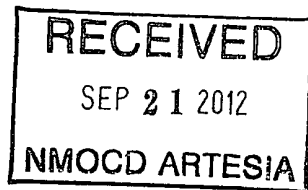


ATS-12-854



OCD Artesia

Form 3160-3
(April 2004)FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-0554766	
1b Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name TE 9/24/2012	
2. Name of Operator Cimarex Energy Co.		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. Ringer Federal Com No. 11 H 38864	
3b. Phone No. (include area code) 432-571-7800		9. API Well No. 30-015-40738	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 330 FNL & 1210 FWL NON-STANDARD LOCATION At proposed prod Zone 660 FSL & 710 FWL Horizontal Wolfcamp Test		10. Field and Pool, or Exploratory Sage Draw; Wolfcamp, E 96880	
14. Distance in miles and direction from nearest town or post office*		11. Sec., T R M. or Blk and Survey or Area 4-25S-26E	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line if any) 330'		12. County or Parish Eddy	
16 No of acres in lease 398.66		13 State NM	
17 Spacing Unit dedicated to this well W2 319.93 acres			
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 388'		19 Proposed Depth MD 13575 TVD 9550	
20. BLM/BIA Bond No. on File COB000011			
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3371' GR		22 Approximate date work will start* 08.30.12	
23. Estimated duration 25-30 days			
24. Attachments			

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 06.13.12
------------------------------	-------------------------------------	------------------

Title

Manager Operations Administration

Approved By (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date SEP 19 2012
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction

* (Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

Operator Certification Statement

Ringer Federal Com No. 11

Cimarex Energy Co.

Lot 4, Section 4

T25S-R26E, 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 13th day of June, 2012

NAME: Zeno Farris
Zeno Farris

TITLE: Manager Operations Administration

ADDRESS: 600 N Marienfeld St Ste 600
Midland TX 79701

TELEPHONE: Office Phone: (432) 571-7800

EMAIL: zfarris@cimarex.com

Field Representative: Same as above

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-0101 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 478-3469 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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- 40738	Pool Code 96890	Pool Name Sage Draw; Wolfcamp East
Property Code 38964	Property Name RINGER FEDERAL COM	Well Number 11 H
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3371'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 4	4	25 S	26 E		330	NORTH	1210	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	4	25 S	26 E		660	SOUTH	710	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
319.93		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**

SURFACE LOCATION Lat - N 32°09'56.14" Long - W 104°18'09.44" NMSPCE - N 423979.4 E 550840.6 (NAD-83) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°09'13.59" Long - W 104°18'15.19" NMSPCE - N 419679.7 E 550347.6 (NAD-83) Fee Operator: Please do not report production under this pool id code until OCD confirms perfs and appropriate pool designation on completion and C104 approvals.	OPERATOR CERTIFICATION I, hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Zeno Farris</i> 6/13/2012 Signature Date Zeno Farris Printed Name zfarris@cimarex.com Email Address 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 26440
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Drilling Plan
Ringer Federal Com No. 11
 Cimarex Energy Co.
 Lot 4, Section 4
 T25S-R26E, Eddy County, NM

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

- 1 **Location:** SHL 330 FNL & 1210 FWL
 BHL 660 FSL & 710 FWL
- 2 **Elevation above sea level:** 3371' 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:** MD 13575 TVD 9550

6 **Estimated tops of geological markers:**

Rustler	Spotty	1st Bone Spring Ss	6240'
Top Salt	973'	2nd Bone Spring Ss	6746'
Base Salt	1549'	2nd BS Ss Lower	7475'
Delaware	1767'	3rd Bone Spring Ss	8061'
Cherry Canyon	2708'	Wolfcamp	8417'
Brushy Canyon	3884'	Wolfcamp B	8998'
Bone Spring	5259'	Wolfcamp C	9147'
Bone Spring "A" Shale	5347'	Wolfcamp D	9280'
Bone Spring "C" Shale	5696'	Wolfcamp E	9649'

7 **Possible mineral bearing formations:**

Bone Spring	Oil
Delaware	Oil
Wolfcamp	Gas

8 **Proposed Mud Circulating System:**

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 450'	8.4 - 8.8	30-32	NC	FW spud mud. Add FW to control weight & viscosity and paper to prevent
450' to 1767'	9.8 - 10.0	28-29	NC	Saturated Brine. Sweep as needed to clean hole.
1767' to 9,173'	9.0 - 9.0	28-30	NC	Cut brine. Sweep as needed to clean hole.
9,173' to 13,575'	11.7	28-32	NC	OBM

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

Proposed drilling Plan

After drilling & setting surface & intermediate csg, drill to 8¾" vertical hole to 9173', log and set 7" casing and cement. Kick off at 9173' and drill 6" lateral to 13575' MD, 9550' TVD. Run 4½" casing from 9073'-13575'. Minimum of 100' liner lap between 4-1/2" & 7" will be run. Cement liner w/ 515 sx. TOC @ TOL.

Drilling Plan
Ringer Federal Com No. 11
 Cimarex Energy Co.
 Lot 4, Section 4
 T25S-R26E, Eddy County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth		Casing OD		Weight	Collar	Grade
Surface 1	17½"	0'	to 450'	New	13⅜"	48#	STC	H-40
Intermediate	12¼"	0'	to 1767'	New	9⅝"	36#	LTC	J-55
Production	8¾"	0'	to 9173'	New	7"	32#	LTC	L-80
Lateral	6"	9073'	to 13575'	New	4½"	11.6#	BTC	P-110

10 Cementing: * See COA

Surface Lead: 545SKS Halcem C + 4% Bentomite + 2% CaCl 13.5ppg 1.75yield 100% Excess
 Tail: 420SKS Halcem C + 2% CaCl 14.2ppg 1.34 yield 50% Excess

TOC Surface Centralizers per Onshorder 2.III.B.1.f

Intermediate Lead: 1655SKS Econocem + 5% Salt + 5# Gilsonite 14.6ppg 1.54yield 70% Excess
 Tail: 200SKS Halcem + 1% CaCl 14.8ppg 1.34 yield 25% Excess

TOC Surface

Production Lead: 1030SKS Econocem H + 0.5% CFR-3 + 0.1% HR-601 11.9ppg 2.44 yield 50% Excess
 Tail: 1305SKS Versacem H + 0.5% Halad-344 + 0.4% CFR-3 + 1# Salt + 0.1% HR-601 14.5ppg 1.22 yield 25% Excess

~~TOC 1200'~~ > Surface - See COA

Lateral Lead: 515 sx VersaCem H + 0.5% + 0.4% + 1/bm/sk NaCl + 0.1% HR-601, yield 1.22, 14.5 ppg, 25% excess

TOC Top of Liner Centralizers every 3rd joint through the curve or legal location hardline to provide adequate cement coverage every 100' unless hole conditions require greater spacing

According to the NM State Enginner, depth to ground water is 40 feet. Fresh water zones will be protected by setting 13 3/8" casing at 450' and 9 5/8" casing at 1767' and cementing to surface. Hydrocarbon zones will be protected by setting 7" casing at 9173' and 4 1/2" liner at 13575' and cementing to 9073'.

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

11 Pressure control Equipment:

Exhibit "E". A 13⅝" 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 4900.' 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. Mud gas seperator will be installed before drilling out of surface casing.

BOP unit will be hydraulically operated. ^{See COA} 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.

Before drilling out of the surface casing BOPs will be tested to 250 psi low and 3000 psi high by an independent service company. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out of the intermediate casing BOPs will be tested to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 122 (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: 211964

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

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

See COA

Drilling Plan
Ringer Federal Com No. 11
Cimarex Energy Co.
Lot 4, Section 4
T25S-R26E, Eddy County, NM

12 Testing, Logging and Coring Program: *See COA

- A. Mud logging program: 2-man unit from 1767' to TD.
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR KOP to Int Csg See COA
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **4250 psi** Estimated BHT **175°**

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

Drilling expected to take 25-35 days

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

15 Other Facets of Operations:

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

Wolfcamp pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **an oil well**



Planned Wellpath Report

Rev-A.0
Page 1 of 5



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 11 SHL
Area	Eddy County, NM	Well	No. 11
Field	(Ringer) Sec 4, T25S, R26E	Wellbore	No. 11 PWB
Facility	Ringer Federal Com No. 11		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Harrkol
Scale	0.999909	Report Generated	5/22/2012 at 2:39:37 PM
Convergence at slot	0.02° East	Database/Source file	WA Midland/No._11_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W
Facility Reference Pt			550840.60	423979.40	32°09'56.138"N	104°18'09.438"W
Field Reference Pt			550840.60	423979.40	32°09'56.138"N	104°18'09.438"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 11 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 11 SHL (RT) to Mean Sea Level	3371.00ft
Vertical Reference Pt	Rig on No. 11 SHL (RT)	Rig on No. 11 SHL (RT) to Mud Line at Slot (No. 11 SHL)	0.00ft
MD Reference Pt	Rig on No. 11 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	186.54°



Planned Wellpath Report

Rev-A.0

Page 2 of 5



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 11 SHL
Area	Eddy County, NM	Well	No. 11
Field	(Ringer) Sec 4, T25S, R26E	Wellbore	No. 11 PWB
Facility	Ringer Federal Com No. 11		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	186.541	0.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Tie On
100.00†	0.000	186.541	100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
200.00†	0.000	186.541	200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
300.00†	0.000	186.541	300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
400.00†	0.000	186.541	400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
500.00†	0.000	186.541	500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
600.00†	0.000	186.541	600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
700.00†	0.000	186.541	700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
800.00†	0.000	186.541	800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
900.00†	0.000	186.541	900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
973.00†	0.000	186.541	973.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Top Salt
1000.00†	0.000	186.541	1000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1100.00†	0.000	186.541	1100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1200.00†	0.000	186.541	1200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1300.00†	0.000	186.541	1300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1400.00†	0.000	186.541	1400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1500.00†	0.000	186.541	1500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1549.00†	0.000	186.541	1549.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Base Salt
1600.00†	0.000	186.541	1600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1700.00†	0.000	186.541	1700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1767.00†	0.000	186.541	1767.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Delaware
1800.00†	0.000	186.541	1800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
1900.00†	0.000	186.541	1900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2000.00†	0.000	186.541	2000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2100.00†	0.000	186.541	2100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2200.00†	0.000	186.541	2200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2300.00†	0.000	186.541	2300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2400.00†	0.000	186.541	2400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2500.00†	0.000	186.541	2500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2600.00†	0.000	186.541	2600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2700.00†	0.000	186.541	2700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2708.00†	0.000	186.541	2708.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Cherry Canyon
2800.00†	0.000	186.541	2800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
2900.00†	0.000	186.541	2900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3000.00†	0.000	186.541	3000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3100.00†	0.000	186.541	3100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3200.00†	0.000	186.541	3200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3300.00†	0.000	186.541	3300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3400.00†	0.000	186.541	3400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3500.00†	0.000	186.541	3500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3600.00†	0.000	186.541	3600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3700.00†	0.000	186.541	3700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3800.00†	0.000	186.541	3800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
3884.00†	0.000	186.541	3884.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Brushy Canyon
3900.00†	0.000	186.541	3900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 11 SHL
Area	Eddy County, NM	Well	No. 11
Field	(Ringer) Sec 4, T25S, R26E	Wellbore	No. 11 PWB
Facility	Ringer Federal Com No. 11		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4000.00†	0.000	186.541	4000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4100.00†	0.000	186.541	4100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4200.00†	0.000	186.541	4200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4300.00†	0.000	186.541	4300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4400.00†	0.000	186.541	4400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4500.00†	0.000	186.541	4500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4600.00†	0.000	186.541	4600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4700.00†	0.000	186.541	4700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4800.00†	0.000	186.541	4800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4900.00†	0.000	186.541	4900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
4929.00†	0.000	186.541	4929.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Brushy Canyon Lower
5000.00†	0.000	186.541	5000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5100.00†	0.000	186.541	5100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5200.00†	0.000	186.541	5200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5259.00†	0.000	186.541	5259.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Bone Spring
5300.00†	0.000	186.541	5300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5347.00†	0.000	186.541	5347.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Bone Spring "A" Shale
5400.00†	0.000	186.541	5400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5500.00†	0.000	186.541	5500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5600.00†	0.000	186.541	5600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5696.00†	0.000	186.541	5696.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Bone Spring "C" Shale
5700.00†	0.000	186.541	5700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5800.00†	0.000	186.541	5800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
5900.00†	0.000	186.541	5900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6000.00†	0.000	186.541	6000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6100.00†	0.000	186.541	6100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6200.00†	0.000	186.541	6200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6240.00†	0.000	186.541	6240.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	1st Bone Spring Ss
6300.00†	0.000	186.541	6300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6400.00†	0.000	186.541	6400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6500.00†	0.000	186.541	6500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6600.00†	0.000	186.541	6600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6700.00†	0.000	186.541	6700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6746.00†	0.000	186.541	6746.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	2nd Bone Spring Ss
6800.00†	0.000	186.541	6800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
6900.00†	0.000	186.541	6900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7000.00†	0.000	186.541	7000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7100.00†	0.000	186.541	7100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7200.00†	0.000	186.541	7200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7300.00†	0.000	186.541	7300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7400.00†	0.000	186.541	7400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7475.00†	0.000	186.541	7475.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	2nd BS Ss Lower
7500.00†	0.000	186.541	7500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7600.00†	0.000	186.541	7600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7700.00†	0.000	186.541	7700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 11 SHL
Area	Eddy County, NM	Well	No. 11
Field	(Ringer) Sec 4, T25S, R26E	Wellbore	No. 11 PWB
Facility	Ringer Federal Com No. 11		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7800.00†	0.000	186.541	7800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
7900.00†	0.000	186.541	7900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8000.00†	0.000	186.541	8000.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8061.00†	0.000	186.541	8061.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	3rd Bone Spring Ss
8100.00†	0.000	186.541	8100.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8200.00†	0.000	186.541	8200.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8300.00†	0.000	186.541	8300.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8400.00†	0.000	186.541	8400.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8417.00†	0.000	186.541	8417.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Wolfcamp
8500.00†	0.000	186.541	8500.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8600.00†	0.000	186.541	8600.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8700.00†	0.000	186.541	8700.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8800.00†	0.000	186.541	8800.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8900.00†	0.000	186.541	8900.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	
8973.00	0.000	186.541	8973.00	0.00	0.00	0.00	550840.60	423979.40	32°09'56.138"N	104°18'09.438"W	0.00	Est. KOP
8998.01†	3.003	186.541	8998.00	0.66	-0.65	-0.07	550840.53	423978.75	32°09'56.131"N	104°18'09.439"W	12.01	Wolfcamp B
9000.00†	3.242	186.541	8999.99	0.76	-0.76	-0.09	550840.51	423978.64	32°09'56.130"N	104°18'09.439"W	12.01	
9100.00†	15.250	186.541	9098.51	16.80	-16.69	-1.91	550838.69	423962.71	32°09'55.972"N	104°18'09.460"W	12.01	
9151.11†	21.387	186.541	9147.00	32.86	-32.64	-3.74	550836.86	423946.76	32°09'55.815"N	104°18'09.482"W	12.01	Wolfcamp C
9200.00†	27.257	186.541	9191.53	52.98	-52.64	-6.04	550834.56	423926.76	32°09'55.617"N	104°18'09.508"W	12.01	
9300.00†	39.265	186.541	9275.00	107.73	-107.03	-12.27	550828.33	423872.38	32°09'55.079"N	104°18'09.581"W	12.01	
9306.50†	40.045	186.541	9280.00	111.88	-111.15	-12.74	550827.86	423868.26	32°09'55.038"N	104°18'09.587"W	12.01	Wolfcamp D
9400.00†	51.273	186.541	9345.25	178.64	-177.48	-20.35	550820.25	423801.94	32°09'54.381"N	104°18'09.675"W	12.01	
9500.00†	63.280	186.541	9399.21	262.62	-260.91	-29.92	550810.69	423718.52	32°09'53.556"N	104°18'09.787"W	12.01	
9600.00†	75.288	186.541	9434.52	355.98	-353.66	-40.55	550800.05	423625.77	32°09'52.638"N	104°18'09.911"W	12.01	
9700.00†	87.296	186.541	9449.63	454.65	-451.69	-51.79	550788.81	423527.75	32°09'51.668"N	104°18'10.042"W	12.01	
9710.17	88.517	186.541	9450.00	464.81	-461.79	-52.95	550787.66	423517.66	32°09'51.568"N	104°18'10.055"W	12.01	EOC
9800.00†	88.517	186.541	9452.32	554.61	-551.00	-63.18	550777.43	423428.45	32°09'50.685"N	104°18'10.175"W	0.00	
9900.00†	88.517	186.541	9454.91	654.58	-650.32	-74.57	550766.04	423329.14	32°09'49.703"N	104°18'10.308"W	0.00	
10000.00†	88.517	186.541	9457.50	754.54	-749.63	-85.95	550754.65	423229.84	32°09'48.720"N	104°18'10.440"W	0.00	
10100.00†	88.517	186.541	9460.09	854.51	-848.95	-97.34	550743.27	423130.53	32°09'47.737"N	104°18'10.573"W	0.00	
10200.00†	88.517	186.541	9462.68	954.48	-948.26	-108.73	550731.88	423031.22	32°09'46.755"N	104°18'10.706"W	0.00	
10300.00†	88.517	186.541	9465.26	1054.44	-1047.58	-120.12	550720.50	422931.92	32°09'45.772"N	104°18'10.839"W	0.00	
10400.00†	88.517	186.541	9467.85	1154.41	-1146.89	-131.50	550709.11	422832.61	32°09'44.789"N	104°18'10.972"W	0.00	
10500.00†	88.517	186.541	9470.44	1254.38	-1246.21	-142.89	550697.72	422733.31	32°09'43.806"N	104°18'11.104"W	0.00	
10600.00†	88.517	186.541	9473.03	1354.34	-1345.53	-154.28	550686.34	422634.00	32°09'42.824"N	104°18'11.237"W	0.00	
10700.00†	88.517	186.541	9475.62	1454.31	-1444.84	-165.67	550674.95	422534.69	32°09'41.841"N	104°18'11.370"W	0.00	
10800.00†	88.517	186.541	9478.20	1554.28	-1544.16	-177.05	550663.56	422435.39	32°09'40.858"N	104°18'11.503"W	0.00	
10900.00†	88.517	186.541	9480.79	1654.24	-1643.47	-188.44	550652.18	422336.08	32°09'39.876"N	104°18'11.636"W	0.00	
11000.00†	88.517	186.541	9483.38	1754.21	-1742.79	-199.83	550640.79	422236.77	32°09'38.893"N	104°18'11.768"W	0.00	
11100.00†	88.517	186.541	9485.97	1854.17	-1842.11	-211.22	550629.40	422137.47	32°09'37.910"N	104°18'11.901"W	0.00	
11200.00†	88.517	186.541	9488.56	1954.14	-1941.42	-222.60	550618.02	422038.16	32°09'36.927"N	104°18'12.034"W	0.00	
11300.00†	88.517	186.541	9491.14	2054.11	-2040.74	-233.99	550606.63	421938.85	32°09'35.945"N	104°18'12.167"W	0.00	
11400.00†	88.517	186.541	9493.73	2154.07	-2140.05	-245.38	550595.24	421839.55	32°09'34.962"N	104°18'12.299"W	0.00	
11500.00†	88.517	186.541	9496.32	2254.04	-2239.37	-256.77	550583.86	421740.24	32°09'33.979"N	104°18'12.432"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 11 SHL
Area	Eddy County, NM	Well	No. 11
Field	(Ringer) Sec 4, T25S, R26E	Wellbore	No. 11 PWB
Facility	Ringer Federal Com No. 11		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11600.00†	88.517	186.541	9498.91	2354.01	-2338.68	-268.15	550572.47	421640.93	32°09'32.996"N	104°18'12.565"W	0.00	
11700.00†	88.517	186.541	9501.49	2453.97	-2438.00	-279.54	550561.08	421541.63	32°09'32.014"N	104°18'12.698"W	0.00	
11800.00†	88.517	186.541	9504.08	2553.94	-2537.32	-290.93	550549.70	421442.32	32°09'31.031"N	104°18'12.831"W	0.00	
11900.00†	88.517	186.541	9506.67	2653.91	-2636.63	-302.32	550538.31	421343.01	32°09'30.048"N	104°18'12.963"W	0.00	
12000.00†	88.517	186.541	9509.26	2753.87	-2735.95	-313.71	550526.92	421243.71	32°09'29.066"N	104°18'13.096"W	0.00	
12100.00†	88.517	186.541	9511.85	2853.84	-2835.26	-325.09	550515.54	421144.40	32°09'28.083"N	104°18'13.229"W	0.00	
12200.00†	88.517	186.541	9514.43	2953.81	-2934.58	-336.48	550504.15	421045.09	32°09'27.100"N	104°18'13.362"W	0.00	
12300.00†	88.517	186.541	9517.02	3053.77	-3033.89	-347.87	550492.76	420945.79	32°09'26.117"N	104°18'13.495"W	0.00	
12400.00†	88.517	186.541	9519.61	3153.74	-3133.21	-359.26	550481.38	420846.48	32°09'25.135"N	104°18'13.627"W	0.00	
12500.00†	88.517	186.541	9522.20	3253.71	-3232.53	-370.64	550469.99	420747.17	32°09'24.152"N	104°18'13.760"W	0.00	
12600.00†	88.517	186.541	9524.78	3353.67	-3331.84	-382.03	550458.60	420647.87	32°09'23.169"N	104°18'13.893"W	0.00	
12700.00†	88.517	186.541	9527.37	3453.64	-3431.16	-393.42	550447.22	420548.56	32°09'22.187"N	104°18'14.026"W	0.00	
12800.00†	88.517	186.541	9529.96	3553.61	-3530.47	-404.81	550435.83	420449.25	32°09'21.204"N	104°18'14.158"W	0.00	
12900.00†	88.517	186.541	9532.55	3653.57	-3629.79	-416.19	550424.44	420349.95	32°09'20.221"N	104°18'14.291"W	0.00	
13000.00†	88.517	186.541	9535.13	3753.54	-3729.11	-427.58	550413.06	420250.64	32°09'19.238"N	104°18'14.424"W	0.00	
13100.00†	88.517	186.541	9537.72	3853.51	-3828.42	-438.97	550401.67	420151.33	32°09'18.256"N	104°18'14.557"W	0.00	
13200.00†	88.517	186.541	9540.31	3953.47	-3927.74	-450.36	550390.29	420052.03	32°09'17.273"N	104°18'14.690"W	0.00	
13300.00†	88.517	186.541	9542.90	4053.44	-4027.05	-461.74	550378.90	419952.72	32°09'16.290"N	104°18'14.822"W	0.00	
13400.00†	88.517	186.541	9545.48	4153.40	-4126.37	-473.13	550367.51	419853.41	32°09'15.307"N	104°18'14.955"W	0.00	
13500.00†	88.517	186.541	9548.07	4253.37	-4225.68	-484.52	550356.13	419754.11	32°09'14.325"N	104°18'15.088"W	0.00	
13574.93	88.517	186.541	9550.01	4328.27	-4300.10	-493.05	550347.59	419679.70	32°09'13.588"N	104°18'15.187"W	0.00	No. 11 PBHL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Ringer Federal Com No. 11 (Rev-0)	13574.93	9550.00	-4300.10	-493.05	550347.60	419679.70	32°09'13.588"N	104°18'15.187"W	point

SURVEY PROGRAM - Ref Wellbore: No. 11 PWB Ref Wellpath: Rev-A.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13574.93	NaviTrak (Standard)		No. 11 PWB

SR & A

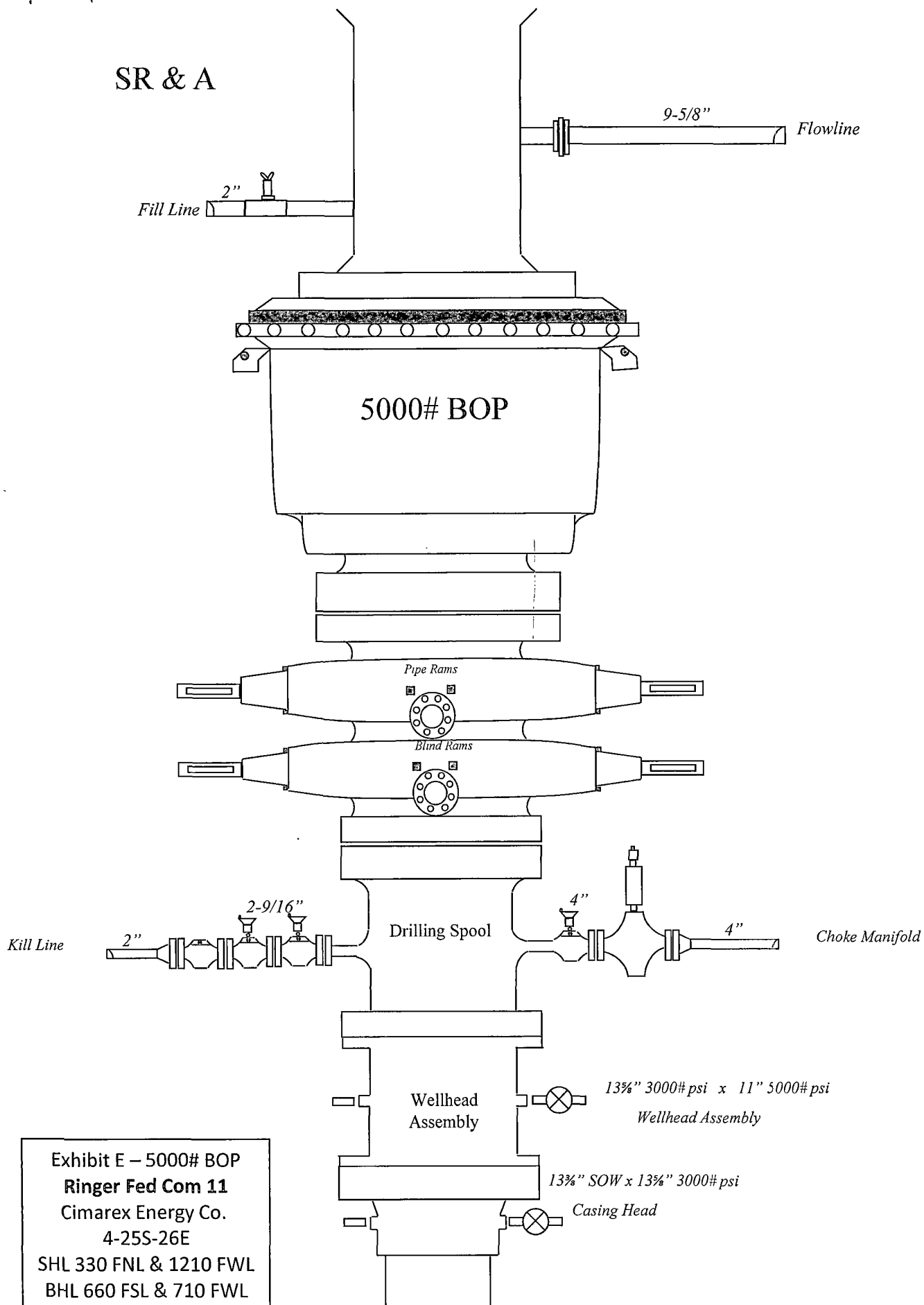


Exhibit E – 5000# BOP

Ringer Fed Com 11

Cimarex Energy Co.

4-25S-26E

SHL 330 FNL & 1210 FWL

BHL 660 FSL & 710 FWL

Eddy County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

Ringer Fed Com 11

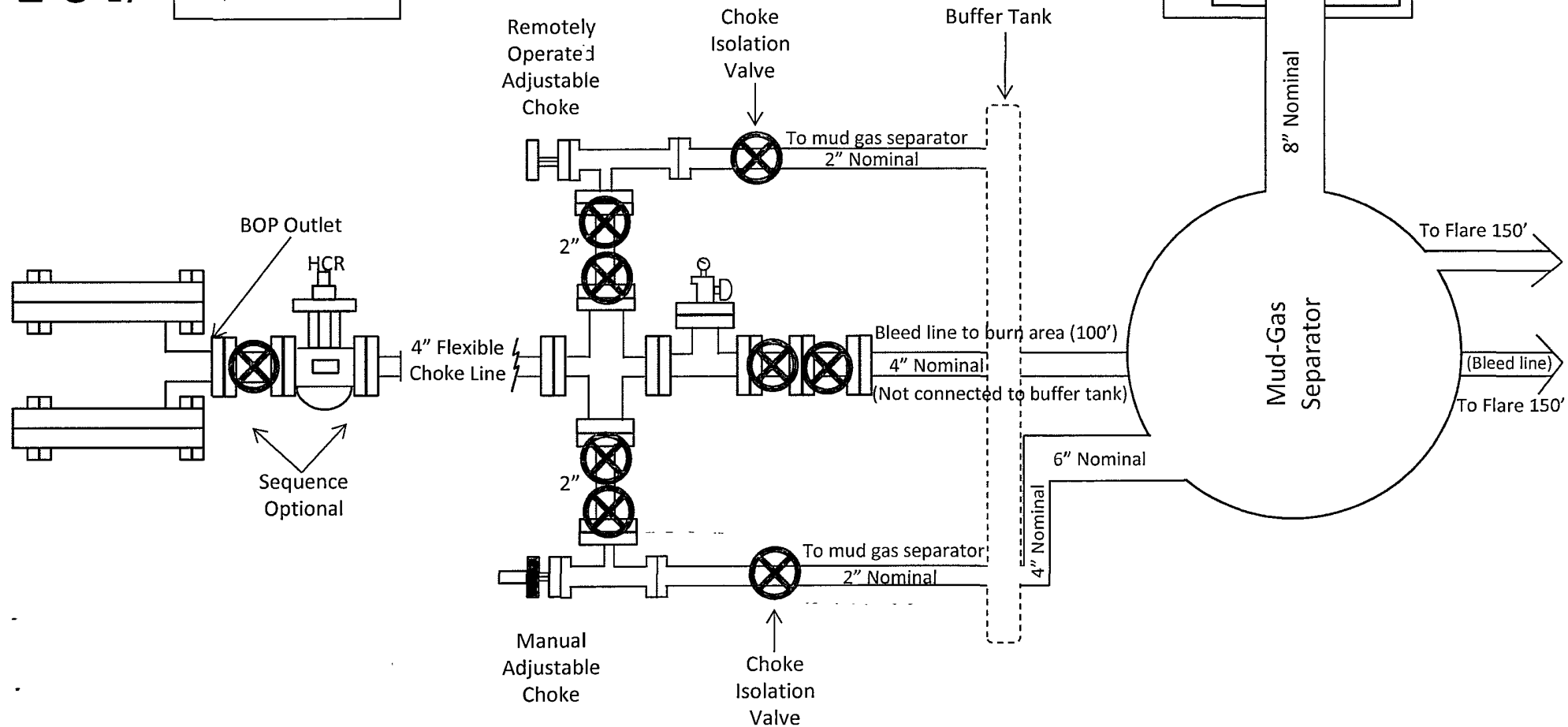
Cimarex Energy Co.

4-25S-26E

SHL 330 FNL & 1210 FWL

BHL 660 FSL & 710 FWL

Eddy County, NM



M I D W E S T
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: CACTUS		P.O. Number: Asset#M4812
HOSE SPECIFICATIONS		
Type: CHOKER LINE		Length: 35'
I.D. 4" INCHES		O.D. 8" INCHES
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE PSI
COUPLINGS		
Type of End Fitting 4 1/16 10K FLANGE		
Type of Coupling: SWEDGED		MANUFACTURED BY MIDWEST HOSE & SPECIALTY
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI
COMMENTS: s/n#O211964 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes		
Date: 6/28/2006	Tested By: BOBBY FINK	Approved: MENDI JACKSON



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)

Cimarex Energy Co. of Colorado – Closed-Loop System Design Plan

Equipment List

- Primary Shakers
- Mud Cleaner – hydro-cyclones
- 1 or 2 Centrifuges (depending on well depth)
- De-watering system with pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing (may not be necessary for shallower wells)
- Drying Augur
- Sump Drying Augur
- Sump
- Cuttings Boxes
- Reserve Fluids Tank Farm
- Wire Mesh Trash Enclosure (spent motor oils kept in separate containers and later sent to approved landfill)

Operation and Maintenance

The Cimarex Zero Discharge system is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This ensures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

These closed loop operations can be monitored by our service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

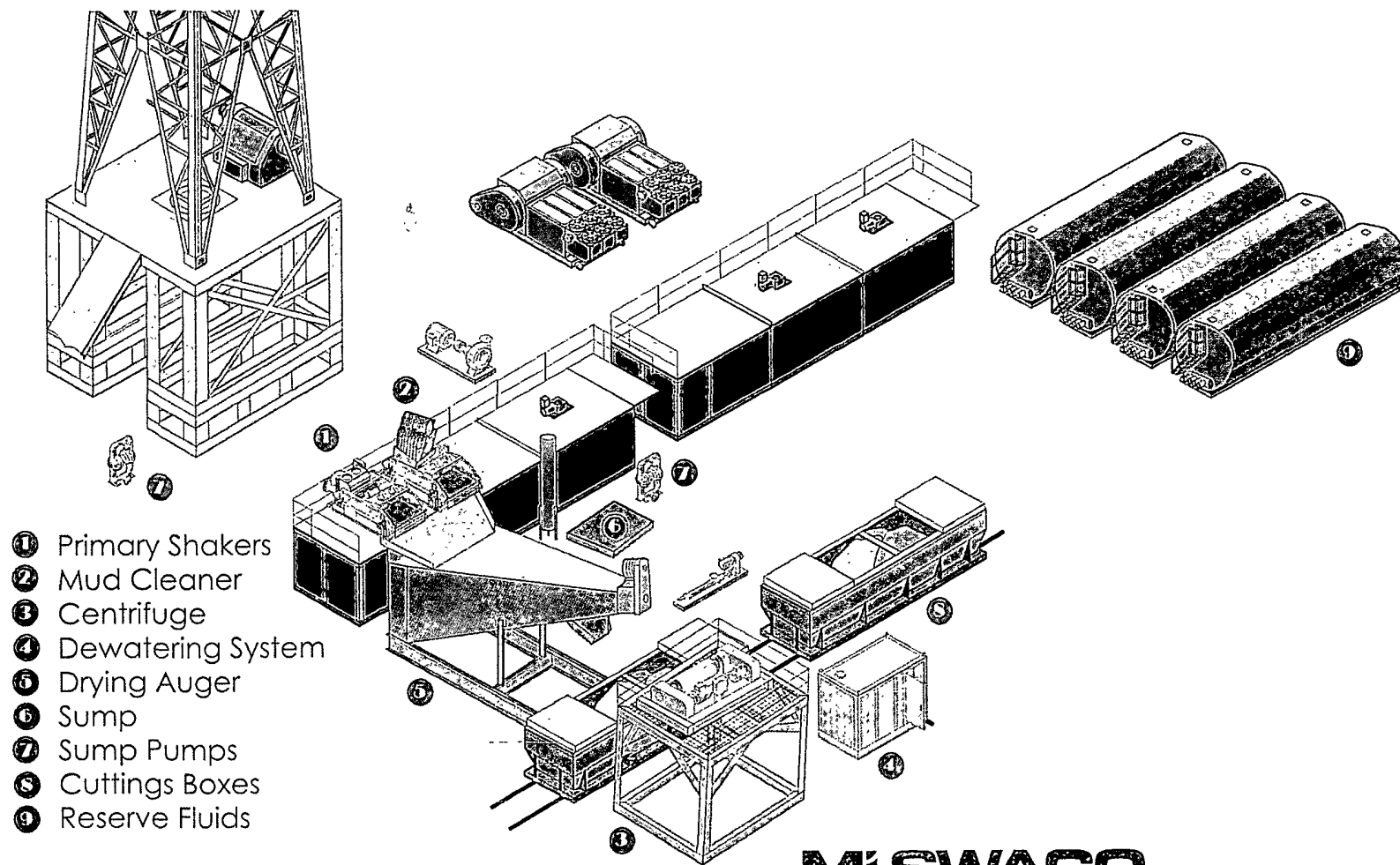
Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and tested for all regulated toxic materials. If found they are removed and disposed of per regulatory requirements.

Closure Plan

During drilling operations, all liquids, drilling fluids, and cuttings will be hauled off via CRI (Controlled Recovery Incorporated, Permit R-9166).

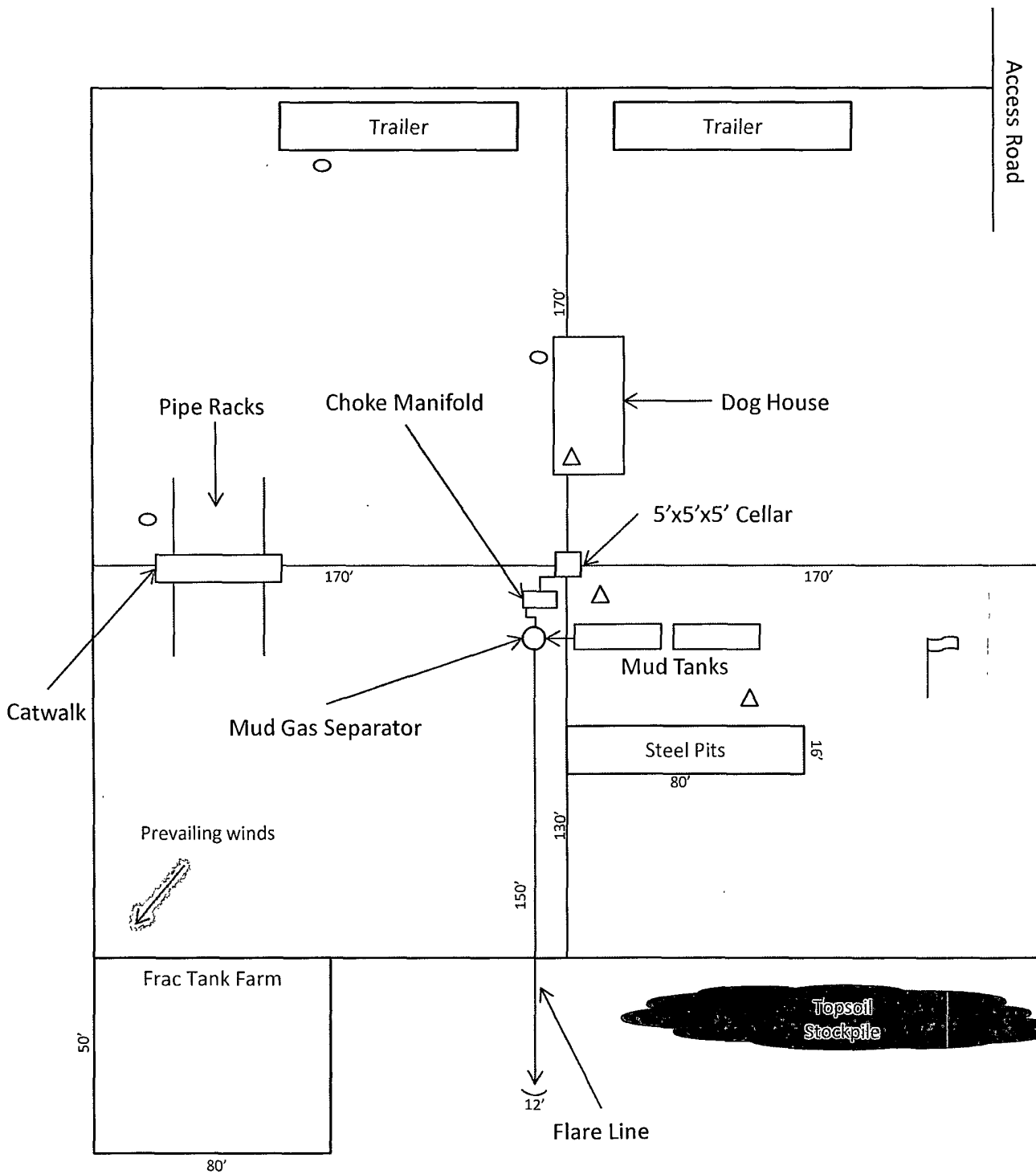


Closed Loop with Drying Auger and Dewatering System



MISWACO

Cactus 122



Wind Direction Indicators
(wind sock or streamers)



• H2S Monitors
(alarms at bell nipple and shale shaker)



Briefing Areas



Exhibit D – Rig Diagram

Ringer Fed Com 11

Cimarex Energy Co.

4-25S-26E

SHL 330 FNL & 1210 FWL

BHL 660 FSL & 710 FWL

Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan

Ringer Federal Com No. 11

Cimarex Energy Co.

Lot 4, Section 4

T25S-R26E, Eddy County, NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2 **H₂S Detection and Alarm Systems:**
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.
- 3 **Windsock and/or wind streamers:**
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
- 4 **Condition Flags and Signs:**
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H₂S present in dangerous concentration). Only emergency personnel admitted to location.
- 5 **Well control equipment:**
 - A. See exhibit "E"
- 6 **Communication:**
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
- 7 **Drillstem Testing:**

No DSTs or cores are planned at this time.
- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

H₂S Contingency Plan
Ringer Federal Com No. 11
Cimarex Energy Co.
Lot 4, Section 4
T25S-R26E, 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

Stata Production Company'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. Stata Production Company's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S Contingency Plan Emergency Contacts

Ringer Federal Com No. 11

Cimarex Energy Co.

Lot 4, Section 4

T25S-R26E, 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
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8285
Scott Lucas	Field Drilling Super		432-894-5572
Jeff Lajoie	Field Drilling Super		432-257-9889
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		

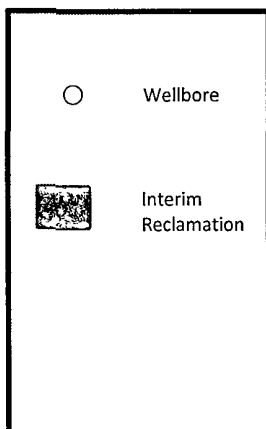
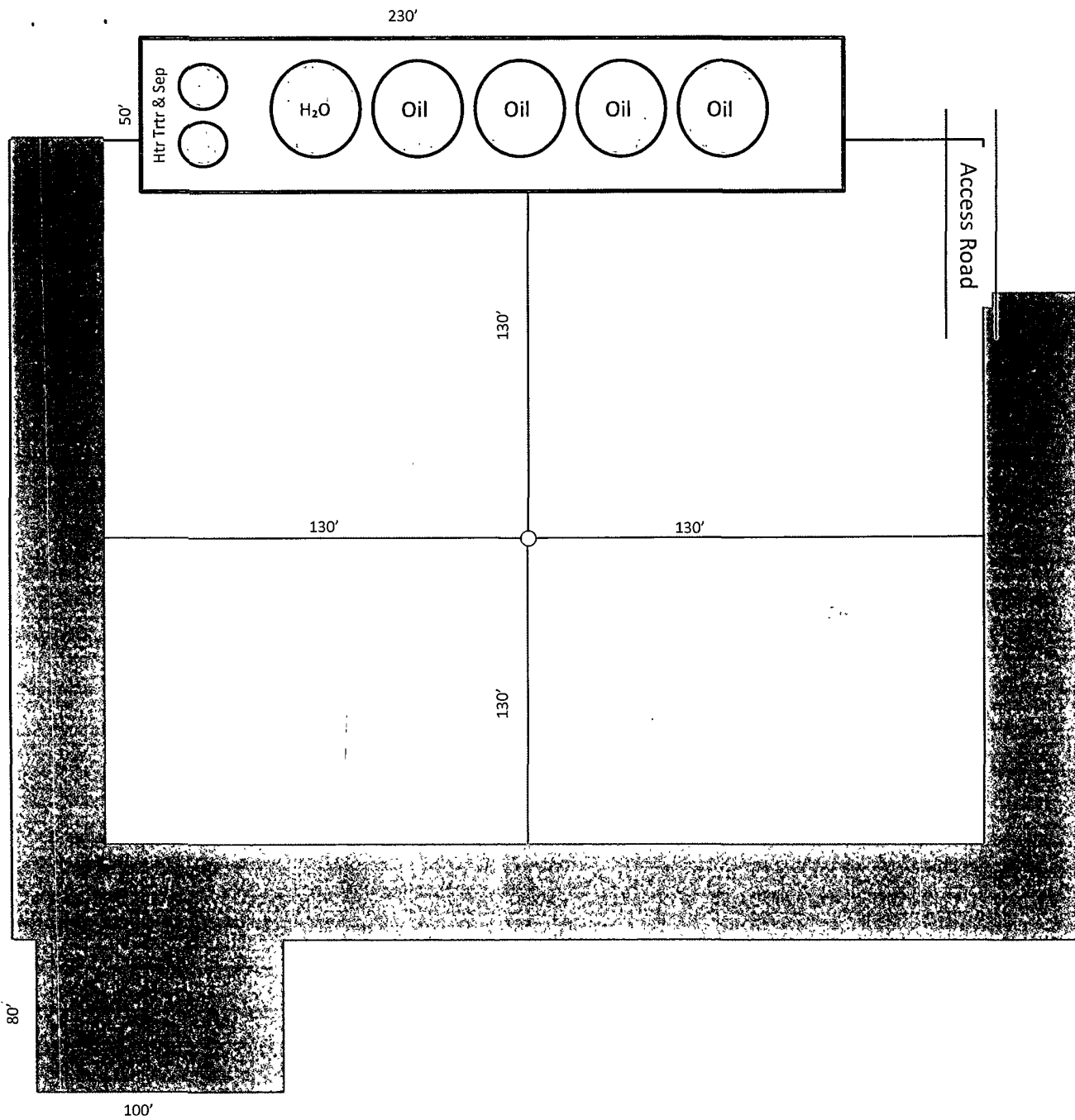


Exhibit D-1
 Production Facilities Layout Diagram
Ringer Fed Com 11
 Cimarex Energy Co.
 4-25S-26E
 SHL 330 FNL & 1210 FWL
 BHL 660 FSL & 710 FWL
 Eddy County, NM

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co
LEASE NO.:	NM0554766
WELL NAME & NO.:	11 Ringer Federal Com
SURFACE HOLE FOOTAGE:	330' FNL & 1210' FWL
BOTTOM HOLE FOOTAGE:	660' FSL & 710' FWL
LOCATION:	Section 4, T.25 S., R.26 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**
 - Cave/Karst
 - Communitization Agreement
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - H2S – Onshore Order 6 Requirements
 - Critical Cave/Karst Requirements
 - Cement Requirements
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**