

ATS-09-593

OCD-ARTESIA

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
OCT 27 2010
NMOCD ARTESIA

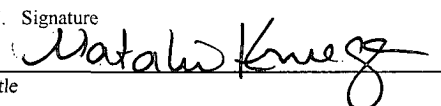
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-96208
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		6. If Indian, Allottee or Tribe Name
2. Name of Operator Cimarex Energy Co. of Colorado (162683)		7. If Unit or CA Agreement, Name and No.
3a. Address 600 N. Marienfeld St., Ste. 600; Midland, TX 79701		8. Lease Name and Well No. Taos Federal No. 3 (35352)
3b. Phone No. (include area code) 432-571-7600		9. API Well No. 30-015- 38248
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface (46 P) 250 FSL & 475 FEL BHL 660 FNL & 990 FEL At proposed prod. Zone 670 FNL & 670 FEL Horizontal Cisco-Canyon Test		10. Field and Pool, or Exploratory Little AAA Tank; Upper Penn (97516)
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area 31-24S-27E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 250		12. County or Parish Eddy
16. No of acres in lease 624		13. State NM
17. Spacing Unit dedicated to this well E2 320 acres		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A		
19. Proposed Depth Pilot Hole 11100' Lateral MD 14599' TVD 10615'		20. BLM/BIA Bond No. on File NM-2575
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3398' GR		22. Approximate date work will start* 10.15.10
		23. Estimated duration 25-35 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 	Name (Printed/Typed) Natalie Krueger	Date 08.10.10
Title Regulatory Analyst		
Approved By (Signature) Is/ Don Peterson	Name (Printed/Typed)	Date OCT 20 2010
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)

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

K2 11/8/10

Approval Subject to General Requirements
& Special Stipulations Attached

APPROVAL FOR TWO YEARS

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-38248	Pool Code 97576	Pool Name Little AAA Tank; Upper Penn
Property Code 35352	Property Name TAOS FEDERAL	Well Number 3
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3398'

Surface Location

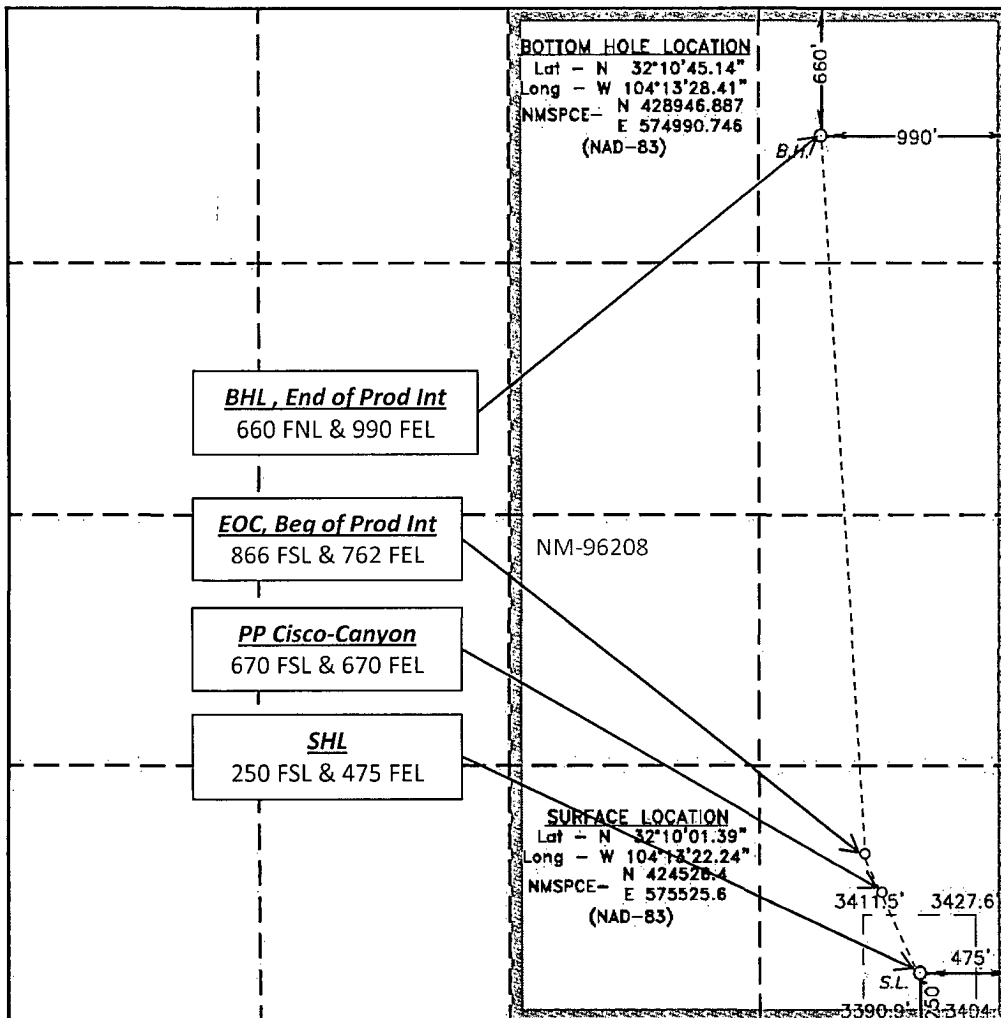
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	31	24 S	27 E		250	SOUTH	475	EAST	EDDY

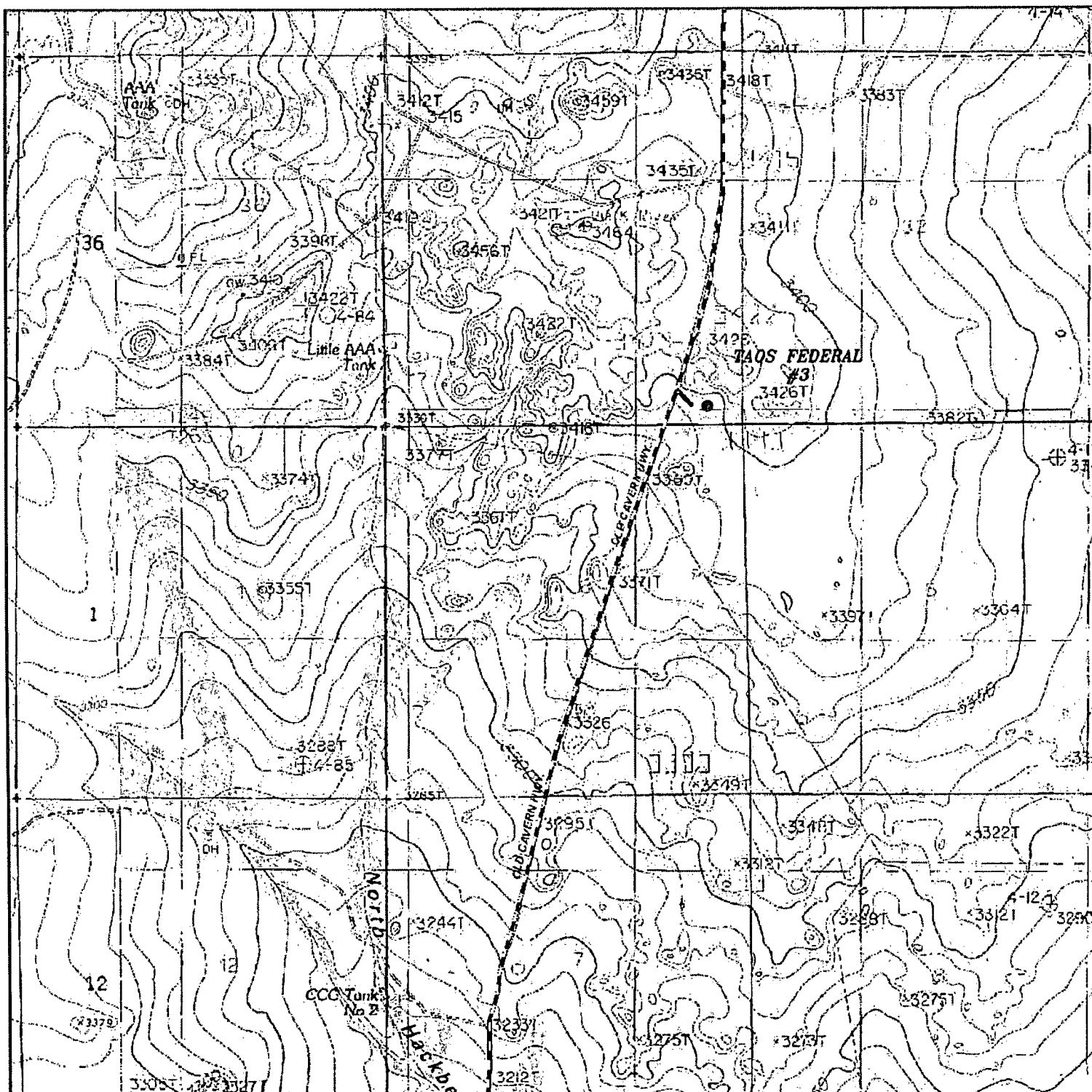
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A M	31	24 S	27 E		660	NORTH	990	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

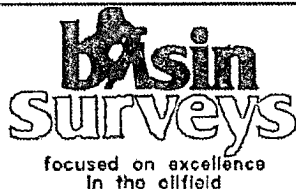
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant 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.</p> <p><u>Natalie Krueger</u> 8/10/2010 Signature Date</p> <p>Natalie Krueger Printed Name</p>
	<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>August 2, 2009 Date Surveyed</p> <p><u>Gary L. Jones</u> Signature of Professional Surveyor</p> <p>7977 No.</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>



TAOS FEDERAL #3

Located 250' FSL and 475' FEL

Section 31, Township 24 South, Range 27 East,
N.M.P.M., Eddy County, New Mexico.



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

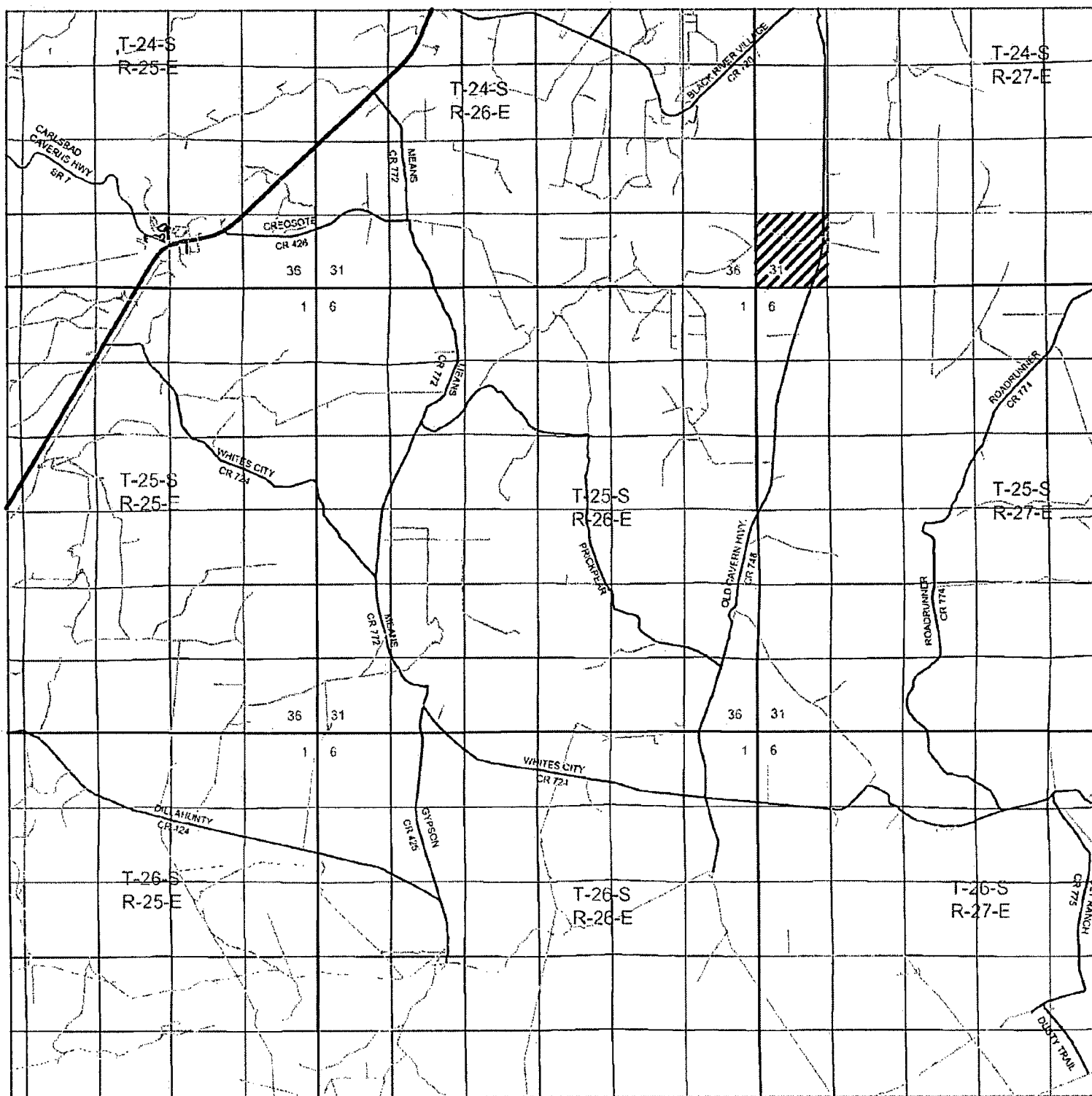
W.O. Number: JMS 21721

Survey Date: 08-27-2009

Scale: 1" = 2000'

Date: 09-15-2009

**CIMAREX
ENERGY CO.
OF COLORADO**



TAOS FEDERAL #3

Located 250' FSL and 475' FEL
Section 31, Township 24 South, Range 27 East,
N.M.P.M., Eddy County, New Mexico.



focused on excellence
in the oilfield

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

W.O. Number: JMS 21721

Survey Date: 08-27-2009

Scale: 1" = 2 Miles

Date: 09-15-2009



**CIMAREX
ENERGY CO.
OF COLORADO**

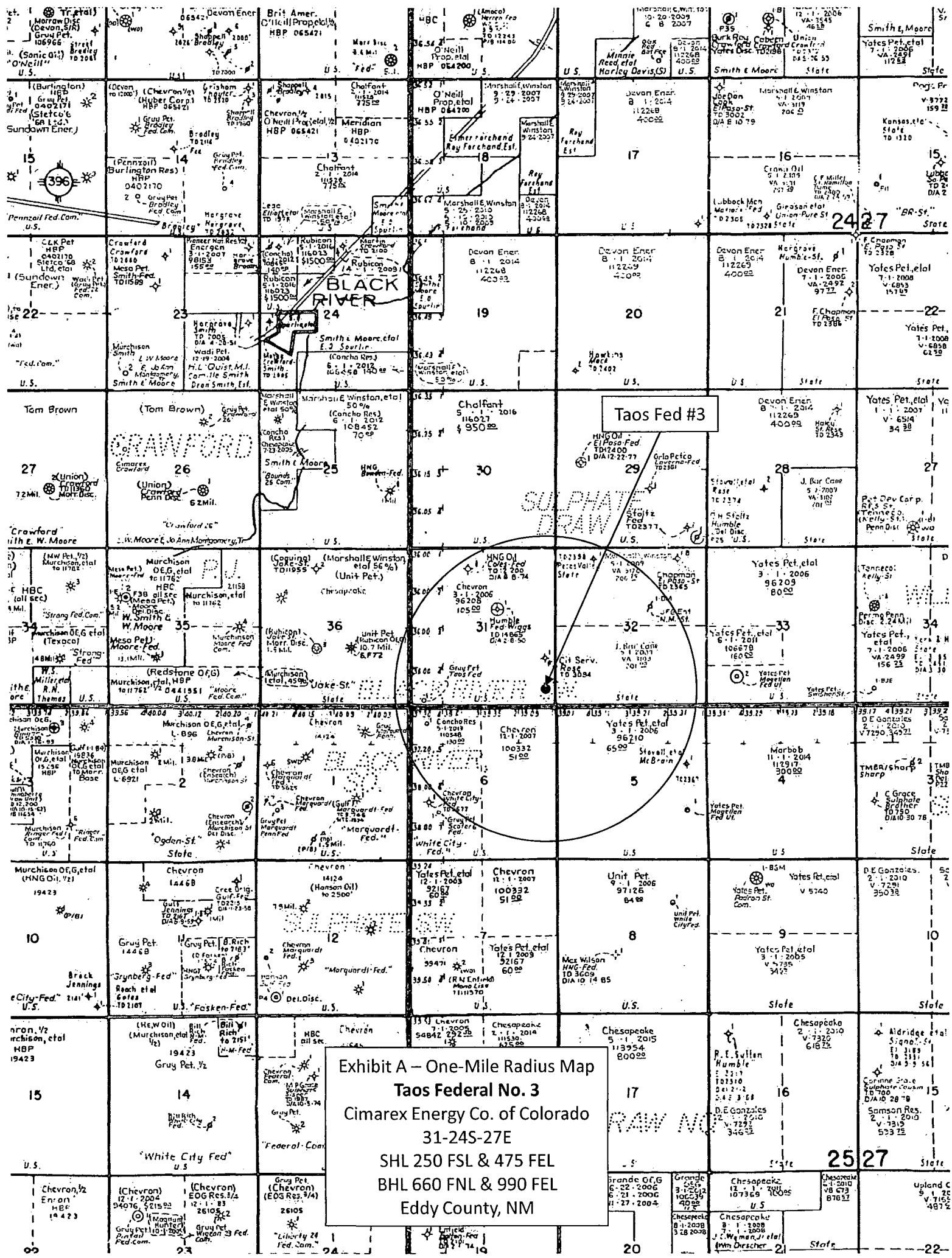


Exhibit A - One-Mile Radius Map
Taos Federal No. 3
Cimarex Energy Co. of Colorado
31-24S-27E
SHL 250 FSL & 475 FEL
BHL 660 FSL & 990 FEL
Eddy County, NM

Exhibit A-1 - Wells in 1-Mile Radius

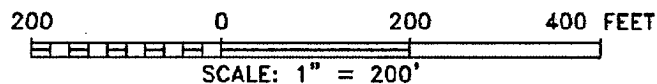
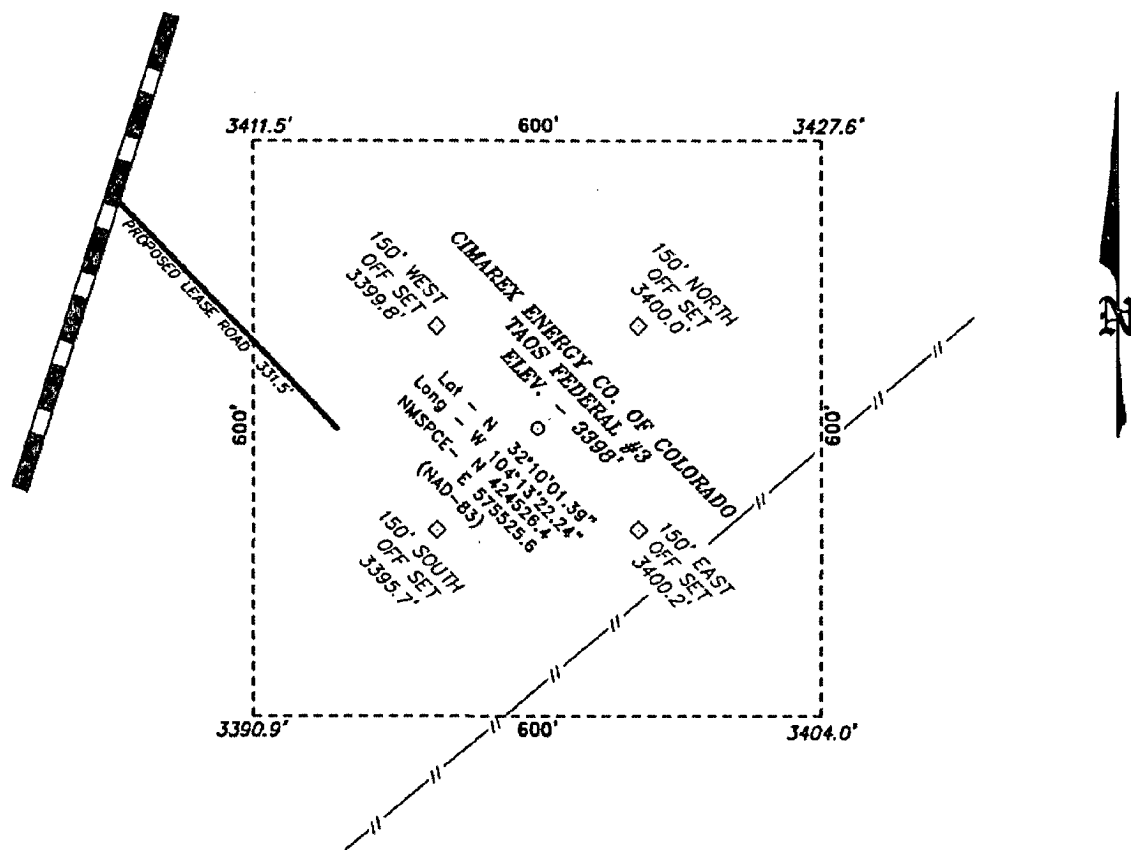
Taos Federal No. 3

31-24S-27E

Eddy County, NM

api	well_name	compl_status	ocd_ul	township	range	section	ftg_ns	ns_cd	ftg_sw	ew_cd	ogrid_cde	operator	well_type	one_producing_pool_name
3001501137	Fed-Wiggs 001	Plugged	G	24.0S	27E	31	1980 N		1980 E		214263	HUMBLE OIL & REFINING CO	O	
3001521026	COLES 31 FEDERAL 001	Plugged	C	24.0S	27E	31	860 N		1980 W		214263	HNG FOSSIL FUELS CO	O	
3001536436	TAOS FEDERAL 002	New (Not drilled or compl)	O	24.0S	27E	31	990 S		1980 E		162683	CIMAREX ENERGY CO. OF COLORADO	G	
3001534520	TAOS FEDERAL 001	Active		4 24.0S	27E	32	210 S		510 W		162683	CIMAREX ENERGY CO. OF COLORADO	G	LITTLE AAA TANK; UPPER PENN
3001524513	NEW MEXICO DM STATE 001	Plugged	G	24.0S	27E	32	1980 N		1980 E		11830 J ; G ENTERPRISE LTD. CO.		O	
3001536749	WOLF CREEK 32 STATE COM 001	New (Not drilled or compl)	M	24.0S	27E	32	990 S		990 W		162683	CIMAREX ENERGY CO. OF COLORADO	G	
3001523275	EL PASO B STATE 001	Plugged	A	24.0S	27E	32	330 N		990 E		214263	FORD CHAPMAN & ASSOC	O	
3001501138	SPARROW STATE 001	Plugged	D	24.0S	27E	32	205 N		1100 W		214263	PECOS VALLEY OIL INDUSTRIES INC	O	
3001501141	McMAILVAIN 001	Plugged	H	25.0S	27E	5	1980 N		660 E		214263	STOVALL-MARSHAL	O	
3001534603	MAGELLAN FEDERAL 001	Active	I	25.0S	27E	5	1650 S		660 E		25575	YATES PETROLEUM CORPORATION	O	
3001536045	MERGANSER 6 FED COM 001	New (Not drilled or compl)		6 25.0S	27E	6	660 N		660 W		162683	CIMAREX ENERGY CO. OF COLORADO	G	NORTH HACKEBERRY DRAW;MORROW (G)
3001534519	SCOTER 6 FED COM 001	Active		6 25.0S	27E	6	1650 S		1040 W		162683	CIMAREX ENERGY CO. OF COLORADO	G	LITTLE AAA TANK; UPPER PENN
3001529003	WHITE CITY 6 FEDERAL 001	Plugged	L	25.0S	27E	6	1980 S		660 W		4323	CHEVRON U S A INC	O	
3001536892	MERGANSER 6 FED COM 002	New (Not drilled or compl)		25.0S	27E	6	1330 N		660 E		162683	CIMAREX ENERGY CO. OF COLORADO	G	

SECTION 31, TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF BLACK RIVER VILLAGE AND
JOHN D FOREHAND, GO SOUTH ON JOHN D
FOREHAND FOR 4.6 MILES TO PROPOSED LEASE
ROAD.

CIMAREX ENERGY CO. OF COLORADO

REF: TAOS FEDERAL #3 / WELL PAD TOPO

THE TAOS FEDERAL #3 LOCATED 250'

FROM THE SOUTH LINE AND 475' FROM THE EAST LINE OF
SECTION 31, TOWNSHIP 24 SOUTH, RANGE 27 EAST,

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

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

W.O. Number: 21721 Drawn By: J. SMALL

Date: 09-15-2009 Disk: JMS 21721

Survey Date: 08-27-2009 Sheet 1 of 1 Sheets

Application to Drill
Taos Federal No. 3
Cimarex Energy Co. of Colorado
Unit P, Section 31
T24S-R27E, 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 250 FSL & 475 FEL
BHL 660 FNL & 990 FEL
2. Elevation above sea level: 3398' 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 11100' Lateral MD 14599' TVD 10615'

6. Estimated tops of geological markers:

Top Salt	1429'	3rd Bone Spring Ss	8525'
Base Salt	2019'	Wolfcamp	8859'
Delaware	2206'	Wolfcamp B	9504'
Cherry Canyon	3191'	Wolfcamp C	9647'
Brushy Canyon	4167'	Wolfcamp D	9728'
Bone Spring	5731'	Wolfcamp E	10200'
Bone Spring "A" Shale	5850'	Cisco-Canyon	10430'
Bone Spring "C" Shale	6162'	Strawn	10676'
1st Bone Spring Ss	6716'	Atoka	10859'
2nd Bone Spring Ss	7238'	TD (Pilot Hole)	11100'
2nd BS Ss Lower	7961'		

7. Possible mineral bearing formations:

Wolfcamp	gas
Cisco-Canyon	gas

8. Proposed drilling Plan

After drilling and setting surface and intermediate casing, drill to vertical TD 11100' and log. Set 7" casing to 8505' and cross over to 2 $\frac{3}{8}$ " 2000 psi IJ fiberglass tubing underneath to 11100' and cement in place. Drill out of the bottom of the 7"/2 $\frac{3}{8}$ " fiberglass with a 6 $\frac{1}{8}$ " bit and through cement and fiberglass tubing and kick off to drill the lateral. The fiberglass tubing effectively circulates cement to surface and plugs back the open hole.

Kick off 6 $\frac{1}{8}$ " hole @ 8565.' Drill to TD 14599' MD, 10615' TVD. Run 4 $\frac{1}{2}$ " PEAK liner from RSB packer @ 8405' to TD @ 14599' (BTC from RSB to EOC, LTC from EOC to TD). Frac through PEAK completion liner. Request a 100' tieback for lateral casing string in order to be able to set the pump as deep as possible. --See COA

Application to Drill
Taos Federal No. 3
 Cimarex Energy Co. of Colorado
 Unit P, Section 31
 T24S-R27E, Eddy County, NM

9. Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 450' 585	8.4 - 8.6	30-32	NC	FW spud mud. Add FW to control weight & viscosity and paper to prevent seepage.
450' to 2,760'	9.9 - 10.0	28-29	NC	Saturated Brine. Sweep as needed to clean hole.
2,760' to 11,100'	9.5 - 9.8	28-30	NC	Cut brine. Sweep as needed to clean hole.
8,565' to 14,599'	8.4	28-32	NC	2% KCl

See
COA

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

10. Casing Program:

	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 450' 585	New 13½"	48#	STC	H-40
Intermediate	12½"	0' to 2760' 2105	New 9½"	40#	LTC	J-55
Production	8½"	0' to 8505'	New 7"	26#	LTC	P-110
Fiberglass	8½"	8505' to 11100'	New 2½"	2.18#	0	IJ
Lateral	6½"	8405' to 14599' (EX) 10768' to 14599'	New 4½"	11.6#	BTC LTC	P-110

See
COA

per operator
RGH 10/19/2010

11. Cementing Program:

Surface Casing	Lead: 200 sx (Class C) + 4% D20 + 0.2% D46 + 2% S1, 12.9 ppg, 1.97 cuft/sx, 10.87 gps. Tail: 150 sx (Class C) + 2% S1, 14.80 ppg, 1.34 cuft/sx, 6.29 gps. TOC Surface
Intermediate	Lead: 2000 sx Econocem + 3% Salt + 2% CaCl ₂ + 3# Gilsomite (wt 11.7, yld 2.06) Tail: 610 sx Premium Plus + 1% CaCl ₂ (wt 14.8, yld 1.34) TOC Surface
Production	Lead: 620 sx Interfill H + 0.3% HR-601 + 5# Gilsomite + 0.125# Poly-e-flake (wt 11.9, yld 2.47) Tail: 480 sx Super H + 0.5% Halad-344 + 0.25% D-AIR 3000 + 0.4% CFR-3 + 1# Salt + 5# Gilsomite + 0.125# Poly-e-flake + 0.35% HR-7 (wt 13.2, yld 1.61) TOC 2560 2005 - See COA
Lateral	PEAK completion assembly will be used, so no cement is required.

Fresh water zones will be protected by setting 13½" casing at 450' and cementing to surface. Hydrocarbon zones will be protected by setting 9½" casing at 2760' and 7" & 2½" fiberglass tubing at 11100' and cementing to 2560'.

Collapse Factor

1.125

Burst Factor

1.125

Tension Factor

1.6

Application to Drill
Taos Federal No. 3
Cimarex Energy Co. of Colorado
Unit P, Section 31
T24S-R27E, Eddy County, NM

12. Pressure control Equipment:

Exhibit "E". A 13 $\frac{3}{4}$ " 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 450.' 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 surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

BOPS will be tested by an independent service company to 250 psi low and 3500 psi high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 115 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Midwest Hose & Specialty

Serial Number: 63270

Length: 35' Size: 4-1/16" Ends flanges/clamps

WP rating: 10,000 psi Anchors required by manufacturer – Yes/No No

13. Testing, Logging and Coring Program:

- A. Mud logging program: No mud logging program.
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

14. Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex has encountered H₂S in a one-time encounter in an Intra-salt Pocket and while drilling and completing wells in the Delaware Mountain Group. In this regard, attached is an H₂S Drilling Operations Plan. The ROEs encountered do not meet the BLM's minimum requirements for the submission of a "Public Protection Plan" for the drilling and completion of this well. 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 **2300 psi** Estimated BHT **110°**

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

Drilling expected to take 10-15 days

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

16. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Cisco-Canyon pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **a gas well.**

See
COA



Cimarex Energy Co.

Location: Eddy County, NM
Field: (TAOS) Sec 31, T24S, R27E
Facility: TAOS Fed No. 3H

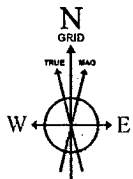
Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H PWB



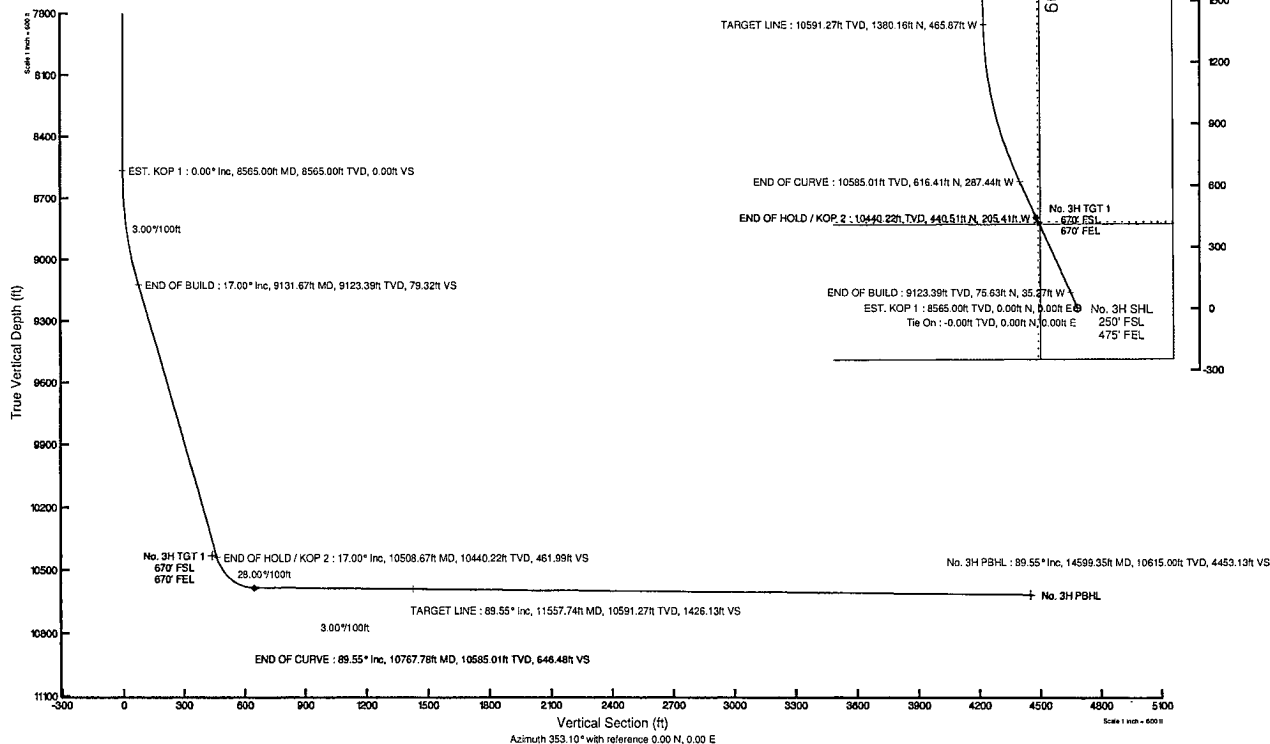
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	335.000	0.00	0.00	0.00	0.00	0.00
EST. KOP 1	8565.00	0.000	335.000	8565.00	0.00	0.00	0.00	0.00
END OF BUILD	9131.67	17.000	335.000	9123.39	75.63	-35.27	3.00	79.32
END OF HOLD / KOP 2	10508.67	17.000	335.000	10440.22	440.51	-205.41	0.00	461.99
END OF CURVE	10767.78	89.553	335.000	10585.01	616.41	-287.44	28.00	646.48
TARGET LINE	11557.74	89.553	358.700	10591.27	1380.16	-465.87	3.00	1426.13
No. 3H PBL	14599.35	89.553	358.700	10615.00	4420.89	-534.90	0.00	4453.13

Pilot reference wellpath is Prelim.	
True vertical depths are referenced to Rig on No. 3H SHL (KB)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (2001), US feet
Measured depths are referenced to Rig on No. 3H SHL (KB)	North Reference: Grid north
Rig on No. 3H SHL (KB) to Mean Sea Level: 3398 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: TAOS Fed No. 3H): -3398 feet	Depths are in feet
Coordinates are in feet referenced to SL	
Created by: Victor Hernandez on 7/28/2010	



BGGM (1945.0 to 2011.0) Dip: 60.05° Field: 48655.9 nT
Magnetic North is 8.02 degrees East of True North (at 7/28/2010)
Grid North is 0.06 degrees East of True North
To correct azimuth from True to Grid subtract 0.06 degrees
To correct azimuth from Magnetic to Grid add 7.98 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.98 = 97.96





Planned Wellpath Report

Prelim_1
Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(TAOS) Sec 31, T24S, R27E	Wellbore	No. 3H PWB
Facility	TAOS Fed No. 3H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.99991	Report Generated	7/28/2010 at 10:44:05 AM
Convergence at slot	0.06° East	Database/Source file	WA_Midland/No. 3H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	575525.60	424526.40	32°10'01.391"N	104°13'22.239"W
Facility Reference Pt			575525.60	424526.40	32°10'01.391"N	104°13'22.239"W
Field Reference Pt			574017.40	425260.10	32°10'08.666"N	104°13'39.778"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 3H SHL (KB) to GL	0.00ft
Horizontal Reference Pt	SL	Rig on No. 3H SHL (KB) to Mean Sea Level	3398.00ft
Vertical Reference Pt	Rig on No. 3H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	353.10°



Planned Wellpath Report

Prelim_1
Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(TAOS) Sec 31, T24S, R27E	Wellbore	No. 3H PWB
Facility	TAOS Fed No. 3H		

WELLPATH DATA (67 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	335.000	0.00	0.00	0.00	0.00	575525.60	424526.40	32°10'01.391"N	104°13'22.239"W	0.00	Tie On
8565.00	0.000	335.000	8565.00	0.00	0.00	0.00	575525.60	424526.40	32°10'01.391"N	104°13'22.239"W	0.00	EST. KOP 1
8665.00†	3.000	335.000	8664.95	2.49	2.37	-1.11	575524.49	424528.77	32°10'01.414"N	104°13'22.252"W	3.00	
8765.00†	6.000	335.000	8764.63	9.94	9.48	-4.42	575521.18	424535.88	32°10'01.484"N	104°13'22.290"W	3.00	
8865.00†	9.000	335.000	8863.77	22.35	21.31	-9.94	575515.66	424547.71	32°10'01.601"N	104°13'22.354"W	3.00	
8965.00†	12.000	335.000	8962.08	39.67	37.82	-17.64	575507.96	424564.22	32°10'01.765"N	104°13'22.444"W	3.00	
9065.00†	15.000	335.000	9059.31	61.86	58.98	-27.50	575498.10	424585.37	32°10'01.974"N	104°13'22.558"W	3.00	
9131.67	17.000	335.000	9123.39	79.32	75.63	-35.27	575490.33	424602.03	32°10'02.139"N	104°13'22.648"W	3.00	END OF BUILD
9165.00†	17.000	335.000	9155.27	88.59	84.47	-39.39	575486.22	424610.86	32°10'02.227"N	104°13'22.696"W	0.00	
9265.00†	17.000	335.000	9250.90	116.38	110.96	-51.74	575473.86	424637.35	32°10'02.489"N	104°13'22.839"W	0.00	
9365.00†	17.000	335.000	9346.53	144.17	137.46	-64.10	575461.51	424663.85	32°10'02.751"N	104°13'22.983"W	0.00	
9465.00†	17.000	335.000	9442.16	171.96	163.96	-76.46	575449.15	424690.34	32°10'03.014"N	104°13'23.126"W	0.00	
9565.00†	17.000	335.000	9537.79	199.75	190.46	-88.81	575436.80	424716.84	32°10'03.276"N	104°13'23.270"W	0.00	
9665.00†	17.000	335.000	9633.42	227.54	216.95	-101.17	575424.44	424743.34	32°10'03.538"N	104°13'23.413"W	0.00	
9765.00†	17.000	335.000	9729.05	255.33	243.45	-113.52	575412.09	424769.83	32°10'03.801"N	104°13'23.557"W	0.00	
9865.00†	17.000	335.000	9824.68	283.12	269.95	-125.88	575399.73	424796.33	32°10'04.063"N	104°13'23.700"W	0.00	
9965.00†	17.000	335.000	9920.31	310.91	296.45	-138.24	575387.38	424822.82	32°10'04.325"N	104°13'23.843"W	0.00	
10065.00†	17.000	335.000	10015.94	338.70	322.95	-150.59	575375.02	424849.32	32°10'04.588"N	104°13'23.987"W	0.00	
10165.00†	17.000	335.000	10111.57	366.49	349.44	-162.95	575362.67	424875.81	32°10'04.850"N	104°13'24.130"W	0.00	
10265.00†	17.000	335.000	10207.20	394.28	375.94	-175.30	575350.31	424902.31	32°10'05.112"N	104°13'24.274"W	0.00	
10365.00†	17.000	335.000	10302.83	422.07	402.44	-187.66	575337.96	424928.80	32°10'05.375"N	104°13'24.417"W	0.00	
10465.00†	17.000	335.000	10398.46	449.86	428.94	-200.02	575325.60	424955.30	32°10'05.637"N	104°13'24.561"W	0.00	
10508.67	17.000	335.000	10440.22	461.99	440.51	-205.41	575320.21	424966.87	32°10'05.752"N	104°13'24.623"W	0.00	END OF HOLD / KOP 2
10565.00†	32.773	335.000	10491.16	484.46	461.93	-215.40	575310.22	424988.28	32°10'05.964"N	104°13'24.739"W	28.00	
10665.00†	60.773	335.000	10558.97	553.03	527.31	-245.89	575279.73	425053.66	32°10'06.611"N	104°13'25.093"W	28.00	
10765.00†	88.773	335.000	10584.97	643.83	613.89	-286.26	575239.36	425140.23	32°10'07.468"N	104°13'25.562"W	28.00	
10767.78	89.553	335.000	10585.01	646.48	616.41	-287.44	575238.19	425142.76	32°10'07.493"N	104°13'25.575"W	28.00	END OF CURVE
10865.00†	89.549	337.917	10585.78	739.61	705.53	-326.26	575199.37	425231.86	32°10'08.375"N	104°13'26.026"W	3.00	
10965.00†	89.546	340.917	10586.57	836.75	799.13	-361.41	575164.22	425325.46	32°10'09.302"N	104°13'26.434"W	3.00	
11065.00†	89.544	343.917	10587.36	935.01	894.44	-391.62	575134.02	425420.76	32°10'10.245"N	104°13'26.784"W	3.00	



Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(TAOS) Sec 31, T24S, R27E	Wellbore	No. 3H PWB
Facility	TAOS Fed No. 3H		

WELLPATH DATA (67 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11165.00†	89.543	346.917	10588.16	1034.09	991.21	-416.79	575108.84	425517.52	32°10'11.203"N	104°13'27.076"W	3.00	
11265.00†	89.544	349.917	10588.96	1133.75	1089.16	-436.87	575088.77	425615.46	32°10'12.172"N	104°13'27.308"W	3.00	
11365.00†	89.546	352.917	10589.75	1233.69	1188.02	-451.79	575073.85	425714.31	32°10'13.151"N	104°13'27.481"W	3.00	
11465.00†	89.549	355.917	10590.54	1333.65	1287.53	-461.52	575064.12	425813.81	32°10'14.136"N	104°13'27.593"W	3.00	
11557.74 †	89.553	358.700	10591.27	1426.13	1380.16	-465.87	575059.77	425906.44	32°10'15.052"N	104°13'27.642"W	3.00	TARGET LINE
11565.00†	89.553	358.700	10591.32	1433.35	1387.42	-466.04	575059.60	425913.69	32°10'15.124"N	104°13'27.644"W	0.00	
11665.00†	89.553	358.700	10592.10	1532.87	1487.39	-468.31	575057.33	426013.65	32°10'16.113"N	104°13'27.669"W	0.00	
11765.00†	89.553	358.700	10592.88	1632.39	1587.36	-470.58	575055.06	426113.61	32°10'17.103"N	104°13'27.695"W	0.00	
11865.00†	89.553	358.700	10593.66	1731.91	1687.33	-472.85	575052.80	426213.58	32°10'18.092"N	104°13'27.720"W	0.00	
11965.00†	89.553	358.700	10594.45	1831.43	1787.30	-475.12	575050.53	426313.54	32°10'19.081"N	104°13'27.745"W	0.00	
12065.00†	89.553	358.700	10595.23	1930.95	1887.27	-477.39	575048.26	426413.50	32°10'20.070"N	104°13'27.770"W	0.00	
12165.00†	89.553	358.700	10596.01	2030.47	1987.24	-479.66	575045.99	426513.46	32°10'21.060"N	104°13'27.795"W	0.00	
12265.00†	89.553	358.700	10596.79	2129.99	2087.21	-481.93	575043.72	426613.42	32°10'22.049"N	104°13'27.821"W	0.00	
12365.00†	89.553	358.700	10597.57	2229.51	2187.19	-484.19	575041.45	426713.39	32°10'23.038"N	104°13'27.846"W	0.00	
12465.00†	89.553	358.700	10598.35	2329.03	2287.16	-486.46	575039.18	426813.35	32°10'24.027"N	104°13'27.871"W	0.00	
12565.00†	89.553	358.700	10599.13	2428.55	2387.13	-488.73	575036.91	426913.31	32°10'25.017"N	104°13'27.896"W	0.00	
12665.00†	89.553	358.700	10599.91	2528.07	2487.10	-491.00	575034.64	427013.27	32°10'26.006"N	104°13'27.922"W	0.00	
12765.00†	89.553	358.700	10600.69	2627.59	2587.07	-493.27	575032.37	427113.23	32°10'26.995"N	104°13'27.947"W	0.00	
12865.00†	89.553	358.700	10601.47	2727.11	2687.04	-495.54	575030.10	427213.20	32°10'27.984"N	104°13'27.972"W	0.00	
12965.00†	89.553	358.700	10602.25	2826.63	2787.01	-497.81	575027.83	427313.16	32°10'28.974"N	104°13'27.997"W	0.00	
13065.00†	89.553	358.700	10603.03	2926.15	2886.98	-500.08	575025.56	427413.12	32°10'29.963"N	104°13'28.023"W	0.00	
13165.00†	89.553	358.700	10603.81	3025.67	2986.96	-502.35	575023.30	427513.08	32°10'30.952"N	104°13'28.048"W	0.00	
13265.00†	89.553	358.700	10604.59	3125.19	3086.93	-504.62	575021.03	427613.04	32°10'31.941"N	104°13'28.073"W	0.00	
13365.00†	89.553	358.700	10605.37	3224.71	3186.90	-506.89	575018.76	427713.01	32°10'32.931"N	104°13'28.098"W	0.00	
13465.00†	89.553	358.700	10606.15	3324.23	3286.87	-509.16	575016.49	427812.97	32°10'33.920"N	104°13'28.123"W	0.00	
13565.00†	89.553	358.700	10606.93	3423.75	3386.84	-511.43	575014.22	427912.93	32°10'34.909"N	104°13'28.149"W	0.00	
13665.00†	89.553	358.700	10607.71	3523.27	3486.81	-513.70	575011.95	428012.89	32°10'35.898"N	104°13'28.174"W	0.00	
13765.00†	89.553	358.700	10608.49	3622.79	3586.78	-515.97	575009.68	428112.85	32°10'36.888"N	104°13'28.199"W	0.00	
13865.00†	89.553	358.700	10609.27	3722.31	3686.75	-518.24	575007.41	428212.82	32°10'37.877"N	104°13'28.224"W	0.00	
13965.00†	89.553	358.700	10610.05	3821.83	3786.72	-520.51	575005.14	428312.78	32°10'38.866"N	104°13'28.250"W	0.00	



Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(TAOS) Sec 31, T24S, R27E	Wellbore	No. 3H PWB
Facility	TAOS Fed No. 3H		

WELLPATH DATA (67 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14065.00†	89.553	358.700	10610.83	3921.35	3886.70	-522.78	575002.87	428412.74	32°10'39.855"N	104°13'28.275"W	0.00	
14165.00†	89.553	358.700	10611.61	4020.87	3986.67	-525.05	575000.60	428512.70	32°10'40.845"N	104°13'28.300"W	0.00	
14265.00†	89.553	358.700	10612.39	4120.39	4086.64	-527.32	574998.33	428612.66	32°10'41.834"N	104°13'28.325"W	0.00	
14365.00†	89.553	358.700	10613.17	4219.91	4186.61	-529.58	574996.06	428712.63	32°10'42.823"N	104°13'28.350"W	0.00	
14465.00†	89.553	358.700	10613.95	4319.43	4286.58	-531.85	574993.79	428812.59	32°10'43.813"N	104°13'28.376"W	0.00	
14565.00†	89.553	358.700	10614.73	4418.95	4386.55	-534.12	574991.53	428912.55	32°10'44.802"N	104°13'28.401"W	0.00	
14599.35	89.553	358.700	10615.00†	4453.13	4420.89	-534.90	574990.75	428946.89	32°10'45.142"N	104°13'28.410"W	0.00	No. 3H PBHL

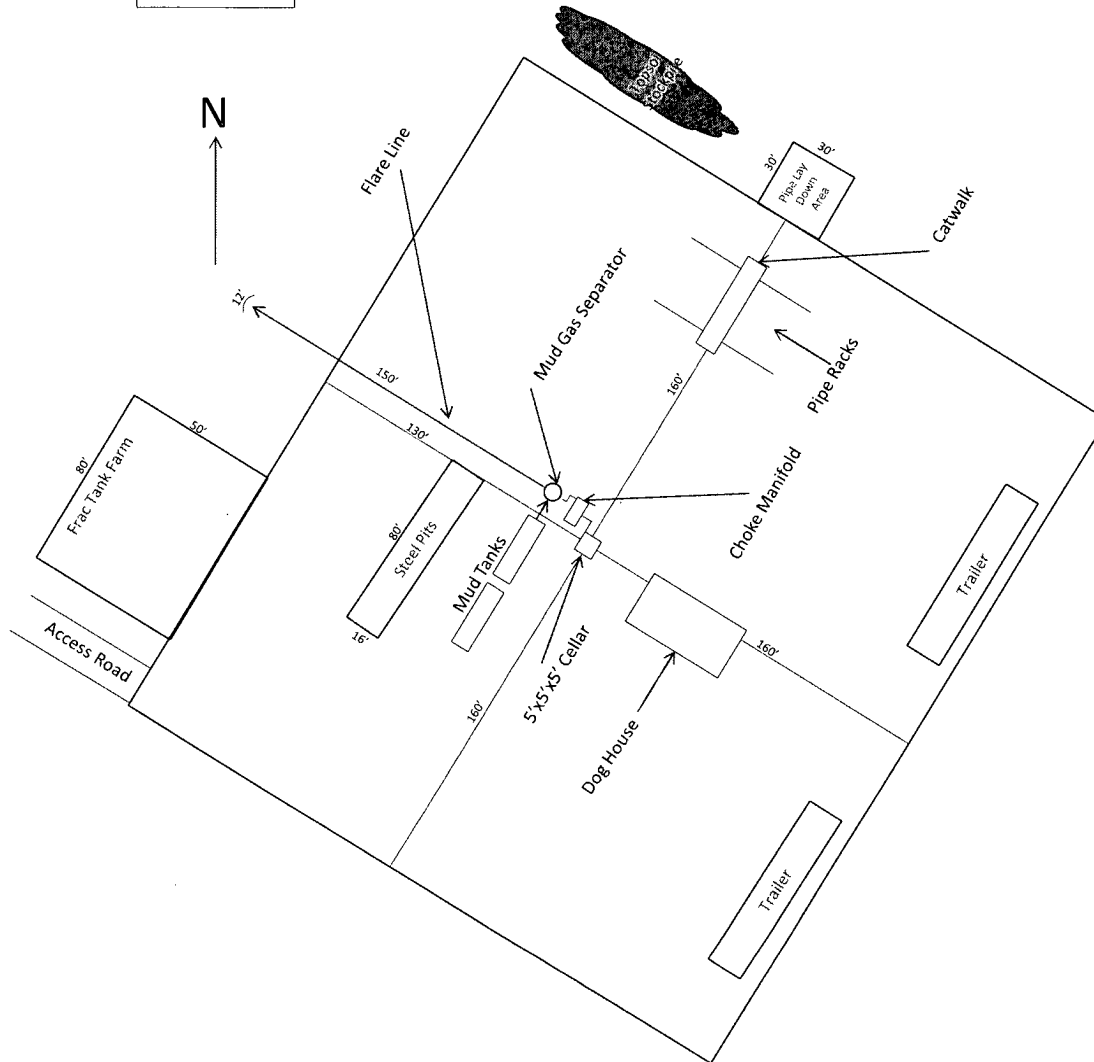
TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 3H TGT 1		10430.00	419.24	-197.02	575328.60	424945.60	32°10'05.541"N	104°13'24.526"W	point
1) No. 3H PBHL	14599.35	10615.00	4420.89	-534.90	574990.75	428946.89	32°10'45.142"N	104°13'28.410"W	point

SURVEY PROGRAM Ref Wellbore: No. 3H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	14599.35	NaviTrak (Standard)		No. 3H PWB

Cactus 122

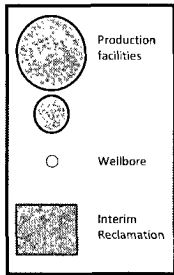
Exhibit D - Rig Diagram
Taos Federal No. 3
Cimarex Energy Co. of Colorado
31-24S-27E
SHL 250 FSL & 475 FEL
BHL 660 FNL & 990 FEL
Eddy County, NM

1"=50'

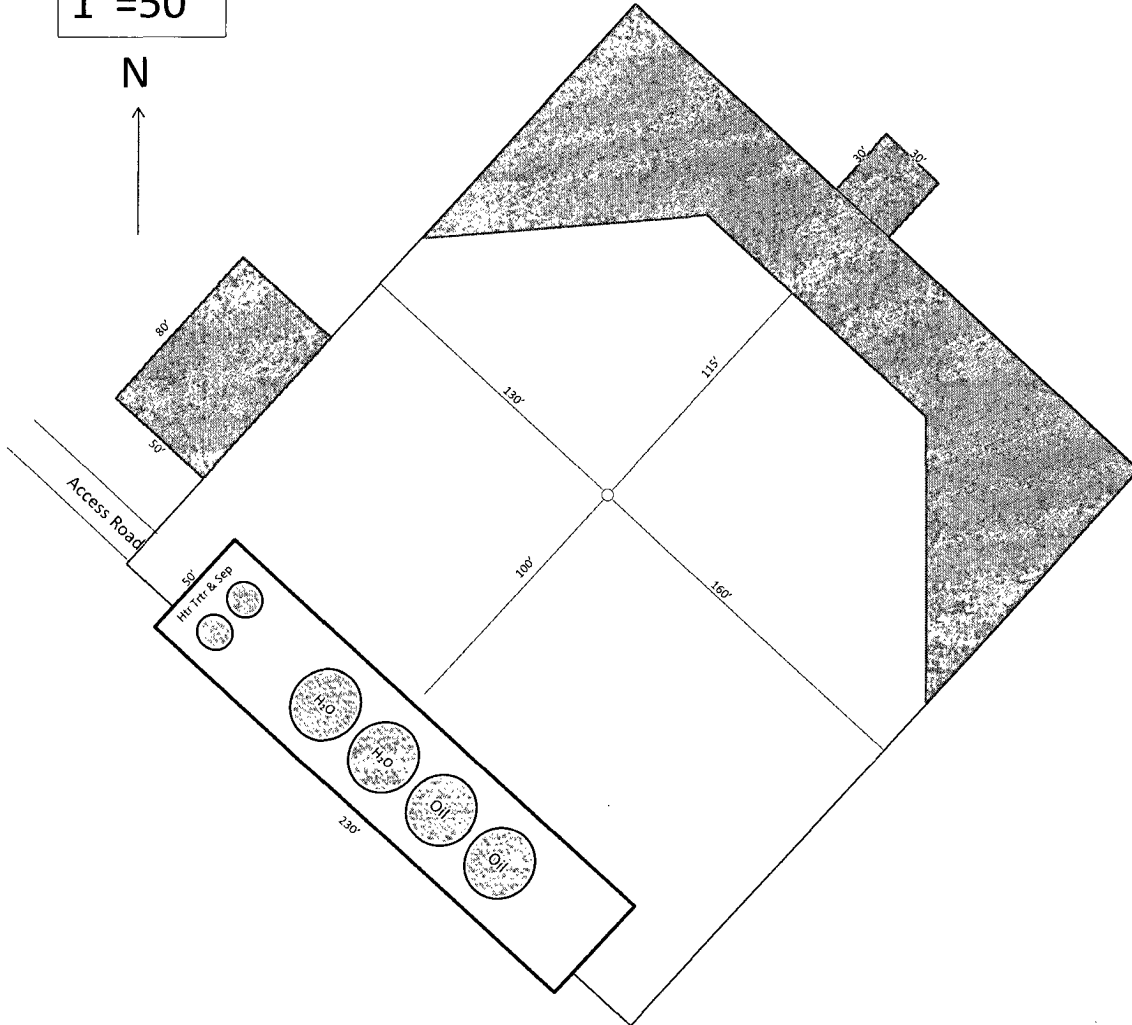


8/26/10
TEN

Exhibit D-1
Production Facilities Layout Diagram
Taos Federal No. 3
Cimarex Energy Co. of Colorado
31-245-27E
SHL 250 FSL & 475 FEL
BHL 660 FNL & 990 FEL
Eddy County, NM


$$1'' = 50'$$

N



8/26/10
TEN

SR & A

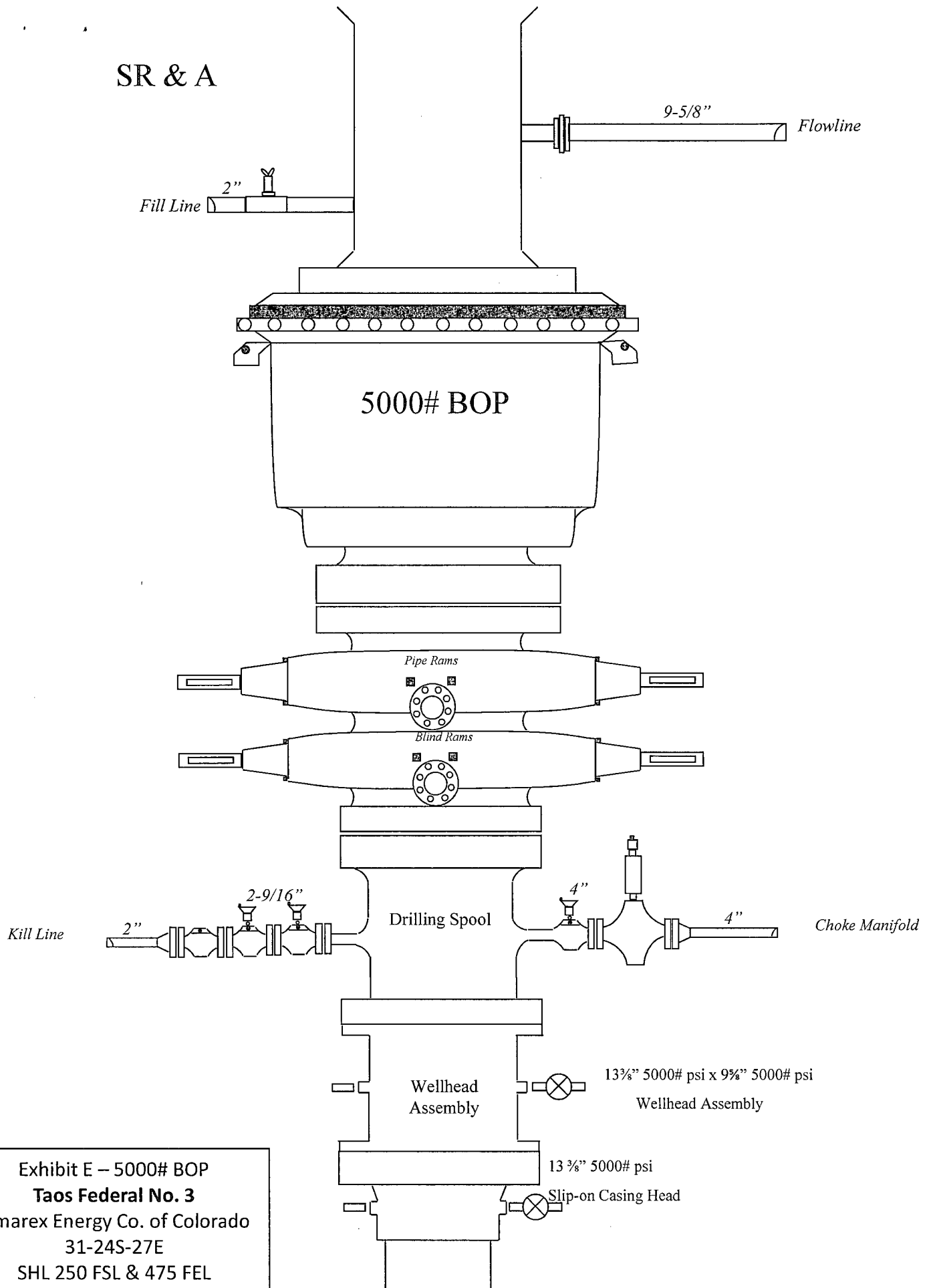
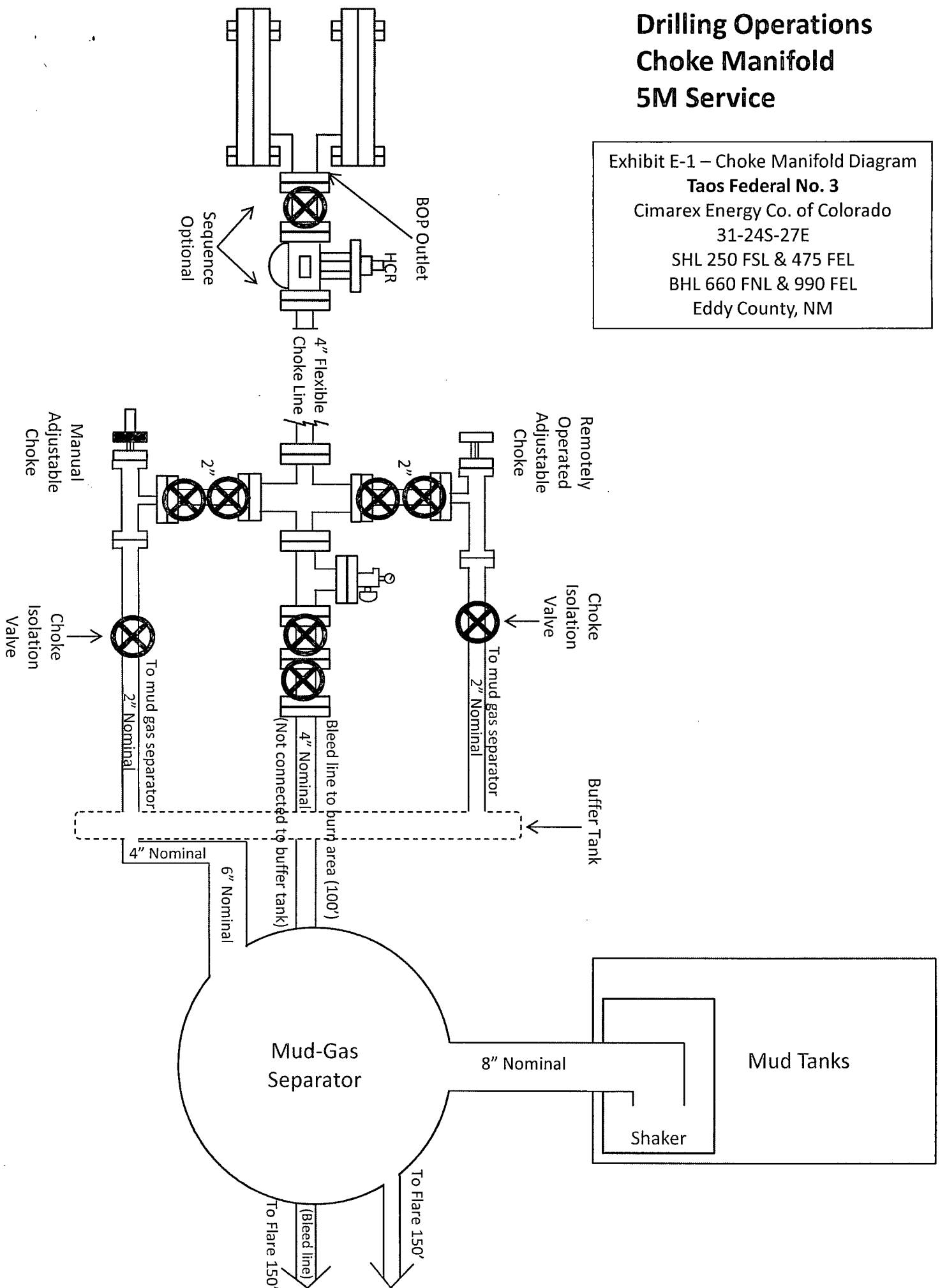


Exhibit E – 5000# BOP
Taos Federal No. 3
 Cimarex Energy Co. of Colorado
 31-24S-27E
 SHL 250 FSL & 475 FEL
 BHL 660 FNL & 990 FEL
 Eddy County, NM

Exhibit E-1 – Choke Manifold Diagram
Taos Federal No. 3
Cimarex Energy Co. of Colorado
31-24S-27E
SHL 250 FSL & 475 FEL
BHL 660 FNL & 990 FEL
Eddy County, NM





Midwest Hose
& Specialty, Inc.

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Hydrogen Sulfide Drilling Operations Plan

Taos Federal No. 3

Cimarex Energy Co. of Colorado

Unit P, Section 31

T24S-R27E, Eddy County, NM

H₂S equipment will be rigged up at Surface. The plan should be implemented before drilling out from the surface.

1. Due to a one-time encounter on a previous well, an Intra-salt Pocket was charged with H₂S and a burnable amount of hydrocarbons.

First Potential Problem Zone:

Initial suspected problem zone	Salt Zone @ 1,333'
Potential Open Flow Capacity	1 mcf
Expected H ₂ S Concentration	11,000 ppm
100' ROE	6'
500' ROE	3'

Cimarex will have 24-hour H₂S Safety Supervisors on location while drilling the first 2,000' on this well.

2. Second Potential Problem Zone:

Initial suspected problem zone	Delaware Mountain Group @ 1,800'
Potential Open Flow Capacity	100 mcf
Expected H ₂ S Concentration	1,000 ppm
100' ROE	24'
500' ROE	11'

3. 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.

4. 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.

5. 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.

6. 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.

7. Well control equipment:

- A. See exhibit "E"

8. 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.

9. Drillstem Testing:

No DSTs or cores are planned at this time.

- 10. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 11. 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
Taos Federal No. 3
Cimarex Energy Co. of Colorado
Unit P, Section 31
T24S-R27E, 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

Taos Federal No. 3

Cimarex Energy Co. of Colorado

Unit P, Section 31

T24S-R27E, 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
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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
Taos Federal No. 3
Cimarex Energy Co. of Colorado
Unit P, Section 31
T24S-R27E, Eddy County, NM

1. Existing Roads: Area maps, Exhibit "A" shows the proposed well site as staked. 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 proposed road to location.

- A. The maximum width of the driving surface will be ~~30'~~ 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.
- B. From the junction of Black River Village and John D. Forehand, go South on John D Forehand for 4.6 miles to proposed lease road.

See Conditions
of
Approval

2. Planned Access Roads: 331.5' of proposed newly constructed access road (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" |

4. Location of Proposed Production Facilities:

If on 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. Any changes to the facilities or off-site 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 from a BLM-approved pit as near as possible to the well location.

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. 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.

Surface Use Plan
Taos Federal No. 3
Cimarex Energy Co. of Colorado
Unit P, Section 31
T24S-R27E, Eddy County, NM

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 recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, 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.

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 Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological has been conducted on the location and proposed roads (NMCRIS SNMAS-09NM-3559).
- D. There are no know dwellings within 1½ miles of this location.

Operator Certification Statement

Taos Federal No. 3

Cimarex Energy Co. of Colorado

Unit P, Section 31

T24S-R27E, Eddy County, NM

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.

Executed this 9th 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

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co. of Colorado
LEASE NO.:	NM96208
WELL NAME & NO.:	Taos Federal # 3
SURFACE HOLE FOOTAGE:	0250' FSL & 0475' FEL
BOTTOM HOLE FOOTAGE:	0660' FNL & 0990' FEL
LOCATION:	Section 31, T. .28 S., R. 27 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**
 - Hydrology
- ☒ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
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 - Medium cave/karst
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 - Waste Material and Fluids
- ☐ **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)

Hydrology

- The entire well pad will be bermed to prevent overland water flow from entering the pad and oil, salt, and other chemical contaminants from leaving the well pad. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. A berm shall be maintained no lower than 12 inches high through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.
- Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.

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

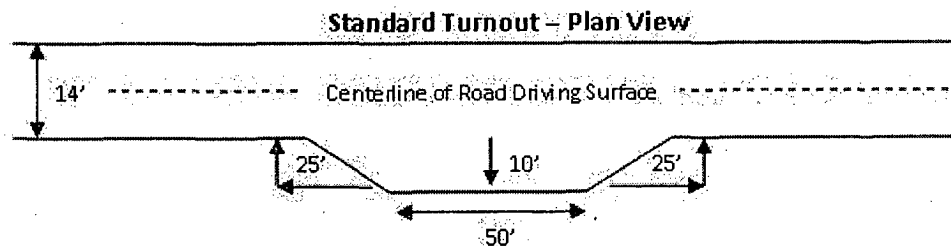
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

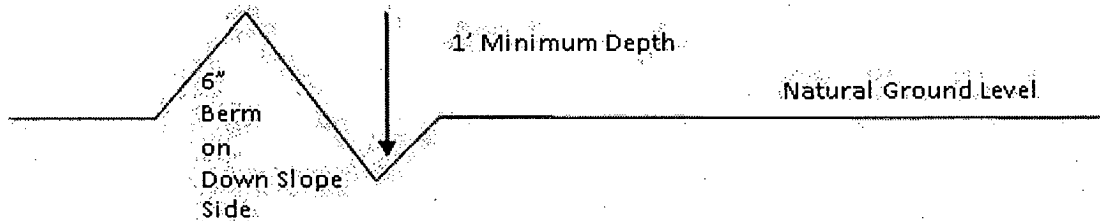


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping 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

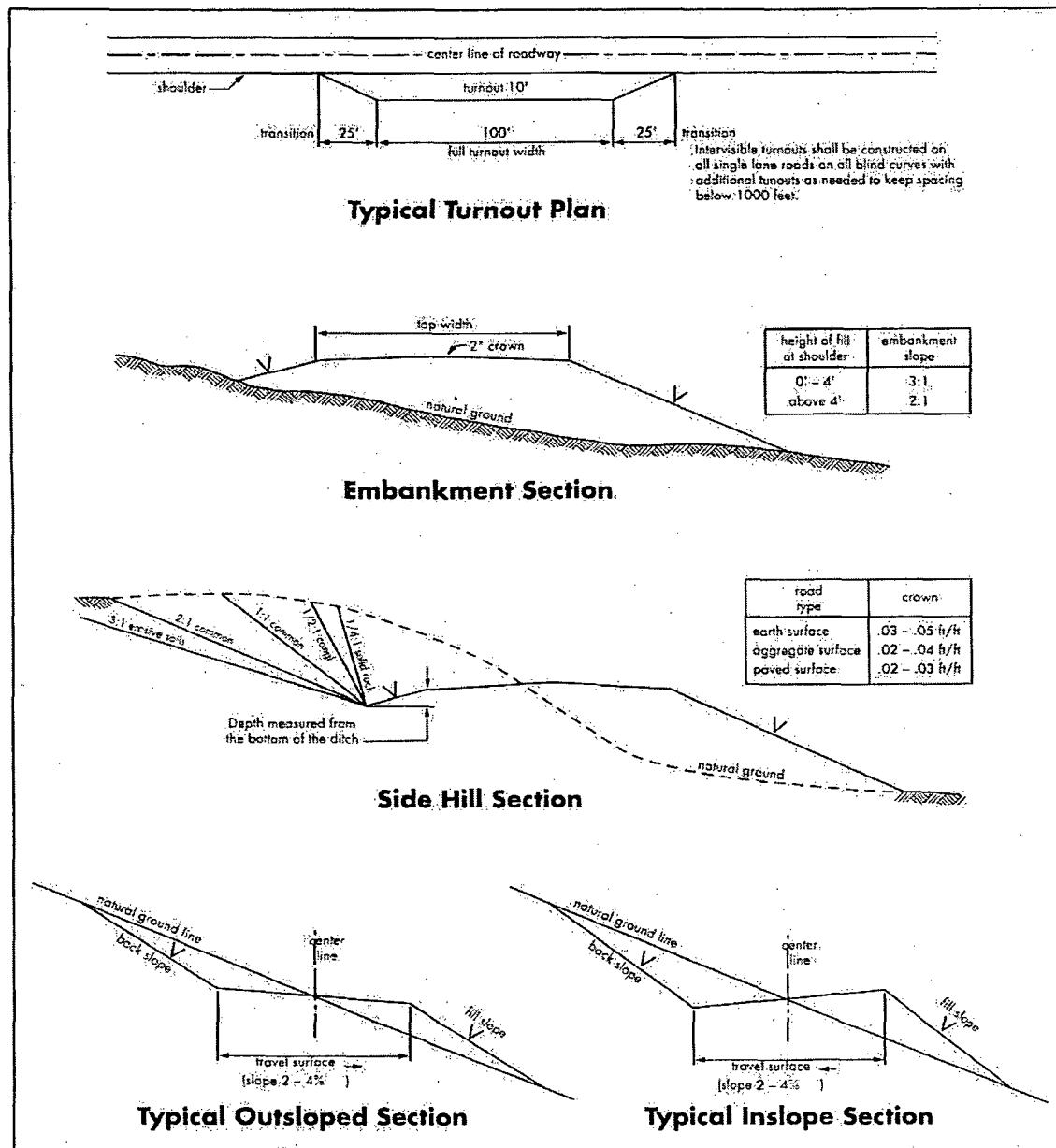
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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 is 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 (horizontal well – vertical portion of hole) 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 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. 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.

Medium cave/karst

Possible lost circulation in the Castile formation and Delaware Group.

Possible high pressures in the Wolfcamp.

1. The 13-3/8 inch surface casing shall be set at approximately 585 feet and cemented to the surface. **If the salt is encountered, set 25 feet above the salt. Freshwater mud to be used to setting depth.**
 - 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.

Formation below the 13-3/8" shoe to be tested according to Onshore Order

2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the 9-5/8 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.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the 7 inch production casing is:

- ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

4. Cement not required on the 4-1/2 inch production liner. Packer system is being used. **Liner tie-back of 100 feet is approved.**

5. 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. **Variance approved to use flex line (serial # 63270) from BOP to choke manifold. Check condition of 4 1/16" flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends.**

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.
 - 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.
 - f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

F. 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.

RGH 101810

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