNL & 200' FWL  
BHL: 991' FNL & 760' FWL
- 2 Elevation above sea level: 4375' GR
- 3 Geologic name of surface formation: Quaternary 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: 10150'
- 6 Estimated tops of geological markers:

Grayburg	139	Cisco-Canyon	7237
San Andres	372	Strawn	7944
Glorieta	1727	Atoka	8340
Yeso	1794	Morrow	8879
Bone Spring	3304	Middle Morrow	9049
3rd Bone Spring S	4779	Lower Morrow	9220
Wolfcamp	5012	TD	9850
- 7 Possible mineral bearing formation:

Atoka	Gas	8340'
Morrow	Gas	8879'
- 8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-1050'	13 3/8"	48#	8-R	ST&C	H-40
12 1/4"	0-1750'	9 5/8"	40#	8-R	LT&C	J-55
7 7/8"	0-10150'	5 1/2"	17#	8-R	LT&C	P-110

## Application to Drill

Cimarex Energy Co.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E Eddy County, NM

### 9 Cementing & Setting Depth:

13 3/8"	Surface	Set 1050' 13-3/8" 48# H-40 ST&C. Cement with 950 sx Class C + additives.
9 5/8"	Intermediate	Set 1750' of 9-5/8" J-55 40# LT&C casing. Cement lead with 450 sx Class POZ/C + additives, tail with 200 sx of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 10150' of 5-1/2" P-110 17# LT&C casing. Cement in two stages, first stage cement with 870 Sx. of Class POZ/C Cement + additives. Second stage cement with 1050 Sx of Class "C" + additives. Estimated top of cement 2700'.

### 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 # psi 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 nipped 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.

### 11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0' - 700'	8.8 - 9.2	28-32	May lose circ from 0' - 598'	Low Solids/Premix
700' - 10150'	9.0 - 9.2	34-40	May lose circ from 7508' - 7991'	Low Solids/Lite dispersed. Use cut brine from Intermediate casing to TD

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.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E Eddy County, NM

### 12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 1750' to TD
- B. Electric logging program: CNL / FDC / GR, DLL / GR
- C. No DSTs are planned

### 13 Potential Hazards:

No abnormal pressures or temperatures or H<sub>2</sub>S gas are expected. 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 4000 PSI, estimated BHT 190.

### 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 potentialized as a gas well.



## **Hydrogen Sulfide Drilling Operations Plan**

- 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
  - 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 blooie 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, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, 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**

- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
  
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

## Surface Use Plan

Cimarex Energy Co.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E 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 JUNCTION OF CO RD 401 (MARATHON RD) AND CO RD 400 (BOX CANYON RD), GO NORTHWEST FOR 2.3 MILES TO LEASE ROAD. THENCE GO SOUTH/SOUTHWEST FOR 6.7 MILES ON LEASE ROAD TO PROPOSED LEASE ROAD.

2 PLANNED ACCESS ROADS: 1789' of access road will be constructed, 62.5' of which will be on-lease.

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"

## Surface Use Plan

Cimarex Energy Co.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E Eddy County, NM

- 4 If, on completion this well is a producer Cimarex Energy Co. 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 disposed of in the reserve pit.
- 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 a 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. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. 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.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E Eddy County, NM

### **9 WELL SITE LAYOUT**

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with PVC or polyethylene line. The pit liner will be 6 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit 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 reserve pit 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 reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit 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 recontoured 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.  
Wagon Wheel 21 Federal No. 1  
Unit Letter D Section 21  
T22S - R22E Eddy County, NM

### 11 OTHER INFORMATION:

- A. Topography consists of gently sloping areas with ridges or mesa tops and Limestone Outcrops in places. The soil is Ector stony loam, 0 to 9 percent slope grayish brown stony loam to light colored limestone bedrock. The flora and fauna consist of a scrubland community with black grama, blue grama, beargrass, tobosa, sotol, agave, ocotillo, snakeweed, tarbush, and yucca.
- B. The wellsite is on surface owned by The United States Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.

### 12 OPERATORS REPRESENTATIVE:

Cimarex Energy Co.  
P.O. Box 140907  
Irving, TX 75014-0907  
Office Phone: (972) 443-6489  
Zeno Farris

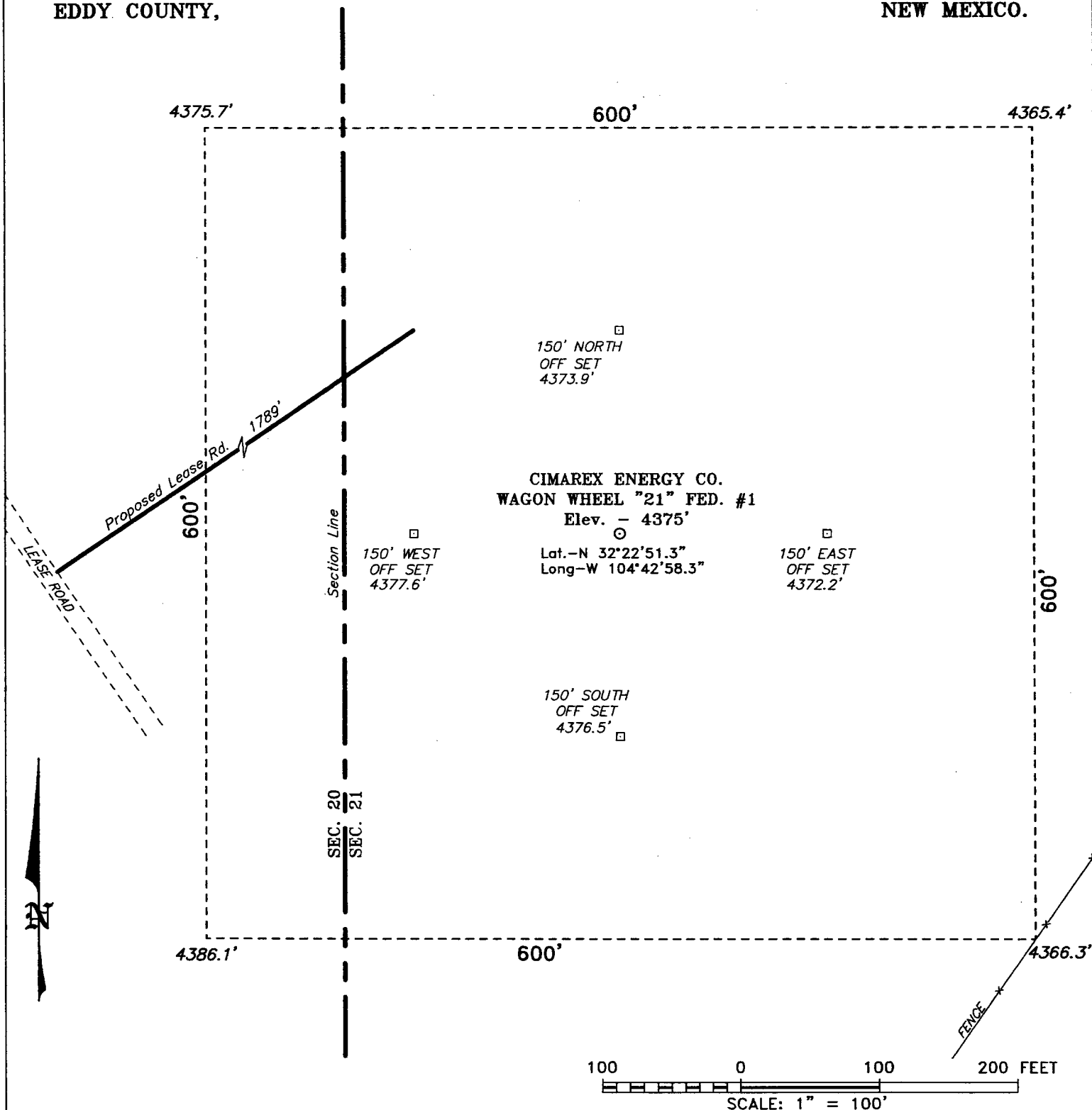
- 13 **CERTIFICATION:** I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Gruy Petroleum Management Company 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: February 15, 2006

TITLE: Manager, Operations Administration

SECTION 21, TOWNSHIP 22 SOUTH, RANGE 22 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 401(MARATHON RD)  
AND CO. RD. 400(BOX CANYON RD.), GO NORTHWEST  
FOR 2.3 MILES TO LEASE ROAD; THENCE  
SOUTH/SOUTHWEST FOR 6.7 MILES ON LEASE ROAD  
TO PROPOSED LEASE ROAD.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 6087

Drawn By: K. GOAD

Date: 12-22-2005

Disk: KJG CD#4 - 6087A.DWG

**CIMAREX ENERGY CO.**

REF: WAGON WHEEL "21" FED. No. 1 / Well Pad Topo

THE WAGON WHEEL "21" FED. No. 1 LOCATED 1090' FROM

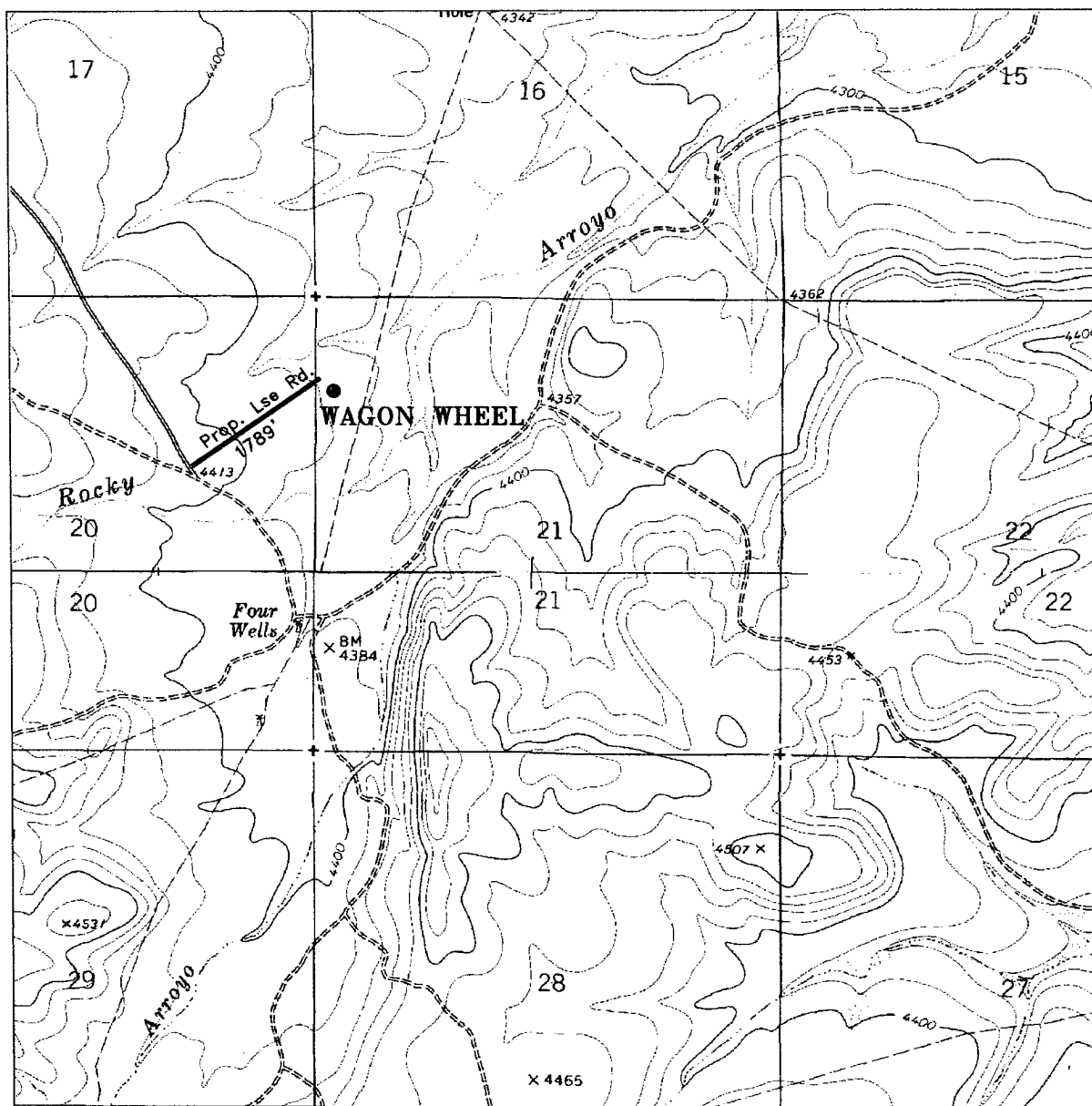
THE NORTH LINE AND 200' FROM THE WEST LINE OF

SECTION 21, TOWNSHIP 22 SOUTH, RANGE 22 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

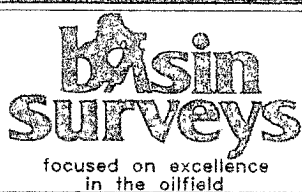
Survey Date: 12-20-2005

Sheet 1 of 1 Sheets



# **WAGON WHEEL "21" FED. #1**

Located at 1090' FNL AND 200' FWL  
 Section 21, Township 22 South, Range 22 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

W.O. Number: 6087AA - KJG CD#4

Survey Date: 12-20-2005

Scale: 1" = 2000'

Date: 12-22-2005

**CIMAREX ENERGY  
 COMPANY**



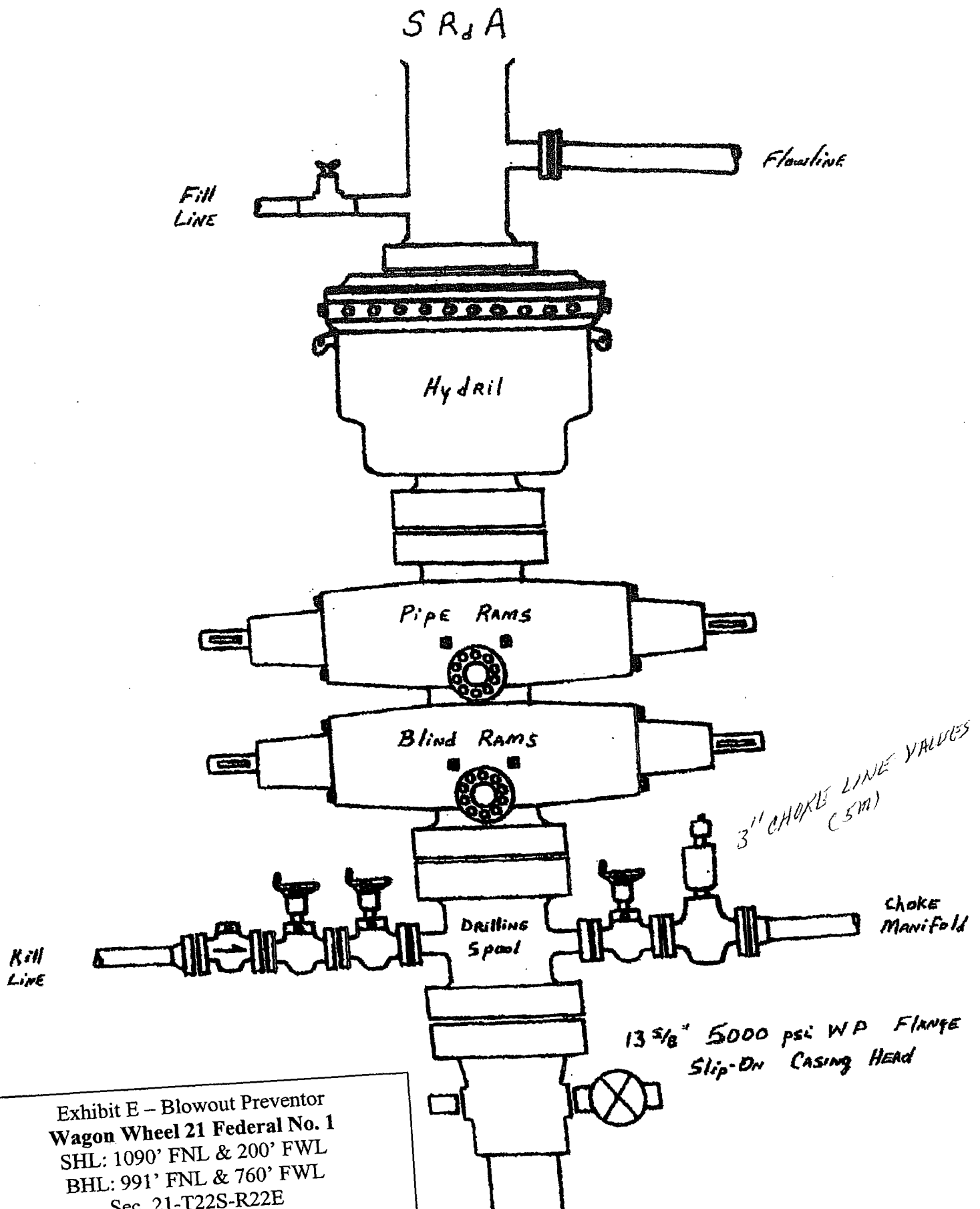


Exhibit E - Blowout Preventor  
 Wagon Wheel 21 Federal No. 1  
 SHL: 1090' FNL & 200' FWL  
 BHL: 991' FNL & 760' FWL  
 Sec. 21-T22S-R22E  
 Eddy County, NM

DRILLING OPERATIONS  
CHOKE MANIFOLD  
5M SERVICE

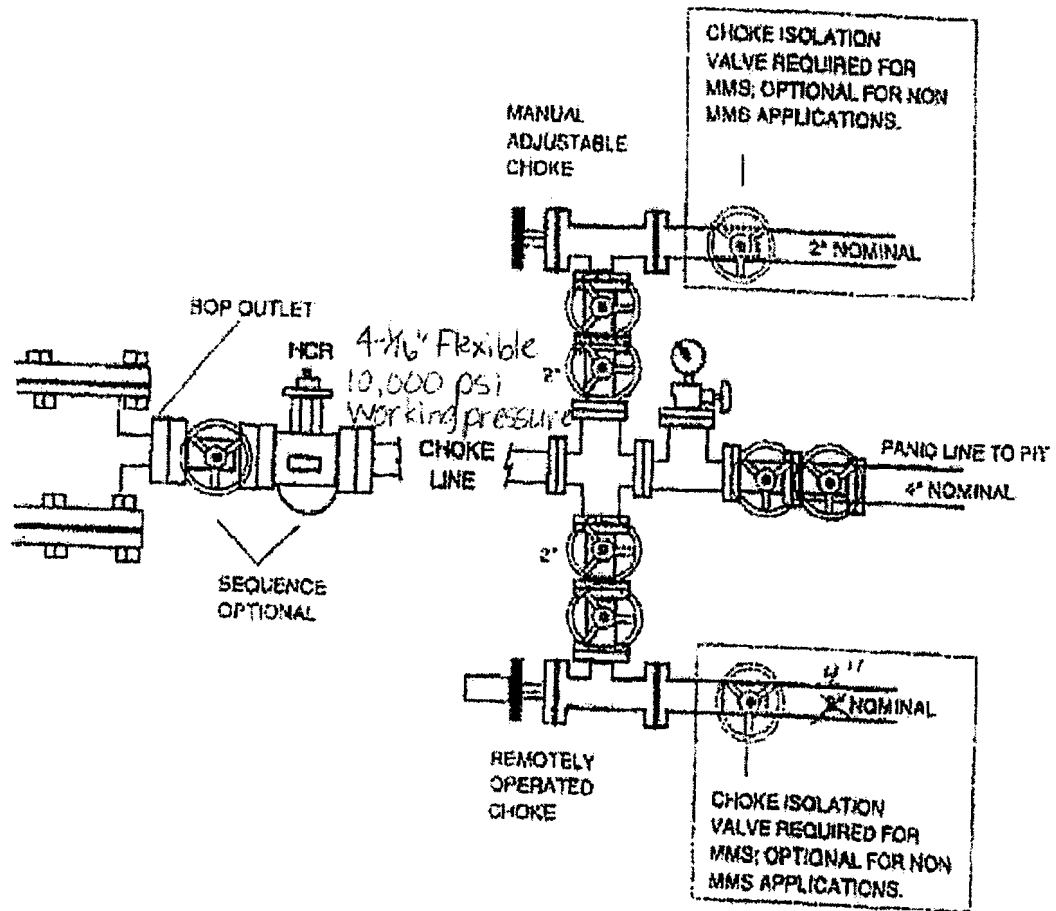


Exhibit E-1 – Choke Manifold Diagram  
**Wagon Wheel 21 Federal No. 1**  
 SHL: 1090' FNL & 200' FWL  
 BHL: 991' FNL & 760' FWL  
 Sec. 21-T22S-R22E  
 Eddy County, NM



**Gruy Petroleum Management Co.  
New Mexico  
Eddy County NAD 83  
Sec. 21-T22S-R22E  
Wagon Wheel 21 Fed 1 - Plan 010906**

**Revised: 9 January, 2006**

# **Halliburton Sperry-Drilling Proposal Report**

**9 January, 2006**

Data Source: Mr. Zeno Farris

Surface Coordinates: 502515.41 N, 423150.55 E (32° 22' 51.2497" N, 104° 42' 58.2692" W)

Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone

Surface Coordinates relative to Global Coordinates: 30442.59 S, 23010.21 W (Grid)

Surface Coordinates relative to NW Cor Sec 21: 1090.00 S, 200.00 E (Grid)

Kelly Bushing Elevation: 4395.00ft above Mean Sea Level

Kelly Bushing Elevation: 20.00ft above Structure

Proposal Ref: pro9652

**HALLIBURTON**  
**Sperry Drilling Services**

**Proposal Report for Sec. 21-T22S-R22E - Wagon Wheel 21 Fed 1 - Plan 010906**  
**Data Source: Mr. Zeno Farris**  
**Revised: 9 January, 2006**

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W (ft)	Dogleg Severit (°/100ft)	Lease Calls FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
0.00	0.000	0.000	0.00	0.00	0.00 N	0.00 E		1090.00 FNL	200.00 FWL	502515.41 N	423150.65 E
<b>Kick-Off at 4922.00ft</b>											
4922.00	0.000	0.000	4922.00	0.00	0.00 N	0.00 E	0.00	1090.00 FNL	200.00 FWL	502515.41 N	423150.65 E
5000.00	1.560	79.975	4999.99	1.06	0.18 N	1.05 E	2.00	1089.82 FNL	201.05 FWL	502515.59 N	423151.70 E
5100.00	3.560	79.975	5099.89	5.53	0.96 N	5.44 E	2.00	1089.04 FNL	205.44 FWL	502516.37 N	423156.09 E
5200.00	5.560	79.975	5199.56	13.48	2.35 N	13.27 E	2.00	1087.65 FNL	213.27 FWL	502517.76 N	423163.92 E
5300.00	7.560	79.975	5298.90	24.90	4.34 N	24.52 E	2.00	1085.66 FNL	224.52 FWL	502519.75 N	423175.17 E
5400.00	9.560	79.975	5397.79	39.79	6.93 N	39.18 E	2.00	1083.07 FNL	239.18 FWL	502522.34 N	423189.83 E
5500.00	11.560	79.975	5496.09	58.11	10.12 N	57.22 E	2.00	1079.88 FNL	257.22 FWL	502525.53 N	423207.87 E
<b>End of Build at 5522.00ft</b>											
5522.00	12.000	79.975	5517.63	62.60	10.90 N	61.65 E	2.00	1079.10 FNL	261.65 FWL	502526.31 N	423212.30 E
5600.00	12.000	79.975	5593.92	78.82	13.72 N	77.62 E	0.00	1076.28 FNL	277.62 FWL	502529.13 N	423228.27 E
5700.00	12.000	79.975	5691.73	99.61	17.34 N	98.09 E	0.00	1072.66 FNL	298.09 FWL	502532.75 N	423248.74 E
5800.00	12.000	79.975	5789.55	120.40	20.96 N	118.56 E	0.00	1069.04 FNL	318.56 FWL	502536.37 N	423269.21 E
5900.00	12.000	79.975	5887.36	141.19	24.58 N	139.04 E	0.00	1065.42 FNL	339.04 FWL	502539.99 N	423289.69 E
6000.00	12.000	79.975	5985.18	161.99	28.20 N	159.51 E	0.00	1061.80 FNL	359.51 FWL	502543.61 N	423310.16 E
6100.00	12.000	79.975	6082.99	182.78	31.82 N	179.99 E	0.00	1058.18 FNL	379.99 FWL	502547.23 N	423330.64 E
6200.00	12.000	79.975	6180.81	203.57	35.44 N	200.46 E	0.00	1054.56 FNL	400.46 FWL	502550.85 N	423351.11 E
6300.00	12.000	79.975	6278.62	224.36	39.06 N	220.93 E	0.00	1050.94 FNL	420.93 FWL	502554.47 N	423371.58 E
6400.00	12.000	79.975	6376.44	245.15	42.68 N	241.41 E	0.00	1047.32 FNL	441.41 FWL	502558.09 N	423392.06 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W (ft)	Dogleg Severit (°/100ft)	Lease Calls FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
6500.00	12.000	79.975	6474.25	265.94	46.30 N	261.88 E	0.00	1043.70 FNL	461.88 FWL	502561.71 N	423412.53 E
6600.00	12.000	79.975	6572.07	286.73	49.92 N	282.35 E	0.00	1040.08 FNL	482.35 FWL	502565.33 N	423433.00 E
6700.00	12.000	79.975	6669.88	307.52	53.54 N	302.83 E	0.00	1036.46 FNL	502.83 FWL	502568.95 N	423453.48 E
6800.00	12.000	79.975	6767.70	328.32	57.16 N	323.30 E	0.00	1032.84 FNL	523.30 FWL	502572.57 N	423473.95 E
6900.00	12.000	79.975	6865.51	349.11	60.77 N	343.78 E	0.00	1029.23 FNL	543.78 FWL	502576.18 N	423494.43 E
7000.00	12.000	79.975	6963.32	369.90	64.39 N	364.25 E	0.00	1025.61 FNL	564.25 FWL	502579.80 N	423514.90 E
7100.00	12.000	79.975	7061.14	390.69	68.01 N	384.72 E	0.00	1021.99 FNL	584.72 FWL	502583.42 N	423535.37 E
7200.00	12.000	79.975	7158.95	411.48	71.63 N	405.20 E	0.00	1018.37 FNL	605.20 FWL	502587.04 N	423555.85 E
7300.00	12.000	79.975	7256.77	432.27	75.25 N	425.67 E	0.00	1014.75 FNL	625.67 FWL	502590.66 N	423576.32 E
7400.00	12.000	79.975	7354.58	453.06	78.87 N	446.15 E	0.00	1011.13 FNL	646.15 FWL	502594.28 N	423596.80 E
7500.00	12.000	79.975	7452.40	473.85	82.49 N	466.62 E	0.00	1007.51 FNL	666.62 FWL	502597.90 N	423617.27 E
<b>Drop to Vertical at 7554.63ft</b>											
7554.63	12.000	79.975	7505.83	485.21	84.47 N	477.80 E	0.00	1005.53 FNL	677.80 FWL	502599.88 N	423628.45 E
7600.00	11.319	79.975	7550.27	494.38	86.07 N	486.83 E	1.50	1003.93 FNL	686.83 FWL	502601.48 N	423637.48 E
7700.00	9.819	79.975	7648.57	512.72	89.26 N	504.90 E	1.50	1000.74 FNL	704.90 FWL	502604.67 N	423655.55 E
7800.00	8.319	79.975	7747.32	528.49	92.00 N	520.42 E	1.50	998.00 FNL	720.42 FWL	502607.41 N	423671.07 E
7900.00	6.819	79.975	7846.44	541.66	94.30 N	533.39 E	1.50	995.70 FNL	733.39 FWL	502609.71 N	423684.04 E
8000.00	5.319	79.975	7945.88	552.23	96.14 N	543.80 E	1.50	993.86 FNL	743.80 FWL	502611.55 N	423694.45 E
8100.00	3.819	79.975	8045.56	560.20	97.52 N	551.65 E	1.50	992.48 FNL	751.65 FWL	502612.93 N	423702.30 E
8200.00	2.319	79.975	8145.41	565.55	98.46 N	556.92 E	1.50	991.54 FNL	756.92 FWL	502613.87 N	423707.57 E
8300.00	0.819	79.975	8245.37	568.29	98.93 N	559.62 E	1.50	991.07 FNL	759.62 FWL	502614.34 N	423710.27 E
<b>End of Drop at 8354.63ft, T Atoka</b>											
8354.63	0.000	0.000	8300.00	568.68	99.00 N	560.00 E	1.50	991.00 FNL	760.00 FWL	502614.41 N	423710.65 E
<b>T Morrow</b>											
8854.63	0.000	0.000	8800.00	568.68	99.00 N	560.00 E	0.00	991.00 FNL	760.00 FWL	502614.41 N	423710.65 E
<b>Total Depth at 10054.63ft</b>											
10054.63	0.000	0.000	10000.00	568.68	99.00 N	560.00 E	0.00	991.00 FNL	760.00 FWL	502614.41 N	423710.65 E

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to RKB(4375' +20' KB). Northings and Eastings are relative to Wellhead.

Based upon Minimum Curvature type calculations, at a Measured Depth of 10054.63ft., The Bottom Hole Displacement is 568.68ft., in the Direction of 79.975° (Grid).

**HALLIBURTON**  
Sperry Drilling Services

Gruy Petroleum Management Co.  
New Mexico  
Eddy County NAD 83

**Proposal Report for Sec. 21-T22S-R22E - Wagon Wheel 21 Fed 1 - Plan 010906**  
**Data Source: Mr. Zeno Farris**  
**Revised: 9 January, 2006**

**Comments**

Measured Depth (ft)	TVD (ft)	Station Coordinates		Comment
		Northings (ft)	Eastings (ft)	
4922.00	4922.00	0.00 N	0.00 E	Kick-Off at 4922.00ft
5522.00	5517.63	10.90 N	61.65 E	End of Build at 5522.00ft
7554.63	7505.83	84.47 N	477.80 E	Drop to Vertical at 7554.63ft
8354.63	8300.00	99.00 N	560.00 E	End of Drop at 8354.63ft
10054.63	10000.00	99.00 N	560.00 E	Total Depth at 10054.63ft

**Formation Tops**

Formation Plane (Below Well Origin)			Profile Penetration Point					Formation Name
Sub-Sea (ft)	Dip Angle	Up-Dip Dirn.	Measured Depth (ft)	Vertical Depth (ft)	Sub-Sea Depth (ft)	Northings (ft)	Eastings (ft)	
3905.00	0.000	0.000	8354.63	8300.00	3905.00	99.00 N	560.00 E	T Aloka
4405.00	0.000	0.000	8854.63	8800.00	4405.00	99.00 N	560.00 E	T Morrow

## North Reference Sheet for Sec. 21-T22S-R22E - Wagon Wheel 21 Fed 1

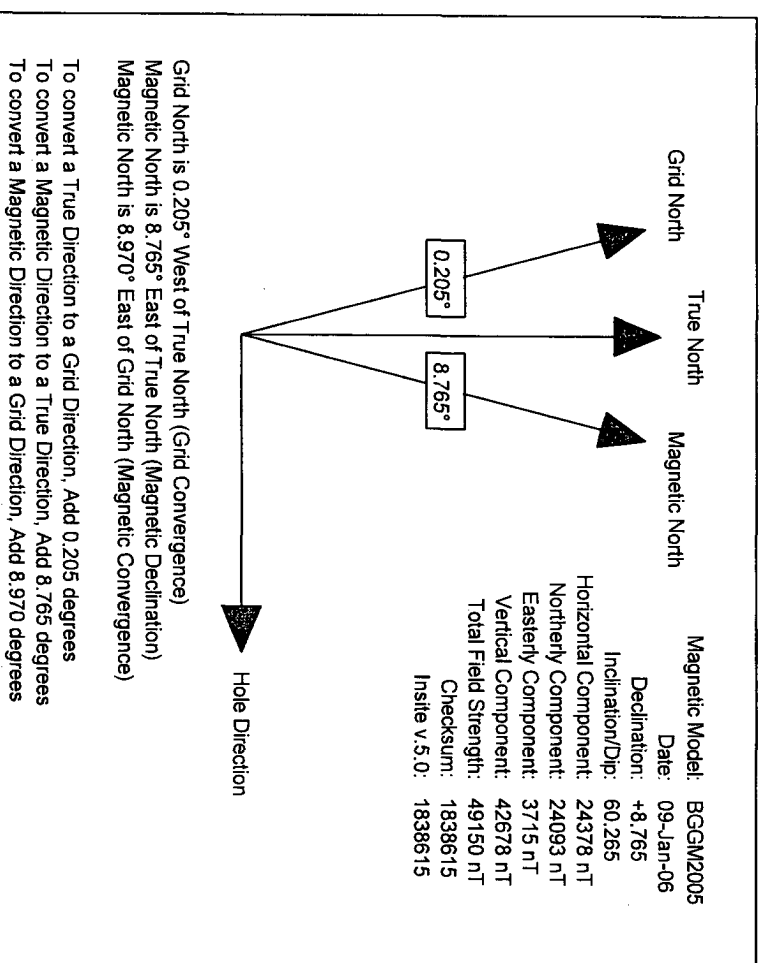
Coordinate System is NAD83 New Mexico State Planes, Eastern Zone  
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1983

Spheroid is Geodetic Reference System of 1980  
Equatorial Radius: 6378137.000m.  
Polar Radius: 6356752.314m.  
Inverse Flattening: 298.257222100892

Projection method is Transverse Mercator or Gauss Kruger Projection  
Central Meridian is -104.333°  
Longitude Origin: 0.000°  
Latitude Origin: 31.000°  
False Easting: 165000.00m  
False Northing: 0.00m  
Scale Reduction: 0.99990909

Grid Coordinates of Well: 502515.41 N, 423150.65 E  
Geographical Coordinates of Well: 32° 22' 51.2497" N, 104° 42' 58.2692" W  
Surface Elevation of Well: 4395.00ft  
Grid Convergence at Surface is -0.205°  
Magnetic Convergence at Surface is -8.970° (9 January, 2006)

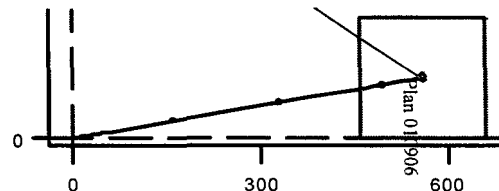


**New Mexico**  
**Eddy County NAD 83**  
**Sec. 21-T22S-R22E**  
**Wagon Wheel 21 Fed 1**  
**Plan 010906**



8.3K Tgt #1  
Square, Sides: 200.00ft, Thickness: 1700.00ft  
8300.00 TVD, 99.00 N, 560.00 E

Northings



Scale: 1 inch = 300ft Reference is Grid North  
Eastings

**Plan 010906 Proposal Data**

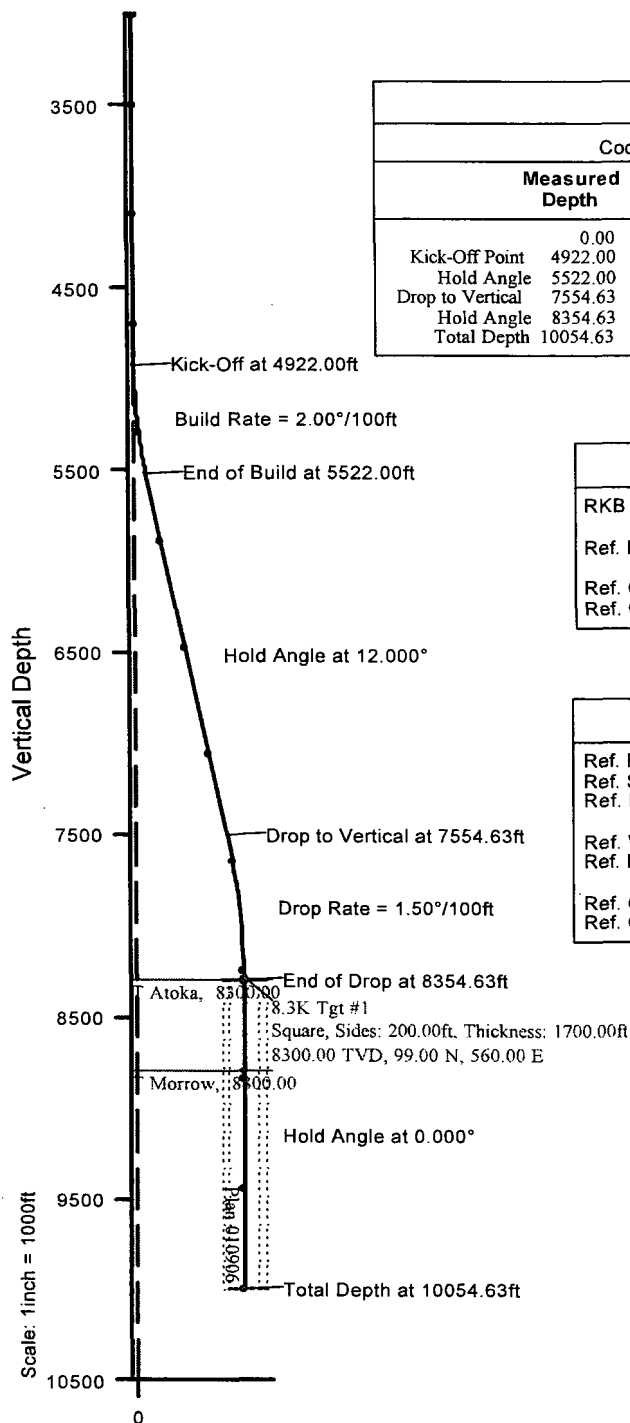
Coordinate System : NAD83 New Mexico State Planes, Eastern Zone								
	Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
Kick-Off Point	0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	0.00
Hold Angle	4922.00	0.000	0.000	4922.00	0.00 N	0.00 E	0.00	0.00
Drop to Vertical	5522.00	12.000	79.975	5517.63	10.90 N	61.65 E	62.60	2.00
Hold Angle	7554.63	12.000	79.975	7505.83	84.47 N	477.80 E	485.21	0.00
Hold Angle	8354.63	0.000	0.000	8300.00	99.00 N	560.00 E	568.68	1.50
Total Depth	10054.63	0.000	0.000	10000.00	99.00 N	560.00 E	568.68	0.00

**Wagon Wheel 21 Fed 1 Surface Location**

RKB Elevation:	4395.00ft above Mean Sea Level
Ref. NW Cor Sec 21:	1090.00 S, 200.00 E
Ref. Global Coordinates:	502515.41 N, 423150.65 E
Ref. Geographical Coordinates:	32° 22' 51.2497" N, 104° 42' 58.2692" W

**Plan 010906 Bottom Hole Location**

Ref. RKB(4375'+20"KB):	10000.00ft
Ref. Structure:	9980.00ft
Ref. Mean Sea Level:	5605.00ft
Ref. Wellhead:	99.00 N, 560.00 E
Ref. NW Cor Sec 21:	991.00 S, 760.00 E
Ref. Global Coordinates:	502614.41 N, 423710.65 E
Ref. Geographical Coordinates:	32° 22' 52.2491" N, 104° 42' 51.7429" W



Section Azimuth: 79.975° (Grid North)

**Vertical Section**

Prepared by:  
Dennis Cook

Date/Time:  
9 January, 2006 - 14:48

Checked:

Approved:



## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Cimarex Energy Company  
Well Name & No: Wagon Wheel 21 Fed. 001  
Location: Surface 1090' FNL & 200' FWL, BHL: 991' FNL & 760' FWL  
Sec. 21, T. 22 S. R. 22 E.  
Lease: NMNM 105195  
Eddy County, New Mexico

.....

### 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) 361-2822 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; 9 5/8 inch; 5 1/2 inch.
  - C. BOP Tests
2. A Hydrogen Sulfide (H2S) Drilling Plan shall be utilized three days or 500 feet prior to drilling into the top of the Wolfcamp at estimated 5950 ft.
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 NMOCDC shall be included on the subsequent report of setting the first casing string.

### II. CASING:

1. The 13 3/8 inch shall be set at 1050 Feet with 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 circulate to surface.
3. The minimum required fill of cement behind the 5 1/2 inch Production casing is to place TOC at least 200 ft higher than any potential hydrocarbon bearing formations.

### 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.

### III. Pressure Control (Cont):

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3 M psi.

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

- The test 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 safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

Ggourley BLM Roswell 2/27/2006