

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

ATS-07-017

Form 3160-3
(April 2004)

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

SEP 19 2007
OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No
NM-0556811
6. If Indian, Allottee or Tribe Name

1a Type of Work ☐ DRILL ☒ REENTER
1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No

Nitro 11 Federal No. 1

2 Name of Operator

Cimarex Energy Co. of Colorado

9 API Well No

30-015- 34770

3a Address
PO Box 140907
Irving, TX 75014

3b Phone No (include area code)
972-401-3111

10 Field and Pool, or Exploratory

County Line Tank; Abo

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

At Surface 1580' FNL & 660' FWL

Roswell Controlled Water Basin

At proposed prod Zone 1980' FNL & 330' FEL

11 Sec, T R M or Blk and Survey or Area

11-16S-29E

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

4 miles West/Northwest of Loco Hills

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)

660'

16. No of acres in lease

1480

17 Spacing Unit dedicated to this well

S2N2 160

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

N/A

19 Proposed Depth

11380' MD, 7260' TVD

20 BLM/BIA Bond No on File

NM-2575

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

3720' GR

22 Approximate date work will start*

10/1/2007

23. Estimated duration

20-25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

- 1 Well plat certified by a registered surveyor
- 2 A Drilling Plan
- 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

- 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
- 5 Operator Certification
- 6 Such other site specific information and/or plans as may be required by the authorized officer

25 Signature

Zeno Farris

Name (Printed/Typed)

Zeno Farris

Date

08.07.07

Title

Manager Operations Administration

Approved By (Signature)

/s/ James Stovall

Name (Printed/Typed)

/s/ James Stovall

Date

SEP 16 2007

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Conditions of approval, if any, are attached

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)

APPROVAL FOR TWO YEARS

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

SEE ATTACHED FOR
CONDITIONS OF APPROVAL



Cimarex Energy Co. of Colorado

5215 North O'Connor Blvd • Suite 1500 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6486

Mailing Address P O Box 140907 • Irving, TX 75014-0907

A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

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

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

Lease No.: NM-0556811 S2N2 11-16S-29E 160 acres

County: Eddy County, NM

Formation(s): Abo

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM-2575

Authorized Signature:

Zeno Farris

Representing Cimarex Energy Co of Colorado

Name: Zeno Farris

Title: Manager Operations Administration

Date: August 7, 2007

DISTRICT I

1525 N. French Dr., Hobbs, NM 88240

DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

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

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 97197	Pool Name County Line Tank; Abo
Property Code	Property Name NITRO "11" FEDERAL	Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO OF COLORADO	Elevation 3720'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	16 S	29 E		1580	NORTH	660	WEST	EDDY

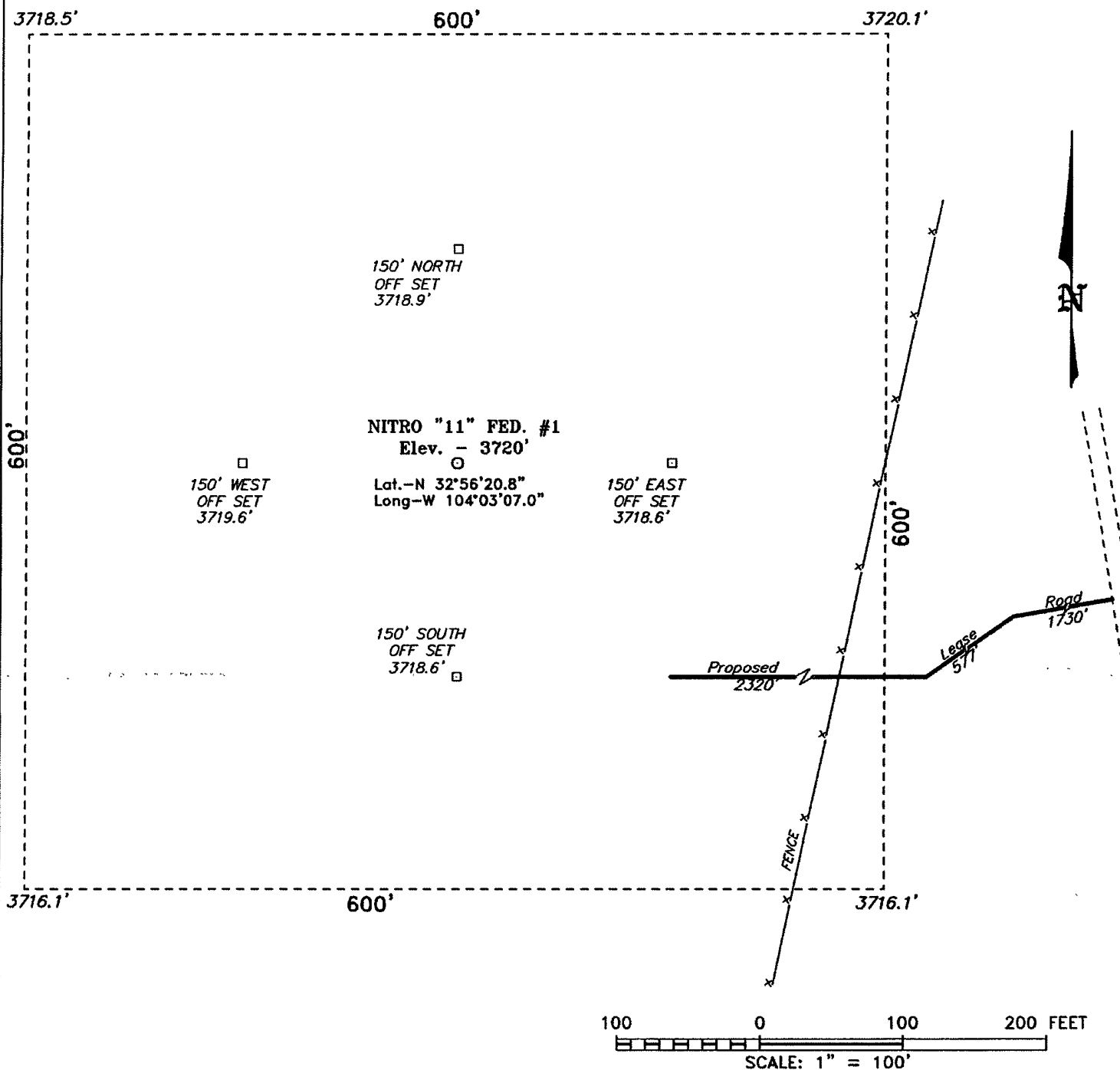
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	16 S	29 E		1980	NORTH	330	EAST	EDDY
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No. NSL Pending						

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

		OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Zeno Farris</i> Signature Zeno Farris Printed Name Mgr Operations Admin Title 07-23-07 Date	
SURFACE LOCATION Lat - N32°56'20.8" Long - W104°03'07.0" NMSPCE- N 705500.774 E 627664.523		BOTTOM HOLE Lat - N32°56'16.6" Long - W104°02'16.4" NMSPCE- N 705089.49 E 631975.28	
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 Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS	

SECTION 11, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF US HWY 82 AND CO. RD. 214, GO NORTHWEST ON 214 FOR 7.0 MILES TO LEASE ROAD; THENCE EAST/NORTHEAST FOR 0.5 MILE; THENCE NORTHEAST FOR 2.0 MILES TO PROPOSED LEASE ROAD.

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

W.O. Number: 6323 Drawn By: K. GOAD

Date: 03-06-2006 Disk: KJG CD#4 - 6323A.DWG

Cimarex Energy Co. of Colorado

REF: NITRO "11" FED. No. 1 / Well Pad Topo

THE NITRO "11" FED. No. 1 LOCATED 1580' FROM
THE NORTH LINE AND 660' FROM THE WEST LINE OF
SECTION 11, TOWNSHIP 16 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03-01-2006 Sheet 1 of 1 Sheets

Application to Drill
Cimarex Energy Co. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E 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 1580' FNL & 660' FWL
 BHL 1980' FNL & 330' FEL

- 2 Elevation above sea level: 3720' 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: 11380' MD, 7260' TVD

- 6 Estimated tops of geological markers:

Yates	1,018	Wolfcamp lime	7,320
Queen	1,765	Strawn	9,540
San Andres	2,542	Atoka	9,880
Glorieta	4,015	Morrow	10,070
Abo Shale	6,195	Mississippian	10,355
Lower Abo Dolomite	7,220		
Wolfcamp	7,315		

- 7 Possible mineral bearing formation:

Abo Oil

- 8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0 to 2,668	8.4 - 8.6	28-29	May lose circ	Fresh water and brine to drill out plugs to 6946'
2,668 to 11380 MD	8.4 - 9.7	28-29	NC	Fresh water and brine, use hi-vis sweeps to keep hole clean

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.

- 8a. Proposed drilling Plan

Well is currently PA. Clean out to cement plug #3 at 6946' using fresh water and brine. Kick off horizontal leg at 6800' and drill 7-7/8" hole to 11380' MD, 7260' TVD. Run 5-1/2" 17# B-10 LTC casing and cement as shown on page 2, production casing details.

N-80
per operator
8/28/07
[Signature]

9 Casing & Cementing Program:

10 Cementing & Setting Depth:

Hydrocarbon zones will be protected by setting 5-1/2 casing at 11380 MD and cementing to 3775 .

Cimarex uses the following minimum safety factors.

11 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

The BOP will be tested to 5000 PSI by an independent service company.

Application to Drill
Cimarex Energy Co. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E Eddy County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program. 2 man unit from KOP to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

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

Estimated BHP	4000 psi	Estimated BHT	175
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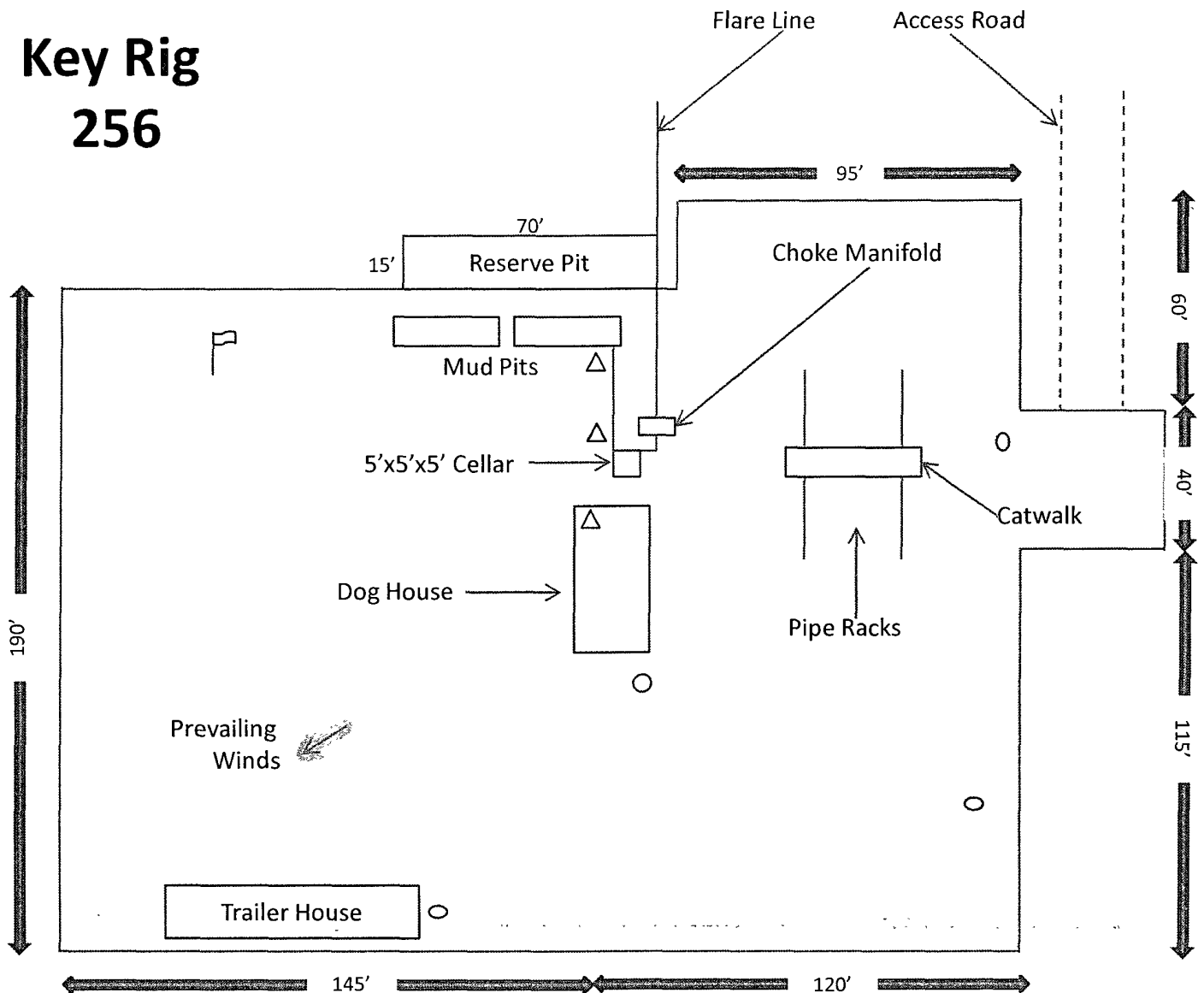
- 14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 20-25 days

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.

Abo pay will be perforated and stimulated.
The proposed well will be tested and potentialed as **an oil well**

Key Rig 256



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit

*See COA
Pete West*

Exhibit D – Rig Layout
Nitro 11 Federal No. 1 Re-entry
 Cimarex Energy Co. of Colorado
 11-16S-29E
 SHL 1580' FNL & 660' FWL
 BHL 1980' FNL & 330' FEL
 Eddy County, NM

SR & A

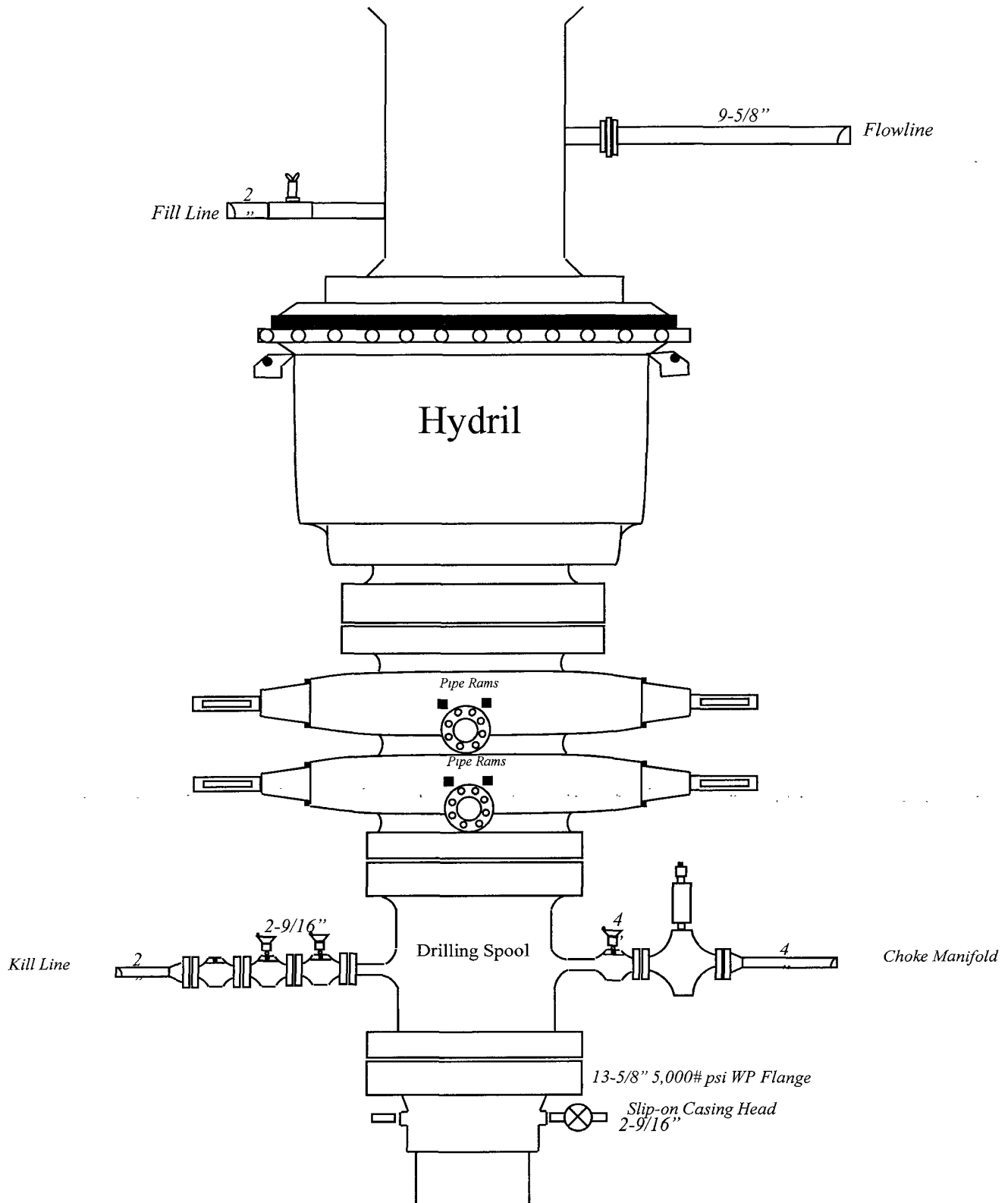


Exhibit E – BOP
Nitro 11 Federal No. 1 Re-entry
Cimarex Energy Co. of Colorado
11-16S-29E
SHL 1580' FNL & 660' FWL
BHL 1980' FNL & 330' FEL
Eddy County, NM

**DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE**

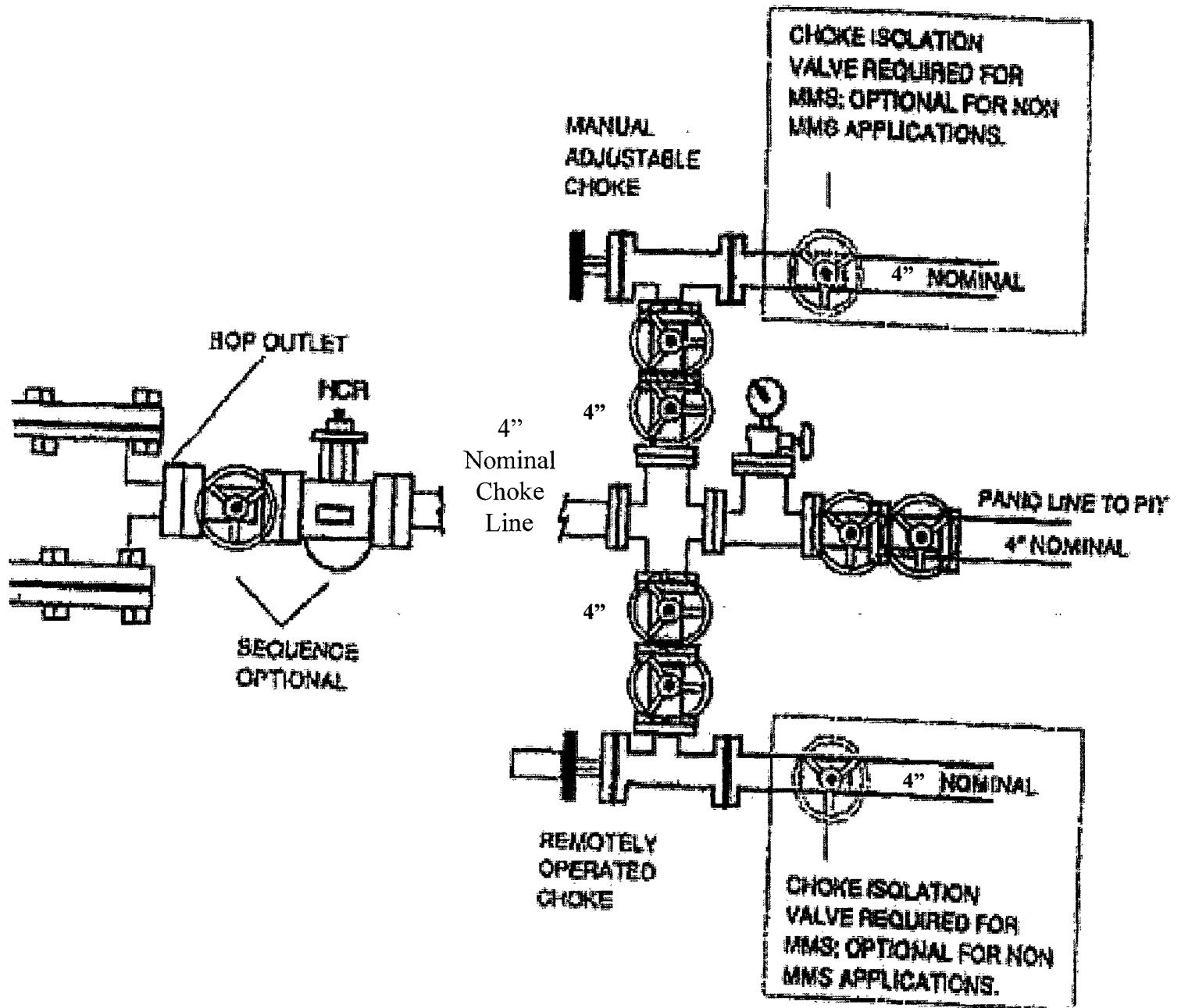
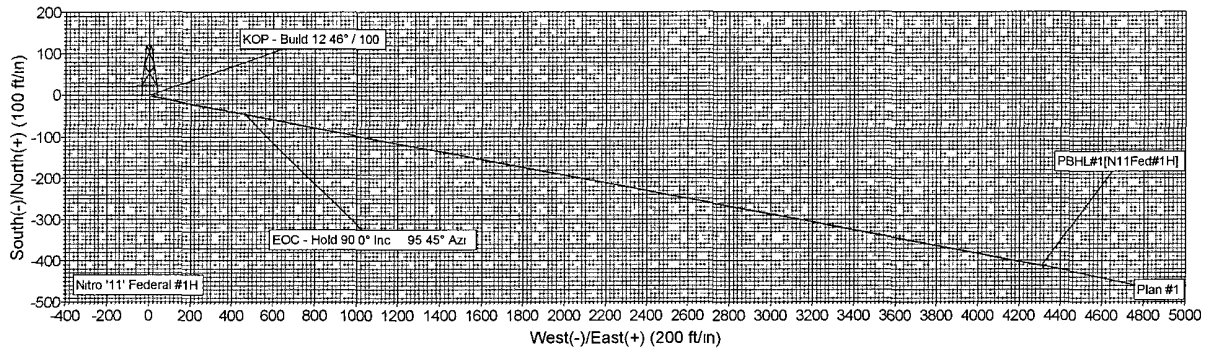


Exhibit E1 – Choke Manifold
Nitro 11 Federal No. 1 Re-entry
 Cimarex Energy Co. of Colorado
 11-16S-29E
 SHL 1580' FNL & 660' FWL
 BHL 1980' FNL & 330' FEL
 Eddy County, NM



Project Eddy Co., New Mexico
 Site Nitro '11' Federal #1H
 Well Nitro '11' Federal #1H
 Wellbore Lateral #1
 Plan Plan #1 (Nitro '11' Federal #1H/Lateral #1)



ANNOTATIONS

TVD	MD	Annotation
6800 00	6800 00	KOP - Build 12 46° / 100
7260 00	7523 57	EOC - Hold 90 0° Inc 95 45° Azi

PROJECT DETAILS Eddy Co., New Mexico

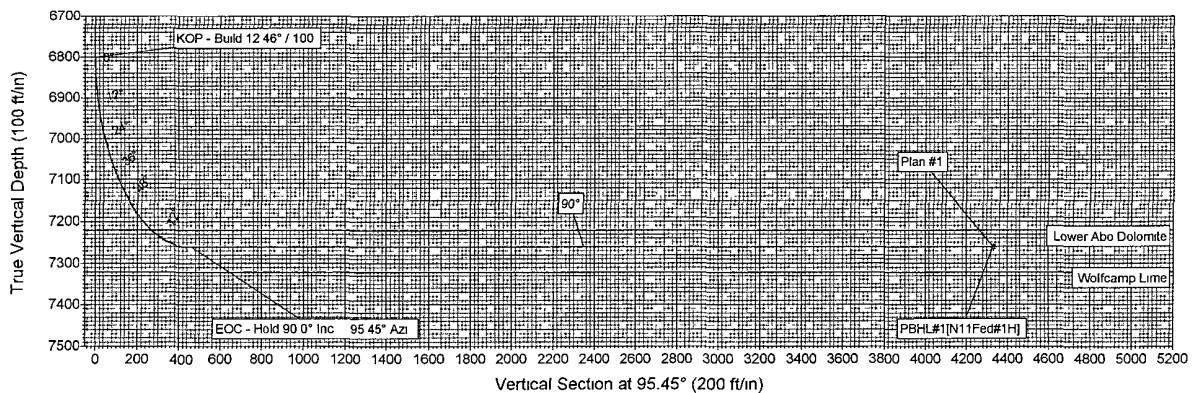
Geodetic System US State Plane 1983
 Datum North American Datum 1983
 Ellipsoid GRS 1980
 Zone New Mexico Eastern Zone
 System Datum Ground Level



Azimuths to Grid North
 True North -0 15°
 Magnetic North 8 16°
 Magnetic Field
 Strength 49375 nT
 Dip Angle 60 87°
 Date 7/25/2007
 Model IGRF200510

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	6800 00	0 00	0 00	6800 00	0 00	0 00	0 00	0 00	0 00	
2	6801 00	0 00	0 00	6801 00	0 00	0 00	0 00	0 00	0 00	
3	7523 57	90 00	95 45	7260 00	-43 59	456 93	12 46	95 45	459 00	
4	11394 90	90 00	95 45	7260 00	-411 28	4310 76	0 00	0 00	4330 33	PBHL#1[N11Fed#1H]



Plan Plan #1 (Nitro '11' Federal #1H/Lateral #1)
 Created By LD Burton Date July 25, 2007



Cimarex Energy Co., Inc.

Eddy Co., New Mexico

Nitro '11' Federal #1H

Nitro '11' Federal #1H

Lateral #1

Plan: Plan #1

Standard Survey Report

06 August, 2007





Black Viper Energy
Survey Report



Company: Cimarex Energy Co., Inc
Project: Eddy Co., New Mexico
Site: Nitro '11' Federal #1H
Well: Nitro '11' Federal #1H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Well Nitro '11' Federal #1H
TVD Reference: WELL @ 3720.00ft (Original Well Elev)
MD Reference: WELL @ 3720.00ft (Original Well Elev)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 2003 14 10 Server DB

Project: Eddy Co., New Mexico

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Ground Level

Site: Nitro '11' Federal #1H

Site Position: Northing: 705,500.77 ft Latitude: 32° 56' 20.805" N
From: Map Easting: 627,664.52 ft Longitude: 104° 3' 7.010" W
Position Uncertainty: 0.00 ft Slot Radius: " Grid Convergence: 0.15°

Well: Nitro '11' Federal #1H

Well Position +N/-S 0.00 ft Northing: 705,500.77 ft Latitude: 32° 56' 20.805" N
+E/-W 0.00 ft Easting: 627,664.52 ft Longitude: 104° 3' 7.010" W
Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 0.00 ft

Wellbore: Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/25/2007	8.31	60.87	49,375

Design: Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 6,800.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	95.45

Survey Tool Program: Date: 8/6/2007

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
6,800.00	11,394.90	Plan #1 (Lateral #1)	MWD	MWD - Standard

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 12.46° / 100									
6,801.00	0.00	0.00	6,801.00	0.00	0.00	0.00	0.00	0.00	0.00
6,825.00	2.99	95.45	6,824.99	-0.06	0.62	0.63	12.46	12.46	0.00
6,850.00	6.10	95.45	6,849.91	-0.25	2.60	2.61	12.46	12.46	0.00
6,875.00	9.22	95.45	6,874.68	-0.56	5.91	5.94	12.46	12.46	0.00
6,900.00	12.33	95.45	6,899.24	-1.01	10.56	10.61	12.46	12.46	0.00
6,925.00	15.44	95.45	6,923.50	-1.58	16.54	16.61	12.46	12.46	0.00
6,950.00	18.56	95.45	6,947.41	-2.27	23.81	23.92	12.46	12.46	0.00
6,975.00	21.67	95.45	6,970.88	-3.09	32.37	32.52	12.46	12.46	0.00
7,000.00	24.79	95.45	6,993.85	-4.02	42.19	42.38	12.46	12.46	0.00
7,025.00	27.90	95.45	7,016.25	-5.08	53.23	53.47	12.46	12.46	0.00
7,050.00	31.01	95.45	7,038.02	-6.25	65.47	65.76	12.46	12.46	0.00



Black Viper Energy Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Nitro '11' Federal #1H
Project:	Eddy Co, New Mexico	TVD Reference:	WELL @ 3720.00ft (Original Well Elev)
Site:	Nitro '11' Federal #1H	MD Reference:	WELL @ 3720 00ft (Original Well Elev)
Well:	Nitro '11' Federal #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003 14.1.0 Server DB

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,075.00	34 13	95 45	7,059 08	-7 52	78 86	79 22	12 46	12 46	0 00
7,100 00	37 24	95 45	7,079 39	-8 91	93 38	93 80	12 46	12 46	0 00
7,125 00	40 36	95 45	7,098 87	-10 40	108 97	109 46	12 46	12 46	0 00
7,150 00	43 47	95 45	7,117 47	-11 98	125 59	126 16	12 46	12 46	0 00
7,175 00	46 58	95 45	7,135 14	-13 66	143 20	143 85	12 46	12 46	0 00
7,200 00	49 70	95 45	7,151.82	-15 43	161 73	162.46	12 46	12 46	0 00
7,225 00	52 81	95 45	7,167 46	-17 28	181 14	181 96	12 46	12 46	0 00
7,250 00	55 93	95 45	7,182 02	-19 21	201 36	202 28	12 46	12 46	0 00
7,275 00	59 04	95 45	7,195 46	-21 21	222 35	223 35	12 46	12 46	0 00
7,300 00	62 15	95 45	7,207 73	-23.28	244 02	245 13	12 46	12 46	0 00
7,325 00	65 27	95 45	7,218 80	-25.41	266 33	267.54	12 46	12 46	0 00
7,327 88	65 63	95 45	7,220 00	-25 66	268.94	270.16	12 46	12 46	0 00
Lower Abo Dolomite									
7,350 00	68.38	95.45	7,228.64	-27 59	289 21	290.52	12 46	12 46	0 00
7,375 00	71.50	95 45	7,237.22	-29 82	312.58	314 00	12 46	12 46	0 00
7,400 00	74 61	95.45	7,244.50	-32 09	336.39	337 91	12 46	12 46	0 00
7,425 00	77.72	95 45	7,250.48	-34 40	360.55	362 19	12 46	12 46	0 00
7,450 00	80 84	95 45	7,255.13	-36 73	385.00	386 75	12 46	12 46	0 00
7,475 00	83 95	95 45	7,258 44	-39 09	409 66	411 52	12 46	12 46	0 00
7,500 00	87 06	95 45	7,260 40	-41 45	434 47	436 44	12 46	12 46	0 00
7,523 57	90 00	95 45	7,260 00	-43.60	456.93	459 00	12 45	12 45	0 00
EOC - Hold 90.0° Inc. 95.45° Azi.									
7,600 00	90 00	95 45	7,260 00	-50 85	533 01	535 43	0 00	0 00	0 00
7,700 00	90 00	95.45	7,260 00	-60.35	632 56	635 43	0 00	0 00	0 00
7,800 00	90 00	95 45	7,260 00	-69 85	732 11	735 43	0 00	0 00	0 00
7,900 00	90 00	95 45	7,260 00	-79 35	831 66	835 43	0 00	0 00	0 00
8,000 00	90 00	95 45	7,260 00	-88 85	931 20	935 43	0 00	0 00	0 00
8,100 00	90 00	95 45	7,260 00	-98 34	1,030.75	1,035 43	0 00	0 00	0 00
8,200 00	90 00	95 45	7,260 00	-107 84	1,130 30	1,135.43	0 00	0 00	0 00
8,300 00	90 00	95.45	7,260 00	-117 34	1,229 85	1,235.43	0 00	0 00	0 00
8,400 00	90 00	95.45	7,260 00	-126 84	1,329 40	1,335 43	0 00	0 00	0 00
8,500 00	90 00	95.45	7,260 00	-136 33	1,428 94	1,435 43	0 00	0 00	0 00
8,600 00	90 00	95 45	7,260 00	-145.83	1,528 49	1,535 43	0 00	0 00	0 00
8,700 00	90 00	95 45	7,260 00	-155 33	1,628 04	1,635 43	0 00	0 00	0 00
8,800 00	90 00	95 45	7,260 00	-164 83	1,727 59	1,735 43	0 00	0 00	0 00
8,900 00	90 00	95 45	7,260 00	-174 32	1,827 14	1,835 43	0 00	0 00	0 00
9,000 00	90 00	95 45	7,260 00	-183 82	1,926 68	1,935 43	0 00	0 00	0 00
9,100 00	90 00	95.45	7,260 00	-193 32	2,026 23	2,035 43	0 00	0 00	0 00
9,200 00	90 00	95 45	7,260 00	-202 82	2,125 78	2,135.43	0 00	0 00	0 00
9,300 00	90 00	95 45	7,260 00	-212 32	2,225 33	2,235.43	0 00	0 00	0 00
9,400 00	90 00	95.45	7,260 00	-221.81	2,324 88	2,335.43	0 00	0 00	0 00
9,500 00	90 00	95 45	7,260 00	-231 31	2,424.42	2,435 43	0 00	0 00	0 00
9,600 00	90 00	95 45	7,260 00	-240.81	2,523 97	2,535 43	0 00	0 00	0 00
9,700 00	90 00	95 45	7,260 00	-250 31	2,623 52	2,635 43	0 00	0 00	0 00
9,800 00	90 00	95.45	7,260 00	-259 80	2,723 07	2,735 43	0 00	0 00	0 00
9,900 00	90 00	95 45	7,260 00	-269 30	2,822.62	2,835 43	0 00	0 00	0 00
10,000 00	90 00	95 45	7,260 00	-278 80	2,922 16	2,935 43	0 00	0 00	0 00
10,100 00	90 00	95 45	7,260 00	-288 30	3,021 71	3,035 43	0 00	0 00	0 00
10,200 00	90 00	95 45	7,260 00	-297.80	3,121.26	3,135 43	0 00	0 00	0 00
10,300 00	90 00	95 45	7,260 00	-307.29	3,220.81	3,235 43	0 00	0 00	0 00
10,400 00	90 00	95 45	7,260 00	-316 79	3,320.36	3,335 43	0 00	0 00	0 00
10,500 00	90 00	95 45	7,260 00	-326 29	3,419.90	3,435 43	0 00	0 00	0 00
10,600 00	90 00	95 45	7,260 00	-335 79	3,519 45	3,535.43	0 00	0 00	0 00
10,700 00	90 00	95 45	7,260 00	-345 28	3,619 00	3,635 43	0 00	0 00	0 00



Black Viper Energy
Survey Report



Company: Cimarex Energy Co., Inc
Project: Eddy Co., New Mexico
Site: Nitro '11' Federal #1H
Well: Nitro '11' Federal #1H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Well Nitro '11' Federal #1H
TVD Reference: WELL @ 3720 00ft (Original Well Elev)
MD Reference: WELL @ 3720 00ft (Original Well Elev)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 2003 14 10 Server DB

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,800 00	90 00	95.45	7,260 00	-354 78	3,718.55	3,735 43	0 00	0 00	0.00
10,900.00	90 00	95 45	7,260 00	-364 28	3,818 10	3,835 43	0 00	0 00	0 00
11,000 00	90 00	95 45	7,260 00	-373 78	3,917 64	3,935 43	0 00	0 00	0 00
11,100 00	90 00	95 45	7,260 00	-383 28	4,017.19	4,035 43	0 00	0 00	0 00
11,200 00	90 00	95 45	7,260 00	-392 77	4,116.74	4,135 43	0 00	0 00	0 00
11,300 00	90 00	95 45	7,260 00	-402 27	4,216.29	4,235 43	0 00	0 00	0 00
11,394 90	90 00	95 45	7,260 00	-411 28	4,310 76	4,330 33	0 00	0 00	0.00

PBHL#1[N11Fed#1H]

Targets

Target Name	hit/miss	target Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL#1[N11Fed#1H]			0 00	0 00	7,260 00	-411.28	4,310 76	705,089.49	631,975 28	32° 56' 16 618 N	104° 2' 16 439 W
- plan target											
- Point											

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	6,195 00	Abo Shale		0 00	
7,327 88	7,220 00	Lower Abo Dolomite		0 00	
	7,320 00	Wolfcamp Lime		0 00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	Comment
6,800 00	6,800 00	0 00 0 00	KOP - Build 12 46° / 100
7,523 57	7,260 00	-43 60 456 93	EOC - Hold 90 0° Inc . 95.45° Azi

Checked By: _____ Approved By: _____ Date: _____

Nitro '11' Federal #1H Lateral Plan #1 Report 7-25-07.txt

Cimarex Energy Co., Inc.
Nitro '11' Federal #1H - Plan #1

Eddy Co., New Mexico
Nitro '11' Federal #1H
Your Ref:

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
6800.00	0.000	0.000	6800.00	0.00 N	0.00 E	0.00
0.00						
6810.00	1.121	95.450	6810.00	0.01 S	0.09 E	0.09
11.21						
6820.00	2.367	95.450	6819.99	0.04 S	0.39 E	0.39
12.46						
6830.00	3.612	95.450	6829.98	0.09 S	0.91 E	0.91
12.46						
6840.00	4.858	95.450	6839.95	0.16 S	1.64 E	1.65
12.46						
6850.00	6.103	95.450	6849.91	0.25 S	2.60 E	2.61
12.46						
6860.00	7.349	95.450	6859.84	0.36 S	3.76 E	3.78
12.46						
6870.00	8.594	95.450	6869.74	0.49 S	5.14 E	5.17
12.46						
6880.00	9.840	95.450	6879.61	0.64 S	6.74 E	6.77
12.46						
6890.00	11.085	95.450	6889.45	0.82 S	8.54 E	8.58
12.46						
6900.00	12.331	95.450	6899.24	1.01 S	10.56 E	10.61
12.46						
6910.00	13.577	95.450	6908.98	1.22 S	12.80 E	12.85
12.46						
6920.00	14.822	95.450	6918.68	1.45 S	15.24 E	15.31
12.46						
6930.00	16.068	95.450	6928.32	1.71 S	17.89 E	17.97
12.46						
6940.00	17.313	95.450	6937.89	1.98 S	20.75 E	20.84
12.46						
6950.00	18.559	95.450	6947.41	2.27 S	23.81 E	23.92
12.46						
6960.00	19.804	95.450	6956.85	2.58 S	27.08 E	27.21
12.46						
6970.00	21.050	95.450	6966.22	2.92 S	30.56 E	30.70
12.46						
6980.00	22.296	95.450	6975.52	3.27 S	34.23 E	34.39
12.46						
6990.00	23.541	95.450	6984.73	3.64 S	38.11 E	38.28
12.46						
7000.00	24.787	95.450	6993.85	4.02 S	42.19 E	42.38
12.46						
7010.00	26.032	95.450	7002.88	4.43 S	46.46 E	46.67
12.46						
7020.00	27.278	95.450	7011.82	4.86 S	50.92 E	51.15

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12.46						
7030.00	28.523	95.450	7020.66	5.30 S	55.58 E	55.83
12.46						
7040.00	29.769	95.450	7029.39	5.77 S	60.43 E	60.70
12.46						
7050.00	31.014	95.450	7038.02	6.25 S	65.47 E	65.76
12.46						
7060.00	32.260	95.450	7046.53	6.74 S	70.69 E	71.01
12.46						
7070.00	33.506	95.450	7054.93	7.26 S	76.09 E	76.44
12.46						
7080.00	34.751	95.450	7063.21	7.79 S	81.68 E	82.05
12.46						
7090.00	35.997	95.450	7071.36	8.34 S	87.44 E	87.84
12.46						
7100.00	37.242	95.450	7079.39	8.91 S	93.38 E	93.80
12.46						
7110.00	38.488	95.450	7087.28	9.49 S	99.49 E	99.94
12.46						
7120.00	39.733	95.450	7095.04	10.09 S	105.77 E	106.25
12.46						
7130.00	40.979	95.450	7102.66	10.71 S	112.21 E	112.72
12.46						
7140.00	42.224	95.450	7110.14	11.34 S	118.82 E	119.36
12.46						
7150.00	43.470	95.450	7117.47	11.98 S	125.59 E	126.16
12.46						
7160.00	44.716	95.450	7124.65	12.64 S	132.52 E	133.12
12.46						
7170.00	45.961	95.450	7131.68	13.32 S	139.60 E	140.23
12.46						
7180.00	47.207	95.450	7138.55	14.01 S	146.83 E	147.50
12.46						
7190.00	48.452	95.450	7145.27	14.71 S	154.21 E	154.91
12.46						
7200.00	49.698	95.450	7151.82	15.43 S	161.73 E	162.46
12.46						
7210.00	50.943	95.450	7158.20	16.16 S	169.39 E	170.16
12.46						
7220.00	52.189	95.450	7164.42	16.91 S	177.19 E	177.99
12.46						
7230.00	53.435	95.450	7170.46	17.66 S	185.12 E	185.96
12.46						
7240.00	54.680	95.450	7176.33	18.43 S	193.18 E	194.06
12.46						
7250.00	55.926	95.450	7182.02	19.21 S	201.36 E	202.28
12.46						
7260.00	57.171	95.450	7187.54	20.00 S	209.67 E	210.62
12.46						
7270.00	58.417	95.450	7192.86	20.81 S	218.09 E	219.08
12.46						
7280.00	59.662	95.450	7198.01	21.62 S	226.63 E	227.66
12.46						
7290.00	60.908	95.450	7202.97	22.45 S	235.27 E	236.34
12.46						
7300.00	62.153	95.450	7207.73	23.28 S	244.02 E	245.13
12.46						
7310.00	63.399	95.450	7212.31	24.13 S	252.88 E	254.02
12.46						
7320.00	64.645	95.450	7216.69	24.98 S	261.82 E	263.01
12.46						
7330.00	65.890	95.450	7220.87	25.84 S	270.87 E	272.10
12.46						

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7340.00	67.136	95.450	7224.86	26.71 S	280.00 E	281.27
12.46						
7350.00	68.381	95.450	7228.64	27.59 S	289.21 E	290.52
12.46						
7360.00	69.627	95.450	7232.22	28.48 S	298.50 E	299.86
12.46						
7370.00	70.872	95.450	7235.60	29.37 S	307.87 E	309.27
12.46						
7380.00	72.118	95.450	7238.78	30.27 S	317.31 E	318.75
12.46						
7390.00	73.364	95.450	7241.74	31.18 S	326.82 E	328.30
12.46						
7400.00	74.609	95.450	7244.50	32.09 S	336.39 E	337.91
12.46						
7410.00	75.855	95.450	7247.05	33.01 S	346.01 E	347.58
12.46						
7420.00	77.100	95.450	7249.39	33.94 S	355.69 E	357.31
12.46						
7430.00	78.346	95.450	7251.52	34.86 S	365.42 E	367.08
12.46						
7440.00	79.591	95.450	7253.43	35.80 S	375.19 E	376.89
12.46						
7450.00	80.837	95.450	7255.13	36.73 S	385.00 E	386.75
12.46						
7460.00	82.082	95.450	7256.61	37.67 S	394.84 E	396.64
12.46						
7470.00	83.328	95.450	7257.88	38.61 S	404.72 E	406.55
12.46						
7480.00	84.574	95.450	7258.94	39.56 S	414.62 E	416.50
12.46						
7490.00	85.819	95.450	7259.78	40.50 S	424.54 E	426.46
12.46						
7500.00	87.065	95.450	7260.40	41.45 S	434.47 E	436.44
12.46						
7510.00	88.310	95.450	7260.80	42.40 S	444.42 E	446.44
12.46						
7520.00	89.556	95.450	7260.99	43.35 S	454.37 E	456.43
12.46						
7530.00	90.000	95.450	7260.00	44.21 S	463.33 E	465.43
4.44						
7540.00	90.000	95.450	7260.00	45.16 S	473.28 E	475.43
0.00						
7550.00	90.000	95.450	7260.00	46.11 S	483.24 E	485.43
0.00						
7560.00	90.000	95.450	7260.00	47.06 S	493.19 E	495.43
0.00						
7570.00	90.000	95.450	7260.00	48.00 S	503.15 E	505.43
0.00						
7580.00	90.000	95.450	7260.00	48.95 S	513.10 E	515.43
0.00						
7590.00	90.000	95.450	7260.00	49.90 S	523.06 E	525.43
0.00						
7600.00	90.000	95.450	7260.00	50.85 S	533.01 E	535.43
0.00						
7610.00	90.000	95.450	7260.00	51.80 S	542.97 E	545.43
0.00						
7620.00	90.000	95.450	7260.00	52.75 S	552.92 E	555.43
0.00						
7630.00	90.000	95.450	7260.00	53.70 S	562.88 E	565.43
0.00						
7640.00	90.000	95.450	7260.00	54.65 S	572.83 E	575.43
0.00						
7650.00	90.000	95.450	7260.00	55.60 S	582.79 E	585.43

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0.00						
7660.00	90.000	95.450	7260.00	56.55 S	592.74 E	595.43
0.00						
7670.00	90.000	95.450	7260.00	57.50 S	602.70 E	605.43
0.00						
7680.00	90.000	95.450	7260.00	58.45 S	612.65 E	615.43
0.00						
7690.00	90.000	95.450	7260.00	59.40 S	622.61 E	625.43
0.00						
7700.00	90.000	95.450	7260.00	60.35 S	632.56 E	635.43
0.00						
7710.00	90.000	95.450	7260.00	61.30 S	642.52 E	645.43
0.00						
7720.00	90.000	95.450	7260.00	62.25 S	652.47 E	655.43
0.00						
7730.00	90.000	95.450	7260.00	63.20 S	662.43 E	665.43
0.00						
7740.00	90.000	95.450	7260.00	64.15 S	672.38 E	675.43
0.00						
7750.00	90.000	95.450	7260.00	65.10 S	682.34 E	685.43
0.00						
7760.00	90.000	95.450	7260.00	66.05 S	692.29 E	695.43
0.00						
7770.00	90.000	95.450	7260.00	67.00 S	702.24 E	705.43
0.00						
7780.00	90.000	95.450	7260.00	67.95 S	712.20 E	715.43
0.00						
7790.00	90.000	95.450	7260.00	68.90 S	722.15 E	725.43
0.00						
7800.00	90.000	95.450	7260.00	69.85 S	732.11 E	735.43
0.00						
7810.00	90.000	95.450	7260.00	70.80 S	742.06 E	745.43
0.00						
7820.00	90.000	95.450	7260.00	71.75 S	752.02 E	755.43
0.00						
7830.00	90.000	95.450	7260.00	72.70 S	761.97 E	765.43
0.00						
7840.00	90.000	95.450	7260.00	73.65 S	771.93 E	775.43
0.00						
7850.00	90.000	95.450	7260.00	74.60 S	781.88 E	785.43
0.00						
7860.00	90.000	95.450	7260.00	75.55 S	791.84 E	795.43
0.00						
7870.00	90.000	95.450	7260.00	76.50 S	801.79 E	805.43
0.00						
7880.00	90.000	95.450	7260.00	77.45 S	811.75 E	815.43
0.00						
7890.00	90.000	95.450	7260.00	78.40 S	821.70 E	825.43
0.00						
7900.00	90.000	95.450	7260.00	79.35 S	831.66 E	835.43
0.00						
7910.00	90.000	95.450	7260.00	80.30 S	841.61 E	845.43
0.00						
7920.00	90.000	95.450	7260.00	81.25 S	851.57 E	855.43
0.00						
7930.00	90.000	95.450	7260.00	82.20 S	861.52 E	865.43
0.00						
7940.00	90.000	95.450	7260.00	83.15 S	871.48 E	875.43
0.00						
7950.00	90.000	95.450	7260.00	84.10 S	881.43 E	885.43
0.00						
7960.00	90.000	95.450	7260.00	85.05 S	891.39 E	895.43
0.00						

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7970.00	90.000	95.450	7260.00	86.00 S	901.34 E	905.43
0.00						
7980.00	90.000	95.450	7260.00	86.95 S	911.30 E	915.43
0.00						
7990.00	90.000	95.450	7260.00	87.90 S	921.25 E	925.43
0.00						
8000.00	90.000	95.450	7260.00	88.85 S	931.20 E	935.43
0.00						
8010.00	90.000	95.450	7260.00	89.79 S	941.16 E	945.43
0.00						
8020.00	90.000	95.450	7260.00	90.74 S	951.11 E	955.43
0.00						
8030.00	90.000	95.450	7260.00	91.69 S	961.07 E	965.43
0.00						
8040.00	90.000	95.450	7260.00	92.64 S	971.02 E	975.43
0.00						
8050.00	90.000	95.450	7260.00	93.59 S	980.98 E	985.43
0.00						
8060.00	90.000	95.450	7260.00	94.54 S	990.93 E	995.43
0.00						
8070.00	90.000	95.450	7260.00	95.49 S	1000.89 E	1005.43
0.00						
8080.00	90.000	95.450	7260.00	96.44 S	1010.84 E	1015.43
0.00						
8090.00	90.000	95.450	7260.00	97.39 S	1020.80 E	1025.43
0.00						
8100.00	90.000	95.450	7260.00	98.34 S	1030.75 E	1035.43
0.00						
8110.00	90.000	95.450	7260.00	99.29 S	1040.71 E	1045.43
0.00						
8120.00	90.000	95.450	7260.00	100.24 S	1050.66 E	1055.43
0.00						
8130.00	90.000	95.450	7260.00	101.19 S	1060.62 E	1065.43
0.00						
8140.00	90.000	95.450	7260.00	102.14 S	1070.57 E	1075.43
0.00						
8150.00	90.000	95.450	7260.00	103.09 S	1080.53 E	1085.43
0.00						
8160.00	90.000	95.450	7260.00	104.04 S	1090.48 E	1095.43
0.00						
8170.00	90.000	95.450	7260.00	104.99 S	1100.44 E	1105.43
0.00						
8180.00	90.000	95.450	7260.00	105.94 S	1110.39 E	1115.43
0.00						
8190.00	90.000	95.450	7260.00	106.89 S	1120.35 E	1125.43
0.00						
8200.00	90.000	95.450	7260.00	107.84 S	1130.30 E	1135.43
0.00						
8210.00	90.000	95.450	7260.00	108.79 S	1140.26 E	1145.43
0.00						
8220.00	90.000	95.450	7260.00	109.74 S	1150.21 E	1155.43
0.00						
8230.00	90.000	95.450	7260.00	110.69 S	1160.17 E	1165.43
0.00						
8240.00	90.000	95.450	7260.00	111.64 S	1170.12 E	1175.43
0.00						
8250.00	90.000	95.450	7260.00	112.59 S	1180.07 E	1185.43
0.00						
8260.00	90.000	95.450	7260.00	113.54 S	1190.03 E	1195.43
0.00						
8270.00	90.000	95.450	7260.00	114.49 S	1199.98 E	1205.43
0.00						
8280.00	90.000	95.450	7260.00	115.44 S	1209.94 E	1215.43

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0.00						
8290.00	90.000	95.450	7260.00	116.39 S	1219.89 E	1225.43
0.00						
8300.00	90.000	95.450	7260.00	117.34 S	1229.85 E	1235.43
0.00						
8310.00	90.000	95.450	7260.00	118.29 S	1239.80 E	1245.43
0.00						
8320.00	90.000	95.450	7260.00	119.24 S	1249.76 E	1255.43
0.00						
8330.00	90.000	95.450	7260.00	120.19 S	1259.71 E	1265.43
0.00						
8340.00	90.000	95.450	7260.00	121.14 S	1269.67 E	1275.43
0.00						
8350.00	90.000	95.450	7260.00	122.09 S	1279.62 E	1285.43
0.00						
8360.00	90.000	95.450	7260.00	123.04 S	1289.58 E	1295.43
0.00						
8370.00	90.000	95.450	7260.00	123.99 S	1299.53 E	1305.43
0.00						
8380.00	90.000	95.450	7260.00	124.94 S	1309.49 E	1315.43
0.00						
8390.00	90.000	95.450	7260.00	125.89 S	1319.44 E	1325.43
0.00						
8400.00	90.000	95.450	7260.00	126.84 S	1329.40 E	1335.43
0.00						
8410.00	90.000	95.450	7260.00	127.79 S	1339.35 E	1345.43
0.00						
8420.00	90.000	95.450	7260.00	128.74 S	1349.31 E	1355.43
0.00						
8430.00	90.000	95.450	7260.00	129.69 S	1359.26 E	1365.43
0.00						
8440.00	90.000	95.450	7260.00	130.64 S	1369.22 E	1375.43
0.00						
8450.00	90.000	95.450	7260.00	131.58 S	1379.17 E	1385.43
0.00						
8460.00	90.000	95.450	7260.00	132.53 S	1389.13 E	1395.43
0.00						
8470.00	90.000	95.450	7260.00	133.48 S	1399.08 E	1405.43
0.00						
8480.00	90.000	95.450	7260.00	134.43 S	1409.04 E	1415.43
0.00						
8490.00	90.000	95.450	7260.00	135.38 S	1418.99 E	1425.43
0.00						
8500.00	90.000	95.450	7260.00	136.33 S	1428.94 E	1435.43
0.00						
8510.00	90.000	95.450	7260.00	137.28 S	1438.90 E	1445.43
0.00						
8520.00	90.000	95.450	7260.00	138.23 S	1448.85 E	1455.43
0.00						
8530.00	90.000	95.450	7260.00	139.18 S	1458.81 E	1465.43
0.00						
8540.00	90.000	95.450	7260.00	140.13 S	1468.76 E	1475.43
0.00						
8550.00	90.000	95.450	7260.00	141.08 S	1478.72 E	1485.43
0.00						
8560.00	90.000	95.450	7260.00	142.03 S	1488.67 E	1495.43
0.00						
8570.00	90.000	95.450	7260.00	142.98 S	1498.63 E	1505.43
0.00						
8580.00	90.000	95.450	7260.00	143.93 S	1508.58 E	1515.43
0.00						
8590.00	90.000	95.450	7260.00	144.88 S	1518.54 E	1525.43
0.00						

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8600.00	90.000	95.450	7260.00	145.83 S	1528.49 E	1535.43
0.00						
8610.00	90.000	95.450	7260.00	146.78 S	1538.45 E	1545.43
0.00						
8620.00	90.000	95.450	7260.00	147.73 S	1548.40 E	1555.43
0.00						
8630.00	90.000	95.450	7260.00	148.68 S	1558.36 E	1565.43
0.00						
8640.00	90.000	95.450	7260.00	149.63 S	1568.31 E	1575.43
0.00						
8650.00	90.000	95.450	7260.00	150.58 S	1578.27 E	1585.43
0.00						
8660.00	90.000	95.450	7260.00	151.53 S	1588.22 E	1595.43
0.00						
8670.00	90.000	95.450	7260.00	152.48 S	1598.18 E	1605.43
0.00						
8680.00	90.000	95.450	7260.00	153.43 S	1608.13 E	1615.43
0.00						
8690.00	90.000	95.450	7260.00	154.38 S	1618.09 E	1625.43
0.00						
8700.00	90.000	95.450	7260.00	155.33 S	1628.04 E	1635.43
0.00						
8710.00	90.000	95.450	7260.00	156.28 S	1638.00 E	1645.43
0.00						
8720.00	90.000	95.450	7260.00	157.23 S	1647.95 E	1655.43
0.00						
8730.00	90.000	95.450	7260.00	158.18 S	1657.90 E	1665.43
0.00						
8740.00	90.000	95.450	7260.00	159.13 S	1667.86 E	1675.43
0.00						
8750.00	90.000	95.450	7260.00	160.08 S	1677.81 E	1685.43
0.00						
8760.00	90.000	95.450	7260.00	161.03 S	1687.77 E	1695.43
0.00						
8770.00	90.000	95.450	7260.00	161.98 S	1697.72 E	1705.43
0.00						
8780.00	90.000	95.450	7260.00	162.93 S	1707.68 E	1715.43
0.00						
8790.00	90.000	95.450	7260.00	163.88 S	1717.63 E	1725.43
0.00						
8800.00	90.000	95.450	7260.00	164.83 S	1727.59 E	1735.43
0.00						
8810.00	90.000	95.450	7260.00	165.78 S	1737.54 E	1745.43
0.00						
8820.00	90.000	95.450	7260.00	166.73 S	1747.50 E	1755.43
0.00						
8830.00	90.000	95.450	7260.00	167.68 S	1757.45 E	1765.43
0.00						
8840.00	90.000	95.450	7260.00	168.63 S	1767.41 E	1775.43
0.00						
8850.00	90.000	95.450	7260.00	169.58 S	1777.36 E	1785.43
0.00						
8860.00	90.000	95.450	7260.00	170.53 S	1787.32 E	1795.43
0.00						
8870.00	90.000	95.450	7260.00	171.48 S	1797.27 E	1805.43
0.00						
8880.00	90.000	95.450	7260.00	172.43 S	1807.23 E	1815.43
0.00						
8890.00	90.000	95.450	7260.00	173.38 S	1817.18 E	1825.43
0.00						
8900.00	90.000	95.450	7260.00	174.32 S	1827.14 E	1835.43
0.00						
8910.00	90.000	95.450	7260.00	175.27 S	1837.09 E	1845.43

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0.00							
8920.00	90.000	95.450	7260.00	176.22 S	1847.05 E	1855.43	
0.00							
8930.00	90.000	95.450	7260.00	177.17 S	1857.00 E	1865.43	
0.00							
8940.00	90.000	95.450	7260.00	178.12 S	1866.96 E	1875.43	
0.00							
8950.00	90.000	95.450	7260.00	179.07 S	1876.91 E	1885.43	
0.00							
8960.00	90.000	95.450	7260.00	180.02 S	1886.87 E	1895.43	
0.00							
8970.00	90.000	95.450	7260.00	180.97 S	1896.82 E	1905.43	
0.00							
8980.00	90.000	95.450	7260.00	181.92 S	1906.77 E	1915.43	
0.00							
8990.00	90.000	95.450	7260.00	182.87 S	1916.73 E	1925.43	
0.00							
9000.00	90.000	95.450	7260.00	183.82 S	1926.68 E	1935.43	
0.00							
9010.00	90.000	95.450	7260.00	184.77 S	1936.64 E	1945.43	
0.00							
9020.00	90.000	95.450	7260.00	185.72 S	1946.59 E	1955.43	
0.00							
9030.00	90.000	95.450	7260.00	186.67 S	1956.55 E	1965.43	
0.00							
9040.00	90.000	95.450	7260.00	187.62 S	1966.50 E	1975.43	
0.00							
9050.00	90.000	95.450	7260.00	188.57 S	1976.46 E	1985.43	
0.00							
9060.00	90.000	95.450	7260.00	189.52 S	1986.41 E	1995.43	
0.00							
9070.00	90.000	95.450	7260.00	190.47 S	1996.37 E	2005.43	
0.00							
9080.00	90.000	95.450	7260.00	191.42 S	2006.32 E	2015.43	
0.00							
9090.00	90.000	95.450	7260.00	192.37 S	2016.28 E	2025.43	
0.00							
9100.00	90.000	95.450	7260.00	193.32 S	2026.23 E	2035.43	
0.00							
9110.00	90.000	95.450	7260.00	194.27 S	2036.19 E	2045.43	
0.00							
9120.00	90.000	95.450	7260.00	195.22 S	2046.14 E	2055.43	
0.00							
9130.00	90.000	95.450	7260.00	196.17 S	2056.10 E	2065.43	
0.00							
9140.00	90.000	95.450	7260.00	197.12 S	2066.05 E	2075.43	
0.00							
9150.00	90.000	95.450	7260.00	198.07 S	2076.01 E	2085.43	
0.00							
9160.00	90.000	95.450	7260.00	199.02 S	2085.96 E	2095.43	
0.00							
9170.00	90.000	95.450	7260.00	199.97 S	2095.92 E	2105.43	
0.00							
9180.00	90.000	95.450	7260.00	200.92 S	2105.87 E	2115.43	
0.00							
9190.00	90.000	95.450	7260.00	201.87 S	2115.83 E	2125.43	
0.00							
9200.00	90.000	95.450	7260.00	202.82 S	2125.78 E	2135.43	
0.00							
9210.00	90.000	95.450	7260.00	203.77 S	2135.74 E	2145.43	
0.00							
9220.00	90.000	95.450	7260.00	204.72 S	2145.69 E	2155.43	
0.00							

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9230.00	90.000	95.450	7260.00	205.67 S	2155.64 E	2165.43
0.00						
9240.00	90.000	95.450	7260.00	206.62 S	2165.60 E	2175.43
0.00						
9250.00	90.000	95.450	7260.00	207.57 S	2175.55 E	2185.43
0.00						
9260.00	90.000	95.450	7260.00	208.52 S	2185.51 E	2195.43
0.00						
9270.00	90.000	95.450	7260.00	209.47 S	2195.46 E	2205.43
0.00						
9280.00	90.000	95.450	7260.00	210.42 S	2205.42 E	2215.43
0.00						
9290.00	90.000	95.450	7260.00	211.37 S	2215.37 E	2225.43
0.00						
9300.00	90.000	95.450	7260.00	212.32 S	2225.33 E	2235.43
0.00						
9310.00	90.000	95.450	7260.00	213.27 S	2235.28 E	2245.43
0.00						
9320.00	90.000	95.450	7260.00	214.22 S	2245.24 E	2255.43
0.00						
9330.00	90.000	95.450	7260.00	215.17 S	2255.19 E	2265.43
0.00						
9340.00	90.000	95.450	7260.00	216.11 S	2265.15 E	2275.43
0.00						
9350.00	90.000	95.450	7260.00	217.06 S	2275.10 E	2285.43
0.00						
9360.00	90.000	95.450	7260.00	218.01 S	2285.06 E	2295.43
0.00						
9370.00	90.000	95.450	7260.00	218.96 S	2295.01 E	2305.43
0.00						
9380.00	90.000	95.450	7260.00	219.91 S	2304.97 E	2315.43
0.00						
9390.00	90.000	95.450	7260.00	220.86 S	2314.92 E	2325.43
0.00						
9400.00	90.000	95.450	7260.00	221.81 S	2324.88 E	2335.43
0.00						
9410.00	90.000	95.450	7260.00	222.76 S	2334.83 E	2345.43
0.00						
9420.00	90.000	95.450	7260.00	223.71 S	2344.79 E	2355.43
0.00						
9430.00	90.000	95.450	7260.00	224.66 S	2354.74 E	2365.43
0.00						
9440.00	90.000	95.450	7260.00	225.61 S	2364.70 E	2375.43
0.00						
9450.00	90.000	95.450	7260.00	226.56 S	2374.65 E	2385.43
0.00						
9460.00	90.000	95.450	7260.00	227.51 S	2384.60 E	2395.43
0.00						
9470.00	90.000	95.450	7260.00	228.46 S	2394.56 E	2405.43
0.00						
9480.00	90.000	95.450	7260.00	229.41 S	2404.51 E	2415.43
0.00						
9490.00	90.000	95.450	7260.00	230.36 S	2414.47 E	2425.43
0.00						
9500.00	90.000	95.450	7260.00	231.31 S	2424.42 E	2435.43
0.00						
9510.00	90.000	95.450	7260.00	232.26 S	2434.38 E	2445.43
0.00						
9520.00	90.000	95.450	7260.00	233.21 S	2444.33 E	2455.43
0.00						
9530.00	90.000	95.450	7260.00	234.16 S	2454.29 E	2465.43
0.00						
9540.00	90.000	95.450	7260.00	235.11 S	2464.24 E	2475.43

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0.00						
9550.00	90.000	95.450	7260.00	236.06 S	2474.20 E	2485.43
0.00						
9560.00	90.000	95.450	7260.00	237.01 S	2484.15 E	2495.43
0.00						
9570.00	90.000	95.450	7260.00	237.96 S	2494.11 E	2505.43
0.00						
9580.00	90.000	95.450	7260.00	238.91 S	2504.06 E	2515.43
0.00						
9590.00	90.000	95.450	7260.00	239.86 S	2514.02 E	2525.43
0.00						
9600.00	90.000	95.450	7260.00	240.81 S	2523.97 E	2535.43
0.00						
9610.00	90.000	95.450	7260.00	241.76 S	2533.93 E	2545.43
0.00						
9620.00	90.000	95.450	7260.00	242.71 S	2543.88 E	2555.43
0.00						
9630.00	90.000	95.450	7260.00	243.66 S	2553.84 E	2565.43
0.00						
9640.00	90.000	95.450	7260.00	244.61 S	2563.79 E	2575.43
0.00						
9650.00	90.000	95.450	7260.00	245.56 S	2573.75 E	2585.43
0.00						
9660.00	90.000	95.450	7260.00	246.51 S	2583.70 E	2595.43
0.00						
9670.00	90.000	95.450	7260.00	247.46 S	2593.66 E	2605.43
0.00						
9680.00	90.000	95.450	7260.00	248.41 S	2603.61 E	2615.43
0.00						
9690.00	90.000	95.450	7260.00	249.36 S	2613.57 E	2625.43
0.00						
9700.00	90.000	95.450	7260.00	250.31 S	2623.52 E	2635.43
0.00						
9710.00	90.000	95.450	7260.00	251.26 S	2633.47 E	2645.43
0.00						
9720.00	90.000	95.450	7260.00	252.21 S	2643.43 E	2655.43
0.00						
9730.00	90.000	95.450	7260.00	253.16 S	2653.38 E	2665.43
0.00						
9740.00	90.000	95.450	7260.00	254.11 S	2663.34 E	2675.43
0.00						
9750.00	90.000	95.450	7260.00	255.06 S	2673.29 E	2685.43
0.00						
9760.00	90.000	95.450	7260.00	256.01 S	2683.25 E	2695.43
0.00						
9770.00	90.000	95.450	7260.00	256.96 S	2693.20 E	2705.43
0.00						
9780.00	90.000	95.450	7260.00	257.90 S	2703.16 E	2715.43
0.00						
9790.00	90.000	95.450	7260.00	258.85 S	2713.11 E	2725.43
0.00						
9800.00	90.000	95.450	7260.00	259.80 S	2723.07 E	2735.43
0.00						
9810.00	90.000	95.450	7260.00	260.75 S	2733.02 E	2745.43
0.00						
9820.00	90.000	95.450	7260.00	261.70 S	2742.98 E	2755.43
0.00						
9830.00	90.000	95.450	7260.00	262.65 S	2752.93 E	2765.43
0.00						
9840.00	90.000	95.450	7260.00	263.60 S	2762.89 E	2775.43
0.00						
9850.00	90.000	95.450	7260.00	264.55 S	2772.84 E	2785.43
0.00						

	Nitro	'11'	Federal	#1H	Lateral	Plan	#1	Report	7-25-07.txt
9860.00	90.000	95.450	7260.00	265.50	S	2782.80	E	2795.43	
0.00									
9870.00	90.000	95.450	7260.00	266.45	S	2792.75	E	2805.43	
0.00									
9880.00	90.000	95.450	7260.00	267.40	S	2802.71	E	2815.43	
0.00									
9890.00	90.000	95.450	7260.00	268.35	S	2812.66	E	2825.43	
0.00									
9900.00	90.000	95.450	7260.00	269.30	S	2822.62	E	2835.43	
0.00									
9910.00	90.000	95.450	7260.00	270.25	S	2832.57	E	2845.43	
0.00									
9920.00	90.000	95.450	7260.00	271.20	S	2842.53	E	2855.43	
0.00									
9930.00	90.000	95.450	7260.00	272.15	S	2852.48	E	2865.43	
0.00									
9940.00	90.000	95.450	7260.00	273.10	S	2862.44	E	2875.43	
0.00									
9950.00	90.000	95.450	7260.00	274.05	S	2872.39	E	2885.43	
0.00									
9960.00	90.000	95.450	7260.00	275.00	S	2882.34	E	2895.43	
0.00									
9970.00	90.000	95.450	7260.00	275.95	S	2892.30	E	2905.43	
0.00									
9980.00	90.000	95.450	7260.00	276.90	S	2902.25	E	2915.43	
0.00									
9990.00	90.000	95.450	7260.00	277.85	S	2912.21	E	2925.43	
0.00									
10000.00	90.000	95.450	7260.00	278.80	S	2922.16	E	2935.43	
0.00									
10010.00	90.000	95.450	7260.00	279.75	S	2932.12	E	2945.43	
0.00									
10020.00	90.000	95.450	7260.00	280.70	S	2942.07	E	2955.43	
0.00									
10030.00	90.000	95.450	7260.00	281.65	S	2952.03	E	2965.43	
0.00									
10040.00	90.000	95.450	7260.00	282.60	S	2961.98	E	2975.43	
0.00									
10050.00	90.000	95.450	7260.00	283.55	S	2971.94	E	2985.43	
0.00									
10060.00	90.000	95.450	7260.00	284.50	S	2981.89	E	2995.43	
0.00									
10070.00	90.000	95.450	7260.00	285.45	S	2991.85	E	3005.43	
0.00									
10080.00	90.000	95.450	7260.00	286.40	S	3001.80	E	3015.43	
0.00									
10090.00	90.000	95.450	7260.00	287.35	S	3011.76	E	3025.43	
0.00									
10100.00	90.000	95.450	7260.00	288.30	S	3021.71	E	3035.43	
0.00									
10110.00	90.000	95.450	7260.00	289.25	S	3031.67	E	3045.43	
0.00									
10120.00	90.000	95.450	7260.00	290.20	S	3041.62	E	3055.43	
0.00									
10130.00	90.000	95.450	7260.00	291.15	S	3051.58	E	3065.43	
0.00									
10140.00	90.000	95.450	7260.00	292.10	S	3061.53	E	3075.43	
0.00									
10150.00	90.000	95.450	7260.00	293.05	S	3071.49	E	3085.43	
0.00									
10160.00	90.000	95.450	7260.00	294.00	S	3081.44	E	3095.43	
0.00									
10170.00	90.000	95.450	7260.00	294.95	S	3091.40	E	3105.43	

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0.00						
10180.00	90.000	95.450	7260.00	295.90 S	3101.35 E	3115.43
0.00						
10190.00	90.000	95.450	7260.00	296.85 S	3111.30 E	3125.43
0.00						
10200.00	90.000	95.450	7260.00	297.80 S	3121.26 E	3135.43
0.00						
10210.00	90.000	95.450	7260.00	298.75 S	3131.21 E	3145.43
0.00						
10220.00	90.000	95.450	7260.00	299.70 S	3141.17 E	3155.43
0.00						
10230.00	90.000	95.450	7260.00	300.64 S	3151.12 E	3165.43
0.00						
10240.00	90.000	95.450	7260.00	301.59 S	3161.08 E	3175.43
0.00						
10250.00	90.000	95.450	7260.00	302.54 S	3171.03 E	3185.43
0.00						
10260.00	90.000	95.450	7260.00	303.49 S	3180.99 E	3195.43
0.00						
10270.00	90.000	95.450	7260.00	304.44 S	3190.94 E	3205.43
0.00						
10280.00	90.000	95.450	7260.00	305.39 S	3200.90 E	3215.43
0.00						
10290.00	90.000	95.450	7260.00	306.34 S	3210.85 E	3225.43
0.00						
10300.00	90.000	95.450	7260.00	307.29 S	3220.81 E	3235.43
0.00						
10310.00	90.000	95.450	7260.00	308.24 S	3230.76 E	3245.43
0.00						
10320.00	90.000	95.450	7260.00	309.19 S	3240.72 E	3255.43
0.00						
10330.00	90.000	95.450	7260.00	310.14 S	3250.67 E	3265.43
0.00						
10340.00	90.000	95.450	7260.00	311.09 S	3260.63 E	3275.43
0.00						
10350.00	90.000	95.450	7260.00	312.04 S	3270.58 E	3285.43
0.00						
10360.00	90.000	95.450	7260.00	312.99 S	3280.54 E	3295.43
0.00						
10370.00	90.000	95.450	7260.00	313.94 S	3290.49 E	3305.43
0.00						
10380.00	90.000	95.450	7260.00	314.89 S	3300.45 E	3315.43
0.00						
10390.00	90.000	95.450	7260.00	315.84 S	3310.40 E	3325.43
0.00						
10400.00	90.000	95.450	7260.00	316.79 S	3320.36 E	3335.43
0.00						
10410.00	90.000	95.450	7260.00	317.74 S	3330.31 E	3345.43
0.00						
10420.00	90.000	95.450	7260.00	318.69 S	3340.27 E	3355.43
0.00						
10430.00	90.000	95.450	7260.00	319.64 S	3350.22 E	3365.43
0.00						
10440.00	90.000	95.450	7260.00	320.59 S	3360.17 E	3375.43
0.00						
10450.00	90.000	95.450	7260.00	321.54 S	3370.13 E	3385.43
0.00						
10460.00	90.000	95.450	7260.00	322.49 S	3380.08 E	3395.43
0.00						
10470.00	90.000	95.450	7260.00	323.44 S	3390.04 E	3405.43
0.00						
10480.00	90.000	95.450	7260.00	324.39 S	3399.99 E	3415.43
0.00						

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10490.00	90.000	95.450	7260.00	325.34 S	3409.95 E	3425.43
0.00						
10500.00	90.000	95.450	7260.00	326.29 S	3419.90 E	3435.43
0.00						
10510.00	90.000	95.450	7260.00	327.24 S	3429.86 E	3445.43
0.00						
10520.00	90.000	95.450	7260.00	328.19 S	3439.81 E	3455.43
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10530.00	90.000	95.450	7260.00	329.14 S	3449.77 E	3465.43
0.00						
10540.00	90.000	95.450	7260.00	330.09 S	3459.72 E	3475.43
0.00						
10550.00	90.000	95.450	7260.00	331.04 S	3469.68 E	3485.43
0.00						
10560.00	90.000	95.450	7260.00	331.99 S	3479.63 E	3495.43
0.00						
10570.00	90.000	95.450	7260.00	332.94 S	3489.59 E	3505.43
0.00						
10580.00	90.000	95.450	7260.00	333.89 S	3499.54 E	3515.43
0.00						
10590.00	90.000	95.450	7260.00	334.84 S	3509.50 E	3525.43
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10600.00	90.000	95.450	7260.00	335.79 S	3519.45 E	3535.43
0.00						
10610.00	90.000	95.450	7260.00	336.74 S	3529.41 E	3545.43
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10620.00	90.000	95.450	7260.00	337.69 S	3539.36 E	3555.43
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10630.00	90.000	95.450	7260.00	338.64 S	3549.32 E	3565.43
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10640.00	90.000	95.450	7260.00	339.59 S	3559.27 E	3575.43
0.00						
10650.00	90.000	95.450	7260.00	340.54 S	3569.23 E	3585.43
0.00						
10660.00	90.000	95.450	7260.00	341.49 S	3579.18 E	3595.43
0.00						
10670.00	90.000	95.450	7260.00	342.43 S	3589.14 E	3605.43
0.00						
10680.00	90.000	95.450	7260.00	343.38 S	3599.09 E	3615.43
0.00						
10690.00	90.000	95.450	7260.00	344.33 S	3609.04 E	3625.43
0.00						
10700.00	90.000	95.450	7260.00	345.28 S	3619.00 E	3635.43
0.00						
10710.00	90.000	95.450	7260.00	346.23 S	3628.95 E	3645.43
0.00						
10720.00	90.000	95.450	7260.00	347.18 S	3638.91 E	3655.43
0.00						
10730.00	90.000	95.450	7260.00	348.13 S	3648.86 E	3665.43
0.00						
10740.00	90.000	95.450	7260.00	349.08 S	3658.82 E	3675.43
0.00						
10750.00	90.000	95.450	7260.00	350.03 S	3668.77 E	3685.43
0.00						
10760.00	90.000	95.450	7260.00	350.98 S	3678.73 E	3695.43
0.00						
10770.00	90.000	95.450	7260.00	351.93 S	3688.68 E	3705.43
0.00						
10780.00	90.000	95.450	7260.00	352.88 S	3698.64 E	3715.43
0.00						
10790.00	90.000	95.450	7260.00	353.83 S	3708.59 E	3725.43
0.00						
10800.00	90.000	95.450	7260.00	354.78 S	3718.55 E	3735.43

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0.00						
10810.00	90.000	95.450	7260.00	355.73 S	3728.50 E	3745.43
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10820.00	90.000	95.450	7260.00	356.68 S	3738.46 E	3755.43
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10830.00	90.000	95.450	7260.00	357.63 S	3748.41 E	3765.43
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10840.00	90.000	95.450	7260.00	358.58 S	3758.37 E	3775.43
0.00						
10850.00	90.000	95.450	7260.00	359.53 S	3768.32 E	3785.43
0.00						
10860.00	90.000	95.450	7260.00	360.48 S	3778.28 E	3795.43
0.00						
10870.00	90.000	95.450	7260.00	361.43 S	3788.23 E	3805.43
0.00						
10880.00	90.000	95.450	7260.00	362.38 S	3798.19 E	3815.43
0.00						
10890.00	90.000	95.450	7260.00	363.33 S	3808.14 E	3825.43
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10900.00	90.000	95.450	7260.00	364.28 S	3818.10 E	3835.43
0.00						
10910.00	90.000	95.450	7260.00	365.23 S	3828.05 E	3845.43
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10920.00	90.000	95.450	7260.00	366.18 S	3838.00 E	3855.43
0.00						
10930.00	90.000	95.450	7260.00	367.13 S	3847.96 E	3865.43
0.00						
10940.00	90.000	95.450	7260.00	368.08 S	3857.91 E	3875.43
0.00						
10950.00	90.000	95.450	7260.00	369.03 S	3867.87 E	3885.43
0.00						
10960.00	90.000	95.450	7260.00	369.98 S	3877.82 E	3895.43
0.00						
10970.00	90.000	95.450	7260.00	370.93 S	3887.78 E	3905.43
0.00						
10980.00	90.000	95.450	7260.00	371.88 S	3897.73 E	3915.43
0.00						
10990.00	90.000	95.450	7260.00	372.83 S	3907.69 E	3925.43
0.00						
11000.00	90.000	95.450	7260.00	373.78 S	3917.64 E	3935.43
0.00						
11010.00	90.000	95.450	7260.00	374.73 S	3927.60 E	3945.43
0.00						
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0.00						
11030.00	90.000	95.450	7260.00	376.63 S	3947.51 E	3965.43
0.00						
11040.00	90.000	95.450	7260.00	377.58 S	3957.46 E	3975.43
0.00						
11050.00	90.000	95.450	7260.00	378.53 S	3967.42 E	3985.43
0.00						
11060.00	90.000	95.450	7260.00	379.48 S	3977.37 E	3995.43
0.00						
11070.00	90.000	95.450	7260.00	380.43 S	3987.33 E	4005.43
0.00						
11080.00	90.000	95.450	7260.00	381.38 S	3997.28 E	4015.43
0.00						
11090.00	90.000	95.450	7260.00	382.33 S	4007.24 E	4025.43
0.00						
11100.00	90.000	95.450	7260.00	383.28 S	4017.19 E	4035.43
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11110.00	90.000	95.450	7260.00	384.23 S	4027.15 E	4045.43
0.00						

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11120.00	90.000	95.450	7260.00	385.17 S	4037.10 E	4055.43
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11130.00	90.000	95.450	7260.00	386.12 S	4047.06 E	4065.43
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11140.00	90.000	95.450	7260.00	387.07 S	4057.01 E	4075.43
0.00						
11150.00	90.000	95.450	7260.00	388.02 S	4066.97 E	4085.43
0.00						
11160.00	90.000	95.450	7260.00	388.97 S	4076.92 E	4095.43
0.00						
11170.00	90.000	95.450	7260.00	389.92 S	4086.87 E	4105.43
0.00						
11180.00	90.000	95.450	7260.00	390.87 S	4096.83 E	4115.43
0.00						
11190.00	90.000	95.450	7260.00	391.82 S	4106.78 E	4125.43
0.00						
11200.00	90.000	95.450	7260.00	392.77 S	4116.74 E	4135.43
0.00						
11210.00	90.000	95.450	7260.00	393.72 S	4126.69 E	4145.43
0.00						
11220.00	90.000	95.450	7260.00	394.67 S	4136.65 E	4155.43
0.00						
11230.00	90.000	95.450	7260.00	395.62 S	4146.60 E	4165.43
0.00						
11240.00	90.000	95.450	7260.00	396.57 S	4156.56 E	4175.43
0.00						
11250.00	90.000	95.450	7260.00	397.52 S	4166.51 E	4185.43
0.00						
11260.00	90.000	95.450	7260.00	398.47 S	4176.47 E	4195.43
0.00						
11270.00	90.000	95.450	7260.00	399.42 S	4186.42 E	4205.43
0.00						
11280.00	90.000	95.450	7260.00	400.37 S	4196.38 E	4215.43
0.00						
11290.00	90.000	95.450	7260.00	401.32 S	4206.33 E	4225.43
0.00						
11300.00	90.000	95.450	7260.00	402.27 S	4216.29 E	4235.43
0.00						
11310.00	90.000	95.450	7260.00	403.22 S	4226.24 E	4245.43
0.00						
11320.00	90.000	95.450	7260.00	404.17 S	4236.20 E	4255.43
0.00						
11330.00	90.000	95.450	7260.00	405.12 S	4246.15 E	4265.43
0.00						
11340.00	90.000	95.450	7260.00	406.07 S	4256.11 E	4275.43
0.00						
11350.00	90.000	95.450	7260.00	407.02 S	4266.06 E	4285.43
0.00						
11360.00	90.000	95.450	7260.00	407.97 S	4276.02 E	4295.43
0.00						
11370.00	90.000	95.450	7260.00	408.92 S	4285.97 E	4305.43
0.00						
11380.00	90.000	95.450	7260.00	409.87 S	4295.93 E	4315.43
0.00						
11390.00	90.000	95.450	7260.00	410.82 S	4305.88 E	4325.43
0.00						
11394.90	90.000	95.450	7260.00	411.28 S	4310.76 E	4330.33
0.00						

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
 Vertical depths are relative to WELL. Northings and Eastings are relative to well.
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The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 95.450° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico
Eastern Zone.

Central meridian is -104.333°.

Grid Convergence at Surface is 0.153°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11394.90ft.,
the Bottom Hole Displacement is 4330.33ft., in the Direction of 95.450° (Grid).

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado

Nitro 11 Federal No. 1

Unit E

Section 11

T16S R29E

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 Windsack and/or wind streamers

- A Windsack at mudpit area should be high enough to be visible.
- B. Windsack 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.

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado

Nitro 11 Federal No. 1

Unit E

Section 11

T16S R29E

Eddy County, NM

- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

Surface Use Plan
Cimarex Energy Co. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Eddy 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 US Hwy 82 and Co Rd 214, go Northwest on 214 for 7.0 miles to lease road; thence East/Northeast for 0.5 miles, thence Northeast for 2.0 miles to proposed lease road.

- 2 PLANNED ACCESS ROADS: 4627' of proposed road will be re-constructed 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. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E Eddy County, NM

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

5 LOCATION AND TYPE OF WATER SUPPLY:

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

6 SOURCE OF CONSTRUCTION MATERIAL:

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

7 METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be 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 an approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to dry in the reserve pit until the pit is dry enough for breaking out. In the event that drillings fluids do not dry out in a reasonable time they will be hauled off by transports and be disposed of at a State approved disposal facility. Water produced during drilling will be put in reserve pit. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.

Surface Use Plan
Cimarex Energy Co. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E 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 lined with PVC or polyethylene liner. The pit liner will be 12 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- D. 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 recountered 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.

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

Surface Use Plan
Cimarex Energy Co. of Colorado
Nitro 11 Federal No. 1
Unit E Section 11
T16S R29E Eddy County, NM

11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- B. The wellsite is on surface owned by US Department of the Interior's Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey has been conducted on the location and proposed roads, and this report has been filed with the Bureau of Land Management in the Carlsbad BLM office (NMCRIS No. 99026).
- D. There are no know dwellings within 1 1/2 miles of this location.

12 OPERATOR'S REPRESENTATIVE:

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

CERTIFICATION: I hereby certify that the statements and plans made in this APD are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cimarex Energy Co. of Colorado and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: Zeno Farris
DATE: August 7, 2007
TITLE: Manager Operations Administration

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 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,
(505) 361-2822

1. **Although there are no measured amounts of Hydrogen Sulfide reported, it is always a potential hazard.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. When floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The 13-3/8 inch surface casing is existing and is set at 437 feet and cemented to surface.
2. The 8-5/8 inch intermediate casing is existing and is set at 2668 feet and cemented to surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

- ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. 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. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. 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.
 - d. 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.

Engineer on call phone (after hours): Carlsbad: (505) 706-2779

WWI 082807