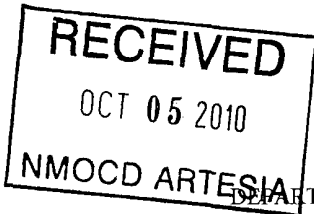


OCD-ARTESIA

Form 3160-3
(April 2004)



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Serial No.
NM-124659
6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER SECRETARY'S OFFICE

| | | | |
|--|---|--|-----------------|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 7. If Unit or CA Agreement, Name and No. | |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 8. Lease Name and Well No. Burton 6 Federal No. 1 H (38341) | |
| 2. Name of Operator Cimarex Energy Co. of Colorado (162683) | | 9. API Well No. 30-015- 38226 | |
| 3a. Address 600 N. Marienfeld St., Ste. 600; Midland, TX 79701 | 3b. Phone No. (include area code) 432-571-7800 | 10. Field and Pool, or Exploratory Parkway; Bone Spring (49622) | |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 150 FNL & 660 FWL (D) UNORTHODOX LOCATION At proposed prod. Zone 330 FSL & 660 FWL Horizontal Bone Spring test | | 11. Sec., T. R. M. or Blk. and Survey or Area 6-20S-30E | |
| 14. Distance in miles and direction from nearest town or post office* | | 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) 150' | 16. No of acres in lease 480 | 17. Spacing Unit dedicated to this well W2W2 157.87 | |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A | 19. Proposed Depth Pilot Hole 8550' MD 12972' TVD 8275' | 20. BLM/BIA Bond No. on File NM-2575 | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3323' GR | 22. Approximate date work will start* 08.01.10 | 23. Estimated duration 25-30 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 | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

| | | |
|------------------------------|-------------------------------------|------------------|
| 25. Signature Zeno Farris | Name (Printed/Typed) Zeno Farris | Date 05.18.10 |
|------------------------------|-------------------------------------|------------------|

| | | | |
|---|---------------------------|--|---------------------|
| Title Manager Operations Administration | | OCD CONDITION OF APPROVAL for Drilling: Intent to drill ONLY --- CANNOT produce until the Non-Standard Location has been approved by OCD Santa Fe office. | Date SEP 29 2010 |
| Approved By (Signature) /s/ Linda S.C. Rundell | | | |
| Title STATE DIRECTOR | Office NM STATE 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) well becomes orthodox @ approx. 8350' md

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

KZ 10/14/10

DISTRICT IV
1220 E. St. Francis Dr., Santa Fe, NM 87505

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| | | |
|----------------------------|---|-----------------------------------|
| API Number 30-015-38226 | Pool Code 49622 | Pool Name Parkway; Bone Spring |
| Property Code 38341 | Property Name BURTON "6" FEDERAL | Well Number 1H |
| OGRID No. 162683 | Operator Name CIMAREX ENERGY CO. OF COLORADO | Elevation 3323' |

Surface Location

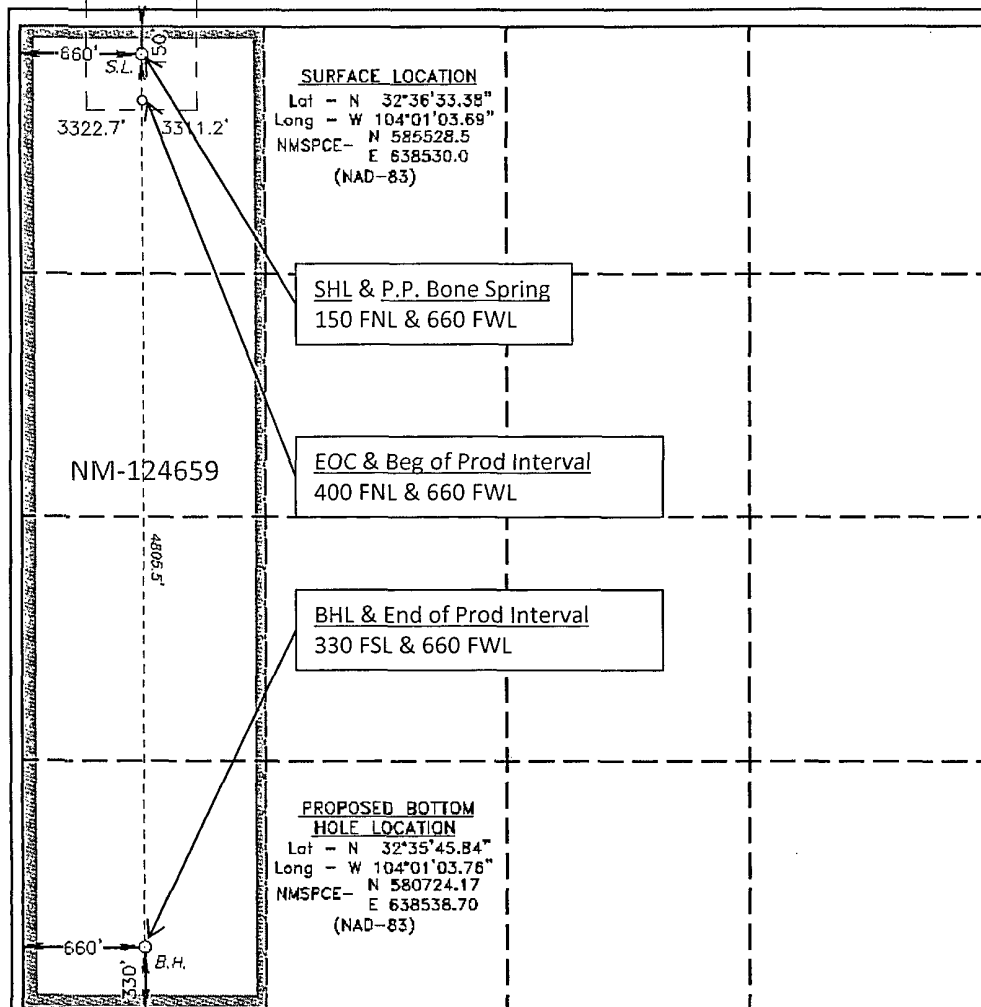
| | | | | | | | | | |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| D | 6 | 20 S | 30 E | | 150 | NORTH | 660 | 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 |
| M | 6 | 20 S | 30 E | | 330 | SOUTH | 660 | WEST | EDDY |

| | | | |
|-----------------|-----------------|--------------------|-------------|
| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
| 157.87 | | | NSL Pending |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
3326.8' 3321.4' OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Zeno Fanni 5/18/2010
Signature Date

Zeno Farris

Printed Name _____

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

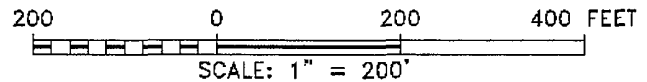
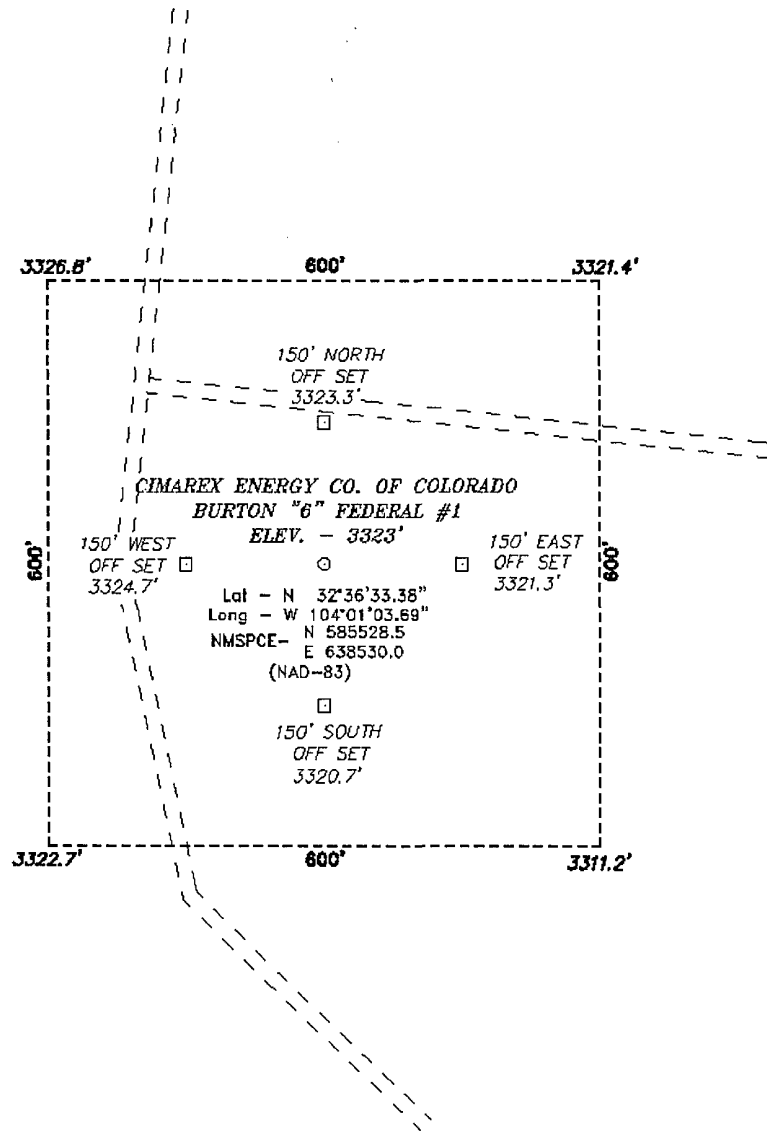
Date Surveyed 1/1/78

Signature & Seal of
Professional Surveyor

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 6, TOWNSHIP 20 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF HWY 360 AND CURRY COMB,
GO WEST ON CURRY COMB FOR 3.8 MILES TO LEASE
ROAD, ON LEASE ROAD GO SOUTH 0.6 MILES TURNING
WEST FOR 0.1 MILES THENCE SOUTH AGAIN FOR 0.8
MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0.8
MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTH 0.3
MILES TO PROPOSED LOCATION.

CIMAREX ENERGY CO. OF COLORADO

REF: BURTON "6" FEDERAL #1 / WELL PAD TOPO

THE BURTON "6" FEDERAL #1 LOCATED 150'
FROM THE NORTH LINE AND 660' FROM THE WEST LINE OF

SECTION 6, TOWNSHIP 20 SOUTH, RANGE 30 EAST,

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

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

W.O. Number: 22730 Drawn By: J. SMALL

Date: 05-06-2010 Disk: JMS 22730

Survey Date: 05-05-2010 Sheet 1 of 1 Sheets

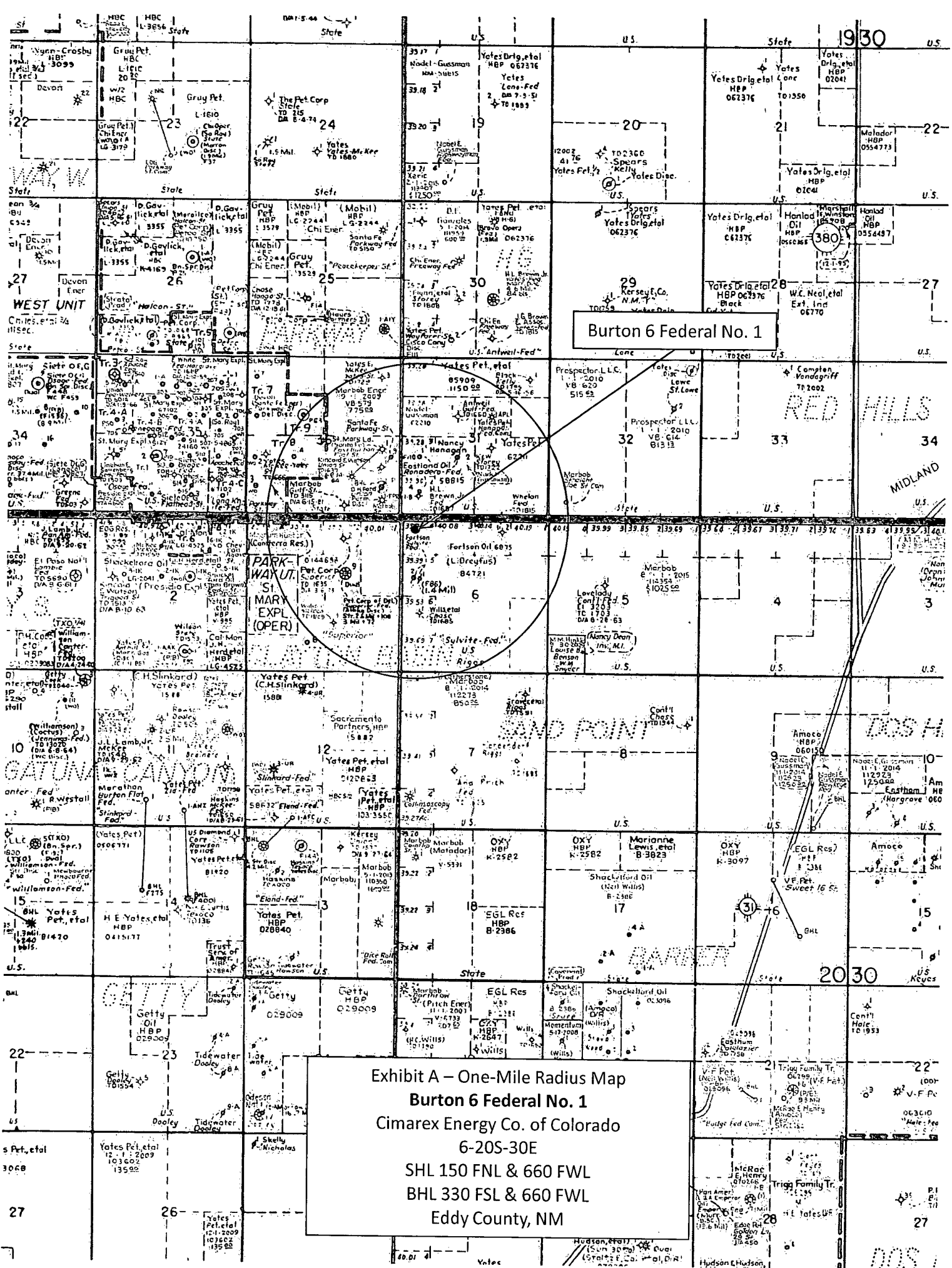
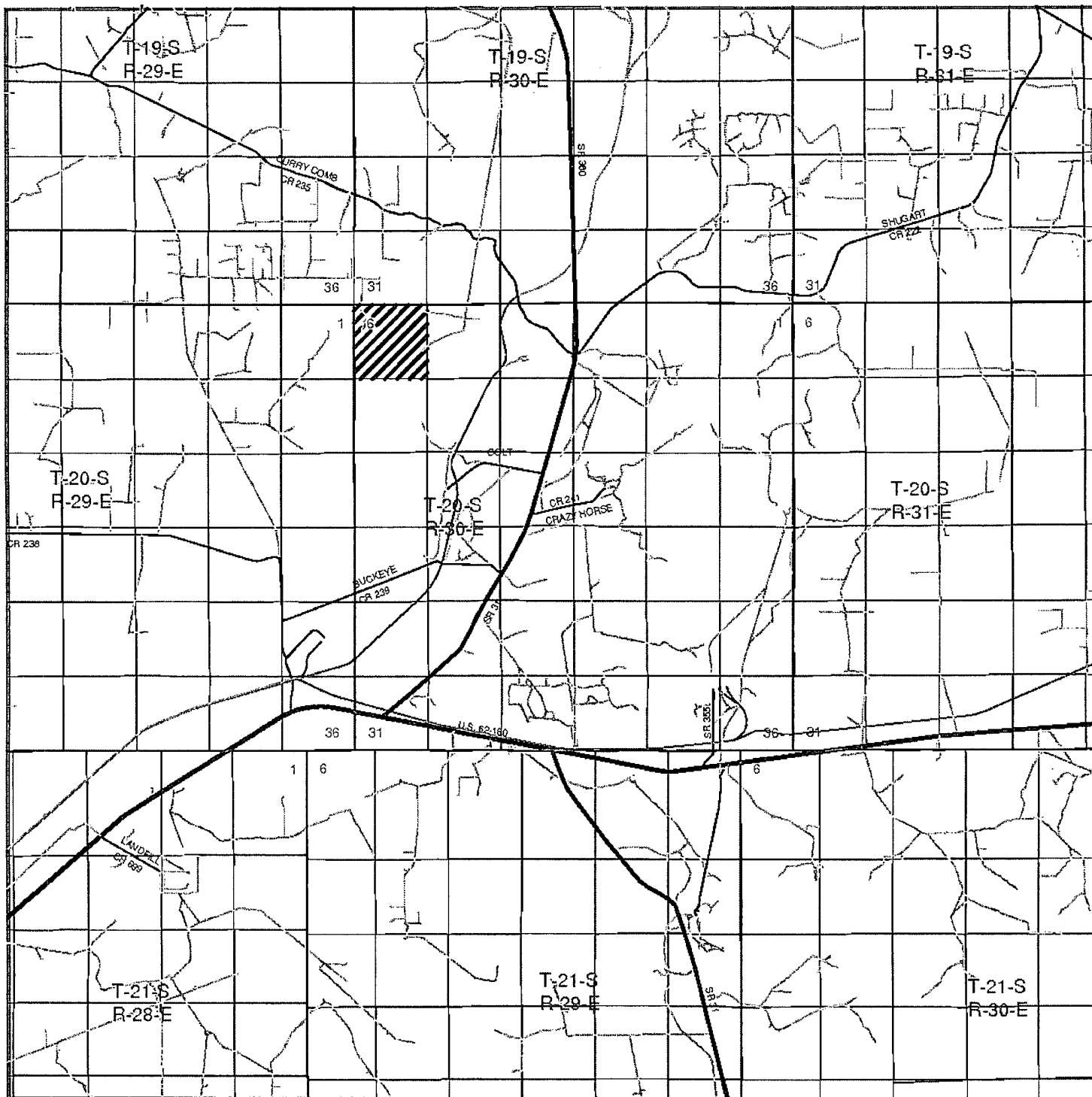


Exhibit A-1
Status of Wells w/in One-Mile Radius
Burton 6 Federal No. 1
6-20S-30E
Eddy County, NM

| api | well_name | compl_status | township | range | section | sddiv_ul | fig_ns | ns_cd | fig_ew | ew_cd | operator | one_producing_pool_name |
|------------|-------------------------------|--------------|----------|-------|---------|----------|--------|-------|--------|-------|---------------------------------------|--------------------------|
| 3001504662 | CHASE 001 | Plugged | 20.0S | 30E | 6 | L | 1980 | S | 660 | W | NEIL WILLS ET AL | |
| 3001526657 | SYLVITE FEDERAL 002 | Plugged | 20.0S | 30E | 6 | S | 1980 | N | 467 | W | FORTSON OIL CO | |
| 3001504661 | RIGGS 001 | Plugged | 20.0S | 30E | 6 | B | 330 | N | 1650 | E | MARK WHELAN | |
| 3001526503 | SYLVITE FEDERAL 001 | Plugged | 20.0S | 30E | 6 | S | 1980 | N | 660 | W | FORTSON OIL CO | |
| 3001526222 | RONADERO FEDERAL 002 | Plugged | 19.0S | 30E | 31 | K | 1980 | S | 1980 | W | EASTLAND OIL CO | |
| 3001520390 | FEDERAL B 001 | Plugged | 19.0S | 30E | 31 | M | 660 | S | 660 | W | H L BROWN JR | |
| 3001504650 | KELLY 001 | Plugged | 19.0S | 30E | 31 | A | 660 | N | 660 | E | W H BLACK | |
| 3001528635 | HANAGAN APL FEDERAL COM | Active | 19.0S | 30E | 31 | G | 1980 | N | 1980 | E | YATES PETROLEUM CORPORATION | HG: ATOKA |
| 3001526403 | RONADERO FEDERAL 004 | Active | 19.0S | 30E | 31 | 4 | 810 | S | 660 | W | EASTLAND OIL CO | PARKWAY;DELAWARE |
| 3001526161 | RONADERO FEDERAL 001 | Active | 19.0S | 30E | 31 | 3 | 1980 | S | 600 | W | EASTLAND OIL CO | PARKWAY;DELAWARE |
| 3001524075 | GULF FED 001 | Plugged | 19.0S | 30E | 31 | F | 1980 | N | 1980 | W | MORRIS R ANTWEIL | |
| 3001504651 | STOREY 001 | Plugged | 19.0S | 30E | 31 | J | 1980 | S | 1980 | E | H & W FOGERTY | |
| 3001526078 | PARKWAY DELAWARE UNIT 902 | Active | 19.0S | 29E | 36 | D | 660 | N | 330 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001523650 | GULF ST 001 | Plugged | 19.0S | 29E | 36 | O | 330 | S | 1980 | E | MARBOB ENERGY CORP | |
| 3001526075 | PARKWAY DELAWARE UNIT 923 | Active | 19.0S | 29E | 36 | K | 1980 | S | 1650 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001503620 | STATE 003 | Plugged | 19.0S | 29E | 36 | A | 660 | N | 660 | E | YATES & MCKEE | |
| 3001526593 | EAST BURTON FLAT 36 STATE 001 | Zone Plugged | 19.0S | 29E | 36 | I | 2240 | S | 660 | E | ST. MARY LAND ; EXPLORATION COMPANY | |
| 3001537860 | THREE PALMS 36 STATE COM | Unknown | 19.0S | 29E | 36 | A | 660 | N | 330 | E | MEWBOURNE OIL CO | |
| 3001526070 | PARKWAY DELAWARE UNIT 921 | Active | 19.0S | 29E | 36 | L | 1980 | S | 330 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001510050 | UNION 001 | Plugged | 19.0S | 29E | 36 | P | 990 | S | 660 | E | DON H FORD | |
| 3001526077 | PARKWAY DELAWARE UNIT 901 | Active | 19.0S | 29E | 36 | E | 1980 | N | 330 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001526074 | PARKWAY DELAWARE UNIT 922 | Active | 19.0S | 29E | 36 | M | 990 | S | 330 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001534278 | FPR STATE #001 001 | Active | 19.0S | 29E | 36 | P | 660 | S | 660 | E | MARBOB ENERGY CORP | BURTON FLAT;STRAWN, EAST |
| 3001526209 | PARKWAY 36 STATE 009 | Plugged | 19.0S | 29E | 36 | I | 1980 | S | 330 | E | SANTA FE ENERGY OPERATING PARTNERS LP | |
| 3001525671 | PARKWAY 36 STATE 001 | Active | 19.0S | 29E | 36 | F | 1980 | N | 1980 | W | ST. MARY LAND ; EXPLORATION COMPANY | PARKWAY;DELAWARE |
| 3001510329 | BURTON FLAT 36 STATE EAST 001 | Plugged | 19.0S | 29E | 36 | I | 1650 | S | 660 | E | SANTA FE ENERGY OPERATING PARTNERS LP | |
| 3001503624 | McCLEAN 001 | Plugged | 20.0S | 29E | 1 | J | 1652 | S | 2326 | E | NEIL WILLS ET AL | |
| 3001520804 | SUPERIOR FEDERAL 002 | Plugged | 20.0S | 29E | 1 | B | 660 | N | 1980 | E | THE PETROLEUM CORPORATION OF | PARKWAY;BONE SPRING |
| 3001526523 | SUPERIOR FEDERAL 008 | Active | 20.0S | 29E | 1 | N | 990 | S | 2130 | W | CIMAREX ENERGY CO. OF COLORADO | |
| 3001526590 | SUPERIOR FEDERAL 009 | Active | 20.0S | 29E | 1 | G | 1830 | N | 1980 | E | CIMAREX ENERGY CO. OF COLORADO | BURTON FLAT;STRAWN, EAST |

Added
8/11/10
TEN



BURTON "6" FEDERAL #1
 Located 150' FNL and 660' FWL
 Section 6, Township 20 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

W.O. Number: JMS 22730

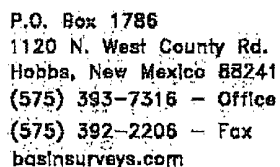
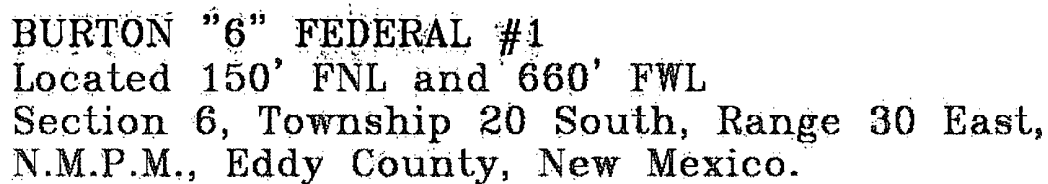
Survey Date: 05-05-2010

Scale: 1" = 2 Miles

Date: 05-06-2010

CIMAREX
ENERGY CO.
OF COLORADO

Exhibit B

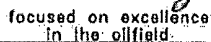


Date: 05-06-2010

CIMAREX
ENERGY CO.
OF COLORADO

The map displays a topographic representation of the Burton Federal Area. It features a grid system with horizontal and vertical lines. Contour lines are drawn to show elevation changes, with labels such as 3350, 3340, 3330, 3320, 3310, 3300, 3290, 3280, 3270, 3260, 3250, 3240, 3230, 3220, 3210, 3200, 3190, 3180, 3170, 3160, 3150, 3140, 3130, 3120, 3110, 3100, 3090, 3080, 3070, 3060, 3050, 3040, 3030, 3020, 3010, 3000, 2990, 2980, 2970, 2960, 2950, 2940, 2930, 2920, 2910, 2900, 2890, 2880, 2870, 2860, 2850, 2840, 2830, 2820, 2810, 2800, 2790, 2780, 2770, 2760, 2750, 2740, 2730, 2720, 2710, 2700, 2690, 2680, 2670, 2660, 2650, 2640, 2630, 2620, 2610, 2600, 2590, 2580, 2570, 2560, 2550, 2540, 2530, 2520, 2510, 2500, 2490, 2480, 2470, 2460, 2450, 2440, 2430, 2420, 2410, 2400, 2390, 2380, 2370, 2360, 2350, 2340, 2330, 2320, 2310, 2300, 2290, 2280, 2270, 2260, 2250, 2240, 2230, 2220, 2210, 2200, 2190, 2180, 2170, 2160, 2150, 2140, 2130, 2120, 2110, 2100, 2090, 2080, 2070, 2060, 2050, 2040, 2030, 2020, 2010, 2000, 1990, 1980, 1970, 1960, 1950, 1940, 1930, 1920, 1910, 1900, 1890, 1880, 1870, 1860, 1850, 1840, 1830, 1820, 1810, 1800, 1790, 1780, 1770, 1760, 1750, 1740, 1730, 1720, 1710, 1700, 1690, 1680, 1670, 1660, 1650, 1640, 1630, 1620, 1610, 1600, 1590, 1580, 1570, 1560, 1550, 1540, 1530, 1520, 1510, 1500, 1490, 1480, 1470, 1460, 1450, 1440, 1430, 1420, 1410, 1400, 1390, 1380, 1370, 1360, 1350, 1340, 1330, 1320, 1310, 1300, 1290, 1280, 1270, 1260, 1250, 1240, 1230, 1220, 1210, 1200, 1190, 1180, 1170, 1160, 1150, 1140, 1130, 1120, 1110, 1100, 1090, 1080, 1070, 1060, 1050, 1040, 1030, 1020, 1010, 1000, 990, 980, 970, 960, 950, 940, 930, 920, 910, 900, 890, 880, 870, 860, 850, 840, 830, 820, 810, 800, 790, 780, 770, 760, 750, 740, 730, 720, 710, 700, 690, 680, 670, 660, 650, 640, 630, 620, 610, 600, 590, 580, 570, 560, 550, 540, 530, 520, 510, 500, 490, 480, 470, 460, 450, 440, 430, 420, 410, 400, 390, 380, 370, 360, 350, 340, 330, 320, 310, 300, 290, 280, 270, 260, 250, 240, 230, 220, 210, 200, 190, 180, 170, 160, 150, 140, 130, 120, 110, 100, 90, 80, 70, 60, 50, 40, 30, 20, 10, 0. The map is labeled with 'Existing Lease Road' and 'Proposed Reconstructed Road'. The proposed road is shown as a thick black line, and the existing road is shown as a dashed line. The map is labeled with 'Burton Federal Area' and 'Proposed Reconstructed Road'.

Section 6, Township 20 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



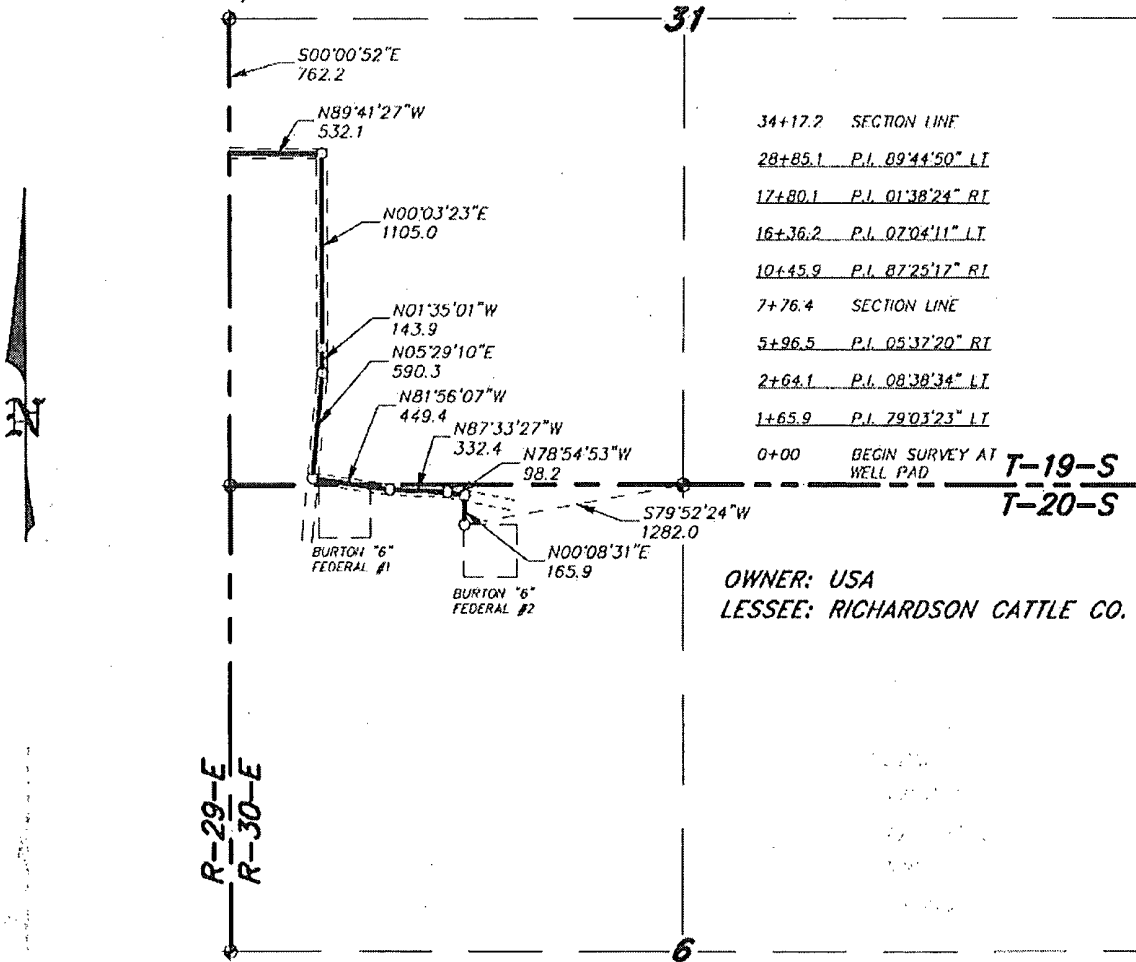
Date: 05-06-2010

CIMAREX
ENERGY CO.
OF COLORADO

Exhibit C

Added 8/11/10
TEN

SECTION 6, TOWNSHIP 20 SOUTH, RANGE 30 EAST, N.M.P.M.,
SECTION 31, TOWNSHIP 19 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 6, TOWNSHIP 20 SOUTH, RANGE 30 EAST, AND SECTION 31, TOWNSHIP 19 SOUTH, RANGE 30 EAST N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

SECTION 6 = 776.4 FEET = 47.05 RODS = 0.15 MILES = 0.53 ACRES

SECTION 31 = 2640.8 FEET = 160.05 RODS = 0.50 MILES = 1.82 ACRES

TOTAL = 3417.2 FEET = 207.10 RODS = 0.65 MILES = 2.35 ACRES

I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES
No. 7977
No. 5074

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

W.O. Number: 22731 Drawn By: J. M. SMALL

Date: 07-13-2010 Disk: JMS 22731

1000 0 1000 2000 FEET

CIMAREX ENERGY COMPANY OF COLORADO

REF: PROPOSED LEASE ROAD TO THE BURTON 6 FEDERAL WELLS

A LEASE ROAD CROSSING USA LAND IN

SECTION 6, TOWNSHIP 20 SOUTH, RANGE 30 EAST,
SECTION 31, TOWNSHIP 19 SOUTH, RANGE 30 EAST,

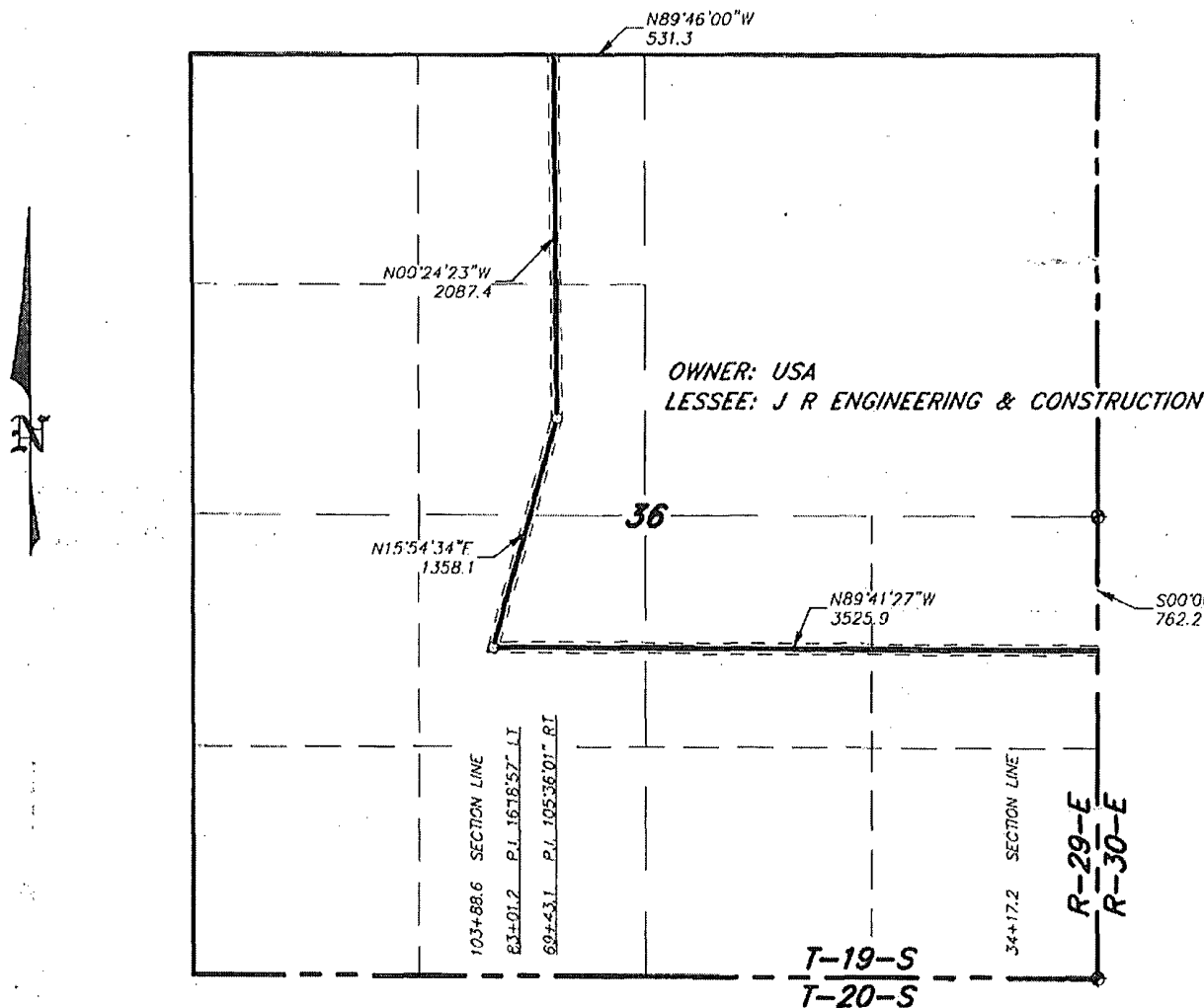
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Exhibit C-2

Survey Date: 05-05-2010 Sheet 1 of 3 Sheets

Added 8/11/10
TEN

SECTION 36, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 36, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY. BEGINNING AT A POINT WHICH LIES S.00°00'52\"E, 762.2 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 36; THENCE N.89°41'27\"W, 3525.9 FEET; THENCE N.15°45'34\"E, 1358.1 FEET; THENCE N.00°24'23\"W, 2087.4 FEET TO A POINT ON THE NORTH SECTION LINE WHICH LIES N.89°46'00\"W, 531.3 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 36. SAID STRIP OF LAND BEING 6971.4 FEET OR 422.51 RODS IN LENGTH AND CONTAINING 4.80 ACRES, MORE OR LESS, AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4 = 79.88 RODS = 0.91 ACRES

NW/4 SE/4 = 79.98 RODS = 0.91 ACRES

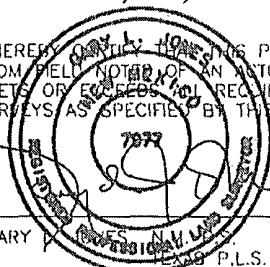
NE/4 SW/4 = 101.42 RODS = 1.15 ACRES

SE/4 NW/4 = 81.27 RODS = 0.92 ACRES

NE/4 NW/4 = 79.96 RODS = 0.91 ACRES

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY



No. 7977

No. 5074

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

W.O. Number: 22731

Drawn By: J. M. SMALL

Date: 07-13-2010

Disk: JMS 22731

Survey Date: 05-05-2010

Sheet 2 of 3 Sheets

Exhibit C-3

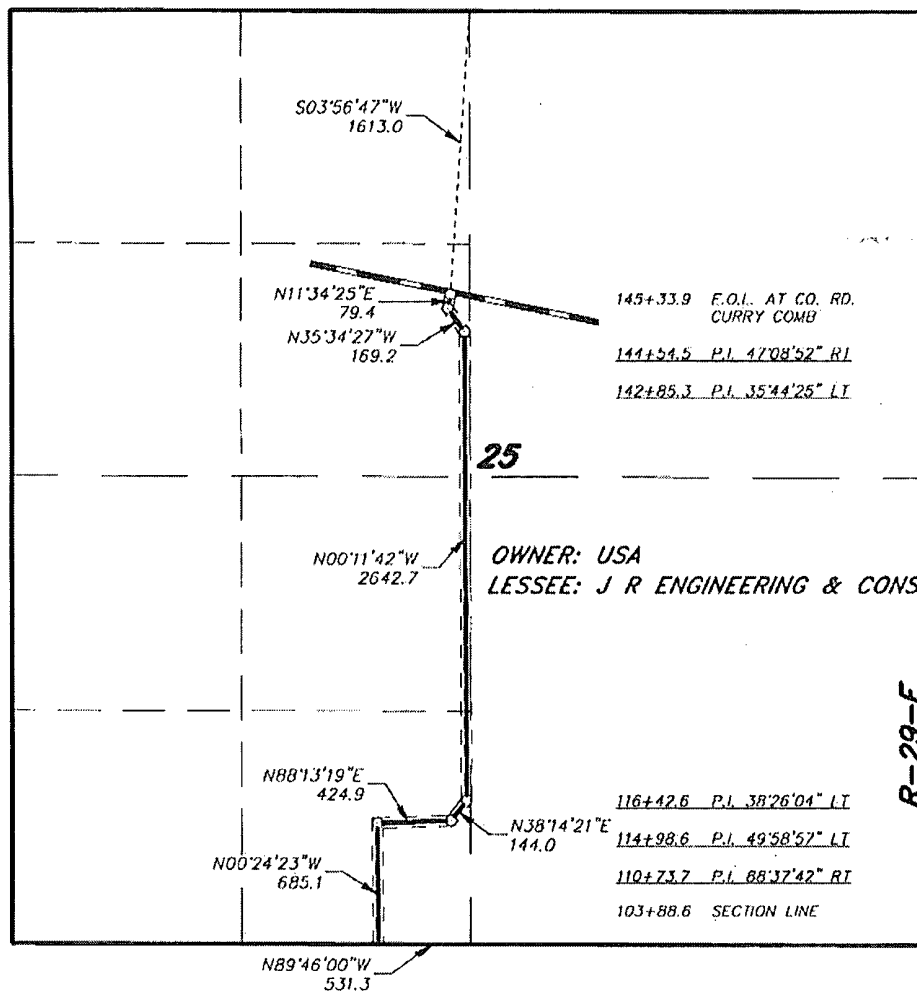
CIMAREX ENERGY COMPANY OF COLORADO

REF: PROPOSED LEASE ROAD TO THE BURTON 6 FEDERAL WELLS

A LEASE ROAD CROSSING STATE LAND IN
SECTION 36, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Added 8/11/10
TEN

SECTION 25, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



LEGAL DESCRIPTION

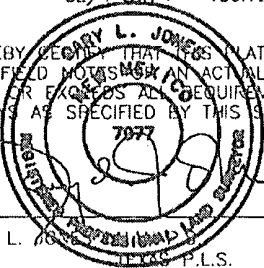
A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 25, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY. BEGINNING AT A POINT WHICH LIES N.89°46'00"W., 531.3 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION 25; THENCE N.00°24'23"W., 685.1 FEET; THENCE N.88°13'19"E., 424.9 FEET; THENCE N.38°14'21"E., 144.0 FEET; THENCE N.00°11'42"W., 2642.7 FEET; THENCE N.35°34'27"W., 169.2 FEET; THENCE N.11°34'25"E., 79.4 FEET TO THE END OF THIS LINE WHICH LIES S.03°56'47"W., 1613.0 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 25. SAID STRIP OF LAND BEING 4145.3 FEET OR 251.23 RODS IN LENGTH AND CONTAINING 2.85 ACRES, MORE OR LESS, AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SW/4 = 106.72 RODS = 1.21 ACRES

NE/4 SW/4 = 80.01 RODS = 0.91 ACRES

SE/4 NW/4 = 64.50 RODS = 0.73 ACRES

I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM FIELD NOTES AND AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.



GARY L. JONES, No. 7977
Professional Land Surveyor, State of New Mexico, No. 5074

1000 0 1000 2000 FEET

CIMAREX ENERGY COMPANY OF COLORADO

REF: PROPOSED LEASE ROAD TO THE BURTON 6 FEDERAL WELLS

A LEASE ROAD CROSSING STATE LAND IN
SECTION 25, TOWNSHIP 19 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 22731 Drawn By: J. M. SMALL

Date: 07-13-2010 Disk: JMS 22731

Survey Date: 05-05-2010 Sheet 3 of 3 Sheets

Exhibit C-4

Application to Drill
Burton 6 Federal No. 1
 Cimarex Energy Co. of Colorado
 Unit D, Section 6
 T20S-R30E, 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 150 FNL & 660 FWL
 BHL 330 FSL & 660 FWL
- 2 Elevation above sea level: 3323' 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: Pilot Hole 8550' MD 12972' TVD 8275'
- 6 Estimated tops of geological markers:

| | | | |
|----------------|-------|-------------|-------|
| T. Salt | 612' | Bone Spring | 6120' |
| Capitan | 1647' | FBSS | 7460' |
| Yates | 2387' | SBSS | 8175' |
| Delaware Sands | 3500' | | |
- 7 Possible mineral bearing formation:
 Bone Spring Oil

8 Proposed Mud Circulating System:

| Depth | Mud Wt | Visc | Fluid Loss | Type Mud |
|-----------------|-----------|-------|------------|-------------|
| 0' to 320' | 8.4 - 8.6 | 28 | NC | FW |
| 320' to 1600' | 10.0 | 30-32 | NC | Brine water |
| 1600' to 3500' | 8.4 - 8.8 | 28 | NC | FW |
| 1600' to 8550' | 8.4 - 9.5 | 30-32 | NC | FW, brine |
| 8025' to 12972' | 8.4 | 28-32 | NC | 2% KCl |

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.

Proposed drilling Plan

After drilling and setting surface casing, drill to vertical TD 8550' and log. Set 7" casing to 7965' and cross over to 2½" 2000 psi IJ fiberglass tubing underneath to 8550' and cement in place. Drill out of the bottom of the 7" with a 6½" bit and through cement and fiberglass tubing to KOP @ 8025' and kick off to drill the lateral. The fiberglass tubing effectively circulates cement to surface and plugs back the open hole.

Drill to lateral TD (12972' MD, 8275' TVD). Run 4½" PEAK liner from RSB packer @ 7865' to TD @ 12972'. Request a 100' tieback for lateral casing string in order to be able to set the pump as deep as possible.

Application to Drill
Burton 6 Federal No. 1
 Cimarex Energy Co. of Colorado
 Unit D, Section 6
 T20S-R30E, Eddy County, NM

9 Casing & Cementing Program:

| String | Hole Size | Depth | Casing OD | Weight | Collar | Grade |
|----------------------|-----------|-----------------|-----------|--------|--------|--------|
| Surface 1 | 26" | 0' to 320' | New 20" | 94# | BTC | J/K-55 |
| Surface 2 | 17½" | 0' to 1600' | New 13¾" | 61# | BTC | J-55 |
| Intermediate | 12¼" | 0' to 3500' | New 9¾" | 40# | LTC | J/K-55 |
| Production | 8¾" | 0' to 7965' | New 7" | 26# | LTC | P-110 |
| Production | 8¾" | 7965' to 8550' | New 2¾" | 2.18# | 0 | IJ |
| Lateral Pt. 1 | 6¼" | 7865' to 8418' | New 4½" | 11.6# | BTC | P-110 |
| Lateral Pt. 2 | 6¼" | 8418' to 12972' | New 4½" | 11.6# | LTC | P-110 |

10 Cementing:

Surface 1 1963 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35)
TOC Surface

Surface 2 Lead: 1354 sx Econocem + 3% Salt + 2% CaCl₂ + 3# Gilsonite (wt 11.7, yld 2.06)
Tail: 610 sx Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.34)
TOC Surface

Intermediate Lead: 708 sx Econocem + 3% Salt + 2% CaCl₂ + 3 lbm/sk Gilsonite (wt 11.7, yld 2.06)
Tail: 210 sks Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.34)
TOC Surface

Production Lead: 240 sx EconoCem + 3% Salt + 5 lbm/sk gilsonite (wt 13.0, yld 1.71)
Tail: 485 sx HalCem (wt 14.8, yld 1.34)
TOC 3200'

Lateral No cement needed. Peak completion assembly.

Fresh water zones will be protected by setting 20" casing at 320' and 13¾" casing at 1600' and cementing to surface. Hydrocarbon zones will be protected by setting 9¾" casing at 3500' and cementing to surface, and by setting 7" casing at 7965' and fiberglass to 8550' and cementing to 3000.'

| <u>Collapse Factor</u> | <u>Burst Factor</u> | <u>Tension Factor</u> |
|------------------------|---------------------|-----------------------|
| 1.125 | 1.125 | 1.6 |

11 Pressure control Equipment:

Exhibit "E". A 13¾" 5000 PSI working pressure BOP tested to 3000 psi 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 as needed. 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 and 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 20" surface pipe, the well will be equipped with a 2M diverter system with rotating head (see exhibit E-1). From the base of the 13¾" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

Application to Drill
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 6
T20S-R30E, Eddy County, NM

12 Testing, Logging and Coring Program: *See COA*

- A. Mud logging program: 2 man unit from 3200' 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. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." 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 **3000 psi** Estimated BHT **130°**

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take 30-35 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.

Bone Spring pay will be perforated and stimulated.

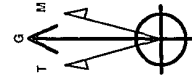
The proposed well will be tested and potential as **an oil well.**

Cimarex Energy Co.

Project: Eddy County (NM83E)
 Siler: Sec 6 - T20S - R30E
 Well: Burton 6 Federal #1
 Wellbore: Wellbore #1
 Design: Plan #1

WELL DETAILS: Burton 6 Federal #1

+N/-S +E/-W Northing Easting Longitude
 0.0 0.0 585528.50 638530.00 104° 1' 3.694 W
 SHL: 150' FNL / 660' FWL
 BHL: 330' FSL / 660' FWL



Azimuths to Grid North
 Total Correction: 7.77°
 Magnetic Field
 Strength: 48964.881
 Dec Angle: 60.5
 Inclination: 66.5
 Model: IGRF200510

WELLBORE TARGET DETAILS

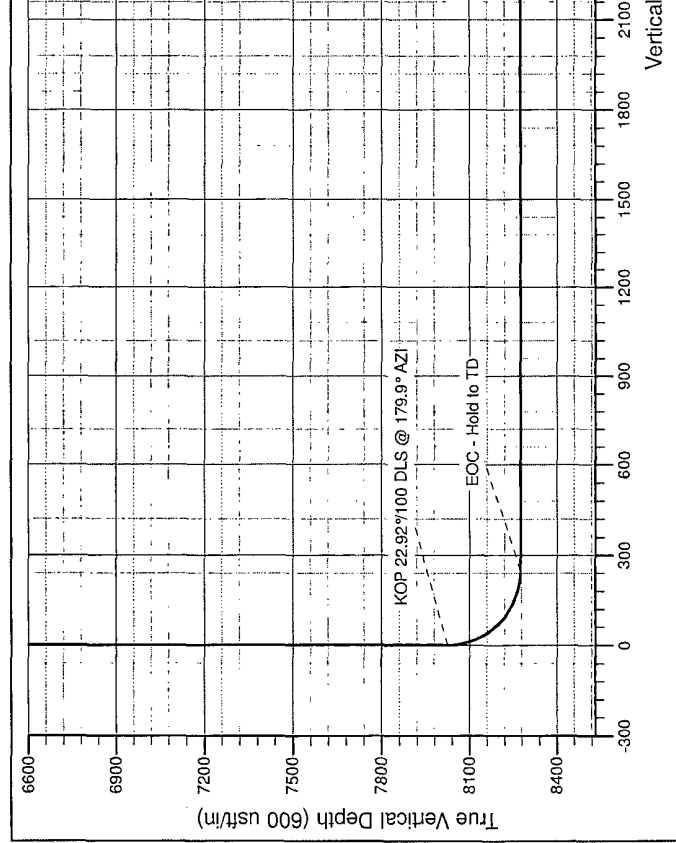
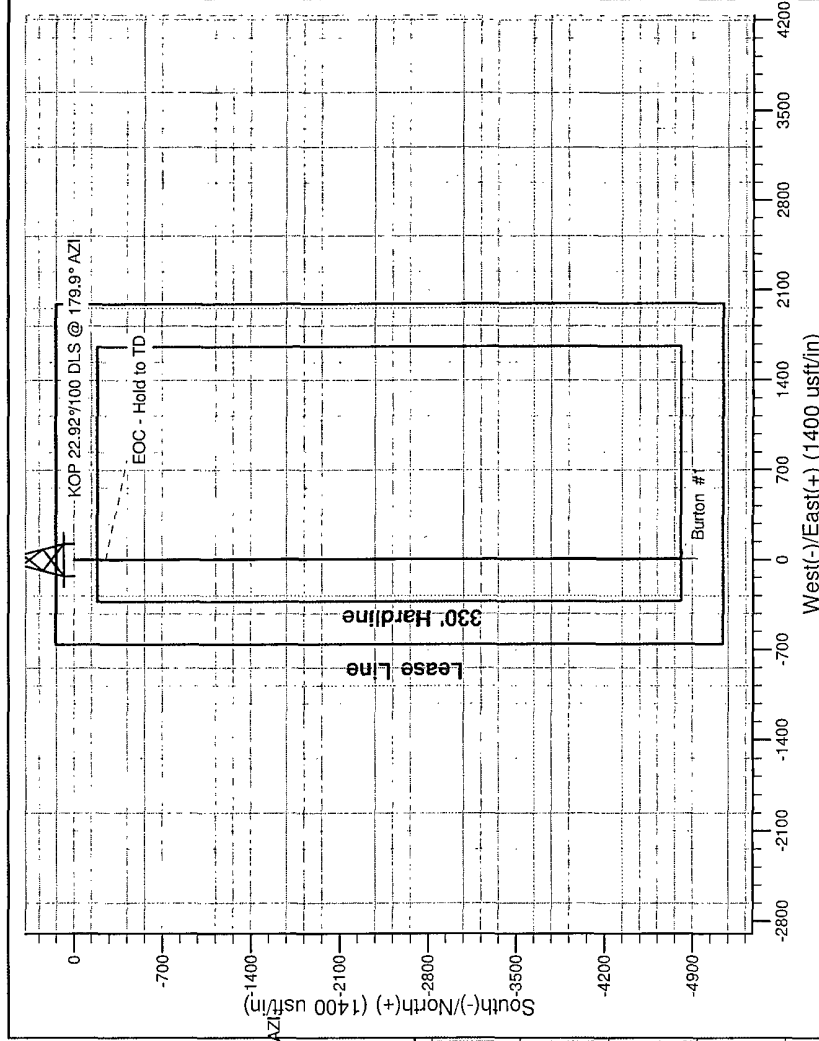
| Name | TVD | +N/-S | +E/-W | Point |
|-----------|--------|---------|-------|-----------|
| Burton #1 | 8275.0 | -4804.3 | 8.7 | 638538.70 |

PLAN DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|---------|-------|--------|--------|---------|-------|-------|--------|--------|-----------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 |
| 8025.0 | 0.00 | 0.00 | 8025.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 |
| 8417.7 | 90.00 | 179.90 | 8275.0 | -250.0 | 0.4 | 22.92 | 179.90 | 250.0 | 0.0 |
| 12972.0 | 90.00 | 179.90 | 8275.0 | -4804.3 | 8.4 | 0.00 | 0.00 | 4804.3 | Burton #1 |

ANNOTATIONS

| MD | Inc | Azi | +N/-S | +E/-W | Vsect | Departure | Annotation |
|--------|-------|--------|---------|-------|--------|-----------|---------------------------------|
| 3025.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | KOP 22.92°/100 DLS @ 179.9° AZI |
| 3275.0 | 90.00 | 179.90 | -250.0 | 0.4 | 250.0 | 250.0 | EOC - Hold to TD |
| 3275.0 | 90.00 | 179.90 | -4804.3 | 8.4 | 4804.3 | 4804.3 | TD at 12972.0 |



Cimarex Energy Co.

Eddy County (NM83E)

Sec 6 - T20S - R30E

Burton 6 Federal #1

Wellbore #1

Plan: Plan #1

Standard Planning Report

18 May, 2010

Great White Directional Services

Planning Report

| | | | |
|-----------|---------------------------|------------------------------|-------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well Burton 6 Federal #1 |
| Company: | Cimarex Energy Co. | TVD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Project: | Eddy County (NM83E) | MD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Site: | Sec 6 - T20S - R30E | North Reference: | Grid |
| Well: | Burton 6 Federal #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| | | | |
|-------------|---------------------------|---------------|----------------|
| Project | Eddy County (NM83E) | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | New Mexico Eastern Zone | | |

| | | | | | |
|-----------------------|----------|---------------------|-----------------|-------------------|------------------|
| Site | | Sec 6 - T20S - R30E | | | |
| Site Position: | | Northing: | 585,528.50 usft | Latitude: | 32° 36' 33.382 N |
| From: | Map | Easting: | 638,530.00 usft | Longitude: | 104° 1' 3.694 W |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.17 ° |

| | | | | | | |
|----------------------|---------------------|---------------------|-----------|-----------------|------------|------------------|
| Well: | Burton 6 Federal #1 | | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 585,528.50 usft | Latitude: | 32° 36' 33.382 N |
| | +E/-W | 0.0 usft | Easting: | 638,530.00 usft | Longitude: | 104° 1' 3.694 W |
| Position Uncertainty | 0.0 usft | Wellhead Elevation: | | Ground Level: | | 0.0 usft |

| | | | | | |
|-----------|-------------|-------------|-----------------|---------------|---------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF200510 | 2010/05/18 | 7.94 | 60.51 | 48,965 |

| | | | | |
|-------------------|-------------------------|--------------|---------------|---------------|
| Design | Plan #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 179.90 |

| Plan Sections | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-----------------------|----------------------|---------------------|---------|-----------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,025.0 | 0.00 | 0.00 | 8,025.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,417.7 | 90.00 | 179.90 | 8,275.0 | -250.0 | 0.4 | 22.92 | 22.92 | 0.00 | 179.90 | |
| 12,972.0 | 90.00 | 179.90 | 8,275.0 | -4,804.3 | 8.4 | 0.00 | 0.00 | 0.00 | 0.00 | Burton #1 |

Great White Directional Services

Planning Report

| | | | |
|-----------|---------------------------|------------------------------|-------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well Burton 6 Federal #1 |
| Company: | Cimarex Energy Co. | TVD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Project: | Eddy County (NM83E) | MD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Site: | Sec 6 - T20S - R30E | North Reference: | Grid |
| Well: | Burton 6 Federal #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|--|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,025.0 | 0.00 | 0.00 | 8,025.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| KOP 22.92°/100 DLS @ 179.9° AZI | | | | | | | | | |
| 8,050.0 | 5.73 | 179.90 | 8,050.0 | -1.2 | 0.0 | 1.2 | 22.92 | 22.92 | 0.00 |
| 8,075.0 | 11.46 | 179.90 | 8,074.7 | -5.0 | 0.0 | 5.0 | 22.92 | 22.92 | 0.00 |
| 8,100.0 | 17.19 | 179.90 | 8,098.9 | -11.2 | 0.0 | 11.2 | 22.92 | 22.92 | 0.00 |
| 8,125.0 | 22.92 | 179.90 | 8,122.4 | -19.7 | 0.0 | 19.7 | 22.92 | 22.92 | 0.00 |
| 8,150.0 | 28.65 | 179.90 | 8,144.9 | -30.6 | 0.1 | 30.6 | 22.92 | 22.92 | 0.00 |
| 8,175.0 | 34.38 | 179.90 | 8,166.2 | -43.7 | 0.1 | 43.7 | 22.92 | 22.92 | 0.00 |
| 8,200.0 | 40.11 | 179.90 | 8,186.1 | -58.8 | 0.1 | 58.8 | 22.92 | 22.92 | 0.00 |
| 8,225.0 | 45.84 | 179.90 | 8,204.3 | -75.8 | 0.1 | 75.8 | 22.92 | 22.92 | 0.00 |
| 8,250.0 | 51.57 | 179.90 | 8,220.8 | -94.6 | 0.2 | 94.6 | 22.92 | 22.92 | 0.00 |
| 8,275.0 | 57.30 | 179.90 | 8,235.4 | -114.9 | 0.2 | 114.9 | 22.92 | 22.92 | 0.00 |
| 8,300.0 | 63.03 | 179.90 | 8,247.8 | -136.6 | 0.2 | 136.6 | 22.92 | 22.92 | 0.00 |
| 8,325.0 | 68.75 | 179.90 | 8,258.0 | -159.4 | 0.3 | 159.4 | 22.92 | 22.92 | 0.00 |
| 8,350.0 | 74.48 | 179.90 | 8,265.9 | -183.1 | 0.3 | 183.1 | 22.92 | 22.92 | 0.00 |
| 8,375.0 | 80.21 | 179.90 | 8,271.4 | -207.5 | 0.4 | 207.5 | 22.92 | 22.92 | 0.00 |
| 8,400.0 | 85.94 | 179.90 | 8,274.4 | -232.3 | 0.4 | 232.3 | 22.92 | 22.92 | 0.00 |
| 8,417.7 | 90.00 | 179.90 | 8,275.0 | -250.0 | 0.4 | 250.0 | 22.92 | 22.92 | 0.00 |
| EOC - Hold to TD | | | | | | | | | |
| 8,500.0 | 90.00 | 179.90 | 8,275.0 | -332.3 | 0.6 | 332.3 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.00 | 179.90 | 8,275.0 | -432.3 | 0.8 | 432.3 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 179.90 | 8,275.0 | -532.3 | 0.9 | 532.3 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 179.90 | 8,275.0 | -632.3 | 1.1 | 632.3 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 179.90 | 8,275.0 | -732.3 | 1.3 | 732.3 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 179.90 | 8,275.0 | -832.3 | 1.5 | 832.3 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 179.90 | 8,275.0 | -932.3 | 1.6 | 932.3 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 179.90 | 8,275.0 | -1,032.3 | 1.8 | 1,032.3 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 179.90 | 8,275.0 | -1,132.3 | 2.0 | 1,132.3 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 179.90 | 8,275.0 | -1,232.3 | 2.2 | 1,232.3 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 179.90 | 8,275.0 | -1,332.3 | 2.3 | 1,332.3 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 179.90 | 8,275.0 | -1,432.3 | 2.5 | 1,432.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 179.90 | 8,275.0 | -1,532.3 | 2.7 | 1,532.3 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 179.90 | 8,275.0 | -1,632.3 | 2.8 | 1,632.3 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 179.90 | 8,275.0 | -1,732.3 | 3.0 | 1,732.3 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 179.90 | 8,275.0 | -1,832.3 | 3.2 | 1,832.3 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 179.90 | 8,275.0 | -1,932.3 | 3.4 | 1,932.3 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 179.90 | 8,275.0 | -2,032.3 | 3.5 | 2,032.3 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 179.90 | 8,275.0 | -2,132.3 | 3.7 | 2,132.3 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 179.90 | 8,275.0 | -2,232.3 | 3.9 | 2,232.3 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 179.90 | 8,275.0 | -2,332.3 | 4.1 | 2,332.3 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 179.90 | 8,275.0 | -2,432.3 | 4.2 | 2,432.3 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 179.90 | 8,275.0 | -2,532.3 | 4.4 | 2,532.3 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 179.90 | 8,275.0 | -2,632.3 | 4.6 | 2,632.3 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 179.90 | 8,275.0 | -2,732.3 | 4.8 | 2,732.3 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 179.90 | 8,275.0 | -2,832.3 | 4.9 | 2,832.3 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 179.90 | 8,275.0 | -2,932.3 | 5.1 | 2,932.3 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 179.90 | 8,275.0 | -3,032.3 | 5.3 | 3,032.3 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 179.90 | 8,275.0 | -3,132.3 | 5.5 | 3,132.3 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 179.90 | 8,275.0 | -3,232.3 | 5.6 | 3,232.3 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 179.90 | 8,275.0 | -3,332.3 | 5.8 | 3,332.3 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 179.90 | 8,275.0 | -3,432.3 | 6.0 | 3,432.3 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 179.90 | 8,275.0 | -3,532.3 | 6.2 | 3,532.3 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 179.90 | 8,275.0 | -3,632.3 | 6.3 | 3,632.3 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 179.90 | 8,275.0 | -3,732.3 | 6.5 | 3,732.3 | 0.00 | 0.00 | 0.00 |

Great White Directional Services

Planning Report

| | | | |
|-----------|---------------------------|------------------------------|-------------------------------------|
| Database: | EDM 5000.1 Single User Db | Local Co-ordinate Reference: | Well Burton 6 Federal #1 |
| Company: | Cimarex Energy Co. | TVD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Project: | Eddy County (NM83E) | MD Reference: | WELL @ 0.0usft (Original Well Elev) |
| Site: | Sec 6 - T20S - R30E | North Reference: | Grid |
| Well: | Burton 6 Federal #1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Plan #1 | | |

Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| 12,000.0 | 90.00 | 179.90 | 8,275.0 | -3,832.3 | 6.7 | 3,832.3 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 179.90 | 8,275.0 | -3,932.3 | 6.9 | 3,932.3 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 179.90 | 8,275.0 | -4,032.3 | 7.0 | 4,032.3 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 179.90 | 8,275.0 | -4,132.3 | 7.2 | 4,132.3 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 179.90 | 8,275.0 | -4,232.3 | 7.4 | 4,232.3 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 179.90 | 8,275.0 | -4,332.3 | 7.6 | 4,332.3 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 179.90 | 8,275.0 | -4,432.3 | 7.7 | 4,432.3 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 179.90 | 8,275.0 | -4,532.3 | 7.9 | 4,532.3 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 179.90 | 8,275.0 | -4,632.3 | 8.1 | 4,632.3 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 179.90 | 8,275.0 | -4,732.3 | 8.3 | 4,732.3 | 0.00 | 0.00 | 0.00 |
| 12,972.0 | 90.00 | 179.90 | 8,275.0 | -4,804.3 | 8.4 | 4,804.3 | 0.00 | 0.00 | 0.00 |
| TD at 12972.0 - Burton #1 | | | | | | | | | |

Design Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-----------------|
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| Burton #1 | 0.00 | 0.00 | 8,275.0 | -4,804.3 | 8.7 | 580,724.17 | 638,538.70 | 32° 35' 45.842 N | 104° 1' 3.759 W |
| - plan misses target center by 0.3usft at 12972.0usft MD (8275.0 TVD, -4804.3 N, 8.4 E) | | | | | | | | | |
| - Point | | | | | | | | | |

Plan Annotations

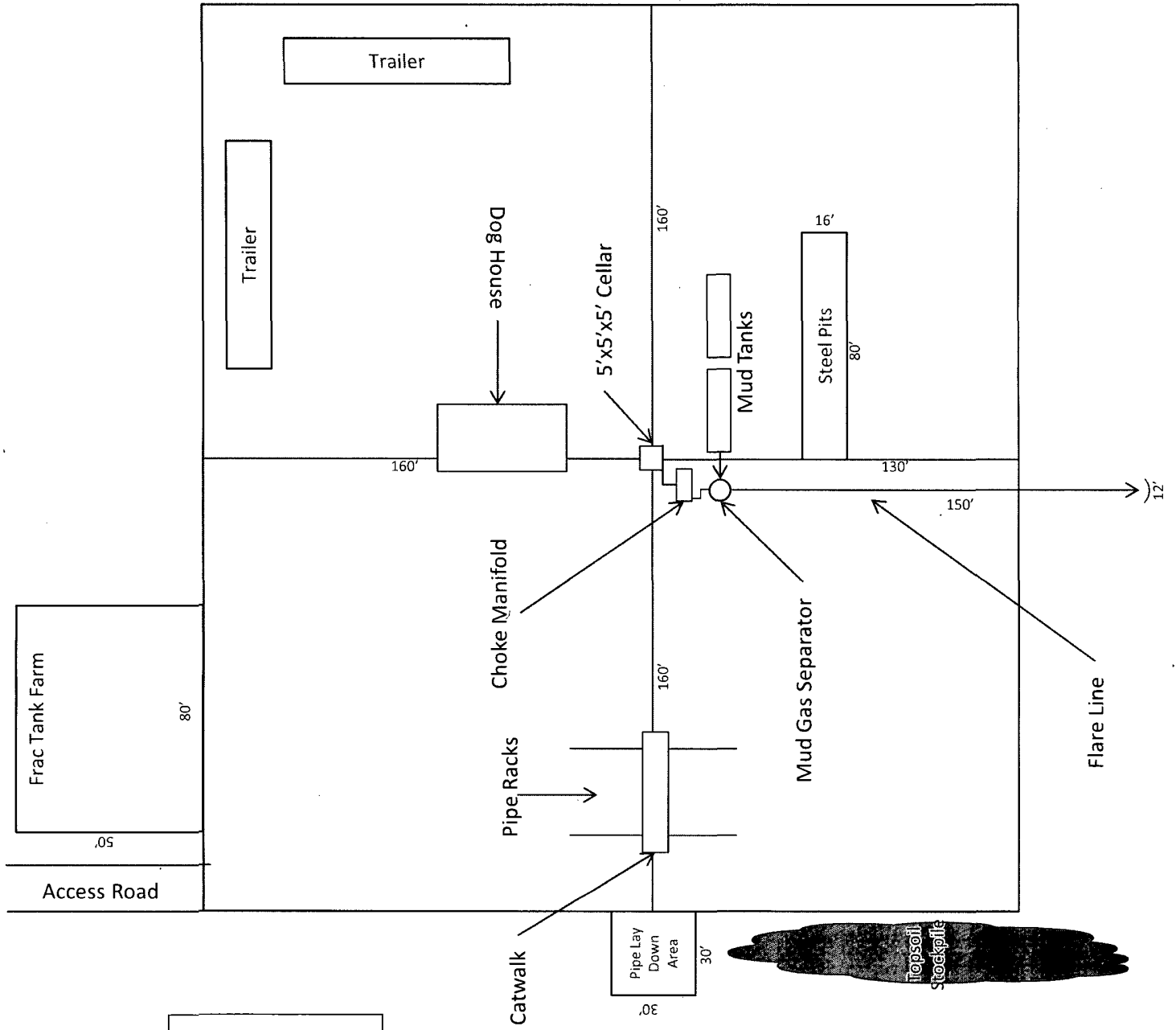
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | +E/-W (usft) | Comment |
|-----------------------|-----------------------|--------------------------------|--------------|---------------------------------|
| 8,025.0 | 8,025.0 | 0.0 | 0.0 | KOP 22.92°/100 DLS @ 179.9° AZI |
| 8,417.7 | 8,275.0 | -250.0 | 0.4 | EOC - Hold to TD |
| 12,972.0 | 8,275.0 | -4,804.3 | 8.4 | TD at 12972.0 |

KEY 884

Exhibit D – Rig Diagram
Burton 6 Federal No. 1
 Cimarex Energy Co. of Colorado
 6-20S-30E
 SHL 150 FNL & 660 FWL
 BHL 330 FSL & 660 FWL
 Eddy County, NM

1"=50'

N



SR & A

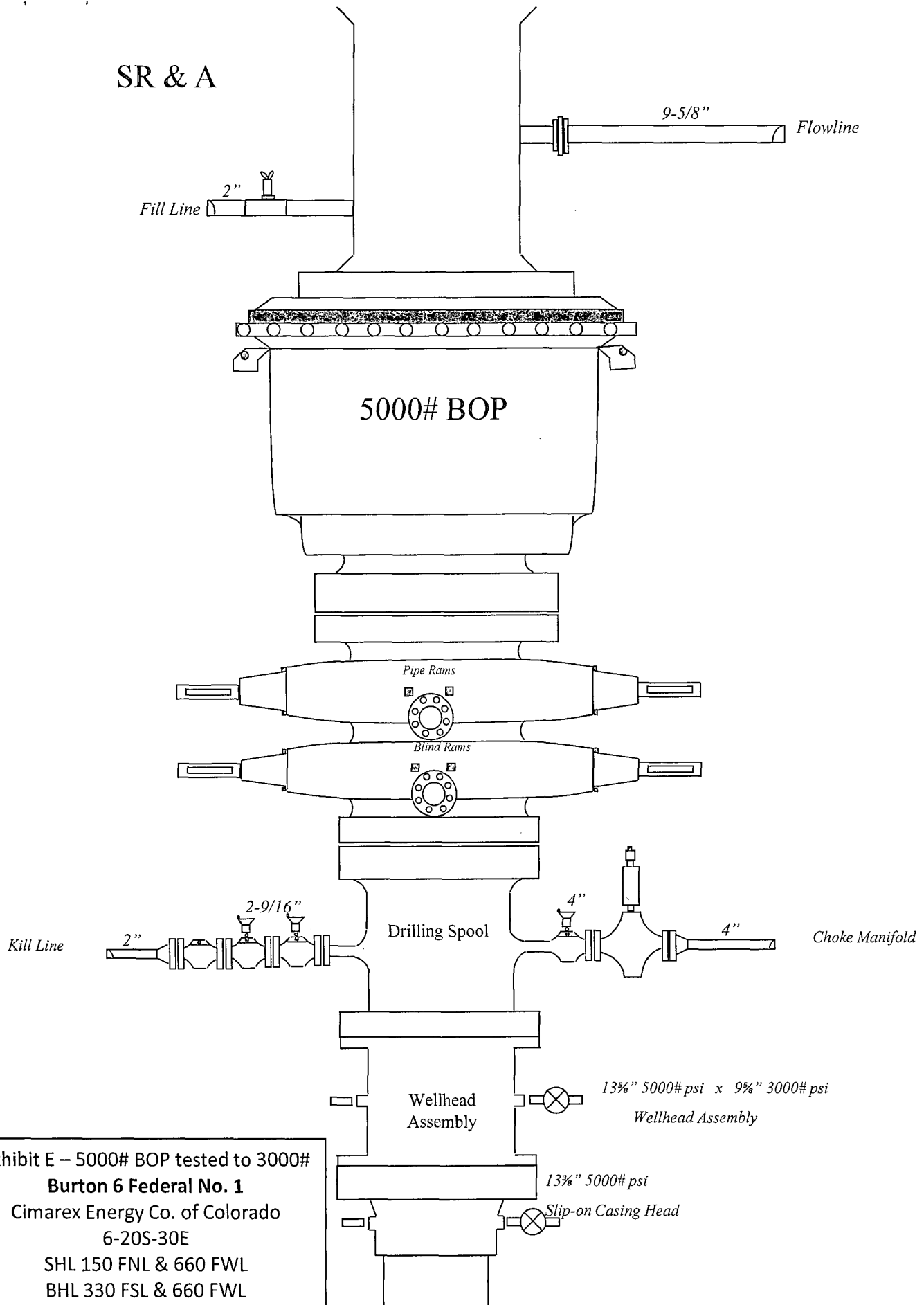
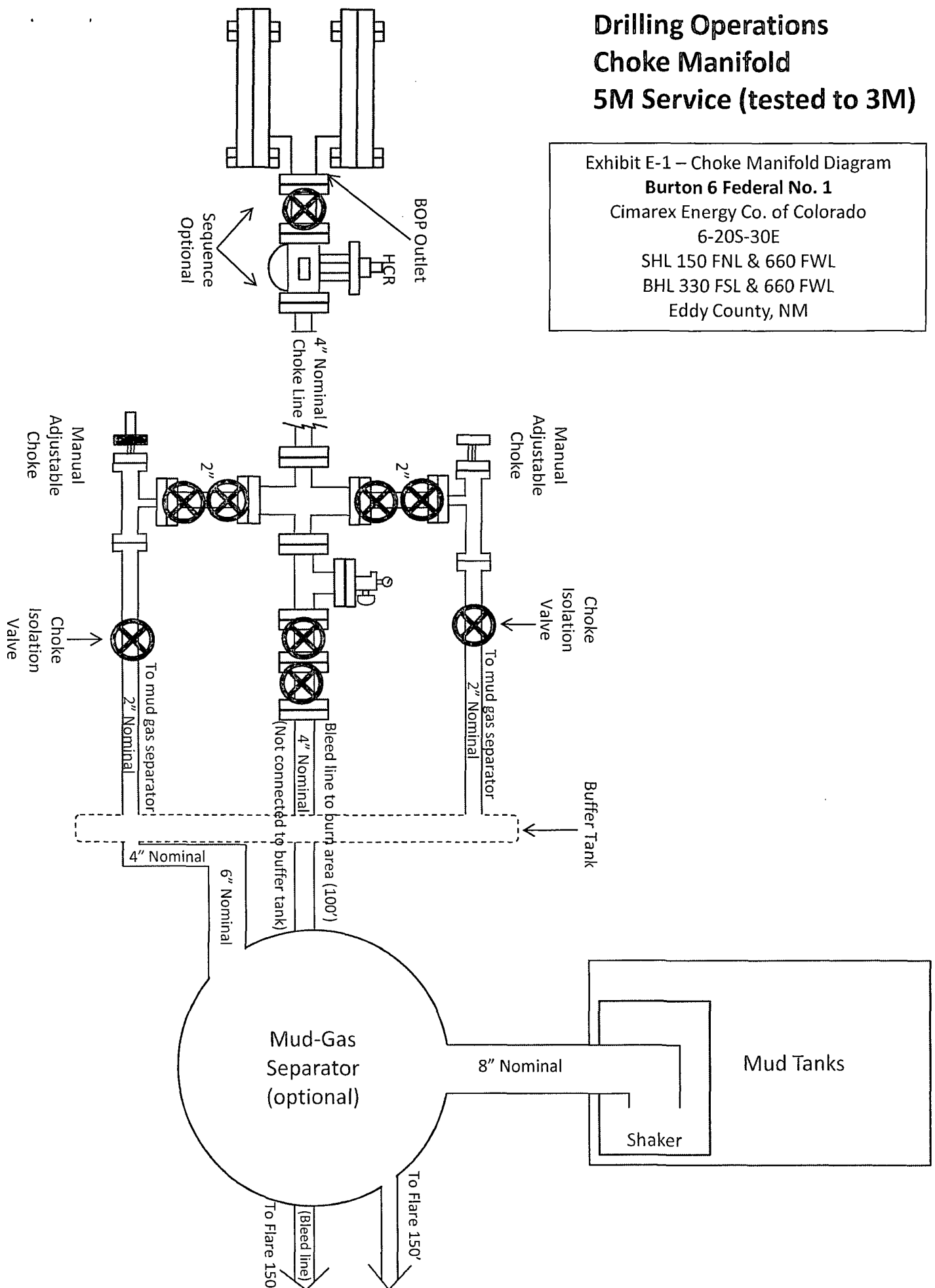


Exhibit E – 5000# BOP tested to 3000#
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
6-20S-30E
SHL 150 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Eddy County, NM

Exhibit E-1 – Choke Manifold Diagram
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
6-20S-30E
SHL 150 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Eddy County, NM



Added
8/11/10
TEN

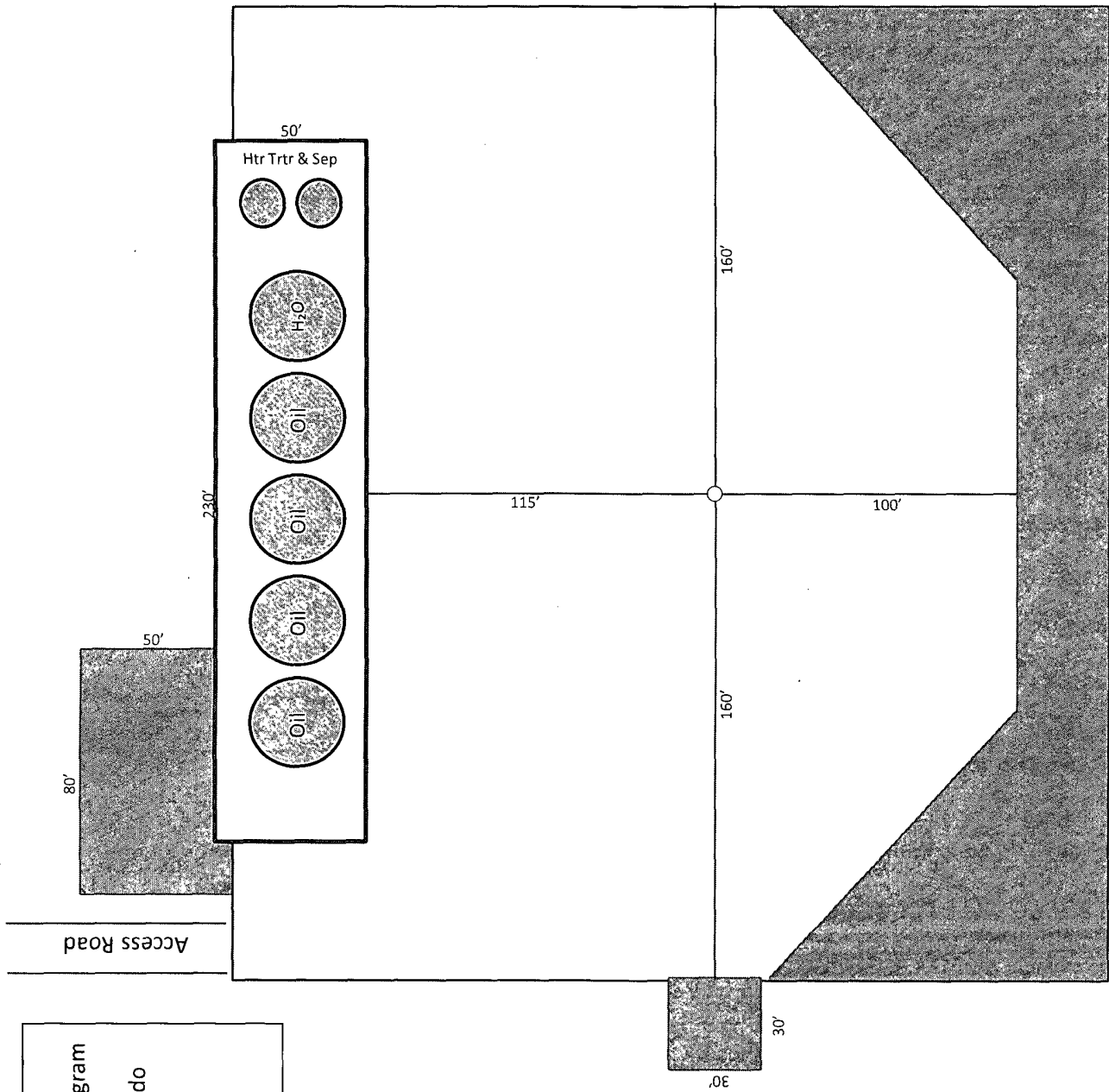
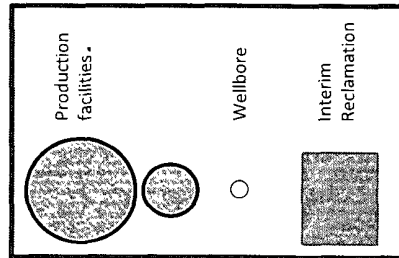


Exhibit D-1
Production Facilities Layout Diagram
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
6-20S-30E
SHL 150 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Eddy County, NM

1"=50'



N

Hydrogen Sulfide Drilling Operations Plan

Burton 6 Federal No. 1

Cimarex Energy Co. of Colorado

Unit D, Section 6

T20S-R30E, 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:

No DSTs or cores are planned at this time.
- 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 separator will be brought into service along with H₂S scavengers if necessary.

H₂S Contingency Plan
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 6
T20S-R30E, Eddy County, NM

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must:

- ★ Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- ★ Evacuate any public places encompassed by the 100 ppm ROE.
- ★ Be equipped with H₂S monitors and air packs in order to control the release.
- ★ Use the "buddy system" to ensure no injuries occur during the response.
- ★ Take precautions to avoid personal injury during this operation.
- ★ Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- ★ Have received training in the:
 - ♦ Detection of H₂S, and
 - ♦ Measures for protection against the gas,
 - ♦ Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H₂S and SO₂

| Common Name | Chemical Formula | Specific Gravity | Threshold Limit | Hazardous Limit | Lethal Concentration |
|------------------|------------------|------------------|-----------------|-----------------|----------------------|
| Hydrogen Sulfide | H ₂ S | 1.189 Air=1 | 10 ppm | 100 ppm/hr | 600 ppm |
| Sulfur Dioxide | SO ₂ | 2.21 Air=1 | 2 ppm | N/A | 1000 ppm |

Contacting Authorities

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S Contingency Plan Emergency Contacts

Burton 6 Federal No. 1

Cimarex Energy Co. of Colorado

Unit D, Section 6

T20S-R30E, Eddy County, NM

Company Office

| | |
|---------------------------------|--------------|
| Cimarex Energy Co. of Colorado | 800-969-4789 |
| Co. Office and After-Hours Menu | |

Key Personnel

| Name | Title | Office | Mobile |
|-------------|------------------|--------------|--------------|
| Doug Park | Drilling Manager | 432-620-1934 | 972-333-1407 |
| Dee Smith | Drilling Super | 432-620-1933 | 972-882-1010 |
| Jim Evans | Drilling Super | 432-620-1929 | 972-465-0564 |
| Roy Shirley | Field Super | | 432-634-2136 |

Artesia

| | |
|--------------------------------------|---------------------|
| Ambulance | 911 |
| State Police | 575-746-2703 |
| City Police | 575-746-2703 |
| Sheriff's Office | 575-746-9888 |
| Fire Department | 575-746-2701 |
| Local Emergency Planning Committee | 575-746-2122 |
| New Mexico Oil Conservation Division | 575-748-1283 |

Carlsbad

| | |
|------------------------------------|---------------------|
| Ambulance | 911 |
| State Police | 575-885-3137 |
| City Police | 575-885-2111 |
| Sheriff's Office | 575-887-7551 |
| Fire Department | 575-887-3798 |
| Local Emergency Planning Committee | 575-887-6544 |
| US Bureau of Land Management | 575-887-6544 |

Santa Fe

| | |
|--|--------------|
| New Mexico Emergency Response Commission (Santa Fe) | 505-476-9600 |
| New Mexico Emergency Response Commission (Santa Fe) 24 Hrs | 505-827-9126 |
| New Mexico State Emergency Operations Center | 505-476-9635 |

National

| | |
|---|--------------|
| National Emergency Response Center (Washington, D.C.) | 800-424-8802 |
|---|--------------|

Medical

| | |
|---|--------------|
| Flight for Life - 4000 24th St.; Lubbock, TX | 806-743-9911 |
| Aerocare - R3, Box 49F; Lubbock, TX | 806-747-8923 |
| Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM | 505-842-4433 |
| SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM | 505-842-4949 |

Other

| | | | |
|-----------------------|--------------|----|--------------|
| Boots & Coots IWC | 800-256-9688 | or | 281-931-8884 |
| Cudd Pressure Control | 432-699-0139 | or | 432-563-3356 |
| Halliburton | 575-746-2757 | | |
| B.J. Services | 575-746-3569 | | |

Surface Use Plan
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 6
T20S-R30E, Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "A" shows the proposed well site as staked. Exhibit A-1 is a list of all wells within a 1-mile radius. Exhibit "B" is a reproduction of Eddy Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, and Exhibit "C-1" is a well site layout map, showing existing roads and proposed reconstructed road to location. Existing road shown on Exhibits "C," "C-1," "C-2," "C-3," and "C-4" will be maintained in a condition equal to or better than current conditions.

A. Directions to Location:

From the junction of Hwy 360 and Curry Comb, go West on Curry Comb for 3.8 miles to lease road. On lease road, go South 0.6 miles turning West for 0.1 miles, thence South again for 0.8 miles to lease road; on lease road, go East 0.8 miles to proposed reconstructed lease road; go South 0.3 miles to proposed location.

- 2 New or Reconstructed Access Roads:

Approximately 1839' of reconstructed road is planned from the Ronadero Federal No. 4 well in NWSW 31-19S-30E to our proposed well site. A ROW will be obtained for the off-lease portion. The maximum width of the driving surface will be 15'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

- 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 Location of Proposed Production Facilities:

If, upon completion, this well is a producer, a tank battery will be used and the necessary production equipment will be installed at the wellsite. See production facilities layout diagram, Exhibit D-1. Any changes to the facilities 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.

- 6 Source of Construction Material:

If possible, native caliche will be obtained from the excavation of drill site. Topsoil will be pushed back from the drill site and existing caliche will be ripped and compacted. Then topsoil will be stockpiled on location as depicted on Exhibit "D" (rig layout). If additional material is needed, it will be purchased by our dirt contractor from a BLM-approved pit as near as possible to the well location.

Surface Use Plan
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 6
T20S-R30E, Eddy County, NM

7 Methods of Handling Waste Material:

- A. Drill cuttings will be separated by a series of solids removal equipment and stored in steel containment pits and then hauled to a state-approved disposal facility.
- 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 and hauled to a waste disposal facility. 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.

9 Well Site Layout:

- A. Exhibit "D" shows location and rig layout.
- C. Mud pits in the closed circulating system will be steel pits and the cuttings will be stored in steel containment pits.
- D. Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- E. If the well is a producer, 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 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.

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, those areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements. Please see Production Facilities Layout Diagram, exhibit D-1.

Operator Certification Statement
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
Unit D, Section 6
T20S-R30E, Eddy County, NM

Page 6

Operator's Representative

Cimarex Energy Co. of Colorado
600 N. Marienfeld St., Ste. 600
Midland, TX 79701
Office Phone: (432) 571-7800
Zeno Farris

CERTIFICATION: I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Page 6

Executed this 4th day of August, 2010

NAME: Zeno Farris
Zeno Farris

TITLE: Manager Operations Administration

ADDRESS: 600 N. Marienfeld St., Ste. 600
Midland, TX 79701

TELEPHONE: (432) 620-1938

EMAIL: zfarris@cimarex.com

Field Representative: Same as above

Page 6

Page 6
Page 7

PECOS DISTRICT CONDITIONS OF APPROVAL

| | |
|-----------------------|------------------------------------|
| OPERATOR'S NAME: | Cimarex Energy Co. of Colorado |
| LEASE NO.: | NM124659 |
| WELL NAME & NO.: | Burton 6 Federal # 1 |
| SURFACE HOLE FOOTAGE: | 0150' FNL & 0660' FWL |
| BOTTOM HOLE FOOTAGE | 0330' FSL & 0660' FWL |
| LOCATION: | Section 6, T. 20 S., R 30 E., NMPM |
| COUNTY: | Eddy County, New Mexico |

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Noxious Weeds Treatment
 - Fence Line Crossing
 - Cave/Karst
- ☒ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - High Cave/Karst
 - Secretary's Potash
 - Logging Requirements
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Noxious Weed Treatment:

- The operator shall treat noxious weeds (African Rue) on the proposed reconstructed road before construction begins.
- All vehicles used for the reconstruction of the access road and construction of the well location shall be cleaned and treated for noxious weeds before the vehicles leave the construction site.

Fence Line Crossing:

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

Fence Requirement

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Cave/Karst

- ** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

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

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides will be bermed.

Tank Battery Liners and Berms:

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

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

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

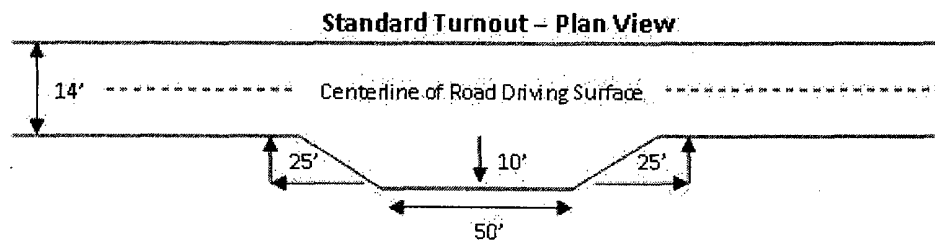
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

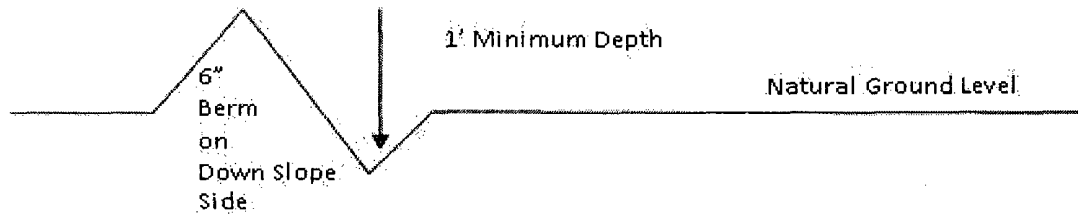


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

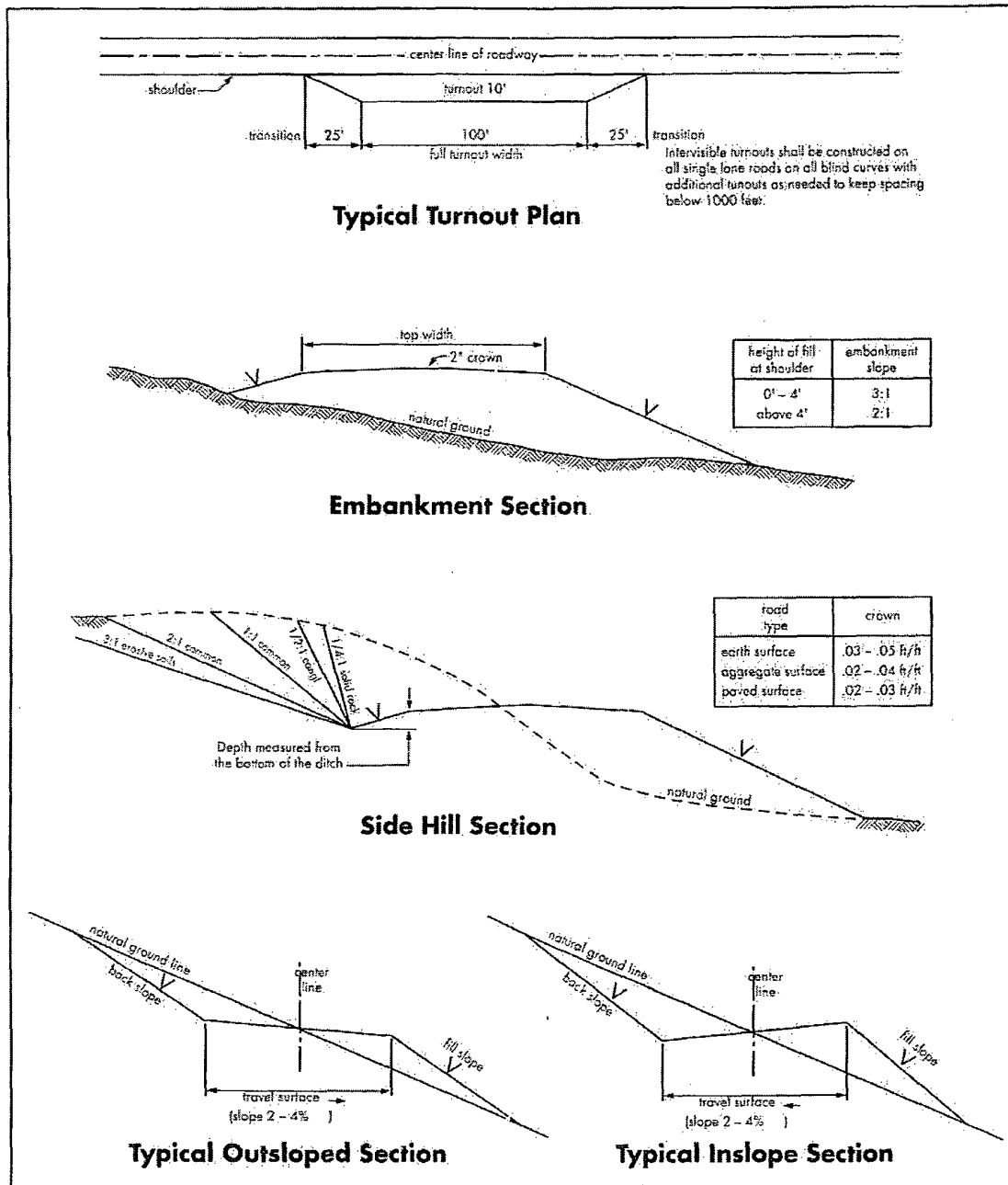
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These 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.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

High cave potential.

Secretary's Potash

Possible water flows in the Artesia and Salado Groups.

Possible lost circulation in the Capitan Reef.

1. The **20** inch surface casing shall be set at approximately **320** feet (a minimum of 25 above the salt) and cemented to the surface.
 - a. 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. 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.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.
3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to the Capitan Reef.

4. The minimum required fill of cement behind the 7 inch production casing is:
 - ☒ Cement should tie-back a minimum of 50 feet above the Capitan Reef. Operator shall provide method of verification. **Additional cement will be required.**
5. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - ☒ No cement required. Peak completion assembly being used.
6. 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.

C. PRESSURE CONTROL

1. 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.
2. **A variance will be granted for the use of a diverter on the 20" surface casing.**
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch intermediate casing shoe shall be **3000 (3M) psi.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period. In addition, for the potash area, no tests are to be initiated prior to 24 hours (R-111-P regulations). Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.
 - b. The tests shall be done by an independent service company utilizing a test plug.

- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.**
- e. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 072110

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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 # 5Y 4/2

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

| <u>Species</u> | <u>lb/acre</u> |
|---|----------------|
| Plains lovegrass (<i>Eragrostis intermedia</i>) | 0.5 |
| Sand dropseed (<i>Sporobolus cryptandrus</i>) | 1.0 |
| Sideoats grama (<i>Bouteloua curtipendula</i>) | 5.0 |

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed